Eastwood & Partners
CONSULTING ENGINEERS

GEOTECHNICAL AND GEO-ENVIRONMENTAL SITE INVESTIGATION

PONTEFRACT ROAD, LUNDWOOD

FOR

GLEESON DEVELOPMENTS LTD

ISSUE 2



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1.0 EXECUTIVE SUMMARY 6

2.0 INTRODUCTION 9

2.1 Terms of Reference 9
2.2 Context 9
2.3 Aims and Objectives 9
2.4 Scope of Investigation 9

2.4.1 Phase 1 9
2.4.2 Phase 2 10

3.0 THE SITE 11

3.1 Description 11
3.2 History 11

3.2.1 The Site 11
3.2.2 The Surrounding Area 11

3.3 Geology 12
3.4 Hydrogeology 12

3.4.1 Groundwater Vulnerability 12
3.4.2 Groundwater Abstractions 12

3.5 Hydrology 12
3.6 Mining 12
3.7 Ground Gas 13
3.8 Pollution Incidents to Controlled Waters 14
3.9 Discharge Consents 14
3.10 Flooding 14

4.0 OUTLINE CONCEPTUAL MODEL 15

4.1 Potential Pollutant Linkages 15

5.0 GROUND INVESTIGATION 16

5.1 Site Works 16
5.2 Laboratory Testing 16

6.0 GROUND CONDITIONS 17

6.1 Surface Covering 17
6.2 Made Ground 17
6.3 Natural Ground 17
6.4 Obstructions 17
6.5 Groundwater 17
6.6 Evidence of Contamination 18

7.0 GEOTECHNICAL APPRAISAL 19

7.1 General 19
7.2 Foundations 19
7.3 Ground Floors 19
7.4 Superstructure Precautions 20
7.5 Excavation Problems 20
7.6 Obstructions 20
7.7 Surface Water Drainage 20
7.8 Roads 20

8.0 REFINEMENT OF OUTLINE CONCEPTUAL MODEL 21

8.1 Source Characterisation 21
8.2 Ground Conditions 21
8.3 Gas Precautions 21
8.4 Unexpected Contamination 21
8.5 Chemical Testing 21
8.6 Assessment Criteria 22
8.7 Chemical Test Results 22
8.8 Significant Pollutant Linkages 25

9.0 RISK ASSESSMENT 27

9.1 Human Health & Plants 27
9.2 Construction Materials 28
9.3 Controlled Waters 29
9.4 Ground Gas 29

10.0 CONTAMINATION - RECOMMENDATIONS AND APPROVALS 30

APPENDICES

Appendix 1 Exploratory Hole Location Plan 36487/001B

Appendix 2 Envirocheck Report

Coal Authority Report

Appendix 3 Trial Pit Logs

Monitoring Well Logs

WS Log

Appendix 4 Chemtest Reports 242811 &245490

Table of Assessment Values

Modified Mean Calculations

CLEA Arsenic Calculation

Appendix 5 Plasticity Results

Appendix 6 Gas Monitoring Results

Table of Atmospheric Conditions

1.0 EXECUTIVE SUMMARY

1. The site, around 3.4 hectares in area, is located to the north west of Pontefract Road in Lundwood, Barnsley, centre on grid reference SE 375 079 (437490, 407940).

2. The site is a field, accessed via a track off Wilson Grove to the south. It has not been developed previously. An escarpment-type feature runs along the south eastern site boundary. Ground levels then generally fall to the north and east and rise again towards the north western site boundary. A large pipeline is visible at the surface in the northern site corner, extending into site. Overhead electric cables cross the north eastern site corner. A drainage ditch lies along the north western site boundary. The site features heavily overgrown areas, with dense trees adjacent to the north west and north east.

3. Generally, topsoil was encountered to 0.3 m depth, occasionally logged as slightly ashy and containing bricks and rare glass fragments. Beneath natural stiff clay was found over mudstone from around 1.8 m depth. Mudstone was found at shallower depths of around 1 m in the raised escarpment near the south eastern boundary. Made ground was found in 4 of the 17 trial pits excavated. This material generally comprised reworked clay, not exceeding 0.8 m depth. One trial pit recorded a fine coaly sand, but this was only found between 0.3 and 0.8 m depth in TP6. Damp ground was occasionally noted at around 2.0 m depth.

4. Precautions against the effects of shallow coal mining will not be required.

5. The site does not lie within a flood zone but due to the size of the site, a flood risk assessment will be required.

6. Radon precautions are not required. Amber 1 gas precautions will be required for plots within 30 m of the landfill to the north west of the site, with no gas precautions required for the remainder of the site.

7. Based on the ground conditions encountered, unreinforced strip or trench fill foundations will be appropriate, taken through any made ground and founded in the natural clay at minimum depth of 900 mm.

8. The northern site corner and north eastern boundary could not be investigated due to overhead electric cables and dense vegetation. A landfill boundary overlaps onto these areas. Deep made ground may be present here. Based on the sketch layout, only 3 plots lie within the landfill boundary. We would allow for these plots to be piled.

9. Trees are present on and adjacent to the site and footings will need to be deepened in accordance to NHBC Standards. Heave precautions will be required for footings deepened over 1500 mm due to the effects of trees. We estimate that around 30% of the site will require footings over 1500 mm and heave precautions.

10. We expect ground levels will be raised across the majority of the development. Due to this assumption and the number of mature trees observed around the perimeter and occasionally inside the site boundaries, precast concrete floors should be allowed for with an underlying 150 or 250 mm ventilated void, depending on if heave precautions are required.

11. Due to the ground conditions, we do not consider soakaways will be suitable for surface water drainage.

12. Strong sandstone was encountered in TP1 in the west of the site which may cause excavation difficulties.

13. No major obstructions were recorded during trial pitting. There is a sewer crossing the site from north east to south west. This should be avoided during excavations.

14. The topsoil within TP2 is ashy and recorded elevated heavy metal and benzo(a)pyrene concentrations. The topsoil around this trial pit will need to be excavated and removed from site.

15. The remainder of the site won topsoil recorded slightly elevated copper and zinc concentrations. The regulators will need to give their approval to the use of this topsoil and the landscape architect should be advised as it may affect the planting layout. With regards to human health, the remainder of the topsoil is considered to be suitable for re-use.

16. Made ground was encountered in four trial pits down to a maximum depth of 0.8 m. Elevated arsenic, copper, lead, zinc and naphthalene concentrations were recorded. The made ground appears to be localised pockets (TP3, TP6, TP13 and TP14, and near a manhole position) and most likely due to drainage installations. Due to the localised nature of the made ground, the material should be either capped by 600 mm of clean cover in gardens overlying the made ground, or the excavation of the made ground and placement beneath roads or hardstanding and not beneath houses.

17. DS-2 AC-2 sulphate precautions for concrete in contact with the made ground is required. No sulphate precautions will be required for concrete in contact with natural ground.

18. The conclusions made in this report in relation to contamination are subject to agreement by the approving bodies.

2.0 INTRODUCTION

2.1 Terms of Reference

This report presents the findings of a geotechnical and geo-environmental site investigation carried out by Eastwood and Partners (Consulting Engineers) Ltd for, and on the instructions of, Gleeson Developments Ltd. Any other parties using the information in this report do so at their own risk and any duty of care is excluded.

2.2 Context

Gleeson Developments Ltd intends to develop a parcel of land near Pontefract Road, in Lundwood for residential end use. No other site investigations are known to have taken place at this site.

2.3 Aims and Objectives

The aims and objectives of this investigation were as follows.

- Assimilate Phase 1 data to derive an outline conceptual model identifying potential contaminants, pathways and receptors, as well as possible linkages between these;
- Detail the ground conditions and their geotechnical properties enabling outline foundation proposals to be made;
- Carry out tiered risk assessment to establish the likely risks to future receptors, involving the use of generic assessment criteria and where unacceptable risks are identified, site specific assessment criteria within a detailed quantitative risk assessment;
- Identify feasible remediation options if unacceptable risks are highlighted;
- Develop an appropriate remediation strategy where remediation is required.

2.4 Scope of Investigation

This document is split into two sections. These constitute the findings of the Phase 1 and Phase 2 investigations, consecutively.

2.4.1 Phase 1

The Phase 1 investigation involved a review of information extracted from published documentation as well as that obtained from a site reconnaissance. Information regarding the current and former

land uses both on and surrounding the site, as well as the environmental sensitivity of the site location as determined by factors including geology, hydrogeology and hydrology have been examined.

Information analysed in this section of the report has been obtained from a variety of sources and included the following:

- Envirocheck Report;
- Coal Authority Report;
- Geological Maps and Associated Geological Memoirs.

2.4.2 Phase 2

This part of the investigation consisted of intrusive works. The findings were used to test the conceptual model and produce a final risk assessment.

The intrusive works comprised trial pits, which were excavated to enable:

- Examination of the upper few metres of ground;
- Assessment of any contamination identified using visual and olfactory methods.

A window sample rig was also used to install 14 monitoring wells and drill one window sample hole in an area not accessible by the mechanical excavator.

A gas monitoring programme was also carried out.

3.0 THE SITE

3.1 Description

The site, around 3.4 hectares in area, is located to the north west of Pontefract Road in Lundwood, Barnsley, centre on grid reference SE 375 079 (437490, 407940).

The site is a field, accessed via a track off Wilson Grove to the south. . An escarpment-type feature runs along the south eastern site boundary. Ground levels then generally fall to the north and east. The levels rise again towards the north western site boundary. A large pipeline is visible at the surface in the northern site corner, extending into site. Overhead electric cables cross the north eastern site corner. A drainage ditch lies along the north western site boundary.

The site features heavily overgrown areas, with dense trees adjacent to the north west and north east. Housing is adjacent to the south west and north east, and a small coach depot to the south east. Fields lie to the north west.

The site features are shown on the enclosed 'Exploratory Hole Location Plan'.

3.2 History

Historical maps, obtained as part of the Envirocheck Report, have been reviewed to assess the previous use of the site and surrounding area. Copies of the maps are presented in Appendix 2.

3.2.1 The Site

The earliest map dated 1854-1855 shows the site to be open fields. By 1892, the eastern boundary of the site overlaps onto a railway cutting. Between 1955 and 1961 a drain is shown in the northern site corner, running parallel to the site's north western boundary. By the 1990s, the drain appears to be diverted along the boundary of the northern site corner. The site is still an open field today.

3.2.2 The Surrounding Area

In 1855 the surrounding area is predominately agricultural fields, with a canal and a small bleach works around 250 m west of the site. By 1894, Monk Bretton Colliery was built around 275 m north west of the site. Housing was built adjacent to the site's western corner by the 1930s. A build-up of colliery spoil can be seen to the north of the site y the 1940s, extending south towards the site's northern corner by the 1960s. A small rectangular warehouse was built adjacent to the southern site corner by 1974. By this time, the colliery buildings had been removed and the colliery spoil is labelled as a disused tip. The railway line adjacent to the east of the site is also labelled as dismantled. In

the last 10 years, housing had been built to the south west and north east of the site, and warehouse-type units are built over the former colliery.

The area is predominantly residential today, with the warehouse to the south east of the site a small coach storage depot.

3.3 Geology

The geological map sheet SE 30 NE (1:10,560 scale) shows the site to overlie undivided Coal Measures, most likely comprising interbedded mudstone and siltstone. Colliery waste is shown to overlie the north western boundary of the site.

No alluvium is shown to be present on site.

The geological map does not indicate any faults or other lines of weakness to cross the site. However, a fault is present 53 m south west of the southern boundary of the site.

The dip of the strata is indicated to be approximately 5° to the south east.

3.4 Hydrogeology

3.4.1 Groundwater Vulnerability

The Envirocheck Report identifies the site to overlie a Secondary A aquifer comprising permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers.

The Envirocheck Report records that the site is not located within a Groundwater Source Protection Zone.

3.4.2 Groundwater Abstractions

The Envirocheck Report does not record any water abstractions within 500 m of the site.

3.5 Hydrology

The Envirocheck Report records the nearest surface water feature to be the drain along the site's north western boundary.

3.6 Mining

The shallowest named coal seam expected beneath the site is the Swinton Pottery coal seam. This seam was logged as being around 0.4 m thick in Monk Bretton Colliery, located around 300 m to the

north west of the site. Stratigraphically, the seam is expected to lie around 55 m below the Mansfield Marine Band, which outcrops along the site's western corner. In the Colliery, the shaft sinking has a topographic level of around 53 m AOD, and the Swinton Pottery coal seam was found at around 34 m depth. The site level ranges between 57 and 44 m AOD. At its lowest point beneath the site, the coal seam is therefore expected at around 25 m depth.

The geological memoir considers the seam to be poor quality and is not expected to have been worked. Precautions against the effects of shallow coal mining will not be required.

The Coal Authority report indicates that the site is in the likely zone of influence from workings in 10 seams of coal at 130m to 580m depth, and last worked in 1991. Reserves of coal are present in the area which could be worked at some time in the future, but this is considered unlikely due to the site's built up surrounding area.

There are no known mine entries on or within 20 m of the boundary of the site, although Coal Authority records may be incomplete.

Four claims for coal mining subsidence lie to the south east of the site. We do not know if these were discharged for repair. They may relate to more recent mining, since the report states that deeper coal seams were last worked just 20 years ago.

The site lies within an area for which notices of entitlement to withdraw support were published in the 1980s. These have not been revoked, however, future coal mining beneath the site is considered to be unlikely.

3.7 Ground Gas

The Envirocheck Report states that no radon precautions are required.

Information obtained from the Envirocheck Report indicates that a landfill is adjacent to the north western boundary of the site. It is managed by Barnsley Metropolitan Borough Council and includes household waste. The date of the last input was recorded as December 1996. The boundary for this landfill overlaps onto the site's northern corner and along eastern site boundary where the railway cutting was located. No other landfills have been identified within 250 m of the site.

The geological map shows the colliery waste stockpile to overlap onto the north western section of the site.

A gas monitoring programme has been carried out to determine the gassing regime of the site.

3.8 Pollution Incidents to Controlled Waters

The Envirocheck Report does not record any pollution incident to controlled waters within 250 m of the site.

3.9 Discharge Consents

The Envirocheck Report does not record any discharge consents within 250 m of the site.

3.10 Flooding

The Envirocheck Report indicates the site is not within a flood plain. However, due to the size of the site, a flood risk assessment will be required.

4.0 OUTLINE CONCEPTUAL MODEL

The following table details the possible sources and associated contaminants of concern, pathways and receptors, highlighted by the Phase 1 investigation as potentially present.

4.1 Potential Pollutant Linkages

Source	Pathway	Receptor
Heavy metals or PAHs contained in any made ground/colliery spoil which may be present, particularly if ashy materials are present	Ingestion, inhalation, direct contact	Future residents and visitors Site construction workers Secondary A aquifer
Localised hydrocarbon hotspots from adjacent coach depot	Ingestion, inhalation, direct contact	Future residents and visitors Site construction workers Secondary A aquifer
Naturally elevated concentrations of heavy metals or PAHs within natural ground	Ingestion, inhalation, direct contact	Future residents and visitors Site construction workers Secondary A aquifer
	Direct Contact	Water supply pipes
Sulphates in made ground	Direct contact	Sub-surface concrete structures
Ground gas from adjacent landfill	Inhalation	Future residents and visitors

5.0 GROUND INVESTIGATION

5.1 Site Works

We visited site on 23 October 2013 and excavated 17 trial pits, TP1 to TP17, in order to determine the underlying ground conditions. These reached a maximum depth of 2.8 m below ground level. The northern site corner and north eastern boundary could not be investigated due to overhead electric cables and dense vegetation.

During a second site visit on 5 November 2013 fourteen monitoring wells, MW1 to MW14, were installed using a window sampling rig. A window sample hole, WS1, was also carried out in the north east of the site where the excavator could not access due to the overhead electric lines. During this site visit, trenches were also excavated to find two buried manhole covers, associated with a large combined sewer that runs beneath the centre of the site.

Six rounds of gas monitoring have now been carried out over four months, between November 2013 and February 2014. The results and the atmospheric conditions are presented in Appendix 6.

Copies of all logs are presented in Appendix 2, and their locations are plotted on the Exploratory

Hole Location Plan, Drawing number 36487/001 Revision B in Appendix 1.

5.2 Laboratory Testing

Twelve samples of topsoil, three samples of made ground and five samples of natural ground were initially sent for chemical testing.

During the second site visits, a further twelve samples of topsoil and eight samples of natural ground were collected around possible contamination hotspots and sent for testing.

Soil samples were taken in 1 kg plastic tubs and analysed at Chemtest Laboratories, Newmarket using MCERTs accredited methodologies where available. Laboratory testing results are presented in Appendix 4 and discussed further in Section 8.0.

Seven samples of natural clay were sent for plasticity testing to Professional Soils Laboratory in Doncaster. Laboratory testing results are presented in Appendix 5 and discussed further in Section 7.0.

6.0 GROUND CONDITIONS

6.1 Surface Covering

The surface is covered by topsoil, generally found up to 0.3 m depth. The topsoil from trial pits TP2 and TP3, which are located at the eastern corner of the site, was logged as being ashy. Brick and glass fragments were noted in the topsoil in a variety of locations.

6.2 Made Ground

Made ground was found in 4 (TP3, TP6, TP13 and TP14) of the 17 trial pits excavated. Trial pit TP3 and TP6 are located near the north western boundary of the site and trial pits TP13 and TP14 are located near the south eastern boundary of the site. The made ground generally comprised reworked clay not exceeding 0.8 m depth. TP6 encountered a coaly sand between 0.3 and 0.8 m depth.

Made ground was also noted to at least 1.2 m depth in the expected position of a manhole cover. This made ground comprised brick rubble and reworked clay.

Monitoring well MW6 recorded a 200 mm band of ash beneath the topsoil between 0.1 and 0.3 m depth. However, TP7 was excavated adjacent to this found a 50 mm coal band at 0.3 m depth. It is likely that the ash band noted in MW6 is a crushed coal layer. These two exploratory holes lie adjacent to the landfill, which will require further investigation when the vegetation has been cleared.

6.3 Natural Ground

The natural ground generally comprised stiff brown occasionally gravelly clay over mudstone from around 1.8 m depth. Mudstone was found at shallower depths of around 1 m in the raised escarpment near the south eastern boundary.

In addition, in TP1, strong grey medium grained sandstone was encountered 1.9 m below ground level.

6.4 Obstructions

No obstructions were recorded during the excavations.

6.5 Groundwater

The following table displays the groundwater observations from this investigation:

TP	Observation	Depth (m)
TP1	Damp ground	2.0
TP10	Damp ground	2.3

Groundwater has also been noted from around 1 to 2 m depth in a number of the gas monitoring wells.

6.6 Evidence of Contamination

No visual or olfactory evidence of possible contamination was recorded in the trial pits.

7.0 GEOTECHNICAL APPRAISAL

7.1 General

Generally the ground conditions near the surface comprise topsoil over natural ground with made ground locally encountered. The natural ground comprises generally stiff brown occasionally gravelly clay overlying mudstone. In one trial pit, sandstone was encountered at 1.9 m depth.

Plasticity tests were carried out on 7 samples of the natural clay. The modified plasticity index ranged between 19 and 62%, with 5 of the 7 results recording indices of between 23 and 31%. Based on these results, medium shrinkability can be considered a suitable classification for the natural clay.

An allowable bearing pressure of 125 kN/m² can be assumed for the foundations within the natural clay.

7.2 Foundations

The most suitable foundations are considered to be traditional unreinforced strip or trench fill footings. These should be taken through any made ground and into the natural ground at a minimum depth of 900 mm.

The natural clay will be influenced by surrounding trees. Footings should be deepened in accordance with NHBC Standards when under the influence of trees or hedgerows. Heave precautions will also be required if footings are to be deepened over 1500 mm due to trees, or where desiccated ground is encountered. We estimate that around 30% of the site will require footings over 1500 mm and heave precautions.

A landfill boundary overlaps onto the site's northern corner and north eastern boundary. Deep made ground may be present here. Based on the sketch layout, only 3 plots lie within the landfill boundary. Piling will probably be necessary on these plots.

7.3 Ground Floors

We expect ground levels will be raised across the majority of the development, and a proportion of the site will require Amber 1 gas precautions. Due to this assumption and the number of mature trees observed around the perimeter and occasionally inside the site boundaries, precast concrete floors should be allowed for with an underlying 150 or 250 mm ventilated void, depending on if heave precautions are required.

7.4 Superstructure Precautions

No additional superstructure precautions will be required due to the ground conditions encountered.

7.5 Excavation Problems

Strong sandstone was encountered in TP1 in the west of the site which may cause excavation difficulties.

The sides of trenches and excavations may be slightly unstable and temporary support may possibly be required in some areas.

Where excavations which workers are required to enter are over 1.2 m deep, or less where there is a risk of harm from collapse of the sides of the excavation, the sides should be supported or battered back to make them safe.

7.6 Obstructions

No major obstructions were recorded during trial pitting. There is a sewer crossing the site from north east to south west. This should be avoided during excavations.

7.7 Surface Water Drainage

The clayey ground conditions are not expected to be suitable for soakaway drainage. Surface water should be taken a piped drainage system subject to the approval of the regulators.

7.8 Roads

The ground encountered in the upper 600 mm generally comprised natural clay. This is likely to have a CBR value of at least 2%. It is recommended that this value is used as a guide only and that full scale CBR tests are undertaken along roadways prior to construction so that accurate values can be obtained to satisfy the Local Authority. We also recommend that a contingency for removing and infilling local soft spots is allowed.

8.0 REFINEMENT OF OUTLINE CONCEPTUAL MODEL

8.1 Source Characterisation

An outline conceptual model, detailing the possible sources and associated contaminants of concern, potential pathways and receptors identified in the Phase 1 report was detailed in Section 4.0.

This section of the report documents the works undertaken to obtain information to test and refine this model enabling a risk assessment to be produced and, where significant risks are expected, remediation recommendations.

8.2 Ground Conditions

Generally the ground conditions near the surface comprise topsoil over natural clay, which occasionally a band of reworked clay or coaly sand. Mudstone was found from around 1.8 m generally, or at less than 1 m depth beneath the south eastern escarpment. In one trial pit, sandstone was encountered at 1.9 m depth.

8.3 Gas Precautions

The site is in an area where radon protections are not required. Less than 2.5 m of made ground is present on the site. A landfill adjoins the site's north western and eastern boundaries. Fourteen monitoring wells were subsequently installed for a gas monitoring programme.

Six rounds of gas monitoring have now been completed. The results recorded no methane, and generally low levels of carbon dioxide of 2% or less. However, two carbon dioxide concentrations elevated above 5% were recorded; 6.4% in MW2 on the first round, and 9.3% in MW3 on the fourth round. These two wells are both located along the site's north western site boundary. No or negative flow was recorded with normal oxygen levels.

The results obtained are enclosed in Appendix 6 and discussed further in Section 9.4.

8.4 Unexpected Contamination

No visual or olfactory observations of unexpected contamination were noted in the trial pits.

8.5 Chemical Testing

The initial samples of topsoil, made ground and natural ground were tested for the contaminants listed below. The topsoil samples were also tested for the same contaminants, excluding the sulphate suite.

Contaminant Type	Actual Contaminants
Metals/Metalloids	Arsenic, cadmium, chromium, lead, mercury, nickel, copper and zinc
pH	pH
PAHs	Speciated PAH
Sulphates	Water soluble sulphate, total sulphur, acid soluble sulphate

Further samples were obtained during a second visit to test for localised contamination hotspots. This is detailed further in Section 8.7.

Testing was undertaken by Chemtest, using MCERTs accredited methodologies, where available.

8.6 Assessment Criteria

The proposed development of the site is to be residential. Tables detailing the relevant assessment concentrations used are included in Appendix 4.

8.7 Chemical Test Results

Topsoil

Twelve samples of topsoil were tested and recorded the following elevated results:

Contaminant	Assessment Value	Elevated concentrations (mg/kg)
Arsenic	32	50, 73, 69, 72, 55, 65, 59, 62, 51, 43, 60, 64
Copper	80-200 (pH dependent)	1300, 230, 140, 110, 96, 130, 88, 90, 120,
Lead	450	4300, 770
Zinc	200-300 (pH dependent)	8600, 890, 390, 340, 340, 320, 1000, 310,
Benzo(a)pyrene	1.0	1.1, 13

During the second site visit, samples of topsoil were collected from around TP2, TP3 and TP11 and tested for copper and zinc, with the samples from around TP2 and TP3 also tested for lead. The results are displayed below:

TP2	Assessment Value	Elevated concentrations (mg/kg)
Copper	80-200 (pH dependent)	670, 2200
Lead	450	1600, 8900
Zinc	200-300 (pH dependent)	3200, 540, 11000

None of the tested contaminants from the further samples obtained from around TP3 and TP11 were found to be elevated above the generic assessment value.

Topsoil - Modified Means

The results from samples taken during the second visit have been averaged with the original elevated results and included in the modified mean calculation. The following modified means have been calculated:

Contaminant	Assessment Value	Modified Mean (mg/kg)
Arsenic	32	65
Lead	450	357
Benzo(a)pyrene	1	3.3

If the results from TP2 are considered as outliers and excluded from the modified mean calculations, the modified means for arsenic, lead and benzo(a)pyrene are reduced further to 63.9, 216 and 0.5 mg/kg respectively.

Topsoil - Physiologically Based Extraction Test (PBET)

Three PBETs were carried out on three samples of topsoil which contained elevated arsenic results. A maximum bioaccessibility of 6.7% was recorded. Using the CLEA model and the bioaccessibility results, a site specific assessment value (SSAV) of 85 mg/kg can be calculated. The modified mean for all arsenic concentrations recorded in the topsoil is 65 mg/kg which is lower than this calculated SSAV. We therefore do not consider the elevated arsenic concentrations to pose a significant risk to human health.

Made Ground

Three samples of made ground were sent for chemical testing. The following contaminants were found to be elevated:

Contaminant	Assessment Value	Elevated concentrations (mg/kg)
Arsenic	32	52, 57, 52
Copper	80-200 (pH dependent)	120, 140
Lead	450	520
Zinc	200-300 (pH dependent)	350, 400
Naphthalene	1.5	3.8

Natural Ground

Five samples of natural ground were tested. The results are observed below.

Contaminant	Assessment Value	Elevated concentrations (mg/kg)
Arsenic	32	77, 37, 38
Copper	80-200 (pH dependent)	150
Nickel	130	190
Zinc	200-300 (pH dependent)	220, 310, 350

During the second site visit, samples of natural clay were collected from around TP4, TP9, TP12 and TP16 and tested for arsenic, copper and zinc, with the samples from around TP16 also tested for nickel. Only sample TP4A 0.9 m recorded a slightly elevated concentration of 88 mg/kg for copper, compared to an assessment value of 80 mg/kg.

Natural Ground – Modified Means

The results from samples taken during the second visit have been averaged with the original elevated results and included in the modified mean calculation. The following modified means have been calculated:

Contaminant	Assessment Value	Modified Mean (mg/kg)
Arsenic	32	35.3
Nickel	130	112

Natural Ground - Physiologically Based Extraction Test (PBET)

Three PBETs were carried out on three samples of natural clay which contained elevated arsenic results. A maximum bioaccessibility of 6.7% was recorded. Using the CLEA model, a site specific assessment value (SSAV) of 85 mg/kg can be calculated. The modified mean for the arsenic concentrations recorded in the natural clay is 35.3 mg/kg which is lower than this calculated SSAV. We therefore do not consider the elevated arsenic concentrations to pose a significant risk to human health.

Sulphates

The following table displays the sulphate results for the materials encountered:

Made Ground	Concentration
Total Sulphur %	0.65, 0.03, 0.03
Total Potential Sulphate %	1.95, 0.09, 0.09
Water Soluble Sulphate g/l	0.01, 0.01, 0.01
Acid Soluble Sulphate %	0.09, 0.02, 0.01
pH	5.8, 6.0, 5.9

Natural Ground	Concentration
Total Sulphur %	0.01, 0.08, 0.01, 0.01, 0.01
Total Potential Sulphate %	0.03, 0.24, 0.03, 0.03, 0.03
Water Soluble Sulphate g/l	0.02, 0.04, 0.01, 0.01, 0.09
Acid Soluble Sulphate %	0.01, 0.16, 0.01, 0.01, 0.01
pH	7.5, 5.1, 6.3, 7.0 6.9

8.8 Significant Pollutant Linkages

The significant pollutant linkages consequently identified are documented in the table below:

Source	Pathway	Receptor
Copper, lead, zinc, benzo(a)pyrene in topsoil	Ingestion, inhalation, direct contact	Future residents and visitors Site construction workers Secondary A aquifer Plants
Arsenic, copper, lead, zinc, naphthalene in made ground	Ingestion, inhalation, direct contact	Future residents and visitors Site construction workers Secondary A aquifer Plants

Copper, nickel, zinc in natural ground	Ingestion, inhalation, direct contact	Future residents and visitors Site construction workers Secondary A aquifer Plants
Sulphates in the made ground and natural ground	Direct contact	Below ground concrete
Ground gas	Migration through ground, inhalation	Future residents and visitors Site construction workers

9.0 RISK ASSESSMENT

9.1 Human Health & Plants

Topsoil

The initial rounds of testing recorded elevated concentrations of arsenic, copper, lead, zinc and benzo(a)pyrene.

The PBETs showed the arsenic concentrations recorded are not expected to pose a significant risk to human health.

The elevated lead concentrations were located within the topsoil samples from TP2 and TP3, which were both described as being slightly ashy. Further testing was carried out around both of these trial pits and the results reduced the corrected mean for lead to 357 mg/kg, which is below the assessment value of 450 mg/kg. However, the concentrations in the original TP2 sample and in 2 of the further tests (TP2A and TP2C) were very high. A benzo(a)pyrene concentration of 13 mg/kg was also recorded within TP2 and is considered to be an outlier. The results show that the topsoil around TP2 would pose a risk to human health. The material is visibly ashy and should be separated from the remainder of the topsoil. Supervision of this excavation of the hotspot may be required, and the excavated material removed from site. The remainder of the topsoil can be considered to be suitable with regards to human health.

Elevated copper and zinc concentrations were also recorded throughout the topsoil, which could pose a risk of phytoxicity to plants. The majority of the concentrations were elevated because the assessment value is pH dependent, and quite low pH values were recorded. The highest concentrations of copper and zinc were recorded within TP2 where a hotspot has already been identified and will be removed. Elsewhere, the concentrations were generally less than 200 mg/kg for copper and less than 400 mg/kg for zinc. The regulators will need to give their approval to the use of this topsoil due to the slightly elevated copper and zinc levels and the landscape architect should be advised as it may affect the planting layout.

Made Ground

Made ground was encountered in four trial pits down to a maximum depth of 0.8 m. Elevated arsenic, copper, lead, zinc and naphthalene concentrations were recorded. The locations of these trial pits where made ground was encountered (TP3, TP6, TP13 and TP14, and near a manhole position) are adjacent to the site's north western and south eastern boundaries. The made ground appears to be localised pockets and most likely due to drainage installations. Due to the localised nature of the made ground, we recommend that the material is either capped by 600 mm of clean cover in gardens

overlying the made ground, or the excavation of the made ground and placement beneath roads of hardstanding and not beneath housing.

Natural Ground

The initial rounds of testing recorded elevated concentrations of arsenic, copper, nickel and zinc.

The PBETs showed the arsenic concentrations recorded are not expected to pose a significant risk to human health.

The nickel modified mean is below the assessment value. Nickel concentrations are therefore not expected to pose a significant risk to human health.

Slightly elevated copper and zinc concentrations were also recorded. The maximum copper and zinc concentrations recorded were 150 and 350 mg/kg, which are only slightly elevated above the assessment values. The Soil Code states that a number of plant species can survive in environments containing elevated copper and zinc concentrations. We therefore do not consider the copper and zinc concentrations within the natural ground to pose a risk of phytoxicity to plants.

9.2 Construction Materials

PAH

Significantly elevated concentrations of PAH compounds were not recorded in the made or natural ground. Ordinary water pipes should therefore be appropriate, after agreement with Yorkshire Water.

Sulphates

In accordance with BRE Special Digest 1, the site comes under the classification of Greenfield as it has technically not been developed previously.

The maximum total potential sulphate concentrations recorded in the samples of made ground (1.95%) equates to a Design Sulphate Class of DS-4 and Aggressive Chemical Environment for Concrete (ACEC) class of AC-4. This 1.95% was recorded in one sample of coaly sand (TP6 at 0.4 m), which only found in one trial pit in a 500 mm layer from 0.3 to 0.8 m depth. The other samples of made ground recorded total potential sulphate results of less than 0.1%. The water soluble sulphate results were also very low at 0.01 g/l. The highest total potential sulphate results was recorded within made ground, which will have been exposed to the air already and thus the sulphides will have already oxidised to sulphates.

Based on this assessment, it would be prudent to use DS-2 AC-2 sulphate precautions for concrete in contact with made ground. Concrete in contact with natural ground is not expected to need sulphate precautions.

9.3 Controlled Waters

The nearest surface water receptor is a drain, adjacent to the site's north western boundary. The site does not overlie a Groundwater Source Protection Zone. Although elevated concentrations were recorded within materials on site, the contaminants are not expected to be particularly soluble and therefore should not migrate into the adjacent drains or the underlying aquifer. Materials on site are therefore not considered to pose a significant risk to controlled waters.

9.4 Ground Gas

No radon precautions are required.

A programme of six rounds of gas monitoring has been completed on the 14 monitoring wells across the site.

The results recorded no methane, and generally low levels of carbon dioxide or less than 2%, with two results recording more than 5% at 6.4% in MW2 and 9.3% in MW3. No flow was recorded.

Using a negligible flow rate of 0.1 l/hr, a gas screening value (GSV) of 0.0093 l/hr can be calculated for carbon dioxide, using the highest carbon dioxide concentration of 9.3%. Although this GSV lies below the Amber 1 threshold of 0.78 l/hr, two concentrations exceed the 5% limit for a Green classification.

The results within monitoring wells MW2 and MW3 recorded slightly higher carbon dioxide concentrations than the remainder of the site. These two wells also recorded the two carbon dioxide concentrations over 5%. Wells MW2 and MW3 border the landfill site to the north west. The Local Authority have informed us that the landfill is known for producing landfill gas. We therefore recommend that plots within 30 m of this landfill site should be installed with Amber 1 gas precautions. The remainder of the site will not require gas precautions, as indicated by the low carbon dioxide concentrations recorded in the central and south eastern monitoring wells.

10.0 CONTAMINATION - RECOMMENDATIONS AND APPROVALS

1. The topsoil within TP2 is ashy and recorded elevated heavy metal and benzo(a)pyrene concentrations. The topsoil around this trial pit will need to be excavated and removed from site.

2. The remainder of the site won topsoil recorded slightly elevated copper and zinc concentrations. The regulators will need to give their approval to the use of this topsoil and the landscape architect should be advised as it may affect the planting layout. With regards to human health, the remainder of the topsoil is considered to be suitable for re-use.

3. Made ground was encountered in four trial pits down to a maximum depth of 0.8 m. Elevated arsenic, copper, lead, zinc and naphthalene concentrations were recorded. The made ground appears to be localised pockets (TP3, TP6, TP13 and TP14, and near a manhole position) and most likely due to drainage installations. Due to the localised nature of the made ground, we recommend that the material is either capped by 600 mm of clean cover in gardens overlying the made ground, or the excavation of the made ground and placement beneath roads or hardstanding and not beneath houses.

4. DS-2 AC-2 sulphate precautions for concrete in contact with the made ground is required. No sulphate precautions will be required for concrete in contact with natural ground.

5. Radon precautions are not required. Amber 1 gas precautions will be required for plots within 30 m of the landfill to the north west of the site, with no gas precautions required for the remainder of the site.

6. The conclusions made in this report in relation to contamination are subject to agreement by the approving bodies.

Appendix 1

Exploratory Hole Location Plan 36487/001B

Information within this drawing is not necessarily produced to scale.
Always use figured dimensions and co-ordinates – if in doubt, ask.



KEY:

- Site Boundary
- Local Authority recorded Landfill site
- Approximate location of trees and bushes.
- Approximate location of trial pit excavated by Eastwood & Partners on 23/10/13.
- Sample location taken on 05/11/13.
- Approximate position of manhole where made ground was found to >1.2m depth.
- Monitoring well, installed 05/11/13.
- Window sample hole, drilled 05/11/13.
- Plots within 30m of landfill adjacent to north west of site will require Amber 1 gas precautions.

REV	DESCRIPTION	SIG	CHK	DATE
B	Extent of Amber 1 gas precautions added.	JL	DES	03.03.14
A	First Issue.			

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GLEESON DEVELOPMENTS LTD

PONTEFRACT ROAD, LUNDWOOD

EXPLORATORY HOLE LOCATION PLAN

SCALE WHEN PLOTTED AT A3	DRAWING STATUS
1:1250	INFORMATION

DRAWN	CHECKED	DATE	DRAWING NUMBER	REV
RH	KE	22.10.13	36487/001	B

Appendix 2

Envirocheck Report

Coal Authority Report

Historical Mapping Legends

Ordnance Survey County Series 1:10,560

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

Ordnance Survey Plan 1:10,000

Chalk Pit, Clay Pit or Quarry
Gravel Pit
Sand Pit
Disused Pit or Quarry
Refuse or Slag Heap
Lake, Loch or Pond
Dunes
Boulders
Coniferous Trees
Non-Coniferous Trees
Orchard
Scrub
Coppice
Bracken
Heath
Rough Grassland
Marsh
Reeds
Saltings
Building
Direction of Flow of Water
Shingle
Sand
Glasshouse
Pylon
Electricity Transmission Line
Pole
Sloping Masonry
Cutting
Embankment
Standard Gauge Multiple Track
Road Under
Road Over
Level Crossing
Foot Bridge
Standard Gauge Single Track
Siding, Tramway or Mineral Line
Narrow Gauge
Geographical County
Administrative County, County Borough or County of City
Municipal Borough, Urban or Rural District, Burgh or District Council
Borough, Burgh or County Constituency
Shown only when not coincident with other boundaries
Civil Parish
Shown alternately when coincidence of boundaries occurs

BP, BS	Boundary Post or Stone	Pol Sta	Police Station
Ch	Church	PO	Post Office
CH	Club House	PC	Public Convenience
F E Sta	Fire Engine Station	PH	Public House
FB	Foot Bridge	SB	Signal Box
Fn	Fountain	Spr	Spring
GP	Guide Post	TCB	Telephone Call Box
MP	Mile Post	TCP	Telephone Call Post
MS	Mile Stone	W	Well

1:10,000 Raster Mapping

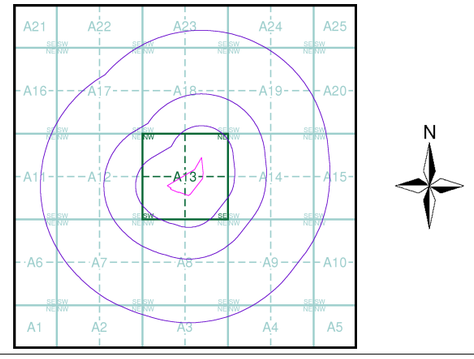
Gravel Pit
Refuse tip or slag heap
Rock
Rock (scattered)
Boulders
Boulders (scattered)
Shingle
Mud
Sand
Sand Pit
Slopes
Top of cliff
General detail
Underground detail
Overhead detail
Narrow gauge railway
Multi-track railway
Single track railway
County boundary (England only)
Civil, parish or community boundary
District, Unitary, Metropolitan, London Borough boundary
Constituency boundary
Area of wooded vegetation
Non-coniferous trees
Non-coniferous trees (scattered)
Coniferous trees
Coniferous trees (scattered)
Positioned tree
Orchard
Coppice or Osiers
Rough Grassland
Heath
Scrub
Marsh, Salt Marsh or Reeds
Water feature
Flow arrows
MHW(S) Mean high water (springs)
MLW(S) Mean low water (springs)
Telephone line (where shown)
Electricity transmission line (with poles)
BM 123.45 m Bench mark (where shown)
Triangulation station
Point feature (e.g. Guide Post or Mile Stone)
Pylon, flare stack or lighting tower
Site of (antiquity)
Glasshouse
General Building
Important Building

Envirocheck®

Historical Mapping & Photography included:

Mapping Type	Scale	Date	Pg
Yorkshire	1:10,560	1854 - 1855	2
Yorkshire	1:10,560	1894	3
Yorkshire	1:10,560	1906 - 1907	4
Yorkshire	1:10,560	1932	5
Yorkshire	1:10,560	1938	6
Yorkshire	1:10,560	1938 - 1948	7
Yorkshire	1:10,560	1948	8
Ordnance Survey Plan	1:10,000	1955	9
Ordnance Survey Plan	1:10,000	1966	10
Ordnance Survey Plan	1:10,000	1974	11
Ordnance Survey Plan	1:10,000	1984	12
Ordnance Survey Plan	1:10,000	1993	13
10K Raster Mapping	1:10,000	2006	14
10K Raster Mapping	1:10,000	2013	15

Historical Map - Slice A



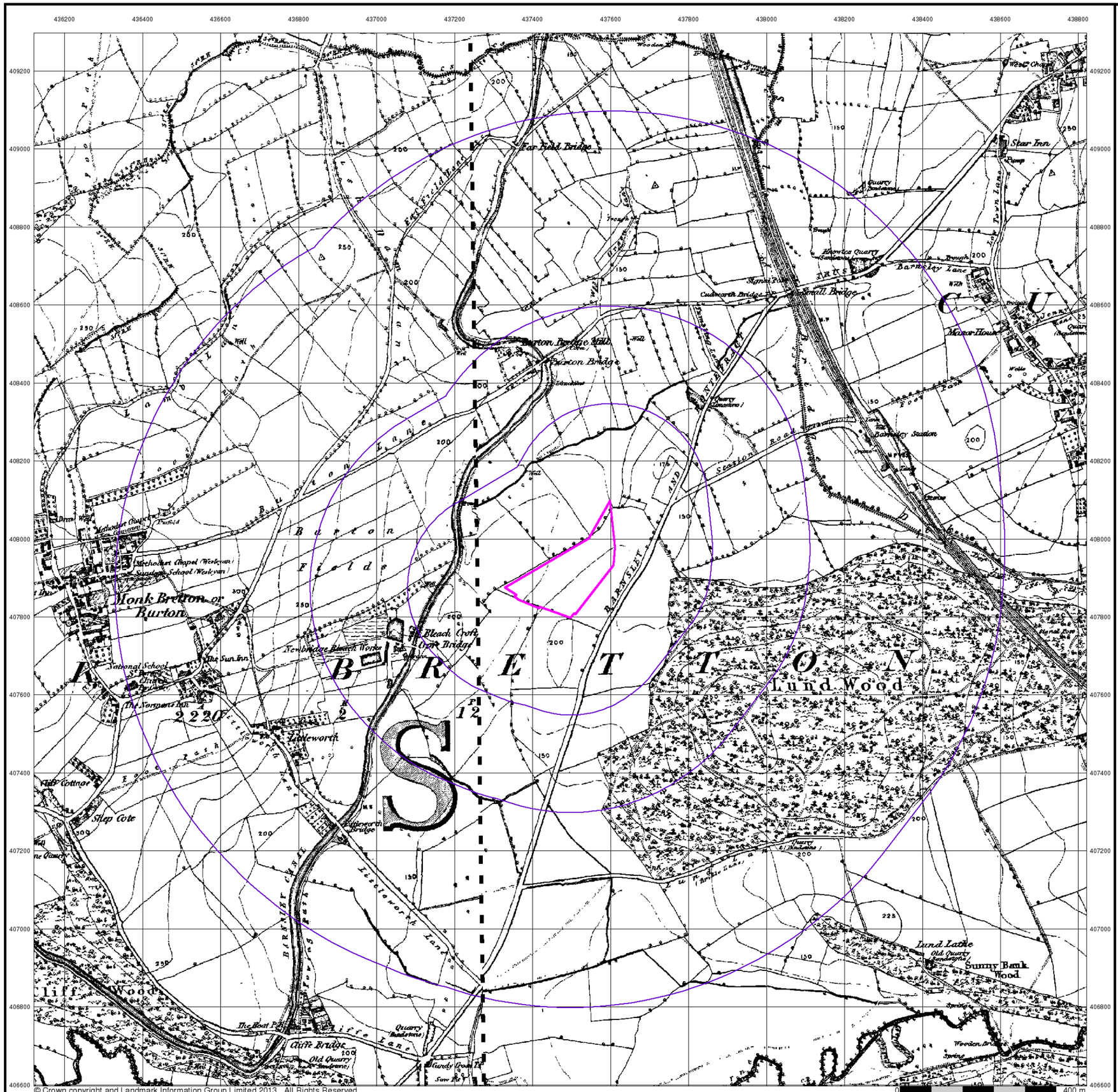
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Site Area (Ha): 3.4
Search Buffer (m): 1000

Site Details

Pontefract Road, Lundwood, BARNSLEY, South Yorkshire

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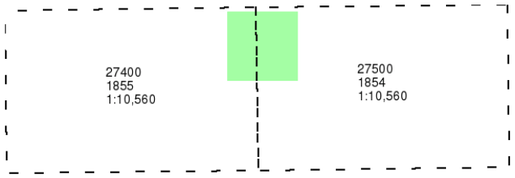
Yorkshire

Published 1854 - 1855

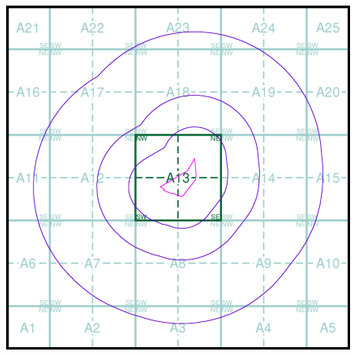
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Map Name(s) and Date(s)



Historical Map - Slice A



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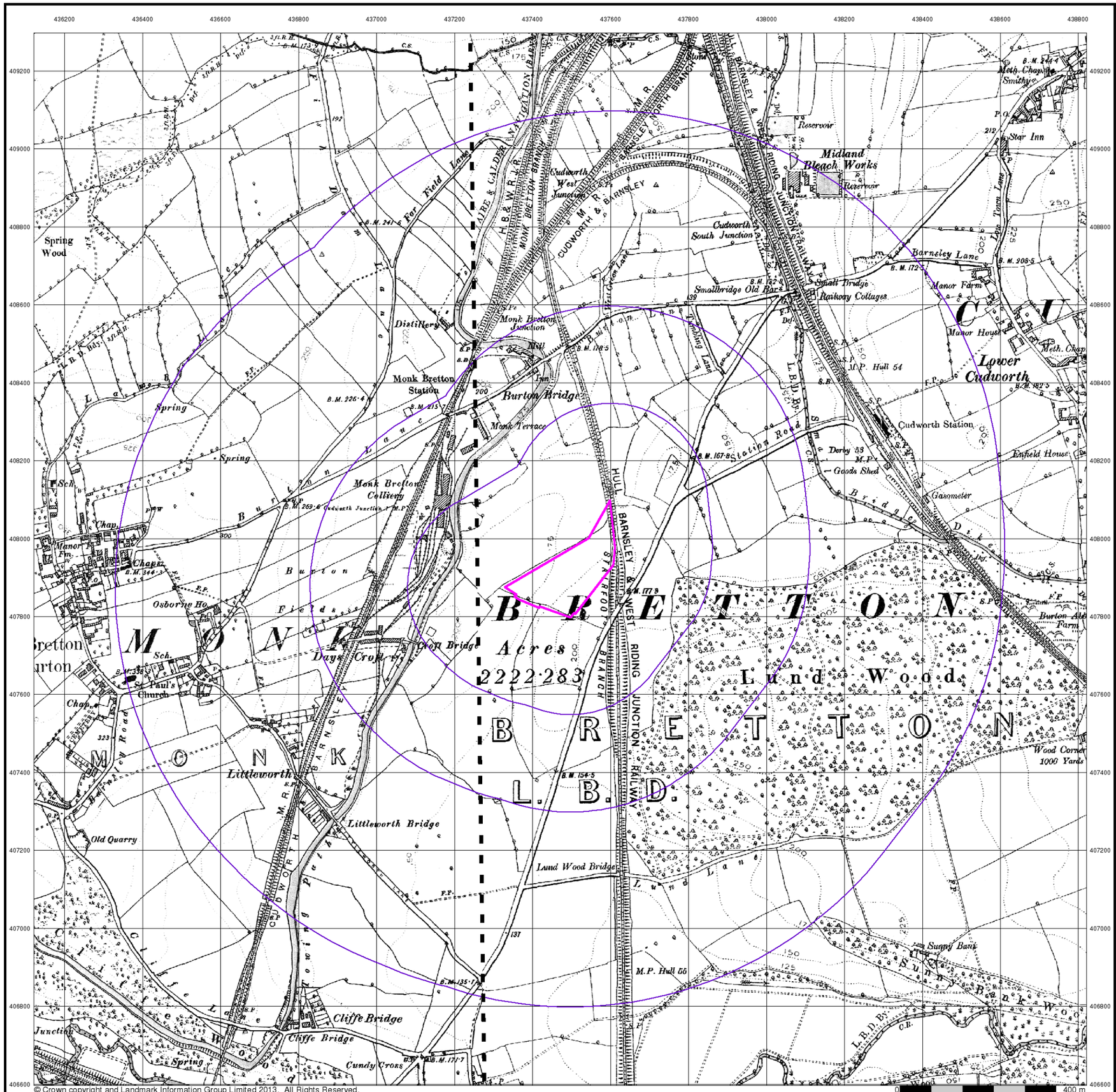
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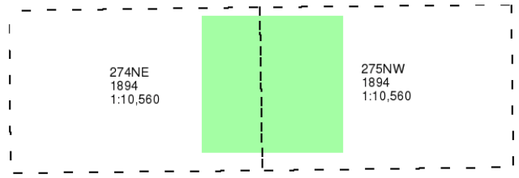
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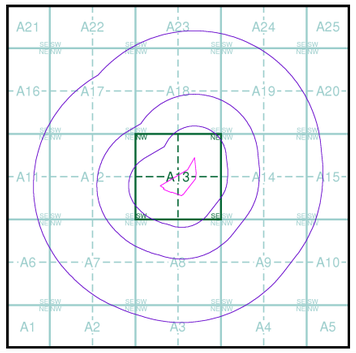
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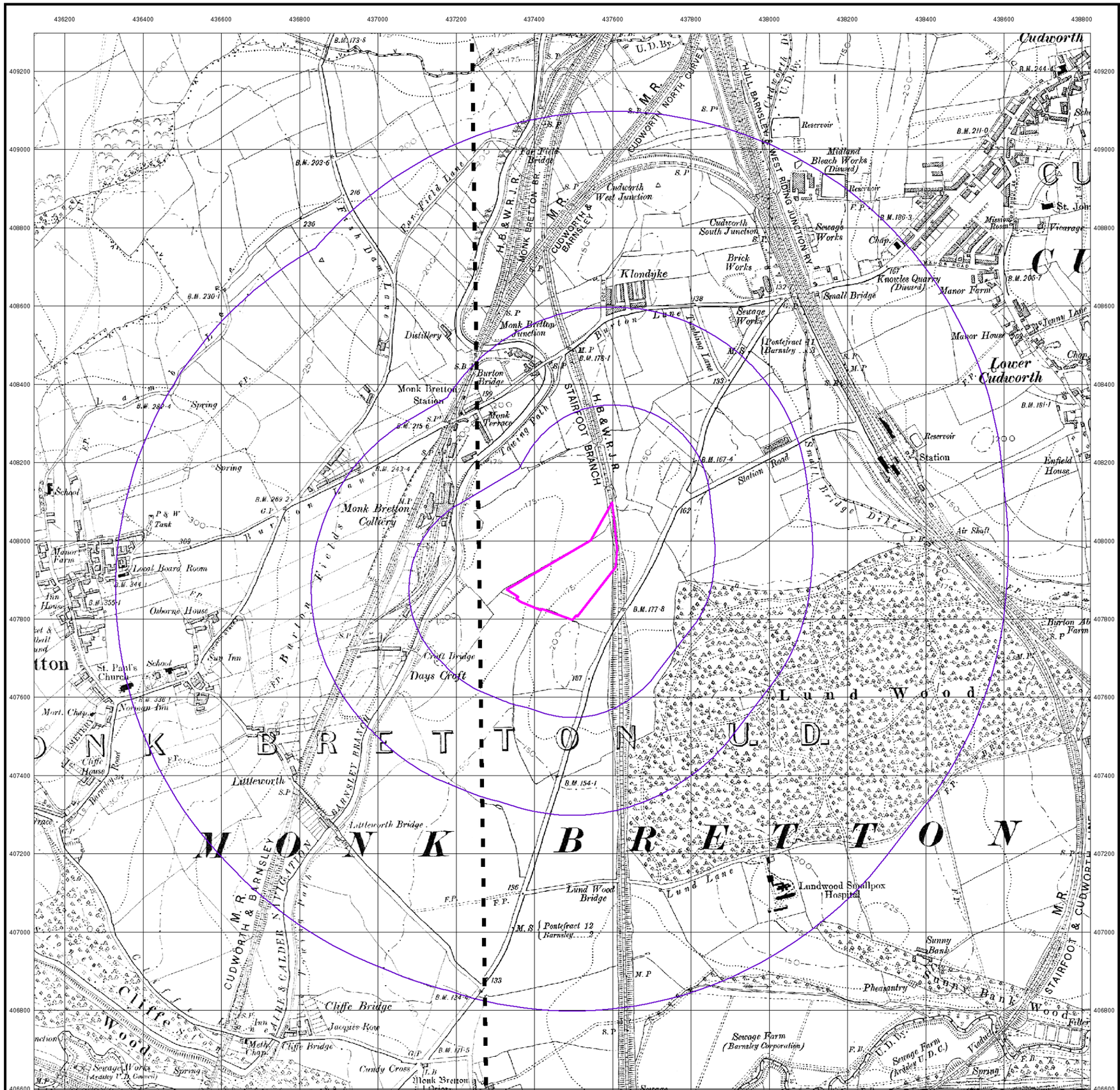
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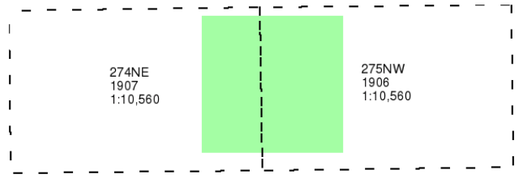
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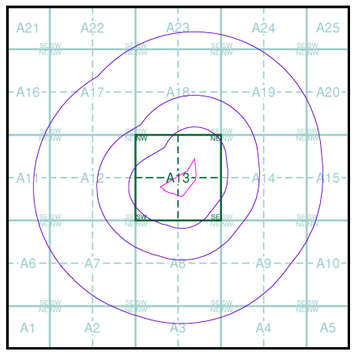
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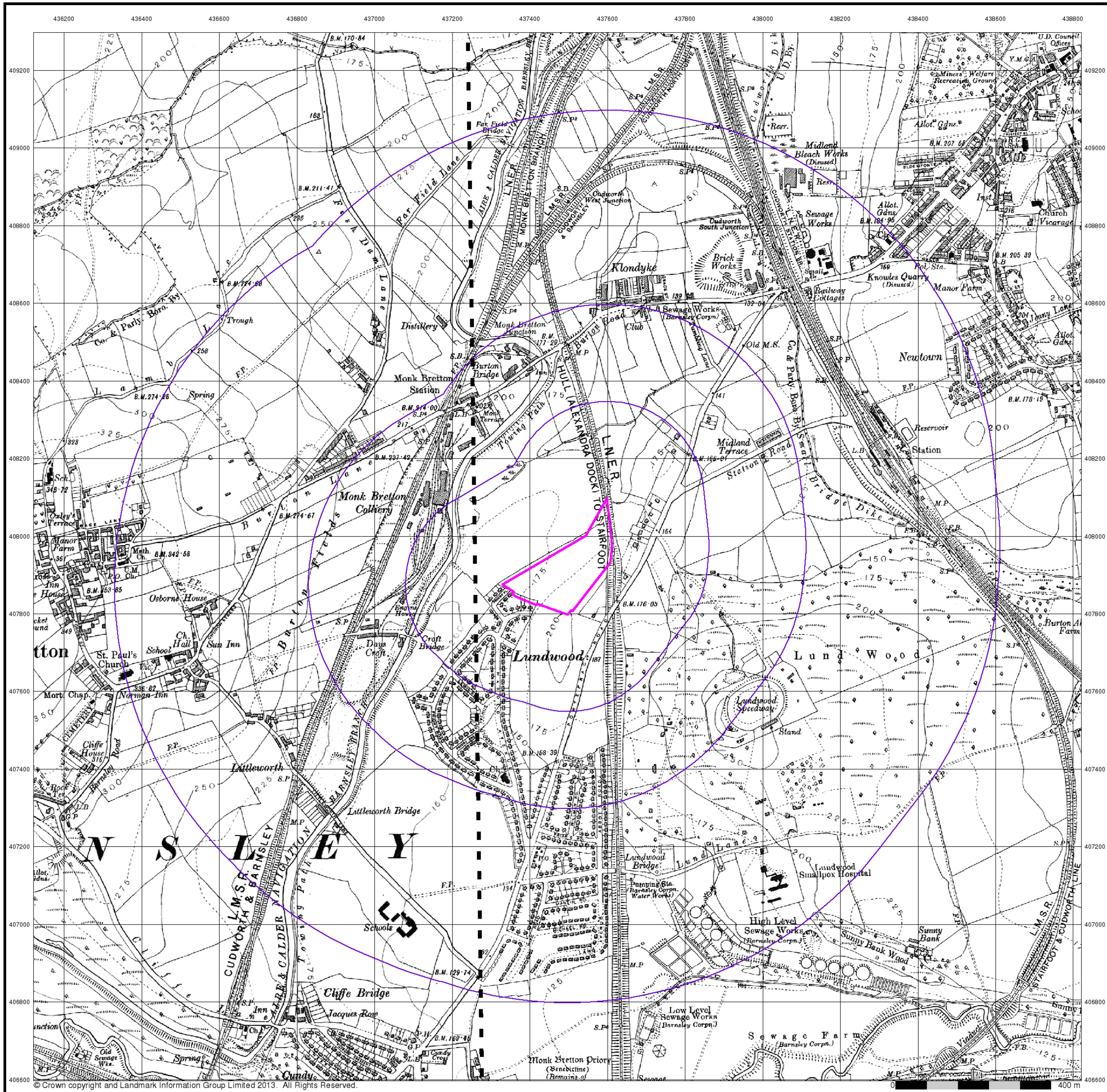
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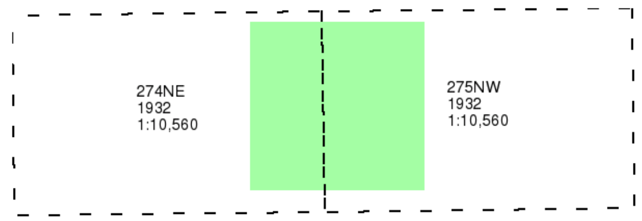
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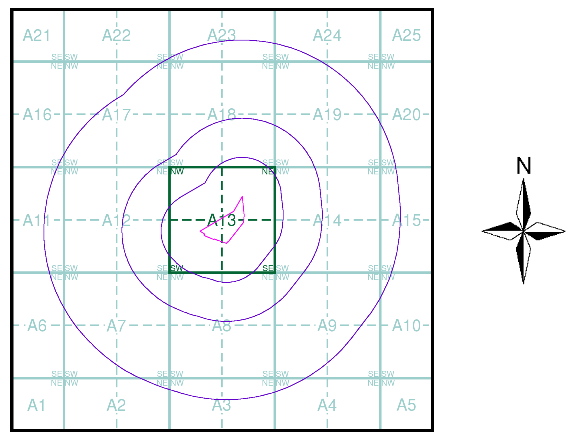
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Historical Map - Slice A



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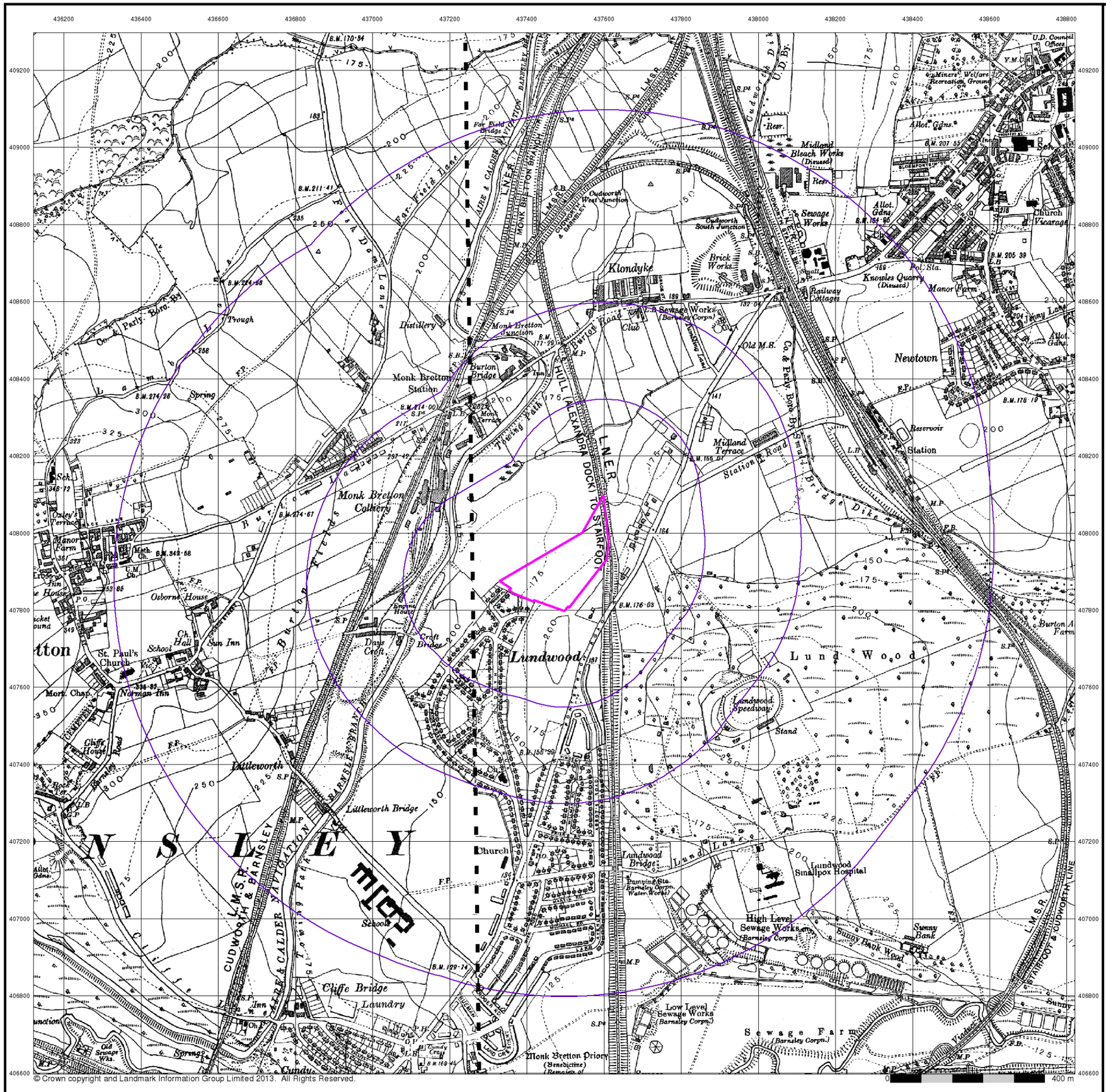
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Slice: A
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Search Buffer (m): 1000

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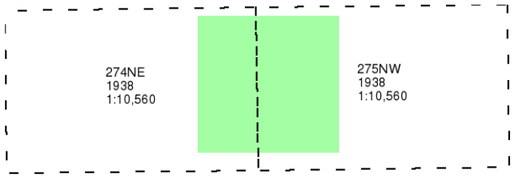
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Published 1938

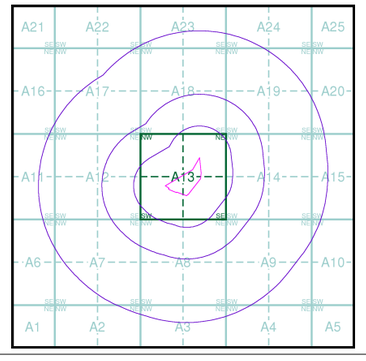
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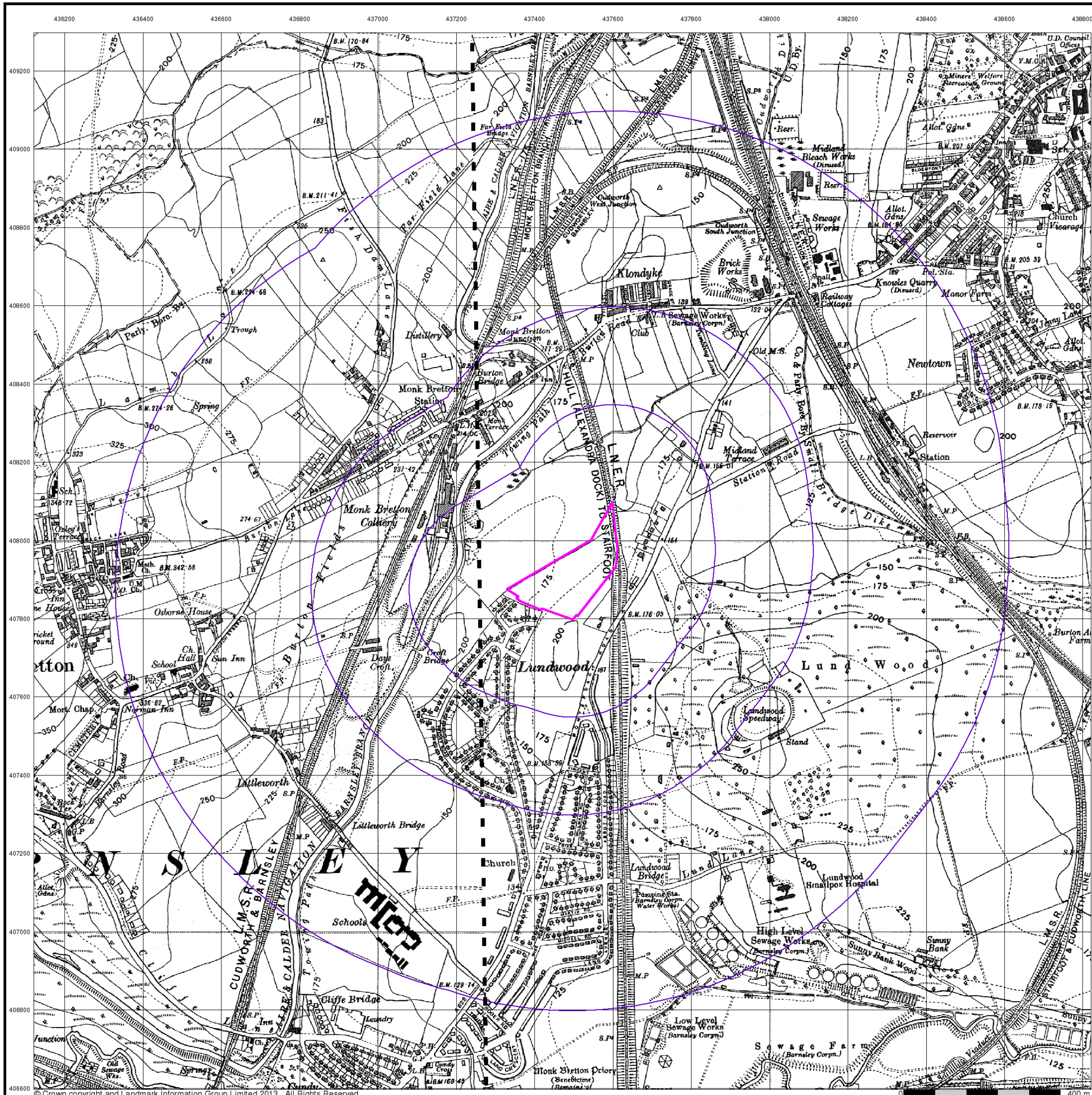
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Slice:	A
Site Area (Ha):	3.4
Search Buffer (m):	1000

Site Details

Pontefract Road, Lundwood, BARNSLEY, South Yorkshire

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



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0 — 400 m

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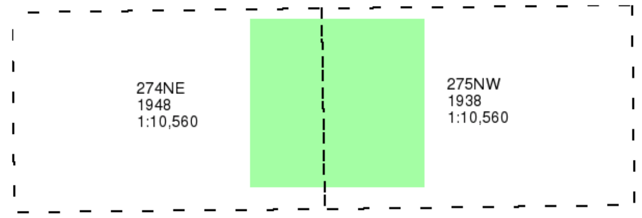
Yorkshire

Published 1938 - 1948

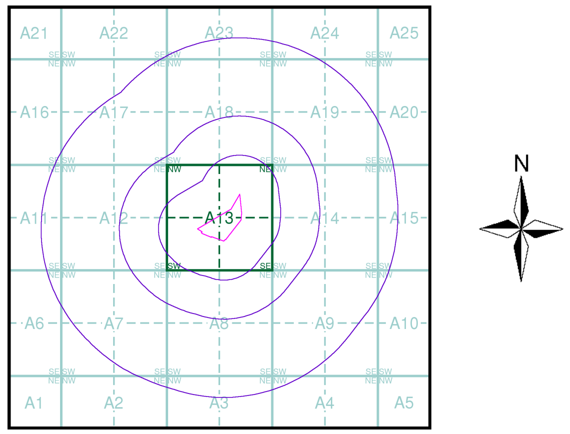
Source map scale - 1:10,560

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

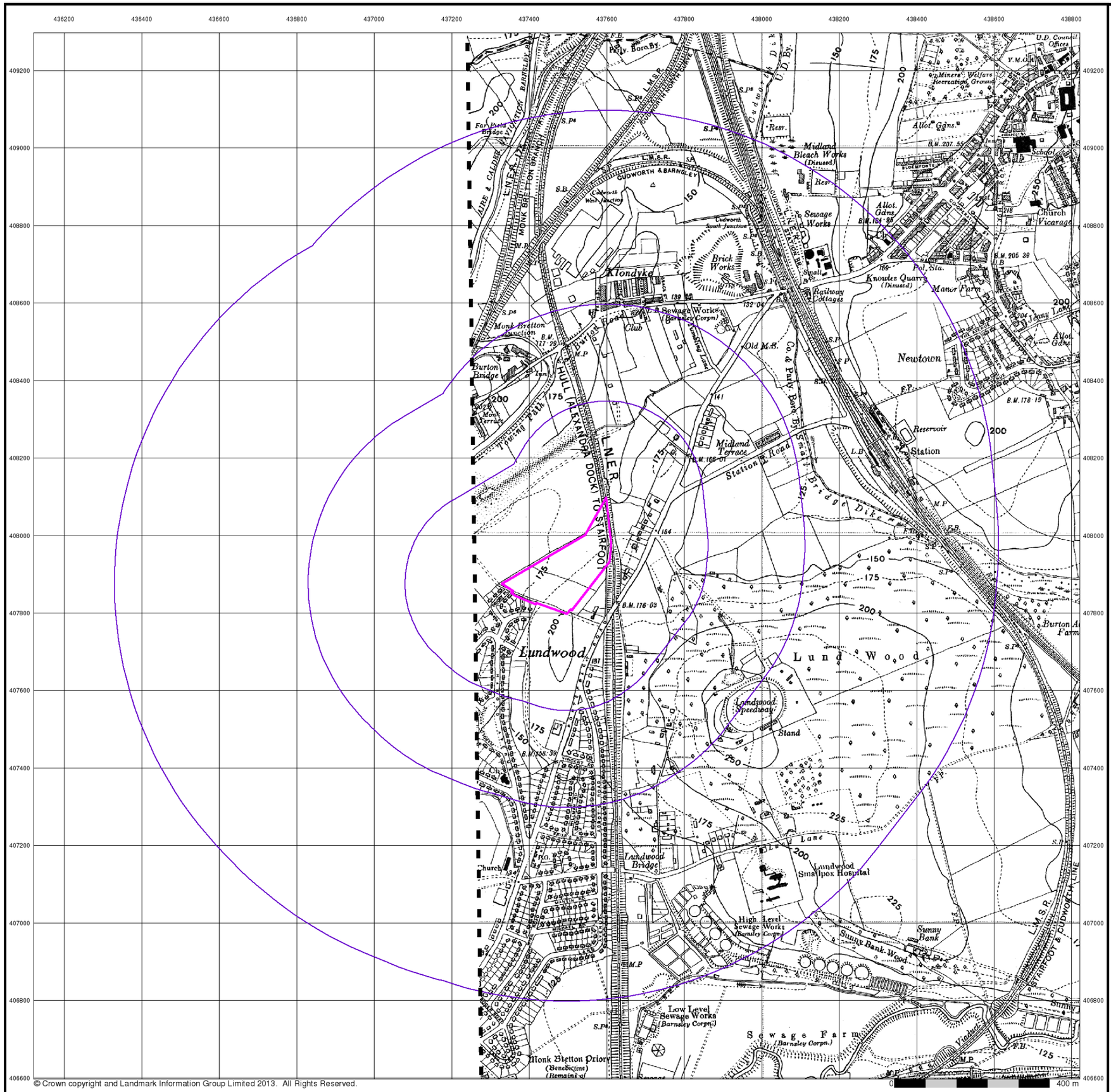
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Customer Ref:	36487
National Grid Reference:	437490, 407940
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Site Area (Ha):	3.4
Search Buffer (m):	1000

Site Details

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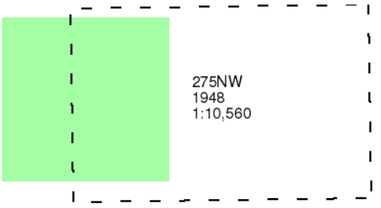
Yorkshire

Published 1948

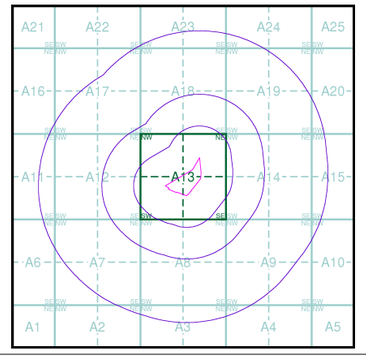
Source map scale - 1:10,560

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



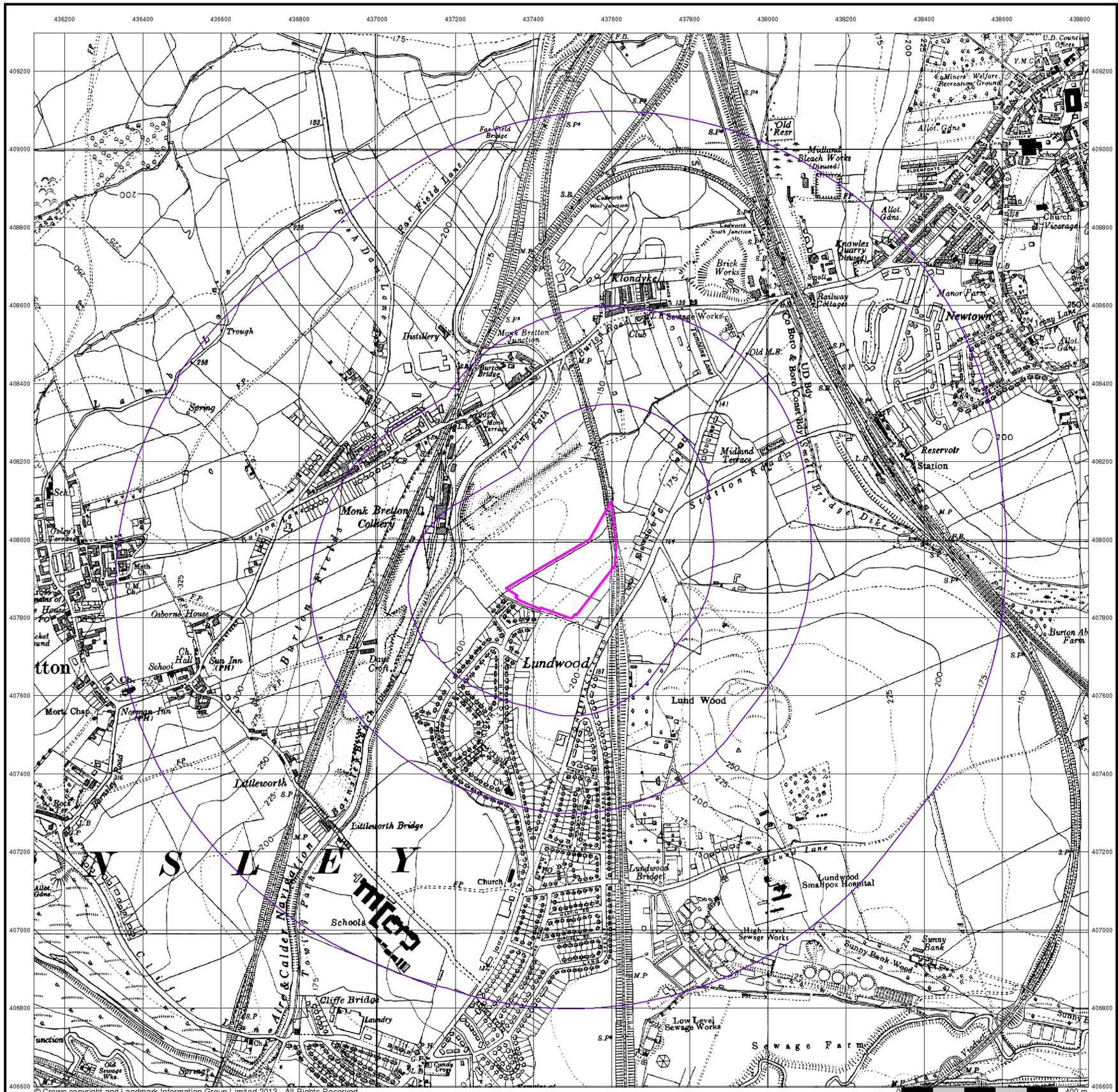
Order Details

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Customer Ref:	36487
National Grid Reference:	437490, 407940
Slice:	A
Site Area (Ha):	3.4
Search Buffer (m):	1000

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Ordnance Survey Plan

Published 1955

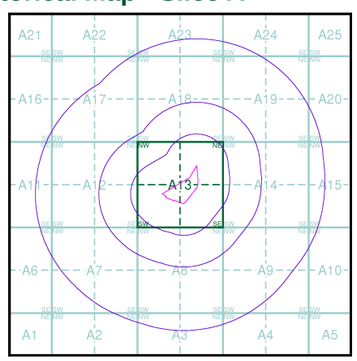
Source map scale - 1:10,000

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)

SE30NE
1955
1:10,560

Historical Map - Slice A



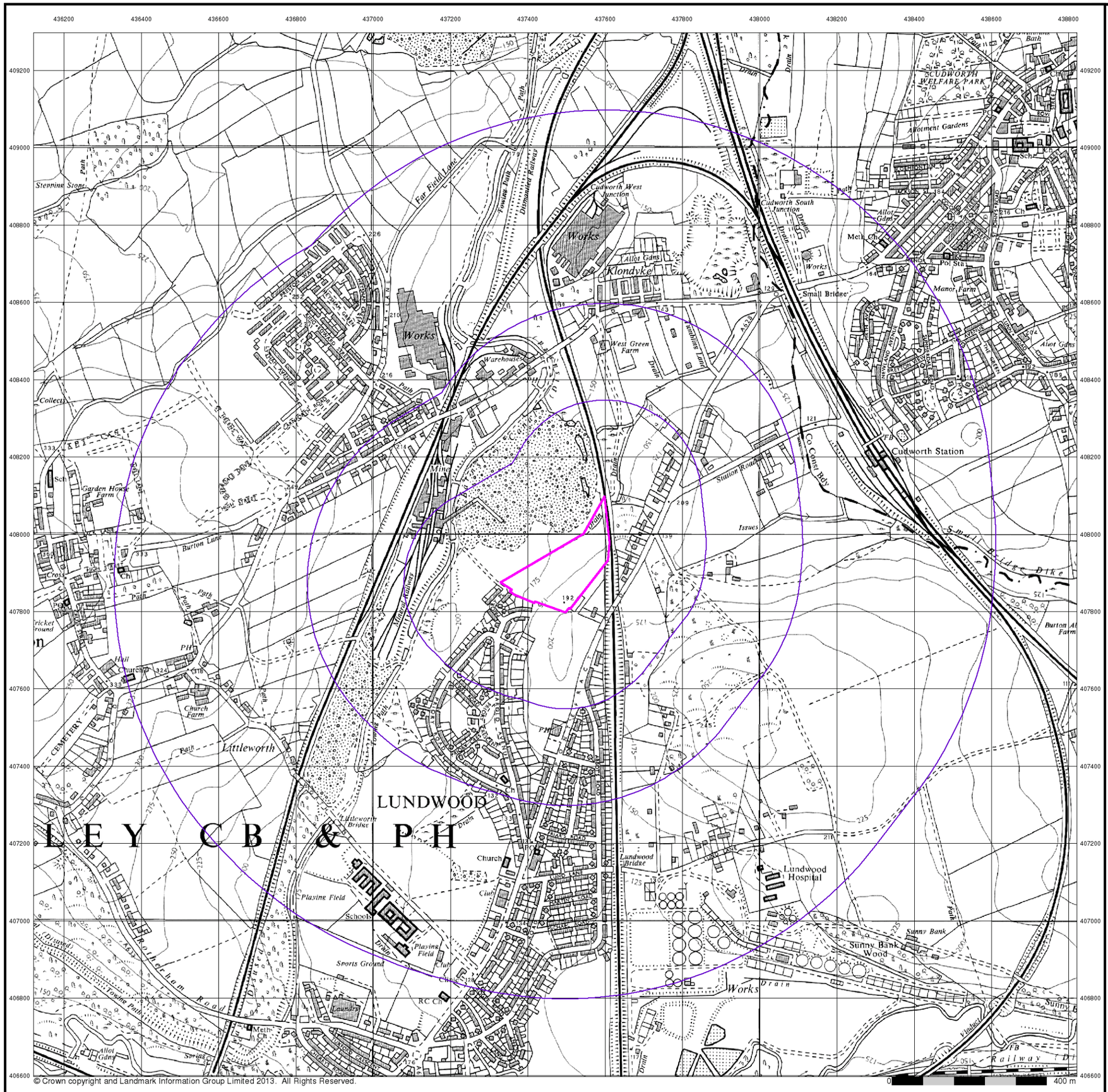
Order Details

Order Number:	50157046_1_1
Customer Ref:	36487
National Grid Reference:	437490, 407940
Slice:	A
Site Area (Ha):	3.4
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Ordnance Survey Plan

Published 1966

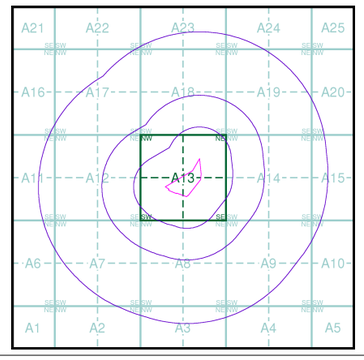
Source map scale - 1:10,000

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)

SE30NE
1966
1:10,560

Historical Map - Slice A



Order Details

Order Number:	50157046_1_1
Customer Ref:	36487
National Grid Reference:	437490, 407940
Slice:	A
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Ordnance Survey Plan

Published 1974

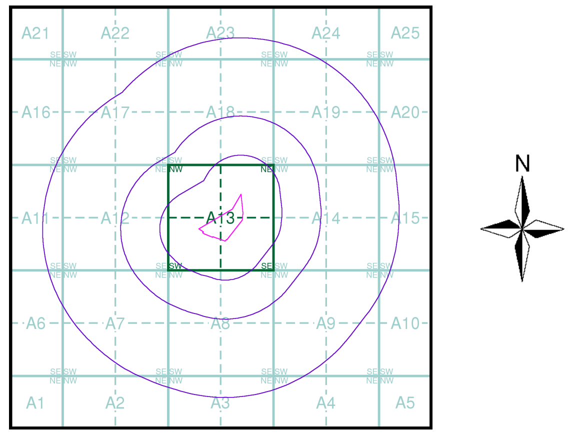
Source map scale - 1:10,000

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)

SE30NE
1974
1:10,000

Historical Map - Slice A



Order Details

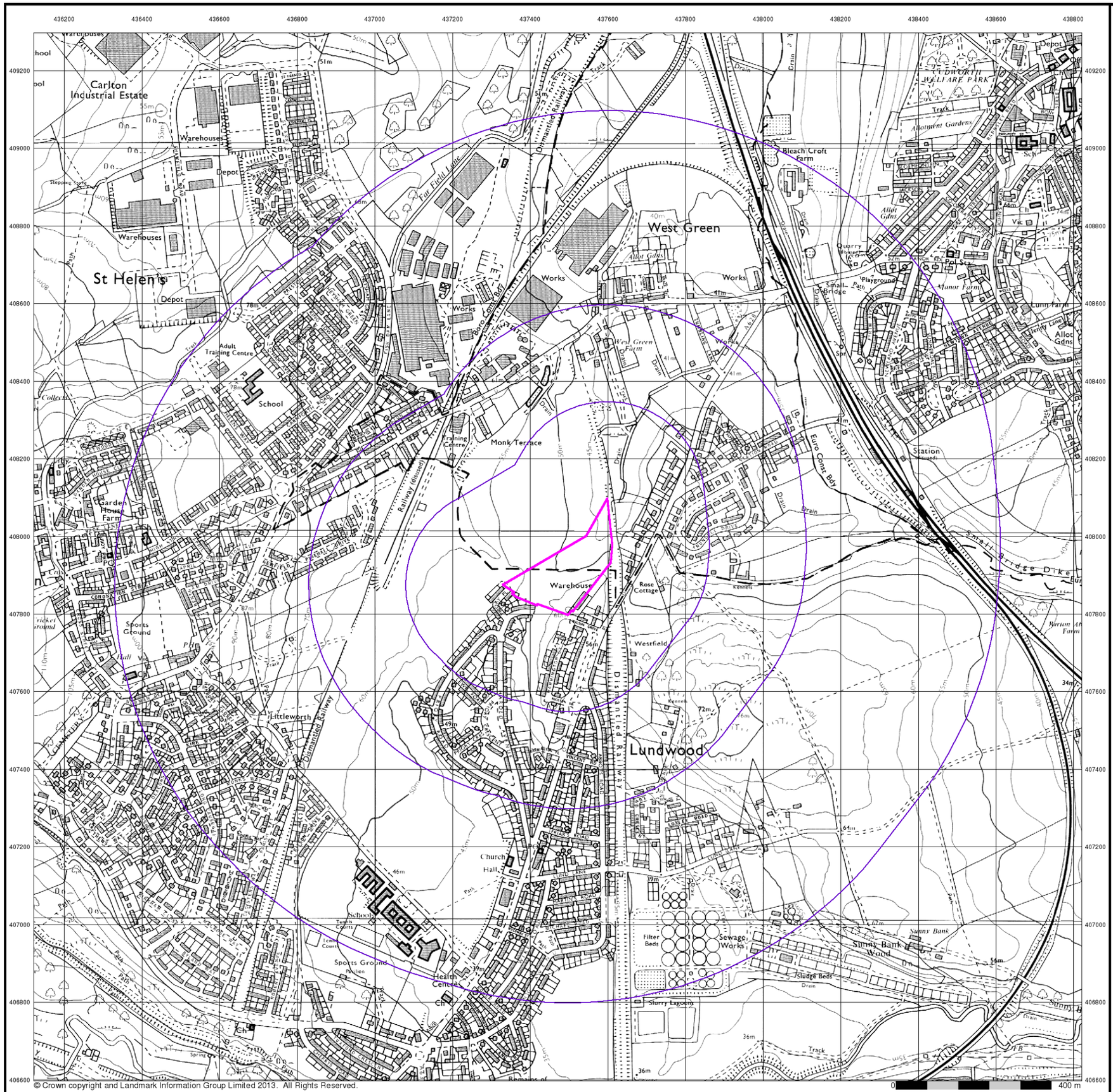
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Customer Ref: 36487
National Grid Reference: 437490, 407940
Slice: A
Site Area (Ha): 3.4
Search Buffer (m): 1000

Site Details

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Ordnance Survey Plan

Published 1984

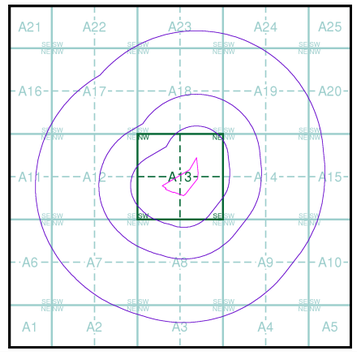
Source map scale - 1:10,000

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)

SE30NE
1984
1:10,000

Historical Map - Slice A



Order Details

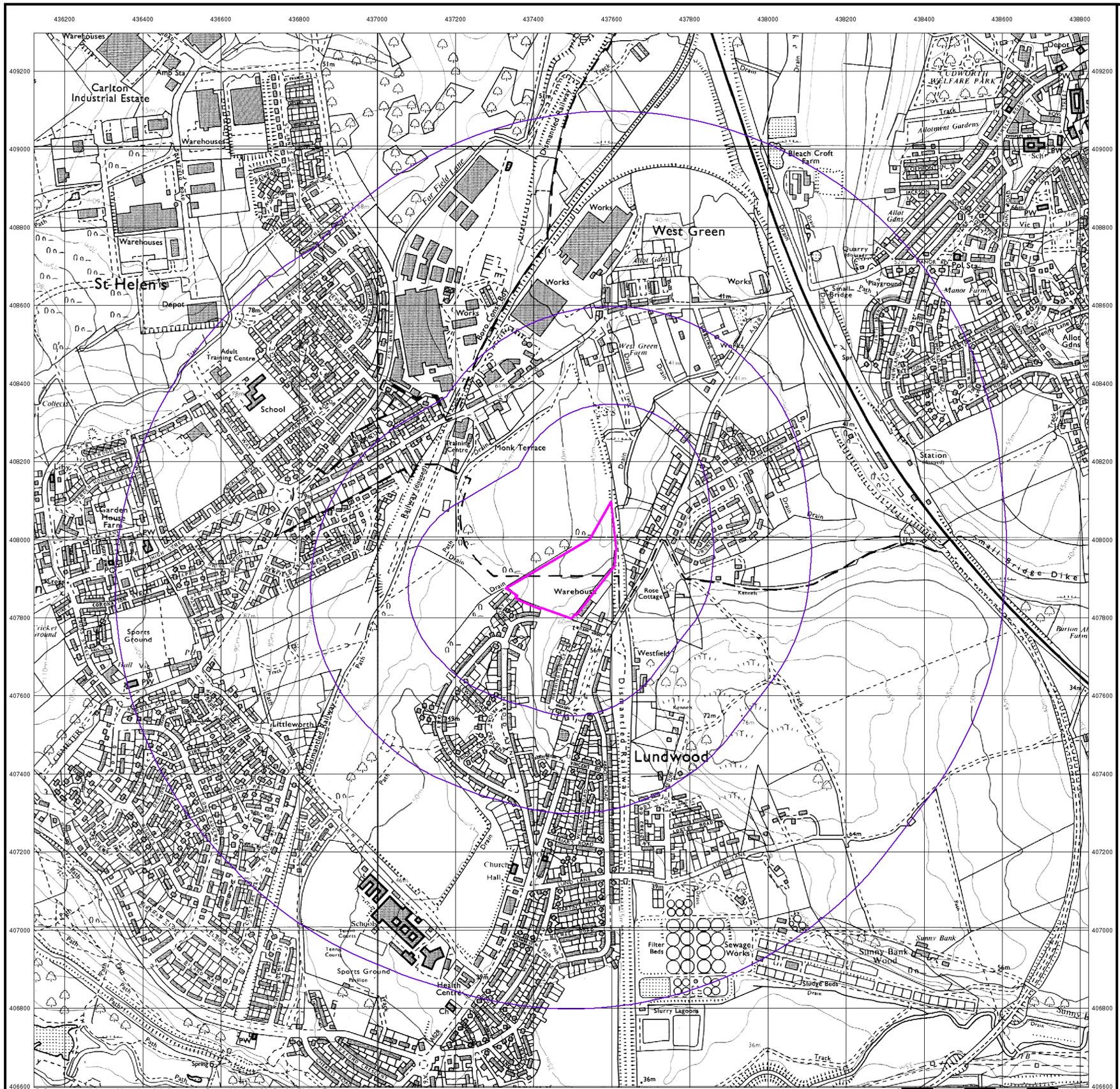
Order Number:	50157046_1_1
Customer Ref:	36487
National Grid Reference:	437490, 407940
Slice:	A
Site Area (Ha):	3.4
Search Buffer (m):	1000

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Ordnance Survey Plan

Published 1993

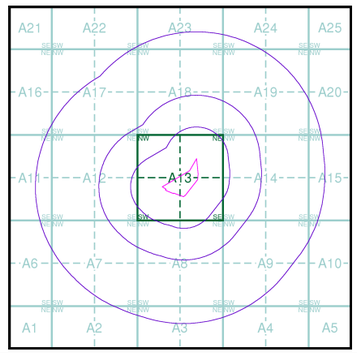
Source map scale - 1:10,000

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)

SE30NE
1993
1:10,000

Historical Map - Slice A



Order Details

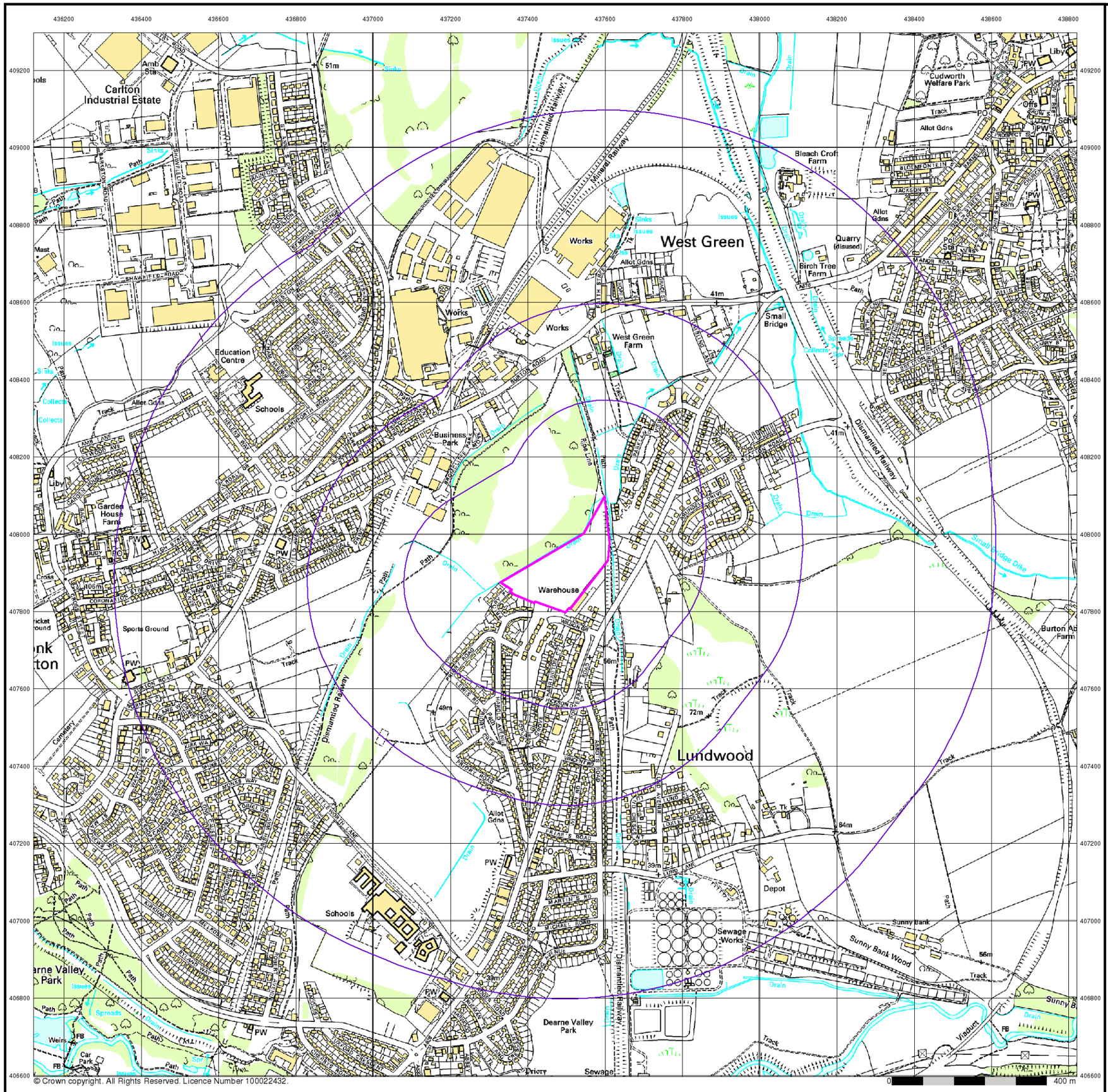
Order Number:	50157046_1_1
Customer Ref:	36487
National Grid Reference:	437490, 407940
Slice:	A
Site Area (Ha):	3.4
Search Buffer (m):	1000

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10k Raster Mapping

Published 2006

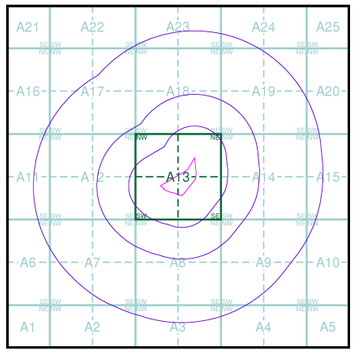
Source map scale - 1:10,000

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

Map Name(s) and Date(s)

SE30NE
2006
1:10,000

Historical Map - Slice A



Order Details

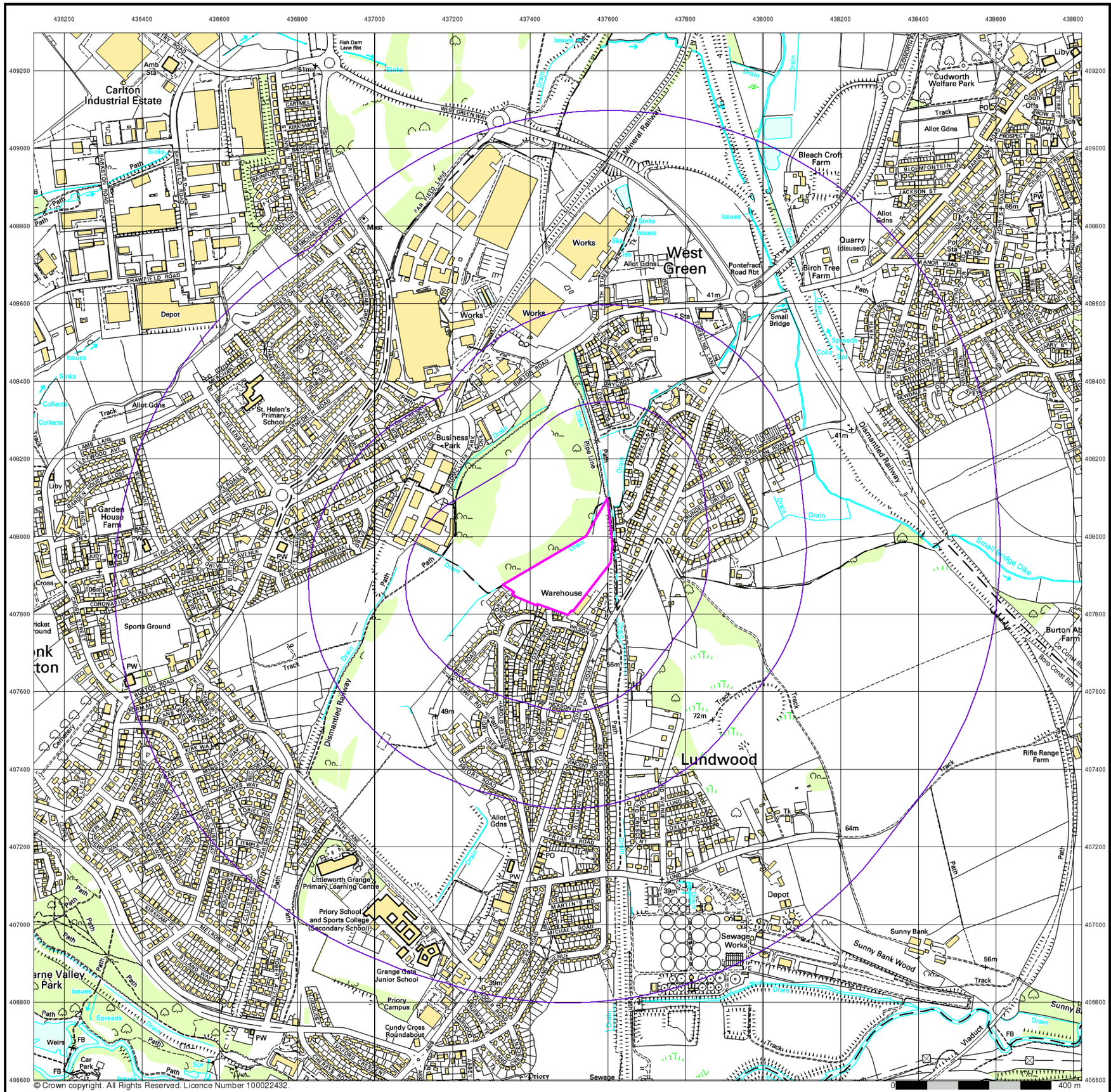
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Search Buffer (m):	1000

Site Details

Pontefract Road, Lundwood, BARNSLEY, South Yorkshire

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10k Raster Mapping

Published 2013

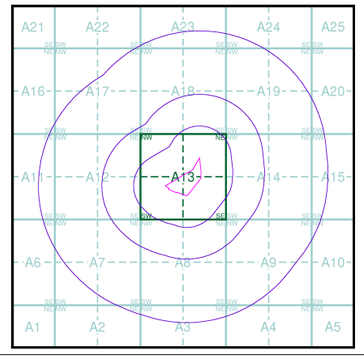
Source map scale - 1:10,000

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)

SE30NE
2013
1:10,000

Historical Map - Slice A



Order Details

Order Number:	50157046_1_1
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Site Details

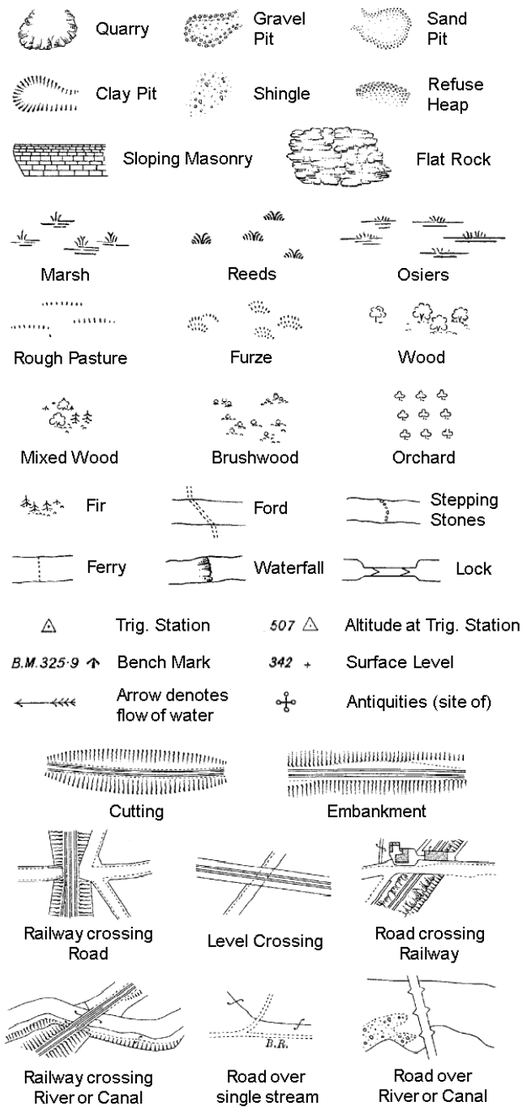
Pontefract Road, Lundwood, BARNSLEY, South Yorkshire

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Web: www.envirocheck.co.uk

Historical Mapping Legends

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



County Boundary (Geographical)

County & Civil Parish Boundary

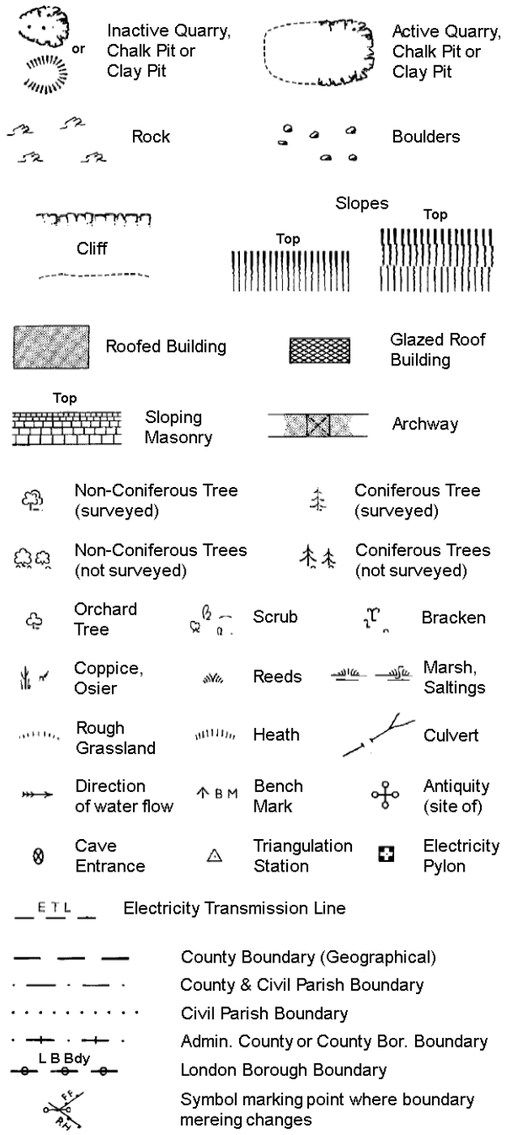
Administrative County & Civil Parish Boundary

Co. Boro. Bdy. County Borough Boundary (England)

Co. Burgh Bdy. County Burgh Boundary (Scotland)

B P B S	Boundary Post or Stone	P.C.B	Police Call Box
B.R.	Bridle Road	P	Pump
E.P	Electricity Pylon	S.P	Signal Post
F.B.	Foot Bridge	St.	Sluice
F.P.	Foot Path	Sp.	Spring
G.P	Guide Post or Board	T.C.B	Telephone Call Box
M.S	Mile Stone	Tr.	Trough
M.P M.R	Mooring Post or Ring	W	Well

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



County Boundary (Geographical)

County & Civil Parish Boundary

Civil Parish Boundary

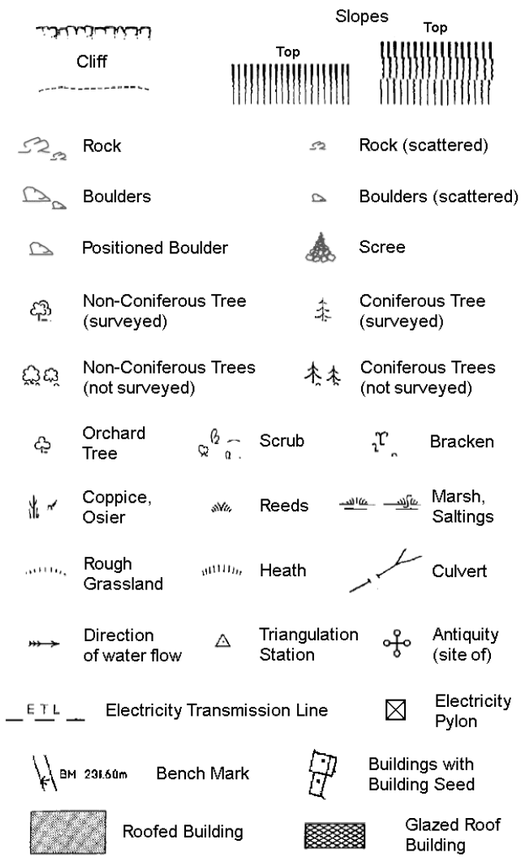
Admin. County or County Bor. Boundary

L B Bdy London Borough Boundary

Symbol marking point where boundary mereing changes

BH	Beer House	P	Pillar, Pole or Post
BP, BS	Boundary Post or Stone	PO	Post Office
Cn, C	Capstan, Crane	PC	Public Convenience
Chy	Chimney	PH	Public House
D Fn	Drinking Fountain	Pp	Pump
El P	Electricity Pillar or Post	SB, S Br	Signal Box or Bridge
FAP	Fire Alarm Pillar	SP, SL	Signal Post or Light
FB	Foot Bridge	Spr	Spring
GP	Guide Post	Tk	Tank or Track
H	Hydrant or Hydraulic	TCB	Telephone Call Box
LC	Level Crossing	TCP	Telephone Call Post
MH	Manhole	Tr	Trough
MP	Mile Post or Mooring Post	Wr Pt, Wr T	Water Point, Water Tap
MS	Mile Stone	W	Well
NTL	Normal Tidal Limit	Wd Pp	Wind Pump

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



Civil parish/community boundary

District boundary

County boundary

Boundary post/stone

Boundary mereing symbol (note: these always appear in opposed pairs or groups of three)

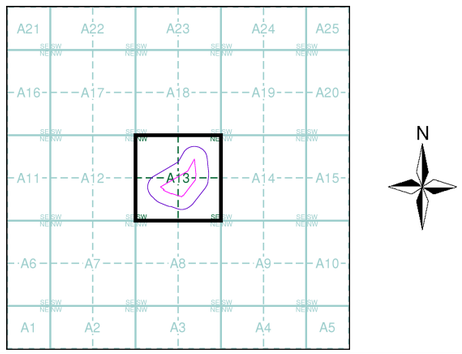
Bks	Barracks	P	Pillar, Pole or Post
Bty	Battery	PO	Post Office
Cemy	Cemetery	PC	Public Convenience
Chy	Chimney	Pp	Pump
Cis	Cistern	Ppg Sta	Pumping Station
Dismtd Rly	Dismantled Railway	PW	Place of Worship
El Gen Sta	Electricity Generating Station	Sewage Ppg Sta	Sewage Pumping Station
El P	Electricity Pole, Pillar	SB, S Br	Signal Box or Bridge
El Sub Sta	Electricity Sub Station	SP, SL	Signal Post or Light
FB	Filter Bed	Spr	Spring
Fn / D Fn	Fountain / Drinking Ftn.	Tk	Tank or Track
Gas Gov	Gas Valve Compound	Tr	Trough
GVC	Gas Governer	Wd Pp	Wind Pump
GP	Guide Post	Wr Pt, Wr T	Water Point, Water Tap
MH	Manhole	Wks	Works (building or area)
MP, MS	Mile Post or Mile Stone	W	Well

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Historical Mapping & Photography included:

Mapping Type	Scale	Date	Pg
Yorkshire	1:2,500	1892 - 1893	2
Yorkshire	1:2,500	1906	3
Yorkshire	1:2,500	1931	4
Ordnance Survey Plan	1:1,250	1961	5
Ordnance Survey Plan	1:2,500	1962	6
Ordnance Survey Plan	1:2,500	1969 - 1971	7
Ordnance Survey Plan	1:1,250	1973 - 1974	8
Additional SIMs	1:1,250	1983 - 1992	9
Additional SIMs	1:1,250	1990	10
Large-Scale National Grid Data	1:1,250	1993	11
Large-Scale National Grid Data	1:1,250	1995	12
Large-Scale National Grid Data	1:1,250	1996	13

Historical Map - Segment A13



Order Details

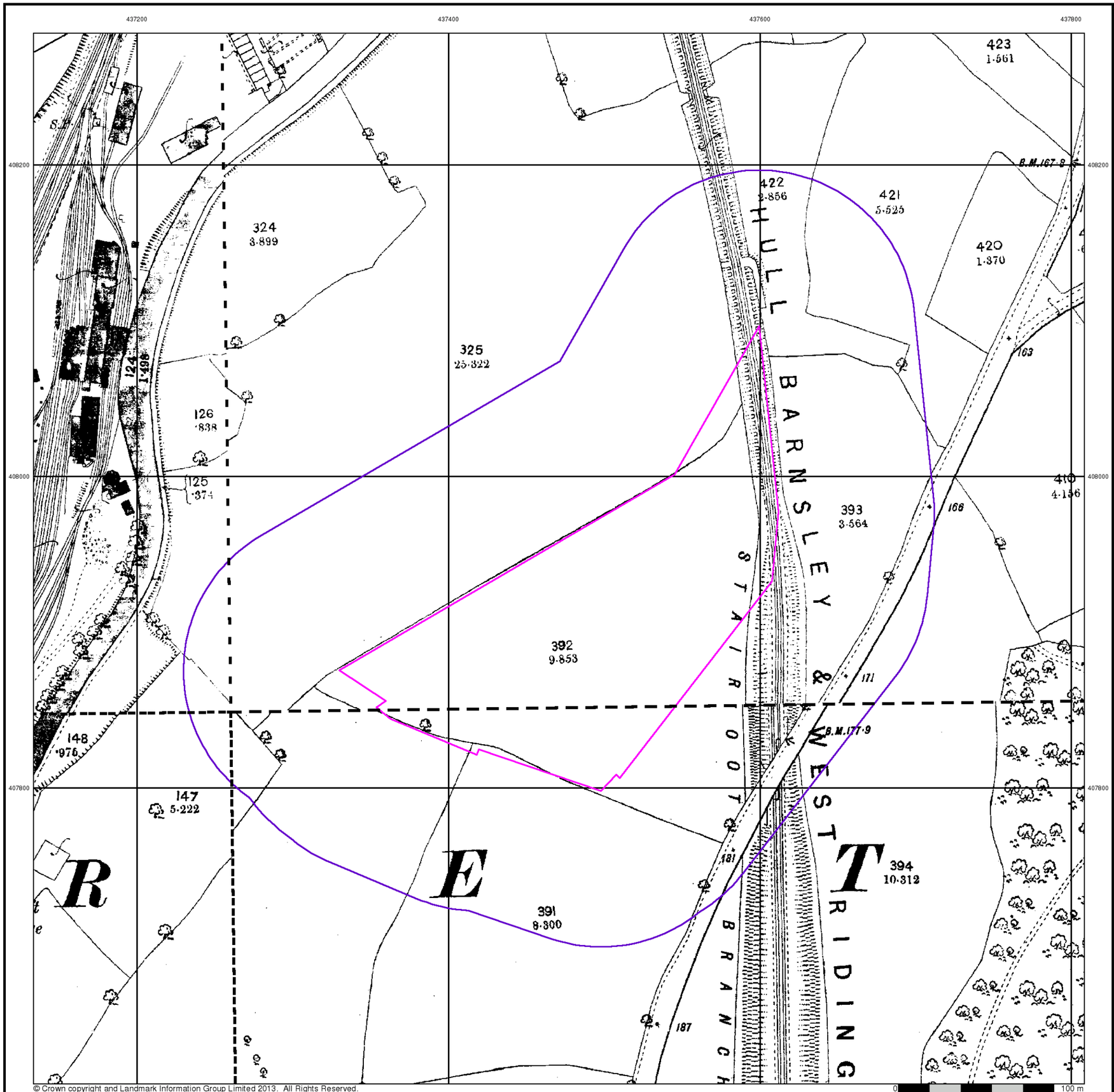
Order Number:	50157046_1_1
Customer Ref:	36487
National Grid Reference:	437490, 407940
Slice:	A
Site Area (Ha):	3.4
Search Buffer (m):	100

Site Details

Pontefract Road, Lundwood, BARNSLEY, South Yorkshire

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0 100 m

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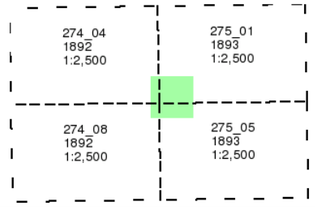
Yorkshire

Published 1892 - 1893

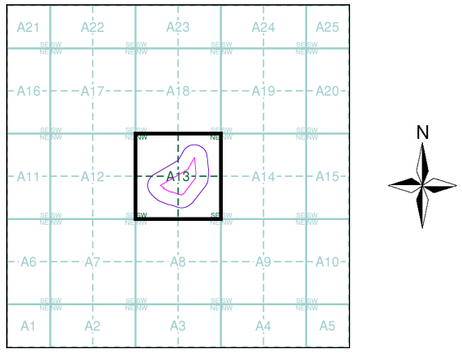
Source map scale - 1:2,500

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

Map Name(s) and Date(s)



Historical Map - Segment A13



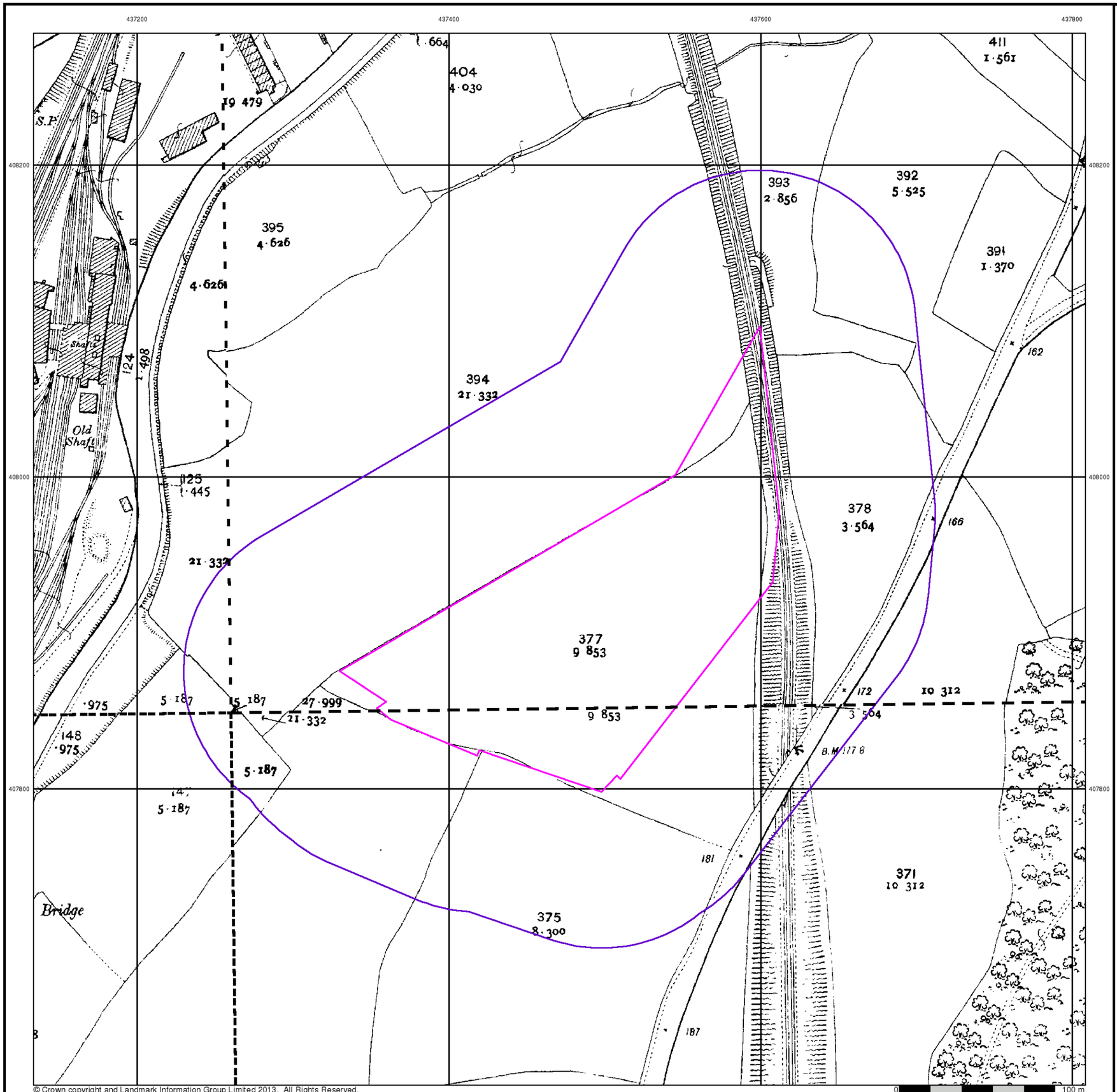
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Customer Ref:	36487
National Grid Reference:	437490, 407940
Slice:	A
Site Area (Ha):	3.4
Search Buffer (m):	100

Site Details

Pontefract Road, Lundwood, BARNSLEY, South Yorkshire

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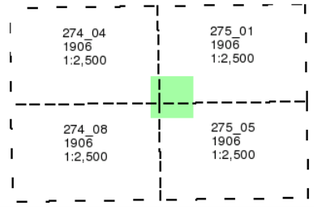
Yorkshire

Published 1906

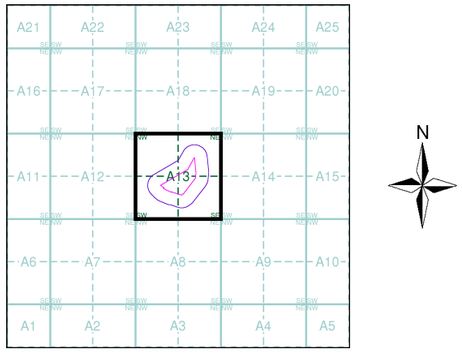
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Map Name(s) and Date(s)



Historical Map - Segment A13



Order Details

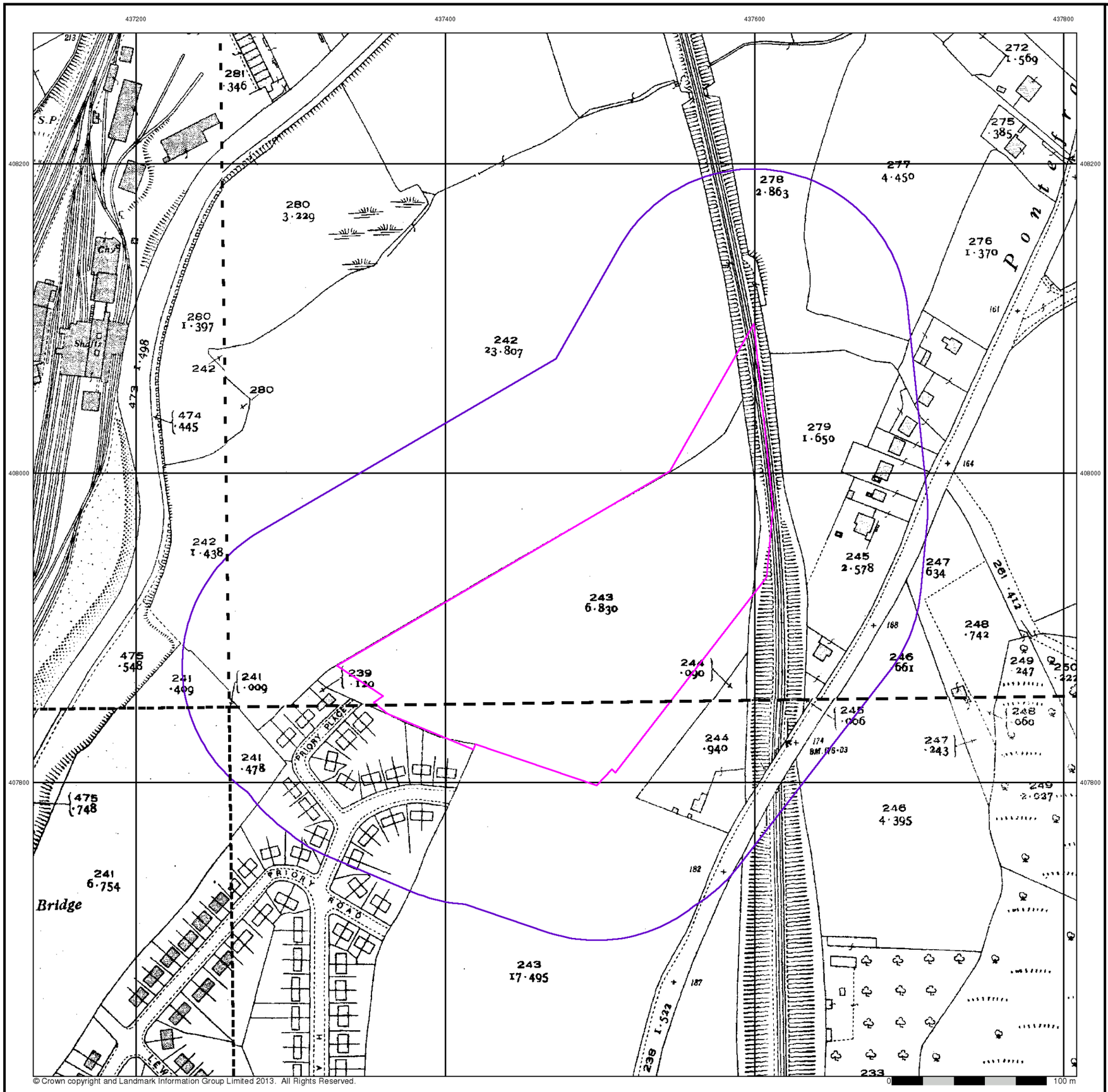
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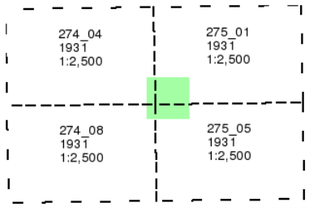
Yorkshire

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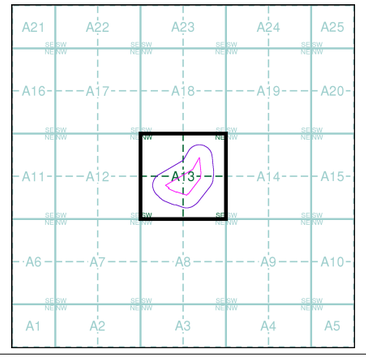
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Historical Map - Segment A13



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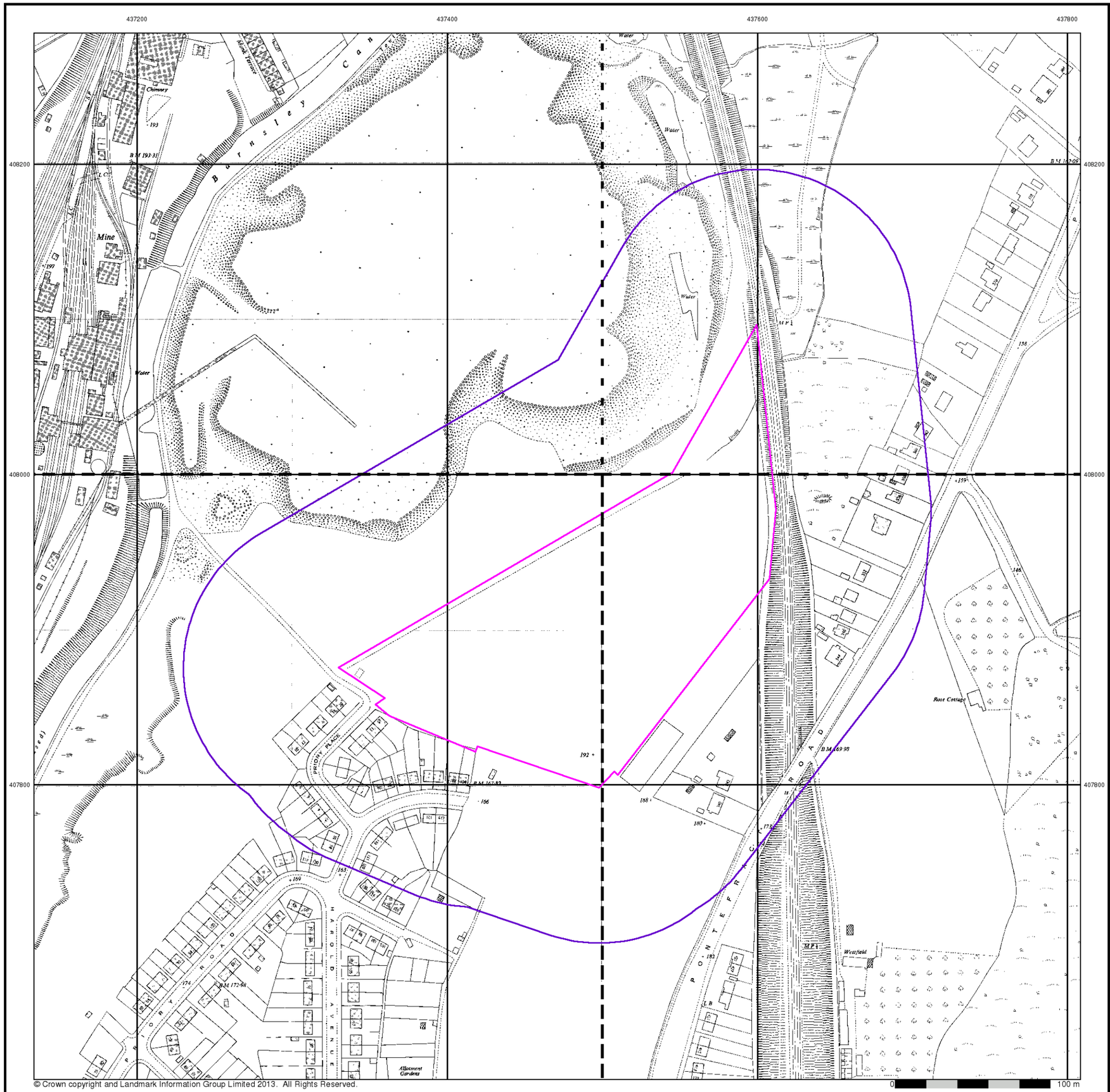
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Ordnance Survey Plan

Published 1961

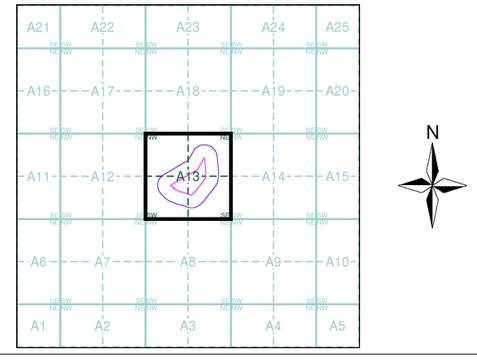
Source map scale - 1:1,250

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Map Name(s) and Date(s)

SE3708SW 1961 1:1,250
SE3708SE 1961 1:1,250
SE3707NW 1961 1:1,250
SE3707NE 1961 1:1,250

Historical Map - Segment A13



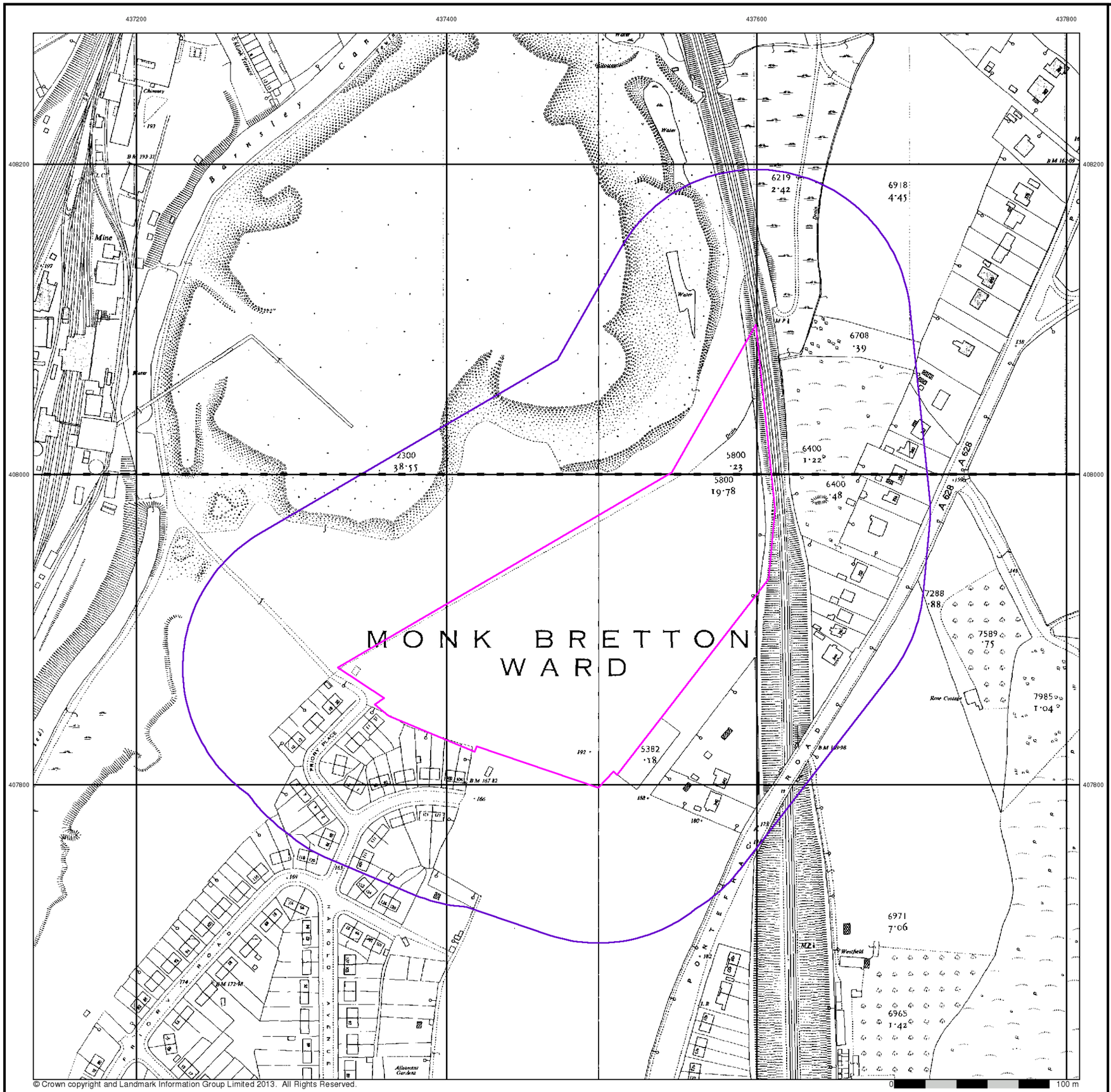
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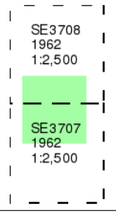
Ordnance Survey Plan

Published 1962

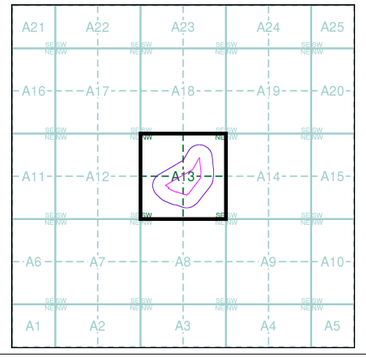
Source map scale - 1:2,500

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Map Name(s) and Date(s)



Historical Map - Segment A13



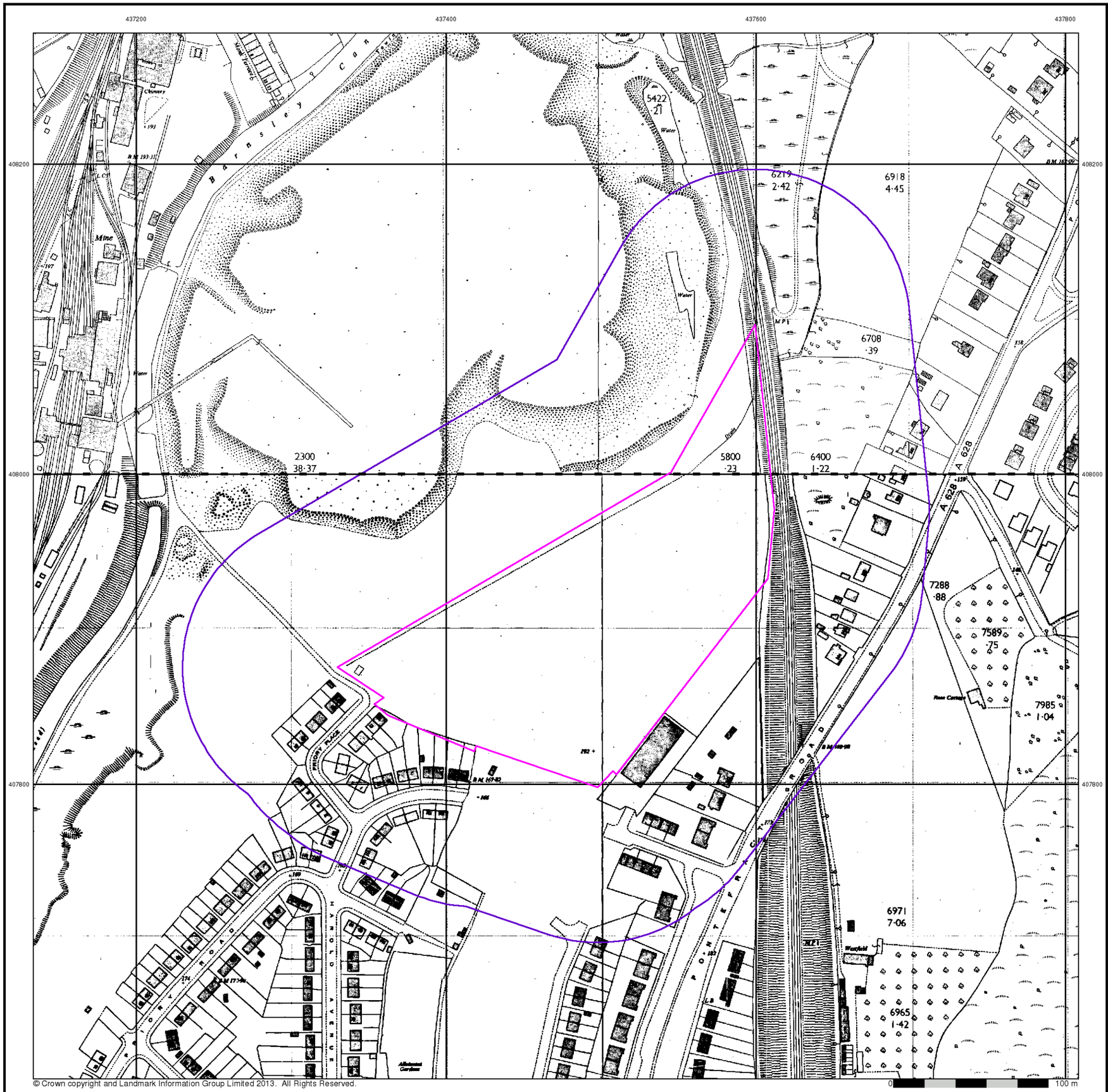
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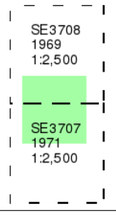
Ordnance Survey Plan

Published 1969 - 1971

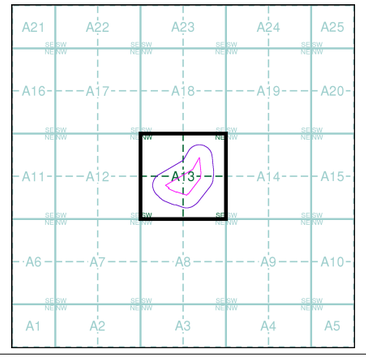
Source map scale - 1:2,500

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Map Name(s) and Date(s)



Historical Map - Segment A13



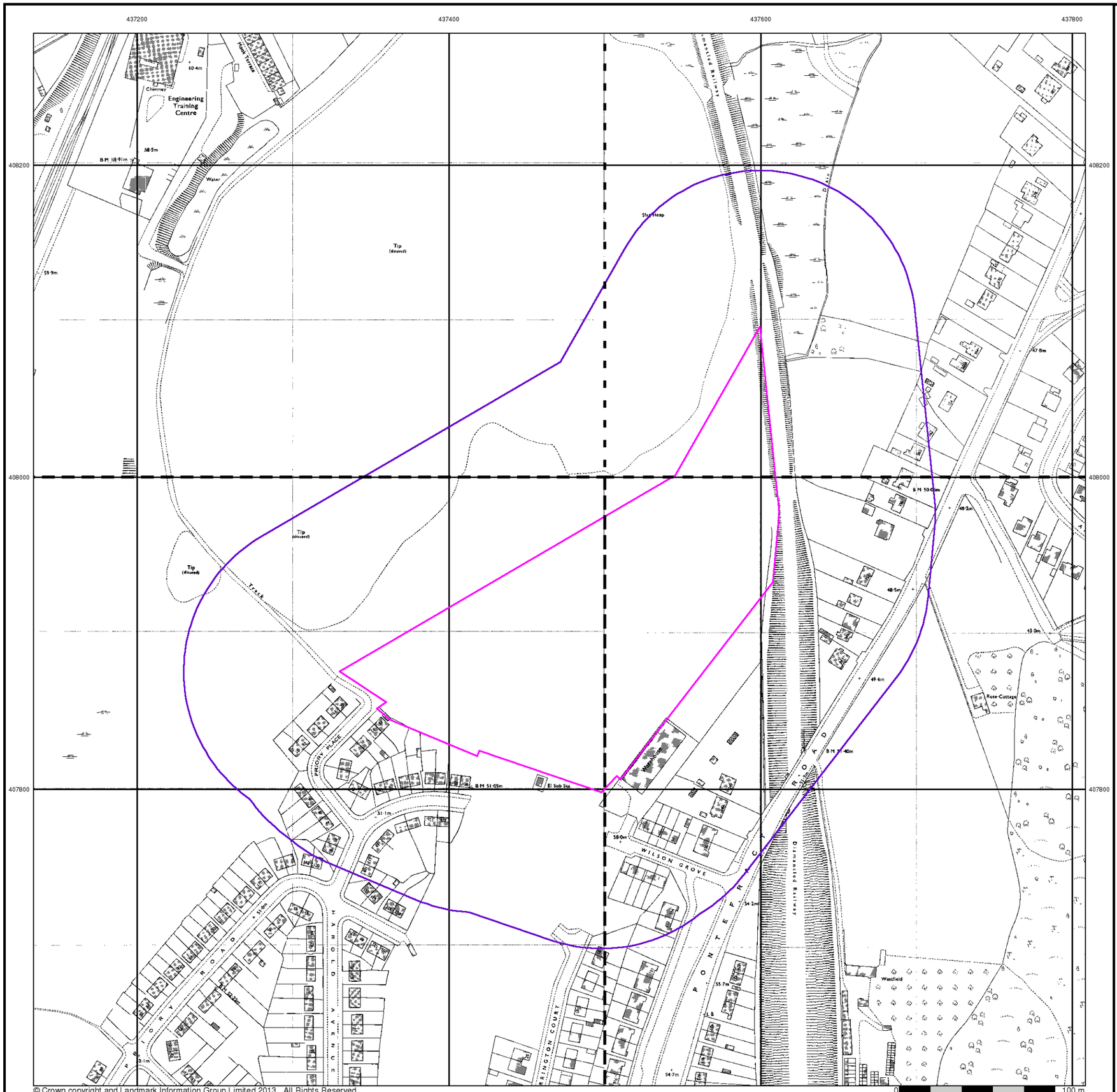
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Order Number:	50157046_1_1
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Slice:	A
Site Area (Ha):	3.4
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Ordnance Survey Plan

Published 1973 - 1974

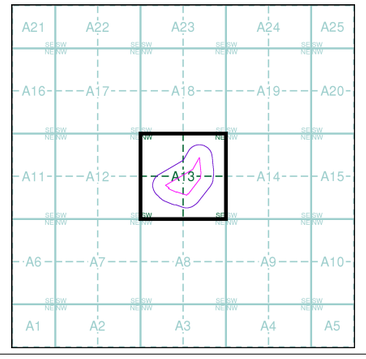
Source map scale - 1:1,250

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)

SE3708SW 1974 1:1,250
SE3708SE 1973 1:1,250
SE3707NW 1974 1:1,250
SE3707NE 1973 1:1,250

Historical Map - Segment A13



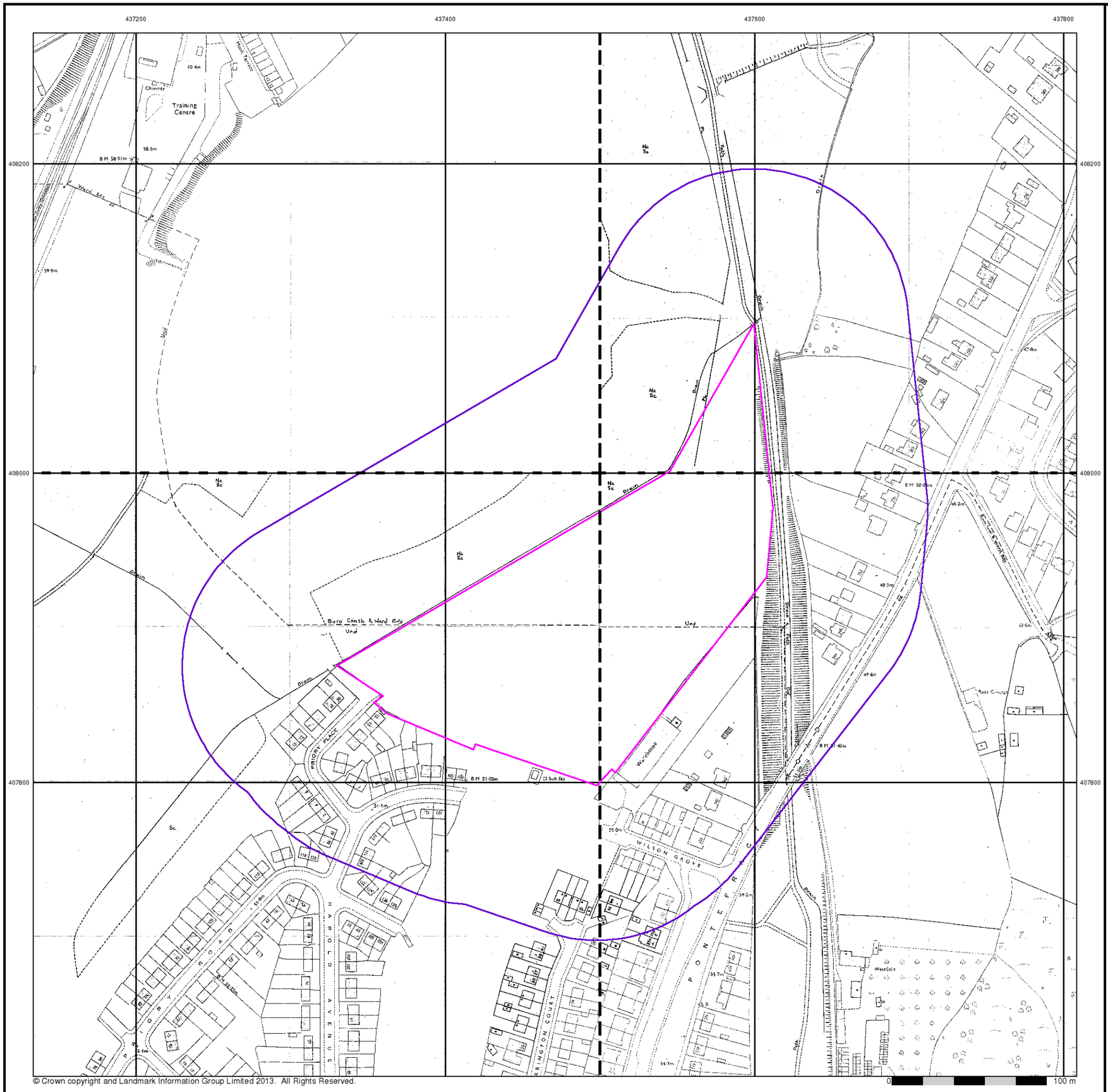
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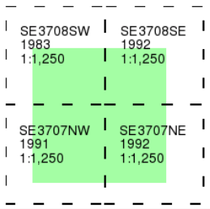
Additional SIMs

Published 1983 - 1992

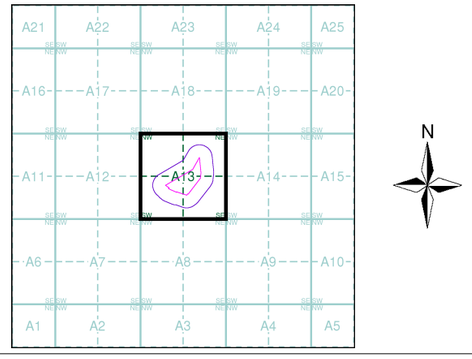
Source map scale - 1:1,250

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

Map Name(s) and Date(s)



Historical Map - Segment A13



Order Details

Order Number:	50157046_1_1
Customer Ref:	36487
National Grid Reference:	437490, 407940
Slice:	A
Site Area (Ha):	3.4
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Site Details

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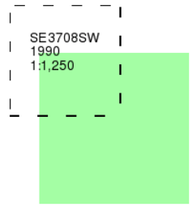
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Published 1990

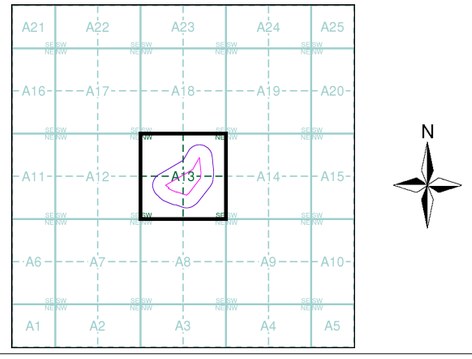
Source map scale - 1:1,250

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Map Name(s) and Date(s)



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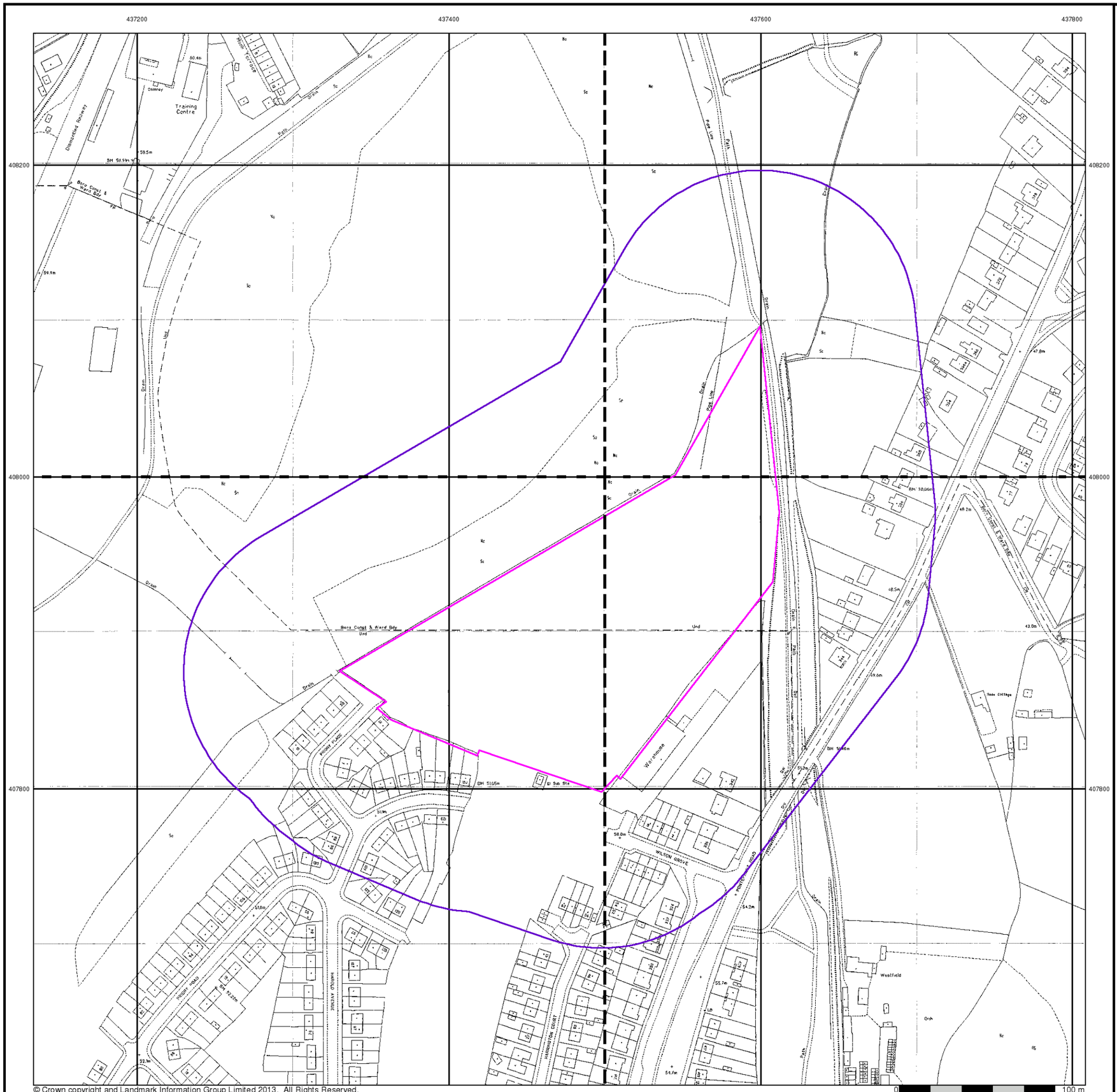
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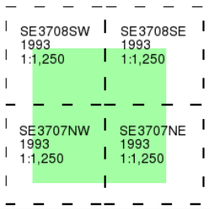
Large-Scale National Grid Data

Published 1993

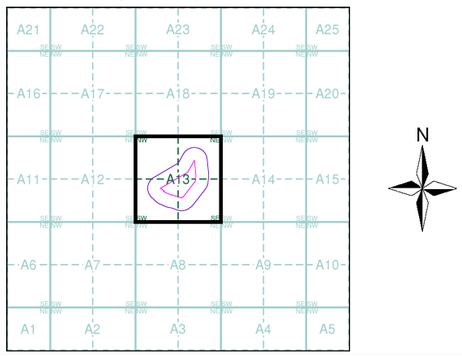
Source map scale - 1:1,250

'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 A13



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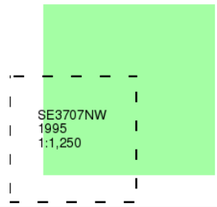
Large-Scale National Grid Data

Published 1995

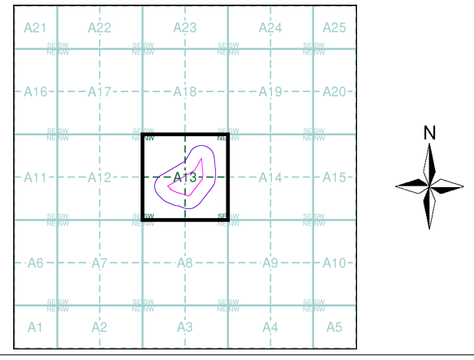
Source map scale - 1:1,250

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Historical Map - Segment A13



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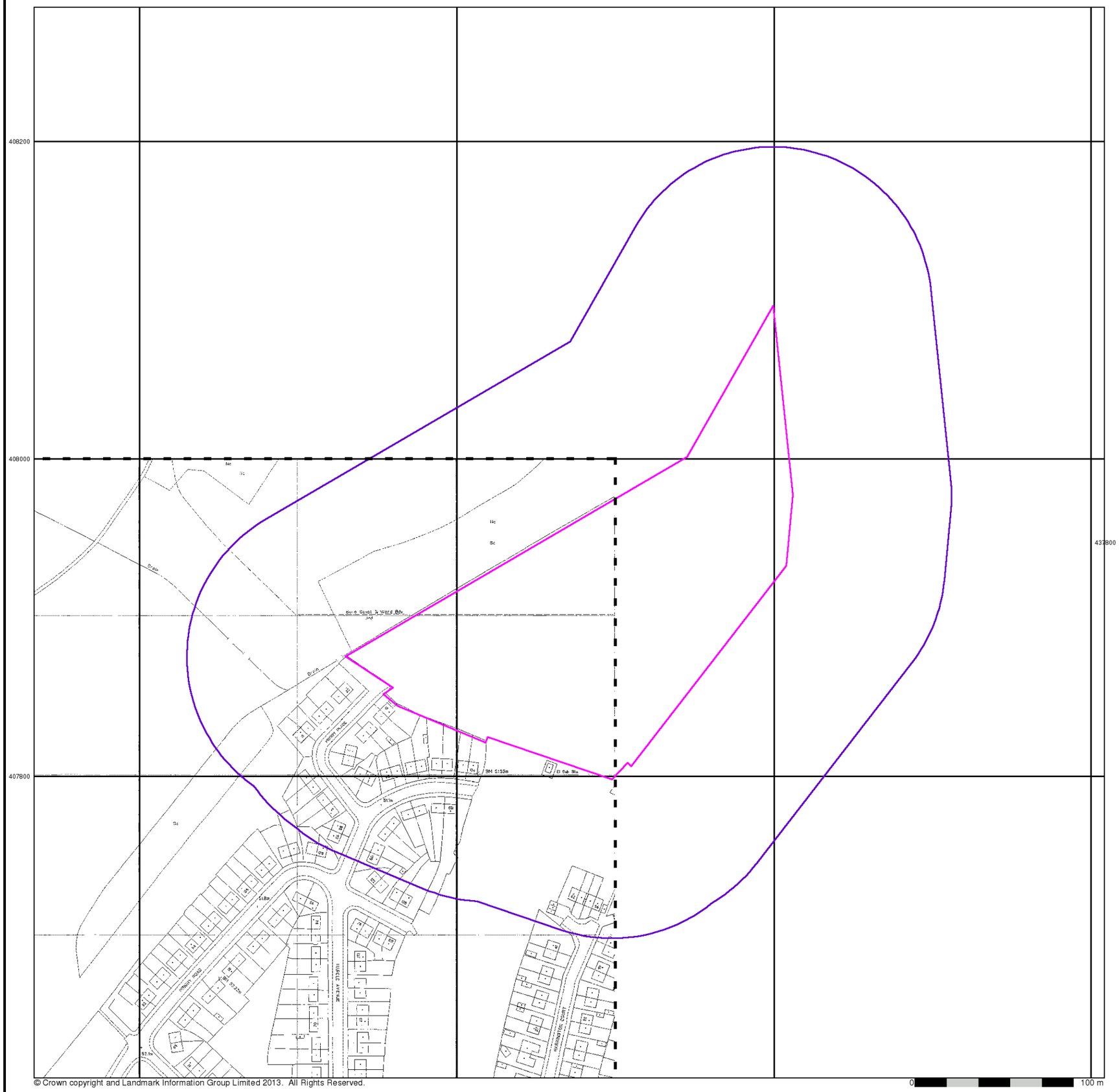
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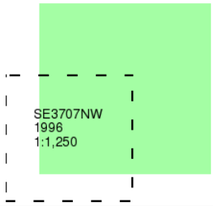
Large-Scale National Grid Data

Published 1996

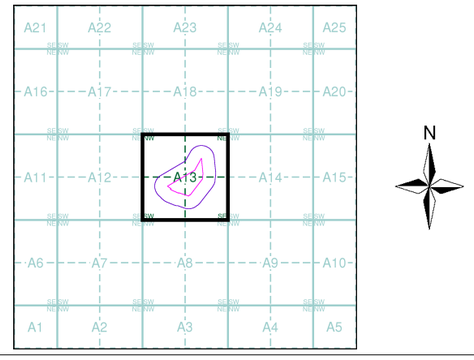
Source map scale - 1:1,250

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Map Name(s) and Date(s)



Historical Map - Segment A13



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Datasheet

Order Details:

Order Number:
50157046_1_1

Customer Reference:
36487

National Grid Reference:
437490, 407940

Slice:
A

Site Area (Ha):
3.4

Search Buffer (m):
1000

Site Details:

Pontefract Road
Lundwood
BARNSLEY
South Yorkshire

Client Details:

Miss A Seymour
Eastwood & Partners Ltd
St Andrews House
23 Kingfield Road
Sheffield
S11 9AS

Contents

Report Section	Page Number
Summary	-
Agency & Hydrological	1
Waste	19
Hazardous Substances	-
Geological	31
Industrial Land Use	45
Sensitive Land Use	50
Data Currency	51
Data Suppliers	55
Useful Contacts	56

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 v47.0

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Summary

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
Agency & Hydrological					
Contaminated Land Register Entries and Notices					
Discharge Consents	pg 1			6	13
Enforcement and Prohibition Notices					
Integrated Pollution Controls					
Integrated Pollution Prevention And Control					
Local Authority Integrated Pollution Prevention And Control	pg 5			1	
Local Authority Pollution Prevention and Controls	pg 5			8	5
Local Authority Pollution Prevention and Control Enforcements	pg 7				1
Nearest Surface Water Feature	pg 7	Yes			
Pollution Incidents to Controlled Waters	pg 8			6	33
Prosecutions Relating to Authorised Processes	pg 14			1	
Prosecutions Relating to Controlled Waters					
Registered Radioactive Substances	pg 14			1	
River Quality	pg 14				1
River Quality Biology Sampling Points					
River Quality Chemistry Sampling Points					
Substantiated Pollution Incident Register	pg 15			2	1
Water Abstractions	pg 15				5 (*6)
Water Industry Act Referrals					
Groundwater Vulnerability	pg 17	Yes	n/a	n/a	n/a
Bedrock Aquifer Designations	pg 18	Yes	n/a	n/a	n/a
Superficial Aquifer Designations			n/a	n/a	n/a
Source Protection Zones					
Extreme Flooding from Rivers or Sea without Defences				n/a	n/a
Flooding from Rivers or Sea without Defences				n/a	n/a
Areas Benefiting from Flood Defences				n/a	n/a
Flood Water Storage Areas				n/a	n/a
Flood Defences				n/a	n/a
Waste					
BGS Recorded Landfill Sites	pg 19			1	1
Historical Landfill Sites	pg 19	1		3	7
Integrated Pollution Control Registered Waste Sites					
Licensed Waste Management Facilities (Landfill Boundaries)	pg 21				4
Licensed Waste Management Facilities (Locations)	pg 22			2	4
Local Authority Recorded Landfill Sites	pg 24	1		2	7
Registered Landfill Sites	pg 25			2	7
Registered Waste Transfer Sites					
Registered Waste Treatment or Disposal Sites	pg 29			3	2

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Summary

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
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 1:625,000 Solid Geology	pg 31	Yes	n/a	n/a	n/a
BGS Estimated Soil Chemistry	pg 31	Yes	Yes	Yes	Yes
BGS Recorded Mineral Sites	pg 42		1	2	3
BGS Urban Soil Chemistry					
BGS Urban Soil Chemistry Averages					
Brine Compensation Area			n/a	n/a	n/a
Coal Mining Affected Areas	pg 43	Yes	n/a	n/a	n/a
Mining Instability	pg 43	Yes	n/a	n/a	n/a
Man-Made Mining Cavities					
Natural Cavities					
Non Coal Mining Areas of Great Britain	pg 43	Yes	Yes	n/a	n/a
Potential for Collapsible Ground Stability Hazards	pg 43	Yes		n/a	n/a
Potential for Compressible Ground Stability Hazards	pg 43	Yes		n/a	n/a
Potential for Ground Dissolution Stability Hazards				n/a	n/a
Potential for Landslide Ground Stability Hazards	pg 43	Yes	Yes	n/a	n/a
Potential for Running Sand Ground Stability Hazards	pg 43	Yes		n/a	n/a
Potential for Shrinking or Swelling Clay Ground Stability Hazards	pg 43	Yes	Yes	n/a	n/a
Radon Potential - Radon Affected Areas	pg 44	Yes	n/a	n/a	n/a
Radon Potential - Radon Protection Measures			n/a	n/a	n/a
Industrial Land Use					
Contemporary Trade Directory Entries	pg 45		2	22	27
Fuel Station Entries	pg 49			1	1

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
Sensitive Land Use					
Areas of Adopted Green Belt	pg 50		1		
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	pg 50	1			1
Ramsar Sites					
Sites of Special Scientific Interest					
Special Areas of Conservation					
Special Protection Areas					

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
1	**Discharge Consents** Operator: Yorkshire Water Services Ltd Property Type: Sewerage Network - Sewers Location: Tumbling Lane, Klondyke, South Yorkshire Authority: Environment Agency, North East Region Catchment Area: Dearne Reference: S/CB/8 Permit Version: Not Supplied Effective Date: Not Supplied Issued Date: 30th June 1993 Revocation Date: Not Supplied Discharge Type: Sewage Effluent Discharge-Storm Effluent Discharge Environment: Unknown Receiving Water: Not Supplied **Status: Not Supplied** Positional Accuracy: Located by supplier to within 100m	A19SW (NE)	449	1	437870 408455
2	**Discharge Consents** Operator: Yorkshire Water Services Ltd Property Type: Sewerage Network - Pumping Station - Water Company Location: Westhill Cso, Rotherham, . Authority: Environment Agency, North East Region Catchment Area: Don Tributaries Reference: S/Cb/8 Permit Version: 1 Effective Date: 29th May 1963 Issued Date: 29th May 1963 Revocation Date: 31st March 2005 Discharge Type: Sewage Discharges - Stw Storm Overflow/Storm Tank - Water Company Discharge Environment: Freshwater Stream/River Receiving Water: Varies With Outlet **Status: Transferred from Rivers (Prevention of Pollution) Act 1951-1961** Positional Accuracy: Located by supplier to within 100m	A19SW (NE)	453	1	437870 408460
2	**Discharge Consents** Operator: Yorkshire Water Services Ltd Property Type: Sewerage Network - Pumping Station - Water Company Location: Klondyke Sps Tumbling Lane, Cudworth, Barnsley, South Yorkshire Authority: Environment Agency, North East Region Catchment Area: Don Tributaries Reference: Wa6126 Permit Version: 3 Effective Date: 31st March 2005 Issued Date: 28th February 2005 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Stw Storm Overflow/Storm Tank - Water Company Discharge Environment: Freshwater Stream/River Receiving Water: Trib Of Small Bridge Dike **Status: Modified (Water Resources Act 1991, Schedule 10 as amended by Environment Act 1995)** Positional Accuracy: Located by supplier to within 10m	A19SW (NE)	472	1	437900 408460
2	**Discharge Consents** Operator: Yorkshire Water Services Ltd Property Type: Sewerage Network - Pumping Station - Water Company Location: Klondyke Sps Tumbling Lane, Cudworth, Barnsley, South Yorkshire Authority: Environment Agency, North East Region Catchment Area: Don Tributaries Reference: Wa6126 Permit Version: 3 Effective Date: 31st March 2005 Issued Date: 28th February 2005 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Pumping Station - Water Company Discharge Environment: Freshwater Stream/River Receiving Water: Trib Of Small Bridge Dike **Status: Modified (Water Resources Act 1991, Schedule 10 as amended by Environment Act 1995)** Positional Accuracy: Located by supplier to within 10m	A19SW (NE)	472	1	437900 408460

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
2	**Discharge Consents** Operator: Yorkshire Water Services Ltd Property Type: Sewerage Network - Pumping Station - Water Company Location: Klondyke Sps Tumbling Lane, Cudworth, Barnsley, South Yorkshire Authority: Environment Agency, North East Region Catchment Area: Don Tributaries Reference: Wa6126 Permit Version: 2 Effective Date: 27th February 2003 Issued Date: 27th February 2003 Revocation Date: 30th March 2005 Discharge Type: Sewage Discharges - Stw Storm Overflow/Storm Tank - Water Company Discharge Environment: Freshwater Stream/River Receiving Water: Trib Of Small Bridge Dike **Status: Modified (Water Resources Act 1991, Schedule 10 as amended by Environment Act 1995)** Positional Accuracy: Located by supplier to within 10m	A19SW (NE)	472	1	437900 408460
2	**Discharge Consents** Operator: Yorkshire Water Services Ltd Property Type: Sewerage Network - Pumping Station - Water Company Location: Klondyke Sps Tumbling Lane, Cudworth, Barnsley, South Yorkshire Authority: Environment Agency, North East Region Catchment Area: Don Tributaries Reference: Wa6126 Permit Version: 2 Effective Date: 27th February 2003 Issued Date: 27th February 2003 Revocation Date: 30th March 2005 Discharge Type: Sewage Discharges - Pumping Station - Water Company Discharge Environment: Freshwater Stream/River Receiving Water: Trib Of Small Bridge Dike **Status: Modified (Water Resources Act 1991, Schedule 10 as amended by Environment Act 1995)** Positional Accuracy: Located by supplier to within 10m	A19SW (NE)	472	1	437900 408460
2	**Discharge Consents** Operator: Tarmac Quarry Products Ltd., Property Type: Trade (Unknown/Other) Location: Ready Mixed Concrete Ltd Tumbling Lane, Monk Bretton, Barnsley, South Yorkshire Authority: Environment Agency, North East Region Catchment Area: Don Tributaries Reference: 1760 Permit Version: 2 Effective Date: 8th July 1997 Issued Date: 8th July 1997 Revocation Date: 27th February 2002 Discharge Type: Trade Effluent Discharge Environment: Freshwater Stream/River Receiving Water: Trib Of Cudworth Dyke To River **Status: Revoked (Water Resources Act 1991, Section 88 & Schedule 10 as amended by Environment Act 1995)** Positional Accuracy: Located by supplier to within 100m	A19SW (NE)	503	1	437900 408500
2	**Discharge Consents** Operator: Tarmac Quarry Products Ltd., Property Type: Trade (Unknown/Other) Location: Ready Mixed Concrete Ltd Tumbling Lane, Monk Bretton, Barnsley, South Yorkshire Authority: Environment Agency, North East Region Catchment Area: Don Tributaries Reference: 1760 Permit Version: 1 Effective Date: 16th April 1964 Issued Date: 16th April 1964 Revocation Date: 7th July 1997 Discharge Type: Trade Effluent Discharge Environment: Freshwater Stream/River Receiving Water: Trib Of Cudworth Dyke To River **Status: Transferred from Rivers (Prevention of Pollution) Act 1951-1961** Positional Accuracy: Located by supplier to within 100m	A19SW (NE)	503	1	437900 408500

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
3	**Discharge Consents** Operator: Yorkshire Water Services Ltd Property Type: Sewerage Network - Pumping Station - Water Company Location: Klondyke (Remote Eo) Sps Station Road, Cudworth, Barnsley, South Yorkshire Authority: Environment Agency, North East Region Catchment Area: Don Tributaries Reference: Wa6008 Permit Version: 2 Effective Date: 27th February 2003 Issued Date: 27th February 2003 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Pumping Station - Water Company Discharge Environment: Freshwater Stream/River Receiving Water: Small Bridge Dike **Status: Modified (Water Resources Act 1991, Schedule 10 as amended by Environment Act 1995)** Positional Accuracy: Located by supplier to within 10m	A14NW (NE)	530	1	438100 408270
4	**Discharge Consents** Operator: Yorkshire Water Services Ltd Property Type: Sewerage Network - Pumping Station - Water Company Location: Klondyke Sps Tumbling Lane, Cudworth, Barnsley, South Yorkshire Authority: Environment Agency, North East Region Catchment Area: Don Tributaries Reference: Wa6126 Permit Version: 1 Effective Date: 7th August 1990 Issued Date: 7th August 1990 Revocation Date: 26th February 2003 Discharge Type: Sewage Discharges - Stw Storm Overflow/Storm Tank - Water Company Discharge Environment: Freshwater Stream/River Receiving Water: Cudworth Dyke **Status: Transferred from Water Act 1989** Positional Accuracy: Located by supplier to within 100m	A19SW (NE)	644	1	438000 408600
5	**Discharge Consents** Operator: 402 Pontefract Road Property Type: Trade (Unknown/Other) Location: 402 Pontefract Road, Lundwood, Barnsley, South Yorks, S71 5jz Authority: Environment Agency, North East Region Catchment Area: Don Tributaries Reference: 1547 Permit Version: 1 Effective Date: 27th March 1963 Issued Date: 27th March 1963 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company Discharge Environment: Freshwater Stream/River Receiving Water: Trib Of Cudworth Dyke **Status: Transferred from Rivers (Prevention of Pollution) Act 1951-1961** Positional Accuracy: Located by supplier to within 100m	A8SW (S)	692	1	437250 407150
6	**Discharge Consents** Operator: Yorkshire Water Services Ltd Property Type: Sewerage Network - Pumping Station - Water Company Location: Playing Fields Sps Barnsley Road, Cudworth, Barnsley, South Yorkshire Authority: Environment Agency, North East Region Catchment Area: Don Tributaries Reference: Wra7592 Permit Version: 1 Effective Date: 18th May 2000 Issued Date: 18th May 2000 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Stw Storm Overflow/Storm Tank - Water Company Discharge Environment: Freshwater Stream/River Receiving Water: Trib Of Small Bridge Dyke **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	A19NW (NE)	763	1	438090 408680

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
6	**Discharge Consents** Operator: Yorkshire Water Services Ltd Property Type: Sewerage Network - Pumping Station - Water Company Location: Playing Fields Sps Barnsley Road, Cudworth, Barnsley, South Yorkshire Authority: Environment Agency, North East Region Catchment Area: Don Tributaries Reference: Wra7592 Permit Version: 1 Effective Date: 18th May 2000 Issued Date: 18th May 2000 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Pumping Station - Water Company Discharge Environment: Freshwater Stream/River Receiving Water: Trib Of Small Bridge Dyke **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	A19NW (NE)	763	1	438090 408680
6	**Discharge Consents** Operator: Yorkshire Water Services Ltd Property Type: Sewerage Network - Pumping Station - Water Company Location: Klondyke (Remote Eo) Sps Station Road, Cudworth, Barnsley, South Yorkshire Authority: Environment Agency, North East Region Catchment Area: Don Tributaries Reference: Wa6008 Permit Version: 1 Effective Date: 18th April 1990 Issued Date: 18th April 1990 Revocation Date: 26th February 2003 Discharge Type: Sewage Discharges - Pumping Station - Water Company Discharge Environment: Freshwater Stream/River Receiving Water: Small Bridge Dyke **Status: Transferred from Water Act 1989** Positional Accuracy: Located by supplier to within 100m	A19NW (NE)	784	1	438100 408700
7	**Discharge Consents** Operator: Yorkshire Water Services Property Type: Undefined Or Other Location: Brayton Wpc Works Final Effluent. Authority: Environment Agency, North East Region Catchment Area: Aire And Calder Navigation Reference: N/C Permit Version: 3 Effective Date: 1st January 1982 Issued Date: 1st January 1982 Revocation Date: 30th June 1982 Discharge Type: Unspecified Discharge Environment: Not Supplied Receiving Water: Not Supplied **Status: Post National Rivers Authority Legislation where issue date > 31/08/1989** Positional Accuracy: Located by supplier to within 100m	A8SE (S)	854	1	437800 407000
7	**Discharge Consents** Operator: Barnsley Corporation Property Type: Sewage Disposal Works - Water Company Location: Lundwood Wwtw Lund Lane, Lundwood, Barnsley, South Yorkshire Authority: Environment Agency, North East Region Catchment Area: Don Tributaries Reference: E10 Permit Version: 12 Effective Date: 20th March 1965 Issued Date: 20th March 1965 Revocation Date: 31st May 1981 Discharge Type: Sewage Discharges - Final/Treated Effluent - Water Company Discharge Environment: Freshwater Stream/River Receiving Water: Cliffe Bridge Dyke **Status: Transferred from Rivers (Prevention of Pollution) Act 1951-1961** Positional Accuracy: Located by supplier to within 100m	A8SE (S)	854	1	437800 407000

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
7	**Discharge Consents** Operator: Barnsley Corporation Property Type: Sewage Disposal Works - Water Company Location: Lundwood Wwtw Lund Lane, Lundwood, Barnsley, South Yorkshire Authority: Environment Agency, North East Region Catchment Area: Don Tributaries Reference: E10 Permit Version: 12 Effective Date: 20th March 1965 Issued Date: 20th March 1965 Revocation Date: 31st May 1981 Discharge Type: Sewage Discharges - Stw Storm Overflow/Storm Tank - Water Company Discharge Environment: Freshwater Stream/River Receiving Water: Cliffe Bridge Dyke **Status: Transferred from Rivers (Prevention of Pollution) Act 1951-1961** Positional Accuracy: Located by supplier to within 100m	A8SE (S)	854	1	437800 407000
8	**Discharge Consents** Operator: Burnett & Hallamshire Fule Ltd Property Type: Trade (Unknown/Other) Location: B&H Fuels Ltd- Cudworth Tip Site (C, Losed) Authority: Environment Agency, North East Region Catchment Area: Don Tributaries Reference: 3462 Permit Version: 1 Effective Date: 5th September 1983 Issued Date: 5th September 1983 Revocation Date: 19th November 1990 Discharge Type: Trade Effluent Discharge Environment: Not Supplied Receiving Water: Not Supplied **Status: Authorisation revokedRevoked** Positional Accuracy: Located by supplier to within 100m	A19NW (NE)	858	1	437900 408900
9	**Discharge Consents** Operator: Yorkshire Water Services Ltd Property Type: Pumping Station Location: Lang Avenue Ps , Lang Avenue, South Yorkshire Authority: Environment Agency, North East Region Catchment Area: Dearne Reference: WADC249 Permit Version: Not Supplied Effective Date: Not Supplied Issued Date: Not Supplied Revocation Date: Not Supplied Discharge Type: Storm sewage overflow discharge Discharge Environment: Freshwater Stream/River Receiving Water: River Dearne **Status: Not Supplied** Positional Accuracy: Located by supplier to within 100m	A3NE (S)	887	1	437620 406920
10	**Local Authority Integrated Pollution Prevention And Control** Name: Ardagh Glass Barnsley Limited Location: Burton Road, Monk Bretton, Barnsley, S71 2QG Authority: Barnsley Metropolitan Borough Council, Environmental Health and Trading Standards Permit Reference: IPPC/A2/01 Dated: 31st March 2005 Process Type: Mineral Industries Description: Glass manufacturing process **Status: Permit Issued** Positional Accuracy: Located by supplier to within 10m	A18SW (N)	385	2	437397 408424
11	**Local Authority Pollution Prevention and Controls** Name: Tyke Petroleum Location: Colliers Service Station, PONTEFRACT ROAD, Lundwood, BARNSLEY Authority: Barnsley Metropolitan Borough Council, Environmental Health and Trading Standards Permit Reference: Epa/Petrol15 Dated: 21st October 2002 Process Type: Local Authority Air Pollution Control Description: PG1/14 Petrol filling station **Status: Authorisation revokedRevoked** Positional Accuracy: Manually positioned to the address or location	A8NE (S)	259	2	437484 407540

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
11	**Local Authority Pollution Prevention and Controls** Name: Smith & Round Ltd Location: Elf Petrol Station, Pontefract Road, BARNSLEY, South Yorkshire, S70 1TG Authority: Barnsley Metropolitan Borough Council, Environmental Health and Trading Standards Permit Reference: Not Given Dated: 13th February 1992 Process Type: Local Authority Air Pollution Control Description: PG1/1Waste oil burners, less than 0.4MW net rated thermal input **Status: Authorised** Positional Accuracy: Manually positioned to the address or location	A8NE (S)	265	2	437495 407533
11	**Local Authority Pollution Prevention and Controls** Name: Motosave Location: Elf Petrol Station, Pontefract Road, , BARNSLEY, South Yorkshire, S71 5JH Authority: Barnsley Metropolitan Borough Council, Environmental Health and Trading Standards Permit Reference: Ppc/B/07 Dated: 19th October 1992 Process Type: Local Authority Pollution Prevention and Control Description: PG1/1Waste oil burners, less than 0.4MW net rated thermal input **Status: Site Closed** Positional Accuracy: Manually positioned to the address or location	A8NE (S)	269	2	437498 407529
12	**Local Authority Pollution Prevention and Controls** Name: Ardagh Glass Barnsley Limited Location: Burton Road, Monk Bretton, BARNSLEY, S71 2QG Authority: Barnsley Metropolitan Borough Council, Environmental Health and Trading Standards Permit Reference: PPC/B/59 Dated: 30th September 1993 Process Type: Local Authority Pollution Prevention and Control Description: PG6/23 Coating of metal and plastic **Status: Permitted** Positional Accuracy: Located by supplier to within 10m	A18SW (N)	381	2	437348 408382
12	**Local Authority Pollution Prevention and Controls** Name: Plm Redfearn Ltd Location: Burton Road, Monk Bretton, BARNSLEY, S71 2QG Authority: Barnsley Metropolitan Borough Council, Environmental Health and Trading Standards Permit Reference: Not Given Dated: Not Supplied Process Type: Local Authority Air Pollution Control Description: PG3/3 Glass (excluding lead glass) manufacturing processes **Status: Authorisation revokedRevoked** Positional Accuracy: Manually positioned to the road within the address or location	A18SW (N)	386	2	437320 408363
12	**Local Authority Pollution Prevention and Controls** Name: Ardagh Glass Barnsley Limited Location: Burton Road, Monk Bretton, BARNSLEY, S71 2QG Authority: Barnsley Metropolitan Borough Council, Environmental Health and Trading Standards Permit Reference: ippc/a2/01 Dated: 30th September 1992 Process Type: Local Authority Air Pollution Control Description: PG3/3 Glass (excluding lead glass) manufacturing processes **Status: Transferred to LAIPPC** Positional Accuracy: Located by supplier to within 10m	A18SW (NW)	402	2	437282 408343
13	**Local Authority Pollution Prevention and Controls** Name: Ardagh Glass Barnsley Limited Location: Burton Road, Monk Bretton, BARNSLEY, S71 2QG Authority: Barnsley Metropolitan Borough Council, Environmental Health and Trading Standards Permit Reference: ppc/b/59 Dated: 30th September 1993 Process Type: Local Authority Pollution Prevention and Control Description: PG6/23 Coating of metal and plastic **Status: Permitted** Positional Accuracy: Located by supplier to within 10m	A18SW (NW)	437	2	437218 408316
14	**Local Authority Pollution Prevention and Controls** Name: A A Ogley & Sons Ltd Location: Tumbling Lane, Monk Bretton, BARNSLEY, South Yorkshire, S71 5SA Authority: Barnsley Metropolitan Borough Council, Environmental Health and Trading Standards Permit Reference: Not Supplied Dated: Not Supplied Process Type: Local Authority Air Pollution Control Description: PG2/1Furnaces for the extraction of non-ferrous metal from scrap **Status: Authorisation revokedRevoked** Positional Accuracy: Manually positioned to the address or location	A18SE (NE)	446	2	437800 408495

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
15	**Local Authority Pollution Prevention and Controls** Name: Tarmac Topmix Ltd Location: Tumbling Lane, Cudworth, BARNSLEY, S71 5SA Authority: Barnsley Metropolitan Borough Council, Environmental Health and Trading Standards Permit Reference: Not Supplied Dated: Not Supplied Process Type: Local Authority Air Pollution Control Description: PG3/1Blending, packing, loading and use of bulk cement **Status: Authorisation revokedRevoked** Positional Accuracy: Manually positioned to the address or location	A19SW (NE)	518	2	437894 408522
16	**Local Authority Pollution Prevention and Controls** Name: Intake 5 Service Station Location: Intake 5 Filling Station, Burton Road, Barnsley, South Yorkshire, S71 2PA Authority: Barnsley Metropolitan Borough Council, Environmental Health and Trading Standards Permit Reference: PPC/B/69 Dated: 22nd March 1999 Process Type: Local Authority Pollution Prevention and Control Description: PG1/14 Petrol filling station **Status: Permitted** Positional Accuracy: Automatically positioned to the address	A12NW (W)	625	2	436726 408033
17	**Local Authority Pollution Prevention and Controls** Name: Engineering Services Dlo Location: Smithies Lane Depot, Smithies Lane, Barnsley, S71 1NL Authority: Barnsley Metropolitan Borough Council, Environmental Health and Trading Standards Permit Reference: Ppc/B/28 Dated: 13th October 1993 Process Type: Local Authority Pollution Prevention and Control Description: PG3/16 Mobile screening and crushing processes **Status: Permitted** Positional Accuracy: Located by supplier to within 10m	A14NE (E)	812	2	438400 408232
18	**Local Authority Pollution Prevention and Controls** Name: E J Lidster (Construction) Ltd Location: Arundun House, Lund Lane, Barnsley, South Yorkshire Authority: Barnsley Metropolitan Borough Council, Environmental Health and Trading Standards Permit Reference: PPC/B/13 Dated: 13th August 1998 Process Type: Local Authority Pollution Prevention and Control Description: PG3/16 Mobile screening and crushing processes **Status: Permitted** Positional Accuracy: Manually positioned to the address or location	A9SW (SE)	831	2	438021 407152
18	**Local Authority Pollution Prevention and Controls** Name: Ej Lidster Construction Ltd Location: Arunden House, Lund Lane, Burton Grange, Barnsley, South Yorkshire, S71 5pa Authority: Rotherham Metropolitan Borough Council, Planning Department Permit Reference: Not Supplied Dated: Not Supplied 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	A9SW (SE)	831	3	438030 407159
19	**Local Authority Pollution Prevention and Control Enforcements** Location: Burton Road, Monk Bretton, Barnsley, S71 2QG Type: Air Pollution Control Enforcement Notice Reference: ippc/a2/01 Date Issued: Not Supplied Enforcement Date: Not Supplied Details: Not Supplied Positional Accuracy: Located by supplier to within 10m	A18SE (NE)	557	2	437790 408620
	Nearest Surface Water Feature	A13NE (NW)	0	-	437480 407964

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
20	**Pollution Incidents to Controlled Waters** Property Type: Water Company Sewage: Foul Sewer Location: Station Road, LUNDWOOD Authority: Environment Agency, North East Region Pollutant: Sewage - Storm Overflow Note: No Fish Killed Incident Date: 6th April 1997 Incident Reference: SH970114 Catchment Area: Dearne Tributaries Receiving Water: Freshwater Stream/River Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A8NE (S)	298	1	437500 407500
21	**Pollution Incidents to Controlled Waters** Property Type: Other General Premises Location: A628 At Tumbling Lane, Lundwood, BARNSLEY Authority: Environment Agency, North East Region Pollutant: Crude Sewage Note: No Fish Killed Incident Date: 6th September 1995 Incident Reference: SH950037 Catchment Area: Dearne Tributaries Receiving Water: Freshwater Stream/River Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A18SE (NE)	336	1	437780 408380
22	**Pollution Incidents to Controlled Waters** Property Type: Water Company Sewage: Foul Sewer Location: Edderthorpe Lane/Rail Viadct Dearne 11 Authority: Environment Agency, North East Region Pollutant: Crude Sewage Note: Not Supplied Incident Date: 12th July 1990 Incident Reference: 112612 Catchment Area: Not Given Receiving Water: Freshwater Stream/River Cause of Incident: Not Given Incident Severity: Category 2 - Significant Incident Positional Accuracy: Located by supplier to within 100m	A14NW (NE)	414	1	438000 408200
23	**Pollution Incidents to Controlled Waters** Property Type: Water Company Sewage: Storm Overflow Location: Tumbling Lane, Lundwood, BARNSLEY Authority: Environment Agency, North East Region Pollutant: Crude Sewage Note: Fish Killed: No Information Incident Date: 8th February 1996 Incident Reference: SH960050 Catchment Area: Dearne Tributaries Receiving Water: Freshwater Stream/River Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A19SW (NE)	461	1	437900 408445
23	**Pollution Incidents to Controlled Waters** Property Type: Water Company Sewage: Storm Overflow Location: Tumbling Lane, Lundwood, BARNSLEY Authority: Environment Agency, North East Region Pollutant: Crude Sewage Note: Pollution Found; Fish Killed: No Information Incident Date: 8th February 1996 Incident Reference: SH960050 Catchment Area: Dearne Tributaries Receiving Water: Freshwater Stream/River Cause of Incident: Unknown Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A19SW (NE)	464	1	437900 408450
23	**Pollution Incidents to Controlled Waters** Property Type: Miscellaneous Premises: Unknown Location: Edderthorpe Lane/Rail Viadct Dearne 11 Authority: Environment Agency, North East Region Pollutant: Oils - Diesel (Including Agricultural) Note: Not Supplied Incident Date: 19th October 1994 Incident Reference: 153325 Catchment Area: Not Given Receiving Water: Freshwater Stream/River Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A19SW (NE)	499	1	437900 408495

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
24	**Pollution Incidents to Controlled Waters** Property Type: Industrial Premises Location: Grange Bridge A633 /, Road Bridge A628 Dearne 14 Authority: Environment Agency, North East Region Pollutant: Oils - Diesel (Including Agricultural) Note: Not Supplied Incident Date: 15th March 1994 Incident Reference: 150227 Catchment Area: Not Given Receiving Water: Freshwater Stream/River Cause of Incident: Not Given Incident Severity: Category 2 - Significant Incident Positional Accuracy: Located by supplier to within 100m	A18SE (N)	504	1	437600 408600
25	**Pollution Incidents to Controlled Waters** Property Type: Private Sewage (Non-PLC): Water Treatment Works Location: Cudworth Dyke Authority: Environment Agency, North East Region Pollutant: Surcharged Sewage Note: No Fish Killed Incident Date: 9th September 1997 Incident Reference: SH970482 Catchment Area: Doe Lea And Tributaries Receiving Water: Freshwater Stream/River Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A14NW (NE)	511	1	438100 408195
25	**Pollution Incidents to Controlled Waters** Property Type: Water Company Sewage: Foul Sewer Location: Edderthorpe Lane/Rail Viadct Dearne 11 Authority: Environment Agency, North East Region Pollutant: Unknown Sewage Note: Not Supplied Incident Date: 27th December 1993 Incident Reference: 149341 Catchment Area: Not Given Receiving Water: Freshwater Stream/River Cause of Incident: Not Given Incident Severity: Category 2 - Significant Incident Positional Accuracy: Located by supplier to within 100m	A14NW (NE)	512	1	438100 408200
26	**Pollution Incidents to Controlled Waters** Property Type: Other General Premises Location: Edderthorpe Lane/Rail Viadct Dearne 11 Authority: Environment Agency, North East Region Pollutant: Mud/Clay/Soil Note: Not Supplied Incident Date: 21st March 1990 Incident Reference: 108833 Catchment Area: Not Given Receiving Water: Freshwater Stream/River Cause of Incident: Not Given Incident Severity: Category 2 - Significant Incident Positional Accuracy: Located by supplier to within 100m	A19SW (NE)	541	1	438100 408300
27	**Pollution Incidents to Controlled Waters** Property Type: Water Company Sewage: Storm Overflow Location: Barnsley Road, CUDWORTH Authority: Environment Agency, North East Region Pollutant: Sewage - Storm Overflow Note: No Fish Killed Incident Date: 31st January 1997 Incident Reference: SH970034 Catchment Area: Dearne Tributaries Receiving Water: Freshwater Stream/River Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A19SW (NE)	569	1	438000 408500
28	**Pollution Incidents to Controlled Waters** Property Type: Water Company Sewage: Storm Overflow Location: Station Road, Cudworth Dyke, Lundwood, CUDWORTH Authority: Environment Agency, North East Region Pollutant: Sewage - Storm Overflow Note: No Fish Killed Incident Date: 14th June 1996 Incident Reference: SH960285 Catchment Area: Dearne Tributaries Receiving Water: Freshwater Stream/River Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A19SE (NE)	586	1	438150 408295

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
29	**Pollution Incidents to Controlled Waters** Property Type: Water Company Sewage: Storm Overflow Location: Station Road, Cudworth Dyke, LUNDWOOD Authority: Environment Agency, North East Region Pollutant: Sewage - Storm Overflow Note: Pollution Found; No Fish Killed Incident Date: 14th June 1996 Incident Reference: SH960285 Catchment Area: Dearne Tributaries Receiving Water: Freshwater Stream/River Cause of Incident: Unknown Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A19SE (NE)	587	1	438150 408300
29	**Pollution Incidents to Controlled Waters** Property Type: Water Company Sewage: Storm Overflow Location: Watercourse At Station Road, Lundwood, BARNSLEY Authority: Environment Agency, North East Region Pollutant: Sewage - Storm Overflow Note: Cudworth Dyke; Fish Killed: No Information Incident Date: 21st July 1998 Incident Reference: SH980292 Catchment Area: Dearne Tributaries Receiving Water: Freshwater Stream/River Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A19SE (NE)	631	1	438195 408305
29	**Pollution Incidents to Controlled Waters** Property Type: Water Company Sewage: Foul Sewer Location: Edderthorpe Lane/Rail Viadct Dearne 11 Authority: Environment Agency, North East Region Pollutant: Unknown Sewage Note: Not Supplied Incident Date: 26th April 1992 Incident Reference: 133100 Catchment Area: Not Given Receiving Water: Freshwater Stream/River Cause of Incident: Not Given Incident Severity: Category 2 - Significant Incident Positional Accuracy: Located by supplier to within 100m	A19SE (NE)	633	1	438200 408295
29	**Pollution Incidents to Controlled Waters** Property Type: Water Company Sewage: Foul Sewer Location: Edderthorpe Lane/Rail Viadct Dearne 11 Authority: Environment Agency, North East Region Pollutant: Crude Sewage Note: Not Supplied Incident Date: 5th June 1991 Incident Reference: 123031 Catchment Area: Not Given Receiving Water: Freshwater Stream/River Cause of Incident: Not Given Incident Severity: Category 2 - Significant Incident Positional Accuracy: Located by supplier to within 100m	A19SE (NE)	635	1	438200 408300
29	**Pollution Incidents to Controlled Waters** Property Type: Other General Premises Location: Lundwood, BARNSLEY Authority: Environment Agency, North East Region Pollutant: Rubbish Note: Fish Killed: No Information Incident Date: 29th May 1996 Incident Reference: SH960218 Catchment Area: Dearne Tributaries Receiving Water: Freshwater Stream/River Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A19SE (NE)	636	1	438200 408305
29	**Pollution Incidents to Controlled Waters** Property Type: Other General Premises Location: Lundwood, BARNSLEY Authority: Environment Agency, North East Region Pollutant: Rubbish Note: Pollution Found; Fish Killed: No Information Incident Date: 29th May 1996 Incident Reference: SH960218 Catchment Area: Dearne Tributaries Receiving Water: Freshwater Stream/River Cause of Incident: Unknown Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A19SE (NE)	638	1	438205 408295

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
29	**Pollution Incidents to Controlled Waters** Property Type: Water Company Sewage: Storm Overflow Location: Station Road, LUNDWOOD Authority: Environment Agency, North East Region Pollutant: Sewage - Storm Overflow Note: Pollution Found; No Fish Killed Incident Date: 13th August 1996 Incident Reference: SH960364 Catchment Area: Dearne Tributaries Receiving Water: Freshwater Stream/River Cause of Incident: Unknown Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A19SE (NE)	639	1	438205 408300
29	**Pollution Incidents to Controlled Waters** Property Type: Water Company Sewage: Storm Overflow Location: Station Road, LUNDWOOD Authority: Environment Agency, North East Region Pollutant: Sewage - Storm Overflow Note: Watercourse :Cudworth Dyke; From Barnsley Canal (Disused) To River Dearne Fish Killed: No Information Incident Date: 14th March 1998 Incident Reference: SH980094 Catchment Area: Dearne Tributaries Receiving Water: Freshwater Stream/River Cause of Incident: Unknown Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A19SE (NE)	641	1	438205 408305
30	**Pollution Incidents to Controlled Waters** Property Type: Industrial Premises Location: Edderthorpe Lane/Rail Viadct Dearne 11 Authority: Environment Agency, North East Region Pollutant: Surface Water Note: Not Supplied Incident Date: 29th October 1992 Incident Reference: 138101 Catchment Area: Not Given Receiving Water: Freshwater Stream/River Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A19SW (NE)	587	1	437900 408600
31	**Pollution Incidents to Controlled Waters** Property Type: Water Company Sewage: Foul Sewer Location: Edderthorpe Lane/Rail Viadct Dearne 11 Authority: Environment Agency, North East Region Pollutant: Unknown Sewage Note: Not Supplied Incident Date: 25th August 1990 Incident Reference: 115508 Catchment Area: Not Given Receiving Water: Freshwater Stream/River Cause of Incident: Not Given Incident Severity: Category 2 - Significant Incident Positional Accuracy: Located by supplier to within 100m	A8SW (S)	630	1	437300 407200
32	**Pollution Incidents to Controlled Waters** Property Type: Surface Water Sewers Location: Footbridge/ Road Bridge B6428 Dearne 19 Authority: Environment Agency, North East Region Pollutant: Unknown Sewage Note: Not Supplied Incident Date: 10th January 1990 Incident Reference: 106742 Catchment Area: Not Given Receiving Water: Freshwater Stream/River Cause of Incident: Not Given Incident Severity: Category 1 - Major Incident Positional Accuracy: Located by supplier to within 100m	A19SW (NE)	640	1	438000 408595
32	**Pollution Incidents to Controlled Waters** Property Type: Surface Water Sewers Location: Edderthorpe Lane/Rail Viadct Dearne 11 Authority: Environment Agency, North East Region Pollutant: Unknown Sewage Note: Not Supplied Incident Date: 12th September 1991 Incident Reference: 126316 Catchment Area: Not Given Receiving Water: Freshwater Stream/River Cause of Incident: Not Given Incident Severity: Category 2 - Significant Incident Positional Accuracy: Located by supplier to within 100m	A19SW (NE)	644	1	438000 408600

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
33	**Pollution Incidents to Controlled Waters** Property Type: Water Company Sewage: Foul Sewer Location: Lund Lane Authority: Environment Agency, North East Region Pollutant: Unknown Sewage Note: Not Supplied Incident Date: 6th January 1989 Incident Reference: 6729 Catchment Area: Not Given Receiving Water: Freshwater Stream/River Cause of Incident: Not Given Incident Severity: Category 2 - Significant Incident Positional Accuracy: Located by supplier to within 100m	A19SW (NE)	707	1	438100 408595
33	**Pollution Incidents to Controlled Waters** Property Type: Water Company Sewage: Foul Sewer Location: Edderthorpe Lane/Rail Viadct Dearne 11 Authority: Environment Agency, North East Region Pollutant: Unknown Sewage Note: Not Supplied Incident Date: 7th June 1993 Incident Reference: 144947 Catchment Area: Not Given Receiving Water: Freshwater Stream/River Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A19SW (NE)	710	1	438100 408600
33	**Pollution Incidents to Controlled Waters** Property Type: Other General Premises Location: Edderthorpe Lane/Rail Viadct Dearne 11 Authority: Environment Agency, North East Region Pollutant: Unknown Sewage Note: Not Supplied Incident Date: 4th June 1990 Incident Reference: 111221 Catchment Area: Not Given Receiving Water: Freshwater Stream/River Cause of Incident: Not Given Incident Severity: Category 2 - Significant Incident Positional Accuracy: Located by supplier to within 100m	A19SW (NE)	710	1	438105 408595
34	**Pollution Incidents to Controlled Waters** Property Type: Industrial: Other Location: Plm Redfearn Glass, Monk Bretton, BARNSLEY Authority: Environment Agency, North East Region Pollutant: Oils - Other Oil Note: No Fish Killed Incident Date: 9th November 1995 Incident Reference: SH950131 Catchment Area: Dearne Tributaries Receiving Water: Freshwater Stream/River Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A18NE (N)	711	1	437500 408800
35	**Pollution Incidents to Controlled Waters** Property Type: Surface Water Sewers Location: Edderthorpe Lane/Rail Viadct Dearne 11 Authority: Environment Agency, North East Region Pollutant: Unknown Sewage Note: Not Supplied Incident Date: 21st October 1991 Incident Reference: 127796 Catchment Area: Not Given Receiving Water: Freshwater Stream/River Cause of Incident: Not Given Incident Severity: Category 2 - Significant Incident Positional Accuracy: Located by supplier to within 100m	A19NW (NE)	720	1	438000 408695
35	**Pollution Incidents to Controlled Waters** Property Type: Water Company Sewage: Sewage Treatment Works Location: Edderthorpe Lane/Rail Viadct Dearne 11 Authority: Environment Agency, North East Region Pollutant: Unknown Sewage Note: Not Supplied Incident Date: 24th July 1990 Incident Reference: 112941 Catchment Area: Not Given Receiving Water: Freshwater Stream/River Cause of Incident: Not Given Incident Severity: Category 1 - Major Incident Positional Accuracy: Located by supplier to within 100m	A19NW (NE)	725	1	438000 408700

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
36	**Pollution Incidents to Controlled Waters** Property Type: Water Company Sewage: Storm Overflow Location: Station Road, CUDWORTH Authority: Environment Agency, North East Region Pollutant: Sewage - Storm Overflow Note: No Fish Killed Incident Date: 17th April 1997 Incident Reference: SH970124 Catchment Area: Dearne Tributaries Receiving Water: Freshwater Stream/River Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A19SE (NE)	729	1	438300 408295
36	**Pollution Incidents to Controlled Waters** Property Type: Water Company Sewage: Storm Overflow Location: Station Road, Lundwood, BARNSLEY Authority: Environment Agency, North East Region Pollutant: Sewage - Storm Overflow Note: Pollution Found; No Fish Killed Incident Date: 5th May 1996 Incident Reference: SH960198 Catchment Area: Dearne Tributaries Receiving Water: Freshwater Stream/River Cause of Incident: Unknown Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A19SE (NE)	730	1	438300 408300
36	**Pollution Incidents to Controlled Waters** Property Type: Water Company Sewage: Storm Overflow Location: Station Road, Lundwood, BARNSLEY Authority: Environment Agency, North East Region Pollutant: Sewage - Storm Overflow Note: No Fish Killed Incident Date: 5th May 1996 Incident Reference: SH960198 Catchment Area: Dearne Tributaries Receiving Water: Freshwater Stream/River Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A19SE (NE)	733	1	438305 408295
37	**Pollution Incidents to Controlled Waters** Property Type: Water Company Sewage: Foul Sewer Location: Edderthorpe Lane/Rail Viadct Dearne 11 Authority: Environment Agency, North East Region Pollutant: Sewage - Storm Overflow Note: Not Supplied Incident Date: 26th March 1992 Incident Reference: 131644 Catchment Area: Not Given Receiving Water: Freshwater Stream/River Cause of Incident: Not Given Incident Severity: Category 2 - Significant Incident Positional Accuracy: Located by supplier to within 100m	A19NW (NE)	781	1	438100 408695
37	**Pollution Incidents to Controlled Waters** Property Type: Surface Water Sewers Location: Edderthorpe Lane/Rail Viadct Dearne 11 Authority: Environment Agency, North East Region Pollutant: Unknown Sewage Note: Not Supplied Incident Date: 16th October 1991 Incident Reference: 127499 Catchment Area: Not Given Receiving Water: Freshwater Stream/River Cause of Incident: Not Given Incident Severity: Category 2 - Significant Incident Positional Accuracy: Located by supplier to within 100m	A19NW (NE)	784	1	438105 408695
37	**Pollution Incidents to Controlled Waters** Property Type: Water Company Sewage: Foul Sewer Location: Edderthorpe Lane/Rail Viadct Dearne 11 Authority: Environment Agency, North East Region Pollutant: Crude Sewage Note: Not Supplied Incident Date: 30th April 1990 Incident Reference: 109966 Catchment Area: Not Given Receiving Water: Freshwater Stream/River Cause of Incident: Not Given Incident Severity: Category 2 - Significant Incident Positional Accuracy: Located by supplier to within 100m	A19NW (NE)	784	1	438100 408700

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
37	**Pollution Incidents to Controlled Waters** Property Type: Water Company Sewage: Foul Sewer Location: Edderthorpe Lane/Rail Viadct Dearne 11 Authority: Environment Agency, North East Region Pollutant: Unknown Sewage Note: Not Supplied Incident Date: 17th November 1992 Incident Reference: 138925 Catchment Area: Not Given Receiving Water: Freshwater Stream/River Cause of Incident: Not Given Incident Severity: Category 2 - Significant Incident Positional Accuracy: Located by supplier to within 100m	A19NW (NE)	788	1	438105 408700
38	**Pollution Incidents to Controlled Waters** Property Type: Other General Premises Location: Edderthorpe Lane/Rail Viadct Dearne 11 Authority: Environment Agency, North East Region Pollutant: Unknown Note: Not Supplied Incident Date: 3rd September 1992 Incident Reference: 136704 Catchment Area: Not Given Receiving Water: Freshwater Stream/River Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A19NW (NE)	810	1	438000 408800
39	**Pollution Incidents to Controlled Waters** Property Type: Water Company Sewage: Foul Sewer Location: Rail Viaduct, /Grange Bridge A633 Dearne 13 Authority: Environment Agency, North East Region Pollutant: Unknown Sewage Note: Not Supplied Incident Date: 24th September 1989 Incident Reference: 103669 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 2 - Significant Incident Positional Accuracy: Located by supplier to within 100m	A12SW (W)	849	1	436500 407700
40	**Prosecutions Relating to Authorised Processes** Location: North Land Skips, The Yard, Burton Road Monk Bretton, Barnsley, Yorkshire, S71 5RS Prosecution Text: Ea News Release, Offences Where Keeping Controlled Waste And Disposing Waste By Burning. The Site Was Not Covered By A Waste Management Licence. Prosecution Act: Ea90 S33(1b)(1a) Hearing Date: 19th October 2000 Verdict: Guilty Fine: 10000 Costs: 2675.87 Positional Accuracy: Manually positioned to the address or location	A18SE (N)	497	1	437747 408571
41	**Registered Radioactive Substances** Name: Ardagh Glass Ltd Location: Burton Road Monk Bretton, BARNSLEY, South Yorkshire, S71 5RP Authority: Environment Agency, North East Region Permit Reference: CC0647 Dated: 13th June 2008 Process Type: Authorisation under S13 RSA for the disposal of Radioactive waste (was RSA60 S7) Description: Authorisation under RSA **Status: Authorisation either revoked or cancelledCancelled** Positional Accuracy: Manually positioned to the road within the address or location	A18SW (N)	384	1	437338 408377
	River Quality Name: Cudworth_Dyke GQA Grade: River Quality E Reach: Barnsley_Canal_(Disu_River_Dearn Estimated Distance (km): 2.6 Flow Rate: Flow less than 0.31 cumecs Flow Type: River Year: 2000	A14NE (E)	558	1	438154 408158

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
42	**Substantiated Pollution Incident Register** Authority: Environment Agency - North East Region, Yorkshire Area Incident Date: 4th February 2004 Incident Reference: 214672 Water Impact: Category 4 - No Impact Air Impact: Category 4 - No Impact Land Impact: Category 2 - Significant Incident Positional Accuracy: Located by supplier to within 10m Pollutant: General Biodegradable : Other	A19SW (NE)	497	1	437861 408519
42	**Substantiated Pollution Incident Register** Authority: Environment Agency - North East Region, Yorkshire Area Incident Date: 9th March 2004 Incident Reference: 221758 Water Impact: Category 4 - No Impact Air Impact: Category 4 - No Impact Land Impact: Category 2 - Significant Incident Positional Accuracy: Located by supplier to within 10m Pollutant: General Biodegradable : Other	A19SW (NE)	498	1	437864 408518
43	**Substantiated Pollution Incident Register** Authority: Environment Agency - North East Region, Yorkshire Area Incident Date: 27th August 2003 Incident Reference: 185386 Water Impact: Category 2 - Significant Incident Air Impact: Category 4 - No Impact Land Impact: Category 4 - No Impact Positional Accuracy: Located by supplier to within 10m Pollutant: General Biodegradable Materials and WastesAlgae	A24SW (NE)	981	1	438026 408980
44	**Water Abstractions** Operator: Redfearn Brothers Ltd Licence Number: 2/27/08/043 Permit Version: Not Supplied Location: Monk Bretton Glass Works, Monk Bretton, BARNSLEY Authority: Environment Agency, North East Region Abstraction: Cooling Abstraction Type: Not Supplied Source: Groundwater Daily Rate (m3): 9 Yearly Rate (m3): 3319 Details: Borehole; Status : Revoked Authorised Start: Not Supplied Authorised End: Not Supplied Permit Start Date: Not Supplied Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	A18SW (NW)	561	1	437205 408495
44	**Water Abstractions** Operator: Redfearn Brothers Limited Licence Number: 2/27/08/044 Permit Version: Not Supplied Location: Location Description Not Available Authority: Environment Agency, North East Region Abstraction: Cooling Abstraction Type: Not Supplied Source: Surface Daily Rate (m3): 3928 Yearly Rate (m3): 1433627 Details: Licence Revoked Authorised Start: Not Supplied Authorised End: Not Supplied Permit Start Date: Not Supplied Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	A18SW (NW)	565	1	437200 408495
44	**Water Abstractions** Operator: Redfearn Brothers Limited Licence Number: 2/27/08/045 Permit Version: Not Supplied Location: Location Description Not Available Authority: Environment Agency, North East Region Abstraction: Cooling Abstraction Type: Not Supplied Source: Groundwater Daily Rate (m3): 9 Yearly Rate (m3): 3319 Details: Sherwood Sandstone Licence Revoked Authorised Start: Not Supplied Authorised End: Not Supplied Permit Start Date: Not Supplied Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	A18SW (NW)	568	1	437200 408500

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
45	**Water Abstractions** Operator: Northern Strip Mining Limited Licence Number: 2/27/08/096 Permit Version: Not Supplied Location: Location Description Not Available Authority: Environment Agency, North East Region Abstraction: General Industrial Abstraction Type: Not Supplied Source: Surface Daily Rate (m3): 114 Yearly Rate (m3): 32000 Details: Licence Revoked Authorised Start: Not Supplied Authorised End: Not Supplied Permit Start Date: Not Supplied Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	A19NW (NE)	761	1	437900 408795
45	**Water Abstractions** Operator: Northern Strip Mining Limited Licence Number: 2/27/08/094 Permit Version: Not Supplied Location: Location Description Not Available Authority: Environment Agency, North East Region Abstraction: General Industrial Abstraction Type: Not Supplied Source: Surface Daily Rate (m3): 114 Yearly Rate (m3): 32000 Details: Licence Lapsed Authorised Start: Not Supplied Authorised End: Not Supplied Permit Start Date: Not Supplied Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	A19NW (NE)	765	1	437900 408800
	Water Abstractions Operator: C Soar & Sons Licence Number: 2/27/08/124 Permit Version: 100 Location: Well - Superficial Drift - Stairfoot Authority: Environment Agency, North East Region Abstraction: Other Industrial/Commercial/Public Services: General Washing/Process Washing Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): 16 Yearly Rate (m3): 4160 Details: Tank Row Off Grange Lane,Stairfoot,Barnsley,South Yorkshire,S71 5ad. Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 14th July 1999 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	(S)	1704	1	437150 406130
	Water Abstractions Operator: C Soar & Sons Licence Number: 2/27/08/124 Permit Version: 100 Location: Well - Superficial Drift - Stairfoot Authority: Environment Agency, North East Region Abstraction: Metal: General Washing/Process Washing Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Tank Row Off Grange Lane,Stairfoot,Barnsley,South Yorkshire,S71 5ad. Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 14th July 1999 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	(S)	1704	1	437150 406130

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Water Abstractions Operator: Barnsley Metropolitain District Council Licence Number: 2/27/08/115 Permit Version: Not Supplied Location: Dearne Valley Park, BARNSLEY Authority: Environment Agency, North East Region Abstraction: Pond level maintenance Abstraction Type: Not Supplied Source: Surface Daily Rate (m3): 18 Yearly Rate (m3): 2464000 Details: Status: Withdrawn Authorised Start: Not Supplied Authorised End: Not Supplied Permit Start Date: Not Supplied Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	A1NW (SW)	1852	1	435900 406700
	Water Abstractions Operator: Barnsley Metropolitan Borough Council Licence Number: 2/27/08/141 Permit Version: 1 Location: River Dearne Authority: Environment Agency, North East Region Abstraction: Municipal Grounds: Make-Up or Top Up Water Abstraction Type: Water may be abstracted from a single point Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Dearne Valley County Park,Pontefract Road,Hoyle Mill,Barnsley,South Yorkshire Authorised Start: 01 April Authorised End: 31 October Permit Start Date: 1st April 2008 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	(SW)	1918	1	435710 406850
	Water Abstractions Operator: Barnsley Metropolitan Borough Council Licence Number: 2/27/08/122 Permit Version: 101 Location: River Dearne Authority: Environment Agency, North East Region Abstraction: Municipal Grounds: Make-Up or Top Up Water Abstraction Type: Water may be abstracted from a single point Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Dearne Valley County Park,Pontefract Road,Hoyle Mill,Barnsley,South Yorkshire Authorised Start: 01 April Authorised End: 31 October Permit Start Date: 1st August 2002 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	(SW)	1918	1	435710 406850
	Water Abstractions Operator: Barnsley Metropolitan Borough Council Licence Number: 2/27/08/122 Permit Version: 100 Location: River Dearne Authority: Environment Agency, North East Region Abstraction: Crown and Government: Make-Up or Top Up Water Abstraction Type: Water may be abstracted from a single point Source: Surface Daily Rate (m3): 87 Yearly Rate (m3): 7800 Details: Dearne Valley County Park,Pontefract Road,Hoyle Mill,Barnsley,South Yorkshire Authorised Start: 01 April Authorised End: 31 October Permit Start Date: 7th October 1998 Permit End Date: Not Supplied Positional Accuracy: Approximate location provided by supplier	(SW)	1918	1	435710 406850
	Groundwater Vulnerability 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 11 South Pennines Scale: 1:100,000	A13SE (S)	0	1	437494 407940
	Drift Deposits None				

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Bedrock Aquifer Designations Aquifer Desination: Secondary Aquifer - A	A13SE (S)	0	4	437494 407940
	Superficial Aquifer Designations No Data Available				
	Extreme Flooding from Rivers or Sea without Defences None				
	Flooding from Rivers or Sea without Defences None				
	Areas Benefiting from Flood Defences None				
	Flood Water Storage Areas None				
	Flood Defences None				

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
46	**BGS Recorded Landfill Sites** Site Name: Littlewood Lane Tip Location: Lundwood, BARNSLEY, Yorks Authority: British Geological Survey, National Geoscience Information Service Ground Water: Information not available Surface Water: Information not available Geology: N/A Positional Accuracy: Positioned by the supplier Boundary Accuracy: Moderate	A8NW (SW)	449	4	437138 407456
47	**BGS Recorded Landfill Sites** Site Name: Klondyke Tip Location: Burton Road, BARNSLEY, South Yorkshire Authority: British Geological Survey, National Geoscience Information Service Ground Water: Information not available Surface Water: Information not available Geology: N/A Positional Accuracy: Positioned by the supplier Boundary Accuracy: Moderate	A19SW (NE)	575	4	437851 408614
48	**Historical Landfill Sites** Licence Holder: Barnsley Metropolitan Borough Council Location: Monk Bretton, Barnsley Name: Littleworth Lane Operator Location: Not Supplied Boundary Accuracy: As Supplied Provider Reference: EAHLD04375 First Input Date: Not Supplied Last Input Date: 31st December 1996 Specified Waste Type: Deposited Waste included Household Waste EA Waste Ref: Not Supplied Regis Ref: Not Supplied WRC Ref: 4400/0423 BGS Ref: Not Supplied Other Ref: (20)B	A13NE (NW)	0	1	437477 407966
49	**Historical Landfill Sites** Licence Holder: Mr E J Lidster Location: Monk Bretton, Barnsley Name: Land at Burton Road Operator Location: Arunden House, Lund Lane, Burton Grange, Barnsley Boundary Accuracy: As Supplied Provider Reference: EAHLD05743 First Input Date: 30th November 1983 Last Input Date: 31st December 1989 Specified Waste Type: Deposited Waste included Inert, Commercial and Household Waste EA Waste Ref: Not Supplied Regis Ref: Not Supplied WRC Ref: 4400/0490 BGS Ref: Not Supplied Other Ref: WD20 B399, 4400/B399, 20B399(88)	A13NW (NW)	286	1	437344 408266
50	**Historical Landfill Sites** Licence Holder: Mr D Higgs Location: Burton Road, Monk Bretton, Barnsley Name: Land adjacent to 480 - 502 Burton Road Operator Location: West Green Testing Centre, Burton Road, Monk Bretton, Barnsley Boundary Accuracy: As Supplied Provider Reference: EAHLD04376 First Input Date: 31st December 1984 Last Input Date: 31st December 1988 Specified Waste Type: Deposited Waste included Inert and Commercial Waste EA Waste Ref: Not Supplied Regis Ref: Not Supplied WRC Ref: 4400/0447 BGS Ref: Not Supplied Other Ref: Not Supplied	A18SE (N)	318	1	437637 408412

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
51	**Historical Landfill Sites** Licence Holder: Not Supplied Location: Lundwood, Barnsley, Yorkshire Name: Littleworth Lane Tip Operator Location: Not Supplied Boundary Accuracy: As Supplied Provider Reference: EAHLD31668 First Input Date: 31st December 1930 Last Input Date: 11th June 1972 Specified Waste Type: Deposited Waste included Inert, Industrial and Commercial Waste, and Liquid Sludge EA Waste Ref: Not Supplied Regis Ref: Not Supplied WRC Ref: Not Supplied BGS Ref: 1889 Other Ref: Not Supplied	A8NW (SW)	449	1	437138 407456
52	**Historical Landfill Sites** Licence Holder: Redland Purle (Cleanaway) Limited Location: Burton Road, Monk Bretton, Barnsley Name: Cudworth Landfill Site Operator Location: Claydons Lane, Rayleigh, Essex Boundary Accuracy: As Supplied Provider Reference: EAHLD04379 First Input Date: 31st December 1973 Last Input Date: 31st December 1977 Specified Waste Type: Deposited Waste included Inert, Industrial, Commercial, Household and Special Waste EA Waste Ref: Not Supplied Regis Ref: Not Supplied WRC Ref: 4400/0421 BGS Ref: Not Supplied Other Ref: WD20 B3, 4400/B3, 20B3(18)	A19SW (NE)	557	1	437823 408606
53	**Historical Landfill Sites** Licence Holder: Not Supplied Location: Burton Road, Barnsley, South Yorkshire Name: Klondyke Tip Operator Location: Not Supplied Boundary Accuracy: As Supplied Provider Reference: EAHLD31671 First Input Date: 4th April 1972 Last Input Date: Not Supplied Specified Waste Type: Deposited Waste included Inert, Industrial and Commercial Waste EA Waste Ref: Not Supplied Regis Ref: Not Supplied WRC Ref: Not Supplied BGS Ref: 1893 Other Ref: Not Supplied	A19SW (NE)	575	1	437851 408614
54	**Historical Landfill Sites** Licence Holder: Messrs Heeley and Sanders Location: Cudworth, Barnsley, South Yorkshire Name: Former Cudworth Railway Station Operator Location: Not Supplied Boundary Accuracy: As Supplied Provider Reference: EAHLD33057 First Input Date: 8th September 1994 Last Input Date: Not Supplied Specified Waste Type: Deposited Waste included Inert Waste EA Waste Ref: 60543 Regis Ref: YQ1/L/MES008 WRC Ref: 4400/0569 BGS Ref: Not Supplied Other Ref: WD20 B1000, NE4240	A14NE (NE)	594	1	438165 408277

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
55	**Historical Landfill Sites** Licence Holder: P L M Redfearn Limited Location: Rear Of P L M Redfearn, Burton Road, Monk Bretton, Barnsley, South Yorkshire Name: P L M Redfearn Limited Operator Location: Burton Road, Monk Bretton, Barnsley, South Yorkshire Boundary Accuracy: As Supplied Provider Reference: EAHLD33058 First Input Date: 31st August 1990 Last Input Date: Not Supplied Specified Waste Type: Deposited Waste included Inert and Industrial Waste EA Waste Ref: 60587 Regis Ref: YQ1/L/PLM001 WRC Ref: 4400/0546 BGS Ref: Not Supplied Other Ref: WD20/B771, 4400/B771, NE2111	A18NW (N)	674	1	437417 408745
56	**Historical Landfill Sites** Licence Holder: Not Supplied Location: Newlands Avenue, Cudworth Name: Newland Avenue Operator Location: Not Supplied Boundary Accuracy: As Supplied Provider Reference: EAHLD04377 First Input Date: 31st December 1972 Last Input Date: Not Supplied Specified Waste Type: Not Supplied EA Waste Ref: Not Supplied Regis Ref: Not Supplied WRC Ref: Not Supplied BGS Ref: Not Supplied Other Ref: (157)B, 4400/(157)	A14NE (E)	754	1	438333 408271
57	**Historical Landfill Sites** Licence Holder: Neepsend / North Strip Mining / B and H Fuel Limited Location: Off Burton Road, Monk Bretton, Barnsley Name: Cudworth Tip Site Operator Location: Not Supplied Boundary Accuracy: As Supplied Provider Reference: EAHLD34624 First Input Date: Not Supplied Last Input Date: Not Supplied Specified Waste Type: Not Supplied EA Waste Ref: Not Supplied Regis Ref: Not Supplied WRC Ref: 4400/0456 BGS Ref: Not Supplied Other Ref: Not Supplied	A18NE (N)	762	1	437538 408856
58	**Historical Landfill Sites** Licence Holder: R Armstrong Location: Cudworth, Barnsley Name: Bleach Croft Farm Operator Location: Bleach Croft Farm, Cudworth, Barnsley Boundary Accuracy: As Supplied Provider Reference: EAHLD04380 First Input Date: 30th November 1987 Last Input Date: 31st December 1994 Specified Waste Type: Deposited Waste included Inert and Commercial Waste EA Waste Ref: Not Supplied Regis Ref: Not Supplied WRC Ref: 4400/0446 BGS Ref: Not Supplied Other Ref: WD20 B330, WD20 B815, 4400/B330, 20B815, 20B330(43)	A19NW (NE)	763	1	438100 408673
59	**Licensed Waste Management Facilities (Landfill Boundaries)** Name: Former Cudworth Railway Station Licence Number: 60543 Location: Cudworth, Barnsley, S Yorks Licence Holder: Messrs Heeley & Sanders Authority: Environment Agency - North East Region, Ridings Area Site Category: Landfills Taking Non-biodegradeable Wastes (Not Construction) Max Input Rate: Large (Equal to or greater than 75,000 tonnes per year) **Licence Status: Inactive** Issued 8th September 1994 Positional Accuracy: Positioned by the supplier Boundary Accuracy: As Supplied	A14NE (NE)	592	1	438170 408261

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
60	**Licensed Waste Management Facilities (Landfill Boundaries)** Name: P L M Redfearn Ltd Licence Number: 60587 Location: Rear Of P L M Redfearn, Burton Road, Monk Bretton, Barnsley, S Yorks, S71 2QG Licence Holder: P L M Redfearn Ltd Authority: Environment Agency - North East Region, Ridings Area Site Category: Industrial Waste Landfills Max Input Rate: Small (Less than 25,000 tonnes per year) **Licence Status:** **Inactive** Issued 31st August 1990 Positional Accuracy: Positioned by the supplier Boundary Accuracy: As Supplied	A18NW (N)	675	1	437394 408739
61	**Licensed Waste Management Facilities (Landfill Boundaries)** Name: R. Armstrong Licence Number: 60593 Location: Bleachcroft Farm, Barnsley Road, Cudworth, Barnsley, South Yorkshire, S72 8UX Licence Holder: Armstrong Mr R Authority: Environment Agency - North East Region, Yorkshire Area Site Category: Landfills Taking Non-biodegradeable Wastes (Not Construction) Max Input Rate: Not Supplied **Licence Status:** **Issued** Issued 15th April 1991 Positional Accuracy: Positioned by the supplier Boundary Accuracy: As Supplied	A19NW (NE)	902	1	438022 408893
62	**Licensed Waste Management Facilities (Landfill Boundaries)** Name: R. Armstrong Licence Number: 60593 Location: Bleachcroft Farm, Barnsley Road, Cudworth, Barnsley, South Yorkshire, S72 8UX Licence Holder: Armstrong Mr R Authority: Environment Agency - North East Region, Yorkshire Area Site Category: Landfills Taking Non-biodegradeable Wastes (Not Construction) Max Input Rate: Not Supplied **Licence Status:** **Issued** Issued 15th April 1991 Positional Accuracy: Positioned by the supplier Boundary Accuracy: As Supplied	A19NW (NE)	944	1	438129 408878
63	**Licensed Waste Management Facilities (Locations)** Licence Number: 65337 Location: Unit 1, The Brick Yard, Burton Road, Barnsley, South Yorkshire, S71 5RP Operator Name: Roddis Francis Lee Operator Location: Not Supplied Authority: Environment Agency - North East Region, Yorkshire Area Site Category: End of Life Vehicles **Licence Status:** **Issued** Issued: 24th June 2004 Last Modified: Not Supplied Expires: Not Supplied Suspended: Not Supplied Revoked: Not Supplied Surrendered: Not Supplied IPPC Reference: Not Supplied Positional Accuracy: Located by supplier to within 10m	A18SW (N)	323	1	437400 408350
64	**Licensed Waste Management Facilities (Locations)** Licence Number: 60601 Location: West Green Testing Centre, Burton Road, Monk Bretton, Barnsley, South Yorkshire, S71 5RS Operator Name: Dennis Higgs & Son Ltd Operator Location: Not Supplied Authority: Environment Agency - North East Region, Yorkshire Area Site Category: Metal Recycling Sites (Mixed) **Licence Status:** **Expired** Issued: 17th December 1992 Last Modified: Not Supplied Expires: Not Supplied Suspended: Not Supplied Revoked: Not Supplied Surrendered: Not Supplied IPPC Reference: Not Supplied Positional Accuracy: Located by supplier to within 100m	A18SE (N)	404	1	437600 408500

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
65	**Licensed Waste Management Facilities (Locations)** Licence Number: 60587 Location: Rear Of P L M Redfearn, Burton Road, Monk Bretton, Barnsley, South Yorkshire, S71 2QG Operator Name: P L M Redfearn Ltd Operator Location: Not Supplied Authority: Environment Agency - North East Region, Yorkshire Area Site Category: Industrial Waste Landfills **Licence Status: Surrendered** Issued: 31st August 1990 Last Modified: Not Supplied Expires: Not Supplied Suspended: Not Supplied Revoked: Not Supplied Surrendered: 17th February 2000 IPPC Reference: Not Supplied Positional Accuracy: Located by supplier to within 10m	A18NW (N)	607	1	437350 408650
66	**Licensed Waste Management Facilities (Locations)** Licence Number: 60543 Location: Cudworth, Barnsley, South Yorkshire Operator Name: Messrs Heeley & Sanders Operator Location: Not Supplied Authority: Environment Agency - North East Region, Yorkshire Area Site Category: Landfills Taking Non-biodegradeable Wastes (Not Construction) **Licence Status: Surrendered** Issued: 8th September 1994 Last Modified: Not Supplied Expires: Not Supplied Suspended: Not Supplied Revoked: Not Supplied Surrendered: 17th May 2001 IPPC Reference: Not Supplied Positional Accuracy: Located by supplier to within 100m	A14NE (E)	698	1	438300 408100
67	**Licensed Waste Management Facilities (Locations)** Licence Number: 60546 Location: The Brickyard, Burton Road, West Green, Barnsley, South Yorkshire, S71 4RP Operator Name: E J Lidster Construction Ltd Operator Location: Not Supplied Authority: Environment Agency - North East Region, Yorkshire Area Site Category: Transfer Stations Taking Non-biodegradable Wastes **Licence Status: Issued** Issued: 31st January 1994 Last Modified: Not Supplied Expires: Not Supplied Suspended: Not Supplied Revoked: Not Supplied Surrendered: Not Supplied IPPC Reference: Not Supplied Positional Accuracy: Located by supplier to within 100m	A19NW (NE)	725	1	438000 408700
68	**Licensed Waste Management Facilities (Locations)** Licence Number: 60593 Location: Bleachcroft Farm, Barnsley Road, Cudworth, Barnsley, South Yorkshire, S72 8UX Operator Name: Armstrong Mr R Operator Location: Not Supplied Authority: Environment Agency - North East Region, Yorkshire Area Site Category: Landfills Taking Non-biodegradeable Wastes (Not Construction) **Licence Status: Issued** Issued: 15th April 1991 Last Modified: Not Supplied Expires: Not Supplied Suspended: Not Supplied Revoked: Not Supplied Surrendered: Not Supplied IPPC Reference: Not Supplied Positional Accuracy: Located by supplier to within 100m	A19NW (NE)	947	1	438100 408900
	Local Authority Landfill Coverage Name: Barnsley Metropolitan Borough Council - Has supplied landfill data		0	2	437494 407940

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
69	**Local Authority Recorded Landfill Sites** Location: Not Supplied Reference: 20 Authority: Barnsley Metropolitan Borough Council, Environmental Health and Trading Standards **Last Reported Status:** **Unknown** Types of Waste: Not Supplied Date of Closure: Not Supplied Positional Accuracy: Positioned by the supplier Boundary Quality: Moderate	A13NE (NW)	0	2	437479 407965
70	**Local Authority Recorded Landfill Sites** Location: Not Supplied Reference: 88 Authority: Barnsley Metropolitan Borough Council, Environmental Health and Trading Standards **Last Reported Status:** **Unknown** Types of Waste: Not Supplied Date of Closure: Not Supplied Positional Accuracy: Positioned by the supplier Boundary Quality: Moderate	A13NW (NW)	310	2	437340 408271
71	**Local Authority Recorded Landfill Sites** Location: Not Supplied Reference: 163 Authority: Barnsley Metropolitan Borough Council, Environmental Health and Trading Standards **Last Reported Status:** **Unknown** Types of Waste: Not Supplied Date of Closure: Not Supplied Positional Accuracy: Positioned by the supplier Boundary Quality: Good	A18SE (N)	319	2	437636 408413
72	**Local Authority Recorded Landfill Sites** Location: Not Supplied Reference: 18 Authority: Barnsley Metropolitan Borough Council, Environmental Health and Trading Standards **Last Reported Status:** **Unknown** Types of Waste: Not Supplied Date of Closure: Not Supplied Positional Accuracy: Positioned by the supplier Boundary Quality: Moderate	A18SE (NE)	546	2	437806 408601
73	**Local Authority Recorded Landfill Sites** Location: Not Supplied Reference: 167 Authority: Barnsley Metropolitan Borough Council, Environmental Health and Trading Standards **Last Reported Status:** **Unknown** Types of Waste: Not Supplied Date of Closure: Not Supplied Positional Accuracy: Positioned by the supplier Boundary Quality: Moderate	A14NE (NE)	595	2	438176 408252
74	**Local Authority Recorded Landfill Sites** Location: Not Supplied Reference: 144 Authority: Barnsley Metropolitan Borough Council, Environmental Health and Trading Standards **Last Reported Status:** **Unknown** Types of Waste: Not Supplied Date of Closure: Not Supplied Positional Accuracy: Positioned by the supplier Boundary Quality: Moderate	A18NW (N)	674	2	437396 408739
75	**Local Authority Recorded Landfill Sites** Location: Not Supplied Reference: 157 Authority: Barnsley Metropolitan Borough Council, Environmental Health and Trading Standards **Last Reported Status:** **Unknown** Types of Waste: Not Supplied Date of Closure: Not Supplied Positional Accuracy: Positioned by the supplier Boundary Quality: Moderate	A14NE (E)	759	2	438337 408271

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
76	**Local Authority Recorded Landfill Sites** Location: Not Supplied Reference: 43 Authority: Barnsley Metropolitan Borough Council, Environmental Health and Trading Standards **Last Reported Status:** **Unknown** Types of Waste: Not Supplied Date of Closure: Not Supplied Positional Accuracy: Positioned by the supplier Boundary Quality: Moderate	A19NW (NE)	771	2	438099 408684
77	**Local Authority Recorded Landfill Sites** Location: Not Supplied Reference: 54 Authority: Barnsley Metropolitan Borough Council, Environmental Health and Trading Standards **Last Reported Status:** **Unknown** Types of Waste: Not Supplied Date of Closure: Not Supplied Positional Accuracy: Positioned by the supplier Boundary Quality: Moderate	A18NE (N)	805	2	437586 408901
78	**Local Authority Recorded Landfill Sites** Location: Not Supplied Reference: 43 Authority: Barnsley Metropolitan Borough Council, Environmental Health and Trading Standards **Last Reported Status:** **Unknown** Types of Waste: Not Supplied Date of Closure: Not Supplied Positional Accuracy: Positioned by the supplier Boundary Quality: Moderate	A19NW (NE)	943	2	438122 408880
79	**Registered Landfill Sites** Licence Holder: R J Lidster Licence Reference: WD20 B 399 MOD 3 Site Location: Burton Road, Monk Bretton, Barnsley, South Yorkshire Licence Easting: 437340 Licence Northing: 408330 Operator Location: Arunden House, Lund Lane, Burton Green, BARNSLEY, South Yorkshire, S71 5PA Authority: Environment Agency - North East Region, Ridings Area Site Category: Landfill Max Input Rate: Medium (Equal to or greater than 25,000 and less than 75,000 tonnes per year) Waste Source Restrictions: No known restriction on source of waste Status: Licence lapsed/cancelled/defunct/not applicable/surrenderedCancelled Dated: 1st November 1983 Preceded By Licence: Not Given Superseded By Licence: Not Given Positional Accuracy: Manually positioned to the address or location Boundary Accuracy: Not Applicable Authorised Waste: Concrete Manuf.Waste - No Free Water Inert Non-Haz.Excav.Waste(Soil,Subsoil Non-Haz. Domestic Waste Prohibited Waste: Asbestos Of Any Type Liq/Slurry In Drums/Cont'Rs > 4 L Cap. Poisonous, Noxious, Polluting Wastes	A18SW (N)	349	1	437340 408330

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
80	**Registered Landfill Sites** Licence Holder: D Higgs Licence Reference: WD20 B 452 MOD 2 Site Location: Adj. 480-502 Burton Road, Monk Bretton, Barnsley, South Yorkshire Licence Easting: 437650 Licence Northing: 408500 Operator Location: Burton Road, Monk Bretton, Barnsley, South Yorkshire Authority: Environment Agency - North East Region, Ridings Area Site Category: Landfill Max Input Rate: Medium (Equal to or greater than 25,000 and less than 75,000 tonnes per year) Waste Source Restrictions: No known restriction on source of waste Status: Licence not applicable (partially revoked)Partially Revoked Dated: 1st December 1984 Preceded By Licence: Not Given Superseded By Licence: Not Given Positional Accuracy: Manually positioned to the address or location Boundary Accuracy: Not Applicable Authorised Waste: Brick Rubble, Hardcore Constr'N/Demol. Non-Haz/Non-Combust. Soil, Subsoil Prohibited Waste: All Forms Of Asbestos Liq/Slurry In Drum/Cont'Rs > 4 L Cap'Y Paper/Cardboard Waste Plasterboard Plastic Wood	A18SE (N)	407	1	437650 408500
81	**Registered Landfill Sites** Licence Holder: East Barnsley Project Licence Reference: WD20 B 454 Site Location: Littleworth Lane / Rotherham Road, Barnsley, South Yorkshire Licence Easting: 437200 Licence Northing: 407300 Operator Location: As Site Address Authority: Environment Agency - North East Region, Ridings Area Site Category: Landfill Max Input Rate: Large (Equal to or greater than 75,000 and less than 250,000 tonnes per year) Waste Source Restrictions: No known restriction on source of waste Status: Licence lapsed/cancelled/defunct/not applicable/surrenderedCancelled Dated: Not Supplied Preceded By Licence: Not Given Superseded By Licence: Not Given Positional Accuracy: Manually positioned to the address or location Boundary Accuracy: Not Applicable Authorised Waste: Soil/Subsoil Waste Ash Prohibited Waste: Asbestos	A8NW (SW)	566	1	437200 407300
82	**Registered Landfill Sites** Licence Holder: Cleanaway Ltd Licence Reference: WD20 B 3 MOD 1 Site Location: Cudworth Landfill, Burton Road, Monk Bretton, Barnsley, South Yorkshire Licence Easting: 437900 Licence Northing: 408700 Operator Location: The Drive, Warley, BRENTWOOD, Essex, CM13 3BE Authority: Environment Agency - North East Region, Ridings Area Site Category: Landfill Max Input Rate: Medium (Equal to or greater than 25,000 and less than 75,000 tonnes per year) Waste Source Restrictions: No known restriction on source of waste Status: Licence lapsed/cancelled/defunct/not applicable/surrenderedCancelled Dated: 1st January 1991 Preceded By Licence: Not Given Superseded By Licence: Not Given Positional Accuracy: Manually positioned to the address or location Boundary Accuracy: Not Applicable Authorised Waste: Clay, Sub/Topsoil	A19NW (NE)	674	1	437900 408700

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
83	**Registered Landfill Sites** Licence Holder: Messrs Heeley & Sanders Licence Reference: WD20 B1000 MOD 3 Site Location: Former Cudworth Railway Station, Cudworth, Barnsley, South Yorkshire Licence Easting: 438300 Licence Northing: 408100 Operator Location: 350 Midland Road, Royston, BARNSLEY, South Yorkshire, S71 4AZ Authority: Environment Agency - North East Region, Ridings Area Site Category: Landfill Max Input Rate: Medium (Equal to or greater than 25,000 and less than 75,000 tonnes per year) Waste Source Restrictions: No known restriction on source of waste Status: Licence has completion certificateSurrendered Dated: 8th September 1994 Preceded By Licence: Not Given Superseded By Licence: Not Given Positional Accuracy: Manually positioned to the address or location Boundary Accuracy: Not Applicable Authorised Waste: Inert Non-Combustible Constr/Demol.W. Max.Waste Permitted By Licence Prohibited Waste: Any Other Biodegradable Waste Asbestos In Any Form Paper Plasterboard Putrescible Waste Timber Waste N.O.S.	A14NE (E)	698	1	438300 408100
84	**Registered Landfill Sites** Licence Holder: PLM Redfearn GlassLtd Licence Reference: WD20 B 771 MOD 4 Site Location: Rear Of Plm Redfearn Glass, Monk Bretton, Barnsley, South Yorkshire Licence Easting: 437400 Licence Northing: 408800 Operator Location: Monk Bretton, BARNSLEY, South Yorkshire, S71 2QG Authority: Environment Agency - North East Region, Ridings Area Site Category: Landfill Max Input Rate: Very Small (Less than 10,000 tonnes per year) Waste Source Restrictions: Only waste produced on site Status: Licence has completion certificateSurrendered Dated: 1st September 1997 Preceded By Licence: WD20 B 771 MOD 3 Superseded By Licence: Not Given Positional Accuracy: Manually positioned to the address or location Boundary Accuracy: Not Applicable Authorised Waste: Excavation Waste, Soil, Subsoil General Constr'N/Demolition Wastes Glass Furnace Refractory Blocks Max.Waste Permitted By Licence Solid Glass Waste Prohibited Waste: Any Other Biodegradable Waste Asbestos Of Any Type Paper Plasterboard Putrescible Waste Timber	A18NW (N)	731	1	437400 408800

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
84	**Registered Landfill Sites** Licence Holder: PLM Redfearn GlassLtd Licence Reference: WD20 B 771 MOD 3 Site Location: Rear Of Plm Redfearn Glass, Monk Bretton, Barnsley, South Yorkshire Licence Easting: 437400 Licence Northing: 408800 Operator Location: Monk Bretton, BARNSLEY, South Yorkshire, S71 2QG Authority: Environment Agency - North East Region, Ridings Area Site Category: Landfill Max Input Rate: Small (Equal to or greater than 10,000 and less than 25,000 tonnes per year) Waste Source Restrictions: No known restriction on source of waste Status: Record supersededSuperseded Dated: 31st August 1990 Preceded By Licence: Not Given Superseded By Licence: WD20 B 771 MOD 4 Positional Accuracy: Manually positioned to the address or location Boundary Accuracy: Not Applicable Authorised Waste: Excavation Waste, Soil, Subsoil General Constr'N/Demolition Wastes Glass Furnace Refractory Blocks Max.Waste Permitted By Licence Solid Glass Waste Prohibited Waste: Liq/Sludges In Drums/Cont'Rs > 4l Capy	A18NW (N)	731	1	437400 408800
85	**Registered Landfill Sites** Licence Holder: R Armstrong Licence Reference: WD20 B 330 Site Location: Bleach Croft Farm, Cudworth, Barnsley, South Yorkshire Licence Easting: 438050 Licence Northing: 408850 Operator Location: As Site Address Authority: Environment Agency - North East Region, Ridings Area Site Category: Landfill Max Input Rate: Small (Equal to or greater than 10,000 and less than 25,000 tonnes per year) Waste Source Restrictions: No known restriction on source of waste Status: Licence lapsed/cancelled/defunct/not applicable/surrenderedCancelled Dated: 1st November 1981 Preceded By Licence: Not Given Superseded By Licence: Not Given Positional Accuracy: Manually positioned to the address or location Boundary Accuracy: Not Applicable Authorised Waste: Construction And Demolition Wastes Excavated Natural Materials $ Prohibited Waste: Liquids In Containers Over 4l Cap. Slurry In Containers Over 4l Cap.	A19NW (NE)	878	1	438050 408850
86	**Registered Landfill Sites** Licence Holder: R Armstrong Licence Reference: WD20 B 815 MOD 2 Site Location: Bleachcroft Farm, Cudworth, BARNSLEY, South Yorkshire, S72 8UX Licence Easting: 438030 Licence Northing: 408970 Operator Location: As Site Address Authority: Environment Agency - North East Region, Ridings Area Site Category: Landfill Max Input Rate: Small (Equal to or greater than 10,000 and less than 25,000 tonnes per year) Waste Source Restrictions: No known restriction on source of waste Status: Site closed (licence partially revoked)Site Closed Dated: 15th April 1991 Preceded By Licence: Not Given Superseded By Licence: Not Given Positional Accuracy: Manually positioned to the address or location Boundary Accuracy: Not Applicable Authorised Waste: Inert Non-Haz. Casting Sand Inert Solid Non-Haz. Excavation W. Inert Solid Non-Haz. Soil & Subsoil Inert, Non-Haz. Solid Constr'N/Demol. Max.Waste Permitted By Licence-Stated Prohibited Waste: Alll Forms Of Asbestos Liquid/Slurry In Drum/Cont'R > 4 L Cap Paper/Cardboard Waste Plasterboard Plastic Wood	A24SW (NE)	974	1	438030 408970

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
87	**Registered Waste Treatment or Disposal Sites** Licence Holder: A A Ogley & Son Ltd Licence Reference: WD20 B 654 Site Location: Burton Road (West Green Garage), Monk Bretton, Barnsley, South Yorkshire Operator Location: As Site Address Authority: Environment Agency - North East Region, Ridings Area Site Category: Scrapyard Max Input Rate: Small (Equal to or greater than 10,000 and less than 25,000 tonnes per year) Waste Source Restrictions: No known restriction on source of waste Licence Status: Licence lapsed/cancelled/defunct/not applicable/surrenderedCancelled Dated: 1st April 1989 Preceded By Licence: Not Given Superseded By Licence: Not Given Positional Accuracy: Manually positioned to the address or location Boundary Quality: Not Supplied Authorised Waste: Ferrous Metal Scrap Scrap Cars Prohibited Waste: Liquid Wastes	A18SE (NE)	451	1	437800 408500
87	**Registered Waste Treatment or Disposal Sites** Licence Holder: A A Ogley & Son Ltd Licence Reference: WD20 B 653 MOD 1 Site Location: Tumbling Lane, Monk Bretton, Barnsley, South Yorkshire Operator Location: Burton Road, Monk Bretton, Barnsley, South Yorkshire Authority: Environment Agency - North East Region, Ridings Area Site Category: Scrapyard Max Input Rate: Medium (Equal to or greater than 25,000 and less than 75,000 tonnes per year) Waste Source Restrictions: No known restriction on source of waste Licence Status: Licence lapsed/cancelled/defunct/not applicable/surrenderedCancelled Dated: 1st September 1993 Preceded By Licence: WD20 B 653 Superseded By Licence: Not Given Positional Accuracy: Manually positioned to the road within the address or location Boundary Quality: Not Supplied Authorised Waste: Elect. Switchgear/Motors Max.Stor Elect.Transformers/Equipment Ferrous Metal Scrap Non-Ferrous Metal Scrap Wet Cell Batteries Max.Stor Prohibited Waste: Waste N.O.S.	A19SW (NE)	475	1	437850 408500
87	**Registered Waste Treatment or Disposal Sites** Licence Holder: A A Ogley & Son Ltd Licence Reference: WD20 B 653 Site Location: Tumbling Lane, Monk Bretton, Barnsley, South Yorkshire Operator Location: Burton Road, Monk Bretton, Barnsley, South Yorkshire Authority: Environment Agency - North East Region, Ridings Area Site Category: Scrapyard Max Input Rate: Very Small (Less than 10,000 tonnes per year) Waste Source Restrictions: No known restriction on source of waste Licence Status: Record supersededSuperseded Dated: 1st April 1989 Preceded By Licence: Not Given Superseded By Licence: WD20 B 653 MOD 1 Positional Accuracy: Manually positioned to the road within the address or location Boundary Quality: Not Supplied Authorised Waste: Dry Cell Batteries Non-Ferrous Metal Scrap Prohibited Waste: Liquid Wastes Pcb'S	A19SW (NE)	475	1	437850 408500

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
88	**Registered Waste Treatment or Disposal Sites** Licence Holder: D Higgs & Son Ltd Licence Reference: WD20 B 912 MOD 4 Site Location: West Green Testing Centre, Burton Road, Monk Bretton, BARNSLEY, South Yorkshire, S71 5RS Operator Location: As Site Address Authority: Environment Agency - North East Region, Ridings Area Site Category: Scrapyard - with Transfer Station Max Input Rate: Very Small (Less than 10,000 tonnes per year) Waste Source Restrictions: No known restriction on source of waste Licence Status: Operational as far as is knownOperational Dated: 1st December 1992 Preceded By Licence: Not Given Superseded By Licence: Not Given Positional Accuracy: Manually positioned to the road within the address or location Boundary Quality: Not Supplied Authorised Waste: Commercial Vehicles Max.Stor Ferrous Metal Scrap Max.Stor Inert Non-Combust. Constr'N/Demol Wast Max.Waste Permitted By Licence Non-Ferrous Metal Scrap Prohibited Waste: Liquid Wastes	A18SE (N)	504	1	437700 408590
89	**Registered Waste Treatment or Disposal Sites** Licence Holder: E J Lidster Construction Ltd Licence Reference: WD20 B1030 MOD 2 Site Location: Burton Road / Pontefract Road, West Green, Barnsley, South Yorkshire Operator Location: Arunden House, Lund Lane, Burton Green, BARNSLEY, South Yorkshire, S71 5PA Authority: Environment Agency - North East Region, Ridings Area Site Category: Transfer - with treatment Max Input Rate: Medium (Equal to or greater than 25,000 and less than 75,000 tonnes per year) Waste Source Restrictions: No known restriction on source of waste Licence Status: Site not yet started Dated: 31st January 1994 Preceded By Licence: Not Given Superseded By Licence: Not Given Positional Accuracy: Manually positioned to the road within the address or location Boundary Quality: Not Supplied Authorised Waste: Building And Demolition Wastes Excavation Materials Max.Storage For Processing Max.Waste Permitted By Licence Prohibited Waste: Asbestos Liquid/Sludge Wastes Putrescible Waste	A19SW (NE)	644	1	438000 408600

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS 1:625,000 Solid Geology Description: Lower Westphalian (mainly Productive Coal Measures)	A13SE (S)	0	4	437494 407940
	BGS 1:625,000 Solid Geology Description: Upper Westphalian (including Pennant Measures)	A13SE (SE)	0	4	437535 407884
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 90 - 120 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 30 - 45 mg/kg	A13NE (N)	0	5	437494 408000
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 90 - 120 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 30 - 45 mg/kg	A13SE (S)	0	5	437494 407940
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 15 - 30 mg/kg	A13SE (SE)	0	5	437534 407868
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 90 - 120 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 30 - 45 mg/kg	A13SW (SW)	9	5	437378 407817
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 40 - 60 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 15 - 30 mg/kg	A13NE (E)	49	5	437659 408000

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 15 - 30 mg/kg	A13SW (S)	57	5	437438 407759
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 90 - 120 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 30 - 45 mg/kg	A13SE (SE)	116	5	437689 407832
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 90 - 120 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 30 - 45 mg/kg	A13SE (S)	142	5	437540 407663
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 40 - 60 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 15 - 30 mg/kg	A13NW (NW)	206	5	437325 408158
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 15 - 30 mg/kg	A13NW (W)	206	5	437166 408000
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 90 - 120 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 30 - 45 mg/kg	A13NW (W)	212	5	437159 408000

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 15 - 30 mg/kg	A13NW (W)	213	5	437136 408000
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 40 - 60 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 15 - 30 mg/kg	A13NW (W)	231	5	437141 408012
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 15 - 30 mg/kg	A12SE (W)	330	5	437000 407940
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 90 - 120 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 30 - 45 mg/kg	A12SE (W)	341	5	437000 407790
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 90 - 120 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 30 - 45 mg/kg	A18SW (NW)	344	5	437312 408327
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic Concentration: <15 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 15 - 30 mg/kg	A18SE (NE)	345	5	437739 408412

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 15 - 30 mg/kg	A12NE (W)	353	5	437000 408000
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 15 - 30 mg/kg	A14SW (SE)	362	5	437845 407649
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 90 - 120 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 30 - 45 mg/kg	A14SW (E)	389	5	438000 407940
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 90 - 120 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 30 - 45 mg/kg	A14NW (E)	389	5	438000 408000
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 15 - 30 mg/kg	A12NE (W)	393	5	437000 408087
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 90 - 120 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 30 - 45 mg/kg	A8NW (S)	395	5	437335 407436

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic Concentration: <15 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 15 - 30 mg/kg	A14NW (E)	445	5	438052 408041
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 40 - 60 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 15 - 30 mg/kg	A14SW (SE)	452	5	438000 407710
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 90 - 120 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 30 - 45 mg/kg	A8NW (S)	468	5	437467 407331
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 90 - 120 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 30 - 45 mg/kg	A12NE (NW)	494	5	437000 408242
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic Concentration: <15 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 15 - 30 mg/kg	A19SW (NE)	590	5	437949 408571
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 90 - 120 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 30 - 45 mg/kg	A14NE (NE)	604	5	438174 408280

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic Concentration: <15 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 15 - 30 mg/kg	A19SW (NE)	629	5	438000 408581
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 40 - 60 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 15 - 30 mg/kg	A14NE (E)	693	5	438293 408125
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic Concentration: <15 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 15 - 30 mg/kg	A14NE (E)	693	5	438303 408033
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 15 - 30 mg/kg	A14NE (E)	693	5	438299 408069
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 90 - 120 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 30 - 45 mg/kg	A14NE (E)	694	5	438304 408027
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 90 - 120 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 30 - 45 mg/kg	A14NE (E)	696	5	438307 408000

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 90 - 120 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 30 - 45 mg/kg	A17SE (NW)	711	5	436898 408461
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 90 - 120 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 30 - 45 mg/kg	A14NE (E)	723	5	438326 408099
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 90 - 120 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 30 - 45 mg/kg	A9SW (SE)	742	5	438000 407250
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 15 - 30 mg/kg	A17SE (NW)	745	5	436942 408511
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic Concentration: <15 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 15 - 30 mg/kg	A14NE (E)	755	5	438366 408000
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 40 - 60 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 15 - 30 mg/kg	A17SE (NW)	769	5	437000 408578

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 90 - 120 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 30 - 45 mg/kg	A19SE (NE)	779	5	438184 408611
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 90 - 120 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 30 - 45 mg/kg	A8SE (S)	798	5	437494 407000
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 40 - 60 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 15 - 30 mg/kg	A19SE (NE)	799	5	438208 408614
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 15 - 30 mg/kg	A8SE (S)	815	5	437659 407000
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 40 - 60 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 15 - 30 mg/kg	A14NE (E)	819	5	438412 408194
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 15 - 30 mg/kg	A12NW (W)	829	5	436546 408143

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 40 - 60 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 15 - 30 mg/kg	A8SE (S)	836	5	437746 407000
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 30 - 45 mg/kg	A8SE (S)	850	5	437788 407000
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 30 - 45 mg/kg	A7SE (SW)	894	5	437066 407000
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 90 - 120 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 30 - 45 mg/kg	A15NW (E)	899	5	438510 408000
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic Concentration: <15 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 15 - 30 mg/kg	A3NE (S)	900	5	437665 406914
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 90 - 120 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 30 - 45 mg/kg	A3NE (S)	902	5	437697 406919

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 15 - 30 mg/kg	A23SE (N)	904	5	437494 409000
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 90 - 120 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 30 - 45 mg/kg	A7SE (SW)	920	5	437000 407000
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 90 - 120 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 30 - 45 mg/kg	A19NE (NE)	929	5	438210 408796
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 15 - 30 mg/kg	A23SW (N)	930	5	437382 409000
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 40 - 60 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 15 - 30 mg/kg	A15NW (E)	942	5	438554 408000
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 90 - 120 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 30 - 45 mg/kg	A20SW (E)	942	5	438509 408344

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 30 - 45 mg/kg	A9SW (SE)	943	5	438000 407000
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic Concentration: <15 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 15 - 30 mg/kg	A24SW (N)	949	5	437888 409000
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 90 - 120 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 30 - 45 mg/kg	A19NE (NE)	952	5	438391 408624
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic Concentration: <15 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 15 - 30 mg/kg	A4NW (S)	968	5	437847 406896
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 15 - 30 mg/kg	A15NW (E)	975	5	438586 407959
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic Concentration: <15 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 15 - 30 mg/kg	A24SW (NE)	989	5	438000 409000

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
90	**BGS Recorded Mineral Sites** Site Name: Barnsley Colliery Methane Location: , Monk Bretton, Barnsley, South Yorkshire Source: British Geological Survey, National Geoscience Information Service Reference: 11413 Type: Liquid or Gas Extraction **Status: Dormant** Operator: Alkane Energy Uk Ltd Operator Location: Alkane Energy Uk Ltd, Edwinstowe House, High Street, Edwinstowe, Mansfield, Nottinghamshire, Ng21 9pr Periodic Type: Carboniferous Geology: Pennine Coal Measures Group Commodity: Abandoned Mine Methane Positional Accuracy: Located by supplier to within 10m	A13NW (W)	131	4	437240 407970
91	**BGS Recorded Mineral Sites** Site Name: Monk Bretton Colliery Location: , Monk Bretton, Barnsley, South Yorkshire Source: British Geological Survey, National Geoscience Information Service Reference: 13327 Type: Underground **Status: Ceased** Operator: British Coal - S Yorkshire Area Operator Location: British Coal - S Yorkshire Area, St George'S, 46 Thorne Road, Doncaster, South Yorkshire, Dn1 2jb Periodic Type: Carboniferous Geology: Pennine Middle Coal Measures Formation Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m	A13NW (NW)	286	4	437200 408130
92	**BGS Recorded Mineral Sites** Site Name: Cudworth Bridge Location: , Cudworth, Barnsley, South Yorkshire Source: British Geological Survey, National Geoscience Information Service Reference: 109933 Type: Opencast **Status: Ceased** Operator: Unknown Operator Operator Location: Unknown Operator Periodic Type: Carboniferous Geology: Pennine Middle Coal Measures Formation Commodity: Sandstone Positional Accuracy: Located by supplier to within 10m	A19SW (NE)	340	4	437825 408350
93	**BGS Recorded Mineral Sites** Site Name: Cudworth Junction Location: , Cudworth, Barnsley, South Yorkshire Source: British Geological Survey, National Geoscience Information Service Reference: 13328 Type: Opencast **Status: Ceased** Operator: Unknown Operator Operator Location: Unknown Operator Periodic Type: Carboniferous Geology: Pennine Middle Coal Measures Formation Commodity: Common Clay and Shale Positional Accuracy: Located by supplier to within 10m	A19NW (NE)	660	4	437865 408700
94	**BGS Recorded Mineral Sites** Site Name: Lund Wood Location: , Lundwood, Barnsley, South Yorkshire Source: British Geological Survey, National Geoscience Information Service Reference: 109934 Type: Opencast **Status: Ceased** Operator: Unknown Operator Operator Location: Unknown Operator Periodic Type: Carboniferous Geology: Glass Houghton Rock Commodity: Sandstone Positional Accuracy: Located by supplier to within 10m	A9SW (SE)	807	4	438073 407229

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
95	**BGS Recorded Mineral Sites** Site Name: Knowles Location: , Cudworth, Barnsley, South Yorkshire Source: British Geological Survey, National Geoscience Information Service Reference: 13329 Type: Opencast **Status: Ceased** Operator: Unknown Operator Operator Location: Unknown Operator Periodic Type: Carboniferous Geology: Mexborough Rock Commodity: Sandstone Positional Accuracy: Located by supplier to within 10m	A19NE (NE)	891	4	438240 408715
	BGS Measured Urban Soil Chemistry No data available				
	BGS Urban Soil Chemistry Averages No data available				
	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.	A13SE (S)	0	6	437494 407940
	Mining Instability Mining Evidence: Inconclusive Coal Mining Source: Ove Arup & Partners Boundary Quality: As Supplied	A13SE (S)	0	-	437494 407940
	Non Coal Mining Areas of Great Britain Risk: Highly Unlikely Source: British Geological Survey, National Geoscience Information Service	A13SE (S)	0	4	437494 407940
	Non Coal Mining Areas of Great Britain Risk: Highly Unlikely Source: British Geological Survey, National Geoscience Information Service	A13NW (NW)	207	4	437325 408159
	Potential for Collapsible Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13SE (S)	0	4	437494 407940
	Potential for Compressible Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13SE (SE)	0	4	437498 407936
	Potential for Compressible Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13SE (S)	0	4	437494 407940
	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	A13SE (SE)	0	4	437530 407898
	Potential for Landslide Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13SE (S)	0	4	437494 407940
	Potential for Landslide Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A13SW (S)	158	4	437409 407662
	Potential for Landslide Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A13SE (SE)	194	4	437742 407791
	Potential for Running Sand Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13SE (SE)	0	4	437498 407936
	Potential for Running Sand Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13SE (S)	0	4	437494 407940
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13SE (SE)	0	4	437560 407866

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13SE (S)	0	4	437494 407940
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13SE (SE)	104	4	437667 407811
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13NW (NW)	151	4	437306 408103
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13SE (SE)	221	4	437762 407767
	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	A13SE (S)	0	4	437494 407940
	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	A13SE (E)	0	4	437500 407940
	Radon Potential - Radon Affected Areas Affected Area: The property is in a lower probability radon area, as less than 1% of homes are above the action level Source: British Geological Survey, National Geoscience Information Service	A13SE (S)	0	4	437494 407940
	Radon Potential - Radon Affected Areas Affected Area: The property is in an intermediate probability radon area, as between 1 and 3% of homes are above the action level Source: British Geological Survey, National Geoscience Information Service	A13SE (E)	0	4	437500 407940

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
96	**Contemporary Trade Directory Entries** Name: Ygi Ltd Location: Unit H2, Bromcliffe Park, Barnsley, South Yorkshire, S71 5RN Classification: Gas Companies **Status: Active** Positional Accuracy: Automatically positioned to the address	A13NW (W)	236	-	437169 408047
97	**Contemporary Trade Directory Entries** Name: Inter Bespoke Contracts Location: Unit N2,Bromcliffe Pk, Barnsley, South Yorkshire, S71 5RN Classification: Joinery Manufacturers **Status: Inactive** Positional Accuracy: Manually positioned within the geographical locality	A12NE (W)	241	-	437120 407993
97	**Contemporary Trade Directory Entries** Name: Cudworth Concrete Fencing Location: Unit N1, Bromcliffe Park, Barnsley, South Yorkshire, S71 5RN Classification: Fencing Manufacturers **Status: Active** Positional Accuracy: Automatically positioned to the address	A12NE (W)	255	-	437109 408002
98	**Contemporary Trade Directory Entries** Name: Ornate Location: Unit 9G,Bromcliffe Pk, Barnsley, South Yorkshire, S71 5RN Classification: Wrought Ironwork **Status: Inactive** Positional Accuracy: Manually positioned to the road within the address or location	A13NW (NW)	280	-	437178 408110
99	**Contemporary Trade Directory Entries** Name: High Tek Doors Ltd Location: Unit G9,Bromcliffe Pk, Barnsley, South Yorkshire, S71 5RN Classification: Industrial Services **Status: Inactive** Positional Accuracy: Manually positioned to the road within the address or location	A13NW (NW)	296	-	437193 408138
99	**Contemporary Trade Directory Entries** Name: Barnsley Body Shop Ltd Location: Unit L9 - L10,Bromcliffe Pk, Barnsley, South Yorkshire, S71 5RN Classification: Car Body Repairs **Status: Active** Positional Accuracy: Manually positioned to the road within the address or location	A13NW (NW)	312	-	437208 408165
99	**Contemporary Trade Directory Entries** Name: Dust X Ltd Location: Unit J1,Burton Road Ind Est,Bromcliffe Pk, Barnsley, South Yorkshire, S71 5RN Classification: Dust Extraction Plant & Equipment Manufacturers **Status: Inactive** Positional Accuracy: Manually positioned within the geographical locality	A13NW (NW)	313	-	437180 408150
99	**Contemporary Trade Directory Entries** Name: Fearn Bros Location: Unit L14,Bromcliffe Pk, Burton Road/Monk Bretton, Barnsley, South Yorkshire, S71 5RN Classification: Glass Fibre Manufacturers **Status: Active** Positional Accuracy: Manually positioned to the road within the address or location	A13NW (NW)	321	-	437216 408180
99	**Contemporary Trade Directory Entries** Name: Rnd Autos & Wrought Irons Location: Unit 8,Bromcliffe Pk, Barnsley, South Yorkshire, S71 5RN Classification: Wrought Ironwork **Status: Inactive** Positional Accuracy: Manually positioned to the road within the address or location	A13NW (NW)	324	-	437220 408186
99	**Contemporary Trade Directory Entries** Name: Vinnie'S Cars & Commercials Location: Bromcliffe Pk, Barnsley, South Yorkshire, S71 5RN Classification: Car Body Repairs **Status: Active** Positional Accuracy: Manually positioned within the geographical locality	A13NW (NW)	336	-	437192 408183
100	**Contemporary Trade Directory Entries** Name: Tyke Petroleum (Barnsley) Ltd Location: Pontefract Road, Barnsley, South Yorkshire, S71 5JH Classification: Petrol Filling Stations **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A8NE (S)	307	-	437478 407492

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
101	**Contemporary Trade Directory Entries** Name: Thermo Trans Ltd Location: Unit C,Burton Road Business Pk,Bromcliffe Pk, Burton Rd/Monk Bretton, Barnsley, South Yorkshire, S71 5RN Classification: Refrigerators & Freezers - Servicing & Repairs **Status: Inactive** Positional Accuracy: Manually positioned to the address or location	A12NE (NW)	353	-	437113 408154
101	**Contemporary Trade Directory Entries** Name: Three Point Four Location: Unit F, Bromcliffe Park, Barnsley, South Yorkshire, S71 5RN Classification: Garage Services **Status: Active** Positional Accuracy: Automatically positioned to the address	A12NE (NW)	354	-	437114 408155
102	**Contemporary Trade Directory Entries** Name: C L Marshall Location: 49, Lund Avenue, Barnsley, South Yorkshire, S71 5NW Classification: Damp & Dry Rot Control **Status: Active** Positional Accuracy: Automatically positioned to the address	A8NE (SE)	402	-	437747 407482
103	**Contemporary Trade Directory Entries** Name: Steve Jones Ltd Location: Burton Rd, Barnsley, South Yorkshire, S71 5RP Classification: Builders' Merchants **Status: Inactive** Positional Accuracy: Manually positioned to the road within the address or location	A18SW (NW)	403	-	437282 408344
103	**Contemporary Trade Directory Entries** Name: N & D Building & Garden Supplies Location: Burton Road, Barnsley, South Yorkshire, S71 5RP Classification: Builders' Merchants **Status: Active** Positional Accuracy: Manually positioned to the road within the address or location	A18SW (NW)	419	-	437251 408328
103	**Contemporary Trade Directory Entries** Name: Ford Salvage Centre Location: Unit 1 The Yard,Burton Rd, Barnsley, South Yorkshire, S71 5RP Classification: Car Breakers & Dismantlers **Status: Active** Positional Accuracy: Manually positioned to the road within the address or location	A18SW (NW)	422	-	437245 408324
103	**Contemporary Trade Directory Entries** Name: D R D Refinishing Location: The Yard,Burton Rd, Barnsley, South Yorkshire, S71 5RP Classification: Garage Services **Status: Inactive** Positional Accuracy: Manually positioned to the road within the address or location	A18SW (NW)	432	-	437228 408317
104	**Contemporary Trade Directory Entries** Name: Ornate Wrought Ironwork Location: Unit L4 Burton Rd Ind Est, Mont Bretton, Barnsley, South Yorkshire, S71 5RN Classification: Wrought Ironwork **Status: Inactive** Positional Accuracy: Manually positioned within the geographical locality	A13NW (NW)	408	-	437180 408260
105	**Contemporary Trade Directory Entries** Name: Bower Fuels Coal Merchants Location: 327 Burton Rd, Barnsley, S Yorkshire, S71 2QF Classification: Coal & Smokeless Fuel Merchants & Distributors **Status: Active** Positional Accuracy: Manually positioned to the address or location	A12NE (NW)	431	-	437080 408226
106	**Contemporary Trade Directory Entries** Name: D M C Autos Location: Burton Rd, Barnsley, South Yorkshire, S71 5RP Classification: Garage Services **Status: Inactive** Positional Accuracy: Manually positioned to the road within the address or location	A18SE (N)	438	-	437558 408532
107	**Contemporary Trade Directory Entries** Name: A Cherry Location: 33, Lund Avenue, Barnsley, South Yorkshire, S71 5NW Classification: Coal & Smokeless Fuel Merchants & Distributors **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A8NE (S)	474	-	437725 407382

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
108	**Contemporary Trade Directory Entries** Name: Bailey Location: Tumbling La, Barnsley, South Yorkshire, S71 5SA Classification: Scrap Metal Merchants **Status: Inactive** Positional Accuracy: Manually positioned to the road within the address or location	A19SW (NE)	480	-	437844 408509
109	**Contemporary Trade Directory Entries** Name: Marco Garages Location: A, 339, Burton Road, Barnsley, South Yorkshire, S71 5RS Classification: Car Breakers & Dismantlers **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A18SE (N)	489	-	437699 408575
110	**Contemporary Trade Directory Entries** Name: Ogley Location: Westgreen Garage, Burton Road, Barnsley, South Yorkshire, S71 5RS Classification: Scrap Metal Merchants **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A18SE (NE)	513	-	437794 408571
110	**Contemporary Trade Directory Entries** Name: A A Ogley Location: Westgreen Garage, Burton Road, Barnsley, South Yorkshire, S71 5RS Classification: Scrap Metal Merchants **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A18SE (NE)	513	-	437794 408571
110	**Contemporary Trade Directory Entries** Name: Northland Location: Tumbling Lane,Burton Rd, Barnsley, South Yorkshire, S71 5RS Classification: Coal Companies **Status: Inactive** Positional Accuracy: Manually positioned to the road within the address or location	A19SW (NE)	544	-	437814 408596
111	**Contemporary Trade Directory Entries** Name: Northernlands Skip Hire Location: Tumbling Lane, Barnsley, South Yorkshire, S71 5SA Classification: Coal & Smokeless Fuel Merchants & Distributors **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A19SW (NE)	519	-	437896 408522
112	**Contemporary Trade Directory Entries** Name: Sas Location: 8, Carr Street, Barnsley, South Yorkshire, S71 2QA Classification: Road Haulage Services **Status: Active** Positional Accuracy: Automatically positioned to the address	A12NE (NW)	537	-	436955 408259
113	**Contemporary Trade Directory Entries** Name: Boss Wedding Car Hire Location: 14, Fish Dam Lane, Barnsley, South Yorkshire, S71 2PX Classification: Car Dealers **Status: Inactive** Positional Accuracy: Automatically positioned in the proximity of the address	A12NE (NW)	568	-	436873 408212
113	**Contemporary Trade Directory Entries** Name: Bretton Used Car Centre Location: 14, Fish Dam Lane, Barnsley, South Yorkshire, S71 2PX Classification: Car Dealers **Status: Inactive** Positional Accuracy: Automatically positioned in the proximity of the address	A12NE (NW)	568	-	436873 408212
114	**Contemporary Trade Directory Entries** Name: D L Cars Location: 14, Fish Dam Lane, Barnsley, South Yorkshire, S71 2PX Classification: Car Dealers **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A12NE (W)	600	-	436806 408167
115	**Contemporary Trade Directory Entries** Name: Northlands Skips Location: Burton Rd, Barnsley, South Yorkshire, S71 2HQ Classification: Waste Disposal Services **Status: Inactive** Positional Accuracy: Manually positioned to the road within the address or location	A12NW (W)	602	-	436748 408028
115	**Contemporary Trade Directory Entries** Name: Intake 5 Location: Intake 5 Filling Station, Burton Road, Barnsley, South Yorkshire, S71 2PA Classification: Petrol Filling Stations - 24 Hour **Status: Active** Positional Accuracy: Automatically positioned to the address	A12NW (W)	625	-	436726 408033

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
116	**Contemporary Trade Directory Entries** Name: Hill Brow Surgery Location: Pontefract Rd, Barnsley, South Yorkshire, S71 5HS Classification: Hospitals **Status: Active** Positional Accuracy: Manually positioned within the geographical locality	A8SW (S)	627	-	437423 407176
117	**Contemporary Trade Directory Entries** Name: Alan Hughes & Son Location: Littleworth La, Barnsley, South Yorkshire, S71 5RG Classification: Garage Services **Status: Active** Positional Accuracy: Manually positioned to the road within the address or location	A7SE (SW)	742	-	436925 407246
117	**Contemporary Trade Directory Entries** Name: A D Hughes Location: Littleworth La, Barnsley, South Yorkshire, S71 5RG Classification: Garage Services **Status: Inactive** Positional Accuracy: Manually positioned to the road within the address or location	A7SE (SW)	750	-	436949 407220
118	**Contemporary Trade Directory Entries** Name: Rich Location: Littleworth La, Barnsley, South Yorkshire, S71 5RG Classification: Garage Services **Status: Inactive** Positional Accuracy: Manually positioned to the road within the address or location	A7SE (SW)	795	-	437060 407110
119	**Contemporary Trade Directory Entries** Name: A & S Packing Location: Burton Rd, Barnsley, South Yorkshire, S71 2HQ Classification: Pallets, Crates & Packing Cases **Status: Inactive** Positional Accuracy: Manually positioned to the road within the address or location	A12SW (W)	840	-	436522 407646
119	**Contemporary Trade Directory Entries** Name: Centaur Motors Location: 1, Littleworth Lane, Barnsley, South Yorkshire, S71 2JR Classification: Garage Services **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A12SW (W)	846	-	436522 407628
120	**Contemporary Trade Directory Entries** Name: Enserve Environmental Ltd Location: 34, St. Helens Way, Barnsley, South Yorkshire, S71 2PR Classification: Pest & Vermin Control **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A17SW (W)	868	-	436581 408312
120	**Contemporary Trade Directory Entries** Name: Enserve Environmental Ltd Location: 34, St. Helens Way, Barnsley, South Yorkshire, S71 2PR Classification: Pest & Vermin Control **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A17SW (W)	868	-	436581 408312
121	**Contemporary Trade Directory Entries** Name: Print-Topia Location: Unit G3,Bromcliffe Pk, Barnsley, South Yorkshire, S71 5RN Classification: Printers **Status: Inactive** Positional Accuracy: Manually positioned within the geographical locality	A7SE (SW)	869	-	436832 407157
122	**Contemporary Trade Directory Entries** Name: A Cherry Location: 212, Pontefract Road, Barnsley, South Yorkshire, S71 5PN Classification: Coal & Smokeless Fuel Merchants & Distributors **Status: Active** Positional Accuracy: Automatically positioned to the address	A3NW (S)	894	-	437291 406929
123	**Contemporary Trade Directory Entries** Name: Vlf Domestic Cleaning Location: Merchant Croft, Barnsley, South Yorkshire, S71 2NY Classification: Cleaning Services - Domestic **Status: Inactive** Positional Accuracy: Manually positioned to the road within the address or location	A17SW (NW)	896	-	436637 408443
124	**Contemporary Trade Directory Entries** Name: D Spencer Location: Littleworth La, Barnsley, South Yorkshire, S71 5RG Classification: Garage Services **Status: Inactive** Positional Accuracy: Manually positioned to the road within the address or location	A8SW (S)	900	-	437196 406950

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
125	**Contemporary Trade Directory Entries** Name: Graham Slee Projects Ltd Location: 1, Monks Way, Barnsley, South Yorkshire, S71 2JD Classification: Hi-Fi Equipment Manufacturers & Distributors **Status: Active** Positional Accuracy: Automatically positioned to the address	A7NW (SW)	911	-	436584 407354
126	**Contemporary Trade Directory Entries** Name: Pawz N Clawz Location: 35, High Street, Barnsley, South Yorkshire, S71 2EQ Classification: Pet Foods & Animal Feeds **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A11SE (W)	913	-	436418 407924
127	**Contemporary Trade Directory Entries** Name: Rexam Glass (Barnsley) Ltd Location: Burton Rd, Barnsley, South Yorkshire, S71 2QG Classification: Glass Products - Manufacturers **Status: Inactive** Positional Accuracy: Manually positioned to the road within the address or location	A11SE (W)	927	-	436440 407616
128	**Contemporary Trade Directory Entries** Name: F D Location: 10, Long Causeway, Barnsley, South Yorkshire, S71 2HJ Classification: Wrought Ironwork **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A6NE (SW)	970	-	436443 407484
129	**Contemporary Trade Directory Entries** Name: Barnsley Home Help Location: 38, Coronation Street, Barnsley, South Yorkshire, S71 2ES Classification: Cleaning Services - Domestic **Status: Active** Positional Accuracy: Automatically positioned to the address	A11SE (W)	976	-	436355 407850
130	**Fuel Station Entries** Name: Colliers Service Station Location: Pontefract Road, Hickson Drive, Lundwood,, BARNSLEY, South Yorkshire, S71 1HA Brand: Obsolete Premises Type: Not Applicable **Status: Obsolete** Positional Accuracy: Manually positioned to the address or location	A8NE (S)	262	-	437485 407537
131	**Fuel Station Entries** Name: Jet Intake 5 Location: Intake Filling Station, 5, Burton Road, Barnsley, South Yorkshire, S71 2PA Brand: JET Premises Type: Petrol Station **Status: Open** Positional Accuracy: Automatically positioned to the address	A12NW (W)	631	-	436721 408038

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
132	**Areas of Adopted Green Belt** Authority: Barnsley Metropolitan Borough Council, Planning Department Plan Name: Barnsley Unitary Development Plan **Status: Adopted** Plan Date: 31st December 2000	A13SE (SE)	85	7	437653 407843
133	**Nitrate Vulnerable Zones** Name: Not Supplied Description: NVZ Area Source: Department for Environment, Food and Rural Affairs (DEFRA - formerly FRCA)	A13SE (S)	0	9	437494 407940
134	**Nitrate Vulnerable Zones** Name: Not Supplied Description: NVZ Area Source: Department for Environment, Food and Rural Affairs (DEFRA - formerly FRCA)	A15SW (E)	885	9	438497 407940

Agency & Hydrological	Version	Update Cycle
Contaminated Land Register Entries and Notices		
Barnsley Metropolitan Borough Council - Environmental Health and Trading Standards	July 2013	Annual Rolling Update
Doncaster Metropolitan Borough Council - Environmental Services	November 2012	Annual Rolling Update
Wakefield City Metropolitan District Council - Environmental Health	November 2012	Annual Rolling Update
Discharge Consents		
Environment Agency - North East Region	July 2013	Quarterly
Enforcement and Prohibition Notices		
Environment Agency - North East Region	March 2013	As notified
Integrated Pollution Controls		
Environment Agency - North East Region	October 2008	Not Applicable
Integrated Pollution Prevention And Control		
Environment Agency - North East Region	July 2013	Quarterly
Local Authority Integrated Pollution Prevention And Control		
Barnsley Metropolitan Borough Council - Environmental Health and Trading Standards	November 2012	Annual Rolling Update
Doncaster Metropolitan Borough Council - Environmental Services	November 2012	Annual Rolling Update
Wakefield City Metropolitan District Council - Environmental Health	November 2012	Annual Rolling Update
Local Authority Pollution Prevention and Controls		
Rotherham Metropolitan Borough Council - Planning Department	March 2013	Annual Rolling Update
Barnsley Metropolitan Borough Council - Environmental Health and Trading Standards	November 2012	Annual Rolling Update
Doncaster Metropolitan Borough Council - Environmental Services	November 2012	Annual Rolling Update
Wakefield City Metropolitan District Council - Environmental Health	November 2012	Annual Rolling Update
Local Authority Pollution Prevention and Control Enforcements		
Barnsley Metropolitan Borough Council - Environmental Health and Trading Standards	November 2012	Annual Rolling Update
Doncaster Metropolitan Borough Council - Environmental Services	November 2012	Annual Rolling Update
Wakefield City Metropolitan District Council - Environmental Health	November 2012	Annual Rolling Update
Nearest Surface Water Feature		
Ordnance Survey	July 2012	Quarterly
Pollution Incidents to Controlled Waters		
Environment Agency - North East Region	December 1998	Not Applicable
Prosecutions Relating to Authorised Processes		
Environment Agency - North East Region	March 2013	As notified
Prosecutions Relating to Controlled Waters		
Environment Agency - North East Region	March 2013	As notified
Registered Radioactive Substances		
Environment Agency - North East Region	July 2013	Quarterly
River Quality		
Environment Agency - Head Office	November 2001	Not Applicable
River Quality Biology Sampling Points		
Environment Agency - Head Office	July 2012	Annually
River Quality Chemistry Sampling Points		
Environment Agency - Head Office	July 2012	Annually
Substantiated Pollution Incident Register		
Environment Agency - North East Region - Ridings Area	July 2013	Quarterly
Environment Agency - North East Region - Yorkshire Area	July 2013	Quarterly
Water Abstractions		
Environment Agency - North East Region	July 2013	Quarterly
Water Industry Act Referrals		
Environment Agency - North East Region	July 2013	Quarterly
Groundwater Vulnerability		
Environment Agency - Head Office	January 2011	Not Applicable
Drift Deposits		
Environment Agency - Head Office	January 1999	Not Applicable

Agency & Hydrological	Version	Update Cycle
Bedrock Aquifer Designations		
British Geological Survey - National Geoscience Information Service	October 2012	Annually
Superficial Aquifer Designations		
British Geological Survey - National Geoscience Information Service	October 2012	Annually
Source Protection Zones		
Environment Agency - Head Office	July 2013	Quarterly
Extreme Flooding from Rivers or Sea without Defences		
Environment Agency - Head Office	August 2013	Quarterly
Flooding from Rivers or Sea without Defences		
Environment Agency - Head Office	August 2013	Quarterly
Areas Benefiting from Flood Defences		
Environment Agency - Head Office	August 2013	Quarterly
Flood Water Storage Areas		
Environment Agency - Head Office	August 2013	Quarterly
Flood Defences		
Environment Agency - Head Office	August 2013	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 - North East Region - Ridings Area	July 2013	Quarterly
Environment Agency - North East Region - Yorkshire Area	July 2013	Quarterly
Integrated Pollution Control Registered Waste Sites		
Environment Agency - North East Region	October 2008	Not Applicable
Licensed Waste Management Facilities (Landfill Boundaries)		
Environment Agency - North East Region - Ridings Area	July 2013	Quarterly
Environment Agency - North East Region - Yorkshire Area	July 2013	Quarterly
Licensed Waste Management Facilities (Locations)		
Environment Agency - North East Region - Ridings Area	April 2013	Quarterly
Environment Agency - North East Region - Yorkshire Area	April 2013	Quarterly
Local Authority Landfill Coverage		
Barnsley Metropolitan Borough Council - Environmental Health and Trading Standards	May 2000	Not Applicable
Doncaster Metropolitan Borough Council - Environmental Services	May 2000	Not Applicable
Wakefield City Metropolitan District Council - Environmental Health	May 2000	Not Applicable
Local Authority Recorded Landfill Sites		
Barnsley Metropolitan Borough Council - Environmental Health and Trading Standards	May 2000	Not Applicable
Doncaster Metropolitan Borough Council - Environmental Services	May 2000	Not Applicable
Wakefield City Metropolitan District Council - Environmental Health	May 2000	Not Applicable
Registered Landfill Sites		
Environment Agency - North East Region - Ridings Area	March 2003	Not Applicable
Registered Waste Transfer Sites		
Environment Agency - North East Region - Ridings Area	March 2003	Not Applicable
Registered Waste Treatment or Disposal Sites		
Environment Agency - North East Region - Ridings Area	March 2003	Not Applicable

Hazardous Substances	Version	Update Cycle
Control of Major Accident Hazards Sites (COMAH)		
Health and Safety Executive	August 2013	Bi-Annually
Explosive Sites		
Health and Safety Executive	March 2013	Bi-Annually
Notification of Installations Handling Hazardous Substances (NIHHS)		
Health and Safety Executive	November 2000	Not Applicable
Planning Hazardous Substance Enforcements		
Doncaster Metropolitan Borough Council	April 2013	Annual Rolling Update
Wakefield City Metropolitan District Council	February 2013	Annual Rolling Update
Barnsley Metropolitan Borough Council - Planning Department	September 2012	Annual Rolling Update
Planning Hazardous Substance Consents		
Doncaster Metropolitan Borough Council	April 2013	Annual Rolling Update
Wakefield City Metropolitan District Council	February 2013	Annual Rolling Update
Barnsley Metropolitan Borough Council - Planning Department	September 2012	Annual Rolling Update
Geological	**Version**	**Update Cycle**
BGS 1:625,000 Solid Geology		
British Geological Survey - National Geoscience Information Service	August 1996	Not Applicable
BGS Estimated Soil Chemistry		
British Geological Survey - National Geoscience Information Service	January 2010	Variable
BGS Recorded Mineral Sites		
British Geological Survey - National Geoscience Information Service	April 2013	Bi-Annually
Brine Compensation Area		
Cheshire Brine Subsidence Compensation Board	August 2011	Not Applicable
Coal Mining Affected Areas		
The Coal Authority - Mining Report Service	January 2012	As notified
Mining Instability		
Ove Arup & Partners	October 2000	Not Applicable
Non Coal Mining Areas of Great Britain		
British Geological Survey - National Geoscience Information Service	February 2011	Not Applicable
Potential for Collapsible Ground Stability Hazards		
British Geological Survey - National Geoscience Information Service	October 2013	As notified
Potential for Compressible Ground Stability Hazards		
British Geological Survey - National Geoscience Information Service	October 2013	As notified
Potential for Ground Dissolution Stability Hazards		
British Geological Survey - National Geoscience Information Service	October 2013	As notified
Potential for Landslide Ground Stability Hazards		
British Geological Survey - National Geoscience Information Service	October 2013	As notified
Potential for Running Sand Ground Stability Hazards		
British Geological Survey - National Geoscience Information Service	October 2013	As notified
Potential for Shrinking or Swelling Clay Ground Stability Hazards		
British Geological Survey - National Geoscience Information Service	October 2013	As notified
Radon Potential - Radon Affected Areas		
British Geological Survey - National Geoscience Information Service	July 2011	As notified
Radon Potential - Radon Protection Measures		
British Geological Survey - National Geoscience Information Service	July 2011	As notified

Industrial Land Use	Version	Update Cycle
Contemporary Trade Directory Entries		
Thomson Directories	August 2013	Quarterly
Fuel Station Entries		
Catalist Ltd - Experian	August 2013	Quarterly
Sensitive Land Use	**Version**	**Update Cycle**
Areas of Adopted Green Belt		
Barnsley Metropolitan Borough Council - Planning Department	August 2013	As notified
Doncaster Metropolitan Borough Council	August 2013	As notified
Wakefield City Metropolitan District Council	August 2013	As notified
Areas of Unadopted Green Belt		
Barnsley Metropolitan Borough Council - Planning Department	August 2013	As notified
Doncaster Metropolitan Borough Council	August 2013	As notified
Wakefield City Metropolitan District Council	August 2013	As notified
Areas of Outstanding Natural Beauty		
Natural England	July 2013	Bi-Annually
Environmentally Sensitive Areas		
Natural England	July 2013	Annually
Forest Parks		
Forestry Commission	April 1997	Not Applicable
Local Nature Reserves		
Natural England	July 2013	Bi-Annually
Marine Nature Reserves		
Natural England	July 2013	Bi-Annually
National Nature Reserves		
Natural England	July 2013	Bi-Annually
National Parks		
Natural England	July 2013	Bi-Annually
Nitrate Sensitive Areas		
Department for Environment, Food and Rural Affairs (DEFRA - formerly FRCA)	February 2012	Not Applicable
Nitrate Vulnerable Zones		
Department for Environment, Food and Rural Affairs (DEFRA - formerly FRCA)	February 2013	Annually
Ramsar Sites		
Natural England	July 2013	Bi-Annually
Sites of Special Scientific Interest		
Natural England	July 2013	Bi-Annually
Special Areas of Conservation		
Natural England	July 2013	Bi-Annually
Special Protection Areas		
Natural England	July 2013	Bi-Annually

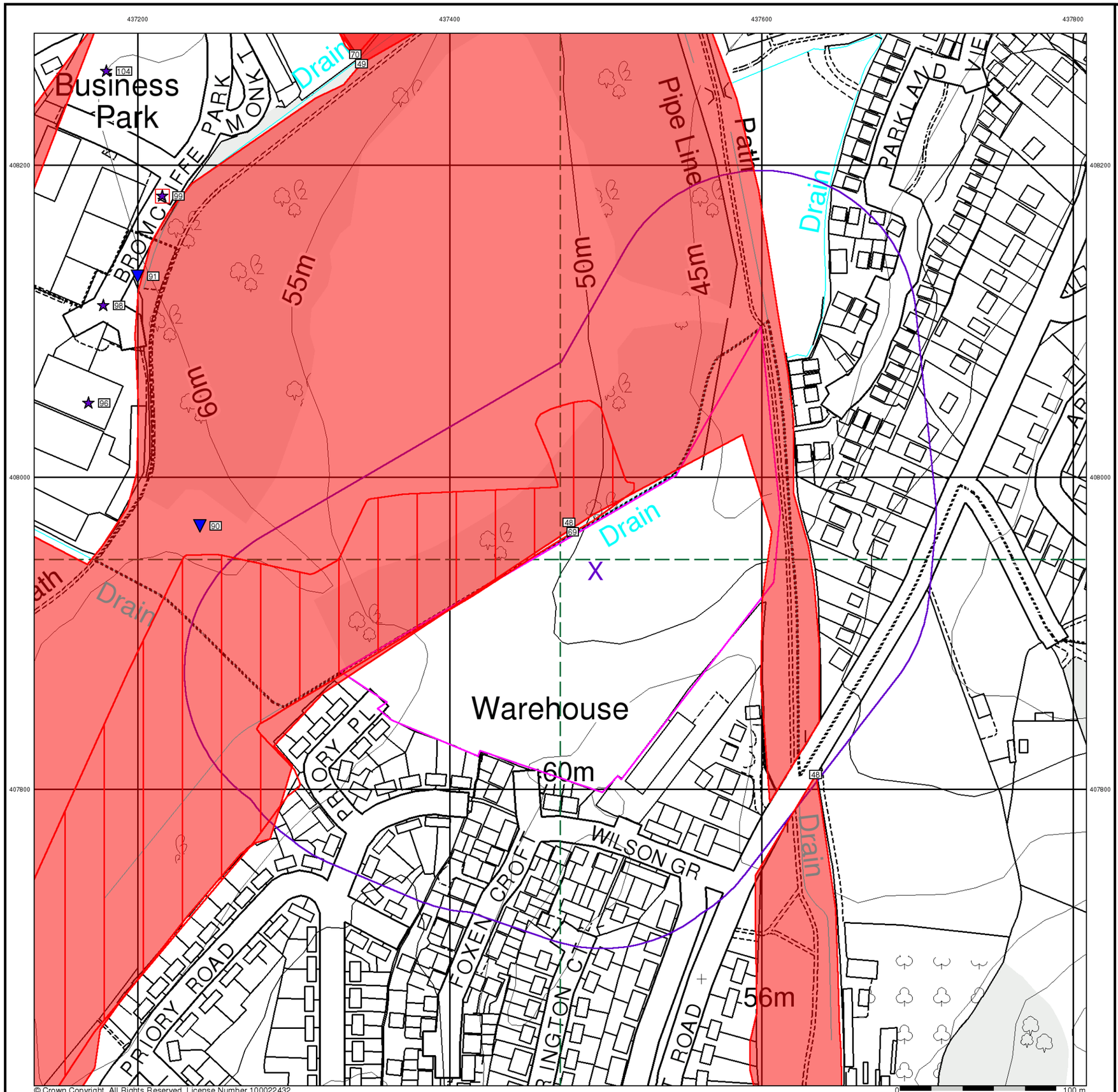
A selection of organisations who provide data within this report

Data Supplier	Data Supplier Logo
Ordnance Survey	
Environment Agency	
Scottish Environment Protection Agency	
The Coal Authority	
British Geological Survey	
Centre for Ecology and Hydrology	
Countryside Council for Wales	
Scottish Natural Heritage	
Natural England	
Public Health England	
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	**Barnsley Metropolitan Borough Council - Environmental Health and Trading Standards** Central Offices, Kendray Street, Barnsley, South Yorkshire, S70 2TN	Telephone: 01226 770770 Fax: 01226 772599 Website: www.barnsley.gov.uk
3	**Rotherham Metropolitan Borough Council - Planning Department** Bailey House, Rawmarsh Road, Rotherham, South Yorkshire, S60 1QT	Website: www.rotherham.gov.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
5	**Landmark Information Group Limited** Imperium, Imperial Way, Reading, Berkshire, RG2 0TD	Telephone: 0844 844 9952 Fax: 0844 844 9951 Email: customerservices@landmark.co.uk Website: www.landmarkinfo.co.uk
6	**The Coal Authority - Mining Report Service** 200 Lichfield Lane, Mansfield, Nottinghamshire, NG18 4RG	Telephone: 0845 7626848 Email: thecoalauthority@coal.gov.uk
7	**Barnsley Metropolitan Borough Council - Planning Department** Central Offices, Kendray Street, Barnsley, South Yorkshire, S70 2TN	Telephone: 01226 770770 Fax: 01226 772599 Website: www.barnsley.gov.uk
8	**Natural England** Northminster House, Northminster Road, Peterborough, Cambridgeshire, PE1 1UA	Telephone: 0845 600 3078 Fax: 01733 455103 Email: enquiries@naturalengland.org.uk Website: www.naturalengland.org.uk
9	**Department for Environment, Food and Rural Affairs (DEFRA - formerly FRCA)** Government Buildings, Otley Road, Lawnswood, Leeds, West Yorkshire, LS16 5QT	Telephone: 0113 2613333 Fax: 0113 230 0879
-	**Public Health England - Radon Survey, Centre for Radiation, Chemical and Environmental Hazards** Chilton, Didcot, Oxfordshire, OX11 0RQ	Telephone: 01235 822622 Fax: 01235 833891 Email: radon@phe.gov.uk Website: www.ukradon.org
-	**Landmark Information Group Limited** Imperium, Imperial Way, Reading, Berkshire, RG2 0TD	Telephone: 0844 844 9952 Fax: 0844 844 9951 Email: customerservices@landmarkinfo.co.uk Website: www.landmarkinfo.co.uk

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



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Envirocheck®

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

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

Geological

- BGS Recorded Mineral Site

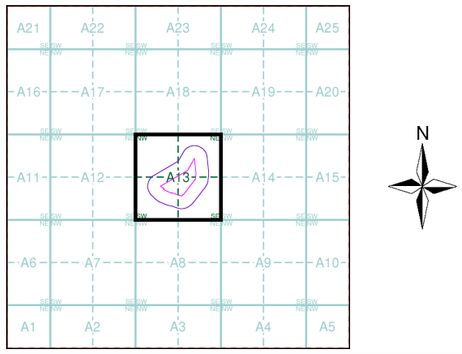
Hazardous Substances

- COMAH Site
- Explosive Site
- NIHHS Site

Industrial Land Use

- Contemporary Trade Directory Entry
- Fuel Station Entry
- Planning Hazardous Substance Consent
- Planning Hazardous Substance Enforcement

Site Sensitivity Map - Segment A13



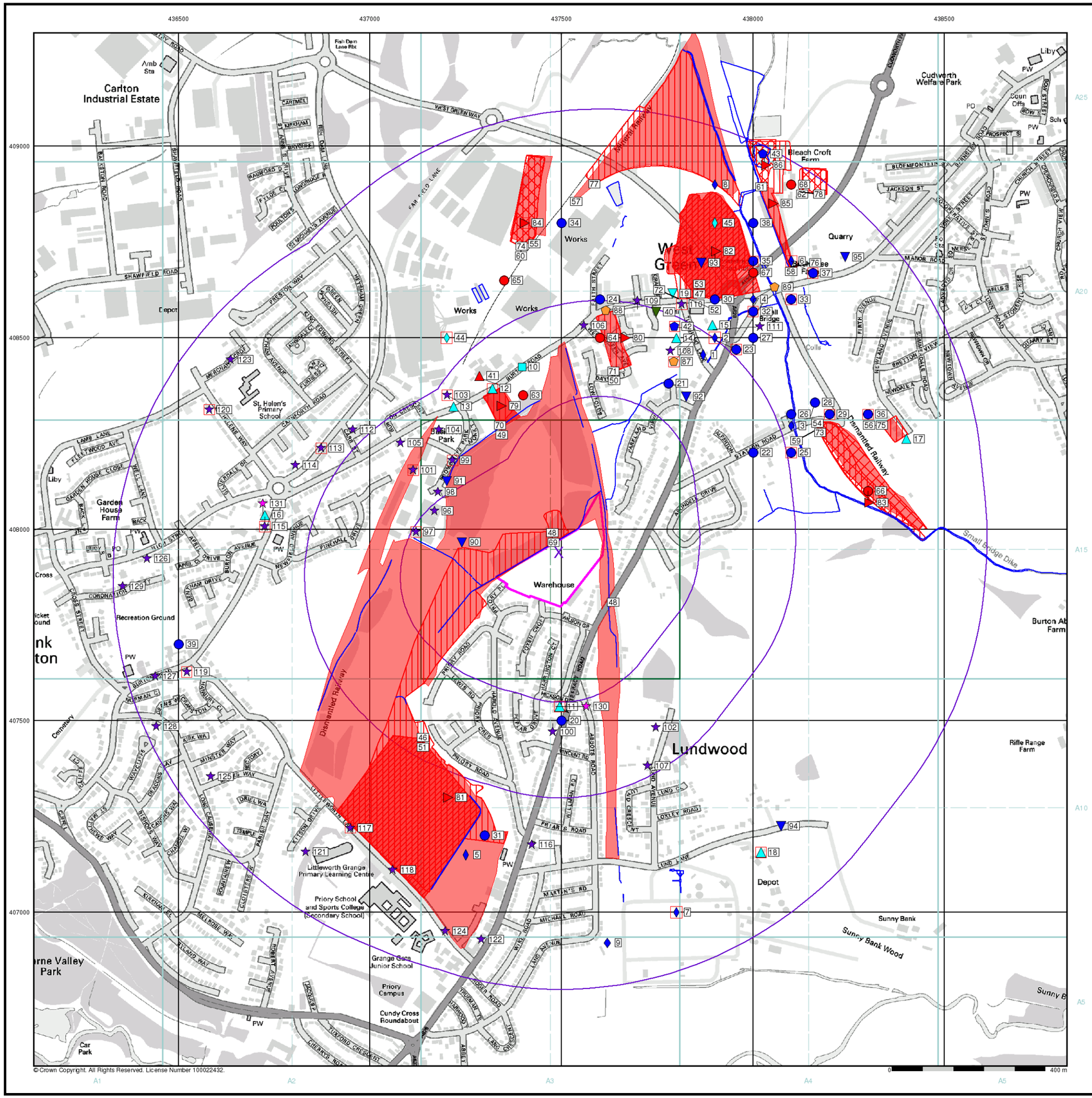
Order Details

Order Number:	50157046_1_1
Customer Ref:	36487
National Grid Reference:	437490, 407940
Slice:	A
Site Area (Ha):	3.4

Site Details

Pontefract Road, Lundwood, BARNSLEY, South Yorkshire

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



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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)
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- Registered Radioactive Substance
- River Network or Water Feature
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- Water Industry Act Referral

Geological

- BGS Recorded Mineral Site

Industrial Land Use

- Contemporary Trade Directory Entry
- Fuel Station Entry

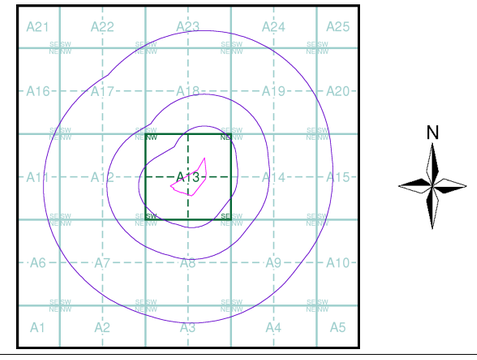
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- EA Historic Landfill (Buffered Point)
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- Registered Landfill Site (Point Buffered to 100m)
- Registered Landfill Site (Point Buffered to 250m)
- Registered Waste Transfer Site (Location)
- Registered 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:	50157046_1_1
Customer Ref:	36487
National Grid Reference:	437490, 407940
Slice:	A
Site Area (Ha):	3.4
Search Buffer (m):	1000

Site Details

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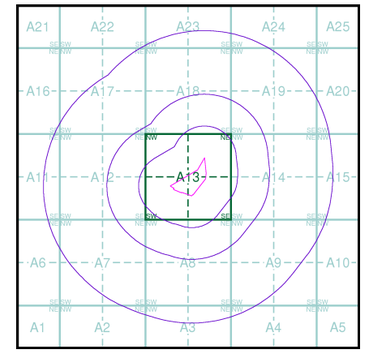
General

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

Agency and Hydrological (Flood)

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

Flood Map - Slice A



Order Details

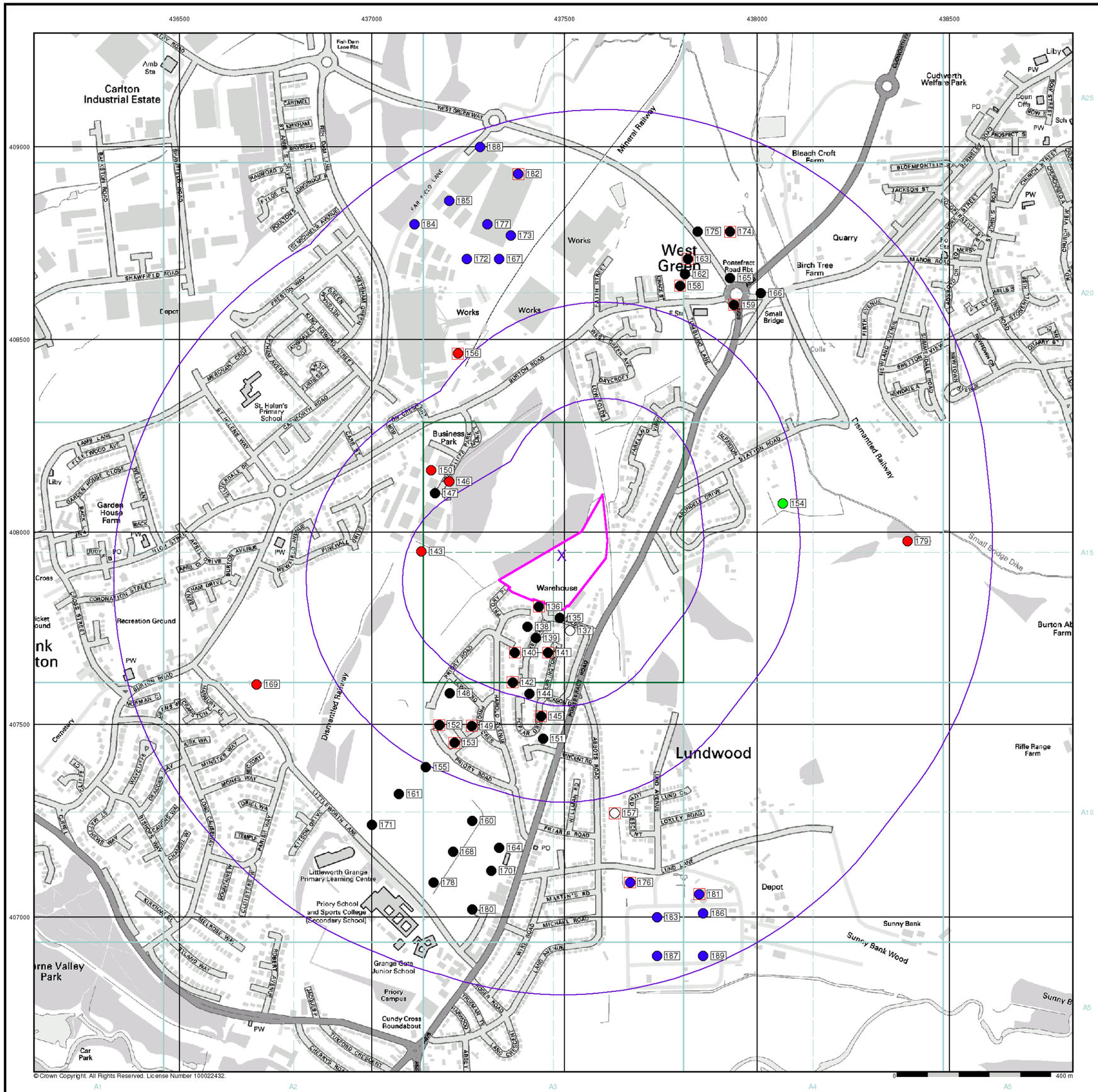
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Customer Ref:	36487
National Grid Reference:	437490, 407940
Slice:	A
Site Area (Ha):	3.4
Search Buffer (m):	1000

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General

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

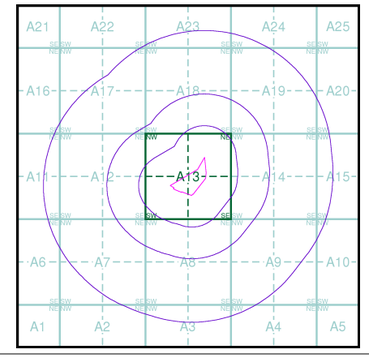
Agency and Hydrological (Boreholes)

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

For Borehole information please refer to the Borehole datasheet 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:	50157046_1_1
Customer Ref:	36487
National Grid Reference:	437490, 407940
Slice:	A
Site Area (Ha):	3.4
Search Buffer (m):	1000

Site Details

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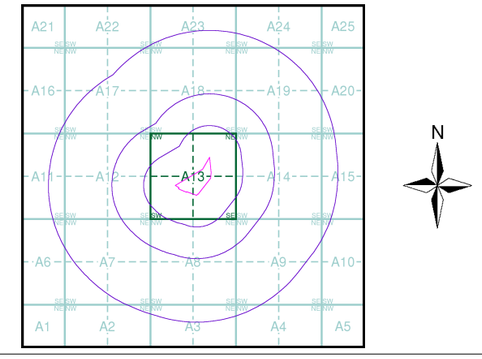
Specified Site | Specified Buffer(s) | X Bearing Reference Point

Estimated Soil Chemistry Arsenic

Arsenic Concentrations mg/kg

- < 15
- 15 - 25
- 25 - 35
- 35 - 45
- 45 - 60
- 60 - 120
- > 120

Estimated Soil Chemistry Arsenic - Slice A



Order Details

Order Details:	50157046_1_1
Customer Ref:	36487
National Grid Reference:	437490, 407940
Slice:	A
Site Area (Ha):	3.4
Search Buffer (m):	1000

Site Details

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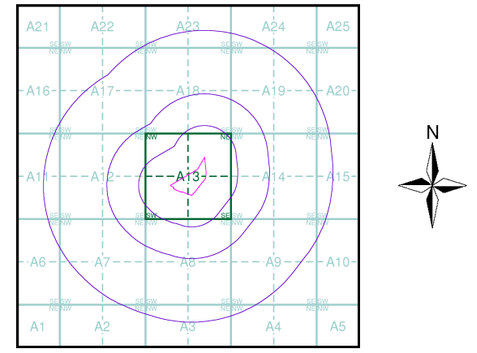
Specified Site | Specified Buffer(s) | X Bearing Reference Point

Estimated Soil Chemistry Cadmium

Cadmium Concentrations mg/kg

- < 1.8
- 1.8 - 2.2
- 2.2 - 3.0
- > 3.0

Estimated Soil Chemistry Cadmium - Slice A



Order Details

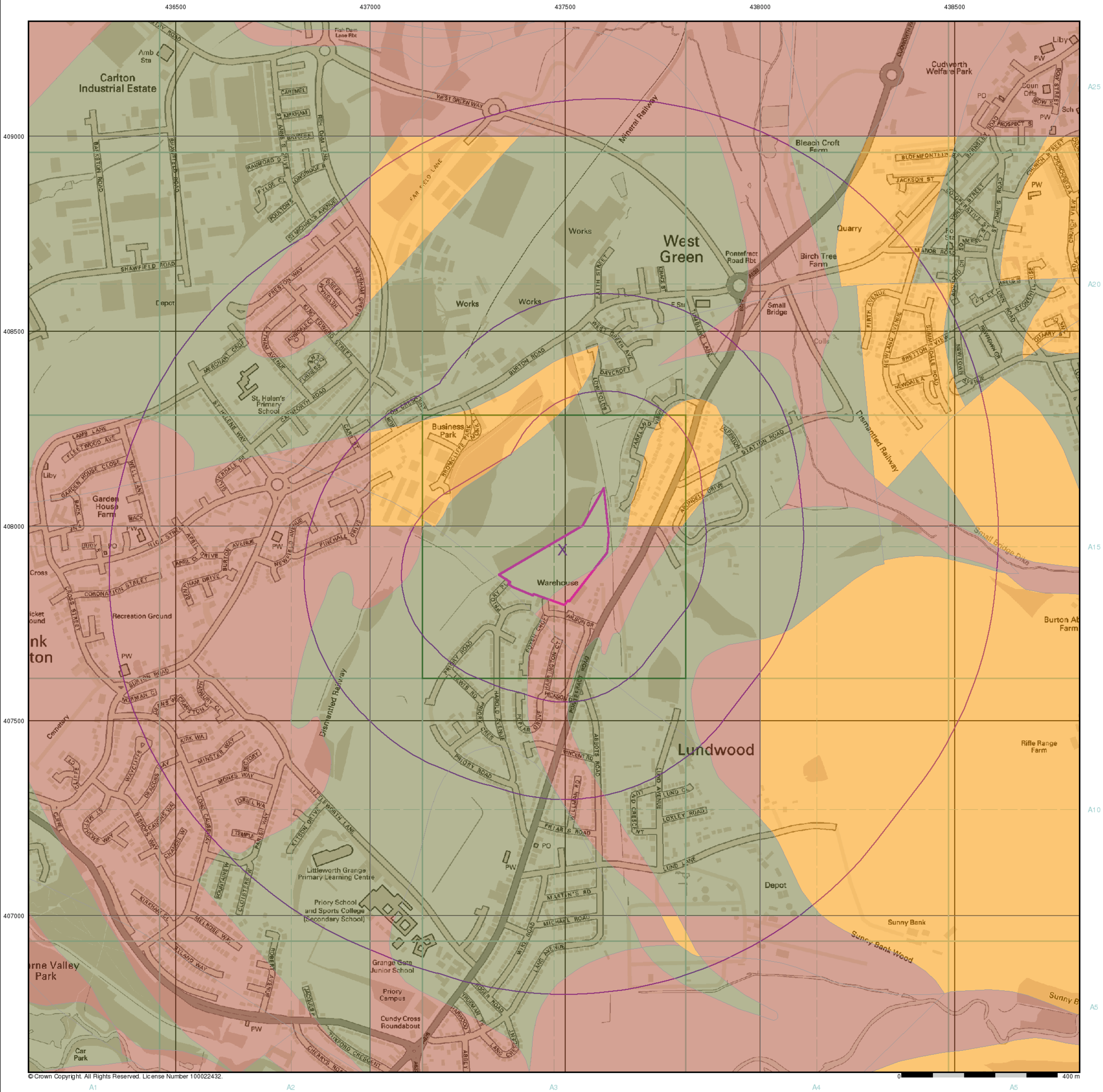
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Customer Ref:	36487
National Grid Reference:	437490, 407940
Slice:	A
Site Area (Ha):	3.4
Search Buffer (m):	1000

Site Details

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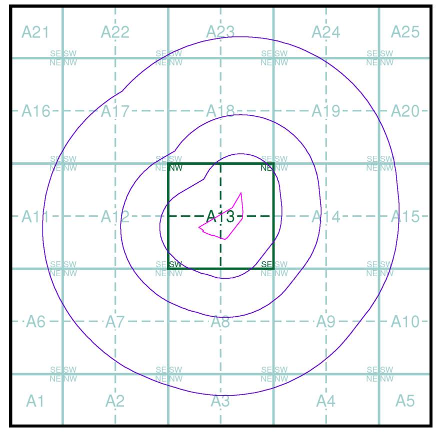
Specified Site   Specified Buffer(s)   X Bearing Reference Point

Estimated Soil Chemistry Chromium

Chromium Concentrations mg/kg

- < 20
- 20 - 40
- 40 - 60
- 60 - 90
- 90 - 120
- 120 - 180
- > 180

Estimated Soil Chemistry Chromium - Slice A



Order Details

Order Details: 50157046_1_1
Customer Ref: 36487
National Grid Reference: 437490, 407940
Slice: A
Site Area (Ha): 3.4
Search Buffer (m): 1000

Site Details

Pontefract Road, Lundwood, BARNSLEY, South Yorkshire

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General

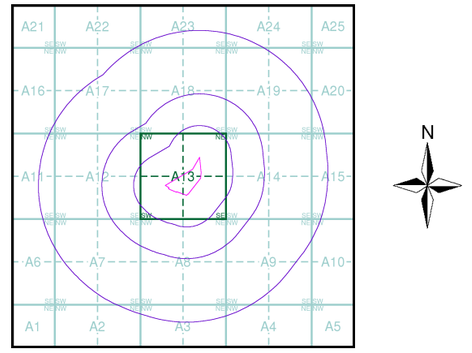
Specified Site | Specified Buffer(s) | X Bearing Reference Point

Estimated Soil Chemistry Lead

Lead Concentrations mg/kg

- < 150
- 150 - 300
- 300 - 600
- 600 - 900
- > 900

Estimated Soil Chemistry Lead - Slice A



Order Details

Order Details:	50157046_1_1
Customer Ref:	36487
National Grid Reference:	437490, 407940
Slice:	A
Site Area (Ha):	3.4
Search Buffer (m):	1000

Site Details

Pontefract Road, Lundwood, BARNSLEY, South Yorkshire

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General

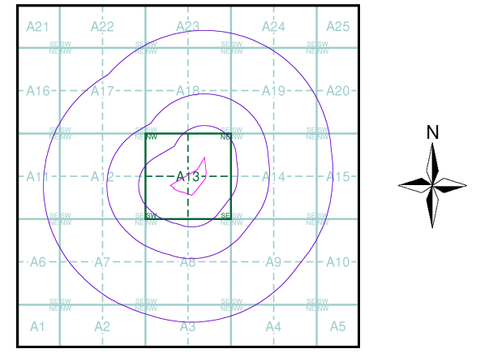
Specified Site | Specified Buffer(s) | X Bearing Reference Point

Estimated Soil Chemistry Nickel

Nickel Concentrations mg/kg

- < 15
- 15 - 30
- 30 - 45
- 45 - 60
- 60 - 80
- 80 - 100
- > 100

Estimated Soil Chemistry Nickel - Slice A



Order Details

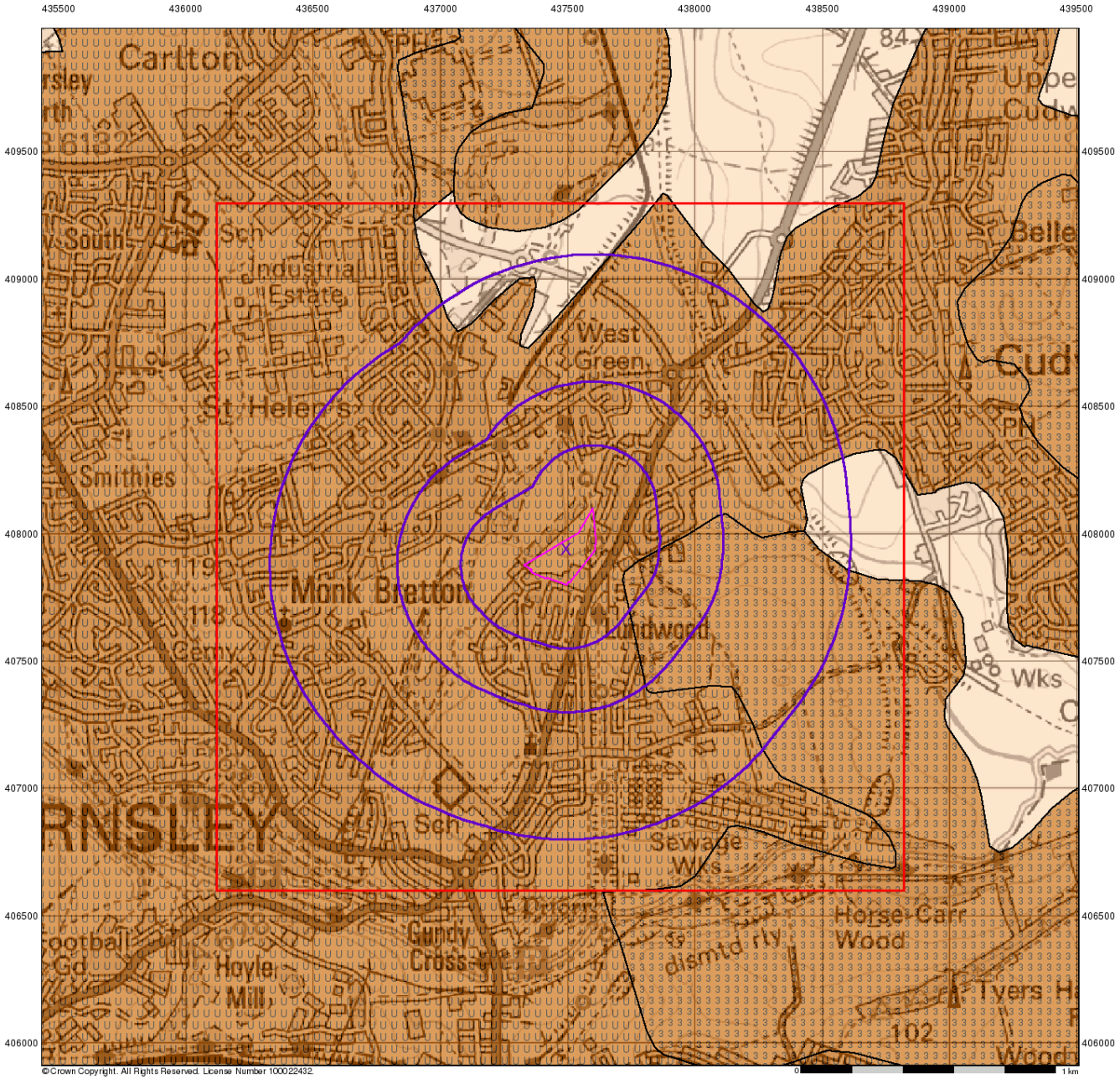
Order Details:	50157046_1_1
Customer Ref:	36487
National Grid Reference:	437490, 407940
Slice:	A
Site Area (Ha):	3.4
Search Buffer (m):	1000

Site Details

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Groundwater Vulnerability

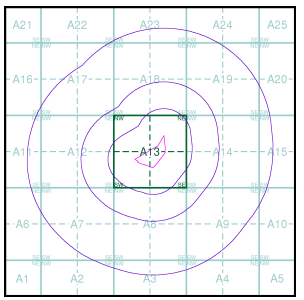
General

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



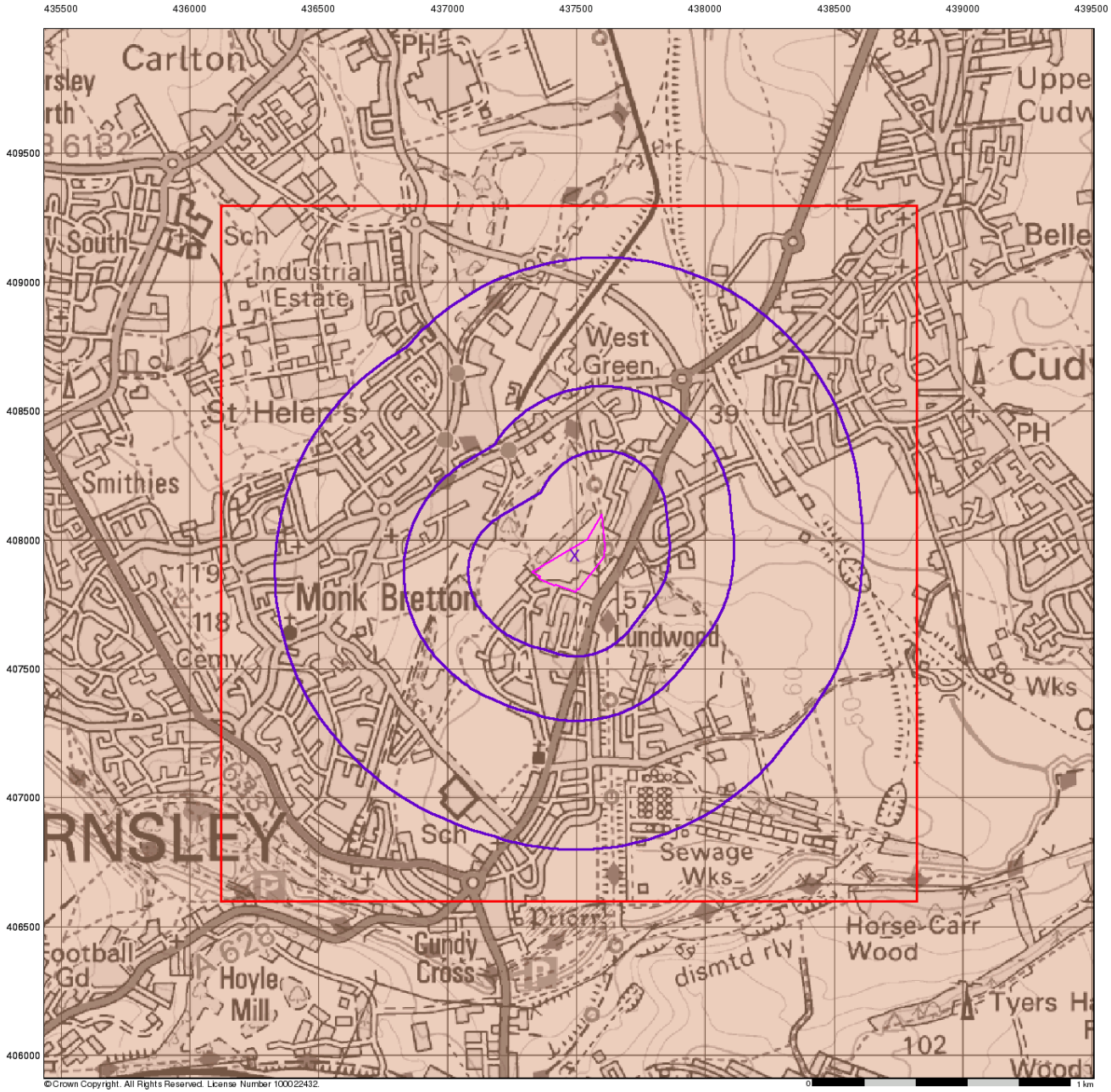
Order Details

Order Number:	50157046_1_1
Customer Ref:	36487
National Grid Reference:	437490, 407940
Slice:	A
Site Area (Ha):	3.4
Search Buffer (m):	1000

Site Details

Pontefract Road, Lundwood, BARNSLEY, South Yorkshire

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



Envirocheck®

Bedrock Aquifer Designation

General

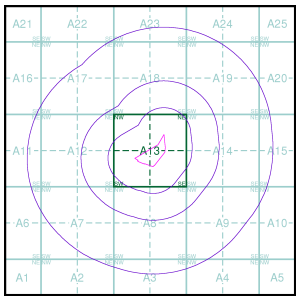
Specified Site | Specified Buffer(s) | Bearing Reference Point | Slice | Map ID

Agency and Hydrological

Geological Classes

- Principal Aquifer
- Secondary A Aquifer
- Secondary B Aquifer
- Secondary Undifferentiated
- Unproductive Strata
- Unknown

Site Sensitivity Context Map - Slice A



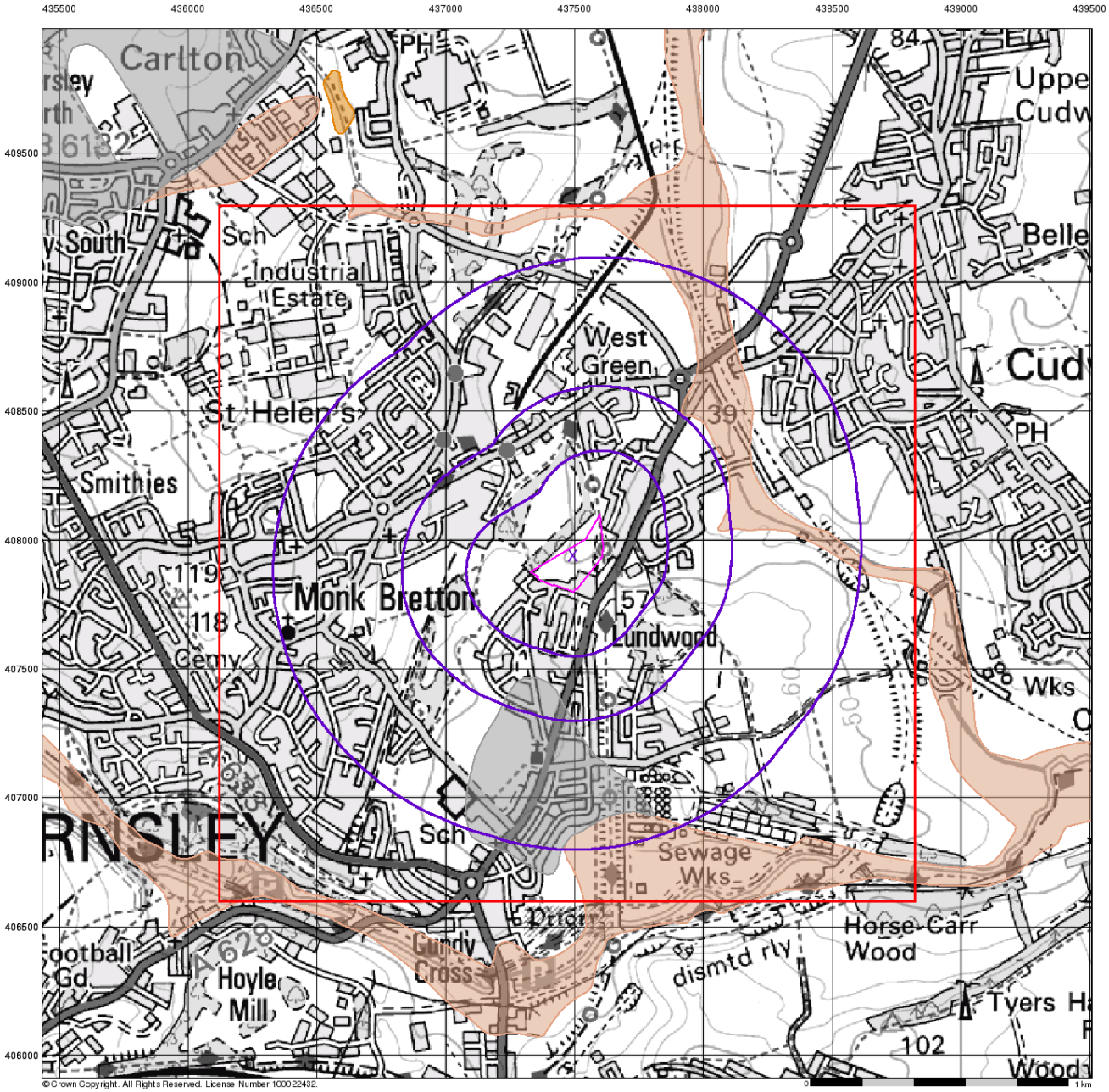
Order Details

Order Number:	50157046_1_1
Customer Ref:	36487
National Grid Reference:	437490, 407940
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Site Area (Ha):	3.4
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Envirocheck®

Superficial Aquifer Designation

General

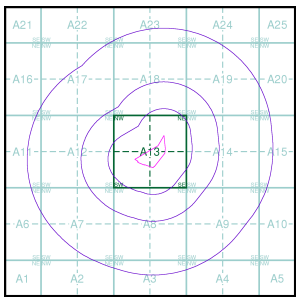
Specified Site | Specified Buffer(s) | Bearing Reference Point | Slice | Map ID

Agency and Hydrological

Geological Classes

- Principal Aquifer
- Secondary A Aquifer
- Secondary B Aquifer
- Secondary Undifferentiated
- Unproductive Strata
- Unknown

Site Sensitivity Context Map - Slice A

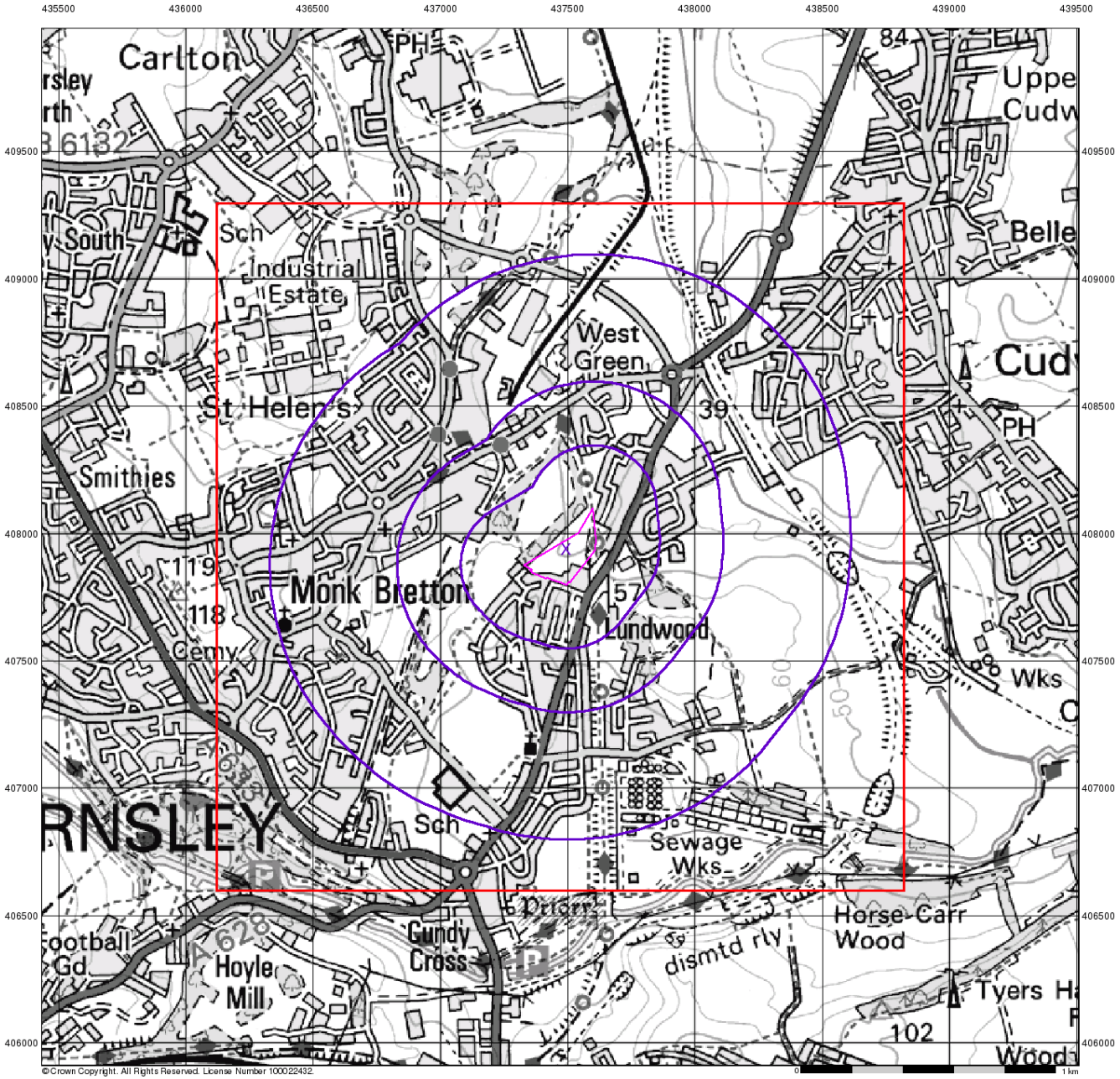


Order Details

Order Number:	50157046_1_1
Customer Ref:	36487
National Grid Reference:	437490, 407940
Slice:	A
Site Area (Ha):	3.4
Search Buffer (m):	1000

Site Details

Pontefract Road, Lundwood, BARNSLEY, South Yorkshire



Envirocheck®

Source Protection Zones

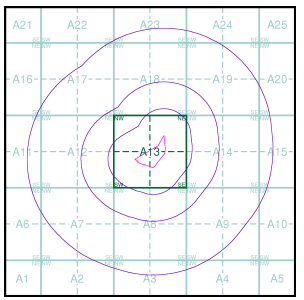
General

- 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



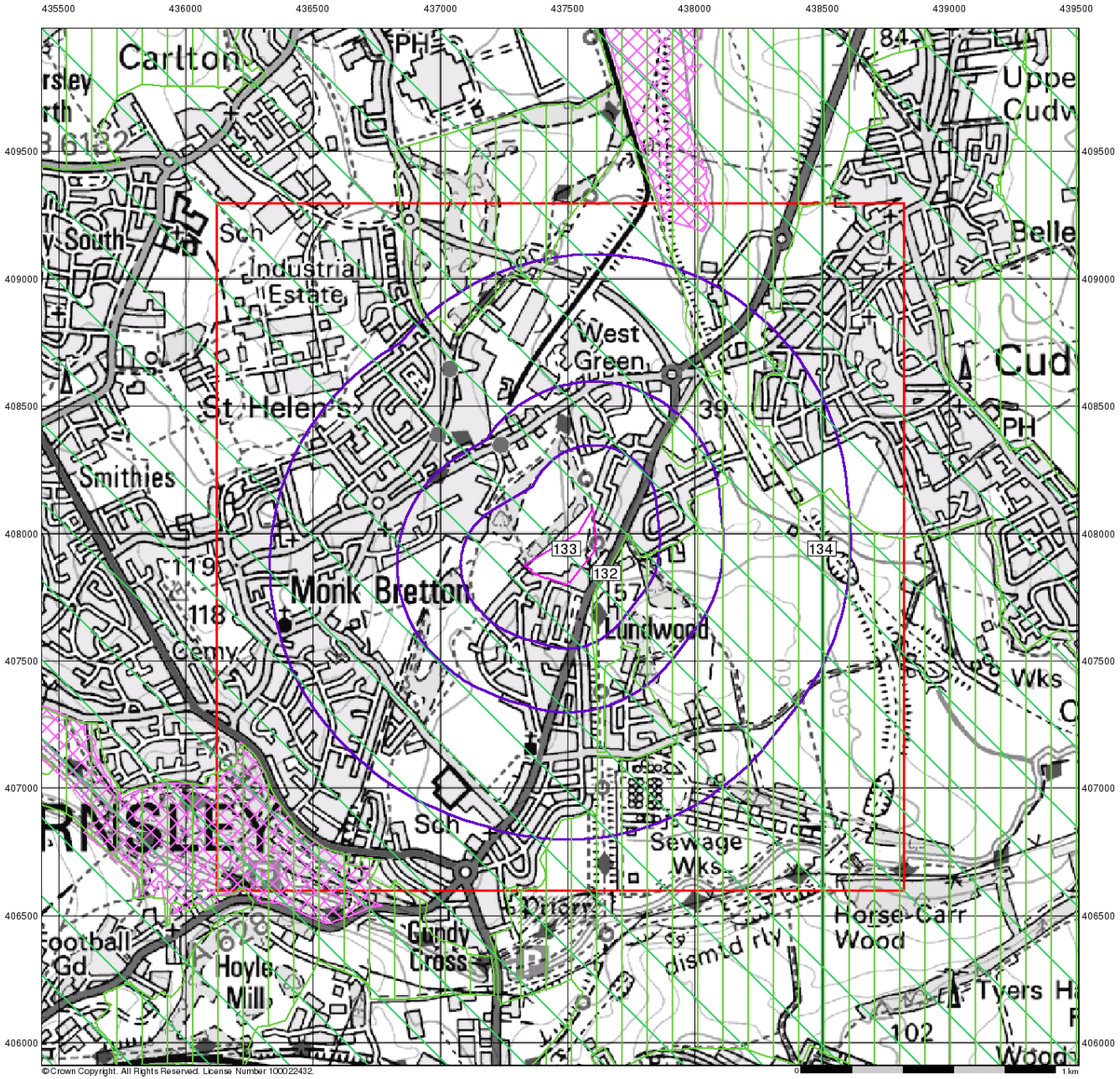
Order Details

Order Number:	50157046_1_1
Customer Ref:	36487
National Grid Reference:	437490, 407940
Slice:	A
Site Area (Ha):	3.4
Search Buffer (m):	1000

Site Details

Pontefract Road, Lundwood, BARNSLEY, South Yorkshire

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



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Envirocheck®

Sensitive Land Uses

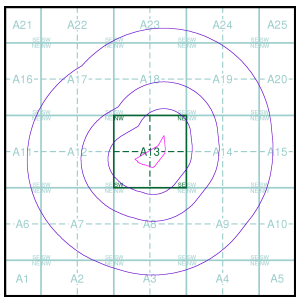
General

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:	50157046_1_1
Customer Ref:	36487
National Grid Reference:	437490, 407940
Slice:	A
Site Area (Ha):	3.4
Search Buffer (m):	1000

Site Details

Pontefract Road, Lundwood, BARNSLEY, South Yorkshire

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

Envirocheck® Report:

BGS Boreholes Datasheet

Order Details:

Order Number:
50157046_1_1

Customer Reference:
36487

National Grid Reference:
437490, 407940

Slice:
A

Site Area (Ha):
3.4

Borehole Search Buffer (m):
1000

Site Details:

Pontefract Road
Lundwood
BARNSLEY
South Yorkshire

Client Details:

Miss A Seymour
Eastwood & Partners Ltd
St Andrews House
23 Kingfield Road
Sheffield
S11 9AS

BGS Boreholes Summary

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m
BGS Boreholes	pg 1	None	14	16	51

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

Report Version v47.0

BGS Boreholes Detail

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
135	**BGS Boreholes** BGS Reference: Se30ne526 Drilled Length (m): Not Supplied Borehole Name: Harold Avenue Harrington Court Lundwood Barnsley Tp 10 Link to Borehole Scan: Not Available	A13SE (S)	9	4	437488 407792
136	**BGS Boreholes** BGS Reference: Se30ne525 Drilled Length (m): Not Supplied Borehole Name: Harold Avenue Harrington Court Lundwood Barnsley Tp 9 Link to Borehole Scan: Not Available	A13SW (S)	10	4	437462 407800
136	**BGS Boreholes** BGS Reference: Se30ne524 Drilled Length (m): Not Supplied Borehole Name: Harold Avenue Harrington Court Lundwood Barnsley Tp 8 Link to Borehole Scan: Not Available	A13SW (SW)	13	4	437433 407807
137	**BGS Boreholes** BGS Reference: Se30ne97 Drilled Length (m): Not Supplied Borehole Name: Barnsley Main Ugbh No.32 Link to Borehole Scan: Not Available	A13SE (S)	57	4	437514 407744
138	**BGS Boreholes** BGS Reference: Se30ne523 Drilled Length (m): Not Supplied Borehole Name: Harold Avenue Harrington Court Lundwood Barnsley Tp 7 Link to Borehole Scan: Not Available	A13SW (SW)	69	4	437404 407754
139	**BGS Boreholes** BGS Reference: Se30ne527 Drilled Length (m): Not Supplied Borehole Name: Harold Avenue Harrington Court Lundwood Barnsley Tp 11 Link to Borehole Scan: Not Available	A13SW (S)	78	4	437458 407730
140	**BGS Boreholes** BGS Reference: Se30ne529 Drilled Length (m): Not Supplied Borehole Name: Harold Avenue Harrington Court Lundwood Barnsley Tp 13 Link to Borehole Scan: Not Available	A13SW (S)	127	4	437410 407694
140	**BGS Boreholes** BGS Reference: Se30ne522 Drilled Length (m): Not Supplied Borehole Name: Harold Avenue Harrington Court Lundwood Barnsley Tp 6 Link to Borehole Scan: Not Available	A13SW (SW)	143	4	437371 407687
141	**BGS Boreholes** BGS Reference: Se30ne528 Drilled Length (m): Not Supplied Borehole Name: Harold Avenue Harrington Court Lundwood Barnsley Tp 12 Link to Borehole Scan: Not Available	A13SW (S)	129	4	437426 407687
141	**BGS Boreholes** BGS Reference: Se30ne530 Drilled Length (m): Not Supplied Borehole Name: Harold Avenue Harrington Court Lundwood Barnsley Tp 14 Link to Borehole Scan: Not Available	A13SW (S)	175	4	437416 407642
142	**BGS Boreholes** BGS Reference: Se30ne531 Drilled Length (m): Not Supplied Borehole Name: Harold Avenue Harrington Court Lundwood Barnsley Tp 15 Link to Borehole Scan: Not Available	A13SW (S)	179	4	437400 407643
142	**BGS Boreholes** BGS Reference: Se30ne521 Drilled Length (m): Not Supplied Borehole Name: Harold Avenue Harrington Court Lundwood Barnsley Tp 5 Link to Borehole Scan: Not Available	A13SW (S)	218	4	437365 407610

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
143	**BGS Boreholes** BGS Reference: Se30ne311 Drilled Length (m): 119.61 Borehole Name: Monk Bretton Colliery Methane Borehole 1 Link to Borehole Scan: Not Available	A12NE (W)	216	4	437128 407950
144	**BGS Boreholes** BGS Reference: Se30ne532 Drilled Length (m): Not Supplied Borehole Name: Harold Avenue Harrington Court Lundwood Barnsley Tp 16 Link to Borehole Scan: Not Available	A8NW (S)	231	4	437409 407585
145	**BGS Boreholes** BGS Reference: Se30ne533 Drilled Length (m): Not Supplied Borehole Name: Harold Avenue Harrington Court Lundwood Barnsley Tp 17 Link to Borehole Scan: Not Available	A8NW (S)	265	4	437423 407544
145	**BGS Boreholes** BGS Reference: Se30ne534 Drilled Length (m): Not Supplied Borehole Name: Harold Avenue Harrington Court Lundwood Barnsley Tp 18 Link to Borehole Scan: Not Available	A8NW (S)	270	4	437460 407531
145	**BGS Boreholes** BGS Reference: Se30ne519 Drilled Length (m): Not Supplied Borehole Name: Harold Avenue Harrington Court Lundwood Barnsley Tp 1 Link to Borehole Scan: Not Available	A8NW (S)	283	4	437439 407522
146	**BGS Boreholes** BGS Reference: Se30ne7 Drilled Length (m): 271.2 Borehole Name: Monk Bretton Colliery Link to Borehole Scan: http://scans.bgs.ac.uk/sobi_scans/boreholes/83498/	A13NW (NW)	287	4	437200 408131
147	**BGS Boreholes** BGS Reference: Se30ne71 Drilled Length (m): Not Supplied Borehole Name: Burton Road 2 Link to Borehole Scan: Not Available	A13NW (NW)	295	4	437163 408118
148	**BGS Boreholes** BGS Reference: Se30ne542 Drilled Length (m): Not Supplied Borehole Name: Priory Crescent Lundwood Tp 8 Link to Borehole Scan: Not Available	A8NW (SW)	309	4	437201 407582
149	**BGS Boreholes** BGS Reference: Se30ne537 Drilled Length (m): Not Supplied Borehole Name: Priory Crescent Lundwood Tp 3 Link to Borehole Scan: Not Available	A8NW (SW)	322	4	437261 407539
149	**BGS Boreholes** BGS Reference: Se30ne539 Drilled Length (m): Not Supplied Borehole Name: Priory Crescent Lundwood Tp 5 Link to Borehole Scan: Not Available	A8NW (SW)	335	4	437230 407537
149	**BGS Boreholes** BGS Reference: Se30ne536 Drilled Length (m): Not Supplied Borehole Name: Priory Crescent Lundwood Tp 2 Link to Borehole Scan: Not Available	A8NW (SW)	361	4	437259 407497
150	**BGS Boreholes** BGS Reference: Se30ne64 Drilled Length (m): 292.61 Borehole Name: Burton Road Link to Borehole Scan: Not Available	A13NW (NW)	332	4	437154 408156

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
151	**BGS Boreholes** BGS Reference: Se30ne520 Drilled Length (m): Not Supplied Borehole Name: Harold Avenue Harrington Court Lundwood Barnsley Tp 2 Link to Borehole Scan: Not Available	A8NW (S)	339	4	437444 407464
152	**BGS Boreholes** BGS Reference: Se30ne541 Drilled Length (m): Not Supplied Borehole Name: Priory Crescent Lundwood Tp 7 Link to Borehole Scan: Not Available	A8NW (SW)	349	4	437188 407543
152	**BGS Boreholes** BGS Reference: Se30ne540 Drilled Length (m): Not Supplied Borehole Name: Priory Crescent Lundwood Tp 6 Link to Borehole Scan: Not Available	A8NW (SW)	389	4	437185 407499
153	**BGS Boreholes** BGS Reference: Se30ne538 Drilled Length (m): Not Supplied Borehole Name: Priory Crescent Lundwood Tp 4 Link to Borehole Scan: Not Available	A8NW (SW)	386	4	437217 407487
153	**BGS Boreholes** BGS Reference: Se30ne535 Drilled Length (m): Not Supplied Borehole Name: Priory Crescent Lundwood Tp 1 Link to Borehole Scan: Not Available	A8NW (SW)	419	4	437214 407453
154	**BGS Boreholes** BGS Reference: Se30ne92 Drilled Length (m): 22.7 Borehole Name: Barnsley Main Ugbh No.31 Link to Borehole Scan: http://scans.bgs.ac.uk/sobi_scans/boreholes/83608/	A14NW (E)	463	4	438067 408074
155	**BGS Boreholes** BGS Reference: Se30ne367 Drilled Length (m): Not Supplied Borehole Name: Littleworth Lane Lundwood 5 Link to Borehole Scan: Not Available	A8NW (SW)	507	4	437140 407390
156	**BGS Boreholes** BGS Reference: Se30ne28/C Drilled Length (m): 108.97 Borehole Name: 3 Wells At Monk Bretton Link to Borehole Scan: http://scans.bgs.ac.uk/sobi_scans/boreholes/83523/	A18SW (NW)	519	4	437230 408461
156	**BGS Boreholes** BGS Reference: Se30ne28/A Drilled Length (m): 72.54 Borehole Name: 3 Wells At Monk Bretton Link to Borehole Scan: http://scans.bgs.ac.uk/sobi_scans/boreholes/83521/	A18SW (NW)	526	4	437223 408464
156	**BGS Boreholes** BGS Reference: Se30ne28/B Drilled Length (m): 92.66 Borehole Name: 3 Wells At Monk Bretton Link to Borehole Scan: http://scans.bgs.ac.uk/sobi_scans/boreholes/83522/	A18SW (NW)	533	4	437222 408472
157	**BGS Boreholes** BGS Reference: Se30ne96 Drilled Length (m): Not Supplied Borehole Name: Barnsley Main Ugbh No.33a Link to Borehole Scan: Not Available	A8SE (S)	545	4	437630 407270
157	**BGS Boreholes** BGS Reference: Se30ne98 Drilled Length (m): Not Supplied Borehole Name: Barnsley Main Ugbh No.33 Link to Borehole Scan: Not Available	A8SE (S)	545	4	437630 407270

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
158	**BGS Boreholes** BGS Reference: Se30ne166 Drilled Length (m): Not Supplied Borehole Name: Cudworth Land Fill Site 4 Link to Borehole Scan: Not Available	A19SW (NE)	546	4	437810 408600
158	**BGS Boreholes** BGS Reference: Se30ne154 Drilled Length (m): Not Supplied Borehole Name: Cudworth Land Fill Site 9 Link to Borehole Scan: Not Available	A18NE (NE)	580	4	437800 408640
158	**BGS Boreholes** BGS Reference: Se30ne167 Drilled Length (m): Not Supplied Borehole Name: Cudworth Land Fill Site 5 Link to Borehole Scan: Not Available	A19NW (NE)	581	4	437830 408630
158	**BGS Boreholes** BGS Reference: Se30ne156 Drilled Length (m): Not Supplied Borehole Name: Cudworth Land Fill Site 11 Link to Borehole Scan: Not Available	A18NE (N)	589	4	437770 408660
158	**BGS Boreholes** BGS Reference: Se30ne169 Drilled Length (m): Not Supplied Borehole Name: Cudworth Land Fill Site 7 Link to Borehole Scan: Not Available	A18NE (N)	602	4	437780 408670
158	**BGS Boreholes** BGS Reference: Se30ne168 Drilled Length (m): Not Supplied Borehole Name: Cudworth Land Fill Site 6 Link to Borehole Scan: Not Available	A19NW (NE)	602	4	437810 408660
158	**BGS Boreholes** BGS Reference: Se30ne155 Drilled Length (m): Not Supplied Borehole Name: Cudworth Land Fill Site 10 Link to Borehole Scan: Not Available	A18NE (N)	605	4	437790 408670
159	**BGS Boreholes** BGS Reference: Se30ne165 Drilled Length (m): Not Supplied Borehole Name: Cudworth Land Fill Site 3 Link to Borehole Scan: Not Available	A19SW (NE)	587	4	437900 408600
159	**BGS Boreholes** BGS Reference: Se30ne164 Drilled Length (m): Not Supplied Borehole Name: Cudworth Land Fill Site 2a Link to Borehole Scan: Not Available	A19SW (NE)	608	4	437940 408600
160	**BGS Boreholes** BGS Reference: Se30ne368 Drilled Length (m): Not Supplied Borehole Name: Littleworth Lane Lundwood 6 Link to Borehole Scan: Not Available	A8SW (S)	593	4	437260 407250
161	**BGS Boreholes** BGS Reference: Se30ne366 Drilled Length (m): Not Supplied Borehole Name: Littleworth Lane Lundwood 4 Link to Borehole Scan: Not Available	A7NE (SW)	601	4	437070 407320
162	**BGS Boreholes** BGS Reference: Se30ne161 Drilled Length (m): Not Supplied Borehole Name: Cudworth Land Fill Site 205 Link to Borehole Scan: Not Available	A19NW (NE)	617	4	437850 408660

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
163	**BGS Boreholes** BGS Reference: Se30ne170 Drilled Length (m): Not Supplied Borehole Name: Cudworth Land Fill Site 8 Link to Borehole Scan: Not Available	A18NE (N)	640	4	437780 408710
163	**BGS Boreholes** BGS Reference: Se30ne159 Drilled Length (m): Not Supplied Borehole Name: Cudworth Land Fill Site 203 Link to Borehole Scan: Not Available	A19NW (NE)	652	4	437820 408710
164	**BGS Boreholes** BGS Reference: Se30ne371 Drilled Length (m): Not Supplied Borehole Name: Littleworth Lane Lundwood 9 Link to Borehole Scan: Not Available	A8SW (S)	641	4	437330 407180
165	**BGS Boreholes** BGS Reference: Se30ne162 Drilled Length (m): Not Supplied Borehole Name: Cudworth Land Fill Site 206 Link to Borehole Scan: Not Available	A19NW (NE)	654	4	437930 408660
166	**BGS Boreholes** BGS Reference: Se30ne163 Drilled Length (m): Not Supplied Borehole Name: Cudworth Land Fill Site 1 Link to Borehole Scan: Not Available	A19SW (NE)	666	4	438010 408620
167	**BGS Boreholes** BGS Reference: Se30ne234 Drilled Length (m): 3 Borehole Name: Monk Bretton Tt1a Link to Borehole Scan: http://scans.bgs.ac.uk/sobi_scans/boreholes/83750/	A18NW (N)	670	4	437330 408710
168	**BGS Boreholes** BGS Reference: Se30ne364 Drilled Length (m): Not Supplied Borehole Name: Littleworth Lane Lundwood 2 Link to Borehole Scan: Not Available	A8SW (S)	684	4	437210 407170
169	**BGS Boreholes** BGS Reference: Se30ne66 Drilled Length (m): 335 Borehole Name: Magazine Monk Bretton Link to Borehole Scan: Not Available	A7NW (SW)	686	4	436700 407604
170	**BGS Boreholes** BGS Reference: Se30ne370 Drilled Length (m): Not Supplied Borehole Name: Littleworth Lane Lundwood 8 Link to Borehole Scan: Not Available	A8SW (S)	704	4	437310 407120
171	**BGS Boreholes** BGS Reference: Se30ne365 Drilled Length (m): Not Supplied Borehole Name: Littleworth Lane Lundwood 3 Link to Borehole Scan: Not Available	A7SE (SW)	705	4	437000 407240
172	**BGS Boreholes** BGS Reference: Se30ne231 Drilled Length (m): 2 Borehole Name: Monk Bretton Tp 7 Link to Borehole Scan: http://scans.bgs.ac.uk/sobi_scans/boreholes/83747/	A18NW (N)	706	4	437250 408710
173	**BGS Boreholes** BGS Reference: Se30ne225 Drilled Length (m): 3 Borehole Name: Monk Bretton Tp 1 Link to Borehole Scan: http://scans.bgs.ac.uk/sobi_scans/boreholes/83741/	A18NW (N)	715	4	437360 408770

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
174	**BGS Boreholes** BGS Reference: Se30ne160 Drilled Length (m): Not Supplied Borehole Name: Cudworth Land Fill Site 204 Link to Borehole Scan: Not Available	A19NW (NE)	720	4	437900 408750
174	**BGS Boreholes** BGS Reference: Se30ne158 Drilled Length (m): Not Supplied Borehole Name: Cudworth Land Fill Site 202 Link to Borehole Scan: Not Available	A19NW (NE)	760	4	437930 408780
175	**BGS Boreholes** BGS Reference: Se30ne157 Drilled Length (m): Not Supplied Borehole Name: Cudworth Land Fill Site 201 Link to Borehole Scan: Not Available	A19NW (NE)	728	4	437850 408780
176	**BGS Boreholes** BGS Reference: Se30ne191 Drilled Length (m): 6 Borehole Name: Lundwood Sewerage Wrks 1 Link to Borehole Scan: http://scans.bgs.ac.uk/sobi_scans/boreholes/83707/	A8SE (S)	729	4	437670 407090
176	**BGS Boreholes** BGS Reference: Se30ne192 Drilled Length (m): 6 Borehole Name: Lundwood Sewerage Wrks 2 Link to Borehole Scan: http://scans.bgs.ac.uk/sobi_scans/boreholes/83708/	A8SE (S)	758	4	437670 407060
177	**BGS Boreholes** BGS Reference: Se30ne226 Drilled Length (m): 2 Borehole Name: Monk Bretton Tp 2 Link to Borehole Scan: http://scans.bgs.ac.uk/sobi_scans/boreholes/83742/	A18NW (N)	765	4	437300 408800
178	**BGS Boreholes** BGS Reference: Se30ne363 Drilled Length (m): Not Supplied Borehole Name: Littleworth Lane Lundwood 1 Link to Borehole Scan: Not Available	A8SW (S)	776	4	437160 407090
179	**BGS Boreholes** BGS Reference: Se30ne10 Drilled Length (m): 37.8 Borehole Name: Cudworth Station Link to Borehole Scan: http://scans.bgs.ac.uk/sobi_scans/boreholes/83501/	A14NE (E)	779	4	438390 407977
180	**BGS Boreholes** BGS Reference: Se30ne369 Drilled Length (m): Not Supplied Borehole Name: Littleworth Lane Lundwood 7 Link to Borehole Scan: Not Available	A8SW (S)	814	4	437260 407020
181	**BGS Boreholes** BGS Reference: Se30ne193 Drilled Length (m): 6 Borehole Name: Lundwood Sewerage Wrks 3 Link to Borehole Scan: http://scans.bgs.ac.uk/sobi_scans/boreholes/83709/	A9SW (S)	818	4	437850 407060
181	**BGS Boreholes** BGS Reference: Se30ne194 Drilled Length (m): 6 Borehole Name: Lundwood Sewerage Wrks 4 Link to Borehole Scan: http://scans.bgs.ac.uk/sobi_scans/boreholes/83710/	A9SW (S)	824	4	437820 407040
182	**BGS Boreholes** BGS Reference: Se30ne233 Drilled Length (m): 2 Borehole Name: Monk Bretton Tp 9 Link to Borehole Scan: http://scans.bgs.ac.uk/sobi_scans/boreholes/83749/	A18NW (N)	824	4	437420 408900

BGS Boreholes Detail

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
182	**BGS Boreholes** BGS Reference: Se30ne227 Drilled Length (m): 3 Borehole Name: Monk Bretton Tp 3 Link to Borehole Scan: http://scans.bgs.ac.uk/sobi_scans/boreholes/83743/	A18NW (N)	862	4	437380 408930
182	**BGS Boreholes** BGS Reference: Se30ne228 Drilled Length (m): 3 Borehole Name: Monk Bretton Tp 4 Link to Borehole Scan: http://scans.bgs.ac.uk/sobi_scans/boreholes/83744/	A23SW (N)	911	4	437380 408980
183	**BGS Boreholes** BGS Reference: Se30ne195 Drilled Length (m): 10 Borehole Name: Lundwood Sewerage Wrks 5 Link to Borehole Scan: http://scans.bgs.ac.uk/sobi_scans/boreholes/83711/	A8SE (S)	834	4	437740 407000
184	**BGS Boreholes** BGS Reference: Se30ne232 Drilled Length (m): 1 Borehole Name: Monk Bretton Tp 8 Link to Borehole Scan: http://scans.bgs.ac.uk/sobi_scans/boreholes/83748/	A17NE (NW)	857	4	437110 408800
185	**BGS Boreholes** BGS Reference: Se30ne230 Drilled Length (m): 2 Borehole Name: Monk Bretton Tp 6 Link to Borehole Scan: http://scans.bgs.ac.uk/sobi_scans/boreholes/83746/	A18NW (N)	862	4	437200 408860
186	**BGS Boreholes** BGS Reference: Se30ne196 Drilled Length (m): 6 Borehole Name: Lundwood Sewerage Wrks 6 Link to Borehole Scan: http://scans.bgs.ac.uk/sobi_scans/boreholes/83712/	A9SW (S)	868	4	437860 407010
187	**BGS Boreholes** BGS Reference: Se30ne197 Drilled Length (m): 10 Borehole Name: Lundwood Sewerage Wrks 7 Link to Borehole Scan: http://scans.bgs.ac.uk/sobi_scans/boreholes/83713/	A3NE (S)	930	4	437740 406900
188	**BGS Boreholes** BGS Reference: Se30ne229 Drilled Length (m): 3 Borehole Name: Monk Bretton Tp 5 Link to Borehole Scan: http://scans.bgs.ac.uk/sobi_scans/boreholes/83745/	A23SW (N)	959	4	437280 409000
189	**BGS Boreholes** BGS Reference: Se30ne198 Drilled Length (m): 7 Borehole Name: Lundwood Sewerage Wrks 8 Link to Borehole Scan: http://scans.bgs.ac.uk/sobi_scans/boreholes/83714/	A4NW (S)	969	4	437860 406900

Data Currency and Contact Details

BGS Boreholes	Version	Update Cycle
BGS Boreholes British Geological Survey - National Geoscience Information Service	July 2013	Quarterly

Contact Details	Contact Logo
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The COAL AUTHORITY

Issued by:
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Our reference:	**51000393940001**
Your reference:	**50157046_2|**
Date of your enquiry:	**18 October 2013**
Date we received your enquiry:	**18 October 2013**
Date of issue:	**18 October 2013**

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

Non-Residential Coal Authority Mining Report

PONTEFRACT ROAD, LUNDWOOD, BARNSLEY , SOUTH YORKSHIRE,

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	See comments below
Brine Compensation District	No

Information from the Coal Authority

Underground coal mining

Past

The property is in the likely zone of influence from workings in 10 seams of coal at 130m to 580m depth, and last worked in 1991.

Any ground movement from these coal workings should have stopped by now.

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 not in an area for which a licence has been granted to remove or otherwise work coal using underground methods.

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.

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Coal mining geology

The Authority is not aware of any evidence of damage arising due to geological faults or other lines of weakness that have been affected by coal mining.

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

There are 4 claim(s) within 50 metres of the property boundary that do not match the property address. These are shown on the attached plan.

The Authority is not aware of any request having been made to carry out preventive works before coal is worked under section 33 of the Coal Mining Subsidence Act 1991.

If further subsidence damage claims information is required in addition to that provided in this report, the Authority need to manually search their records. For further advice on how to order this additional information visit www.groundstability.com or telephone 0845 7626 848.

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 in an area for which notices of entitlement to withdraw support were published in 1982, 1986.

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.

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.

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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.

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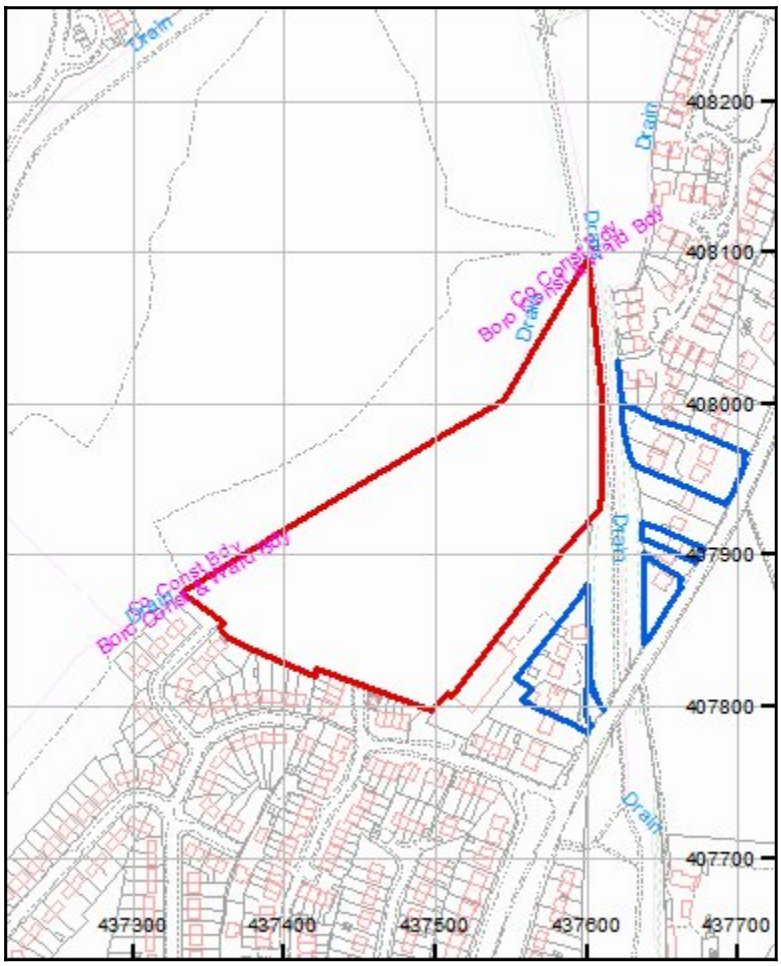
Location map

Approximate position of property



Enquiry boundary

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Key

Approximate position of enquiry boundary shown

Coal Claims

Mapping sourced from Ordnance Survey

Appendix 3

Trial Pit Logs

Monitoring Well Logs

WS log

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Trialpit No
TP1
Sheet 1 of 1

Project Name	Project No.	Co-ords: -	Date
Pontefract Road	36487	Level: -	23/10/2013
Location: Lundwood		Dimensions: 2.00m (Depth 2.00m, 0.70m)	Scale 1:25
Client: Gleeson Developments Ltd			Logged By KE

Samples & In Situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description
Depth (m)	Type	Results				
0.10	D					TOPSOIL: Dark brown sandy slightly gravelly clay with roots and rare glass fragments. Gravel is fine to coarse subrounded stone.
			0.25			Stiff orange brown very dry slightly gravelly CLAY. Gravel is fine and medium subangular sandstone. Land drain at 1.0 m.
0.90	D					
			1.10			Weak grey black MUDSTONE, recovered as clayey gravel.
1.50	D					
			1.90			Strong grey medium grained SANDSTONE.
			2.00			Trialpit Complete at 2.00 m

Remarks: Solid at base

Groundwater: Damp at base

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HoleBASE 3.1 (Bld 426.48) Standard Trialpit Log v2 dated 27th Nov 03

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Trialpit No
TP2
Sheet 1 of 1

Project Name	Project No.	Co-ords: -	Date
Pontefract Road	36487	Level: -	23/10/2013
Location: Lundwood		Dimensions: 2.00m, Depth 2.80m, 0.70m	Scale 1:25
Client: Gleeson Developments Ltd			Logged By KE

Samples & In Situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description
Depth (m)	Type	Results				
0.10	D					TOPSOIL: Dark brown slightly ashy sandy slightly gravelly clay with roots and rare brick and timber fragments. Gravel is fine to coarse subrounded stone.
			0.30			Stiff orange brown mottled red brown slightly sandy CLAY with rare sandstone cobbles.
0.90	D					
			1.60			Weak grey MUDSTONE, recovered as shaley gravel.
			2.80			Trialpit Complete at 2.80 m

Remarks:

Groundwater: None encountered

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Trialpit No
TP3
Sheet 1 of 1

Project Name	Project No.	Co-ords: -	Date
Pontefract Road	36487	Level: -	23/10/2013
Location: Lundwood		Dimensions: 2.00m, Depth 2.40m, 0.70m	Scale 1:25
Client: Gleeson Developments Ltd			Logged By KE

Samples & In Situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description
Depth (m)	Type	Results				
0.10	D					TOPSOIL: Dark brown slightly ashy sandy slightly gravelly clay with roots and rare brick fragments. Gravel is fine to coarse subrounded stone.
			0.25			MADE GROUND: Stiff grey brown clay with brick fragments.
			0.35			Stiff orange brown CLAY.
			1.10			Stiff grey CLAY.
1.70	IPP 1	150				
1.70	IPP 2	200				
			1.90			Weak grey SHALE, recovered as gravel.
			2.40			Trialpit Complete at 2.40 m

Remarks: IPP = penetrometer readings as unconfined compressive strength in kN/m2.

Groundwater: None encountered

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HoleBASE 3.1 (Bld 426.48) Standard Trialpit Log v2 dated 27th Nov 03

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Trialpit No
TP4
Sheet 1 of 1

Project Name	Project No.	Co-ords: -	Date
Pontefract Road	36487	Level: -	23/10/2013
Location: Lundwood		Dimensions: 2.00m, Depth 2.40m, 0.70m	Scale 1:25
Client: Gleeson Developments Ltd			Logged By KE

Samples & In Situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description
Depth (m)	Type	Results				
0.10	D		0.15			TOPSOIL: Dark brown sandy slightly gravelly clay with roots. Gravel is fine to coarse subrounded stone.
						Stiff orange brown mottled grey slightly sandy CLAY.
0.80	D		0.90			Stiff grey mottled red brown CLAY with yellow sandy bands.
1.50	IPP 1	175				
1.50	IPP 2	200				
1.60	D		1.80			Stiff grey CLAY.
			2.40			Trialpit Complete at 2.40 m

Remarks: IPP = penetrometer readings as unconfined compressive strength in kN/m2.

Groundwater: None encountered

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Trialpit No
TP4A
Sheet 1 of 1

Project Name	Project No.	Co-ords: -	Date
Pontefract Road	36487	Level: -	05/11/2013
Location: Lundwood		Dimensions: Depth 0.90m (1.50m × 0.80m)	Scale 1:25
Client: Gleeson Developments Ltd			Logged By KE

Samples & In Situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description
Depth (m)	Type	Results				
			0.20			TOPSOIL: Dark brown sandy slightly gravelly clay with roots. Gravel is fine to coarse subrounded stone.
						Stiff orange brown slightly sandy CLAY.
0.90	D		0.90			Trialpit Complete at 0.90 m

Remarks:

Groundwater: None encountered.

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Trialpit No
TP4B
Sheet 1 of 1

Project Name	Project No.	Co-ords: -	Date
Pontefract Road	36487	Level: -	05/11/2013
Location: Lundwood		Dimensions: Depth 0.90m, 1.50m × 0.80m	Scale 1:25
Client: Gleeson Developments Ltd			Logged By KE

Samples & In Situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description
Depth (m)	Type	Results				
						TOPSOIL: Dark brown sandy slightly gravelly clay with roots. Gravel is fine to coarse subrounded stone.
			0.30			Stiff orange brown slightly sandy CLAY.
0.90	D		0.90			Trialpit Complete at 0.90 m

Remarks:

Groundwater: None encountered.

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HoleBASE 3.1 (Bld 426.48) Standard Trialpit Log v2 dated 27th Nov 03

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Trialpit No
TP5
Sheet 1 of 1

Project Name	Project No.	Co-ords: -	Date
Pontefract Road	36487	Level: -	23/10/2013
Location: Lundwood		Dimensions: 2.00m, Depth 2.30m, 0.70m	Scale 1:25
Client: Gleeson Developments Ltd			Logged By KE

Samples & In Situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description
Depth (m)	Type	Results				
0.10	D					TOPSOIL: Dark brown sandy slightly gravelly clay with roots and rare glass fragments. Gravel is fine to coarse subrounded stone.
			0.20			Stiff orange brown mottled grey slightly sandy CLAY.
1.00	IPP	150				
			1.10			Stiff grey friable CLAY.
			1.90			Weak grey MUDSTONE, recovered as gravel.
			2.30			Trialpit Complete at 2.30 m

Remarks: IPP = penetrometer readings as unconfined compressive strength in kN/m2.

Groundwater: None encountered

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HoleBASE 3.1 (Bld 426.48) Standard Trialpit Log v2 dated 27th Nov 03

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Trialpit No
TP6
Sheet 1 of 1

Project Name	Project No.	Co-ords: -	Date
Pontefract Road	36487	Level: -	23/10/2013
Location: Lundwood		Dimensions: 2.00m, Depth 2.40m, 0.70m	Scale 1:25
Client: Gleeson Developments Ltd			Logged By KE

Samples & In Situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description
Depth (m)	Type	Results				
			0.05			TOPSOIL: Dark brown sandy slightly gravelly clay with roots. Gravel is fine to coarse subrounded stone.
			0.30			MADE GROUND: Firm pale brown slightly sandy clay.
0.40	D					MADE GROUND: Grey black fine sand with coal and shale fragments.
			0.80			Firm to stiff orange brown CLAY.
1.30	D		1.20			Stiff grey CLAY.
			1.80			Weak grey MUDSTONE, recovered as gravel.
			2.40			Trialpit Complete at 2.40 m

Remarks:

Groundwater: None encountered

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Trialpit No
TP7
Sheet 1 of 1

Project Name	Project No.	Co-ords: -	Date
Pontefract Road	36487	Level: -	23/10/2013
Location: Lundwood		Dimensions: 2.00m, Depth 2.50m, 0.70m	Scale 1:25
Client: Gleeson Developments Ltd			Logged By KE

Samples & In Situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description
Depth (m)	Type	Results				
0.10	D					TOPSOIL: Dark brown sandy slightly gravelly clay with roots. Gravel is fine to coarse subrounded stone. Basal 50 mm coal band.
			0.35			Stiff orange grey slightly sandy CLAY.
0.90	D					
1.60	D					
			2.50			Trialpit Complete at 2.50 m

Remarks:

Groundwater: None encountered

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Trialpit No
TP8
Sheet 1 of 1

Project Name	Project No.	Co-ords: -	Date
Pontefract Road	36487	Level: -	23/10/2013
Location: Lundwood		Dimensions: 2.00m, Depth 2.20m, 0.70m	Scale 1:25
Client: Gleeson Developments Ltd			Logged By KE

Samples & In Situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description
Depth (m)	Type	Results				
0.10	D					TOPSOIL: Dark brown sandy slightly gravelly clay with roots. Gravel is fine to coarse subrounded stone.
			0.30			Stiff orange brown slightly sandy CLAY.
1.50	IPP	175				
			2.00			Weak grey MUDSTONE, recovered as gravel.
			2.20			Trialpit Complete at 2.20 m

Remarks: IPP = penetrometer readings as unconfined compressive strength in kN/m2.

Groundwater: None encountered

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Trialpit No
TP9
Sheet 1 of 1

Project Name	Project No.	Co-ords: -	Date
Pontefract Road	36487	Level: -	23/10/2013
Location: Lundwood		Dimensions: 2.00m, Depth 1.80m, 0.70m	Scale 1:25
Client: Gleeson Developments Ltd			Logged By KE

Samples & In Situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description
Depth (m)	Type	Results				
0.10	D					TOPSOIL: Dark brown sandy slightly gravelly clay with roots. Gravel is fine to coarse subrounded stone.
			0.30			Stiff orange brown friable slightly sandy CLAY.
			0.80			Weak grey MUDSTONE, recovered as gravel.
1.00	D					
			1.80			Trialpit Complete at 1.80 m

Remarks:

Groundwater: None encountered

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Trialpit No
TP9A
Sheet 1 of 1

Project Name	Project No.	Co-ords: -	Date
Pontefract Road	36487	Level: -	05/11/2013
Location: Lundwood		Dimensions: Depth 1.00m, 0.80m × 1.50m	Scale 1:25
Client: Gleeson Developments Ltd			Logged By KE

Samples & In Situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description
Depth (m)	Type	Results				
			0.20			TOPSOIL: Dark brown sandy slightly gravelly clay with roots. Gravel is fine to coarse subrounded stone.
						Firm orange brown slightly sandy CLAY.
1.00	D		1.00			Trialpit Complete at 1.00 m

Remarks:

Groundwater: None encountered.

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Trialpit No
TP9B
Sheet 1 of 1

Project Name	Project No.	Co-ords: -	Date
Pontefract Road	36487	Level: -	05/11/2013
Location: Lundwood		Dimensions: 1.50m, Depth 1.00m, 0.80m	Scale 1:25
Client: Gleeson Developments Ltd			Logged By KE

Samples & In Situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description
Depth (m)	Type	Results				
			0.20			TOPSOIL: Dark brown sandy slightly gravelly clay with roots. Gravel is fine to coarse subrounded stone.
						Firm orange brown slightly sandy CLAY.
1.00	D		1.00			Trialpit Complete at 1.00 m

Remarks:

Groundwater: None encountered.

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Trialpit No
TP10
Sheet 1 of 1

Project Name	Project No.	Co-ords: -	Date
Pontefract Road	36487	Level: -	23/10/2013
Location: Lundwood		Dimensions: 2.00m, Depth 2.30m, 0.70m	Scale 1:25
Client: Gleeson Developments Ltd			Logged By KE

Samples & In Situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description
Depth (m)	Type	Results				
0.10	D					TOPSOIL: Dark brown sandy slightly gravelly clay with roots. Gravel is fine to coarse subrounded stone.
			0.30			Firm orange brown slightly sandy CLAY.
			0.70			Stiff orange brown mottled grey slightly sandy CLAY.
1.00	D					
			1.70			Weak grey MUDSTONE, recovered as gravel.
			2.30			Trialpit Complete at 2.30 m

Remarks:

Groundwater: Damp at 2.0 m.

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Trialpit No
TP11
Sheet 1 of 1

Project Name	Project No.	Co-ords: -	Date
Pontefract Road	36487	Level: -	23/10/2013
Location: Lundwood		Dimensions: 2.00m (0.70m) Depth 2.20m	Scale 1:25
Client: Gleeson Developments Ltd			Logged By KE

Samples & In Situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description
Depth (m)	Type	Results				
0.10	D		0.20			TOPSOIL: Dark brown sandy slightly gravelly clay with roots. Gravel is fine to coarse subrounded stone.
			0.40			Stiff grey friable slightly sandy slightly gravelly CLAY. Gravel is fine to coarse subangular mudstone.
						Weak grey MUDSTONE, recovered as gravel and cobbles.
			2.20			Trialpit Complete at 2.20 m

Remarks:

Groundwater: None encountered

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Trialpit No
TP12
Sheet 1 of 1

Project Name	Project No.	Co-ords: -	Date
Pontefract Road	36487	Level: -	23/10/2013
Location: Lundwood		Dimensions: 2.00m, Depth 2.10m, 0.70m	Scale 1:25
Client: Gleeson Developments Ltd			Logged By KE

Samples & In Situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description
Depth (m)	Type	Results				
0.10	D					TOPSOIL: Dark brown sandy slightly gravelly clay with roots. Gravel is fine to coarse subrounded stone.
			0.30			Firm dark brown slightly sandy CLAY.
			0.50			Stiff pale brown slightly sandy CLAY.
0.90	D					
1.20	IPP	150	1.20			Weak grey MUDSTONE, recovered as gravel.
			2.10			Trialpit Complete at 2.10 m

Remarks: IPP = penetrometer readings as unconfined compressive strength in kN/m2.

Groundwater: None encountered

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Trialpit No
TP12A
Sheet 1 of 1

Project Name	Project No.	Co-ords: -	Date
Pontefract Road	36487	Level: -	05/11/2013
Location: Lundwood		Dimensions: 2.00m, Depth 1.00m, 0.60m	Scale 1:25
Client: Gleeson Developments Ltd			Logged By KE

Samples & In Situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description
Depth (m)	Type	Results				
			0.25			TOPSOIL: Dark brown sandy slightly gravelly clay with roots. Gravel is fine to coarse subrounded stone.
						Firm orange brown slightly sandy CLAY.
1.00	D		1.00			Trialpit Complete at 1.00 m

Remarks:

Groundwater: None encountered.

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Trialpit No
TP12B
Sheet 1 of 1

Project Name	Project No.	Co-ords: -	Date
Pontefract Road	36487	Level: -	05/11/2013
Location: Lundwood		Dimensions: Depth 1.00m, 1.50m, 0.80m	Scale 1:25
Client: Gleeson Developments Ltd			Logged By KE

Samples & In Situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description
Depth (m)	Type	Results				
						TOPSOIL: Dark brown sandy slightly gravelly clay with roots. Gravel is fine to coarse subrounded stone.
			0.30			Firm orange brown slightly sandy CLAY.
1.00	D		1.00			Trialpit Complete at 1.00 m

Remarks:

Groundwater: None encountered.

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Trialpit No
TP13
Sheet 1 of 1

Project Name	Project No.	Co-ords: -	Date
Pontefract Road	36487	Level: -	23/10/2013
Location: Lundwood		Dimensions: 2.00m (Depth 2.40m, 0.70m)	Scale 1:25
Client: Gleeson Developments Ltd			Logged By KE

Samples & In Situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description
Depth (m)	Type	Results				
0.10	D		0.20			TOPSOIL: Dark brown sandy slightly gravelly clay with roots. Gravel is fine to coarse subrounded stone.
0.40	D		0.80			MADE GROUND: Firm pale brown slightly sandy slightly gravelly clay. Gravel is fine to coarse mudstone.
1.10	D		1.70			Stiff orange brown slightly gravelly CLAY. Gravel is fine to coarse subangular mudstone.
			2.40			Weak brown grey MUDSTONE, recovered as gravel.
						Trialpit Complete at 2.40 m

Remarks:

Groundwater: None encountered

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Trialpit No
TP14
Sheet 1 of 1

Project Name	Project No.	Co-ords: -	Date
Pontefract Road	36487	Level: -	23/10/2013
Location: Lundwood		Dimensions: 2.00m, Depth 2.30m, 0.70m	Scale 1:25
Client: Gleeson Developments Ltd			Logged By KE

Samples & In Situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description
Depth (m)	Type	Results				
0.10	D		0.20			TOPSOIL: Dark brown sandy slightly gravelly clay with roots. Gravel is fine to coarse subrounded stone.
0.40	D		0.70			MADE GROUND: Firm dark brown grey slightly sandy slightly gravelly clay. Gravel is fine to coarse subangular mudstone and ceramic fragments.
			1.40			Stiff orange brown sandy CLAY.
			2.30			Weak grey brown MUDSTONE, recovered as gravel.
						Trialpit Complete at 2.30 m

Remarks:

Groundwater: None encountered

AGS

HoleBASE 3.1 (Bld 426.48) Standard Trialpit Log v2 dated 27th Nov 03

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Sheffield
S11 9AS

Trialpit No
TP15
Sheet 1 of 1

Project Name	Project No.	Co-ords: -	Date
Pontefract Road	36487	Level: -	23/10/2013
Location: Lundwood		Dimensions: 2.00m, Depth 2.50m, 0.70m	Scale 1:25
Client: Gleeson Developments Ltd			Logged By KE

Samples & In Situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description
Depth (m)	Type	Results				
0.10	D					TOPSOIL: Dark brown sandy slightly gravelly clay with roots. Gravel is fine to coarse subrounded stone and shale.
			0.30			Stiff orange brown slightly sandy CLAY.
1.20	D					
			1.70			Stiff grey slightly gravelly CLAY. Gravel is fine to coarse subangular mudstone.
			2.10			Weak grey MUDSTONE, recovered as gravel.
			2.50			Trialpit Complete at 2.50 m

Remarks:

Groundwater: None encountered

AGS

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Trialpit No
TP16
Sheet 1 of 1

Project Name	Project No.	Co-ords: -	Date
Pontefract Road	36487	Level: -	23/10/2013
Location: Lundwood		Dimensions: 2.00m, Depth 2.20m, 0.70m	Scale 1:25
Client: Gleeson Developments Ltd			Logged By KE

Samples & In Situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description
Depth (m)	Type	Results				
0.10	D		0.20			TOPSOIL: Dark brown sandy slightly gravelly clay with roots. Gravel is fine to coarse subrounded stone and shale.
			0.70			Stiff orange brown slightly sandy CLAY.
1.20	D		1.60			Stiff grey mottled brown slightly gravelly CLAY. Gravel is fine to coarse subangular mudstone.
			2.20			Weak grey MUDSTONE, recovered as gravel.
						Trialpit Complete at 2.20 m

Remarks:

Groundwater: None encountered

AGS

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Trialpit No
TP16A
Sheet 1 of 1

Project Name	Project No.	Co-ords: -	Date
Pontefract Road	36487	Level: -	05/11/2013
Location: Lundwood		Dimensions: 1.50m, Depth 1.20m, 0.80m	Scale 1:25
Client: Gleeson Developments Ltd			Logged By KE

Samples & In Situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description
Depth (m)	Type	Results				
						TOPSOIL: Dark brown sandy slightly gravelly clay with roots. Gravel is fine to coarse subrounded stone.
			0.30			Stiff orange brown slightly sandy CLAY.
			0.70			Stiff orange grey slightly gravelly CLAY. Gravel is fine to coarse subangular mudstone.
1.20	D		1.20			Trialpit Complete at 1.20 m

Remarks:

Groundwater: None encountered.

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Trialpit No
TP16B
Sheet 1 of 1

Project Name	Project No.	Co-ords: -	Date
Pontefract Road	36487	Level: -	05/11/2013
Location: Lundwood		Dimensions: 1.50m, Depth 1.20m, 0.80m	Scale 1:25
Client: Gleeson Developments Ltd			Logged By KE

Samples & In Situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description
Depth (m)	Type	Results				
						TOPSOIL: Dark brown sandy slightly gravelly clay with roots. Gravel is fine to coarse subrounded stone.
			0.30			Stiff orange brown slightly sandy CLAY.
			0.70			Stiff orange grey slightly gravelly CLAY. Gravel is fine to coarse subangular mudstone.
1.20	D		1.20			Trialpit Complete at 1.20 m

Remarks:

Groundwater: None encountered.

AGS

HoleBASE 3.1 (Bld 426.48) Standard Trialpit Log v2 dated 27th Nov 03

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Trialpit No
TP17
Sheet 1 of 1

Project Name	Project No.	Co-ords: -	Date
Pontefract Road	36487	Level: -	23/10/2013
Location: Lundwood		Dimensions: 2.00m, Depth 2.30m, 0.70m	Scale 1:25
Client: Gleeson Developments Ltd			Logged By KE

Samples & In Situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description
Depth (m)	Type	Results				
0.10	D					TOPSOIL: Dark brown sandy slightly gravelly clay with roots and rare glass fragments. Gravel is fine to coarse subrounded stone.
			0.30			Stiff orange brown slightly sandy CLAY.
			0.70			Stiff grey CLAY.
1.20	IPP 1	175				
1.20	IPP 2	150				
			1.80			Weak grey MUDSTONE, recovered as shaley gravel.
			2.30			Trialpit Complete at 2.30 m

Remarks: IPP = penetrometer readings as unconfined compressive strength in kN/m2.

Groundwater: None encountered

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HoleBASE 3.1 (Bld 426.48) Standard Trialpit Log v2 dated 27th Nov 03

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Borehole No
MW1
Sheet 1 of 1

Project Name	Project No.	Co-ords: -	Hole Type
Pontefract Road	36487		WS
Location: Lundwood		Level: -	Scale 1:50
Client: Gleeson Developments Ltd		Dates: 05/11/2013	Logged By WELLHEAD

Well	Water Strikes	Samples & In Situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description
		Depth (m)	Type	Results				
					0.20			TOPSOIL
								Firm grey brown CLAY with occasional rootlets.
					0.80			Dark grey MUDSTONE
					1.50			End of Borehole at 1.80 m
			Type	Results				

Remarks: Monitoring well

AGS

HoleBASE 3.1 (Bld 426.48) Standard Borehole Log v2 dated 27th Nov 03

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Borehole No
MW2
Sheet 1 of 1

Project Name	Project No.	Co-ords: -	Hole Type
Pontefract Road	36487		WS
Location: Lundwood		Level: -	Scale 1:50
Client: Gleeson Developments Ltd		Dates: 05/11/2013	Logged By WELLHEAD

Well	Water Strikes	Samples & In Situ Testing: Depth (m)	Type	Results	Depth (m)	Level (m AOD)	Legend	Stratum Description
					0.20			TOPSOIL: Dark brown sandy slightly gravelly clay with roots. Gravel is fine to coarse subrounded stone.
					0.60			Firm brown to grey CLAY with roots.
								Firm pale brown CLAY with occasional gravel sized fragments of sandstone.
					1.80			Dark brown MUDSTONE.
					2.60			End of Borehole at 2.60 m
			Type	Results				

Remarks: Monitoring well

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HoleBASE 3.1 (Bld 426.48) Standard Borehole Log v2 dated 27th Nov 03

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Borehole No
MW3
Sheet 1 of 1

Project Name	Project No.	Co-ords: -	Hole Type
Pontefract Road	36487		WS
Location: Lundwood		Level: -	Scale 1:50
Client: Gleeson Developments Ltd		Dates: 05/11/2013	Logged By WELLHEAD

Well	Water Strikes	Samples & In Situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description
		Depth (m)	Type	Results				
					0.20			TOPSOIL: Dark brown sandy slightly gravelly clay with roots. Gravel is fine to coarse subrounded stone.
					0.60			Firm grey brown CLAY.
								Stiff pale brown CLAY.
					2.30			Dark brown MUDSTONE.
					3.00			End of Borehole at 3.00 m
			Type	Results				

Remarks: Monitoring well

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Borehole No
MW4
Sheet 1 of 1

Project Name	Project No.	Co-ords: -	Hole Type
Pontefract Road	36487		WS
Location: Lundwood		Level: -	Scale 1:50
Client: Gleeson Developments Ltd		Dates: 05/11/2013	Logged By WELLHEAD

Well	Water Strikes	Samples & In Situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description
		Depth (m)	Type	Results				
					0.20			TOPSOIL: Dark brown sandy slightly gravelly clay with roots. Gravel is fine to coarse subrounded stone.
					0.70			Firm brown CLAY with roots.
					1.90			Stiff grey brown CLAY.
					3.00			Pale grey MUDSTONE.
								End of Borehole at 3.00 m
			Type	Results				

Remarks: Monitoring well

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HoleBASE 3.1 (Bld 426.48) Standard Borehole Log v2 dated 27th Nov 03

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Borehole No
MW5
Sheet 1 of 1

Project Name	Project No.	Co-ords: -	Hole Type
Pontefract Road	36487		WS
Location: Lundwood		Level: -	Scale 1:50
Client: Gleeson Developments Ltd		Dates: 05/11/2013	Logged By WELLHEAD

Well	Water Strikes	Samples & In Situ Testing: Depth (m)	Type	Results	Depth (m)	Level (m AOD)	Legend	Stratum Description
					0.20			TOPSOIL: Dark brown sandy slightly gravelly clay with roots. Gravel is fine to coarse subrounded stone.
					0.50			Firm brown CLAY with roots.
								Stiff pale brown CLAY.
					1.80			Grey MUDSTONE.
					2.90			End of Borehole at 2.90 m
			Type	Results				

Remarks: Monitoring well

AGS

HoleBASE 3.1 (Bld 426.48) Standard Borehole Log v2 dated 27th Nov 03

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S11 9AS

Borehole No
MW6
Sheet 1 of 1

Project Name	Project No.	Co-ords: -	Hole Type
Pontefract Road	36487		WS
Location: Lundwood		Level: -	Scale 1:50
Client: Gleeson Developments Ltd		Dates: 05/11/2013	Logged By WELLHEAD

Well	Water Strikes	Samples & In Situ Testing: Depth (m)	Type	Results	Depth (m)	Level (m AOD)	Legend	Stratum Description
					0.10			TOPSOIL: Dark brown sandy slightly gravelly clay with roots. Gravel is fine to coarse subrounded stone.
					0.30			Grey Ash
								Firm grey to brown CLAY.
					1.90			Pale grey MUDSTONE.
					3.00			End of Borehole at 3.00 m
			Type	Results				

Remarks: Monitoring well

AGS

HoleBASE 3.1 (Bld 426.48) Standard Borehole Log v2 dated 27th Nov 03

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Borehole No
MW7
Sheet 1 of 1

Project Name	Project No.	Co-ords: -	Hole Type
Pontefract Road	36487		WS
Location: Lundwood		Level: -	Scale 1:50
Client: Gleeson Developments Ltd		Dates: 05/11/2013	Logged By WELLHEAD

Well	Water Strikes	Samples & In Situ Testing Depth (m)	Type	Results	Depth (m)	Level (m AOD)	Legend	Stratum Description
					0.20			TOPSOIL: Dark brown sandy slightly gravelly clay with roots. Gravel is fine to coarse subrounded stone.
								Firm brown CLAY with occasional rootlets.
					1.30			Grey to brown MUDSTONE.
					3.00			End of Borehole at 3.00 m
			Type	Results				

Remarks: Monitoring well

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HoleBASE 3.1 (Bld 426.48) Standard Borehole Log v2 dated 27th Nov 03

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Borehole No
MW8
Sheet 1 of 1

Project Name: Pontefract Road	Project No.: 36487	Co-ords: -	Hole Type: WS
Location: Lundwood		Level: -	Scale: 1:50
Client: Gleeson Developments Ltd		Dates: 05/11/2013	Logged By: WELLHEAD

Well	Water Strikes	Samples & In Situ Testing: Depth (m)	Type	Results	Depth (m)	Level (m AOD)	Legend	Stratum Description
					0.20			TOPSOIL: Dark brown sandy slightly gravelly clay with roots. Gravel is fine to coarse subrounded stone.
								Firm grey to brown CLAY.
					0.90			Grey mottled brown MUDSTONE.
					2.80			End of Borehole at 2.80 m

Remarks: Monitoring well

HoleBASE 3.1 (Bld 426.48) Standard Borehole Log v2 dated 27th Nov 03

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Borehole No
MW9
Sheet 1 of 1

Project Name	Project No.	Co-ords: -	Hole Type
Pontefract Road	36487		WS
Location: Lundwood		Level: -	Scale 1:50
Client: Gleeson Developments Ltd		Dates: 05/11/2013	Logged By WELLHEAD

Well	Water Strikes	Samples & In Situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description
		Depth (m)	Type	Results				
					0.20			TOPSOIL: Dark brown sandy slightly gravelly clay with roots. Gravel is fine to coarse subrounded stone.
								Stiff brown friable CLAY.
					1.20			Brown friable MUDSTONE.
					1.80			Stiff dark grey MUDSTONE.
					2.60			End of Borehole at 2.60 m
			Type	Results				

Remarks: Monitoring well

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HoleBASE 3.1 (Bld 426.48) Standard Borehole Log v2 dated 27th Nov 03

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Borehole No
MW10
Sheet 1 of 1

Project Name	Project No.	Co-ords: -	Hole Type
Pontefract Road	36487		WS
Location: Lundwood		Level: -	Scale 1:50
Client: Gleeson Developments Ltd		Dates: 05/11/2013	Logged By WELLHEAD

Well	Water Strikes	Samples & In Situ Testing: Depth (m)	Type	Results	Depth (m)	Level (m AOD)	Legend	Stratum Description
					0.30			TOPSOIL: Dark brown sandy slightly gravelly clay with roots. Gravel is fine to coarse subrounded stone.
								Stiff grey to brown friable CLAY.
					1.60			Grey to brown MUDSTONE.
					3.00			End of Borehole at 3.00 m
			Type	Results				

Remarks: Monitoring well

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Borehole No
MW11
Sheet 1 of 1

Project Name	Project No.	Co-ords: -	Hole Type
Pontefract Road	36487		WS
Location: Lundwood		Level: -	Scale 1:50
Client: Gleeson Developments Ltd		Dates: 05/11/2013	Logged By WELLHEAD

Well	Water Strikes	Samples & In Situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description
		Depth (m)	Type	Results				
					0.10			TOPSOIL: Dark brown sandy slightly gravelly clay with roots. Gravel is fine to coarse subrounded stone.
					0.40			Firm brown CLAY.
								Stiff grey to brown CLAY.
					1.40			Stiff grey MUDSTONE.
					3.00			End of Borehole at 3.00 m
			Type	Results				

Remarks: Monitoring well

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Borehole No
MW12
Sheet 1 of 1

Project Name	Project No.	Co-ords: -	Hole Type
Pontefract Road	36487		WS
Location: Lundwood		Level: -	Scale 1:50
Client: Gleeson Developments Ltd		Dates: 06/11/2013	Logged By WELLHEAD

Well	Water Strikes	Samples & In Situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description
		Depth (m)	Type	Results				
					0.20			TOPSOIL: Dark brown sandy slightly gravelly clay with roots. Gravel is fine to coarse subrounded stone.
								Firm brown CLAY with occasional rootlets.
					0.90			Stiff grey to brown CLAY.
					2.00			Grey MUDSTONE.
					3.00			End of Borehole at 3.00 m
			Type	Results				

Remarks: Monitoring well

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Borehole No
MW13
Sheet 1 of 1

Project Name	Project No.	Co-ords: -	Hole Type
Pontefract Road	36487		WS
Location: Lundwood		Level: -	Scale 1:50
Client: Gleeson Developments Ltd		Dates: 06/11/2013	Logged By WELLHEAD

Well	Water Strikes	Samples & In Situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description
		Depth (m)	Type	Results				
								MADE GROUND : Ash brick and clayey topsoil.
					0.50			Stiff pale brown CLAY.
					1.40			Grey mottled brown MUDSTONE.
					3.00			End of Borehole at 3.00 m
			Type	Results				

Remarks: Monitoring well

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Borehole No
MW14
Sheet 1 of 1

Project Name	Project No.	Co-ords: -	Hole Type
Pontefract Road	36487		WS
Location: Lundwood		Level: -	Scale 1:50
Client: Gleeson Developments Ltd		Dates: 06/11/2013	Logged By WELLHEAD

Well	Water Strikes	Samples & In Situ Testing Depth (m)	Type	Results	Depth (m)	Level (m AOD)	Legend	Stratum Description
					0.20			TOPSOIL: Dark brown sandy slightly gravelly clay with roots. Gravel is fine to coarse subrounded stone.
					0.80			Firm grey to brown CLAY.
					1.30			Stiff pale brown CLAY.
								End of Borehole at 3.00 m
			Type	Results				

Remarks: Monitoring well

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HoleBASE 3.1 (Bld 426.48) Standard Borehole Log v2 dated 27th Nov 03

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Borehole No
WS1
Sheet 1 of 1

Project Name	Project No.	Co-ords: -	Hole Type
Pontefract Road	36487		WS
Location: Lundwood		Level: -	Scale 1:50
Client: Gleeson Developments Ltd		Dates: 23/10/2013	Logged By WELLHEAD

Well	Water Strikes	Samples & In Situ Testing: Depth (m)	Type	Results	Depth (m)	Level (m AOD)	Legend	Stratum Description
					0.20			TOPSOIL: Dark brown sandy slightly gravelly clay with roots. Gravel is fine to coarse subrounded stone.
					0.60			Firm brown to grey CLAY with rootlets.
								Stiff grey CLAY.
					2.10			Grey to brown MUDSTONE.
					3.00			End of Borehole at 3.00 m

1 2 3 4 5 6 7 8 9

Type Results

Remarks:

AGS

HoleBASE 3.1 (Bld 426.48) Standard Borehole Log v2 dated 27th Nov 03

Appendix 4

Chemtest Reports 242811 &245490

Table of Assessment Values

Modified Mean Calculations

CLEA Arsenic Calculation

Chemtest
The right chemistry to deliver results

Depot Road
Newmarket
CB8 0AL
Tel: 01638 606070

Eastwood & Partners
St. Andrews House
23 Kingfield Road
Sheffield
S11 9AS

FAO Kate Edwards
26 November 2013

Dear Kate Edwards

Test Report Number **242811a Amended Test Report**
Your Project Reference **36487 - Lundwood**

Please find enclosed the results of analysis for the samples received 25 October 2013.

Please find attached your additional analysis. Disregard all previous reports.

All soil samples will be retained for a period of one month and all water samples will be retained for 7 days following the date of the test report. Should you require an extended retention period then please detail your requirements in an email to customerservices@chemtest.co.uk. Please be aware that charges may be applicable for extended sample storage.

If you require any further assistance, please do not hesitate to contact the Customer Services team.

Yours sincerely



Keith Jones, Technical Manager

UKAS TESTING
2183

mCERTS
THE ENVIRONMENT AGENCY'S MONITORING CERTIFICATION SCHEME

Notes to accompany report:

- *The sign < means 'less than'*
- *Tests marked 'U' hold UKAS accreditation*
- *Tests marked 'M' hold MCertS (and UKAS) accreditation*
- *Tests marked 'N' do not currently hold UKAS accreditation*
- *Tests marked 'S' were subcontracted to an approved laboratory*
- *n/e means 'not evaluated'*
- *i/s means 'insufficient sample'*
- *u/s means 'unsuitable sample'*
- *Comments or interpretations are outside of the scope of UKAS accreditation*
- *The results relate only to the items tested*
- *Stones represent the quantity of material removed prior to analysis*
- *All results are expressed on a dry weight basis*
- *The following tests were analysed on samples as received and the results subsequently corrected to a dry weight basis TPH, BTEX, VOCs, SVOCs, PCBs, phenols*
- *For all other tests the samples were dried at < 37°C prior to analysis*
- *Uncertainties of measurement for the determinands tested are available upon request*
- *Soil descriptions, including colour and texture, are beyond the scope of MCertS accreditation*
- *None of the test results included in this report have been recovery corrected*

Registered in England & Wales - Registration Number 6511736 - Registered Office: 11 Depot Road Newmarket Suffolk CB8 0AL

Eastwood & Partners
St. Andrews House
23 Kingfield Road
Sheffield
S11 9AS

FAO Kate Edwards

AMENDED LABORATORY TEST REPORT

Results of analysis of 20 samples
received 25 October 2013

36487 - Lundwood

Report Date
26 November 2013

Login Batch No						**242811**					
Chemtest LIMS ID						AJ33797	AJ33798	AJ33799	AJ33800	AJ33801	AJ33802
Sample ID						TP1	TP2	TP3	TP5	TP7	TP8
Sample No						TS	TS	TS	TS	TS	TS
Sampling Date						23/10/2013	23/10/2013	23/10/2013	23/10/2013	23/10/2013	23/10/2013
Depth						0.10m	0.10m	0.10m	0.10m	0.10m	0.10m
Matrix						*SOIL*	*SOIL*	*SOIL*	*SOIL*	*SOIL*	*SOIL*
SOP↓	Determinand↓	CAS No↓	Units↓	*							
2030	Moisture		%	M		22.3	25	23.3	23.1	23.7	22.8
	Stones content (>50mm)		%	M		<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
2040	Soil colour			M		brown	brown	brown	brown	brown	brown
	Soil texture			M		clay	clay	clay	clay	clay	clay
	Other material			M		stones	stones	stones	stones	stones	stones
2010	pH			M		7.4	7.4	5.8	5.3	6.1	5.3
2630	As Stomach Bioaccessibility	7440382	mg kg-¹	N			2.9		0.38		
	As Intestinal Bioaccessibility 1	7440382	mg kg-¹	N			4.9		0.54		
	As Intestinal Bioaccessibility 2	7440382	mg kg-¹	N			4.2		0.82		
	Arsenic - Bioaccessible Fraction	7440382	%	N			6.7		1.1		
2175	Sulfur (total TRL report 447)		%	M							
2120	Sulfate (2:1 water soluble) as SO4	14808798	g l-¹	M							
2490	Chromium (hexavalent)	18540299	mg kg-¹	N		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
2430	Sulfate (total BS1377 HCl extract)	14808798	%	M							
2450	Arsenic	7440382	mg kg-¹	M		50	73	69	72	55	65
	Cadmium	7440439	mg kg-¹	M		0.79	8.5	1.7	1.00	1.3	0.78
	Chromium	7440473	mg kg-¹	M		33	110	56	69	82	87
	Copper	7440508	mg kg-¹	M		85	1300	230	140	120	110
	Mercury	7439976	mg kg-¹	M		0.30	3.1	0.62	0.31	0.27	0.60
	Nickel	7440020	mg kg-¹	M		35	97	65	71	100	83
	Lead	7439921	mg kg-¹	M		160	4300	770	300	190	200
	Selenium	7782492	mg kg-¹	M		1.3	1.9	4.2	4.1	3.7	1.6
	Zinc	7440666	mg kg-¹	M		200	8600	890	390	340	340
2800	Naphthalene	91203	mg kg-¹	M		0.93	1	2.4	1.9	0.68	0.44

All tests undertaken between 25/10/2013 and 25/11/2013

* Accreditation status

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FAO Kate Edwards

AMENDED LABORATORY TEST REPORT

Results of analysis of 20 samples
received 25 October 2013

36487 - Lundwood

Report Date
26 November 2013

Login Batch No					**242811**						
Chemtest LIMS ID					AJ33803	AJ33804	AJ33805	AJ33806	AJ33807	AJ33808
Sample ID					TP10	TP11	TP12	TP14	TP15	TP16
Sample No					TS	TS	TS	TS	TS	TS
Sampling Date					23/10/2013	23/10/2013	23/10/2013	23/10/2013	23/10/2013	23/10/2013
Depth					0.10m	0.10m	0.10m	0.10m	0.10m	0.10m
Matrix					*SOIL*	*SOIL*	*SOIL*	*SOIL*	*SOIL*	*SOIL*
SOP↓	Determinand↓	CAS No↓	Units↓	*						
2030	Moisture		%	M	26.8	15.8	31.1	18.5	21	31
	Stones content (>50mm)		%	M	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
2040	Soil colour			M	brown	brown	brown	brown	brown	brown
	Soil texture			M	clay	clay	clay	clay	clay	clay
	Other material			M	stones	stones	stones	stones	stones	stones
2010	pH			M	5.1	5.4	5.1	5.1	5.1	5.7
2630	As Stomach Bioaccessibility	7440382	mg kg-1	N	0.34					
	As Intestinal Bioaccessibility 1	7440382	mg kg-1	N	0.44					
	As Intestinal Bioaccessibility 2	7440382	mg kg-1	N	0.62					
	Arsenic - Bioaccessible Fraction	7440382	%	N	1.1					
2175	Sulfur (total TRL report 447)		%	M						
2120	Sulfate (2:1 water soluble) as SO4	14808798	g l-1	M						
2490	Chromium (hexavalent)	18540299	mg kg-1	N	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
2430	Sulfate (total BS1377 HCl extract)	14808798	%	M						
2450	Arsenic	7440382	mg kg-1	M	59	62	51	43	60	64
	Cadmium	7440439	mg kg-1	M	0.89	2.8	0.74	0.65	1.1	0.98
	Chromium	7440473	mg kg-1	M	83	110	77	100	100	83
	Copper	7440508	mg kg-1	M	96	130	88	90	120	110
	Mercury	7439976	mg kg-1	M	0.57	0.44	0.41	0.24	0.42	0.38
	Nickel	7440020	mg kg-1	M	76	110	74	120	110	76
	Lead	7439921	mg kg-1	M	170	160	140	84	160	180
	Selenium	7782492	mg kg-1	M	1.7	1.4	1.2	0.93	1.7	2.5
	Zinc	7440666	mg kg-1	M	320	1000	300	310	380	370
2800	Naphthalene	91203	mg kg-1	M	0.23	0.16	0.28	<0.10	0.19	0.22

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AMENDED LABORATORY TEST REPORT

Results of analysis of 20 samples
received 25 October 2013

36487 - Lundwood

Chemtest
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Report Date
26 November 2013

Login Batch No					**242811**						
Chemtest LIMS ID					AJ33809	AJ33810	AJ33811	AJ33812	AJ33813	AJ33814
Sample ID					TP6	TP13	TP14	TP2	TP4	TP9
Sample No					MG	MG	MG	NAT	NAT	NAT
Sampling Date					23/10/2013	23/10/2013	23/10/2013	23/10/2013	23/10/2013	23/10/2013
Depth					0.40m	0.40m	0.40m	0.90m	0.80m	1.00m
Matrix					*SOIL*	*SOIL*	*SOIL*	*SOIL*	*SOIL*	*SOIL*
SOP↓	Determinand↓	CAS No↓	Units↓	*						
2030	Moisture		%	M	13.4	13.4	15.6	19.9	24.8	10.1
	Stones content (>50mm)		%	M	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
2040	Soil colour			M	brown	brown	brown	brown	brown	brown
	Soil texture			M	sand	clay	clay	clay	clay	clay
	Other material			M	stones	stones	stones	stones	stones	stones
2010	pH			M	5.8	6.0	5.9	7.5	5.1	6.3
2630	As Stomach Bioaccessibility	7440382	mg kg-1	N					0.22	0.22
	As Intestinal Bioaccessibility 1	7440382	mg kg-1	N					0.74	0.26
	As Intestinal Bioaccessibility 2	7440382	mg kg-1	N					0.94	0.22
	Arsenic - Bioaccessible Fraction	7440382	%	N					1.2	0.70
2175	Sulfur (total TRL report 447)		%	M	0.65	0.030	0.028	0.011	0.080	<0.010
2120	Sulfate (2:1 water soluble) as SO4	14808798	g l-1	M	<0.01	<0.01	<0.01	0.02	0.04	<0.01
2490	Chromium (hexavalent)	18540299	mg kg-1	N	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
2430	Sulfate (total BS1377 HCl extract)	14808798	%	M	0.09	0.02	<0.01	0.01	0.16	<0.01
2450	Arsenic	7440382	mg kg-1	M	52	57	52	29	77	37
	Cadmium	7440439	mg kg-1	M	1.3	0.98	0.93	0.30	0.22	0.38
	Chromium	7440473	mg kg-1	M	25	97	94	82	97	110
	Copper	7440508	mg kg-1	M	120	110	140	190	150	90
	Mercury	7439976	mg kg-1	M	0.22	0.93	0.42	0.28	0.37	0.24
	Nickel	7440020	mg kg-1	M	46	100	100	99	81	120
	Lead	7439921	mg kg-1	M	520	130	110	92	110	61
	Selenium	7782492	mg kg-1	M	3.7	1.7	0.88	2.9	6.5	0.51
	Zinc	7440666	mg kg-1	M	190	350	400	300	220	310
2800	Naphthalene	91203	mg kg-1	M	3.8	0.18	0.14	<0.10	<0.10	<0.10

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Results of analysis of 20 samples
received 25 October 2013

36487 - Lundwood

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26 November 2013

					Login Batch No	**242811**	
					Chemtest LIMS ID	AJ33815	AJ33816
					Sample ID	TP12	TP16
					Sample No	NAT	NAT
					Sampling Date	23/10/2013	23/10/2013
					Depth	0.90m	1.20m
					Matrix	*SOIL*	*SOIL*
SOP↓	Determinand↓	CAS No↓	Units↓	*			
2030	Moisture		%	M		12.7	17.1
	Stones content (>50mm)		%	M		<0.02	<0.02
2040	Soil colour			M		brown	brown
	Soil texture			M		clay	clay
	Other material			M		stones	stones
2010	pH			M		7.0	6.9
2630	As Stomach Bioaccessibility	7440382	mg kg-1	N		0.2	
	As Intestinal Bioaccessibility 1	7440382	mg kg-1	N		0.28	
	As Intestinal Bioaccessibility 2	7440382	mg kg-1	N		0.22	
	Arsenic - Bioaccessible Fraction	7440382	%	N		0.74	
2175	Sulfur (total TRL report 447)		%	M		<0.010	<0.010
2120	Sulfate (2:1 water soluble) as SO4	14808798	g l-1	M		<0.01	0.09
2490	Chromium (hexavalent)	18540299	mg kg-1	N		<0.5	<0.5
2430	Sulfate (total BS1377 HCl extract)	14808798	%	M		<0.01	0.01
2450	Arsenic	7440382	mg kg-1	M		38	12
	Cadmium	7440439	mg kg-1	M		0.29	0.93
	Chromium	7440473	mg kg-1	M		94	98
	Copper	7440508	mg kg-1	M		74	100
	Mercury	7439976	mg kg-1	M		0.15	0.17
	Nickel	7440020	mg kg-1	M		100	190
	Lead	7439921	mg kg-1	M		57	57
	Selenium	7782492	mg kg-1	M		0.26	0.71
	Zinc	7440666	mg kg-1	M		260	350
2800	Naphthalene	91203	mg kg-1	M		<0.10	<0.10

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AMENDED LABORATORY TEST REPORT

Results of analysis of 20 samples
received 25 October 2013

36487 - Lundwood

Report Date
26 November 2013

					242811					
					AJ33797	AJ33798	AJ33799	AJ33800	AJ33801	AJ33802
					TP1	TP2	TP3	TP5	TP7	TP8
					TS	TS	TS	TS	TS	TS
					23/10/2013	23/10/2013	23/10/2013	23/10/2013	23/10/2013	23/10/2013
					0.10m	0.10m	0.10m	0.10m	0.10m	0.10m
					SOIL	*SOIL*	*SOIL*	*SOIL*	*SOIL*	*SOIL*
2800	Acenaphthylene	208968	mg kg-1	N	0.11	1.6	0.35	0.21	<0.10	<0.10
	Acenaphthene	83329	mg kg-1	M	0.11	1.3	0.23	0.11	<0.10	<0.10
	Fluorene	86737	mg kg-1	M	0.14	1.5	0.22	0.23	<0.10	<0.10
	Phenanthrene	85018	mg kg-1	M	1.5	24	3.8	2.3	0.84	0.7
	Anthracene	120127	mg kg-1	M	0.3	6.1	0.26	0.17	<0.10	0.12
	Fluoranthene	206440	mg kg-1	M	1.9	29	1.3	0.69	0.36	0.88
	Pyrene	129000	mg kg-1	M	1.7	24	1.2	0.59	0.32	0.83
	Benzo[a]anthracene	56553	mg kg-1	M	1.2	15	0.85	0.39	0.2	0.59
	Chrysene	218019	mg kg-1	M	1.2	13	0.88	0.42	0.2	0.5
	Benzo[b]fluoranthene	205992	mg kg-1	N	1.6	18	0.83	0.33	0.12	0.62
	Benzo[k]fluoranthene	207089	mg kg-1	N	0.73	8	0.37	0.16	<0.10	0.38
	Benzo[a]pyrene	50328	mg kg-1	M	1.1	13	0.6	0.18	<0.10	0.36
	Dibenzo[a,h]anthracene	53703	mg kg-1	N	<0.10	1.7	<0.10	<0.10	<0.10	<0.10
	Indeno[1,2,3-cd]pyrene	193395	mg kg-1	M	0.59	9.5	0.21	<0.10	<0.10	0.13
	Benzo[g,h,i]perylene	191242	mg kg-1	M	0.61	9	0.24	<0.10	<0.10	0.14
	Total (of 16) PAHs		mg kg-1	N	14	180	14	7.7	2.7	5.7

All tests undertaken between 25/10/2013 and 25/11/2013

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AMENDED LABORATORY TEST REPORT

Results of analysis of 20 samples
received 25 October 2013

36487 - Lundwood

Chemtest
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Report Date
26 November 2013

					242811					
					AJ33803	AJ33804	AJ33805	AJ33806	AJ33807	AJ33808
					TP10	TP11	TP12	TP14	TP15	TP16
					TS	TS	TS	TS	TS	TS
					23/10/2013	23/10/2013	23/10/2013	23/10/2013	23/10/2013	23/10/2013
					0.10m	0.10m	0.10m	0.10m	0.10m	0.10m
					SOIL	*SOIL*	*SOIL*	*SOIL*	*SOIL*	*SOIL*
2800	Acenaphthylene	208968	mg kg-1	N	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
	Acenaphthene	83329	mg kg-1	M	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
	Fluorene	86737	mg kg-1	M	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
	Phenanthrene	85018	mg kg-1	M	0.34	0.34	0.48	0.2	0.41	0.49
	Anthracene	120127	mg kg-1	M	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
	Fluoranthene	206440	mg kg-1	M	0.44	0.35	0.41	0.24	0.67	0.56
	Pyrene	129000	mg kg-1	M	0.4	0.36	0.36	0.15	0.61	0.5
	Benzo[a]anthracene	56553	mg kg-1	M	0.22	<0.10	0.23	<0.10	0.41	0.32
	Chrysene	218019	mg kg-1	M	0.23	<0.10	0.21	<0.10	0.43	0.33
	Benzo[b]fluoranthene	205992	mg kg-1	N	0.32	<0.10	0.24	<0.10	0.56	0.36
	Benzo[k]fluoranthene	207089	mg kg-1	N	0.16	<0.10	0.16	<0.10	0.23	0.18
	Benzo[a]pyrene	50328	mg kg-1	M	0.11	<0.10	0.11	<0.10	0.21	0.24
	Dibenzo[a,h]anthracene	53703	mg kg-1	N	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
	Indeno[1,2,3-cd]pyrene	193395	mg kg-1	M	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
	Benzo[g,h,i]perylene	191242	mg kg-1	M	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
	Total (of 16) PAHs		mg kg-1	N	2.5	<2.0	2.5	<2.0	3.7	3.2

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AMENDED LABORATORY TEST REPORT

Results of analysis of 20 samples
received 25 October 2013

36487 - Lundwood

Report Date
26 November 2013

					242811					
					AJ33809	AJ33810	AJ33811	AJ33812	AJ33813	AJ33814
					TP6	TP13	TP14	TP2	TP4	TP9
					MG	MG	MG	NAT	NAT	NAT
					23/10/2013	23/10/2013	23/10/2013	23/10/2013	23/10/2013	23/10/2013
					0.40m	0.40m	0.40m	0.90m	0.80m	1.00m
					SOIL	*SOIL*	*SOIL*	*SOIL*	*SOIL*	*SOIL*
2800	Acenaphthylene	208968	mg kg-1	N	0.69	<0.10	<0.10	<0.10	<0.10	<0.10
	Acenaphthene	83329	mg kg-1	M	0.5	<0.10	<0.10	<0.10	<0.10	<0.10
	Fluorene	86737	mg kg-1	M	0.4	<0.10	<0.10	<0.10	<0.10	<0.10
	Phenanthrene	85018	mg kg-1	M	5	0.53	0.4	<0.10	<0.10	<0.10
	Anthracene	120127	mg kg-1	M	0.22	<0.10	<0.10	<0.10	<0.10	<0.10
	Fluoranthene	206440	mg kg-1	M	0.76	0.71	0.47	<0.10	<0.10	<0.10
	Pyrene	129000	mg kg-1	M	0.79	0.53	0.42	<0.10	<0.10	<0.10
	Benzo[a]anthracene	56553	mg kg-1	M	0.45	0.28	0.22	<0.10	<0.10	<0.10
	Chrysene	218019	mg kg-1	M	0.69	0.28	0.26	<0.10	<0.10	<0.10
	Benzo[b]fluoranthene	205992	mg kg-1	N	0.23	0.4	0.27	<0.10	<0.10	<0.10
	Benzo[k]fluoranthene	207089	mg kg-1	N	0.11	0.18	0.15	<0.10	<0.10	<0.10
	Benzo[a]pyrene	50328	mg kg-1	M	0.18	0.13	0.17	<0.10	<0.10	<0.10
	Dibenzo[a,h]anthracene	53703	mg kg-1	N	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
	Indeno[1,2,3-cd]pyrene	193395	mg kg-1	M	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
	Benzo[g,h,i]perylene	191242	mg kg-1	M	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
	Total (of 16) PAHs		mg kg-1	N	14	3.2	2.5	<2.0	<2.0	<2.0

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AMENDED LABORATORY TEST REPORT

Results of analysis of 20 samples
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36487 - Lundwood

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Report Date
26 November 2013

					242811	
					AJ33815	AJ33816
					TP12	TP16
					NAT	NAT
					23/10/2013	23/10/2013
					0.90m	1.20m
					SOIL	*SOIL*
2800	Acenaphthylene	208968	mg kg-1	N	<0.10	<0.10
	Acenaphthene	83329	mg kg-1	M	<0.10	<0.10
	Fluorene	86737	mg kg-1	M	<0.10	<0.10
	Phenanthrene	85018	mg kg-1	M	<0.10	<0.10
	Anthracene	120127	mg kg-1	M	<0.10	<0.10
	Fluoranthene	206440	mg kg-1	M	<0.10	<0.10
	Pyrene	129000	mg kg-1	M	<0.10	<0.10
	Benzo[a]anthracene	56553	mg kg-1	M	<0.10	<0.10
	Chrysene	218019	mg kg-1	M	<0.10	<0.10
	Benzo[b]fluoranthene	205992	mg kg-1	N	<0.10	<0.10
	Benzo[k]fluoranthene	207089	mg kg-1	N	<0.10	<0.10
	Benzo[a]pyrene	50328	mg kg-1	M	<0.10	<0.10
	Dibenzo[a,h]anthracene	53703	mg kg-1	N	<0.10	<0.10
	Indeno[1,2,3-cd]pyrene	193395	mg kg-1	M	<0.10	<0.10
	Benzo[g,h,i]perylene	191242	mg kg-1	M	<0.10	<0.10
	Total (of 16) PAHs		mg kg-1	N	<2.0	<2.0

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Tel: 01638 606070

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FAO Kate Edwards
28 November 2013

Dear Kate Edwards

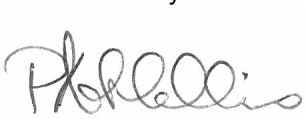
Test Report Number **245490**
Your Project Reference **Lundwood - Further Testing - 36487**

Please find enclosed the results of analysis for the samples received 14 November 2013.

All soil samples will be retained for a period of one month and all water samples will be retained for 7 days following the date of the test report. Should you require an extended retention period then please detail your requirements in an email to customerservices@chemtest.co.uk. Please be aware that charges may be applicable for extended sample storage.

If you require any further assistance, please do not hesitate to contact the Customer Services team.

Yours sincerely



Phil Hellier, Director

UKAS TESTING
2183

MCERTS
THE ENVIRONMENT AGENCY'S MONITORING CERTIFICATION SCHEME

Notes to accompany report:

- *The sign < means 'less than'*
- *Tests marked 'U' hold UKAS accreditation*
- *Tests marked 'M' hold MCertS (and UKAS) accreditation*
- *Tests marked 'N' do not currently hold UKAS accreditation*
- *Tests marked 'S' were subcontracted to an approved laboratory*
- *n/e means 'not evaluated'*
- *i/s means 'insufficient sample'*
- *u/s means 'unsuitable sample'*
- *Comments or interpretations are outside of the scope of UKAS accreditation*
- *The results relate only to the items tested*
- *Stones represent the quantity of material removed prior to analysis*
- *All results are expressed on a dry weight basis*
- *The following tests were analysed on samples as received and the results subsequently corrected to a dry weight basis TPH, BTEX, VOCs, SVOCs, PCBs, phenols*
- *For all other tests the samples were dried at < 37°C prior to analysis*
- *Uncertainties of measurement for the determinands tested are available upon request*
- *Soil descriptions, including colour and texture, are beyond the scope of MCertS accreditation*
- *None of the test results included in this report have been recovery corrected*

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LABORATORY TEST REPORT

Results of analysis of 20 samples
received 14 November 2013

Lundwood - Further Testing - 36487

Report Date
28 November 2013

Login Batch No					245490					
Chemtest LIMS ID					AJ48472	AJ48473	AJ48474	AJ48475	AJ48476	AJ48477
Sample ID					TP2A	TP2B	TP2C	TP2D	TP3A	TP3B
Sample No										
Sampling Date					Not Provided	Not Provided	Not Provided	Not Provided	Not Provided	Not Provided
Depth					0.1m	0.1m	0.1m	0.1m	0.1m	0.1m
Matrix					*SOIL*	*SOIL*	*SOIL*	*SOIL*	*SOIL*	*SOIL*
SOP↓	Determinand↓	CAS No↓	Units↓	*						
2030	Moisture		%	M	11.7	14.2	14.4	28.7	9.64	14.4
	Stones content (>50mm)		%	M	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
2040	Soil colour			M	black	black	black	black	black	black
	Soil texture			M	sand	sand	sand	sand	sand	sand
	Other material			M	stones, roots	stones, roots	stones, roots	stones, roots	stones, roots	stones, roots
2450	Arsenic	7440382	mg kg-¹	M						
	Copper	7440508	mg kg-¹	M	670	150	2200	38	26	52
	Nickel	7440020	mg kg-¹	M						
	Lead	7439921	mg kg-¹	M	1600	430	8900	130	83	180
	Zinc	7440666	mg kg-¹	M	3200	540	11000	140	95	150

All tests undertaken between 26/11/2013 and 28/11/2013

* Accreditation status

This report should be interpreted in conjunction with the notes on the accompanying cover page.

Eastwood & Partners
St. Andrews House
23 Kingfield Road
Sheffield
S11 9AS

FAO Kate Edwards

LABORATORY TEST REPORT

Results of analysis of 20 samples
received 14 November 2013

Lundwood - Further Testing - 36487

Chemtest
The right chemistry to deliver results

Report Date
28 November 2013

Login Batch No					**245490**						
Chemtest LIMS ID					AJ48478	AJ48479	AJ48480	AJ48481	AJ48482	AJ48483
Sample ID					TP3C	TP3D	TP11A	TP11B	TP11C	TP11D
Sample No										
Sampling Date					Not Provided	Not Provided	Not Provided	Not Provided	Not Provided	Not Provided
Depth					0.1m	0.1m	0.1m	0.1m	0.1m	0.1m
Matrix					*SOIL*	*SOIL*	*SOIL*	*SOIL*	*SOIL*	*SOIL*
SOP↓	Determinand↓	CAS No↓	Units↓	*						
2030	Moisture		%	M	11.4	14	9.03	26.1	12	15
	Stones content (>50mm)		%	M	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
2040	Soil colour			M	brown	black	brown	brown	brown	brown
	Soil texture			M	sand	sand	sand	clay	clay	clay
	Other material			M	stones, roots	stones, roots	stones, roots	stones, roots	stones, roots	stones, roots
2450	Arsenic	7440382	mg kg⁻¹	M						
	Copper	7440508	mg kg⁻¹	M	49	62	44	42	33	32
	Nickel	7440020	mg kg⁻¹	M						
	Lead	7439921	mg kg⁻¹	M	160	430				
	Zinc	7440666	mg kg⁻¹	M	140	200	140	140	110	100

* Accreditation status

This report should be interpreted in conjunction with the notes on the accompanying cover page.

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FAO Kate Edwards

LABORATORY TEST REPORT

Results of analysis of 20 samples
received 14 November 2013

Lundwood - Further Testing - 36487

Chemtest
The right chemistry to deliver results

Report Date
28 November 2013

Login Batch No					**245490**						
Chemtest LIMS ID					AJ48484	AJ48485	AJ48486	AJ48487	AJ48488	AJ48489
Sample ID					TP4A	TP4B	TP9A	TP9B	TP12A	TP12B
Sample No										
Sampling Date					Not Provided	Not Provided	Not Provided	Not Provided	Not Provided	Not Provided
Depth					0.9m	0.9m	1.0m	1.0m	1.0m	1.0m
Matrix					*SOIL*	*SOIL*	*SOIL*	*SOIL*	*SOIL*	*SOIL*
SOP↓	Determinand↓	CAS No↓	Units↓	*						
2030	Moisture		%	M	22.7	14.4	7.55	8.45	13.5	12.8
	Stones content (>50mm)		%	M	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
2040	Soil colour			M	brown	brown	brown	brown	brown	brown
	Soil texture			M	clay	clay	sand	sand	sand	sand
	Other material			M	stones	stones	stones	stones	stones	stones
2450	Arsenic	7440382	mg kg-1	M	25	19	14	11	12	12
	Copper	7440508	mg kg-1	M	88	48	29	22	24	22
	Nickel	7440020	mg kg-1	M						
	Lead	7439921	mg kg-1	M						
	Zinc	7440666	mg kg-1	M	53	77	99	96	75	80

* Accreditation status

This report should be interpreted in conjunction with the notes on the accompanying cover page.

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St. Andrews House
23 Kingfield Road
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FAO Kate Edwards

LABORATORY TEST REPORT

Results of analysis of 20 samples
received 14 November 2013

Lundwood - Further Testing - 36487

Chemtest
The right chemistry to deliver results

Report Date
28 November 2013

Login Batch No						**245490**	
Chemtest LIMS ID						AJ48490	AJ48491
Sample ID						TP16A	TP16B
Sample No							
Sampling Date						Not Provided	Not Provided
Depth						1.2m	1.2m
Matrix						*SOIL*	*SOIL*
SOP↓	Determinand↓	CAS No↓	Units↓	*			
2030	Moisture		%	M		15	10.7
	Stones content (>50mm)		%	M		<0.02	<0.02
2040	Soil colour			M		brown	brown
	Soil texture			M		clay	clay
	Other material			M		stones, roots	stones
2450	Arsenic	7440382	mg kg-1	M		4.2	3.3
	Copper	7440508	mg kg-1	M		23	30
	Nickel	7440020	mg kg-1	M		33	53
	Lead	7439921	mg kg-1	M			
	Zinc	7440666	mg kg-1	M		66	93

* Accreditation status

This report should be interpreted in conjunction with the notes on the accompanying cover page.

Inorganics	Intended Land Use
	Residential (mg/kg)
Arsenic	32
Cadmium	10
Chromium (III)	3000
Chromium (VI)	4.3
Lead	450
Mercury	1
Nickel	130
Selenium	350
Copper	80 *1 (200 above pH7)
Zinc	200 *1 (300 above pH7)

Notes:

*1 - These are pH dependent; the most conservative value is given in this case.

The assessment values for the first seven metals or metalloids (arsenic to selenium) are the Soil Guideline Values (SGVs) derived by DEFRA and Environment Agency using the '*Contaminated Land Exposure Assessment'* model. The assessment concentrations for arsenic, cadmium, nickel, mercury and selenium are outlined in the Environment Agency's Science Report series SC050021. These are based on a sandy loam soil and 6% soil organic matter. The assessment concentrations for the remaining metals/metalloids are described in the Contaminated Land Report Series (CLR), which have now been withdrawn.

The SGV threshold value is not intended to be applied to individual sample results where materials are similar, as the levels of contaminants will have a natural variability across the site. The modified mean value should instead be compared with the SGV.

The assessment values for the metals copper and zinc are levels at which plant growth is thought to be affected. The assessment values for copper and zinc are taken from the maximum permissible and advisable concentrations in soil after application of soil sludge given in the '*The Code of Good Agricultural Practice for the Protection of Soil*', MAFF, 1998.

The assessment of sulphate, water soluble sulphate, elemental sulphur and sulphide is to determine the aggressive nature of the ground with respect to concrete and consequently the results are compared with BRE Special Digest 1:2005 *'Concrete in Aggressive Ground'*.

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GLEESON DEVELOPMENTS LTD

LUNDWOOD

GENERIC ASSESSMENT CRITERIA - RESIDENTIAL

Organic Compounds	Intended Land Use Residential (mg/kg)		
	1% SOM	2.5% SOM	6% SOM
Naphthalene	1.5	3.7	8.7
Acenaphthene	210	480	1000
Acenaphthylene	170	400	850
Fluorene	160	380	780
Phenanthrene	92	200	380
Anthracene	2,300	4,900	9,200
Fluoranthene	260	460	670
Pyrene	560	1,000	1,600
Benzo(a)anthracene	3.1	4.7	5.9
Chrysene	6.0	8.0	9.3
Benzo(b)fluoranthene	5.6	6.5	7.0
Benzo(k)fluoranthene	8.5	9.6	10
Benzo(a)pyrene	0.83	0.94	1.0
Dibenz(a,h)anthracene	0.76	0.86	0.90
Indeno(1,2,3-cd)pyrene	3.2	3.9	4.2
Benzo(g,h,i)perylene	44	46	47

The assessment criteria for chromium (VI) and the sixteen polycyclic aromatic hydrocarbon (PAH) species covered under the USEPA test have been taken from Nathanail, C. P., McCaffrey, C., Ashmore, M. H., Cheng, Y. Y., Gillett, A., Ogden, R. & Scott, D., 2009 *'The LQM/CIEH Generic Assessment Criteria for Human Health Risk Assessment 2nd Edition'*, Land Quality Press, Nottingham. These are also all based on a sandy loam soil.

Prepared	DES	Checked	CAT	Date	09.11.11	Job No	36487

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GLEESON DEVELOPMENTS LTD

LUNDWOOD

GENERIC ASSESSMENT CRITERIA - RESIDENTIAL

Eastwood & Partners
CONSULTING ENGINEERS

E P

PROJECT: Lundwood	Job No. 36487	Date 13.11.13
SUBJECT: Mean and Maximum Value Test for Arsenic Natural Clay	Prepared KE	Checked AJK

Results	Sample	Log x = y
29.00	TP2 0.9	1.462
40.33	TP4 0.8	1.606
20.67	TP9 1.0	1.315
20.67	TP12 0.9	1.315
6.50	TP16 1.2	0.813

Number of results : n	5
Mean : X =	23.43
Standard deviation : s	12.44
T value : t =	2.132

Corrected mean (95% confidence)

= X + t * s / n^0.5 = 35.29

Max value =	40.33
log xm = ym =	1.606
Number of results : N	5
Mean y =	1.302
Standard deviation of	0.299
T = (ym-ya) / S =	1.015
Tcrit (fom table A1.3)	1.6

Result probably not an outlier

Eastwood & Partners
CONSULTING ENGINEERS

E P

PROJECT: Lundwood	Job No. 36487	Date 13.11.13
SUBJECT: Mean and Maximum Value Test for Nickel Natural Clay	Prepared KE	Checked AJK

Results	Sample	Log x = y
99.00	TP2 0.9	1.996
81.00	TP4 0.8	1.908
120.00	TP9 1.0	2.079
100.00	TP12 0.9	2.000
92.00	TP16 1.2	1.964

Number of results : n	5
Mean : X =	98.40
Standard deviation : s	14.26
T value : t =	2.132

Corrected mean (95% confidence)

= X + t * s / n^0.5 = 111.99

Max value =	120.00
log xm = ym =	2.079
Number of results : N	5
Mean y =	1.989
Standard deviation of	0.062
T = (ym-ya) / S =	1.446
Tcrit (fom table A1.3)	1.6

Result probably not an outlier

Eastwood & Partners
CONSULTING ENGINEERS

E P

PROJECT: Lundwood	Job No. 36487	Date 13.11.13
SUBJECT: Mean and Maximum Value Test for Arsenic Site Won Topsoil	Prepared KE	Checked AJK

Results	Sample	Log x = y
50.00	TP1 0.1	1.699
73.00	TP2 0.1	1.863
69.00	TP3 0.1	1.839
72.00	TP5 0.1	1.857
55.00	TP7 0.1	1.740
65.00	TP8 0.1	1.813
59.00	TP10 0.1	1.771
62.00	TP11 0.1	1.792
51.00	TP12 0.1	1.708
43.00	TP14 0.1	1.633
60.00	TP15 0.1	1.778
64.00	TP16 0.1	1.806

Number of results : n	12
Mean : X =	60.25
Standard deviation : s	9.22
T value : t =	1.796

Corrected mean (95% confidence)

= X + t * s / n^0.5 = 65.03

Max value =	73.00
log xm = ym =	1.863
Number of results : N	12
Mean y =	1.775
Standard deviation of	0.069
T = (ym-ya) / S =	1.273
Tcrit (fom table A1.3)	2.13

Result probably not an outlier

Eastwood & Partners
CONSULTING ENGINEERS

E P

PROJECT: Lundwood	Job No. 36487	Date 13.11.13
SUBJECT: Mean and Maximum Value Test for Benzo(a)pyrene Site Won Topsoil	Prepared KE	Checked AJK

Results	Sample	Log x = y
1.10	TP1 0.1	0.041
13.0	TP2 0.1	1.114
0.60	TP3 0.1	-0.222
0.18	TP5 0.1	-0.745
0.10	TP7 0.1	-1.000
0.36	TP8 0.1	-0.444
0.11	TP10 0.1	-0.959
0.10	TP11 0.1	-1.000
0.11	TP12 0.1	-0.959
0.10	TP14 0.1	-1.000
0.21	TP15 0.1	-0.678
0.24	TP16 0.1	-0.620

Number of results : n	12
Mean : X =	1.35
Standard deviation : s	3.68
T value : t =	1.796

Corrected mean (95% confidence)

= X + t * s / n^0.5 = 3.26

Max value =	13.00
log xm = ym =	1.114
Number of results : N	12
Mean y =	-0.539
Standard deviation of	0.621
T = (ym-ya) / S =	2.664
Tcrit (fom table A1.3)	2.13

Result probably an outlier

Eastwood & Partners
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E P

PROJECT: Lundwood	Job No. 36487	Date 13.12.13
SUBJECT: Mean Value Test for Lead in Topsoil	Prepared KE	Checked AJK

The method uses the geometric mean rather than the arithmetic mean which is used for other contaminants.

Results mg/kg	Sample	Log results
160.00	TP1	2.204
3072.00	TP2	3.487
324.60	TP3	2.511
300.00	TP5	2.477
190.00	TP7	2.279
200.00	TP8	2.301
170.00	TP10	2.230
160.00	TP11	2.204
140	TP12	2.146
84	TP14	1.924
160	TP15	2.204
180	TP16	2.255

Calculations based on log results

Number of results : n =	12
Mean : X =	2.352
Standard deviation : s =	0.388
T value : t =	1.796
Corrected mean (95% confidence) =	
= X + t * s / n^0.5 =	2.553

Final results

Mean : X =	225 mg/kg
Corrected mean (95% confidence) =	**357 mg/kg**

CLEA Software Version 1.06

Report generated	27-Nov-13
Report title	Site Specific Assessment Concentration for Arsenic
Created by	Catherine Topliss at Eastwood & Partners (Consulting Engineers) Ltd

Environment Agency

RESULTS

Environment Agency

		Assessment Criterion (mg kg^{-1})			Ratio of ADE to HCV			Saturation Limit (mg kg^{-1})	50% rule?	
		oral	inhalation	combined	oral	inhalation	combined		Oral	Inhal
1	Arsenic	1.33E+02	8.50E+01	NR	0.64	1.00	NR	NR	No	No
2										
3										
4										
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Environment Agency

	Assessment Criterion (mg kg^{-1})			Ratio of ADE to HCV			Saturation Limit (mg kg^{-1})	50% rule?	
	oral	inhalation	combined	oral	inhalation	combined		Oral	Inhal
21									
22									
23									
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30									

Environment Agency

		Soil Distribution				Media Concentrations													
		Sorbed	Dissolved	Vapour	Total	Soil	Soil gas	Indoor Dust	Outdoor dust at 0.8m	Outdoor dust at 1.6m	Indoor Vapour	Outdoor vapour at 0.8m	Outdoor vapour at 1.6m	Green vegetables	Root vegetables	Tuber vegetables	Herbaceous fruit	Shrub fruit	Tree fruit
		%	%	%	%	mg kg^{-1}	mg m^{-3}	mg kg^{-1}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg kg^{-1} FW	mg kg^{-1} FW	mg kg^{-1} FW	mg kg^{-1} FW	mg kg^{-1} FW	mg kg^{-1} FW
1	Arsenic	99.9	0.1	0.0	100.0	8.50E+01	NR	4.25E+01	3.62E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.65E-02	3.40E-02	1.95E-02	2.80E-02	1.70E-02	9.35E-02
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Environment Agency

	Soil Distribution				Media Concentrations													
	Sorbed	Dissolved	Vapour	Total	Soil	Soil gas	Indoor Dust	Outdoor dust at 0.8m	Outdoor dust at 1.6m	Indoor Vapour	Outdoor vapour at 0.8m	Outdoor vapour at 1.6m	Green vegetables	Root vegetables	Tuber vegetables	Herbaceous fruit	Shrub fruit	Tree fruit
	%	%	%	%	mg kg^{-1}	mg m^{-3}	mg kg^{-1}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg m^{-3}	mg kg^{-1} FW	mg kg^{-1} FW	mg kg^{-1} FW	mg kg^{-1} FW	mg kg^{-1} FW	mg kg^{-1} FW
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30																		

Environment Agency

		Average Daily Exposure (mg kg^{-1} bw day^{-1})							Distribution by Pathway (%)							
		Direct soil ingestion	Consumption of homegrown produce and attached soil	Dermal contact with soil and dust	Inhalation of dust	Inhalation of vapour	Background (oral)	Background (inhalation)	Direct soil ingestion	Consumption of homegrown produce and attached soil	Dermal contact with soil and dust	Inhalation of dust	Inhalation of vapour (indoor)	Inhalation of vapour (outdoor)	Background (oral)	Background (inhalation)
1	Arsenic	4.22E-05	5.27E-05	9.71E-05	2.00E-06	0.00E+00	0.00E+00	0.00E+00	21.76	27.16	50.05	1.03	0.00	0.00	0.00	0.00
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Environment Agency

	Average Daily Exposure (mg kg^{-1} bw day^{-1})							Distribution by Pathway (%)							
	Direct soil ingestion	Consumption of homegrown produce and attached soil	Dermal contact with soil and dust	Inhalation of dust	Inhalation of vapour	Background (oral)	Background (inhalation)	Direct soil ingestion	Consumption of homegrown produce	Dermal contact with soil and dust	Inhalation of dust	Inhalation of vapour (indoor)	Inhalation of vapour (outdoor)	Background (oral)	Background (inhalation)
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Environment Agency

		Oral Health Criteria Value (µg kg^{-1} BW day^{-1})		Inhalation Health Criteria Value (µg kg^{-1} BW day^{-1})	Oral Mean Daily Intake (µg day^{-1})	Inhalation Mean Daily Intake (µg day^{-1})	Air-water partition coefficient (K_{aw}) (cm^3 cm^{-3})	Coefficient of Diffusion in Air (m^2 s^{-1})	Coefficient of Diffusion in Water (m^2 s^{-1})	log K_{oc} (cm^3 g^{-1})	log K_{ow} (dimensionless)	Dermal Absorption Fraction (dimensionless)	Soil-to-dust transport factor (g g^{-1} DW)	Sub-surface soil to indoor air correction factor (dimensionless)	Relative bioavailability via soil ingestion (unitless)	Relative bioavailability via dust inhalation (unitless)
1	Arsenic	ID	0.3	ID	0.002	NR	NR	NR	NR	NR	NR	NR	0.03	0.5	1	0.087	1
2																	
3																	
4																	
5																	
6																	
7																	
8																	
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Environment Agency

	Oral Health Criteria Value (µg kg^{-1} BW day^{-1})		Inhalation Health Criteria Value (µg kg^{-1} BW day^{-1})	Oral Mean Daily Intake (µg day^{-1})	Inhalation Mean Daily Intake (µg day^{-1})	Air-water partition coefficient (K_{aw}) (cm^3 cm^{-3})	Coefficient of Diffusion in Air (m^2 s^{-1})	Coefficient of Diffusion in Water (m^2 s^{-1})	log K_{oc} (cm^3 g^{-1})	log K_{ow} (dimensionless)	Dermal Absorption Fraction (dimensionless)	Soil-to-dust transport factor (g g^{-1} DW)	Sub-surface soil to indoor air correction factor (dimensionless)	Relative bioavailability via soil ingestion (unitless)	Relative bioavailability via dust inhalation (unitless)
21																
22																
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Environment Agency

		Soil-to-water partition coefficient ($cm^3\ g^{-1}$)	Vapour pressure (Pa)	Water solubility ($mg\ L^{-1}$)	Soil-to-plant concentration factor for green vegetables (mg g^{-1} plant DW or FW basis over mg g^{-1} DW soil)	Soil-to-plant concentration factor for root vegetables (mg g^{-1} plant DW or FW basis over mg g^{-1} DW soil)	Soil-to-plant concentration factor for tuber vegetables (mg g^{-1} plant DW or FW basis over mg g^{-1} DW soil)	Soil-to-plant concentration factor for herbaceous fruit (mg g^{-1} plant DW or FW basis over mg g^{-1} DW soil)	Soil-to-plant concentration factor for shrub fruit (mg g^{-1} plant DW or FW basis over mg g^{-1} DW soil)	Soil-to-plant concentration factor for tree fruit (mg g^{-1} plant DW or FW basis over mg g^{-1} DW soil)
1	Arsenic	5.00E+02	NR	1.25E+06	0.00043 fw	0.0004 fw	0.00023 fw	0.00033 fw	0.0002 fw	0.0011 fw
2										
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Environment Agency

	Soil-to-water partition coefficient ($cm^3\ g^{-1}$)	Vapour pressure (Pa)	Water solubility ($mg\ L^{-1}$)	Soil-to-plant concentration factor for green vegetables (mg g^{-1} plant DW or FW basis over mg g^{-1} DW soil)	Soil-to-plant concentration factor for root vegetables (mg g^{-1} plant DW or FW basis over mg g^{-1} DW soil)	Soil-to-plant concentration factor for tuber vegetables (mg g^{-1} plant DW or FW basis over mg g^{-1} DW soil)	Soil-to-plant concentration factor for herbaceous fruit (mg g^{-1} plant DW or FW basis over mg g^{-1} DW soil)	Soil-to-plant concentration factor for shrub fruit (mg g^{-1} plant DW or FW basis over mg g^{-1} DW soil)	Soil-to-plant concentration factor for tree fruit (mg g^{-1} plant DW or FW basis over mg g^{-1} DW soil)
21									
22									
23									
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25									
26									
27									
28									
29									
30									

Appendix 5

Plasticity Results

PSL
Professional Soils Laboratory

LABORATORY REPORT

UKAS TESTING
4043

Contract Number: PSL13/4132

Client's Reference: Report Date: 04 November 2013

Client Name: Eastwood & Partners
St Andrews House
23 Kingfield Road
Sheffield

S11 9AS

For the attention of: Kate Edwards

Contract Title: Lundwood-Plasticity Order

Date Received: 28/10/2013
Date Commenced: 28/10/2013
Date Completed: 4/11/2013

Notes: Observations and Interpretations are outside the UKAS Accreditation

A copy of the Laboratory Schedule of accredited tests as issued by UKAS is attached to this report. This certificate is issued in accordance with the accreditation requirements of the United Kingdom Accreditation Service. The results reported herein relate only to the material supplied to the laboratory. This certificate shall not be reproduced in full, without the prior written approval of the laboratory.

Checked and Approved Signatories:

R Gunson	A Watkins	M Beastall
(Director)	(Director)	(Laboratory Manager)

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fax: +44 (0)844 815 6642
e-mail: rgunson@prosoils.co.uk
awatkins@prosoils.co.uk

SUMMARY OF LABORATORY SOIL DESCRIPTIONS

Hole Number	Sample Number	Sample Type	Depth m	Description of Sample
TP1		D	0.90	Brown mottled grey sandy silty CLAY.
TP1		D	1.50	Dark grey slightly sandy silty CLAY.
TP4		D	1.60	Brown mottled grey CLAY.
TP7		D	0.90	Brown sandy silty CLAY.
TP10		D	1.00	Brown slightly gravelly sandy CLAY.
TP14		D	1.10	Brown slightly gravelly sandy silty CLAY.
TP15		D	1.20	Brown slightly sandy silty CLAY.

PSL
Professional Soils Laboratory

Compiled by	Date	Checked by	Date	Approved by	Date
	04/11/13		04/11/13		04/11/13
LUNDWOOD.				Contract No:	PSL13/4132
				Client Ref:	36487

SUMMARY OF SOIL CLASSIFICATION TESTS

(B.S. 1377 : PART 2 : 1990)

Hole Number	Sample Number	Sample Type	Depth m	Moisture Content % Clause 3.2	Bulk Density Mg/m^3 Clause 7.2	Dry Density Mg/m^3 Clause 7.2	Particle Density Mg/m^3 Clause 8.	Liquid Limit % Clause 4.3/4.4	Plastic Limit % Clause 5.	Plasticity Index % Clause 5.4	% Passing .425mm	Remarks
TP1		D	0.90	22				48	25	23	100	Intermediate plasticity CI.
TP1		D	1.50	29				61	30	31	100	High plasticity CH.
TP4		D	1.60	36				94	32	62	100	Extremely high plasticity CE.
TP7		D	0.90	21				47	23	24	100	Intermediate plasticity CI.
TP10		D	1.00	21				54	25	29	94	High plasticity CH.
TP14		D	1.10	18				51	22	29	94	High plasticity CH.
TP15		D	1.20	21				39	20	19	100	Intermediate plasticity CI.

SYMBOLS : NP : Non Plastic

PSL
Professional Soils Laboratory

Compiled by	Date	Checked by	Date	Approved by	Date
	04/11/13		04/11/13		04/11/13

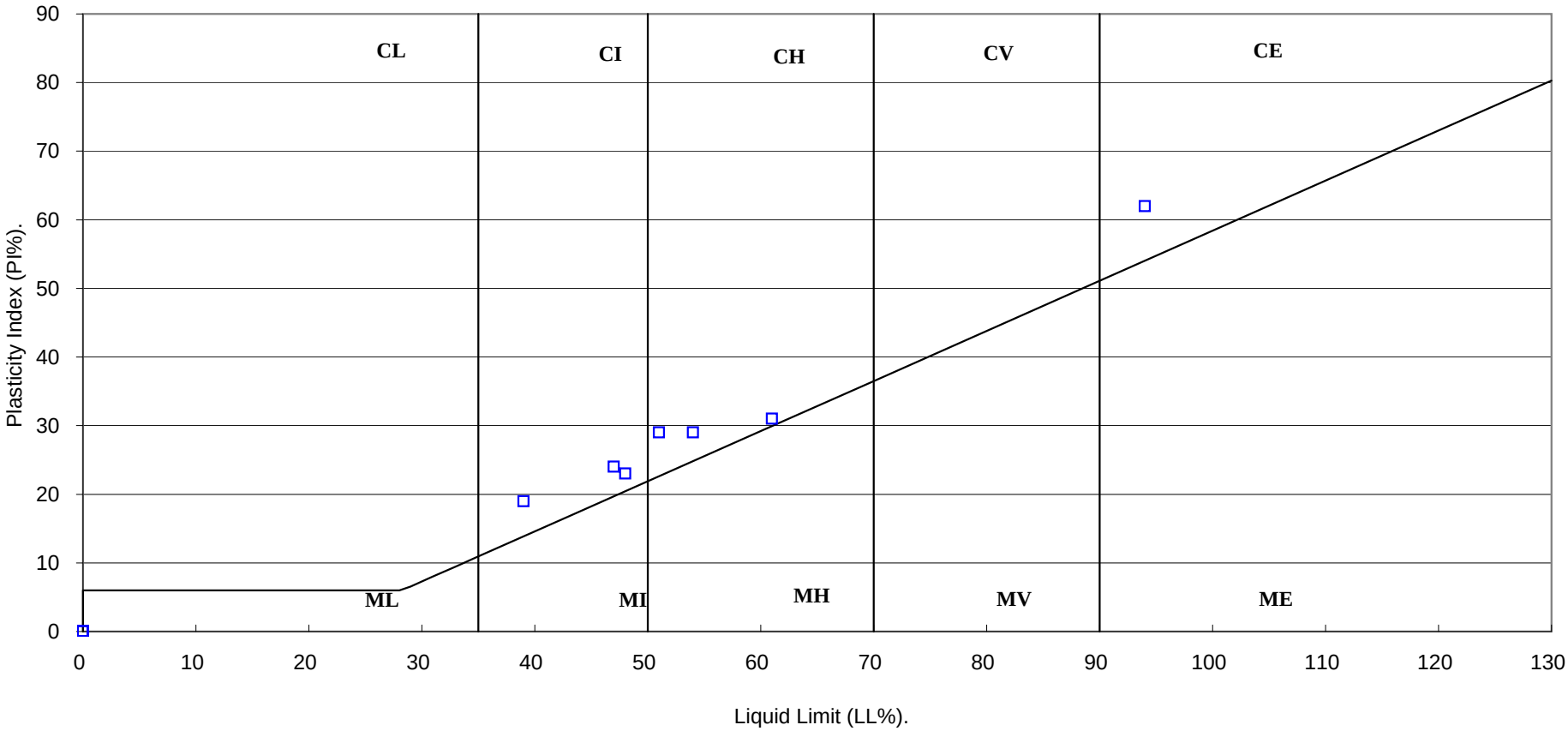
LUNDWOOD.

Contract No: PSL13/4132

Client Ref: 36487

PLASTICITY CHART FOR CASAGRANDE CLASSIFICATION.

(B.S.5930 : 1999)



	Compiled by	Date	Checked by	Date	Approved by	Date
Professional Soils Laboratory		04/11/13		04/11/13		04/11/13
	LUNDWOOD.				Contract No:	PSL13/4132
					Client Ref:	36487

Appendix 6

Gas Monitoring Results

Atmospheric Conditions

Monitoring Date: 20.11.13

BH	CH_4 %	CO_2 %	O_2 %	H_2S (ppm)	CO (ppm)	Atmos P. (mb)	Flow (l/hr)	Water Level (mbgl)	Base of Pipe (mbgl)
MW1	0	0.2	20.2	1	0	985	0	1.93	2.00
MW2	0	6.4	13.2	0	0	985	0	DRY	2.80
MW3	0	2.1	18.1	1	0	985	0	1.80	3.60
MW4	0	0.1	19.9	0	0	996	0	2.25	2.25
MW5	0	0.0	20.3	1	0	996	0	1.21	2.93
MW6	0	0.9	18.3	0	0	996	0	0.28	3.00
MW7	0	0.8	19.3	0	1	996	0	1.62	1.80
MW8	0	1.0	19.2	2	0	984	0	DRY	3.00
MW9	0	0.1	19.0	0	0	996	0	DRY	2.55
MW10	0	1.0	19.2	0	0	996	0	DRY	3.09
MW11	0	0.1	19.2	0	0	996	0	0.92	3.10
MW12	0	0.8	20.0	1	0	984	0	1.75	3.20
MW13	0	0.9	20.0	0	0	984	0	1.53	3.16
MW14	0	1.1	19.4	0	0	984	0	1.00	3.22

Monitoring Date: 05.12.13

BH	CH_4 %	CO_2 %	O_2 %	H_2S (ppm)	CO (ppm)	Atmos P. (mb)	Flow (l/hr)	Water Level (mbgl)	Base of Pipe (mbgl)
MW1	0	0.2	19.9	0	0	999	0	2.00	2.00
MW2	0	4.5	16.8	0	0	998	0	DRY	2.80
MW3	0	0.4	20.1	0	0	998	0	1.10	3.60
MW4	0	0.3	20.0	0	0	998	0	2.03	2.25
MW5	0	0.7	19.9	0	0	998	-3 to -0.1	1.10	2.93
MW6	0	0.2	20.0	0	0	998	0	0.34	3.00
MW7	0	0.6	19.9	0	0	998	0	1.73	1.80
MW8	0	0.3	20.0	0	0	998	0	DRY	3.00
MW9	0	0.7	19.8	0	0	998	0	DRY	2.55
MW10	0	0.2	20.0	0	0	998	0	DRY	3.09
MW11	0	2.0	17.2	0	0	999	-0.4	0.80	3.10
MW12	0	0.7	20.0	0	0	1001	0	1.70	3.20
MW13	0	0.8	19.9	0	0	1001	0	1.60	3.16
MW14	0	1.2	19.1	0	0	1001	0	1.00	3.22

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GLEESON DEVELOPMENTS LTD

LUNDWOOD

GROUND GAS MONITORING RESULTS

Job No. 36487

Date NOV 2013 - FEB 2014

Monitoring Date: 19.12.13

BH	CH_4 %	CO_2 %	O_2 %	H_2S (ppm)	CO (ppm)	Atmos P. (mb)	Flow (l/hr)	Water Level (mbgl)	Base of Pipe (mbgl)
MW1	0	0.3	19.1	0	0	984	0	2.00	2.00
MW2	0	4.0	18.1	0	0	984	0	DRY	2.80
MW3	0	4.6	18.0	0	0	984	-4 to -0.1	0.95	3.60
MW4	0	0.8	19.3	0	0	984	0	1.85	2.25
MW5	0	0.9	19.1	0	0	984	-0.1	1.00	2.93
MW6	WELL FLOODED								
MW7	0	0.6	19.5	0	0	984	0	1.72	1.80
MW8	0	0.2	19.6	0	0	984	0	DRY	3.00
MW9	0	1.6	18.3	0	0	984	0	DRY	2.55
MW10	0	0.3	19.9	0	0	984	0	DRY	3.09
MW11	0	1.1	18.0	0	0	984	0	0.65	3.10
MW12	0	0.7	19.5	0	0	984	0	1.40	3.20
MW13	0	0.7	19.7	0	0	984	0	1.20	3.16
MW14	0	1.2	18.4	0	0	984	0	1.00	3.22

Monitoring Date: 09.01.14

BH	CH_4 %	CO_2 %	O_2 %	H_2S (ppm)	CO (ppm)	Atmos P. (mb)	Flow (l/hr)	Water Level (mbgl)	Base of Pipe (mbgl)
MW1	0	0.4	19.3	0	0	985	0	2.00	2.00
MW2	0	2.5	18.7	0	0	985	0	DRY	2.80
MW3	0	9.3	15.3	0	0	985	-4 to -0.1	0.90	3.60
MW4	0	0.7	19.1	0	0	985	0	1.85	2.25
MW5	0	0.9	17.6	0	0	985	-4 to -0.1	1.00	2.93
MW6	WELL FLOODED								
MW7	0	0.5	19.9	0	0	985	0	1.70	1.80
MW8	0	0.4	19.5	0	0	985	0	DRY	3.00
MW9	0	0.9	19.4	0	0	985	0	DRY	2.55
MW10	0	0.3	19.9	0	0	985	0	DRY	3.09
MW11	0	0.8	19.0	0	0	985	0	0.65	3.10
MW12	0	1.8	18.5	0	0	985	-16 to -1.9	1.40	3.20
MW13	0	1.9	18.7	0	0	985	0	1.20	3.16
MW14	0	1.2	16.6	0	0	986	-4 to -0.1	1.00	3.22

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GROUND GAS MONITORING RESULTS

Job No. 36487

Date NOV 2013 - FEB 2014

Monitoring Date: 21.01.14

BH	CH_4 %	CO_2 %	O_2 %	H_2S (ppm)	CO (ppm)	Atmos P. (mb)	Flow (l/hr)	Water Level (mbgl)	Base of Pipe (mbgl)
MW1	0	0.2	19.1	0	0	991	0	1.80	2.00
MW2	0	2.0	19.0	0	0	991	0	1.65	2.80
MW3	0	4.9	16.7	0	0	991	-10 to -3.3	0.90	3.60
MW4	0	0.8	19.0	0	0	991	-4 to -0.1	1.70	2.25
MW5	0	0.8	18.2	0	0	991	-0.1	0.60	2.93
MW6	WELL FLOODED								
MW7	0	0.6	19.8	0	0	990	0	1.3	1.80
MW8	0	0.5	19.4	0	0	990	0	DRY	3.00
MW9	0	1.9	17.5	0	0	990	0	DRY	2.55
MW10	0	1.3	18.5	0	0	990	0	DRY	3.09
MW11	0	0.8	19.1	0	0	990	0	0.51	3.10
MW12	0	1.6	17.6	0	0	991	-25 to -3	0.80	3.20
MW13	0	1.5	17.8	0	0	991	-20 to -3	0.70	3.16
MW14	0	1.1	14.7	0	0	991	-10 to -0.1	0.53	3.22

Monitoring Date: 05.02.14

BH	CH_4 %	CO_2 %	O_2 %	H_2S (ppm)	CO (ppm)	Atmos P. (mb)	Flow (l/hr)	Water Level (mbgl)	Base of Pipe (mbgl)
MW1	0	0.1	20.0	0	0	962	0	1.35	2.00
MW2	0	1.5	18.9	0	0	962	0	1.41	2.80
MW3	0	4.9	16.7	0	0	962	-10 to -3.3	0.90	3.60
MW4	0	1.0	19.0	0	0	962	-4 to -0.1	1.40	2.25
MW5	0	1.0	17.9	0	0	962	0	0.52	2.93
MW6	WELL FLOODED								
MW7	0	1.4	19.5	0	0	962	-3 to -0.1	1.14	1.80
MW8	0	0.3	19.7	0	0	962	0		3.00
MW9	0	1.9	17.7	0	0	962	0	DRY	2.55
MW10	0	1.5	17.9	0	0	962	0	3.09	3.09
MW11	0	0.7	19.0	0	0	962	0	0.45	3.10
MW12	0	1.5	18.6	0	0	962	0	0.72	3.20
MW13	0	0.8	18.6	0	0	962	-6 to -0.1	0.51	3.16
MW14	0	1.1	13.7	0	0	962	-2.7 to -0.1	0.10	3.22

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GROUND GAS MONITORING RESULTS

Job No. 36487

Date NOV 2013 - FEB 2014

Date	Atmospheric Pressure (mb)	Atmospheric Trend	Relative Humidity (%)	Temp (°C)	Weather
Highlighted denotes day of gas monitoring visit					
05.11.13	990	Rising	85	7	Showers
12.11.13	1026	Rising	70	7	Sun
13.11.13	1031	Rising	80	8	Sun
14.11.13	1030	Rising	70	6	Sun
16.11.13	1027	Falling	70	9	Cloudy
17.11.13	1017	Falling	75	8	Cloudy
18.11.13	1009	Falling	85	5	Cloudy
25.11.13	1038	Rising	90	2	Sun
26.11.13	1036	Falling	88	7	Sun
27.11.13	1034	Steady	91	8	Cloudy
28.11.13	1033	Falling	90	6	Cloudy
29.11.13	1023	Rising	75	5	Cloudy
30.11.13	1030	Rising	77	4	Sun
01.12.13	1033	Falling	90	7	Cloudy
02.12.13	1032	Steady	80	7	Cloudy
03.12.13	1025	Rising	92	6	Cloudy
04.12.13	1029	Falling	80	7	Cloudy
05.12.13	998	Rising	54	4	Rain
06.12.13	1028	Falling	87	2	Cloudy
09.12.13	1027	Steady	90	8	Sun/cloudy
10.12.13	1027	Steady	92	7	Cloudy
11.12.13	1026	Falling	90	5	Cloudy
12.12.13	1019	Falling	95	9	Sun/cloudy
16.12.13	1016	Rising	80	7	Cloudy
17.12.13	1023	Falling	89	5	Sun
18.12.13	998	steady	70	5	Rain
19.12.13	984	rising	75	5	sun
20.12.13	1008	steady	84	8	cloudy
07.01.14	1000	rising	80	8	cloudy
08.01.14	1010	falling	80	8	sun
09.01.14	985	rising	80	7	rain
13.01.14	1002	steady	90	5	sun
14.01.14	1002	falling	87	5	cloudy
15.01.14	1000	falling	85	6	Cloudy
16.01.14	985	steady	85	7	cloudy

Prepared	MM	Checked	DES	Date	Nov 2013-Feb 2014	Job	36487

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ATMOSPHERIC CONDITIONS

17.01.14	995	rising	80	6	cloudy
20.01.14	1010	steady	90	4	sun
21.01.14	1008	falling	92	4	cloudy
22.01.14	991	rising	80	9	cloudy
23.01.14	1010	steady	81	5	rain
24.01.14	1009	steady	95	5	Showers
25.01.14	1006	falling	77	8	Showers
26.01.14	990	steady	90	4	rain
27.01.14	982	falling	90	4	showers
28.01.14	980	rising	92	5	rain
29.01.14	1004	steady	88	4	cloudy
30.01.14	1005	falling	96	3	cloudy
31.01.14	988	falling	93	4	Rain
01.02.14	980	steady	78	2	Cloudy
02.02.14	997	rising	70	5	sun
04.02.14	991	falling	82	6	Showers

Taken from BBC Weather website

Prepared	MM	**Checked**	DES	**Date**	Nov 2013-Feb 2014	**Job**	36487

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ATMOSPHERIC CONDITIONS