GEO Environmental Engineering

PHASE 1: DESK TOP STUDY REPORT

(PRELIMINARY ENVIRONMENTAL RISK ASSESSMENT)

PROPOSED RESIDENTIAL DEVELOPMENT OF LAND AT

STATION YARD

MOOR ROAD

NEAR CLEATOR MOOR

CUMBRIA

FOR:

MR NIGEL KAY

GEO Environmental Engineering

Web: www.geoenvironmentalengineering.com **Email:** info@geoenvironmentalengineering.com **Telephone:** 07883 440 186

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Prepared By: Curtis Evans *B.Sc. (Hons) FGS* – Geo Environmental Engineer/Director

Checked By: Andrew Hampson *B.Sc. (Hons) FGS* – Geo Environmental Engineer/Associate

Client: Mr Nigel Kay

Consultant: Alpha Design Ltd

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1.0 Introduction

1.1 Instruction

Geo Environmental Engineering Ltd (GEO) has completed a Phase 1: Desk Top Study Report (Preliminary Environmental Risk Assessment – PERA) for land at Station Yard, Moor Row, Cumbria to determine any potential geohazards that may affect the residential development of the site. Geo Environmental Engineering Ltd has been commissioned to complete the report by the Client, Mr Nigel Kay.

In preparing this report reference has been made to a historical Phase 1: Desk Top Study Report completed by Arc Environmental Ltd during 2009.

The Phase 1: Desk Top Study Report is suitable for submission to the Local Authority as part of any planning application as the site is currently undergoing consideration by the Client for residential development. The Client is considering the construction of a residential housing estate with associated access roads, infrastructure, private gardens and general areas of soft landscaping. Further development details are available from the Consultant, Alpha Design Limited.

1.2 Aims and Objectives

The aims and objectives of this Phase 1: Desk Top Study (DTS) Report are to assess the geological and environmental sensitivity of the development area and the surrounding environs, with particular attention made to any potentially contaminative industries or processes that may have taken place on site or on immediately adjacent sites, which may be considered as potentially posing a risk of ground/groundwater contamination and ground gas that could negatively affect the proposed end users, adjacent sites and controlled waters. This Phase 1: Desk Top Study Report has generally been completed in accordance with the following documents and includes a site visit (November 2015):

- CLR11: Model Procedures for the Management of Land Contamination. DEFRA/EA, 2004.
- BS10175:2011: Code of Practice for the Investigation of Potentially Contaminated Sites.
- BS5930:1999: Code of Practice for Site Investigations.

During the completion of this DTS information has been obtained and reviewed from the following sources:

- British Geological Survey (BGS).
- Environment Agency (EA).
- Ground Sure Report (Geoinsight and Enviroinsight – GSR – Appendix II and III – Incorporating Mapinsight Historical Ordnance Survey (OS) Plans)
- The Coal Authority Coal Mining Report and Online Database (CA – Appendix IV).

1.3 Limitations of Use

The information, assessments, conclusions and recommendations presented within this Phase 1: Desk Top Study (DTS) Report are solely based on, and are limited to, the boundaries of the site, the immediate area around the site, and the historical use(s) as described, with the approximate extent of the site marked on the Existing Site Layout Plan in Appendix I.

This DTS has been completed utilising information relating to the physical, environmental and industrial setting of the development area, highlighting, where possible, any potential geohazards that might be encountered when considering the future redevelopment of this land, with this DTS reflecting a proposed end use, as considered by the developer (i.e. “Best Fit” CLEA classification of *Residential*).

1.0 Introduction (Cont'd)

1.3 Limitations of Use (Cont'd)

Therefore, if a change in the proposed end use is envisaged, then a reassessment of the development area should be carried out.

Any comments, opinions, diagrams, cross sections and/or sketches contained within the DTS, and/or any configuration of the findings is purely conjectural and given for guidance only as no intrusive investigation works have been completed by Geo Environmental Engineering Ltd and it is recommended that confirmation of the anticipated ground conditions and feasibility of construction be considered by the developer before commencing acquisition or redevelopment.

Reliance on the report is for the named Client only. Agreement for the use or copying of this report by any Third Party must be obtained in writing from Geo Environmental Engineering Ltd. The use and reliance on the report is strictly in accordance with the Geo Environmental Engineering Ltd standard terms and conditions, copies of which are available on request.

The conclusions and recommendations presented within this report are considered reasonable based on the available information. However, these cannot be guaranteed to gain regulatory approval. Therefore, the report should be passed to the appropriate regulatory authorities and/ or other key stakeholders, including warranty providers in order to seek their approval of the findings prior to undertaking any works on site. Geo Environmental Engineering Ltd cannot accept responsibility for the accuracy of third party information.

2.0 Site Location and Development Proposals

2.1 Site Location

The development area is irregular in shape and comprises derelict (formerly industrial) land with some agricultural fields and woodland. The site lies on the northern extent of Moor Row, a small village of predominantly residential properties with an industrial heritage (mining). A former railway line (now a cycle path) forms the southern site boundary. Dalzell Street forms the western site boundary and the River Keekle forms to the eastern site boundary. To the north are undulating agricultural fields.

The site is approximately 4.41Ha and is centred on National Grid Reference (NGR) 300662, 514638.

2.2 Existing Site Levels

During the walkover the development area was noted to be variable in-terms of site levels. The central site area (former railway yard – brownfield land) trending from east to west is generally level. However, a steep slope is noted on the eastern site boundary and it is evident that significant infilling has taken place. A small slope and retaining structure is present within the central site area bounding the former railway yard, with the land to the south (within the site boundary) being higher in elevation. This part of the site relates to the former railway line and is now woodland. This part of the site is also relatively level.

The northern site area comprises agricultural fields (generally greenfield). Again a retaining structure is noted as the fields are higher in elevation than the former railway yard. The fields are undulating with a steep slope noted in their eastern part falling to the River Keekle. Within the western site area, the access road is present, which falls from Dalzell Street (in the west) into the site. The triangular-section of field in this area is at a lower elevation than the road. Taking in to account the variation in topography across the site it would be considered prudent to confirm site features and levels by-way of a Topographical Survey.

2.0 Site Location and Development Proposals (Cont'd)

2.3 Existing Site Surfacing and Buildings

The site surfacing is varied associated with the previous land uses. The southern site area comprises dense woodland and vegetated surfacing (former railway land). The northern site area is grass (agricultural field). The central site area is a mixture of hard-standing comprising gravel, tarmac and concrete. The steep slope in the eastern site area (leading to the River Keekle) is densely vegetated with mature trees. There is some evidence of movement across the slope.

At the time of the site walkover the site was noted to be free from permanent buildings and structures. However, there was evidence of former building floor-slabs and historical tank bases.

Generally, the site was in a reasonable condition in terms of house-keeping, as the majority of the site is securely fenced and therefore access is restricted. Within the western site area and closest to the road (within the triangular-shaped field) there was evidence of demolition rubble at surface and some fly-tipped materials. Throughout the rest of the site house-keeping was acceptable and there was no evidence of (current/active) above ground or below ground fuel storage.

2.4 Surrounding Land Uses

The immediate surrounding area predominantly comprises residential and agricultural land.

2.5 Existing Infrastructure and Utilities

A review of statutory utility supplier records lies outside the scope of this report. However, as the site was previously developed it is considered likely that there will be mains utility connections on-site and nearby. During the walkover there was visual evidence of overhead utilities.

Consequently, there should be a review of the statutory utility plans should include correspondence with the utility providers to determine the presence of buried utilities prior to commencing any redevelopment/construction works.

This will determine if any significant or mains utilities are present on site that may require easement strips, alterations to proposed layouts or potentially costly diversions/terminations. Determining the presence of on-site utilities will also protect the workforce by reducing the risk of utility strikes during the construction phase.

2.6 Development Proposal

The site is currently being assessed by the Client as to its suitability for residential redevelopment. This is considered to comprise the construction of a residential housing estate, with further development details available directly from the Consultant.

3.0 Environmental Setting

Section 3.1 refers to the Ground Sure Report (GSR - Geoinsight) contained in Appendix II, with Sections 3.2 to 3.4 referring to the Ground Sure Report (GSR - Enviroinsight) also contained in Appendix II.

3.1 Development Area Geology

A geological review of the site has been undertaken using information provided on published geological plans in conjunction with the Ground Sure Report (GSR - Geoinsight) contained in Appendix II.

3.0 Environmental Setting (Cont'd)

3.1 Development Area Geology

3.1.1 Made Ground

A review of published geological maps and the GSR does not record made ground on site. Based on the site history, the ground conditions are likely to be variable between the northern site area (Greenfield) and the central and southern site area (Brownfield). Across the greenfield area (northern area) it is likely that the grass surfacing (grazing land) will be underlain by topsoil and subsoil type materials. Made ground is anticipated to be present associated with historical developments (railway land) throughout the central and southern site area (Brownfield), particularly within the eastern site area where "end-tipped" materials are likely present associated with the slope to the River Keekle.

Any made ground will have been placed to form a level area associated with the previous end uses and will likely be variable in depth and extent. It is estimated that made ground could vary between c.1.00m and c.10.00m in thickness. Where present made ground could comprise a mixture of disturbed/re-worked natural materials (clay, sand and gravel) with varying quantities of anthropogenic debris (ash, brick, clinker, concrete, slag, etc.). Due to the historical end use there is a potential for coal fines, timbers and asbestos containing materials.

According to the GSR historical ground workings on site include pits and cuttings. Surrounding ground workings include cuttings, pits, heaps and reservoirs. The majority of the features appear to relate to former railway land and mining activities. They may result in variable made ground materials on site and surrounding the site.

3.1.2 Drift Geological Deposits

Following a review of published geological plans and the GSR it has been indicated that the majority of the development site is underlain by Drift geological deposits of Glacial Till, typically comprising firm to stiff sandy gravelly clay with layers of sand and gravel.

Since the River Keekle is present to the east of the site, there is the potential for Alluvial deposits, which could be "geotechnically poor" and comprise clay, silt, sand, gravel, with the potential for organic deposits such as peat. The GSR (Geoinsight Section 4.0) within Appendix II identifies the following geohazards and indicates a preliminary level of risk:

- Shrink-swell clays – The GSR suggests a very low level risk.
- Landslides – The GSR suggests a low level risk and a possible increase in construction costs due to slopes (eastern site area). The presence of the River Keekle on the eastern site boundary could result in some localised "scour" and destabilisation of the slope base, particularly following heavy rainfall and flood events.
- Compressible deposits – The Glacial Till deposits noted as negligible level risk. Alluvial deposits are moderate level risk. The GSR suggests increased construction costs are likely for parts of the site.
- Collapsible deposits – The Glacial Till noted as negligible risk with a very low risk identified for the Alluvial deposits.
- Running sands – The GSR suggests a low risk level associated with running sands and a potential for construction complications.

It is recommended that reference be made to Section 4.0 of the Geoinsight GSR (Appendix II). Consequently, Phase 2: Ground Investigation works would be prudent to aid the design of foundations, any retaining structures and highways, should they be deemed necessary by the Design Team.

3.0 Environmental Setting (Cont'd)

3.1 Development Area Geology (Cont'd)

3.1.3 Solid Geological Deposits

The Solid geological deposits across the development site are indicated by the BGS as being variable. The GSR suggests Pennine Lower Coal Measures and the Brockram Breccia. Surrounding the site are the Whitehaven Sandstone and the Eskett Limestone, Orebank Sandstone, First Limestone and Stainmore Formation.

Historical iron ore mining has taken place in Moor Row and there is the potential for iron ore mining beneath the site and immediate surrounding area, as suggested by the BGS and GSR. In addition, the Coal Authority suggests a risk of shallow coal mining in this area.

Section 4.0 of the GSR Geoinsight (Appendix II) has noted the following:

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

The GSR does not record natural cavities on site or near to the site.

It is recommended that reference be made to Section 4.0 of the GSR (Appendix II). Consequently, Phase 2: Ground Investigation works would be prudent to aid the design of foundations, retaining structures and highways, should they be deemed necessary by the Design Team.

3.1.4 Historical Investigation Records

Section 5.0 of the Geoinsight GSR (Appendix II) indicates historical borehole records around the site, the majority of which appear to relate to historical iron ore mining. The Arc report suggests iron ore joints/veins in amongst layers of Limestone, Sandstone and Shale at c.41m below ground levels.

The presence of iron shafts, pits and mines on and adjacent to site would suggest that workings may be present below the site and further desk based investigations may be prudent prior to intrusive investigation works.

3.1.5 Geological Features

Two geological structural faults are inferred on site, with numerous others recorded within close proximity. These fault lines have the potential to act as conduits for the migration (horizontally and vertically) of potentially harmful ground gas should areas of infilling or former mine workings be nearby. In addition, the GSR suggests a Glacial Meltwater Channel within the western site area.

3.1.6 Mining and Quarrying Assessment

Due to the geological setting site specific reference has been made to the Coal Authority (CA) by way of a CA Coal Mining Report and the CA Online Database, summarised as follows:

- The property is in a surface area that could be affected by underground mining in 4 seams of coal at shallow to 170m depth, and last worked in 1918.

3.0 Environmental Setting (Cont'd)

3.1 Development Area Geology (Cont'd)

3.1.6 Mining and Quarrying Assessment (Cont'd)

- There are no known coal mine entries within or within 20 metres of the boundary of the property. Records may be incomplete, consequently there may exist in the local area mine entries of which the Coal Authority has no knowledge.

The CA notes the following:

> *"In view of the mining circumstances a prudent developer would seek appropriate technical advice before any works are undertaken. Therefore, if development proposals are being considered, technical advice relating to both the investigation of coal and former coal mines and their treatment should be obtained before beginning work on site. All proposals should apply good engineering practice developed for mining areas. No development should be undertaken that intersects, disturbs or interferes with any coal or mines of coal without the permission of the Coal Authority. Developers should be aware that the investigation of coal seams/former mines of coal may have the potential to generate and/or displace underground gases and these risks both under and adjacent to the development should be fully considered in developing any proposals. The need for effective measures to prevent gases entering into public properties either during investigation or after development also needs to be assessed and properly addressed. This is necessary due to the public safety implications of any development in these circumstances*

According to the CA Online Database:

- The site lies within a CA referral area and therefore a site specific CA Coal Mining Report has been acquired.
- The CA records mine entries surrounding the site.
- The CA records that the site is in an area which is underlain by shallow coal mine workings.
- The CA does not record surface mining (open cast) on site or within the vicinity of the site.
- The CA does not record coal outcrops on site, although some are noted to the north-east and north-west.
- The CA records the site as being within a CA defined "High Risk Development Area".

In addition to the information relating to coal mining, the GSR (Geoinsight Section 3.4) notes the following pertaining to iron ore (non-vein) mining:

> *"Underground mining is known to have occurred within or very close to the area. Potential for difficult ground conditions should be investigated. Potential for localised subsidence is at a level where it should be considered".*

A review of historical plans and BGS records suggests Montreal Mine as the nearest historical feature, with numerous shafts being present. The GSR suggests iron ore shaft/mine features either on or close to the site.

Consequently, when taking into consideration the desk based information provided by the CA, GSR and BGS the development site is currently considered to be at potential risk from shallow (coal and iron ore) mining related geohazards (i.e. ground instability, mine entries, etc.). It is recommended that supplementary desk based investigations be undertaken and subject to those findings it is likely that intrusive ground investigation works will be required (i.e. rotary boreholes etc.).

3.0 Environmental Setting (Cont'd)

3.1 Development Area Geology (Cont'd)

3.1.6 Mining and Quarrying Assessment (Cont'd)

In addition, following the additional investigation works recommended it would also be advised that the developer implement a watching brief on site and ensure a contingency sum in the event that should evidence of mine workings/entries be identified during construction (i.e. abnormals), then they can be dealt with in an appropriate manner.

Although no additional quarrying features are noted nearby, the numerous shafts, pits and spoil heaps that are in the surrounding area may have led to indiscriminate infilling and therefore there could be a potential risk of ground gas generation.

A review of the GSR Geoinsight (Section 3.0) indicates that the following activities do not affect the site:

- Natural Cavities
- Brine Extraction
- Gypsum Extraction
- Clay Mining
- Tin Mining

It should be noted that GEO is not responsible for third party information and records may be inaccurate or incomplete.

3.1.7 Radon Gas Assessment

The GSR indicates that the development site is located within a Radon Affected Area as defined by the Health Protection Agency (HPA), as between 10% and 30% of properties are above the action level. Consequently, in accordance with BR211 full radon protection measures are necessary.

3.2 Development Area Hydrogeology (Groundwater)

3.2.1 Made Ground/Soils

Any made ground materials on site are likely to be classified as high permeability (i.e. worst case scenario assumed until proven otherwise).

3.2.2 Drift Geology

The majority of the Drift geological deposits across the site are recorded as Glacial Till with these deposits noted to be a Secondary Aquifer (Undifferentiated) and is anticipated to be recorded by the EA as "unproductive".

Where the Alluvial deposits are present 9east), these deposits are classified as a Secondary A Aquifer, which have some local importance in terms or water resources.

3.2.3 Solid Geology

The GSR records the site to be underlain a mixture of Principal (majority of site) and Secondary A Aquifer (formerly Minor) Aquifers. These deposits are variable and Principal Aquifer areas are likely to be of significance in terms of strategic resources.

3.0 Environmental Setting (Cont'd)

3.3 Development Area Hydrology

3.3.1 Groundwater

Groundwater is potentially present at shallow depth within the Drift geology, with the potential for localised pockets of trapped surface infiltration within the upper made ground (where present). Any groundwater present may be in hydraulic continuity with the River Keekle. A review of the information in the GSR Enviroinsight indicates the following:

- No groundwater abstractions are recorded within c.500m of the site.
- No surface water abstractions are recorded within c.500m of the development area.
- No potable water abstraction licences are held within c.2km of the site.
- The site is not recorded as being within or within c.500m of a Source Protection Zone.

Based on the above information the site is not considered to lie within a particularly sensitive environmental setting.

3.3.2 Surface Water Features

The River Keekle forms the eastern site boundary. Numerous minor watercourses are noted in the general surrounding area. One Environment Agency (EA) Chemical Quality monitoring point is recorded c.248m south-east of the site (thought to be downstream of the site). Between c.2005 and c.2009 the Chemical Quality Grade has varied between B and E (A = Very Good and F = Bad).

3.3.3 Current Surface Water Run-off

It is considered that a large portion of the current surface water interception will infiltrate directly into the made ground/topsoil as hard-standing is not present. Some overland flow (with the topography) is likely during heavy rainfall events and standing water may occur, as identified during the site walkover.

3.4 Development Area Environmental Sensitivity

3.4.1 Site Ecology

- No Sites of Special Scientific Interest (SSSI) is noted within c.250m.
- No Local Nature Reserves (LNR) are present within c.250m.
- No Special Areas of Conservation (SAC) are noted within c.250m.
- No Special Protection Areas (SPA) are present within c.250m.
- No records of Ancient Woodland are recorded within c.250m.
- No World Heritage Sites are recorded within c.250m.
- No RAMSAR Sites are noted within c.250m.
- No Areas of Outstanding Natural Beauty (AONB) are recorded within c.250m.
- No National Parks are recorded within c.250m.
- No Nitrate Vulnerable Zones (NVZ) are within c.250m.
- No Nitrate Sensitive Areas are within c.250m.
- No records of Green Belt are recorded within c.250m.

The Design Team should refer to Section 8.0 of the GSR (Enviroinsight – Appendix II).

3.0 Environmental Setting (Cont'd)

3.4 Development Area Environmental Sensitivity (Cont'd)

3.4.2 Authorisations, Incidents and Registers

- No records of IPC Authorisations are held within c.250m.
- No records of IPPC Authorisations are held within c.250m.
- No records of Water Industry Referrals (potentially harmful discharges to the public sewer) are held within c.250m.
- No records of Red List Discharge Consents (potentially harmful discharges to controlled waters) are held within c.250m.
- No records of List 1 Dangerous Substances Inventory sites are held within c.250m.
- No records of List 2 Dangerous Substances Inventory sites are held within c.250m.
- One record of Part A (2) and Part B Activities and Enforcements are noted within c.250m. This is identified in the agricultural field c.45m north of the site and is recorded as cement/lime/mortar processes. This is noted as a historical permit.
- No records of Category 3 or 4 Radioactive Substances Authorisations are held within c.250m.
- Two Licensed Discharge Consents are hold on site with a further six held within c.250m. They are both noted as sewage overflow. It is not clear if the licenses are active.
- No records of Planning Hazardous Substance Consents or Enforcements are within c.250m.
- No records of COMAH and NIHHS sites are held within c.250m.
- No Environment Agency Recorded Pollution Incidents are recorded within 250m.

The Design Team should refer to Section 2.0 of the GSR (Enviroinsight – Appendix II).

3.4.3 Determination of Contaminated Land (Part IIA)

A review of the GSR Enviroinsight has indicated that the site is not currently recorded as Contaminated Land under Part IIA EPA 1990. In addition, no sites determined as Contaminated Land under Part IIA EPA 1990 are recorded within c.500m of the development area.

3.4.4 Historical Industrial Land Uses

A review of Section 1.0 in the GSR (EnviroInsight) identifies the following:

- Potentially Contaminative Uses Identified within c.250m – Thirty-two entries recorded on site and a further ninety-five recorded within c.250m. This is representative of the industrial heritage of the site and surrounding area.
- Historical Tank Database – Five entries noted on site and a further six noted within c.250m.
- Historical Energy Features – None noted within c.250m.
- Historical Petrol and Fuel Site Database – None noted within c.250m.
- Historical Garage and Motor Vehicle Repair Database – Four entries are recorded within 250m.
- Potentially Infilled Land within c.250m – Seven features are noted on-site and a further seventy-one are recorded within c.250m.

It is recommended that reference be made to Section 1.0 of the GSR for further information (Enviroinsight – Appendix II). According to the GSR on-site features have included railway sidings, railway buildings, engine sheds, unspecified ground workings, iron ore mine, cuttings and unspecified pits. Surrounding features have included similar features plus refuse heaps and sewage works. Numerous shafts associated with mining are recorded in the general area. Over the years unspecified above ground tanks have been noted five times on site. In addition, a garage has been noted c.238m south around five times. According to the GSR on-site "potentially infilled land" including unspecified pits, unspecified ground workings, cuttings and iron ore mines have been noted on and surrounding the site.

3.0 Environmental Setting (Cont'd)

3.4 Development Area Environmental Sensitivity (Cont'd)

3.4.5 Current Industrial Land Uses

Due to the (current) rural and residential nature of the site and immediate surrounding area there is only one current industrial land uses noted within c.250m of the development site, which is recorded as garage (motor vehicle repair, testing and servicing). This is unlikely to pose a greater risk of contamination that the historical on-site activities. It is recommended that reference be made to Section 4.0 of the GSR for further information (Enviroinsight – Appendix II).

3.4.6 Fuel Station Entries

According to information provided by Catalist and presented in the GSR Enviroinsight there are no fuel filling sites recorded within c.500m of the development area.

3.4.7 Landfill and Waste Regulation/Management – Landfill Sites/Other Waste Sites

- No Environment Agency Registered Landfill Sites are recorded within c.250m.
- Two Environment Agency Historic Landfill Sites are recorded within c.250m. They are identified c.80m east and c.161m east. They are recorded as accepting industrial, commercial and household wastes. These features are considered to pose a risk of ground gas generation and migration that could negatively affect the site.
- The BGS/DoE Landfill Site Survey does not record any Landfill Sites within c.250m.
- No GroundSure Local Authority Landfill sites are recorded within c.250m.
- Three Operational or Non-Operational Waste Treatment, Transfer or Disposal Sites are recorded within c.250m. They relate to three Scrap Yard entries noted between c.110m and c.224m east
- No Environment Agency Licensed Waste Sites are recorded within c.250m.

It is recommended that reference be made to Section 3.0 of the GSR Enviroinsight (Appendix II) for further information. Historical landfill features have been recorded within an influencing distance of the site.

3.5 Development Area Historical Plan Appraisal

Section 3.5 is based on historical plans (Ordnance Survey extracts) obtained as part of the parcel of information within the GSR and provides a summary of the site history, highlighting any industries, processes or activities that may be considered as *"Geohazards"*, particularly those within an influencing area of c.250m. Copies of old survey plans (1:10,560, 1:10,000 and 1:2,500 Scale) covering the site and adjacent areas have been reviewed with selected extracts included within Appendix III. Particular attention is made to the greater detail presented in the 1:2,500 scale plans dating between c.1863 and c.1995.

1863: The majority of the site is noted as agricultural fields. Moorrow Junction is present in the southern site area, comprising railway sidings and engine sheds. A railway station is present on the south-west site boundary. The River Keekle forms the eastern site boundary and some hachures denote infilling around this area. Hachures around the railway sidings suggest a cutting.

1899: Railway infrastructure has increased across the site with tanks, buildings and sidings noted. Hachures denote areas of cut within the central site area and filling in the eastern site area. Residential properties are noted around Dalzell Street to the south-west. Within the general area to the south, south-east and east an extensive area of iron ore mining is noted with numerous shafts, mostly affiliated with Montreal Mine, with Pit No. 12 either on or close to the site. Large spoil heaps are present around the site. Fields remain to the north.

3.0 Environmental Setting (Cont'd)

3.5 Development Area Historical Plan Appraisal (Cont'd)

1925: No significant variations noted on site or in the immediate surrounding area.

1961: By c.1961 the buildings are no longer present on site although the sidings and tank remain. In the surrounding area the iron ore mines are no longer active and structures have been removed. Large spoil heaps are noted.

1966: Some of the railway sidings have been removed from site.

1984: The railway line is noted as disused and much of the sidings have been removed. A building is present in the eastern site area and this is noted as a depot.

1989: No significant variations noted.

1991: The railway line is dismantled and the established as a path. The site remains a depot.

1994: No significant variations noted.

1995: The site remains as a "depot" and additional structures are noted. It is understood that at some point in recent years the site is used for manufacturing fencing prior to being left derelict around c.2009 to c.2010.

4.0 Conceptual Site Model

A Conceptual Site Model (CSM) has been designed using the information presented within this P1 DTS to provide a graphical representation of the anticipated ground, groundwater and ground gas conditions below the development area (Existing Site CSM). The CSM is presented within Sections 4.1 to 4.3 and aids the completion of the Preliminary Qualitative Risk Assessment (PQRA – Section 5.0).

The CSM utilises the established *Source – Pathway – Receptor* pollutant linkage model and is designed to provide an improved understanding of the site characteristics, designing a Preliminary Screening Strategy (PSS) for the Potential Contaminants of Concern (PCOC's). This ensures adequate and appropriate Phase 2: Ground Investigation (P2 GI) Works are designed and undertaken for wide spread and targeted investigations, should they be deemed necessary.

During the P2 GI the CSM can be refined depending upon the outcomes of the intrusive works to ensure that appropriate remediation (if required) is completed to ensure the development area is "fit for purpose" in relation to the proposed end use. The CSM is presented in Sections 4.1 to 4.3 on the following page.

4.0 Conceptual Site Model (Cont'd)

4.1 Anticipated Sources – Preliminary Screening Strategy

Sources:
S1 = Generic/Organic Made Ground. The historical information available for the site suggests that variable made ground will be present associated with mixed industrial uses and localised levelling (Central and Southern site area – Brownfield Land). Within the northern site area (Greenfield – agricultural fields) made ground is unlikely to be present in significant quantities. Therefore, excavations should be completed on site as part of a Phase 2: Ground Investigation to confirm the shallow ground conditions to ensure that if made ground (that includes anthropogenic debris, i.e. ash, clinker etc.) and/or visual/olfactory (malodorous) evidence of potential contamination are identified then contamination screening with appropriate Human Health Risk Assessment can be completed. Potential Contaminants of Concern (PCOC's) associated with generic made ground and the historical site use (according to the Department of Environment Industry Profiles) include Arsenic, Cadmium, Chromium (III and VI), Copper, Lead, Mercury, Nickel, Selenium, Zinc, Cyanide (free), pH, Soluble Sulphate, Total Organic Carbon, Speciated PAH, Speciated TPH and Asbestos. A watching brief should be implemented during the development/construction works to ensure that if made ground (that includes anthropogenic debris, i.e. ash, clinker etc.) and/or visual/olfactory (malodorous) evidence of potential contamination are identified then works should be stopped, the Local Authority notified and advice should be sought from an appropriately qualified and experienced Geo-environmental Engineer (i.e. contamination screening with appropriate Human Health Risk Assessment).
S2 = Ground Gas generation from mine workings, refuse tips (former landfill) as well as areas of infilling/made ground both on site and in the surrounding area. PCOC's include Carbon Dioxide and Methane. Movement of ground gas could be facilitated by geological structural faulting. The site is in an elevated risk radon area and requires Full Radon Protection measures.

4.2 Anticipated Pathways

Pathways:
P1 = Inhalation of indoor / outdoor air (wind-blown particles)
P2 = Dermal/direct contact (limited risk present through areas of private gardens and soft landscaping)
P3 = Ingestion (limited risk present through areas of private gardens and soft landscaping)
P4 = Migration through existing services
P5 = Direct contact with building materials
P6 = Surface Run-Off
P7 = Leaching from Soils

4.3 Anticipated Receptors

Receptors:
R1 = Human Health (Residents)
R2 = Human Health (Construction Workforce) – Not considered within this assessment
R3 = Groundwater (Secondary A Aquifer and off-site surface water features)
R4 = Building Materials and Buried Utilities
R5 = Flora and Fauna (future private gardens and soft landscaping)

5.0 Preliminary Qualitative Risk Assessment (PQRA)

5.1 Qualitative Geotechnical Risk Assessment – Risk Meter

The following Preliminary Geotechnical Risk Meter determines the potential level of risk associated with the geotechnical properties of the site, considering any potential geohazards identified by the information presented within the DTS.

Geotechnical:					⇩	
RISK =	NEGLIGIBLE	VERY LOW	LOW	MODERATE	HIGH	VERY HIGH

A preliminary risk level of *HIGH* is currently determined appropriate for this development area (as a whole) for the following reasons:

- Parts of the site are underlain by an unknown (and probably variable) thickness of made ground associated with levelling and former industry (central and southern site area – Brownfield).
- Historical structures (now demolished) may represent a risk of buried relict structures.
- Drift geological deposits may be variable resulting in no shallow homogenous bearing stratum.
- The Solid geology may be variable.
- Structural faulting and glacial channels are suggested.
- Slopes are noted and topographical variations may require earthworks and retaining structures.
- The presence of the River Keekle on the eastern site boundary could result in some localised "scour" and destabilisation of the slope base, particularly following heavy rainfall and flood events.
- The Coal Authority records shallow coal mining beneath the site.
- The BGS and GSR suggest potential iron ore mining beneath the site and the general area.
- Shallow groundwater may be present (reduced bearing pressures and unstable excavations).
- Full Radon Protection Measures are required.
- On site made ground, surrounding made ground and historical mining features pose a risk of ground gas generation (carbon dioxide and methane).

Consequently, an extensive and detailed scope of Phase 2: Ground Investigation works will be required to determine ground/groundwater/gas conditions and to aid the design of foundations, retaining structures and highways by the Design Team. If shallow mine workings are present, then it may be the case that structural precautions (i.e. grouting) is required. There is a potential for unrecorded mine entries.

5.2 Qualitative Contamination Risk Assessment – Risk Meter

The following Preliminary Ground Contamination, Groundwater Contamination and Ground Gas Risk Meter determines the potential level of risk associated with the redevelopment of the site when taking into account the anticipated *Sources – Pathways – Receptors* within the pollutant linkage model and CSM.

A preliminary risk level of *MODERATE* to *HIGH* is currently determined appropriate for this development with respect to ground contamination across the central and southern site area (Brownfield). In summary, the historical information suggests that the majority of the site has undergone infilling and industrial use, with potential on-site bulk fuel storage. The northern site area (agricultural fields – greenfield) is currently considered to be a preliminary risk level of *LOW*.

Phase 2: Ground Investigation works should be completed to confirm the ground conditions to ensure that if made ground (that includes anthropogenic debris, i.e. ash, clinker, slag etc.) and/or visual/olfactory

5.0 Preliminary Qualitative Risk Assessment (PQRA) (Cont'd)

5.2 Qualitative Contamination Risk Assessment – Risk Meter (Cont'd)

(malodorous) evidence of potential contamination are identified then contamination screening with appropriate Human Health Risk Assessment can be completed.

Potential Contaminants of Concern (PCOC's) include Arsenic, Cadmium, Chromium (III and VI), Copper, Lead, Mercury, Nickel, Selenium, Zinc, Cyanide (free), pH, Soluble Sulphate, Total Organic Carbon, Speciated PAH, Speciated TPH and Asbestos.

A watching brief should also be implemented during the development/construction works to ensure that if made ground (that includes anthropogenic debris, i.e. ash, clinker, slag, etc.) and/or visual/olfactory (malodorous) evidence of potential contamination are identified then works should be stopped, the Local Authority notified and advice should be sought from an appropriately qualified and experienced Geo-environmental Engineer (i.e. contamination screening with appropriate Human Health Risk Assessment).

A preliminary risk level of *MODERATE* to *HIGH* is currently considered appropriate for the central and southern site area (Brownfield) with respect to potential risks to controlled waters (groundwater, nearby surface water features). For the northern site area (Greenfield) the preliminary level of risk is considered to be *LOW*. Laboratory based screening for soil-leachate and water samples should be undertaken as part of any Phase 2: Ground Investigation works.

A preliminary risk level of *MODERATE* to *HIGH* is considered appropriate for the entire site with respect to potential harmful ground gas (Carbon Dioxide and Methane). In summary, sources have been identified beneath the site and surrounding the site as well as potential pathways including the inferred geological structural faulting. In addition, the GSR indicates that Full Radon Protection Measures are required.

Ground Contamination:				⇩		
RISK =	NEGLIGIBLE	VERY LOW	LOW	MODERATE	HIGH	VERY HIGH
Groundwater Contamination:				⇩		
RISK =	NEGLIGIBLE	VERY LOW	LOW	MODERATE	HIGH	VERY HIGH
Ground Gas:				⇩		
RISK =	NEGLIGIBLE	VERY LOW	LOW	MODERATE	HIGH	VERY HIGH

GEO also recommends that a "watching brief" and "observational technique" be applied to this site to ensure that if ground conditions appear to vary from those identified within this investigation report then advice should be sought from a suitably qualified and experienced Engineering Geologist, Geotechnical or Geo-Environmental Engineer.

6.0 Conclusions

When considering the results of this DTS report the following can be seen:

6.0 Conclusions (Cont'd)

- The development site as a whole is currently considered to represent a *high* geotechnical risk.
- The central and southern site areas are currently considered to pose a *moderate* to *high* risk to the proposed end users (ground contamination – Brownfield site).
- The northern site area is currently considered to pose a *low* risk to the proposed end users (ground contamination – Greenfield site).
- The central and southern site areas are currently considered to pose a *moderate* to *high* risk to adjacent sites (the surrounding environment) and controlled waters with respect to potential ground/groundwater contamination (Brownfield site).
- The northern site area is currently considered to pose a *low* risk to adjacent sites (the surrounding environment) and controlled waters with respect to potential ground/groundwater contamination (Brownfield site).
- A *moderate* to *high* risk is currently considered present of ground gas for the site as a whole (Greenfield and Brownfield).

Consequently, Phase 2: Ground Investigation works should be undertaken to ensure the *"geohazards"* identified are appropriately assessed to ensure the appropriateness of the site for the proposed end use prior to commencing redevelopment/construction.

The combination of the Phase 1: Desk Top Study Report and any subsequent Phase 2: Ground Investigation should be suitable for submission to the Local Authority for planning purposes and for the appointed Design Team.

A Consulting Engineer should be contacted to determine if any potential items are identified or considered present on site that may mean redevelopment is not possible (from a construction) or cost perspective.

GEO also recommends that a "watching brief" and "observational technique" be applied to this site to ensure that if ground conditions appear to vary from those identified within this investigation report then advice should be sought from a suitably qualified and experienced Engineering Geologist, Geotechnical or Geo-Environmental Engineer.

The conclusions and recommendations presented within this report are considered reasonable based on the available information. However, these cannot be guaranteed to gain regulatory approval. Therefore, the report should be passed to the appropriate regulatory authorities and/ or other key stakeholders, including warranty providers in order to seek their approval of the findings prior to undertaking any works on site.

End of Report

Appendix I

- Site Location Plan
- Aerial Photograph Extract
- Existing Site Layout Plan
- Site Images

GEO Environmental Engineering

GEO2016-1961: Site Location Plan (Image Courtesy of OS – Approximate Site Boundary)

Website: www.geoenvironmentalengineering.com
Email: info@geoenvironmentalengineering.com
Telephone: 08456 768 895

GEO Environmental Engineering

GEO2016-1961: Aerial Photograph Extract

Aerial Photograph Capture date:	05-Oct-2008
Grid Reference:	300662,514638
Site Size:	4.41ha

Website: www.geoenvironmentalengineering.com
Email: info@geoenvironmentalengineering.com
Telephone: 08456 768 895

GEO2016-1961: Existing Site Layout Plan (Courtesy of OS – Approximate Site Boundary)

Website: www.geoenvironmentalengineering.com
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GEO Environmental Engineering

GEO2016-1961: Site Images (Walkover April 2016)
















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GEO2016-1961: Site Images (Walkover April 2016)




Website: www.geoenvironmentalengineering.com
Email: info@geoenvironmentalengineering.com
Telephone: 08456 768 895

Appendix II

- Ground Sure Report (GSR – Geoinsight and Enviroinsight)

Groundsure Geoinsight

Address:	**Land at ,Station Yard,Moor Row,CA,**
Date:	**14 Apr 2016**
Reference:	**EMS-357047_479314**
Client:	**EmapSite**

NW N NE

W E

SW S SE

Aerial Photograph Capture date:	05-Oct-2008
Grid Reference:	300662,514638
Site Size:	4.41ha

Groundsure
LOCATION INTELLIGENCE

emapsite™

Contents Page

Overview of Findings

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

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

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

Section 1:Geology		
1.1 Artificial Ground	1.1.1 Is there any Artificial Ground/ Made Ground present beneath the study site?	No
	1.1.2 Are there any records relating to permeability of artificial ground within the study site* boundary?	No
1.2 Superficial Geology and Landslips	1.2.1 Is there any Superficial Ground/Drift Geology present beneath the study site?	Yes
	1.2.2 Are there any records relating to permeability of superficial geology within the study site boundary?	Yes
	1.2.3 Are there any records of landslip within 500m of the study site boundary?	No
	1.2.4 Are there any records relating to permeability of landslips within the study site boundary?	No
1.3 Bedrock, Solid Geology & Faults	1.3.1 For records of Bedrock and Solid Geology beneath the study site* see the detailed findings section.	
	1.3.2 Are there any records relating to permeability of bedrock within the study site boundary?	Yes
	1.3.3 Are there any records of faults within 500m of the study site boundary?	Yes
1.4 Radon data	1.4.1 Is the property in a Radon Affected Area as defined by the Health Protection Agency (HPA) and if so what percentage of homes are above the Action Level?	The property is in a Radon Affected Area, as between 10 and 30% of properties are above the Action Level
	1.4.2 Is the property in an area where Radon Protection Measures are required for new properties or extensions to existing ones as described in publication BR211 by the Building Research Establishment?	Full radon protective measures are necessary

Section 2:Ground Workings	On-site	0-50m	51-250	251-500	501-1000
2.1 Historical Surface Ground Working Features from Small Scale Mapping	5	0	35	Not Searched	Not Searched
2.2 Historical Underground Workings from Small Scale Mapping	0	0	8	10	40
2.3 Current Ground Workings	0	0	3	5	19

Section 3: Mining, Extraction & Natural Cavities	On-site	0-50m	51-250	251-500	501-1000
3.1 Historical Mining	0	0	8	11	42
3.2 Coal Mining	1	0	0	0	0
3.3 Johnson Poole and Bloomer Mining Area	0	0	0	0	0
3.4 Non-Coal Mining	2	0	3	11	12
3.5 Non-Coal Mining Cavities	0	0	0	1	11
3.6 Natural Cavities	0	0	0	0	0
3.7 Brine Extraction	0	0	0	0	0
3.8 Gypsum Extraction	0	0	0	0	0
3.9 Tin Mining	0	0	0	0	0
3.10 Clay Mining	0	0	0	0	0

Section 4: Natural Ground Subsidence	On-site
4.1 Shrink Swell Clay	Very Low
4.2 Landslides	Low
4.3 Ground Dissolution of Soluble Rocks	Negligible
4.4 Compressible Deposits	Moderate
4.5 Collapsible Deposits	Very Low
4.6 Running Sand	Low

Section 5: Borehole Records	On-site	0-50m	51-250
5 BGS Recorded Boreholes	0	0	16

Section 6: Estimated Background Soil Chemistry	On-site	0-50m	51-250
6 Records of Background Soil Chemistry	5	5	63

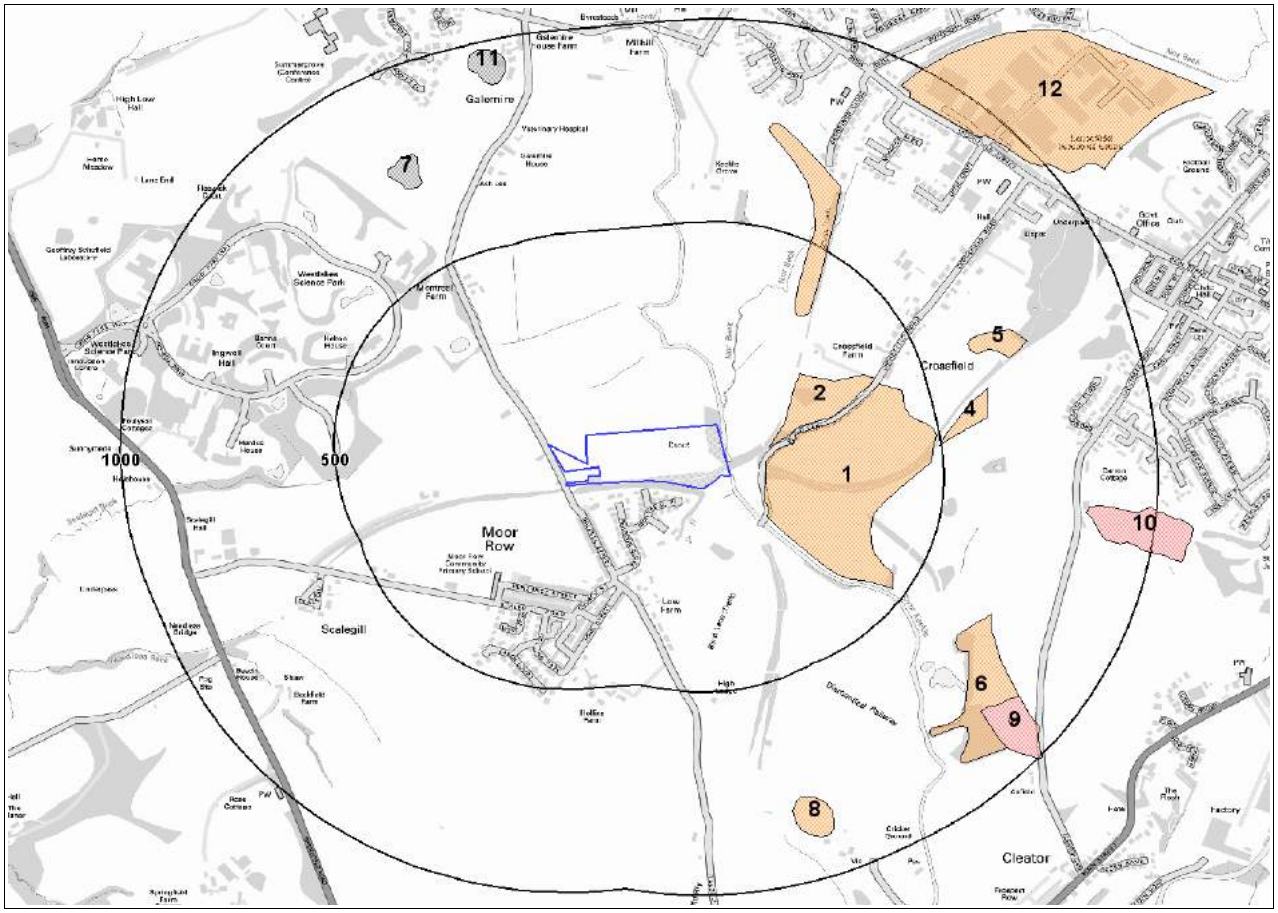
Section 7: Railways and Tunnels	On-site	0-50m	51-250	251-500
7.1 Tunnels	0	0	0	Not Searched
7.2 Historical Railway and Tunnel Features	12	6	17	Not Searched
7.3 Historical Railways	0	2	2	Not Searched
7.4 Active Railways	0	0	0	Not Searched

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

1 Geology

1.1 Artificial Ground Map

NW N NE



W E

SW S SE

Artificial Ground Legend

Site Outline

500
1000
Search Buffers (m)

Made Ground (undivided)

Disturbed Ground (undivided)

Worked Ground (undivided)

Landscaped Ground (undivided)

Infilled Ground

Reclaimed Ground

1 Geology

1.1 Artificial Ground

1.1.1Artificial/ Made Ground

The following geological information represented on the mapping is derived from 1:50,000 scale BGS Geological mapping, Sheet No:028

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

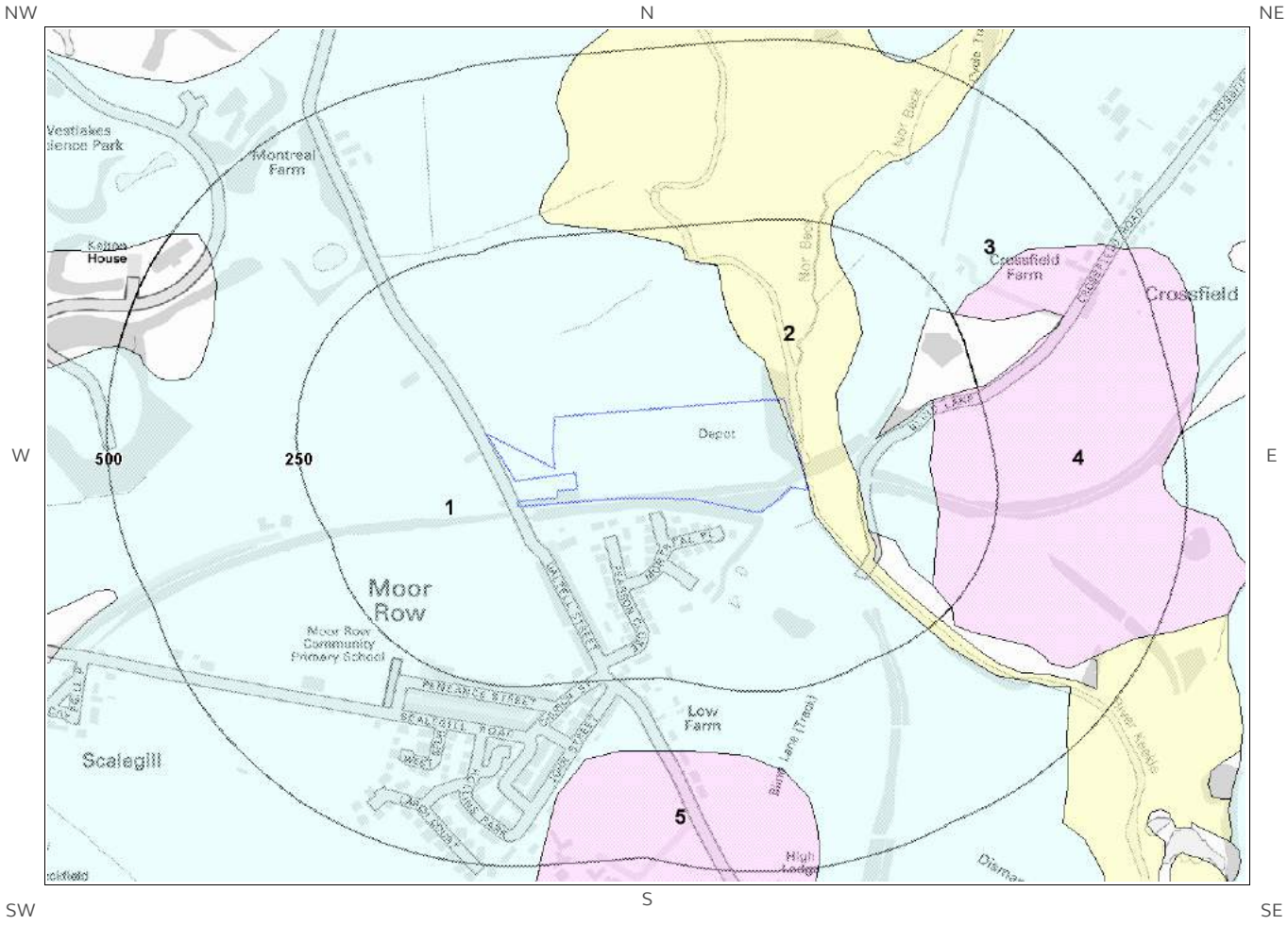
ID	Distance (m)	Direction	LEX Code	Description	Rock Description
1	83.0	E	MGR-MGRD	MADE GROUND (UNDIVIDED)	ARTIFICIAL DEPOSIT
2	103.0	E	MGR-MGRD	MADE GROUND (UNDIVIDED)	ARTIFICIAL DEPOSIT
3	330.0	NE	MGR-MGRD	MADE GROUND (UNDIVIDED)	ARTIFICIAL DEPOSIT
4	496.0	E	MGR-MGRD	MADE GROUND (UNDIVIDED)	ARTIFICIAL DEPOSIT

1.1.2 Permeability of Artificial Ground

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

Database searched and no data found.

1.2 Superficial Deposits and Landslips Map



Superficial Deposits and Landslips Legend

Site Outline

500
1000
Search Buffers (m)

1.2 Superficial Deposits and Landslips

1.2.1 Superficial Deposits/ Drift Geology

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

ID	Distance (m)	Direction	LEX Code	Description	Rock Description
1	0.0	On Site	TILLD	TILL, DEVENSIAN	DIAMICTON
2	0.0	On Site	ALV	ALLUVIUM	CLAY, SILT, SAND AND GRAVEL [UNLITHIFIED DEPOSITS CODING SCHEME]
3	58.0	E	TILLD	TILL, DEVENSIAN	DIAMICTON
4	164.0	E	GFDUD	GLACIOFLUVIAL DEPOSITS, DEVENSIAN	SAND AND GRAVEL [UNLITHIFIED DEPOSITS CODING SCHEME]
5	339.0	S	GFDUD	GLACIOFLUVIAL DEPOSITS, DEVENSIAN	SAND AND GRAVEL [UNLITHIFIED DEPOSITS CODING SCHEME]

1.2.2 Permeability of Superficial Ground

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

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

1.2.3 Landslip

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

Database searched and no data found.

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

1.2.4 Landslip Permeability

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

Database searched and no data found.

---

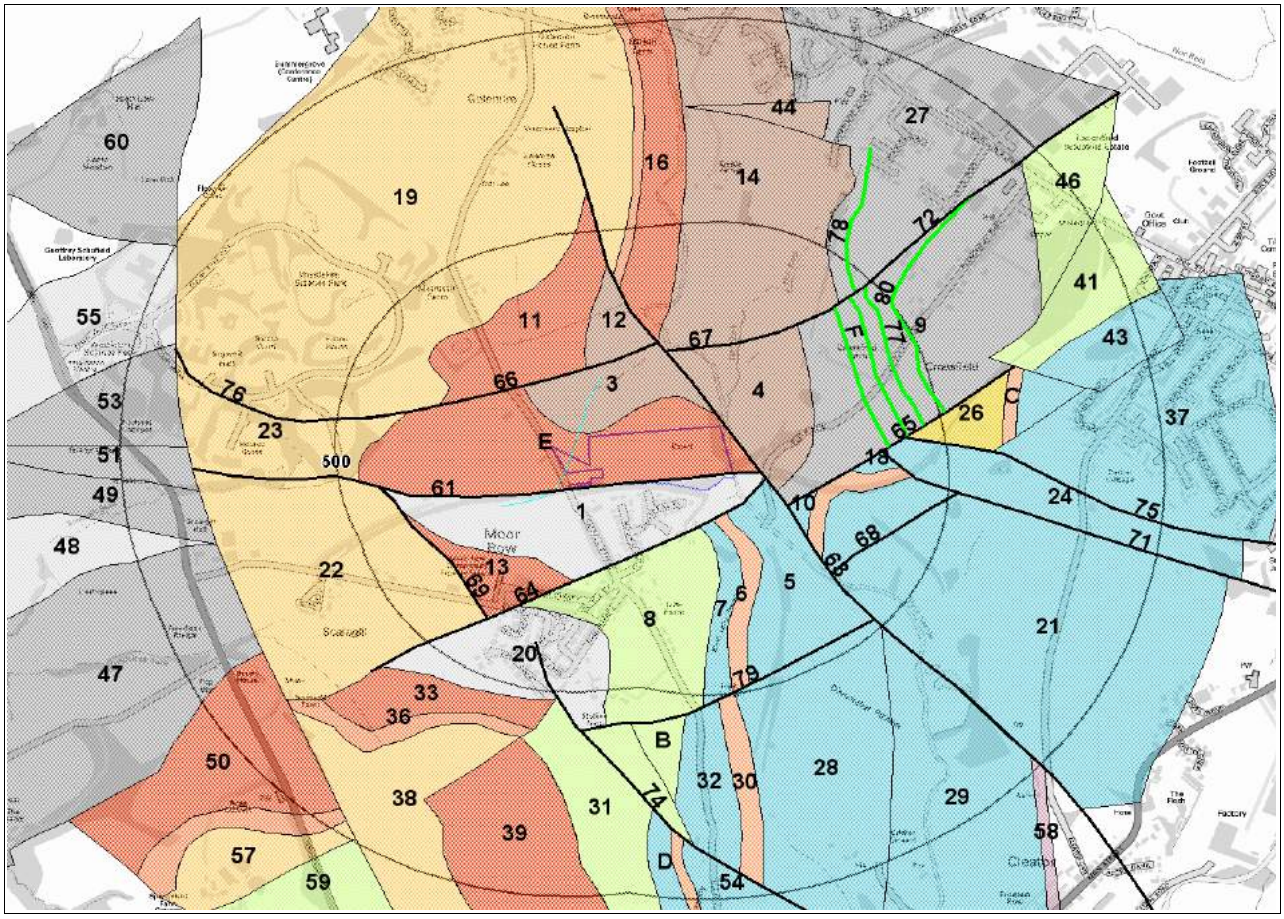
* This includes an automatically generated 50m buffer zone around the site

1.3 Bedrock and Faults Map

NW N NE

W E

SW S SE



Bedrock and Faults Legend

Site Outline

500
1000
Search Buffers (m)

1.3 Bedrock, Solid Geology & Faults

The following geological information represented on the mapping is derived from 1:50,000 scale BGS Geological mapping, Sheet No:028

1.3.1 Bedrock/ Solid Geology

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

ID	Distance (m)	Direction	LEX Code	Description	Rock Age
1	0.0	On Site	PLCM-MDSS	Pennine Lower Coal Measures Formation - Mudstone, Siltstone And Sandstone	Langsettian
2E	0.0	On Site	BK-BREC	Brockram - Breccia	No Details
3	8.0	N	WS-SDST	Whitehaven Sandstone Formation - Sandstone	Westphalian D / Bolsovian
4	9.0	NE	WS-SDST	Whitehaven Sandstone Formation - Sandstone	Westphalian D / Bolsovian
5	56.0	SE	ESKT-LMST	Eskett Limestone Formation - Limestone	Pendleian / Holkerian
6	68.0	SE	OBS-SDST	Orebank Sandstone - Sandstone	Brigantian
7	72.0	S	LM1-LMST	First Limestone (cumbria) - Limestone	Pendleian
8	89.0	S	SMGP-MDSS	Stainmore Formation - Mudstone, Siltstone And Sandstone	No Details
9	102.0	E	PMCM-MDSS	Pennine Middle Coal Measures Formation - Mudstone, Siltstone And Sandstone	Bolsovian / Duckmantian
10	141.0	SE	LM2-LMST	Second Limestone (cumbria) - Limestone	Brigantian
11	159.0	N	BK-BREC	Brockram - Breccia	No Details
12	167.0	N	WS-SDST	Whitehaven Sandstone Formation - Sandstone	Westphalian D / Bolsovian
13	188.0	SW	BK-BREC	Brockram - Breccia	No Details
14	193.0	N	WS-SDST	Whitehaven Sandstone Formation - Sandstone	Westphalian D / Bolsovian
15A	194.0	E	OBS-SDST	Orebank Sandstone - Sandstone	Brigantian
16	217.0	N	BK-BREC	Brockram - Breccia	No Details
17A	231.0	E	ESKT-LMST	Eskett Limestone Formation - Limestone	Pendleian / Holkerian
18	269.0	E	LM2-LMST	Second Limestone (cumbria) - Limestone	Brigantian
19	274.0	NW	SBS-SDST	St Bees Sandstone Formation - Sandstone	No Details
20	304.0	S	PLCM-MDSS	Pennine Lower Coal Measures Formation - Mudstone, Siltstone And Sandstone	Langsettian
21	327.0	SE	FRLI-LMST	Frizington Limestone Formation - Limestone	Holkerian
22	328.0	SW	SBS-SDST	St Bees Sandstone Formation - Sandstone	No Details
23	342.0	W	SBS-SDST	St Bees Sandstone Formation - Sandstone	No Details
24	350.0	E	FRLI-LMST	Frizington Limestone Formation - Limestone	Holkerian
25	355.0	N	SBSH-SIMD	St Bees Shale Formation - Siltstone And Mudstone, Interbedded	No Details
26	405.0	E	HG-SDST	Hensingham Grit - Sandstone	Pendleian
27	410.0	NE	PMCM-MDSS	Pennine Middle Coal Measures Formation - Mudstone, Siltstone And Sandstone	Bolsovian / Duckmantian
28	461.0	SE	ESKT-LMST	Eskett Limestone Formation - Limestone	Pendleian / Holkerian
29	497.0	SE	FRLI-LMST	Frizington Limestone Formation - Limestone	Holkerian
30	497.0	S	OBS-SDST	Orebank Sandstone - Sandstone	Brigantian

1.3.2 Permeability of Bedrock Ground

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

Distance (m)	Direction	Flow Type	Maximum Permeability	Minimum Permeability
0.0	On Site	Fracture	High	Low
0.0	On Site	Fracture	High	High
8.0	N	Fracture	High	Moderate

1.3.3 Faults

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

ID	Distance (m)	Direction	Category Description	Feature Description
61	0.0	On Site	FAULT	Fault, inferred, displacement unknown
62E	0.0	On Site	LANDFORM	Glacial meltwater channel centre line, undifferentiated
63	10.0	NE	FAULT	Fault, inferred, displacement unknown
64	56.0	SE	FAULT	Fault, inferred, displacement unknown
65	141.0	SE	FAULT	Fault, inferred, displacement unknown
66	159.0	N	FAULT	Fault, inferred, displacement unknown
67	193.0	N	FAULT	Fault, inferred, displacement unknown
68	327.0	SE	FAULT	Fault, inferred, displacement unknown
69	328.0	SW	FAULT	Fault, inferred, displacement unknown
70F	339.0	E	ROCK	Coal seam, inferred
71	350.0	E	FAULT	Fault, inferred, displacement unknown
72	380.0	NE	FAULT	Fault, inferred, displacement unknown
73F	382.0	E	ROCK	Coal seam, inferred
74	385.0	S	FAULT	Fault, inferred, displacement unknown
75	405.0	E	FAULT	Fault, inferred, displacement unknown
76	423.0	W	FAULT	Fault, inferred, displacement unknown
77	427.0	E	ROCK	Coal seam, inferred
78	453.0	NE	ROCK	Coal seam, inferred
79	461.0	SE	FAULT	Fault, inferred, displacement unknown
80	481.0	E	ROCK	Coal seam, inferred

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

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

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

1.4 Radon Data

1.4.1 Radon Affected Areas

Is the property in a Radon Affected Area as defined by the Health Protection Agency (HPA) and if so what percentage of homes are above the Action Level? The property is in a Radon Affected Area, as between 10 and 30% of properties are above the Action Level

---

1.4.2 Radon Protection

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

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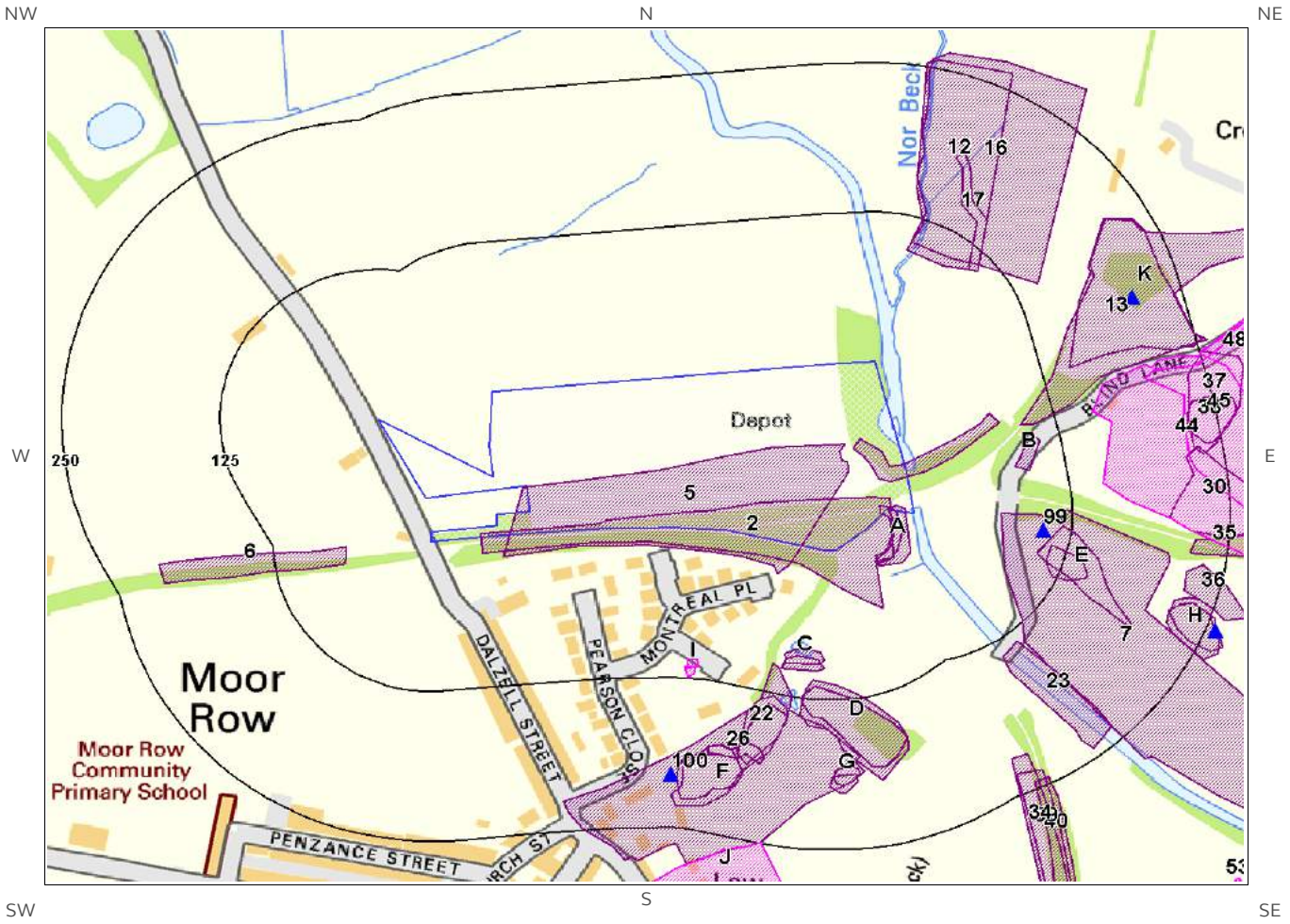
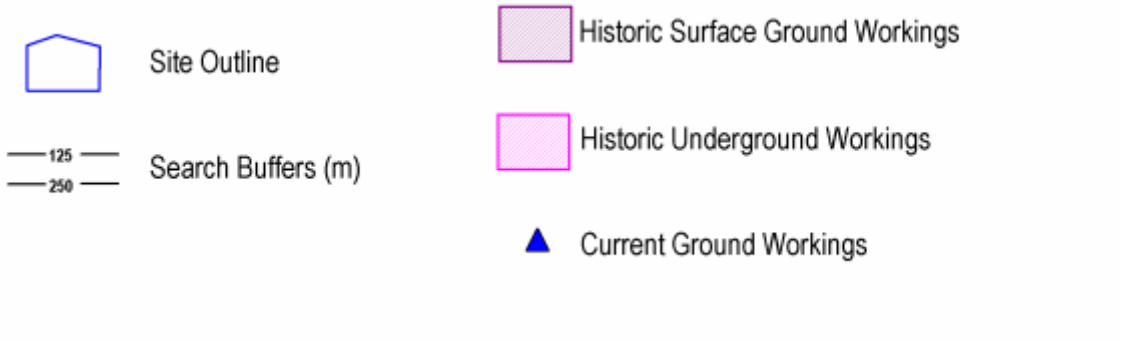
2 Ground Workings Map



Ground Workings Legend



2 Ground Workings

2.1 Historical Surface Ground Working Features derived from Historical Mapping

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

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

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

ID	Distance (m)	Direction	NGR	Use	Date
1A	0.0	On Site	300830 514571	Unspecified Pit	1938
2	0.0	On Site	300501 514556	Cuttings	1863
3A	0.0	On Site	300827 514572	Unspecified Pit	1898
4	0.0	On Site	300801 514645	Unspecified Ground Workings	1898
5	0.0	On Site	300653 514594	Cuttings	1948
6	67.0	W	300318 514546	Cuttings	1863
7	69.0	E	301069 514444	Unspecified Disused Pit	1938
8C	84.0	S	300755 514470	Refuse Heap	1938
9B	85.0	E	300930 514640	Reservoirs	1898
10B	85.0	E	300930 514640	Reservoirs	1938
11C	91.0	S	300753 514464	Refuse Heap	1948
12	96.0	NE	300877 514880	Sewage Works	1948
13	98.0	E	300999 514750	Unspecified Pit	1938
14F	101.0	S	300683 514381	Unspecified Disused Pit	1938
15E	103.0	E	300975 514537	Unspecified Pit	1938
16	104.0	NE	300908 514877	Sewage Works	1938
17	107.0	NE	300887 514841	Unspecified Ground Workings	1948
18D	109.0	S	300793 514413	Unspecified Pit	1938
19D	109.0	S	300793 514413	Unspecified Heap	1898
20E	112.0	E	300962 514548	Refuse Heap	1948

ID	Distance (m)	Direction	NGR	Use	Date
21D	114.0	S	300793 514415	Unspecified Heap	1948
22	127.0	S	300722 514409	Refuse Heap	1938
23	134.0	SE	300954 514438	Cuttings	1938
24F	135.0	S	300712 514388	Unspecified Disused Pit	1948
25K	147.0	E	301011 514775	Unspecified Pit	1898
26	170.0	S	300699 514389	Unspecified Pit	1898
27F	176.0	S	300679 514374	Unspecified Disused Pit	1938
28G	180.0	S	300788 514371	Unspecified Heap	1938
29G	187.0	S	300786 514364	Unspecified Heap	1948
30	202.0	E	301084 514607	Unspecified Pit	1938
31H	217.0	E	301061 514492	Unspecified Heap	1948
32H	218.0	E	301065 514497	Unspecified Pit	1938
33H	218.0	E	301065 514497	Unspecified Pit	1898
34	219.0	S	300941 514324	Cuttings	1948
35	221.0	E	301205 514579	Cuttings	1863
36	221.0	E	301080 514524	Unspecified Pit	1938
37	226.0	E	301079 514686	Refuse Heap	1938
38	227.0	E	301076 514663	refuse heap	1948
39	233.0	S	300955 514268	Cuttings	1938
40	244.0	SE	300950 514168	Cuttings	1863

2.2 Historical Underground Working Features derived from Historical Mapping

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

Are there any Historical Underground Working Features within 1000m of the study site boundary? Yes

The following Historical Underground Working Features are provided by Groundsure:

ID	Distance (m)	Direction	NGR	Use	Date
41I	109.0	S	300666 514464	Unspecified Old Shaft	1898
42I	109.0	S	300666 514464	Unspecified Old Shaft	1938
43I	115.0	S	300664 514457	Unspecified Old Shaft	1948
44	152.0	E	301155 514643	Iron Ore Mine	1938
45	203.0	E	301167 514676	Disused Iron Ore Mine	1948
46J	249.0	S	300711 514167	Iron Ore Mines	1938
47J	249.0	S	300711 514167	Iron Ore Mine	1898
48	250.0	E	301186 514709	Iron Ore Mine	1898
Not shown	297.0	E	301146 514541	Unspecified Old Shafts	1948
Not shown	304.0	E	301145 514546	Unspecified Old Shaft	1898
Not shown	308.0	E	301148 514546	Unspecified Old Shaft	1938
Not shown	328.0	SE	301155 514371	Iron Ore Mine	1898
53	398.0	SE	301097 514283	Old Iron Shaft	1863
Not shown	444.0	SE	301144 514262	Unspecified Old Shaft	1898
Not shown	447.0	SE	301214 514338	Unspecified Old Shaft	1938
Not shown	449.0	SE	301212 514332	Unspecified Old Shaft	1948
Not shown	489.0	E	301334 514529	Unspecified Old Shaft	1898
Not shown	489.0	E	301334 514529	Unspecified Old Shaft	1938
Not shown	521.0	S	300534 513926	Iron Ore Mine	1938
Not shown	534.0	SE	301321 514347	Unspecified Old Shaft	1948
Not shown	536.0	S	300729 514021	Unspecified Old Shaft	1938
Not shown	536.0	S	300729 514021	Unspecified Old Shaft	1898

ID	Distance (m)	Direction	NGR	Use	Date
Not shown	542.0	E	301391 514598	Unspecified Old Shafts	1898
Not shown	546.0	S	300727 514010	Unspecified Old Shaft	1948
Not shown	546.0	E	301390 514591	Unspecified Old Shafts	1948
Not shown	550.0	E	301393 514598	Unspecified Old Shafts	1938
Not shown	574.0	SE	301246 514178	Unspecified Old Shafts	1898
Not shown	585.0	E	301427 514520	Unspecified Old Shaft	1948
Not shown	586.0	SE	301455 514038	Iron Ore Mine	1898
Not shown	605.0	E	301417 514399	Air Shaft	1863
Not shown	628.0	SE	301295 514151	Iron Shaft	1863
Not shown	631.0	E	301474 514649	Unspecified Old Shafts	1898
Not shown	631.0	E	301474 514649	Unspecified Old Shafts	1938
Not shown	631.0	E	301474 514644	Unspecified Old Shafts	1948
Not shown	645.0	SE	301359 514197	Unspecified Old Shaft	1938
Not shown	645.0	SE	301359 514197	Unspecified Old Shafts	1898
Not shown	650.0	SE	301359 514188	Unspecified Old Shaft	1948
Not shown	656.0	E	301554 515011	Iron Ore Mine	1898
Not shown	663.0	E	301574 515058	Iron Ore Mine	1938
Not shown	693.0	SE	301405 514179	Unspecified Old Shafts	1898
Not shown	713.0	N	301009 515554	Collieries	1863
Not shown	713.0	E	301558 514501	Unspecified Old Shaft	1948
Not shown	721.0	E	301560 514505	Unspecified Old Shaft	1938
Not shown	769.0	SE	301479 514158	Iron Shaft	1863
Not shown	774.0	SE	301412 514064	Iron Shaft	1863
Not shown	810.0	E	301871 514387	Old Iron Ore Mine	1898
Not shown	824.0	S	300354 513745	Unspecified Old Shaft	1938
Not shown	824.0	S	300354 513745	Unspecified Old Shaft	1898
Not shown	833.0	S	300352 513736	Unspecified Old Shaft	1948
Not shown	835.0	S	300339 513737	Unspecified Old Shaft	1948
Not shown	857.0	NE	301537 515175	Unspecified Old Shaft	1898

ID	Distance (m)	Direction	NGR	Use	Date
Not shown	859.0	N	300733 515630	Collieries	1863
Not shown	885.0	S	300564 513685	Unspecified Old Shaft	1863
Not shown	889.0	S	300297 513688	Unspecified Old Shaft	1898
Not shown	904.0	E	301752 514617	Unspecified Old Shaft	1938
Not shown	907.0	E	301752 514609	Unspecified Old Shaft	1948
Not shown	960.0	S	300583 513612	Old Iron Shaft	1863
Not shown	994.0	S	301152 513530	Unspecified Mine	1898

2.3 Current Ground Workings

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

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

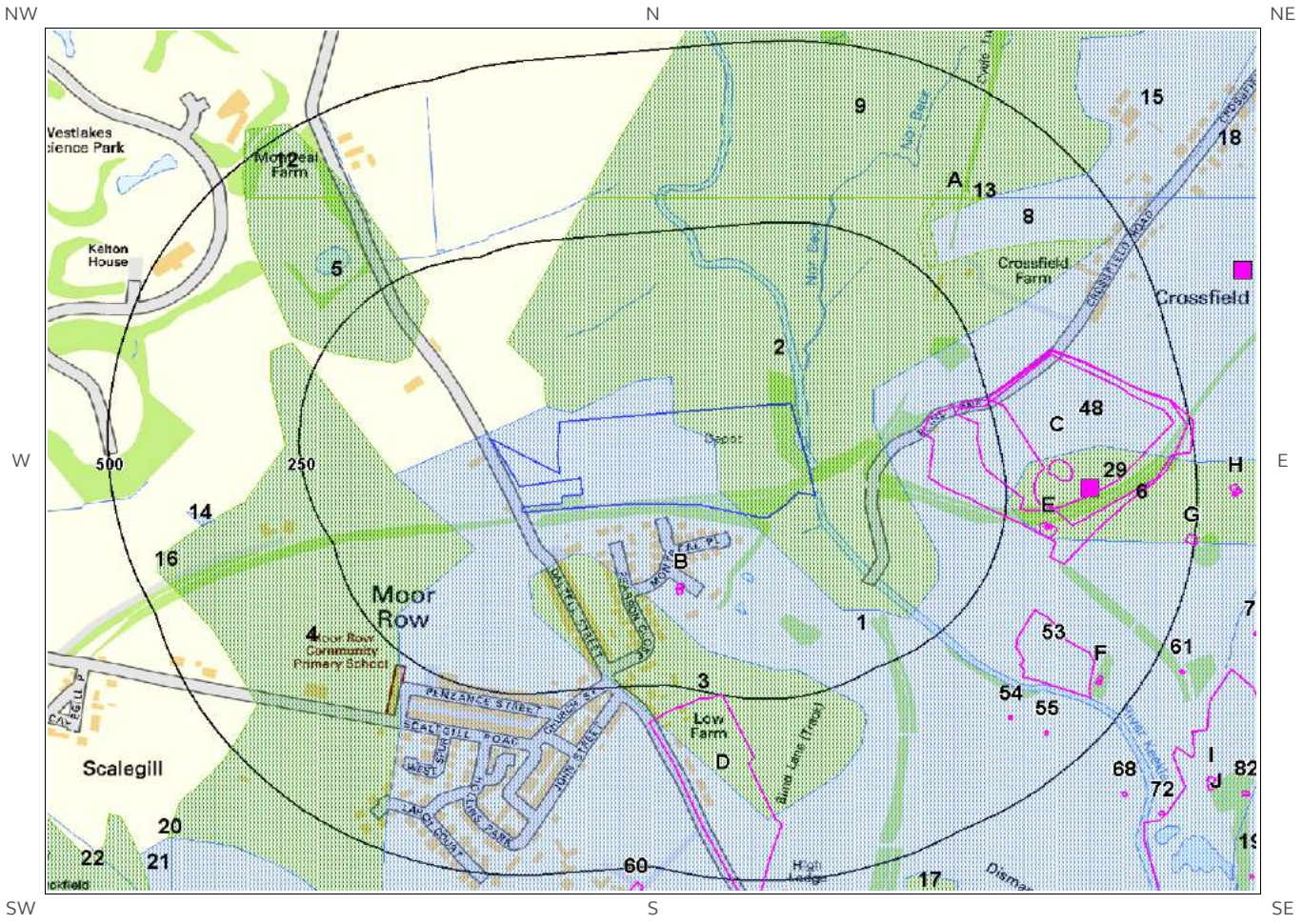
The following Current Ground Workings information is provided by British Geological Survey:

ID	Distance (m)	Direction	NGR	Commodity Produced	Pit Name	Type of working	Status
99	103.0	E	300943 514575	Iron ore	Montreal Iron Ore Mine	Working is wholly underground, access by shaft, adit or drift. Working may be termed Colliery, Mine, Drift Mine, Slant, Level, Adit or Ingoing Eye (Ingaun Ee - Scots)	Ceased
100	206.0	S	300648 514372	Iron ore	Moor Row Iron Ore Mine	Working is wholly underground, access by shaft, adit or drift. Working may be termed Colliery, Mine, Drift Mine, Slant, Level, Adit or Ingoing Eye (Ingaun Ee - Scots)	Ceased
101K	210.0	E	301013 514770	Iron ore	Montreal Iron Ore Mine	Working is wholly underground, access by shaft, adit or drift. Working may be termed Colliery, Mine, Drift Mine, Slant, Level, Adit or Ingoing Eye (Ingaun Ee - Scots)	Ceased
102H	257.0	E	301079 514492	Iron ore	Montreal Iron Ore Mine	Working is wholly underground, access by shaft, adit or drift. Working may be termed Colliery, Mine, Drift Mine, Slant, Level, Adit or Ingoing Eye (Ingaun Ee - Scots)	Ceased
Not shown	326.0	SE	301123 514427	Iron ore	Montreal Iron Ore Mine	Working is wholly underground, access by shaft, adit or drift. Working may be termed Colliery, Mine, Drift Mine, Slant, Level, Adit or Ingoing Eye (Ingaun Ee - Scots)	Ceased
Not shown	428.0	S	300723 514134	Iron ore	Moor Row Iron Ore Mine	Working is wholly underground, access by shaft, adit or drift. Working may be termed Colliery, Mine, Drift Mine, Slant, Level, Adit or Ingoing Eye (Ingaun Ee - Scots)	Ceased

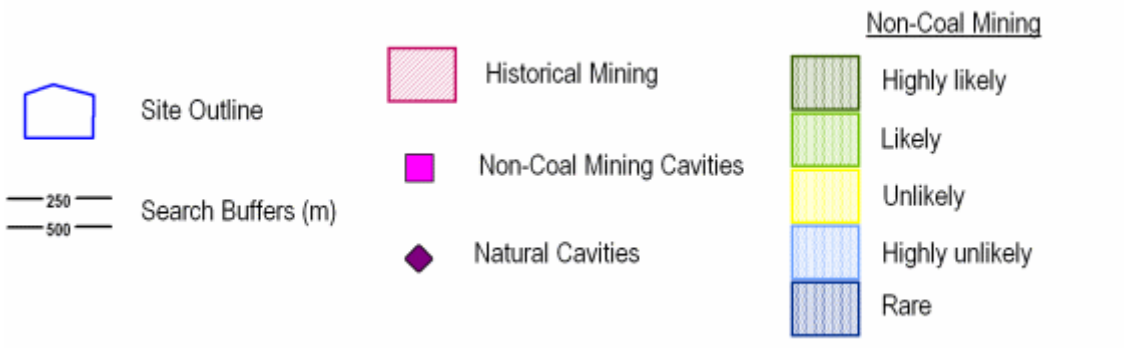
ID	Distance (m)	Direction	NGR	Commodity Produced	Pit Name	Type of working	Status
Not shown	475.0	NE	301090 515100	Coal, Deep	Hope Pit	Working is wholly underground, access by shaft, adit or drift. Working may be termed Colliery, Mine, Drift Mine, Slant, Level, Adit or Ingoing Eye (Ingaun Ee - Scots)	Ceased
Not shown	480.0	E	301317 514655	Iron ore	Montreal Iron Ore Mine	Working is wholly underground, access by shaft, adit or drift. Working may be termed Colliery, Mine, Drift Mine, Slant, Level, Adit or Ingoing Eye (Ingaun Ee - Scots)	Ceased
Not shown	511.0	N	300940 515210	Coal, Deep	Whinny Hill Colliery, No 1 Pit	Working is wholly underground, access by shaft, adit or drift. Working may be termed Colliery, Mine, Drift Mine, Slant, Level, Adit or Ingoing Eye (Ingaun Ee - Scots)	Ceased
Not shown	565.0	N	300920 515270	Coal, Deep	Whinny Hill Colliery, Dean's Pit	Working is wholly underground, access by shaft, adit or drift. Working may be termed Colliery, Mine, Drift Mine, Slant, Level, Adit or Ingoing Eye (Ingaun Ee - Scots)	Ceased
Not shown	572.0	SE	301366 514362	Iron ore	Montreal Iron Ore Mine	Working is wholly underground, access by shaft, adit or drift. Working may be termed Colliery, Mine, Drift Mine, Slant, Level, Adit or Ingoing Eye (Ingaun Ee - Scots)	Ceased
Not shown	600.0	E	301439 514536	Iron ore	Montreal Iron Ore Mine	Working is wholly underground, access by shaft, adit or drift. Working may be termed Colliery, Mine, Drift Mine, Slant, Level, Adit or Ingoing Eye (Ingaun Ee - Scots)	Ceased
Not shown	637.0	S	300538 513934	Iron ore	Postlethwaite Iron Ore Mine	Working is wholly underground, access by shaft, adit or drift. Working may be termed Colliery, Mine, Drift Mine, Slant, Level, Adit or Ingoing Eye (Ingaun Ee - Scots)	Ceased
Not shown	670.0	S	300559 513902	Iron ore	Postlethwaite Iron Ore Mine	Working is wholly underground, access by shaft, adit or drift. Working may be termed Colliery, Mine, Drift Mine, Slant, Level, Adit or Ingoing Eye (Ingaun Ee - Scots)	Ceased
Not shown	750.0	N	301005 515440	Coal, Deep	Whinny Hill Colliery, Staple Pit	Working is wholly underground, access by shaft, adit or drift. Working may be termed Colliery, Mine, Drift Mine, Slant, Level, Adit or Ingoing Eye (Ingaun Ee - Scots)	Ceased
Not shown	761.0	NW	300080 515350	Sandstone	Galemire	A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site	Ceased
Not shown	780.0	E	301553 514955	Iron ore	Crossfield Iron Ore Mine	Working is wholly underground, access by shaft, adit or drift. Working may be termed Colliery, Mine, Drift Mine, Slant, Level, Adit or Ingoing Eye (Ingaun Ee - Scots)	Ceased
Not shown	787.0	E	301537 515017	Iron ore	Cleator Moor Iron Ore Mine	Working is wholly underground, access by shaft, adit or drift. Working may be termed Colliery, Mine, Drift Mine, Slant, Level, Adit or Ingoing Eye (Ingaun Ee - Scots)	Ceased

ID	Distance (m)	Direction	NGR	Commodity Produced	Pit Name	Type of working	Status
Not shown	789.0	N	301020 515477	Coal, Deep	Whinny Hill Colliery, No 2 Pit	Working is wholly underground, access by shaft, adit or drift. Working may be termed Colliery, Mine, Drift Mine, Slant, Level, Adit or Ingoing Eye (Ingaun Ee - Scots)	Ceased
Not shown	794.0	SE	301444 514074	Iron ore	Cleator Iron Ore Mine	Working is wholly underground, access by shaft, adit or drift. Working may be termed Colliery, Mine, Drift Mine, Slant, Level, Adit or Ingoing Eye (Ingaun Ee - Scots)	Ceased
Not shown	803.0	N	300490 515496	Coal, Deep	Mill Hill PIt	Working is wholly underground, access by shaft, adit or drift. Working may be termed Colliery, Mine, Drift Mine, Slant, Level, Adit or Ingoing Eye (Ingaun Ee - Scots)	Ceased
Not shown	899.0	S	300118 513734	Iron ore	Sir John Pit	Working is wholly underground, access by shaft, adit or drift. Working may be termed Colliery, Mine, Drift Mine, Slant, Level, Adit or Ingoing Eye (Ingaun Ee - Scots)	Ceased
Not shown	931.0	N	300721 515644	Coal, Deep	Whinny Hill Colliery	Working is wholly underground, access by shaft, adit or drift. Working may be termed Colliery, Mine, Drift Mine, Slant, Level, Adit or Ingoing Eye (Ingaun Ee - Scots)	Ceased
Not shown	938.0	E	301779 514597	Iron ore	Jacktrees Pit	Working is wholly underground, access by shaft, adit or drift. Working may be termed Colliery, Mine, Drift Mine, Slant, Level, Adit or Ingoing Eye (Ingaun Ee - Scots)	Ceased
Not shown	954.0	N	300269 515615	Sandstone	Galemire	A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site	Ceased
Not shown	966.0	NW	299587 515162	Sandstone	Crowpark Quarry	A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site	Ceased
Not shown	987.0	W	299437 514784	Coal, Deep	Henry Pit	Working is wholly underground, access by shaft, adit or drift. Working may be termed Colliery, Mine, Drift Mine, Slant, Level, Adit or Ingoing Eye (Ingaun Ee - Scots)	Ceased

3 Mining, Extraction & Natural Cavities Map



Mining, Extraction and Natural Cavities Legend



3 Mining, Extraction & Natural Cavities

3.1 Historical Mining

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

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

The following Historical Mining information is provided by Groundsure:

ID	Distance (m)	Direction	NGR	Details	Date
41B	109.0	S	300666 514464	Unspecified Old Shaft	1898
42B	109.0	S	300666 514464	Unspecified Old Shaft	1938
43B	115.0	S	300664 514457	Unspecified Old Shaft	1948
44C	152.0	E	301155 514643	Iron Ore Mine	1938
45C	203.0	E	301167 514676	Disused Iron Ore Mine	1948
46D	249.0	S	300711 514167	Iron Ore Mine	1898
47D	249.0	S	300711 514167	Iron Ore Mines	1938
48	250.0	E	301186 514709	Iron Ore Mine	1898
49E	297.0	E	301146 514541	Unspecified Old Shafts	1948
50E	304.0	E	301145 514546	Unspecified Old Shaft	1898
51C	307.0	E	301162 514624	Iron Pit	1863
52E	308.0	E	301148 514546	Unspecified Old Shaft	1938
53	328.0	SE	301155 514371	Iron Ore Mine	1898
54	398.0	SE	301097 514283	Old Iron Shaft	1863
55	444.0	SE	301144 514262	Unspecified Old Shaft	1898
56F	447.0	SE	301214 514338	Unspecified Old Shaft	1938
57F	449.0	SE	301212 514332	Unspecified Old Shaft	1948
58G	489.0	E	301334 514529	Unspecified Old Shaft	1938
59G	489.0	E	301334 514529	Unspecified Old Shaft	1898
60	521.0	S	300534 513926	Iron Ore Mine	1938

ID	Distance (m)	Direction	NGR	Details	Date
61	534.0	SE	301321 514347	Unspecified Old Shaft	1948
Not shown	536.0	S	300729 514021	Unspecified Old Shaft	1938
Not shown	536.0	S	300729 514021	Unspecified Old Shaft	1898
64H	542.0	E	301391 514598	Unspecified Old Shafts	1898
Not shown	546.0	S	300727 514010	Unspecified Old Shaft	1948
66H	546.0	E	301390 514591	Unspecified Old Shafts	1948
67H	550.0	E	301393 514598	Unspecified Old Shafts	1938
68	574.0	SE	301246 514178	Unspecified Old Shafts	1898
Not shown	585.0	E	301427 514520	Unspecified Old Shaft	1948
70J	586.0	SE	301455 514038	Iron Ore Mine	1898
71	605.0	E	301417 514399	Air Shaft	1863
72	628.0	SE	301295 514151	Iron Shaft	1863
Not shown	631.0	E	301474 514649	Unspecified Old Shafts	1938
Not shown	631.0	E	301474 514649	Unspecified Old Shafts	1898
Not shown	631.0	E	301474 514644	Unspecified Old Shafts	1948
76I	645.0	SE	301359 514197	Unspecified Old Shafts	1898
77I	645.0	SE	301359 514197	Unspecified Old Shaft	1938
78I	650.0	SE	301359 514188	Unspecified Old Shaft	1948
Not shown	656.0	E	301554 515011	Iron Ore Mine	1898
Not shown	663.0	E	301574 515058	Iron Ore Mine	1938
Not shown	685.0	E	301530 514929	Iron Pit	1863
82	693.0	SE	301405 514179	Unspecified Old Shafts	1898
Not shown	713.0	N	301009 515554	Collieries	1863
Not shown	713.0	E	301558 514501	Unspecified Old Shaft	1948
Not shown	721.0	E	301560 514505	Unspecified Old Shaft	1938
Not shown	769.0	SE	301479 514158	Iron Shaft	1863
87J	774.0	SE	301412 514064	Iron Shaft	1863
Not shown	810.0	E	301871 514387	Old Iron Ore Mine	1898

ID	Distance (m)	Direction	NGR	Details	Date
Not shown	824.0	S	300354 513745	Unspecified Old Shaft	1938
Not shown	824.0	S	300354 513745	Unspecified Old Shaft	1898
Not shown	833.0	S	300352 513736	Unspecified Old Shaft	1948
Not shown	835.0	S	300339 513737	Unspecified Old Shaft	1948
Not shown	857.0	NE	301537 515175	Unspecified Old Shaft	1898
Not shown	859.0	N	300733 515630	Collieries	1863
Not shown	885.0	S	300564 513685	Unspecified Old Shaft	1863
Not shown	889.0	S	300297 513688	Unspecified Old Shaft	1898
Not shown	904.0	E	301752 514617	Unspecified Old Shaft	1938
Not shown	907.0	E	301752 514609	Unspecified Old Shaft	1948
Not shown	940.0	NE	301651 515208	Iron Pit	1863
Not shown	960.0	S	300583 513612	Old Iron Shaft	1863
Not shown	994.0	S	301152 513530	Unspecified Mine	1898

3.2 Coal Mining

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

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

The following Coal Mining information provided by the Coal Authority is not represented on Mapping:

Distance (m)	Direction	Details
0.0	On Site	The study site is located within the specified search distance of an identified mining area. Further details concerning this can be obtained from the Coal Authority Helpline on 0845 762 6848.

3.3 Johnson Poole and Bloomer

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

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

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

3.4 Non-Coal Mining

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

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

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

ID	Distance (m)	Direction	Name	Commodity	Assessment of likelihood
1	0.0	On Site	Not available	Iron Ore (Non Vein)	Localised small scale underground mining may have occurred. Potential for difficult ground conditions are unlikely or localised and are at a level where they need not be considered
2	0.0	On Site	Not available	Iron Ore (Non Vein)	Underground mining is known to have occurred within or very close to the area. Potential for difficult ground conditions should be investigated. Potential for localised subsidence is at a level where it should be considered
3	63.0	S	Not available	Iron Ore (Non Vein)	Underground mining is known to have occurred within or very close to the area. Potential for difficult ground conditions should be investigated. Potential for localised subsidence is at a level where it should be considered
4	79.0	SW	Not available	Iron Ore (Non Vein)	Underground mining is known to have occurred within or very close to the area. Potential for difficult ground conditions should be investigated. Potential for localised subsidence is at a level where it should be considered
5	154.0	NW	Not available	Iron Ore (Non Vein)	Underground mining is known to have occurred within or very close to the area. Potential for difficult ground conditions should be investigated. Potential for localised subsidence is at a level where it should be considered
6	251.0	E	Not available	Iron Ore (Non Vein)	Underground mining is known to have occurred within or very close to the area. Potential for difficult ground conditions should be investigated. Potential for localised subsidence is at a level where it should be considered
7	260.0	NE	Not available	Haematite	Underground mining is known to have occurred within or very close to the area. Potential for difficult ground conditions should be investigated. Potential for localised subsidence is at a level where it should be considered
8	271.0	NE	Not available	Iron Ore (Bedded)	Localised small scale underground mining may have occurred. Potential for difficult ground conditions are unlikely or localised and are at a level where they need not be considered
9	284.0	N	Not available	Iron Ore (Non Vein)	Underground mining is known to have occurred within or very close to the area. Potential for difficult ground conditions should be investigated. Potential for localised subsidence is at a level where it should be considered
10A	341.0	NE	Not available	Haematite	Underground mining is known to have occurred within or very close to the area. Potential for difficult ground conditions should be investigated. Potential for localised subsidence is at a level where it should be considered
11A	365.0	NE	Not available	Iron Ore (Non Vein)	Underground mining is known to have occurred within or very close to the area. Potential for difficult ground conditions should be investigated. Potential for localised subsidence is at a level where it should be considered
12	375.0	NW	Not available	Iron Ore (Non Vein)	Underground mining is known to have occurred within or very close to the area. Potential for difficult ground conditions should be investigated. Potential for localised subsidence is at a level where it should be considered
13	378.0	NE	Not available	Haematite	Underground mining is known to have occurred within or very close to the area. Potential for difficult ground conditions should be investigated. Potential for localised subsidence is at a level where it should be considered

ID	Distance (m)	Direction	Name	Commodity	Assessment of likelihood
14	378.0	W	Not available	Iron Ore (Bedded)	Localised small scale underground mining may have occurred. Potential for difficult ground conditions are unlikely or localised and are at a level where they need not be considered
15	380.0	NE	Not available	Iron Ore (Bedded)	Localised small scale underground mining may have occurred. Potential for difficult ground conditions are unlikely or localised and are at a level where they need not be considered
16	443.0	W	Not available	Iron Ore (Non Vein)	Underground mining is known to have occurred within or very close to the area. Potential for difficult ground conditions should be investigated. Potential for localised subsidence is at a level where it should be considered
17	528.0	S	Not available	Iron Ore (Non Vein)	Underground mining is known to have occurred within or very close to the area. Potential for difficult ground conditions should be investigated. Potential for localised subsidence is at a level where it should be considered
18	550.0	NE	Not available	Iron Ore (Non Vein)	Localised small scale underground mining may have occurred. Potential for difficult ground conditions are unlikely or localised and are at a level where they need not be considered
19	626.0	S	Not available	Vein Mineral	Localised small scale underground mining may have occurred. Potential for difficult ground conditions are unlikely or localised and are at a level where they need not be considered
20	630.0	SW	Not available	Iron Ore (Non Vein)	Underground mining is known to have occurred within or very close to the area. Potential for difficult ground conditions should be investigated. Potential for localised subsidence is at a level where it should be considered
21	642.0	SW	Not available	Iron Ore (Non Vein)	Localised small scale underground mining may have occurred. Potential for difficult ground conditions are unlikely or localised and are at a level where they need not be considered
22	672.0	SW	Not available	Iron Ore (Non Vein)	Underground mining is known to have occurred within or very close to the area. Potential for difficult ground conditions should be investigated. Potential for localised subsidence is at a level where it should be considered
Not shown	752.0	S	Not available	Iron Ore (Non Vein)	Underground mining is known to have occurred within or very close to the area. Potential for difficult ground conditions should be investigated. Potential for localised subsidence is at a level where it should be considered
Not shown	810.0	W	Not available	Iron Ore (Bedded)	Localised small scale underground mining may have occurred. Potential for difficult ground conditions are unlikely or localised and are at a level where they need not be considered
Not shown	814.0	N	Not available	Iron Ore (Bedded)	Localised small scale underground mining may have occurred. Potential for difficult ground conditions are unlikely or localised and are at a level where they need not be considered
Not shown	922.0	N	Not available	Iron Ore (Bedded)	Localised small scale underground mining may have occurred. Potential for difficult ground conditions are unlikely or localised and are at a level where they need not be considered
Not shown	932.0	W	Not available	Iron Ore (Bedded)	Localised small scale underground mining may have occurred. Potential for difficult ground conditions are unlikely or localised and are at a level where they need not be considered
Not shown	972.0	SW	Not available	Iron Ore (Non Vein)	Underground mining is known to have occurred within or very close to the area. Potential for difficult ground conditions should be investigated. Potential for localised subsidence is at a level where it should be considered

3.5 Non-Coal Mining Cavities

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

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

The following Non-Coal Mining Cavities information provided by Peter Brett Associates:

ID	Distance (m)	Direction	NGR	Address	Superficial Deposits	Bedrock Deposits	Extracted Mineral
29	359.0	E	301200 514600	MONTREAL MINE, Cumbria	-	-	Hematite
30	618.0	E	301400 514900	CROSSFIELD MINES, Cumbria	-	-	Hematite
Not shown	665.0	E	301500 514500	FAWNCROSS, Cumbria	-	-	Hematite
Not shown	746.0	E	301500 515000	STIRLINGS NO.4, Cumbria	-	-	Hematite
Not shown	759.0	S	300800 513800	Egremont, Cumbria	-	Frizington Limestone Formation	Magnatite, Marcasite, Siderite, Ironstone
Not shown	840.0	E	301600 515000	CLEATOR MOOR MINE, CROWGARTH, Cumbria	-	-	Hematite
Not shown	859.0	E	301700 514600	JACKTREES MINE, Cumbria	-	-	Hematite
Not shown	887.0	S	301000 513700	GLEBE, Cumbria	-	-	Hematite
Not shown	893.0	SW	300000 513800	SIR JOHN WALSH PIT, Cumbria	-	-	Hematite
Not shown	904.0	NE	301500 515300	CLEATOR MOOR, Cumbria	-	-	Hematite
Not shown	954.0	SE	301500 513900	CLEATOR MINE, Cumbria	-	-	Hematite
Not shown	980.0	NW	299900 515500	WHANGS, Cumbria	-	-	Hematite

3.6 Natural Cavities

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

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

Database searched and no data found.

3.7 Brine Extraction

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

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

Database searched and no data found.

3.8 Gypsum Extraction

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

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

Database searched and no data found.

3.9 Tin Mining

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

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

Database searched and no data found.

3.10 Clay Mining

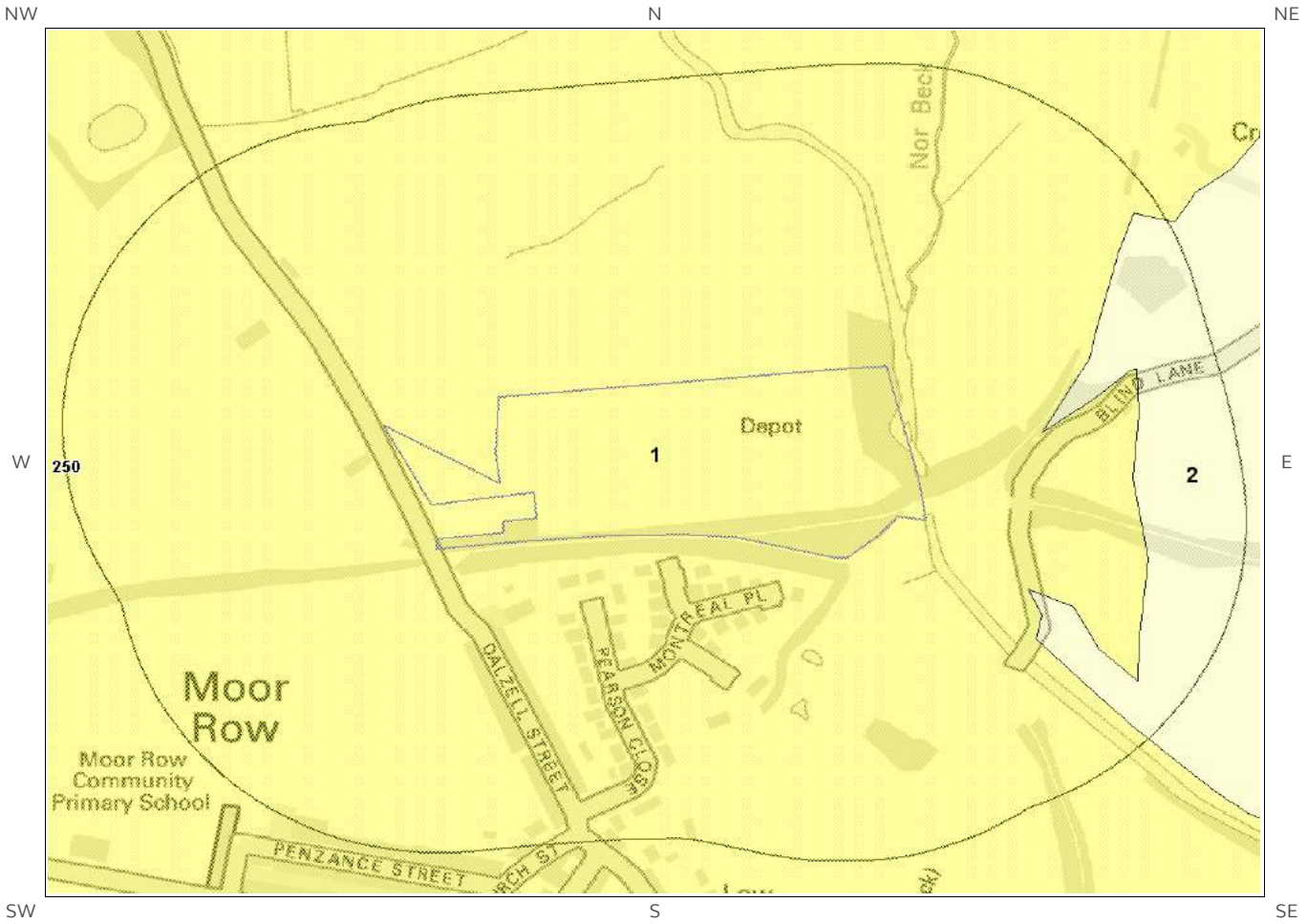
This dataset provides information on Kaolin and Ball Clay mining from relevant mining records.

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

Database searched and no data found.

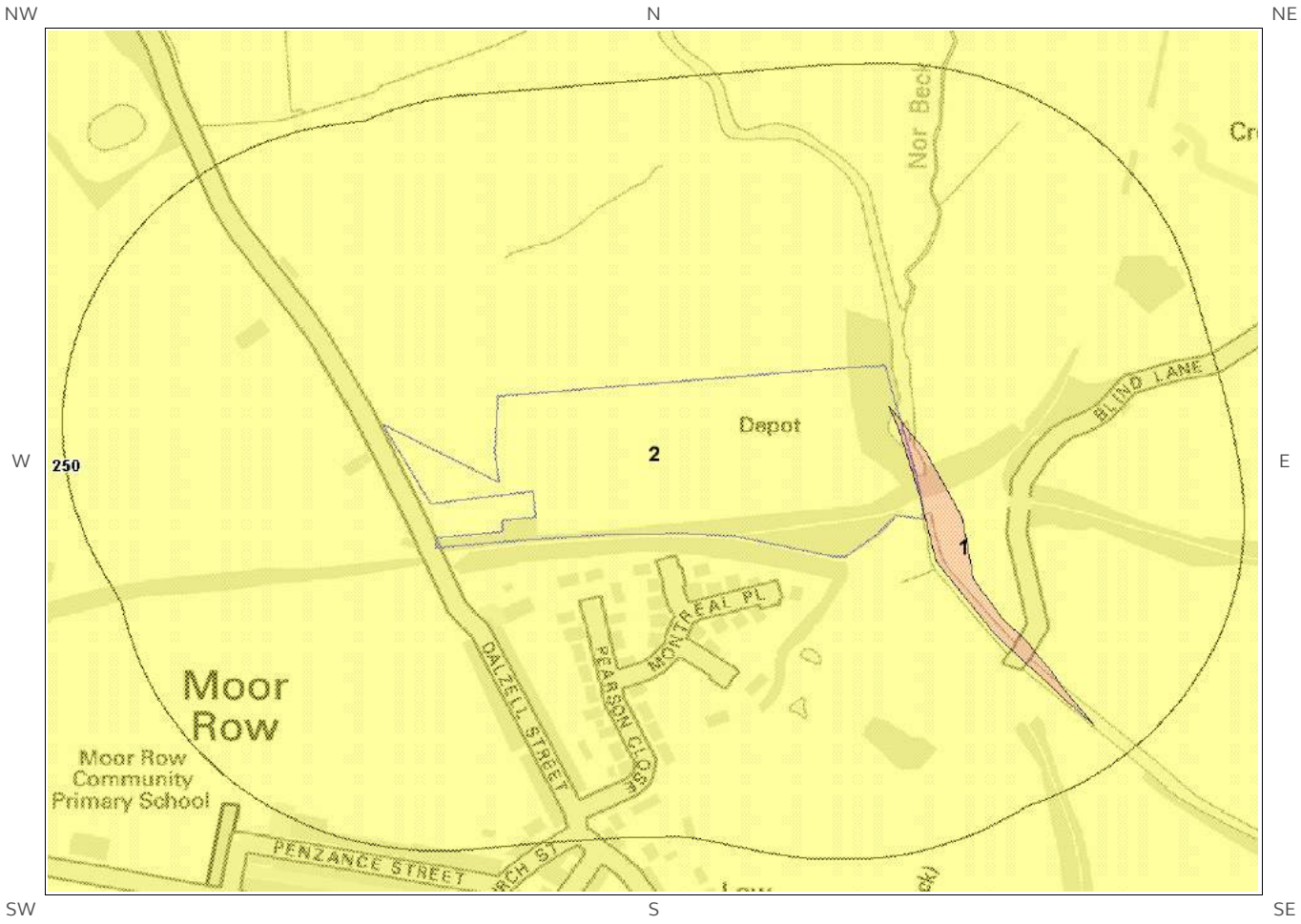
4 Natural Ground Subsidence

4.1 Shrink-Swell Clay Map



Shrink Swell Clay Legend

4.2 Landslides Map



Landslides Legend

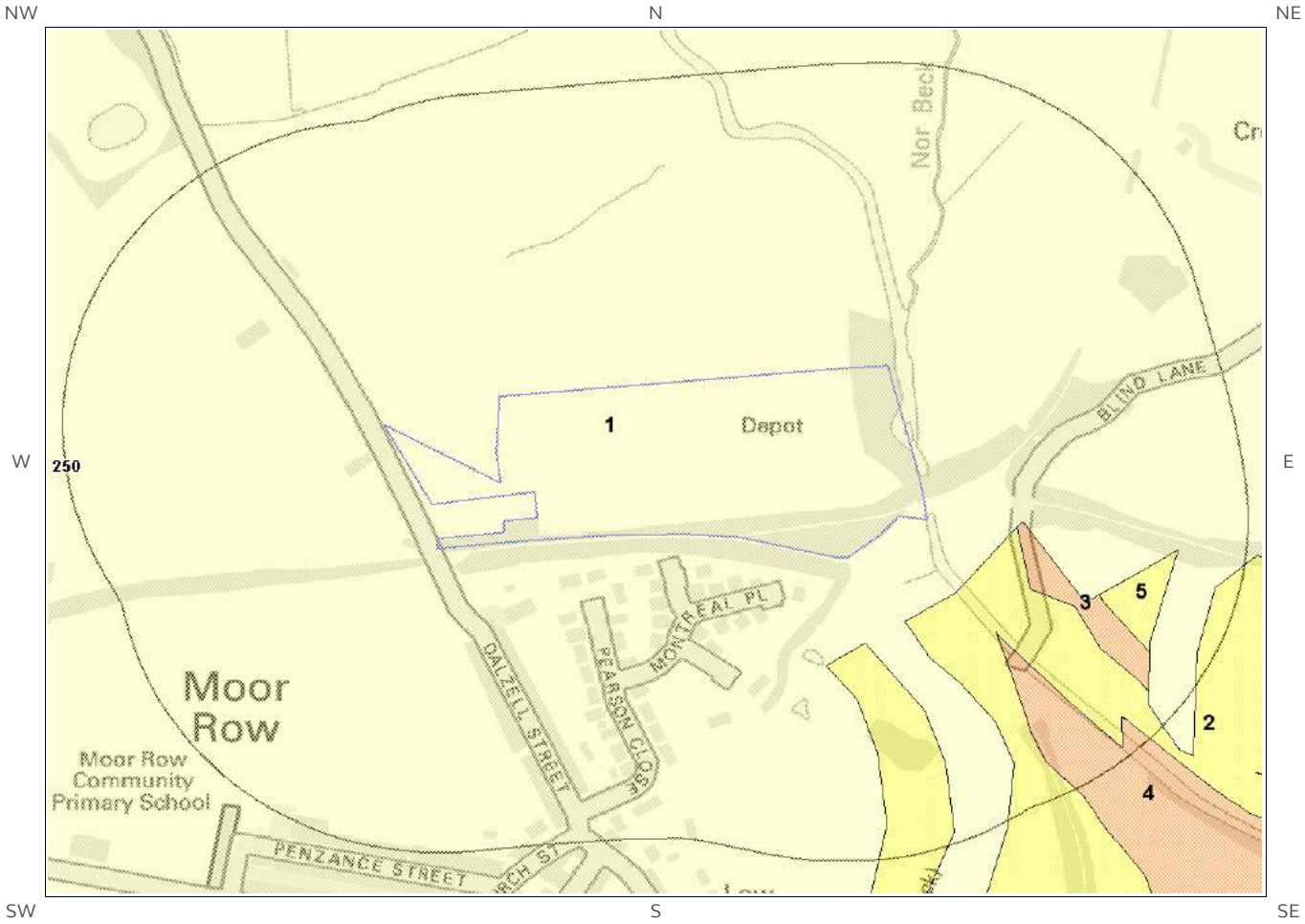
Site Outline

125
250
Search Buffers (m)

No Data / Null
Negligible
Very Low

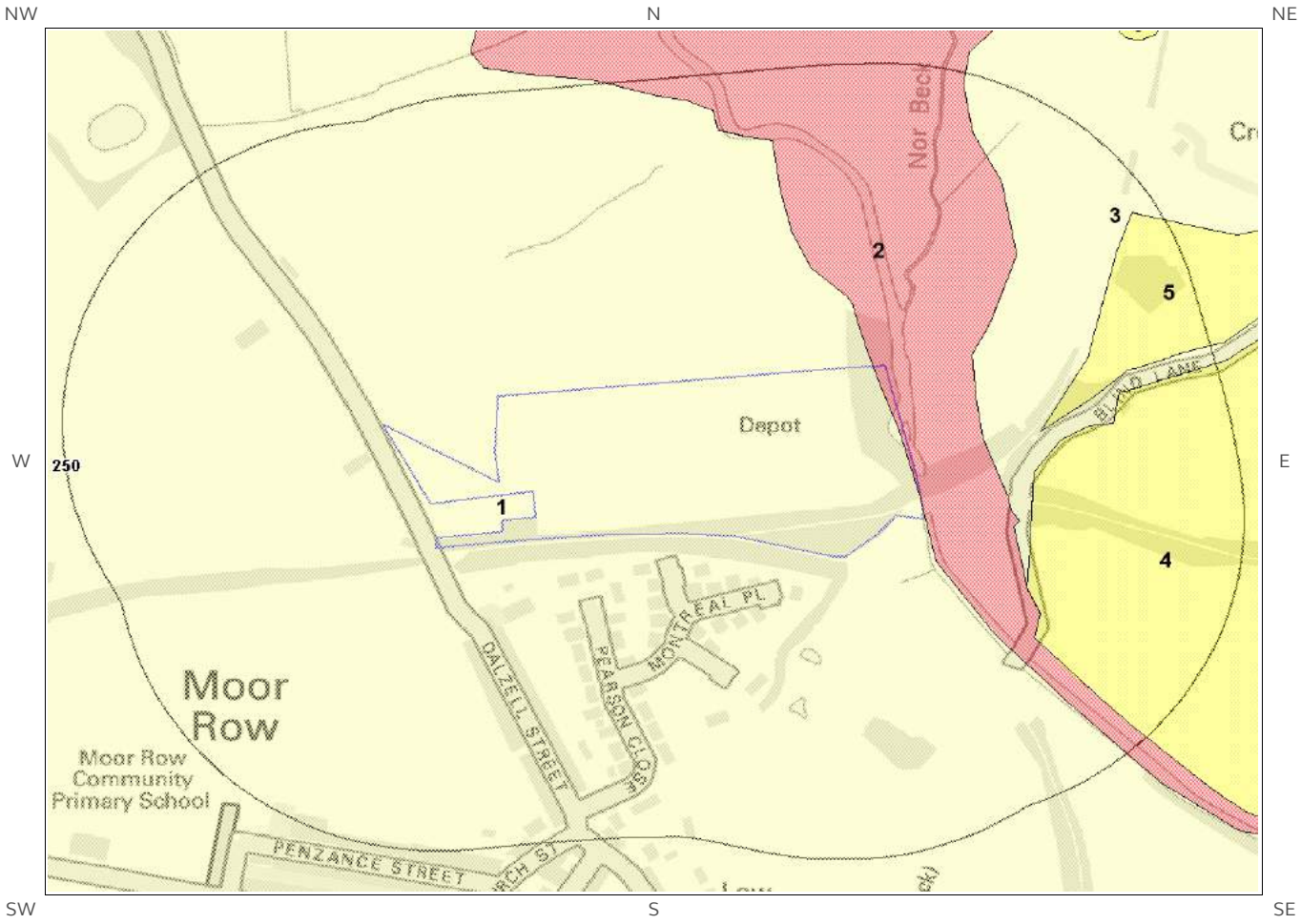
Low
Moderate
High

4.3 Ground Dissolution Soluble Rocks Map



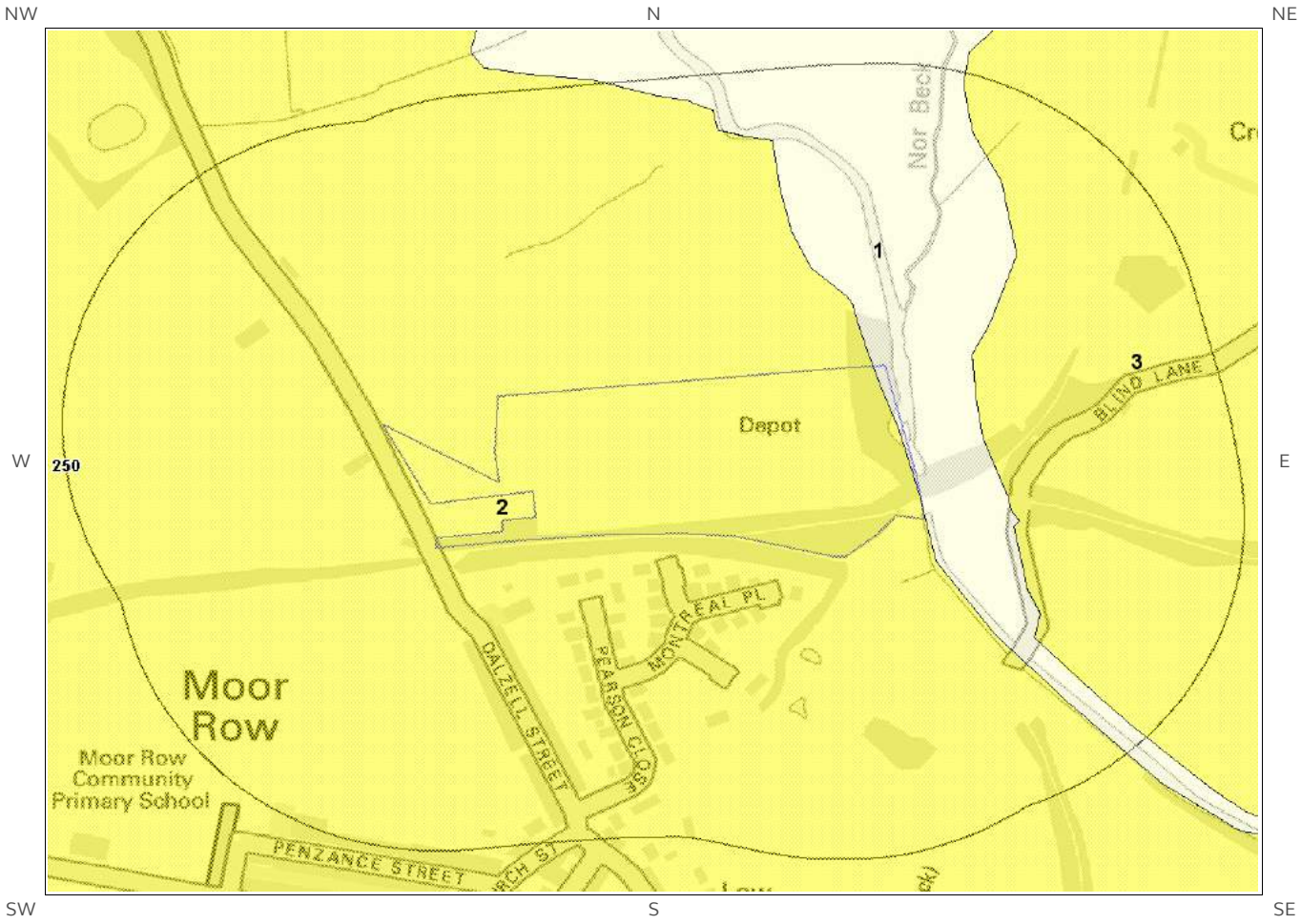
Ground Dissolution Soluble Rocks Legend

4.4 Compressible Deposits Map



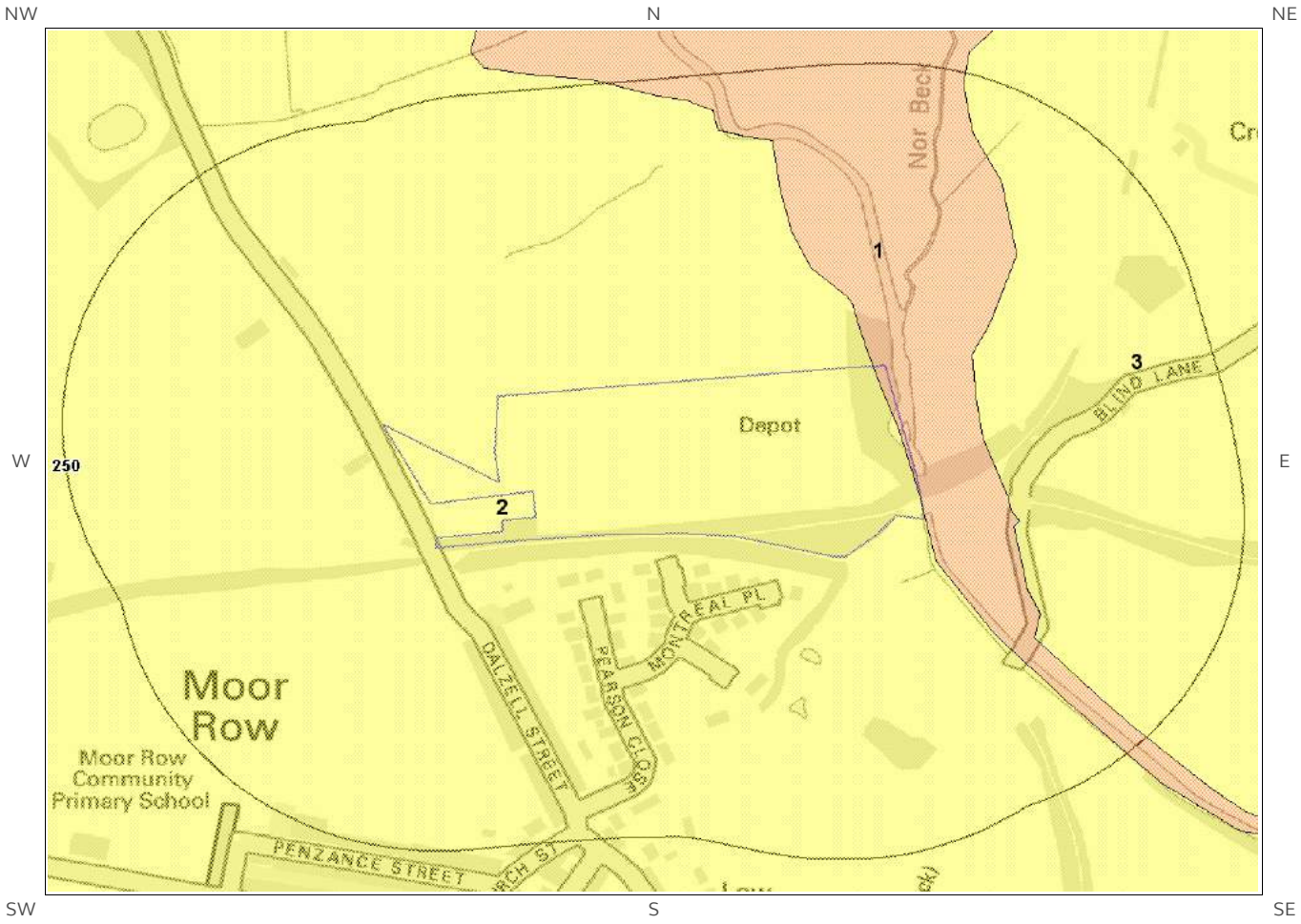
Compressible Deposits Legend

4.5 Collapsible Deposits Map



Collapsible Deposits Legend

4.6 Running Sand Map



Running Sand Legend

4 Natural Ground Subsidence

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

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

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

4.1 Shrink-Swell Clays

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

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

4.2 Landslides

The following Landslides information provided by the British Geological Survey:

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

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

4.3 Ground Dissolution of Soluble Rocks

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

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

4.4 Compressible Deposits

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

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

4.5 Collapsible Deposits

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

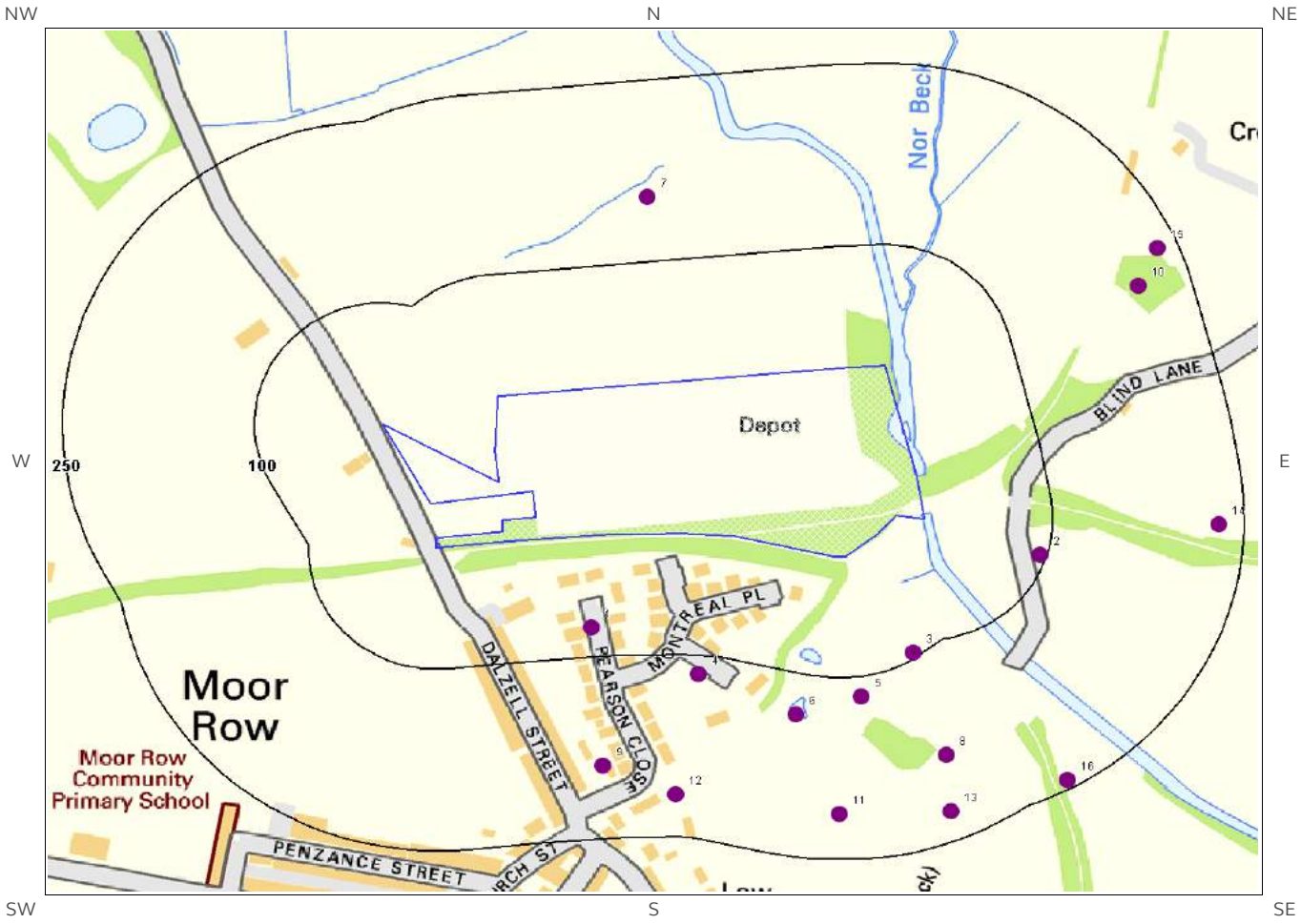
ID	Distance (m)	Direction	Hazard Rating	Details
1	0.0	On Site	Negligible	No indicators for collapsible deposits identified. No actions required to avoid problems due to collapsible deposits. No special ground investigation required, or increased construction costs or increased financial risk due to potential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

4.6 Running Sands

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

ID	Distance (m)	Direction	Hazard Rating	Details
1	0.0	On Site	Low	Possibility of running sand problems after major changes in ground conditions. Normal maintenance to avoid leakage of water-bearing services or water bodies (ponds, swimming pools) should reduce likelihood of problems due to running sand. For new build, consider possibility of running sand into trenches or excavations if water table is high or sandy strata are exposed to water. Avoid concentrated water inputs to site. Unlikely to be an increase in construction costs due to potential for running sand. For existing property, no significant increase in insurance risk due to running sand problems is likely.
2	0.0	On Site	Very Low	Very low potential for running sand problems if water table rises or if sandy strata are exposed to water. No special actions required to avoid problems due to running sand. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with running sand.

5 Borehole Records Map



Borehole Records Legend

Site Outline

Borehole Locations

125
250
Search Buffers (m)

5 Borehole Records

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

Records of boreholes within 250m of the study site boundary: 16

ID	Distance (m)	Direction	NGR	BGS Reference	Drilled Length	Borehole Name
1	76.0	S	300580 514500	NY01SW518	-1.0	DALZELLS MOOR ROW MINE (M)
2	95.0	E	300931 514560	NY01SW285	194.61	NO.12 PIT MONTREAL
3	96.0	SE	300832 514479	NY01SW289	236.5	MONTREAL 88
4	116.0	S	300664 514461	NY01SW284	177.7	NO.11 PIT MONTREAL
5	117.0	S	300791 514443	NY01SW282	155.94	MONTREAL NO.10 PIT
6	135.0	S	300740 514428	NY01SW319	88.0	NO. 40 MONTREAL (CROSS SECTION)
7	153.0	N	300624 514855	NY01SW324	-1.0	NO. 49 MONTREAL (NO LOG)
8	182.0	SE	300858 514395	NY01SW290	185.09	MONTREAL 98
9	190.0	S	300589 514386	NY01SW318	295.0	NO. 78 MONTREAL
10	209.0	E	301008 514782	NY01SW276	147.83	NEW NO. 4 PIT MONTREAL
11	213.0	S	300774 514346	NY01SW343	76.0	NO. 1 SHAFT DALZELL'S MOOR ROW (CROSS SECTION)
12	216.0	S	300646 514362	NY01SW344	120.0	NO. 2 PIT DALZELL'S MOOR ROW ESTATE (CROSS SECTION)
13	226.0	S	300861 514348	NY01SW280	61.87	NO. 8 PIT MONTREAL (CROSS SECTION)
14	230.0	E	301071 514585	NY01SW283	105.76	NEW NO. 1 PIT MONTREAL
15	234.0	NE	301023 514813	NY01SW275	149.22	AIRSHAFT, NO. 4 MONTREAL
16	243.0	SE	300952 514374	NY01SW317	148.0	NO. 86 MONTREAL (CROSS SECTION)

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

#2: scans.bgs.ac.uk/sobi_scans/boreholes/896634
#3: scans.bgs.ac.uk/sobi_scans/boreholes/896638
#4: scans.bgs.ac.uk/sobi_scans/boreholes/896633
#5: scans.bgs.ac.uk/sobi_scans/boreholes/896631

#6: scans.bgs.ac.uk/sobi_scans/boreholes/896668
#7: scans.bgs.ac.uk/sobi_scans/boreholes/896673
#8: scans.bgs.ac.uk/sobi_scans/boreholes/896639
#9: scans.bgs.ac.uk/sobi_scans/boreholes/896667
#10: scans.bgs.ac.uk/sobi_scans/boreholes/896625
#11: scans.bgs.ac.uk/sobi_scans/boreholes/896697
#12: scans.bgs.ac.uk/sobi_scans/boreholes/896698
#13: scans.bgs.ac.uk/sobi_scans/boreholes/896629
#14: scans.bgs.ac.uk/sobi_scans/boreholes/896632
#15: scans.bgs.ac.uk/sobi_scans/boreholes/896624
#16: scans.bgs.ac.uk/sobi_scans/boreholes/896666

Groundsure LOCATION INTELLIGENCE

emapsite™

6 Estimated Background Soil Chemistry

Records of background estimated soil chemistry within 250m of the study site boundary: 73

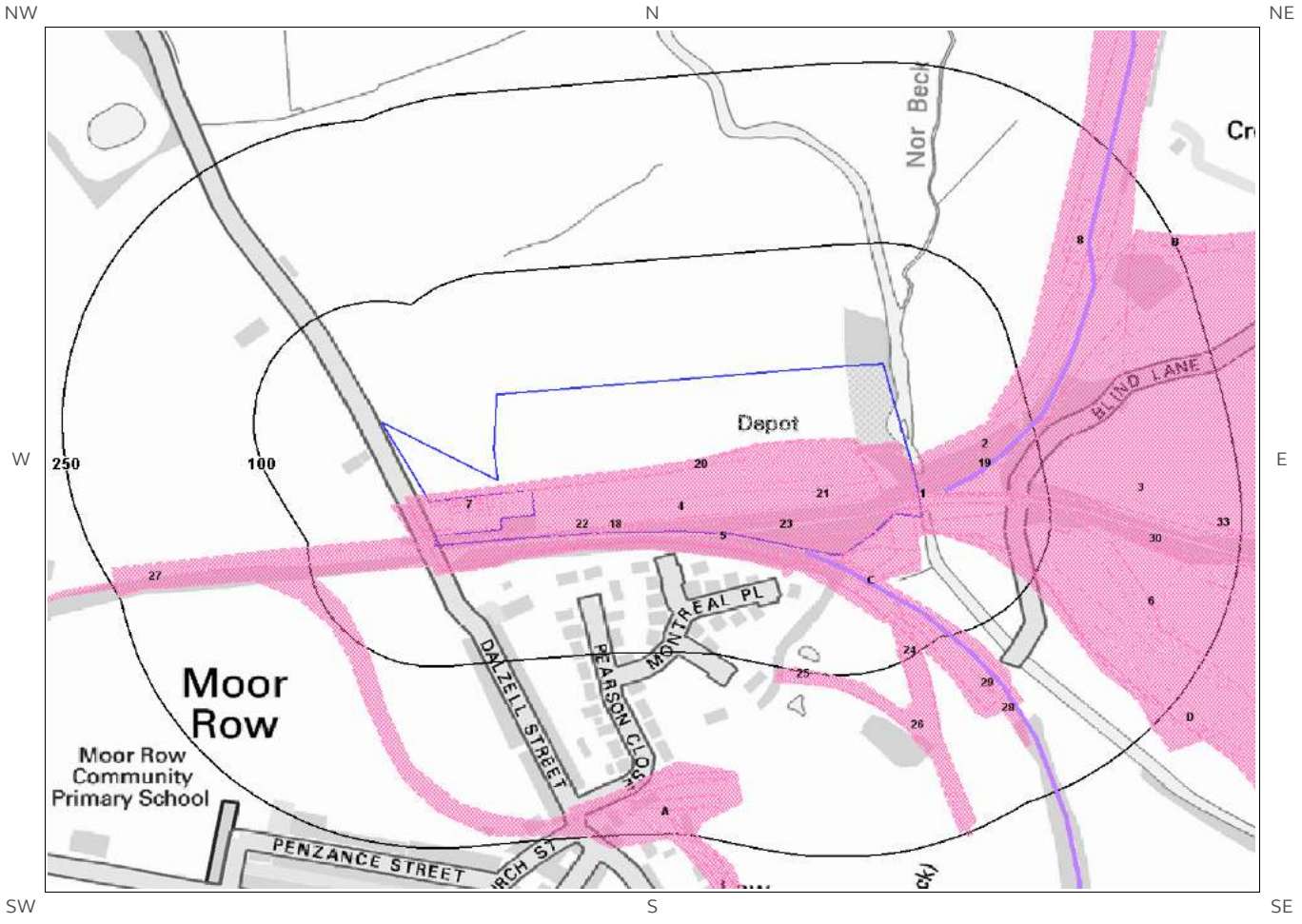
For further information on how this data is calculated and limitations upon its use, please see the Groundsure Geoinsight User Guide, available on request.

Distance (m)	Direction	Sample Type	Arsenic (As)	Cadmium (Cd)	Chromium (Cr)	Nickel (Ni)	Lead (Pb)
0.0	On Site	Sediment	15 - 25 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg
0.0	On Site	Sediment	15 - 25 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg
0.0	On Site	Sediment	15 - 25 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg
0.0	On Site	Sediment	15 - 25 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg
0.0	E	Sediment	15 - 25 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg
3.0	S	Sediment	15 - 25 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg
8.0	N	Sediment	15 - 25 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg
9.0	NE	Sediment	15 - 25 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg
11.0	NW	Sediment	15 - 25 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg
31.0	N	Sediment	15 - 25 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg
56.0	SE	Sediment	<15 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg
58.0	E	Sediment	15 - 25 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg
58.0	N	Sediment	15 - 25 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg
59.0	S	Sediment	15 - 25 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg
62.0	SE	Sediment	25 - 35 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg
66.0	S	Sediment	15 - 25 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg
68.0	E	Sediment	15 - 25 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg
68.0	SE	Sediment	15 - 25 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg
68.0	SE	Sediment	15 - 25 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg
70.0	E	Sediment	25 - 35 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg
72.0	S	Sediment	25 - 35 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg
76.0	SE	Sediment	25 - 35 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg
89.0	S	Sediment	<15 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg
98.0	SE	Sediment	15 - 25 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg
102.0	E	Sediment	<15 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg
103.0	E	Sediment	15 - 25 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg
104.0	SE	Sediment	<15 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg
125.0	N	Sediment	15 - 25 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg
126.0	SE	Sediment	15 - 25 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg
141.0	SE	Sediment	25 - 35 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg
155.0	SE	Sediment	25 - 35 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg
159.0	E	Sediment	<15 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg
159.0	E	Sediment	<15 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg
159.0	N	Sediment	15 - 25 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg
162.0	E	Sediment	15 - 25 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg
162.0	E	Sediment	15 - 25 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg
164.0	SE	Sediment	25 - 35 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg
164.0	E	Sediment	15 - 25 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg
165.0	E	Sediment	15 - 25 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg

Distance (m)	Direction	Sample Type	Arsenic (As)	Cadmium (Cd)	Chromium (Cr)	Nickel (Ni)	Lead (Pb)
166.0	E	Sediment	25 - 35 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg
166.0	E	Sediment	25 - 35 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg
167.0	N	Sediment	15 - 25 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg
167.0	N	Sediment	15 - 25 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg
177.0	E	Sediment	15 - 25 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg
180.0	SE	Sediment	<15 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg
183.0	E	Sediment	15 - 25 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg
183.0	E	Sediment	15 - 25 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg
183.0	SE	Sediment	25 - 35 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg
183.0	SE	Sediment	25 - 35 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg
188.0	SW	Sediment	15 - 25 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg
190.0	SE	Sediment	15 - 25 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg
193.0	N	Sediment	15 - 25 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg
194.0	N	Sediment	15 - 25 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg
194.0	E	Sediment	15 - 25 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg
198.0	SE	Sediment	15 - 25 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg
203.0	SE	Sediment	15 - 25 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg
203.0	SE	Sediment	15 - 25 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg
204.0	SE	Sediment	15 - 25 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg
204.0	SE	Sediment	15 - 25 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg
204.0	SE	Sediment	15 - 25 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg
209.0	E	Sediment	15 - 25 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg
217.0	N	Sediment	15 - 25 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg
218.0	S	Sediment	<15 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg
220.0	N	Sediment	15 - 25 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg
223.0	SE	Sediment	15 - 25 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg
224.0	NE	Sediment	15 - 25 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg
224.0	NE	Sediment	15 - 25 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg
225.0	N	Sediment	15 - 25 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg
230.0	N	Sediment	15 - 25 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg
231.0	E	Sediment	15 - 25 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg
231.0	SE	Sediment	<15 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg
233.0	SE	Sediment	15 - 25 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg
240.0	NE	Sediment	<15 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg

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

7 Railways and Tunnels Map



Railways and Tunnels Legend

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

7 Railways and Tunnels

7.1 Tunnels

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

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

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

Database searched and no data found.

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

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

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

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

Database searched and no data found.

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

7.2 Historical Railway and Tunnel Features

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

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

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

ID	Distance (m)	Direction	NGR	Details	Date
1	0	On Site	300990 514915	Mineral Railway Sidings	1926
2	0	On Site	300956 514711	Railway Sidings	1948
3	0	On Site	301143 514622	Railway Sidings	1938
4	0	On Site	300628 514606	Railway Sidings	1938
5	0	On Site	300628 514606	Railway Sidings	1898
17	0	On Site	300560 514577	Disused Railway Sidings	1989

ID	Distance (m)	Direction	NGR	Details	Date
18	0	On Site	300566 514577	Disused Railway Sidings	1984
19	0	On Site	300907 514651	Mineral Railway Sidings	1925
20	0	On Site	300907 514651	Railway Sidings	1899
21	0	On Site	300722 514636	Mineral Railway Sidings	1961
22	0	On Site	300797 514535	Mineral Railway Sidings	1966
23	0	On Site	300689 514578	Railway Sidings	1863
6	4	S	301291 514677	Railway Sidings	1898
7	6	S	300486 514597	Railway Sidings	1926
13C	30	SE	300801 514535	Tunnel	1984
14C	30	SE	300801 514535	Tunnel	1966
15C	30	SE	300800 514535	Tunnel	1991
16C	30	SE	300800 514535	Tunnel	1989
24	62	SE	300831 514481	Mineral Railway Sidings	1899
25	100	S	300751 514458	Railway Sidings	1899
26	106	S	300843 514412	Mineral Railway Sidings	1899
27	134	W	300168 514526	Railway Sidings	1863
28	144	S	300912 514426	Railway Sidings	1863
29	145	S	300891 514449	Railway Sidings	1925
8	155	NE	300964 514816	Mineral Railway Sidings	1898
30	159	E	301025 514570	Railway Sidings	1979
9A	193	S	300607 514360	Mineral Railway Sidings	1898
10A	193	S	300607 514360	Mineral Railway Sidings	1938
31A	196	S	300706 514248	Mineral Railway Sidings	1925
32A	199	S	300707 514240	Mineral Railway Sidings	1899
11B	212	NE	301043 514813	Mineral Railway Sidings	1938
33	213	E	301074 514582	Railway Sidings	1925
34D	216	SE	301033 514423	Railway Sidings	1899
35D	221	SE	301052 514420	Railway Sidings	1925

ID	Distance (m)	Direction	NGR	Details	Date
12B	232	NE	301041 514818	Mineral Railway Sidings	1898

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

7.3 Historical Railways

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

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

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

Distance (m)	Direction	Status
3	S	Abandoned
20	E	Abandoned
168	SE	Abandoned
183	SE	Abandoned

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

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

7.4 Active Railways

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

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

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

Database searched and no data found.

Note: multiple sections of the same track may be listed in the detail above
Any records that have been identified are represented on the Railways and Tunnels Map.

7.5 Railway Projects

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

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

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

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

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

Contact Details

emapsite™

EmapSite

Telephone: 0118 9736883
sales@emapsite.com

emapsite™

British Geological Survey Enquiries

Kingsley Dunham Centre
Keyworth, Nottingham NG12 5GG
Tel: 0115 936 3143.
Fax: 0115 936 3276.
Email:**enquiries@bgs.ac.uk**
Web:**www.bgs.ac.uk**
BGS Geological Hazards Reports and general geological enquiries

British Geological Survey
NATURAL ENVIRONMENT RESEARCH COUNCIL

British Gypsum

British Gypsum Ltd
East Leake
Loughborough
Leicestershire
LE12 6HX

British Gypsum
SAINT-GOBAIN

The Coal Authority

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

The Coal Authority

Public Health England

Public information access office
Public Health England, Wellington House
133-155 Waterloo Road, London, SE1 8UG
https://www.gov.uk/government/organisations/public-health-england
Email: **enquiries@phe.gov.uk**
Main switchboard: 020 7654 8000

Public Health England

Johnson Poole & Bloomer Limited

Harris and Pearson Building, Brettel Lane
Brierley Hill, West Midlands
DY5 3LH
Tel: +44 (0) 1384 262 000
Email:**enquiries.gs@jpb.co.uk**
Website: **www.jpb.co.uk**

JOHNSON POOLE & BLOOMER CONSULTANTS

Ordnance Survey

Adanac Drive, Southampton
SO16 0AS

Tel: 08456 050505
Website: http://www.ordnancesurvey.co.uk/

OS Data

Getmapping PLC

Virginia Villas, High Street, Hartley Witney,
Hampshire RG27 8NW
Tel: 01252 845444
Website:**http://www1.getmapping.com/**

getmapping®

Contact Details

Peter Brett Associates

Caversham Bridge House
Waterman Place
Reading
Berkshire RG1 8DN
Tel: +44 (0)118 950 0761 E-mail:**reading@pba.co.uk**
Website:**http://www.peterbrett.com/home**

Standard Terms and Conditions

1 Definitions

I**n these terms and conditions unless the context otherwise requires:**
"Beneficiary" means the person or entity for whose benefit the Client has obtained the Services.
"Client" means the party or parties entering into a Contract with Groundsure.
"Commercial" means any building or property which is not Residential.
"Confidential Information" means the contents of this Contract and all information received from the Client as a result of, or in connection with, this Contract other than
(i) information which the Client can prove was rightfully in its possession prior to disclosure by Groundsure and
(ii) any information which is in the public domain (other than by virtue of a breach of this Contract).
"Support Services" means Support Services provided by Groundsure including, without limitation, interpreting third party and in-house environmental data, providing environmental support advice, undertaking environmental audits and assessments, Site investigation, Site monitoring and related items.
"Contract" means the contract between Groundsure and the Client for the provision of the Services, and which shall incorporate these terms and conditions, the Order, and the relevant User Guide.
"Third Party Data Provider" means any third party providing Third Party Content to Groundsure.
"Data Reports" means reports comprising factual data with no accompanying interpretation.
"Fees" has the meaning set out in clause 5.1.
"Groundsure" means Groundsure Limited, a company registered in England and Wales under number 03421028.
"Groundsure Materials" means all materials prepared by Groundsure and provided as part of the Services, including but not limited to Third Party Content, Data Reports, Mapping, and Risk Screening Reports.
"Intellectual Property" means any patent, copyright, design rights, trade or service mark, moral rights, data protection rights, know-how or trade mark in each case whether registered or not and including applications for the same or any other rights of a similar nature anywhere in the world.
"Mapping" means a map, map data or a combination of historical maps of various ages, time periods and scales.
"Order" means an electronic, written or other order form submitted by the Client requesting Services from Groundsure in respect of a specified Site.
"Ordnance Survey" means the Secretary of State for Business, Innovation and Skills, acting through Ordnance Survey, Adanac Drive, Southampton, SO16 0AS, UK.
"Order Website" means the online platform through which Orders may be placed by the Client and accepted by Groundsure.
"Report" means a Risk Screening Report or Data Report for Commercial or Residential property.
"Residential" means any building or property used as or intended to be used as a single dwelling.
"Risk Screening Report" means a risk screening report comprising factual data with an accompanying interpretation by Groundsure.
"Services" means any Report, Mapping and/or Support Services which Groundsure has agreed to provide by accepting an Order pursuant to clause 2.6.
"Site" means the area of land in respect of which the Client has requested Groundsure to provide the Services.
"Third Party Content" means data, database information or other information which is provided to Groundsure by a Third Party Data Provider.
"User Guide" means the user guide, as amended from time to time, available upon request from Groundsure and on the website (www.Groundsure.com) and forming part of this Contract.

2 Scope of Services, terms and conditions, requests for insurance and quotations

2.1 Groundsure agrees to provide the Services in accordance with the Contract.
2.2 Groundsure shall exercise reasonable skill and care in the provision of the Services.
2.3 Subject to clause 7.3 the Client acknowledges that it has not relied on any statement or representation made by or on behalf of Groundsure which is not set out and expressly agreed in writing in the Contract and all such statements and representations are hereby excluded to the fullest extent permitted by law.
2.4 The Client acknowledges that terms and conditions appearing on a Client's order form, printed stationery or other communication, or any terms or conditions implied by custom, practice or course of dealing shall be of no effect, and that this Contract shall prevail over all others in relation to the Order.
2.5 If the Client or Beneficiary requests insurance in conjunction with or as a result of the Services, Groundsure shall use reasonable endeavours to recommend such insurance, but makes no warranty that such insurance shall be available from insurers or that it will be offered on reasonable terms. Any insurance purchased by the Client or Beneficiary shall be subject solely to the terms of the policy issued by insurers and Groundsure will have no liability therefor. In addition you acknowledge and agree that Groundsure does not act as an agent or broker for any insurance providers. The Client should take (and ensure that the Beneficiary takes) independent advice to ensure that the insurance policy requested or offered is suitable for its requirements.
2.6 Groundsure's quotations or proposals are valid for a period of 30 days only unless an alternative period of time is explicitly stipulated by Groundsure. Groundsure reserves the right to withdraw any quotation or proposal at any time before an Order is accepted by Groundsure. Groundsure's acceptance of an Order shall be binding only when made in writing and signed by Groundsure's authorised representative or when accepted through the Order Website.

3 The Client's obligations

3.1The Client shall comply with the terms of this Contract and
(i) procure that the Beneficiary or any third party relying on the Services complies with and acts as if it is bound by the Contract and
(ii) be liable to Groundsure for the acts and omissions of the Beneficiary or any third party relying on the Services as if such acts and omissions were those of the Client.
3.2 The Client shall be solely responsible for ensuring that the Services are appropriate and suitable for its and/or the Beneficiary's needs.
3.3 The Client shall supply to Groundsure as soon as practicable and without charge all requisite information (and the Client warrants that such information is accurate, complete and appropriate), including without limitation any environmental information relating to the Site and shall give such assistance as Groundsure shall reasonably require in the provision of the Services including, without limitation, access to the Site, facilities and equipment.
3.4 Where the Client's approval or decision is required to enable Groundsure to carry out work in order to provide the Services, such approval or decision shall be given or procured in reasonable time and so as not to delay or disrupt the performance of the Services.
3.5 Save as expressly permitted by this Contract the Client shall not, and shall procure that the Beneficiary shall not, re-sell, alter, add to, or amend the Groundsure Materials, or use the Groundsure Materials in a manner for which they were not intended. The Client may make the Groundsure Materials available to a third party who is considering acquiring some or all of, or providing funding in relation to, the Site, but such third party cannot rely on the same unless expressly permitted under clause 4.
3.6 The Client is responsible for maintaining the confidentiality of its user name and password if using the Order Website and the Client acknowledges that Groundsure accepts no liability of any kind for any loss or damage suffered by the Client as a consequence of using the Order Website.

4 Reliance

4.1The Client acknowledges that the Services provided by Groundsure consist of the presentation and analysis of Third Party Content and other content and that information obtained from a Third Party Data Provider cannot be guaranteed or warranted by Groundsure to be reliable.
4.2 In respect of Data Reports, Mapping and Risk Screening Reports, the following classes of person and no other are entitled to rely on their contents;
(i) the Beneficiary,
(ii) the Beneficiary's professional advisers, (iii) any person providing funding to the Beneficiary in relation to the Site (whether directly or as part of a lending syndicate),
(iv) the first purchaser or first tenant of the Site, and
(v) the professional advisers and lenders of the first purchaser or tenant of the Site.
4.3 In respect of Support Services, only the Client, Beneficiary and parties expressly named in a Report and no other parties are entitled to rely on its contents.
4.4 Save as set out in clauses 4.2 and 4.3 and unless otherwise expressly agreed in writing, no other person or entity of any kind is entitled to rely on any Services or Report issued or provided by Groundsure. Any party considering such Reports and Services does so at their own risk.

5 Fees and Disbursements

5.1Groundsure shall charge and the Client shall pay fees at the rate and frequency specified in the written proposal, Order Website or Order acknowledgement form, plus (in the case of Support Services) all proper disbursements incurred by Groundsure. The Client shall in addition pay all value added tax or other tax payable on such fees and disbursements in relation to the provision of the Services (together "Fees").
5.2 The Client shall pay all outstanding Fees to Groundsure in full without deduction, counterclaim or set off within 30 days of the date of Groundsure's invoice or such other period as may be agreed in writing between Groundsure and the Client ("Payment Date"). Interest on late payments will accrue on a daily basis from the Payment Date until the date of payment (whether before or after judgment) at the rate of 8% per annum.
5.3 The Client shall be deemed to have agreed the amount of any invoice unless an objection is made in writing within 28 days of the date of the invoice. As soon as reasonably practicable after being notified of an objection, without prejudice to clause 5.2 a member of Groundsure's management team will contact the Client and the parties shall then use all reasonable endeavours to resolve the dispute within 15 days.

6 Intellectual Property and Confidentiality

6.1 Subject to
(i) full payment of all relevant Fees and
(ii) compliance with this Contract, the Client is granted (and is permitted to sub-licence to the Beneficiary) a royalty-free, worldwide, non-assignable and (save to the extent set out in this Contract) non-transferable licence to make use of the Groundsure Materials.
6.2 All Intellectual Property in the Groundsure Materials are and shall remain owned by Groundsure or Groundsure's licensors (including without limitation the Third Party Data Providers) the Client acknowledges, and shall procure

acknowledgement by the Beneficiary of, such ownership. Nothing in this Contract purports to transfer or assign any rights to the Client or the Beneficiary in respect of such Intellectual Property.
6.3 Third Party Data Providers may enforce any breach of clauses 6.1 and 6.2 against the Client or Beneficiary.
6.4 The Client shall, and shall procure that any recipients of the Groundsure Materials shall:

(i) not remove, suppress or modify any trade mark, copyright or other proprietary marking belonging to Groundsure or any third party from the Services;

(ii) use the information obtained as part of the Services in respect of the subject Site only, and shall not store or reuse any information obtained as part of the Services provided in respect of adjacent or nearby sites;

(iii) not create any product or report which is derived directly or indirectly from the Services (save that those acting in a professional capacity to the Beneficiary may provide advice based upon the Services);

(iv) not combine the Services with or incorporate such Services into any other information data or service;

(v) not reformat or otherwise change (whether by modification, addition or enhancement), the Services (save that those acting for the Beneficiary in a professional capacity shall not be in breach of this clause 6.4(v) where such reformatting is in the normal course of providing advice based upon the Services);

(vi) where a Report and/or Mapping contains material belonging to Ordnance Survey, acknowledge and agree that such content is protected by Crown Copyright and shall not use such content for any purpose outside of receiving the Services; and

(vii) not copy in whole or in part by any means any map prints or run-on copies containing content belonging to Ordnance Survey (other than that contained within Ordnance Survey's OS Street Map) without first being in possession of a valid Paper Map Copying Licence from Ordnance Survey,

6.5 Notwithstanding clause 6.4, the Client may make reasonable use of the Groundsure Materials in order to advise the Beneficiary in a professional capacity. However, Groundsure shall have no liability in respect of any advice, opinion or report given or provided to Beneficiaries by the Client.
6.6 The Client shall procure that any person to whom the Services are made available shall notify Groundsure of any request or requirement to disclose, publish or disseminate any information contained in the Services in accordance with the Freedom of Information Act 2000, the Environmental Information Regulations 2004 or any associated legislation or regulations in force from time to time.

7.Liability: Particular Attention Should Be Paid To This Clause

7.1 This Clause 7 sets out the entire liability of Groundsure, including any liability for the acts or omissions of its employees, agents, consultants, subcontractors and Third Party Content, in respect of:

(i) any breach of contract, including any deliberate breach of the Contract by Groundsure or its employees, agents or subcontractors;

(ii) any use made of the Reports, Services, Materials or any part of them; and

(iii) any representation, statement or tortious act or omission (including negligence) arising under or in connection with the Contract.

7.2 All warranties, conditions and other terms implied by statute or common law are, to the fullest extent permitted by law, excluded from the Contract.
7.3 Nothing in the Contract limits or excludes the liability of the Supplier for death or personal injury resulting from negligence, or for any damage or liability incurred by the Client or Beneficiary as a result of fraud or fraudulent misrepresentation.
7.4 Groundsure shall not be liable for

(i) loss of profits;
(ii) loss of business;
(iii) depletion of goodwill and/or similar losses;
(iv) loss of anticipated savings;
(v) loss of goods;
(vi) loss of contract;
(vii) loss of use;
(viii) loss or corruption of data or information;
(ix) business interruption;
(x) any kind of special, indirect, consequential or pure economic loss, costs, damages, charges or expenses;
(xi) loss or damage that arise as a result of the use of all or part of the Groundsure Materials in breach of the Contract;
(xii) loss or damage arising as a result of any error, omission or inaccuracy in any part of the Groundsure Materials where such error, omission or inaccuracy is caused by any Third Party Content or any reasonable interpretation of Third Party Content;
(xiii) loss or damage to a computer, software, modem, telephone or other property; and
(xiv) loss or damage caused by a delay or loss of use of Groundsure's internet ordering service.

7.5 Groundsure's total liability in relation to or under the Contract shall be limited to £10 million for any claim or claims.
7.6 Groundsure shall procure that the Beneficiary shall be bound by limitations and exclusions of liability in favour of Groundsure which accord with those detailed in clauses 7.4 and 7.5 (subject to clause 7.3) in respect of all claims which the Beneficiary may bring against Groundsure in relation to the Services or other matters arising pursuant to the Contract.

8 Groundsure's right to suspend or terminate

8.1 If Groundsure reasonably believes that the Client or Beneficiary has not provided the information or assistance required to enable the proper provision of the Services, Groundsure shall be entitled to suspend all further performance of the Services until such time as any such deficiency has been made good.
8.2 Groundsure shall be entitled to terminate the Contract immediately on written notice in the event that:

(i) the Client fails to pay any sum due to Groundsure within 30 days of the Payment Date; or

(ii) the Client (being an individual) has a bankruptcy order made against him or (being a company) shall enter into liquidation whether compulsory or voluntary or have an administration order made against it or if a receiver shall be appointed over the whole or any part of its property assets or undertaking or if the Client is struck off the Register of Companies or dissolved; or

(iii) the Client being a company is unable to pay its debts within the meaning of Section 123 of the Insolvency Act 1986 or being an individual appears unable to pay his debts within the meaning of Section 268 of the Insolvency Act 1986 or if the Client shall enter into a composition or arrangement with the Client's creditors or shall suffer distress or execution to be levied on his goods; or

(iv) the Client or the Beneficiary breaches any term of the Contract (including, but not limited to, the obligations in clause 4) which is incapable of remedy or if remediable, is not remedied within five days of notice of the breach.

9. Client's Right to Terminate and Suspend

9.1 Subject to clause 10.1, the Client may at any time upon written notice terminate or suspend the provision of all or any of the Services.
9.2 In any event, where the Client is a consumer (and not a business) he/she hereby expressly acknowledges and agrees that:

(i) the supply of Services under this Contract (and therefore the performance of this Contract) commences immediately upon Groundsure's acceptance of the Order; and

(ii) the Reports and/or Mapping provided under this Contract are

(a) supplied to the Client's specification(s) and in any event
(b) by their nature cannot be returned.

10 Consequences of Withdrawal, Termination or Suspension

10.1 Upon termination of the Contract:

(i) Groundsure shall take steps to bring to an end the Services in an orderly manner, vacate any Site with all reasonable speed and shall deliver to the Client and/or Beneficiary any property of the Client and/or Beneficiary in Groundsure's possession or control; and

(ii) the Client shall pay to Groundsure all and any Fees payable in respect of the performance of the Services up to the date of termination or suspension. In respect of any Support Services provided, the Client shall also pay Groundsure any additional costs incurred in relation to the termination or suspension of the Contract.

11 Anti-Bribery

11.1 The Client warrants that it shall:

(i) comply with all applicable laws, statutes and regulations relating to anti-bribery and anti-corruption including but not limited to the Bribery Act 2010;

(ii) comply with such of Groundsure's anti-bribery and anti-corruption policies as are notified to the Client from time to time; and

(iii) promptly report to Groundsure any request or demand for any undue financial or other advantage of any kind received by or on behalf of the Client in connection with the performance of this Contract.

11.2 Breach of this Clause 11 shall be deemed a material breach of this Contract.

12 General

12.1 The Mapping contained in the Services is protected by Crown copyright and must not be used for any purpose other than as part of the Services or as specifically provided in the Contract.
12.2 The Client shall be permitted to make one copy only of each Report or Mapping Order. Thereafter the Client shall be entitled to make unlimited copies of the Report or Mapping Order only in accordance with an Ordnance Survey paper map copy license available through Groundsure.
12.3 Groundsure reserves the right to amend or vary this Contract. No amendment or variation to this Contract shall be valid unless signed by an authorised representative of Groundsure.
12.4 No failure on the part of Groundsure to exercise, and no delay in exercising, any right, power or provision under this Contract shall operate as a waiver thereof.
12.5 Save as expressly provided in this Contract, no person other than the persons set out therein shall have any right under the Contract (Rights of Third Parties) Act 1999 to enforce any terms of the Contract.
12.6 The Secretary of State for Business, Innovation and Skills ("BIS") or BIS' successor body, as the case may be, acting through Ordnance Survey may enforce a breach of clause 6.4(vi) and clause 6.4(vii) of these terms and conditions against the Client in accordance with the provisions of the Contracts (Rights of Third Parties) Act 1999.
12.7 Groundsure shall not be liable to the Client if the provision of the Services is delayed or prevented by one or more of the following circumstances:

(i) the Client or Beneficiary's failure to provide facilities, access or information;
(ii) fire, storm, flood, tempest or epidemic;
(iii) Acts of God or the public enemy;
(iv) riot, civil commotion or war;
(v) strikes, labour disputes or industrial action;
(vi) acts or regulations of any governmental or other agency;
(vii) suspension or delay of services at public registries by Third Party Data Providers;
(viii) changes in law; or
(ix) any other reason beyond Groundsure's reasonable control.

In the event that Groundsure is prevented from performing the Services (or any part thereof) in accordance with this clause 12.6 for a period of not less than 30 days then Groundsure shall be entitled to terminate this Contract immediately on written notice to the Client.

12.8 Any notice provided shall be in writing and shall be deemed to be properly given if delivered by hand or sent by first class post, facsimile or by email to the address, facsimile number or email address of the relevant party as may have been notified by each party to the other for such purpose or in the absence of such notification the last known address.

12.9 Such notice shall be deemed to have been received on the day of delivery if delivered by hand, facsimile or email (save to the extent such day is not a working day where it shall be deemed to have been delivered on the next working day) and on the second working day after the day of posting if sent by first class post.

12.10 The Contract constitutes the entire agreement between the parties and shall supersede all previous arrangements between the parties relating to the subject matter hereof.

12.11 Each of the provisions of the Contract is severable and distinct from the others and if one or more provisions is or should become invalid, illegal or unenforceable, the validity and enforceability of the remaining provisions shall not in any way be tainted or impaired.

12.12 This Contract shall be governed by and construed in accordance with English law and any proceedings arising out of or connected with this Contract shall be subject to the exclusive jurisdiction of the English courts.

12.13 Groundsure is an executive member of the Council of Property Search Organisation (CoPSO) and has signed up to the Search Code administered by the Property Codes Compliance Board (PCCB). All Risk Screening Reports shall be supplied in accordance with the provisions of the Search Code.

12.14 If the Client or Beneficiary has a complaint about the Services, written notice should be given to the Compliance Officer at Groundsure who will respond in a timely manner. In the event you are not satisfied with Groundsure's complaints handling process or you are unable to resolve the complaint, at your discretion you may refer the complaint to The Property Ombudsman Scheme at the following URL/email: website www.tpos.co.uk or email: admin@tpos.co.uk

12.15 The Client agrees that it shall, and shall procure that each Beneficiary shall, treat in confidence all Confidential Information and shall not, and shall procure that each Beneficiary shall not (i) disclose any Confidential Information to any third party other than in accordance with the terms of this Contract; and (ii) use Confidential Information for a purpose other than the exercise of its rights and obligations under this Contract. Subject to clause 6.6, nothing shall prevent the Client or any Beneficiary from disclosing Confidential Information to the extent
required by law

Groundsure Enviroinsight

Address:	**Land at ,Station Yard,Moor Row,CA,**
Date:	**14 Apr 2016**
Reference:	**EMS-357047_479315**
Client:	**EmapSite**

NW N NE

W E

SW S SE

Aerial Photograph Capture date:	05-Oct-2008
Grid Reference:	300662,514638
Site Size:	4.41ha

Report Reference: EMS-357047_479315
Client Reference: EMS_357047_479315

Groundsure
LOCATION INTELLIGENCE

emapsite™

Contents Page

Overview of Findings

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

Section 1: Historical Industrial Sites	On-site	0-50	51-250	251-500
1.1 Potentially Contaminative Uses identified from 1:10,000 scale mapping	32	11	84	94
1.2 Additional Information – Historical Tank Database	5	0	6	2
1.3 Additional Information – Historical Energy Features Database	0	0	0	5
1.4 Additional Information – Historical Petrol and Fuel Site Database	0	0	0	0
1.5 Additional Information – Historical Garage and Motor Vehicle Repair Database	0	0	4	4
1.6 Potentially Infilled Land	7	0	71	94

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

Section 3: Landfill and Other Waste Sites

	On-site	0-50m	51-250	251-500	501-1000	1000-1500
3.1 Landfill Sites						
3.1.1 Environment Agency Registered Landfill Sites	0	0	0	0	2	Not searched
3.1.2 Environment Agency Historic Landfill Sites	0	0	2	0	3	2
3.1.3 BGS/DoE Landfill Site Survey	0	0	0	1	1	0
3.1.4 Records of Landfills in Local Authority and Historical Mapping Records	0	0	0	0	4	1
3.2 Landfill and Other Waste Sites Findings						
3.2.1 Operational and Non-Operational Waste Treatment, Transfer and Disposal Sites	0	0	3	0	Not searched	Not searched
3.2.2 Environment Agency Licensed Waste Sites	0	0	0	0	4	0

Section 4: Current Land Use

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

Section 5: Geology

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

Section 6: Hydrogeology and Hydrology

	0-500m
6.1 Are there any records of Strata Classification in the Superficial Geology within 500m of the study site?	Yes
6.2 Are there any records of Strata Classification in the Bedrock Geology within 500m of the study site?	Yes

	On-site	0-50m	51-250	251-500	501-1000	1000-2000
6.3 Groundwater Abstraction Licences (within 2000m of the study site)	0	0	0	0	0	0
6.4 Surface Water Abstraction Licences (within 2000m of the study site)	0	0	0	0	4	1
6.5 Potable Water Abstraction Licences (within 2000m of the study site)	0	0	0	0	0	0
6.6 Source Protection Zones (within 500m of the study site)	0	0	0	0	Not searched	Not searched
6.7 Source Protection Zones within Confined Aquifer	0	0	0	0	Not searched	Not searched
6.8 Groundwater Vulnerability and Soil Leaching Potential (within 500m of the study site)	2	0	3	1	Not searched	Not searched

	On-site	0-50m	51-250	251-500	501-1000	1000-1500

Section 6: Hydrogeology and Hydrology	0-500m					
6.9 Is there any Environment Agency information on river quality within 1500m of the study site?	No	No	Yes	No	No	No
6.10 Detailed River Network entries within 500m of the site	1	7	5	11	Not searched	Not searched
6.11 Surface water features within 250m of the study site	Yes	Yes	Yes	Not searched	Not searched	Not searched

Section 7: Flooding	
7.1 Are there any Enviroment Agency Zone 2 floodplains within 250m of the study site?	Yes
7.2 Are there any Environment Agency Zone 3 floodplains within 250m of the study site	Yes
7.3 What is the Risk of flooding from Rivers and the Sea (RoFRaS) rating for the study site?	High
7.4 Are there any Flood Defences within 250m of the study site?	No
7.5 Are there any areas benefiting from Flood Defences within 250m of the study site?	No
7.6 Are there any areas used for Flood Storage within 250m of the study site?	No
7.7 What is the maximum BGS Groundwater Flooding susceptibility within 50m of the study site?	Potential at Surface
7.8 What is the BGS confidence rating for the Groundwater Flooding susceptibility areas?	High

Section 8: Designated Environmentally Sensitive Sites	On-site	0-50m	51-250	251-500	501-1000	1000-2000
8.1 Records of Sites of Special Scientific Interest (SSSI)	0	0	0	0	0	2
8.2 Records of National Nature Reserves (NNR)	0	0	0	0	0	0
8.3 Records of Special Areas of Conservation (SAC)	0	0	0	0	0	1
8.4 Records of Special Protection Areas (SPA)	0	0	0	0	0	0
8.5 Records of Ramsar sites	0	0	0	0	0	0
8.6 Records of Ancient Woodlands	0	0	0	0	0	4
8.7 Records of Local Nature Reserves (LNR)	0	0	0	0	0	0
8.8 Records of World Heritage Sites	0	0	0	0	0	0
8.9 Records of Environmentally Sensitive Areas	0	0	0	0	0	1
8.10 Records of Areas of Outstanding Natural Beauty (AONB)	0	0	0	0	0	0

Section 8: Designated Environmentally Sensitive Sites	On-site	0-50m	51-250	251-500	501-1000	1000-2000
8.11 Records of National Parks	0	0	0	0	0	0
8.12 Records of Nitrate Sensitive Areas	0	0	0	0	0	0
8.13 Records of Nitrate Vulnerable Zones	0	0	0	0	0	0
8.14 Records of Green Belt land	0	0	0	0	0	0

Section 9: Natural Hazards

9.1 What is the maximum risk of natural ground subsidence?	Moderate
9.1.1 What is the maximum Shrink-Swell hazard rating identified on the study site?	Very Low
9.1.2 What is the maximum Landslides hazard rating identified on the study site?	Low
9.1.3 What is the maximum Soluble Rocks hazard rating identified on the study site?	Negligible
9.1.4 What is the maximum Compressible Ground hazard rating identified on the study site?	Moderate
9.1.5 What is the maximum Collapsible Rocks hazard rating identified on the study site?	Very Low
9.1.6 What is the maximum Running Sand hazard rating identified on the study site?	Low
9.2 Radon	
9.2.1 Is the property in a Radon Affected Area as defined by the Health Protection Agency (HPA) and if so what percentage of homes are above the Action Level?	The property is in a Radon Affected Area, as between 10 and 30% of properties are above the Action Level.
9.2.2 Is the property in an area where Radon Protection are required for new properties or extensions to existing ones as described in publication BR211 by the Building Research Establishment?	Full radon protective measures are necessary.

Section 10: Mining

10.1 Are there any coal mining areas within 75m of the study site?	Yes
10.2 Are there any Non-Coal Mining areas within 50m of the study site boundary?	Yes
10.3 Are there any brine affected areas within 75m of the study site?	No

Using this report

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

1. Historical Industrial Sites

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

2. Environmental Permits, Incidents and Registers

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

3. Landfills and Other Waste Sites

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

4. Current Land Uses

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

5. Geology

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

6. Hydrogeology and Hydrology

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

7. Flooding

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

8. Designated Environmentally Sensitive Sites

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

9. Natural Hazards

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

10. Mining

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

11. Contacts

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

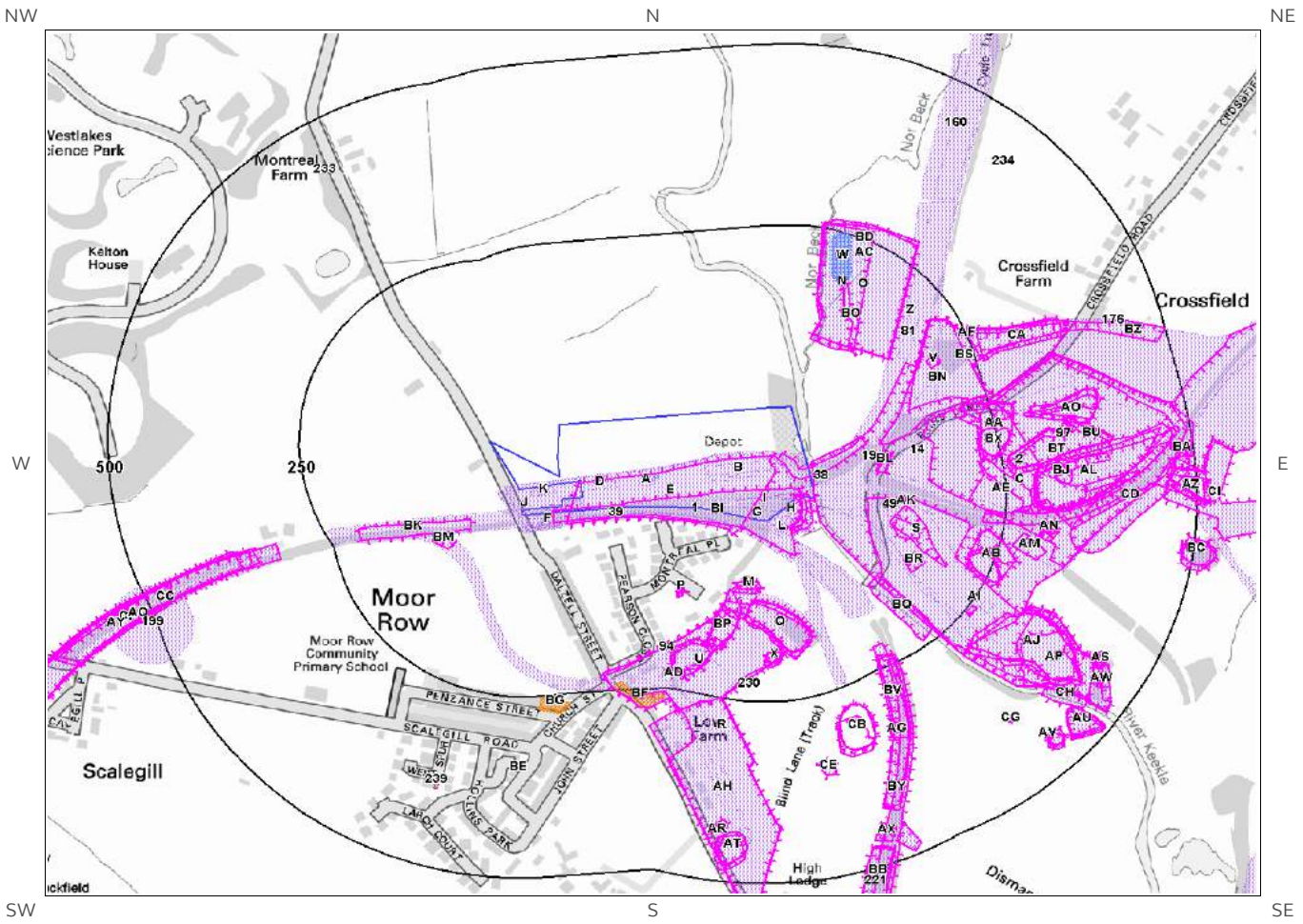
Note: Maps

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

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

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

1. Historical Land Use



Historical 1:10,000 and 1:10,560 scale mapping

Industrial Land Use

Potentially Infilled Land

Site Outline

250
500
Search Buffers (m)

Historical 1:2,500, 1:1,250 and 1:500 scale mapping

Energy Features

Petrol Stations

Tanks

Garages

1. Historical Industrial Sites

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

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

Records of sites with a potentially contaminative past land use within 500m of the search boundary: 221

ID	Distance [m]	Direction	Use	Date
1	0	On Site	Railway Sidings	1898
2	0	On Site	Railway Sidings	1938
3D	0	On Site	Railway Building	1898
4A	0	On Site	Railway Building	1948
5A	0	On Site	Railway Building	1926
6A	0	On Site	Railway Building	1938
7B	0	On Site	Engine Shed	1948
8B	0	On Site	Engine Shed	1926
9B	0	On Site	Engine Shed	1898
10B	0	On Site	Engine Shed	1938
11E	0	On Site	Railway Sidings	1938
12BH	0	On Site	Unspecified Ground Workings	1898
13C	0	On Site	Iron Ore Mine	1926
14	0	On Site	Mineral Railway Sidings	1926
15C	0	On Site	Iron Ore Mine	1926
16D	0	On Site	Railway Building	1926
17D	0	On Site	Railway Building	1938
18E	0	On Site	Cuttings	1948
19	0	On Site	Railway Sidings	1948
20G	0	On Site	Railway Building	1863
21F	0	On Site	Railway Station	1948
22H	0	On Site	Railway Building	1938
23F	0	On Site	Railway Station	1926
24F	0	On Site	Railway Station	1938
25F	0	On Site	Railway Station	1898
26J	0	On Site	Goods Shed	1898
27G	0	On Site	Railway Building	1863
28I	0	On Site	Railway Building	1926
29H	0	On Site	Unspecified Pit	1938
30I	0	On Site	Railway Building	1938
31H	0	On Site	Unspecified Pit	1898
32BI	0	On Site	Cuttings	1863
33H	2	SE	Railway Buildings	1938

34AK	4	S	Railway Sidings	1898
35J	4	S	Railway Building	1898
36K	4	S	Railway Building	1938
37K	6	S	Railway Sidings	1926
38	6	E	Railway Building	1948
39	6	S	Railway Building	1948
40L	7	S	Railway Buildings	1948
41L	8	SE	Railway Building	1863
42L	9	SE	Railway Building	1863
43F	11	S	Railway Station	1863
44BK	67	W	Cuttings	1863
45AI	69	E	Unspecified Disused Pit	1938
46M	84	S	Refuse Heap	1938
47M	85	S	Refuse Heap	1926
48M	85	S	Refuse Heap	1926
49	85	E	Railway Building	1926
50M	91	S	Refuse Heap	1948
51BM	94	SW	Cuttings	1926
52N	96	NE	Sewage Works	1948
53BN	98	E	Unspecified Pit	1938
54U	101	S	Unspecified Disused Pit	1938
55S	103	E	Unspecified Pit	1938
56N	103	N	Sewage Works	1926
57O	103	N	Sewage Works	1926
58O	104	NE	Sewage Works	1938
59BO	107	NE	Unspecified Ground Workings	1948
60P	109	S	Unspecified Old Shaft	1938
61P	109	S	Unspecified Old Shaft	1898
62Q	109	S	Unspecified Pit	1938
63Q	109	S	Unspecified Heap	1898
64P	110	S	Unspecified Old Shaft	1926
65P	110	S	Unspecified Old Shaft	1926
66R	111	S	Iron Ore Mine	1926
67Q	111	S	Unspecified Heap	1926
68R	111	S	Iron Ore Mine	1926
69Q	111	S	Unspecified Heap	1926
70S	112	E	Refuse Heap	1948
71Q	114	S	Unspecified Heap	1948
72P	115	S	Unspecified Old Shaft	1948
73BP	127	S	Refuse Heap	1938
74T	129	S	Refuse Heap	1926
75T	129	S	Refuse Heap	1926
76BQ	134	SE	Cuttings	1938
77U	135	S	Unspecified Disused Pit	1948
78BR	144	SE	Cuttings	1926

79BS	147	E	Unspecified Pit	1898
80BT	152	E	Iron Ore Mine	1938
81	155	NE	Mineral Railway Sidings	1898
82T	170	S	Unspecified Pit	1898
83U	176	S	Unspecified Disused Pit	1938
84AD	179	S	Unspecified Commercial/Industrial	1898
85X	180	S	Unspecified Heap	1938
86W	182	N	Unspecified Tanks	1948
87V	187	E	Unspecified Pit	1926
88V	187	E	Unspecified Pit	1926
89W	187	N	Unspecified Tanks	1938
90X	187	S	Unspecified Heap	1948
91W	189	N	Unspecified Tank	1926
92Y	193	S	Mineral Railway Sidings	1898
93Y	193	S	Mineral Railway Sidings	1938
94	194	S	Railway Building	1938
95Z	198	NE	Railway Building	1948
96AE	202	E	Unspecified Pit	1938
97	203	E	Disused Iron Ore Mine	1948
98Z	204	NE	Railway Building	1926
99AF	212	NE	Mineral Railway Sidings	1938
100AA	214	E	Refuse Heap	1926
101AA	214	E	Refuse Heap	1926
102AB	216	E	Unspecified Ground Workings	1926
103AB	216	E	Unspecified Ground Workings	1926
104AB	217	E	Unspecified Heap	1948
105AB	218	E	Unspecified Pit	1938
106AB	218	E	Unspecified Pit	1898
107BV	219	S	Cuttings	1948
108BW	221	E	Cuttings	1863
109AB	221	E	Unspecified Pit	1938
110AC	224	NE	Unspecified Tank	1938
111AC	224	NE	Unspecified Tank	1926
112AD	225	S	Unspecified Disused Pit	1926
113AD	225	S	Unspecified Disused Pit	1926
114AA	226	E	Refuse Heap	1938
115AE	227	E	Unspecified Pit	1926
116AE	227	E	Unspecified Pit	1926
117BX	227	E	Refuse Heap	1948
118AF	232	NE	Mineral Railway Sidings	1898
119AG	233	S	Cuttings	1938
120AG	237	SE	Cuttings	1926
121BY	244	SE	Cuttings	1863
122AB	244	E	Unspecified Old Shafts	1926

123AB	244	E	Unspecified Old Shafts	1926
124AH	249	S	Iron Ore Mine	1898
125AH	249	S	Iron Ore Mines	1938
126BU	250	E	Iron Ore Mine	1898
127AI	250	SE	Railway Building	1938
128BZ	251	NE	Cuttings	1938
129AA	252	E	Refuse Heap	1948
130AI	253	SE	Unspecified Disused Pit	1926
131AI	253	SE	Unspecified Disused Pit	1926
132CA	260	E	Cuttings	1948
133AI	261	SE	Railway Building	1938
134AM	266	E	Cuttings	1926
135AJ	282	SE	Unspecified Pit	1938
136AJ	285	SE	Unspecified Pit	1926
137AJ	285	SE	Unspecified Pit	1926
138AK	287	E	Unspecified Pit	1898
139AL	287	E	Unspecified Heap	1948
140AJ	287	SE	Unspecified Disused Pit	1948
141AO	289	E	Unspecified Pit	1948
142AL	290	E	Unspecified Heap	1926
143AL	290	E	Unspecified Heap	1926
144AL	291	E	Unspecified Pit	1938
145AM	297	E	Unspecified Old Shafts	1948
146AN	299	E	Unspecified Pit	1926
147AN	299	E	Unspecified Pit	1926
148AN	299	E	Unspecified Pit	1938
149AO	302	E	Unspecified Pit	1926
150AO	302	E	Unspecified Pit	1926
151AN	304	E	Unspecified Old Shaft	1898
152BJ	307	E	Iron Pit	1863
153AN	307	E	Unspecified Old Shafts	1926
154AN	307	E	Unspecified Old Shafts	1926
155AN	308	E	Unspecified Old Shaft	1938
156CC	314	SW	Cuttings	1863
157AO	314	E	Unspecified Pit	1938
158AO	314	E	Unspecified Pit	1898
159AP	328	SE	Iron Ore Mine	1898
160	333	NE	Railway Sidings	1951
161AP	335	SE	Unspecified Pit	1898
162CD	338	E	Unspecified Pit	1898
163CE	340	S	Unspecified Heap	1938
164AQ	344	SW	Cuttings	1926
165AQ	352	SW	Cuttings	1938
166AL	352	E	Cuttings	1863
167CF	369	SW	Cuttings	1898
168CG	398	SE	Old Iron Shaft	1863

169CH	398	SE	Cuttings	1938
170AR	415	S	Unspecified Pit	1926
171AR	415	S	Unspecified Pit	1926
172AS	427	SE	Unspecified Pit	1926
173AS	427	SE	Unspecified Pit	1926
174AS	428	SE	Unspecified Pit	1938
175AS	428	SE	Unspecified Pit	1948
176	429	E	Railway Building	1926
177AT	431	S	Unspecified Pit	1898
178AT	431	S	Unspecified Pit	1938
179AT	435	S	Unspecified Heap	1926
180AT	435	S	Unspecified Heap	1926
181AU	440	SE	Unspecified Pit	1898
182AU	440	SE	Unspecified Pit	1938
183AT	441	S	Unspecified Disused Pit	1948
184AU	441	SE	Unspecified Pit	1926
185AU	441	SE	Unspecified Pit	1926
186AX	442	S	Cuttings	1926
187AV	444	SE	Unspecified Old Shaft	1898
188AU	444	SE	Unspecified Pit	1948
189AV	446	SE	Unspecified Heap	1938
190AV	446	SE	Unspecified Heap	1898
191AV	446	SE	Unspecified Heap	1926
192AV	446	SE	Unspecified Heap	1926
193AW	447	SE	Unspecified Old Shaft	1926
194AW	447	SE	Unspecified Old Shaft	1926
195AW	447	SE	Unspecified Old Shaft	1938
196	448	E	Railway Sidings	1863
197AV	449	SE	Unspecified Heap	1948
198AW	449	SE	Unspecified Old Shaft	1948
199	453	W	Electric Telegraph	1863
200AX	454	SE	Cuttings	1926
201CI	456	E	Unspecified Disused Pit	1938
202AZ	460	E	Unspecified Disused Pit	1948
203AY	460	SW	Cuttings	1951
204AY	460	SW	Cuttings	1988
205AY	460	SW	Cuttings	1993
206AY	460	SW	Cuttings	1967
207AZ	464	E	Unspecified Heap	1926
208AZ	464	E	Unspecified Heap	1926
209AZ	465	E	Unspecified Pit	1938
210BA	469	E	Unspecified Disused Pit	1926
211BA	469	E	Unspecified Disused Pit	1926
212BB	471	S	Cuttings	1926
213BB	472	S	Cuttings	1938
214BC	484	E	Unspecified Pit	1898

215BC	484	E	Unspecified Pit	1938
216BC	484	E	Unspecified Heap	1948
217BC	486	E	Unspecified Heap	1926
218BC	486	E	Unspecified Heap	1926
219BC	489	E	Unspecified Old Shaft	1938
220BC	489	E	Unspecified Old Shaft	1898
221	495	S	Railway Sidings	1948

1.2 Additional Information – Historical Tank Database

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

Records of historical tanks within 500m of the search boundary: 13

ID	Distance (m)	Direction	Use	Date
222G	0	On Site	Unspecified Tank	1899
223A	0	On Site	Unspecified Tank	1966
224A	0	On Site	Unspecified Tank	1961
225A	0	On Site	Unspecified Tank	1925
226A	0	On Site	Unspecified Tank	1899
227W	183	N	Tanks	1925
228W	186	N	Tanks	1961
229W	186	N	Tanks	1966
230	228	S	Unspecified Tank	1899
231BD	247	NE	Unspecified Tank	1966
232BD	247	NE	Unspecified Tank	1961
233	428	NW	Tank or Trough	1865
234	433	NE	Tank or Trough	1863

1.3 Additional Information – Historical Energy Features Database

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

Records of historical energy features within 500m of the search boundary: 5

ID	Distance (m)	Direction	Use	Date
235BE	349	S	Gas Governor	1995
236BE	350	S	Gas Governor	1989
237BE	350	S	Gas Governor	1991
238BE	352	S	Gas Governor House	1984

239	378	S	Electricity Substation	1966

1.4 Additional Information – Historical Petrol and Fuel Site Database

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

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

Database searched and no data found.

1.5 Additional Information – Historical Garage and Motor Vehicle Repair Database

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

Records of historical garage and motor vehicle repair sites within 500m of the search boundary: 8

ID	Distance (m)	Direction	Use	Date
240BF	238	S	Garage	1989
241BF	238	S	Garage	1991
242BF	238	S	Garage	1995
243BF	239	S	Garage	1984
244BG	251	S	Garage	1995
245BG	251	S	Garage	1989
246BG	251	S	Garage	1991
247BG	253	S	Garage	1984

1.6 Potentially Infilled Land

Records of Potentially Infilled Features from 1:10,000 scale mapping within 500m of the study site: 172

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

ID	Distance(m)	Direction	Use	Date
248H	0	On Site	Unspecified Pit	1898
249BH	0	On Site	Unspecified Ground Workings	1898
250BI	0	On Site	Cuttings	1863
251E	0	On Site	Cuttings	1948
252BJ	0	On Site	Iron Ore Mine	1926
253H	0	On Site	Unspecified Pit	1938
254C	0	On Site	Iron Ore Mine	1926
255BK	67	W	Cuttings	1863

256AI	69	E	Unspecified Disused Pit	1938
257M	84	S	Refuse Heap	1938
258M	85	S	Refuse Heap	1926
259M	85	S	Refuse Heap	1926
260BL	85	E	Reservoirs	1938
261BL	85	E	Reservoirs	1898
262BL	87	E	Reservoirs	1926
263M	91	S	Refuse Heap	1948
264BM	94	SW	Cuttings	1926
265N	96	NE	Sewage Works	1948
266BN	98	E	Unspecified Pit	1938
267AD	101	S	Unspecified Disused Pit	1938
268S	103	E	Unspecified Pit	1938
269N	103	N	Sewage Works	1926
270N	103	N	Sewage Works	1926
271O	104	NE	Sewage Works	1938
272BO	107	NE	Unspecified Ground Workings	1948
273P	109	S	Unspecified Old Shaft	1898
274P	109	S	Unspecified Old Shaft	1938
275Q	109	S	Unspecified Heap	1898
276Q	109	S	Unspecified Pit	1938
277P	110	S	Unspecified Old Shaft	1926
278P	110	S	Unspecified Old Shaft	1926
279Q	111	S	Unspecified Heap	1926
280R	111	S	Iron Ore Mine	1926
281R	111	S	Iron Ore Mine	1926
282Q	111	S	Unspecified Heap	1926
283S	112	E	Refuse Heap	1948
284Q	114	S	Unspecified Heap	1948
285P	115	S	Unspecified Old Shaft	1948
286BP	127	S	Refuse Heap	1938
287T	129	S	Refuse Heap	1926
288T	129	S	Refuse Heap	1926
289BQ	134	SE	Cuttings	1938
290T	135	S	Unspecified Disused Pit	1948
291BR	144	SE	Cuttings	1926
292BS	147	E	Unspecified Pit	1898
293BT	152	E	Iron Ore Mine	1938
294T	170	S	Unspecified Pit	1898
295T	176	S	Unspecified Disused Pit	1938
296X	180	S	Unspecified Heap	1938
297V	187	E	Unspecified Pit	1926
298V	187	E	Unspecified Pit	1926
299X	187	S	Unspecified Heap	1948
300AE	202	E	Unspecified Pit	1938

301BU	203	E	Disused Iron Ore Mine	1948
302AA	214	E	Refuse Heap	1926
303AA	214	E	Refuse Heap	1926
304AB	216	E	Unspecified Ground Workings	1926
305AB	216	E	Unspecified Ground Workings	1926
306AB	217	E	Unspecified Heap	1948
307AB	218	E	Unspecified Pit	1938
308AB	218	E	Unspecified Pit	1898
309BV	219	S	Cuttings	1948
310BW	221	E	Cuttings	1863
311AB	221	E	Unspecified Pit	1938
312AD	225	S	Unspecified Disused Pit	1926
313AD	225	S	Unspecified Disused Pit	1926
314AA	226	E	Refuse Heap	1938
315AE	227	E	Unspecified Pit	1926
316AE	227	E	Unspecified Pit	1926
317BX	227	E	Refuse Heap	1948
318AG	233	S	Cuttings	1938
319AG	237	SE	Cuttings	1926
320BY	244	SE	Cuttings	1863
321AB	244	E	Unspecified Old Shafts	1926
322AB	244	E	Unspecified Old Shafts	1926
323AH	249	S	Iron Ore Mine	1898
324AH	249	S	Iron Ore Mines	1938
325BU	250	E	Iron Ore Mine	1898
326BZ	251	NE	Cuttings	1938
327AA	252	E	Refuse Heap	1948
328AI	253	SE	Unspecified Disused Pit	1926
329AI	253	SE	Unspecified Disused Pit	1926
330BT	255	E	Pond	1948
331BT	258	E	Pond	1926
332BT	259	E	Pond	1938
333CA	260	E	Cuttings	1948
334AM	266	E	Cuttings	1926
335CB	275	SE	Pond	1926
336CB	277	SE	Pond	1938
337AJ	282	SE	Unspecified Pit	1938
338AJ	285	SE	Unspecified Pit	1926
339AJ	285	SE	Unspecified Pit	1926
340AK	287	E	Unspecified Pit	1898
341AL	287	E	Unspecified Heap	1948
342AJ	287	SE	Unspecified Disused Pit	1948
343AO	289	E	Unspecified Pit	1948
344AL	290	E	Unspecified Heap	1926

345AL	290	E	Unspecified Heap	1926
346AL	291	E	Unspecified Pit	1938
347CB	293	S	Pond	1948
348AM	297	E	Unspecified Old Shafts	1948
349AN	299	E	Unspecified Pit	1926
350AN	299	E	Unspecified Pit	1926
351AN	299	E	Unspecified Pit	1938
352AO	302	E	Unspecified Pit	1926
353AO	302	E	Unspecified Pit	1926
354AN	304	E	Unspecified Old Shaft	1898
355BJ	307	E	Iron Pit	1863
356AN	307	E	Unspecified Old Shafts	1926
357AN	307	E	Unspecified Old Shafts	1926
358AN	308	E	Unspecified Old Shaft	1938
359CC	314	SW	Cuttings	1863
360AO	314	E	Unspecified Pit	1938
361AO	314	E	Unspecified Pit	1898
362AP	328	SE	Iron Ore Mine	1898
363AJ	335	SE	Unspecified Pit	1898
364CD	338	E	Unspecified Pit	1898
365CE	340	S	Unspecified Heap	1938
366AQ	344	SW	Cuttings	1926
367AQ	352	SW	Cuttings	1938
368AL	352	E	Cuttings	1863
369CF	369	SW	Cuttings	1898
370CG	398	SE	Old Iron Shaft	1863
371CH	398	SE	Cuttings	1938
372AR	415	S	Unspecified Pit	1926
373AR	415	S	Unspecified Pit	1926
374AS	427	SE	Unspecified Pit	1926
375AS	427	SE	Unspecified Pit	1926
376AS	428	SE	Unspecified Pit	1938
377AS	428	SE	Unspecified Pit	1948
378AT	431	S	Unspecified Pit	1898
379AT	431	S	Unspecified Pit	1938
380AT	435	S	Unspecified Heap	1926
381AT	435	S	Unspecified Heap	1926
382AU	440	SE	Unspecified Pit	1938
383AU	440	SE	Unspecified Pit	1898
384AT	441	S	Unspecified Disused Pit	1948
385AU	441	SE	Unspecified Pit	1926
386AU	441	SE	Unspecified Pit	1926
387AX	442	S	Cuttings	1926
388AV	444	SE	Unspecified Old Shaft	1898
389AU	444	SE	Unspecified Pit	1948
390AV	446	SE	Unspecified Heap	1938

391AV	446	SE	Unspecified Heap	1898
392AV	446	SE	Unspecified Heap	1926
393AV	446	SE	Unspecified Heap	1926
394AW	447	SE	Unspecified Old Shaft	1926
395AW	447	SE	Unspecified Old Shaft	1926
396AW	447	SE	Unspecified Old Shaft	1938
397AV	449	SE	Unspecified Heap	1948
398AW	449	SE	Unspecified Old Shaft	1948
399AX	454	SE	Cuttings	1926
400CI	456	E	Unspecified Disused Pit	1938
401AZ	460	E	Unspecified Disused Pit	1948
402AY	460	SW	Cuttings	1993
403AY	460	SW	Cuttings	1988
404AY	460	SW	Cuttings	1967
405AY	460	SW	Cuttings	1951
406AZ	464	E	Unspecified Heap	1926
407AZ	464	E	Unspecified Heap	1926
408AZ	465	E	Unspecified Pit	1938
409BA	469	E	Unspecified Disused Pit	1926
410BA	469	E	Unspecified Disused Pit	1926
411BB	471	S	Cuttings	1926
412BB	472	S	Cuttings	1938
413BC	484	E	Unspecified Pit	1938
414BC	484	E	Unspecified Pit	1898
415BC	484	E	Unspecified Heap	1948
416BC	486	E	Unspecified Heap	1926
417BC	486	E	Unspecified Heap	1926
418BC	489	E	Unspecified Old Shaft	1898
419BC	489	E	Unspecified Old Shaft	1938

2. Environmental Permits, Incidents and Registers Map

- Site Outline
- Search Buffers (m) (250, 500)
- Recorded Pollution Incident
- Dangerous Substances (List 1)
- Dangerous Substances (List 2)
- Water Industry Referrals
- Licenced Discharge Consents
- Red List Discharge Consents
- RAS 3 & 4 Authorisations
- Part A(1) Authorised Processes and Historic IPC Authorisations
- Part A(2) and Part B Authorised Processes
- COMAH / NIHHS Sites
- Sites Determined as Contaminated Land
- Hazardous Substance Consents and Enforcements

2. Environmental Permits, Incidents and Registers

2.1 Industrial Sites Holding Licences and/or Authorisations

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

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

0

Database searched and no data found.

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

0

Database searched and no data found.

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

0

Database searched and no data found.

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

0

Database searched and no data found.

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

0

Database searched and no data found.

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

1

The following Part A(2) and Part B Activities are represented as points on the Environmental Permits, Incidents and Registers Map:

ID	Distance (m)	Direction	NGR	Details	
13	45	N	300611 514745	Address: Rmc Technical Services Ltd, Moor Row Station, Moor Row, CA24 3LQ Process: cement/lime/mortar process Status: Historical Permit Permit Type: Part B	Enforcement: No Enforcements Notified Date of Enforcement: No Enforcements Notified Comment: No Enforcements Notified

2.1.7 Records of Category 3 or 4 Radioactive Substances Authorisations:

0

Database searched and no data found.

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

9

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

ID	Distance (m)	Direction	NGR	Details	
4A	0	On Site	300830 514640	Address: BLIND LANE CSO, CLEATON MOOR, CUMBRIA Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: 017580238 Permit Version: 2	Receiving Water: Status: MODIFIED - (WRA 91 SCHED 10 - AS AMENDED BY ENV ACT 1995) Issue date: 18/08/2004 Effective Date: 18-Aug-2004 Revocation Date: -
5A	0	On Site	300830 514640	Address: BLIND LANE CSO, CLEATON MOOR, CUMBRIA Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: 01COP0089 Permit Version: 1	Receiving Water: Status: CONSENT REVOKED OR REVISED - NEW CONSENT ISSUED (37(1)) Issue date: - Effective Date: 01-Jan-1995 Revocation Date: 18/08/2004
6	43	E	300870 514660	Address: BLIND LANE CSO, CLEATON MOOR, CUMBRIA Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: 017580238 Permit Version: 1	Receiving Water: Status: POST NRA LEGISLATION WHERE ISSUE DATE > 31-AUG-89 (HISTORIC ONLY) Issue date: - Effective Date: 18-Jun-1992 Revocation Date: 17/08/2004

ID	Distance (m)	Direction	NGR	Details	
7	69	S	300500 514500	Address: RMC (NORTHERN), MOOR ROW, CLEATOR, CUMBRIA Effluent Type: TRADE DISCHARGES - PROCESS EFFLUENT - NOT WATER COMPANY Permit Number: 017490015 Permit Version: 1	Receiving Water: Status: REVOKED - UNSPECIFIED Issue date: - Effective Date: 30-Apr-1981 Revocation Date: 17/03/1995
8B	199	SE	300960 514430	Address: MOOR ROW CSO, CLEATON MOOR, CUMBRIA Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: 01COP0090 Permit Version: 1	Receiving Water: Status: CONSENT REVOKED OR REVISED - NEW CONSENT ISSUED (37(1)) Issue date: - Effective Date: 01-Jan-1995 Revocation Date: 01/01/1995
9B	199	SE	300960 514430	Address: MOOR ROW CSO, CLEATON MOOR, CUMBRIA Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: 017580237 Permit Version: 1	Receiving Water: Status: POST NRA LEGISLATION WHERE ISSUE DATE > 31-AUG-89 (HISTORIC ONLY) Issue date: - Effective Date: 18-Jun-1992 Revocation Date: -
10C	241	SE	300990 514400	Address: MOOR ROW CSO, CLEATON MOOR, CUMBRIA Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: 01COP0004 Permit Version: 2	Receiving Water: Status: SURRENDERED UNDER EPR 2010 Issue date: - Effective Date: 01-Jan-1995 Revocation Date: 11/04/2014
11C	241	SE	300990 514400	Address: MOOR ROW CSO, CLEATON MOOR, CUMBRIA Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: 01COP0004 Permit Version: 1	Receiving Water: Status: REVOKED - UNSPECIFIED Issue date: - Effective Date: 01-Apr-1991 Revocation Date: 31/12/1994
12	386	N	300339 515046	Address: MONTREAL FARM, MOOR ROW, WHITEHAVEN, CUMBRIA, CA24 3LE Effluent Type: SEWAGE DISCHARGES - FINAL/TREATED EFFLUENT - NOT WATER COMPANY Permit Number: EPRAB3093VZ Permit Version: 1	Receiving Water: Status: NEW ISSUED UNDER EPR 2010 Issue date: 07/01/2014 Effective Date: 07-Jan-2014 Revocation Date: -

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

0

Database searched and no data found.

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

0

Database searched and no data found.

2.2 Dangerous or Hazardous Sites

Records of COMAH & NIHHS sites within 500m of the study site: 0

Database searched and no data found.

2.3 Environment Agency Recorded Pollution Incidents

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

3

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

ID	Distance (m)	Direction	NGR	Details	
1	270	N	300858 514982	Incident Date: 14-Apr-2003 Incident Identification: 150930 Pollutant: Pollutant Not Identified Pollutant Description: Not Identified	Water Impact: Category 3 (Minor) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
2	292	NE	301037 514900	Incident Date: 04-Jun-2003 Incident Identification: 163042 Pollutant: Agricultural Materials and Wastes Pollutant Description: Slurry and Dilute Slurry	Water Impact: Category 3 (Minor) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
3	307	S	300650 514271	Incident Date: 25-Sep-2003 Incident Identification: 192466 Pollutant: Inert Materials and Wastes Pollutant Description: Construction and Demolition Materials and Wastes	Water Impact: Category 4 (No Impact) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)

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

0

Database searched and no data found.

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

How many records of sites determined as contaminated land under Section 78R of the Environmental Protection Act 1990 are there within 500m of the study site?	0

Database searched and no data found.

3. Landfill and Other Waste Sites Map

Site Outline

250
500
Search Buffers (m)

E.A. Active Landfill

E.A. Historic Landfill

BGS / DoE Survey Landfill

Historic and Planned Waste Sites

E.A. Licensed Waste Site

Local Authority/Historical Mapping Landfill Records

3. Landfill and Other Waste Sites

3.1 Landfill Sites

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

2

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

ID	Distance (m)	Direction	NGR	Details	
Not shown	699	NW	300100 515300	Address: Galemire Quarry, Keekle, Cleator Moor, Cumbria, CA25 5QU Landfill Reference: 57283.0 Environmental Permitting Regulations (Waste) Reference: CUM001 Landfill Type: A05 : Landfill taking Non-Biodegradeable Wastes	Operator: Cumbria County Council Status: Closure IPPC Reference: EPR Reference:
Not shown	793	SE	301500 513900	Address: County Contracting, Jacktrees Road, Cleator Moor, Cumbria, CA25 5BB Landfill Reference: 57253.0 Environmental Permitting Regulations (Waste) Reference: CUM015 Landfill Type: A05 : Landfill taking Non-Biodegradeable Wastes	Operator: Cumbria County Council Status: Closure IPPC Reference: EPR Reference:

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

7

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

ID	Distance (m)	Direction	NGR	Details	
8	80	E	301000 514400	Site Address: Crossfield Tip, Crossfield Moor, Cleator Moor, Cumberland Waste Licence: - Site Reference: - Waste Type: Commercial Environmental Permitting Regulations (Waste) Reference: -	Licence Issue: Licence Surrendered: Licence Hold Address: - Operator: Ennerdale Rural District Council First Recorded: 22-Dec-1970 Last Recorded: -

ID	Distance (m)	Direction	NGR	Details	
9	161	E	301100 514600	Site Address: Montreal Mine, Crossfields Road, Cleator Moor, Cumbria Waste Licence: Yes Site Reference: E108.58, R19, E160.77 Waste Type: Industrial, Commercial, Household Environmental Permitting Regulations (Waste) Reference: -	Licence Issue: 14-Jun-1977 Licence Surrendered: 30-Apr-1994 Licence Hold Address: The Courts, Carlisle, Cumbria Operator: - First Recorded: 31-Dec-1977 Last Recorded: -
Not shown	766	N	301000 515500	Site Address: St Begas, Whitehaven Road, Cleator Moor Waste Licence: - Site Reference: - Waste Type: Inert Environmental Permitting Regulations (Waste) Reference: -	Licence Issue: Licence Surrendered: Licence Hold Address: - Operator: Rev J V Cahalane First Recorded: - Last Recorded: 13-Apr-1979
Not shown	813	N	300800 515600	Site Address: Railway Cuttings, Whinney Hill, Cleator Moor, Cumbria Waste Licence: Yes Site Reference: 58 Waste Type: Inert Environmental Permitting Regulations (Waste) Reference: -	Licence Issue: 20-Feb-1979 Licence Surrendered: 08-Feb-1993 Licence Hold Address: 55 Washington Street, Workington, Cumbria Operator: - First Recorded: 31-Dec-1979 Last Recorded: 30-Sep-1985
Not shown	929	N	300200 515600	Site Address: Galemire Farm, Keekle, Cleator Moor, Cumbria Waste Licence: Yes Site Reference: 87 Waste Type: Inert, Industrial Environmental Permitting Regulations (Waste) Reference: -	Licence Issue: 17-May-1982 Licence Surrendered: 11-May-1995 Licence Hold Address: 14 Loop Road South, Whitehaven, Cumbria Operator: - First Recorded: 31-Dec-1948 Last Recorded: 31-Dec-1984
Not shown	1006	N	300800 515600	Site Address: Railway Cuttings, Whinney Hill, Cleator Moor, Cumbria Waste Licence: Yes Site Reference: 58 Waste Type: Inert Environmental Permitting Regulations (Waste) Reference: -	Licence Issue: 20-Feb-1979 Licence Surrendered: 08-Feb-1993 Licence Hold Address: 55 Washington Street, Workington, Cumbria Operator: - First Recorded: 31-Dec-1979 Last Recorded: 30-Sep-1985
Not shown	1261	S	300500 513100	Site Address: Old Mine Workings, Woodend Farm, Bigrigg, Egremont, Cumbria Waste Licence: Yes Site Reference: 206, E160.458 Waste Type: Inert Environmental Permitting Regulations (Waste) Reference: -	Licence Issue: 23-Oct-1992 Licence Surrendered: 07-Jun-1993 Licence Hold Address: St Ninians Road, Upperby, Upperby, Carlisle Operator: - First Recorded: 01-Mar-1993 Last Recorded: 31-May-1993

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

2

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

ID	Distance (m)	Direction	NGR	Details	
1	274	E	301100.0 514500.0	Address: Crossfield Tip, Crossfield Moor, Cleator Moor, Cum BGS Number: 2480.0	Risk: No risk to aquifer Waste Type: N/A
Not shown	954	SE	301500.0 513900.0	Address: Jacktrees Rd, Cleator Moor, Cumberland BGS Number: 2481.0	Risk: No risk to aquifer Waste Type: N/A

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

5

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

ID	Distance (m)	Direction	NGR	Site Address	Source	Data Type
19	603	E	301447 514915	Refuse Tip	1966 mapping	Polygon
Not shown	685	E	301540 514854	Refuse Tip	1961 mapping	Polygon
Not shown	821	SE	301474 514018	Refuse Tip	1995 mapping	Polygon
Not shown	831	SW	300133 513773	Refuse Tip	1961 mapping	Polygon
Not shown	1163	NE	301863 515311	Refuse Tip	1969 mapping	Polygon

3.2 Other Waste Sites

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

3

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

ID	Distance (m)	Direction	NGR	Details		
5A	110	E	301000 514727	Type of Site: Scrap Yard Site Address: N/A	Planning Application Reference: N/A Date: 1984	Further Details: N/A Data Source: Historic Mapping Data Type: Polygon
6A	164	E	300985 514727	Type of Site: Scrap Yard Site Address: N/A	Planning Application Reference: N/A Date: 1984	Further Details: N/A Data Source: Historic Mapping Data Type: Polygon
7	224	E	301055 514732	Type of Site: Scrap Yard Site Address: N/A	Planning Application Reference: N/A Date: 1984	Further Details: N/A Data Source: Historic Mapping Data Type: Polygon

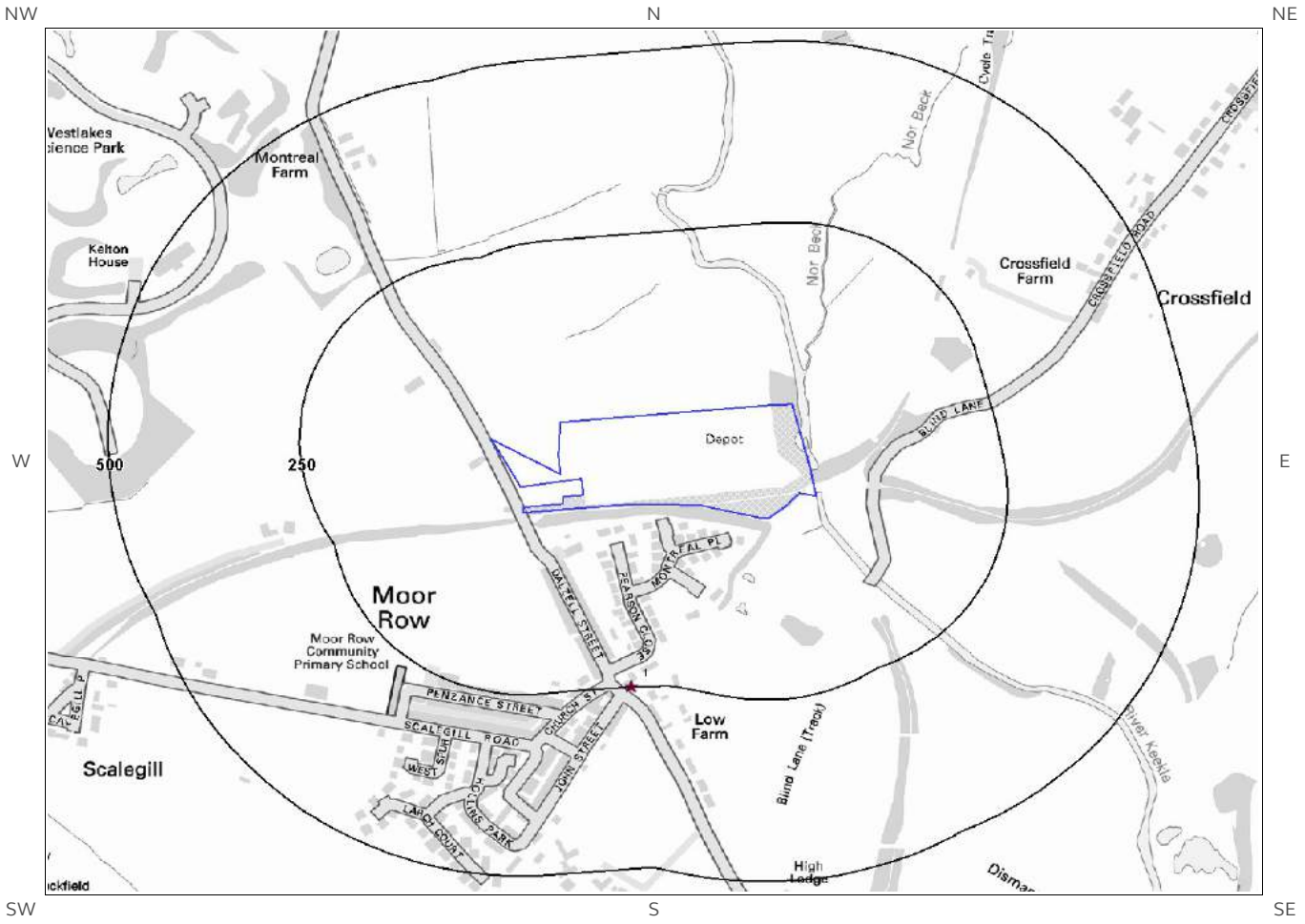
3.2.2 Records of Environment Agency licensed waste sites within 1500m of the study site:

4

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

ID	Distance (m)	Direction	NGR	Details	
Not shown	707	NW	300100 515300	Site Address: Galemire Quarry, Keekle, Cleator Moor, Cumbria, CA25 5QU Type: Inert LF Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: CUM001 EPR reference: EA/EPR/EP3893ZW/A001 Operator: Cumbria County Council Waste Management licence No: 57283 Annual Tonnage: 24999.0	Issue Date: 17/10/1994 Effective Date: - Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Closure Site Name: Galemire Quarry Correspondence Address: -, -
Not shown	707	NW	300100 515300	Site Address: Galemire Quarry, Keekle, Cleator Moor, Cumbria, CA25 5QU Type: Landfill taking Non-Biodegradeable Wastes Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: CUM001 EPR reference: EA/EPR/EP3893ZW/V004 Operator: Cumbria County Council Waste Management licence No: 57283 Annual Tonnage: 0.0	Issue Date: 17/10/1994 Effective Date: - Modified: 12/03/2015 Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Closure Site Name: Galemire Quarry Correspondence Address: -, -
Not shown	954	SE	301500 513900	Site Address: County Contracting, Jacktrees Road, Cleator Moor, Cumbria, CA25 5BB Type: Inert LF Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: CUM015 EPR reference: EA/EPR/ZP3493ZX/A001 Operator: Cumbria County Council Waste Management licence No: 57253 Annual Tonnage: 500.0	Issue Date: 28/04/1994 Effective Date: - Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Closure Site Name: Jacktrees Road Correspondence Address: -, -
Not shown	954	SE	301500 513900	Site Address: County Contracting, Jacktrees Road, Cleator Moor, Cumbria, CA25 5BB Type: Landfill taking Non-Biodegradeable Wastes Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: CUM015 EPR reference: EA/EPR/ZP3493ZX/A001 Operator: Cumbria County Council Waste Management licence No: 57253 Annual Tonnage: 500.0	Issue Date: 28/04/1994 Effective Date: - Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Closure Site Name: Jacktrees Road Correspondence Address: -, -

4. Current Land Use Map



Site Outline

Search Buffers (m)
250
500

Current Industrial Sites

Petrol & Fuel Sites

Electricity Transmission Cables

Gas Transmission Pipelines

4. Current Land Uses

4.1 Current Industrial Data

Records of potentially contaminative industrial sites within 250m of the study site: 1

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

ID	Distance (m)	Direction	Company	NGR	Address	Activity	Category
1	249	S	H Watterson	300600 514328	Dalzell Street, Moor Row, Cumbria, CA24 3JP	Vehicle Repair, Testing and Servicing	Repair and Servicing

4.2 Petrol and Fuel Sites

Records of petrol or fuel sites within 500m of the study site: 0

Database searched and no data found.

4.3 National Grid High Voltage Underground Electricity Transmission Cables

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

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

Database searched and no data found.

4.4 National Grid High Pressure Gas Transmission Pipelines

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

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

Database searched and no data found.

5. Geology

5.1 Artificial Ground and Made Ground

Database searched and no data found.

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

5.2 Superficial Ground and Drift Geology

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

Lex Code	Description	Rock Type
TILLD	TILL, DEVENSIAN	DIAMICTON
ALV	ALLUVIUM	CLAY, SILT, SAND AND GRAVEL [UNLITHIFIED DEPOSITS CODING SCHEME]

5.3 Bedrock and Solid Geology

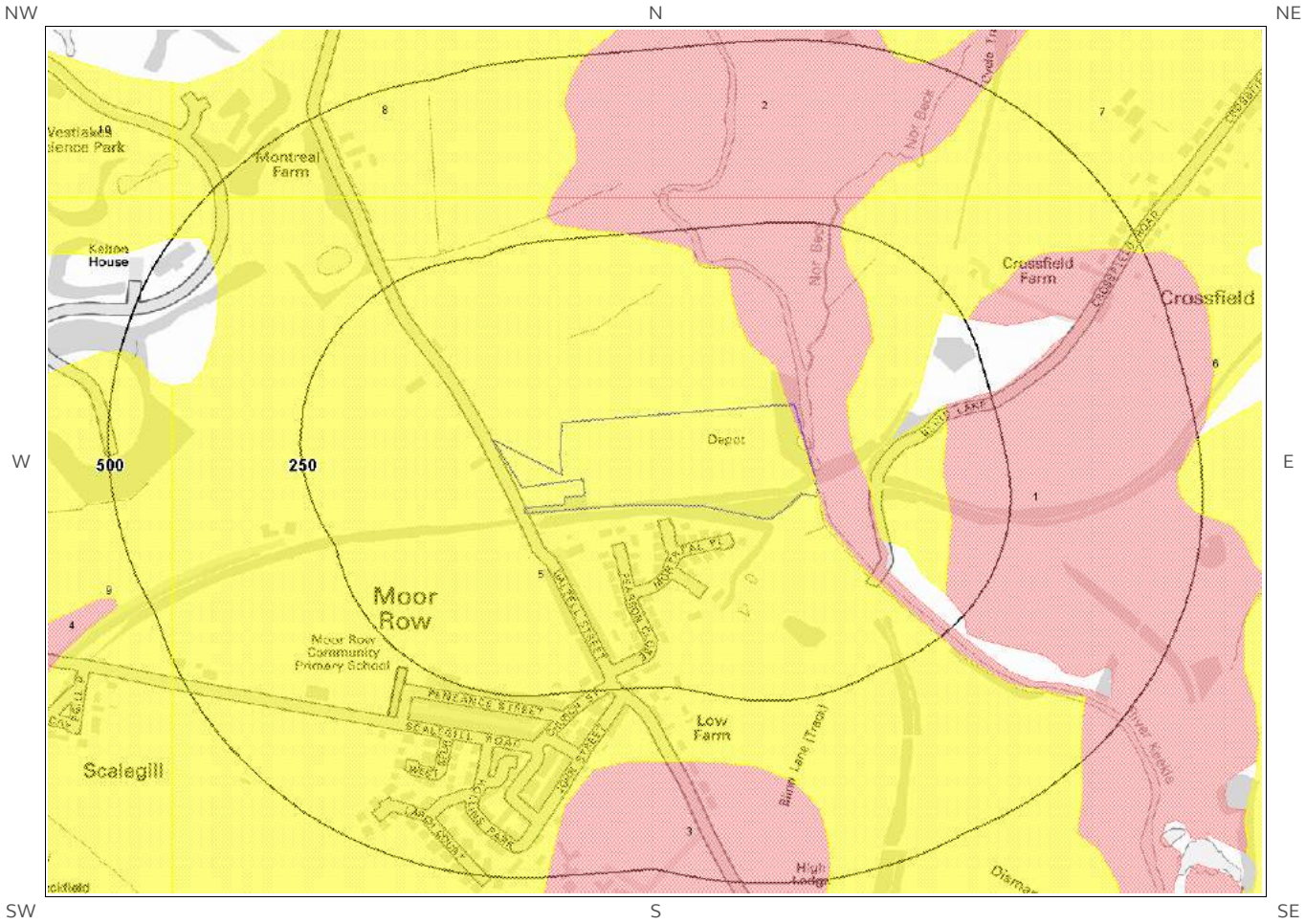
The database has been searched on site, including a 50m buffer.

Lex Code	Description	Rock Type
PLCM-MDSS	PENNINE LOWER COAL MEASURES FORMATION	MUDSTONE, SILTSTONE AND SANDSTONE
BK-BREC	BROCKRAM	BRECCIA
WS-SDST	WHITEHAVEN SANDSTONE FORMATION	SANDSTONE
WS-SDST	WHITEHAVEN SANDSTONE FORMATION	SANDSTONE

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

6 Hydrogeology and Hydrology

6a. Aquifer Within Superficial Geology



Site Outline

250
500
Search Buffers (m)

Principal Aquifer

Secondary (A) Aquifer - Permeable Layers

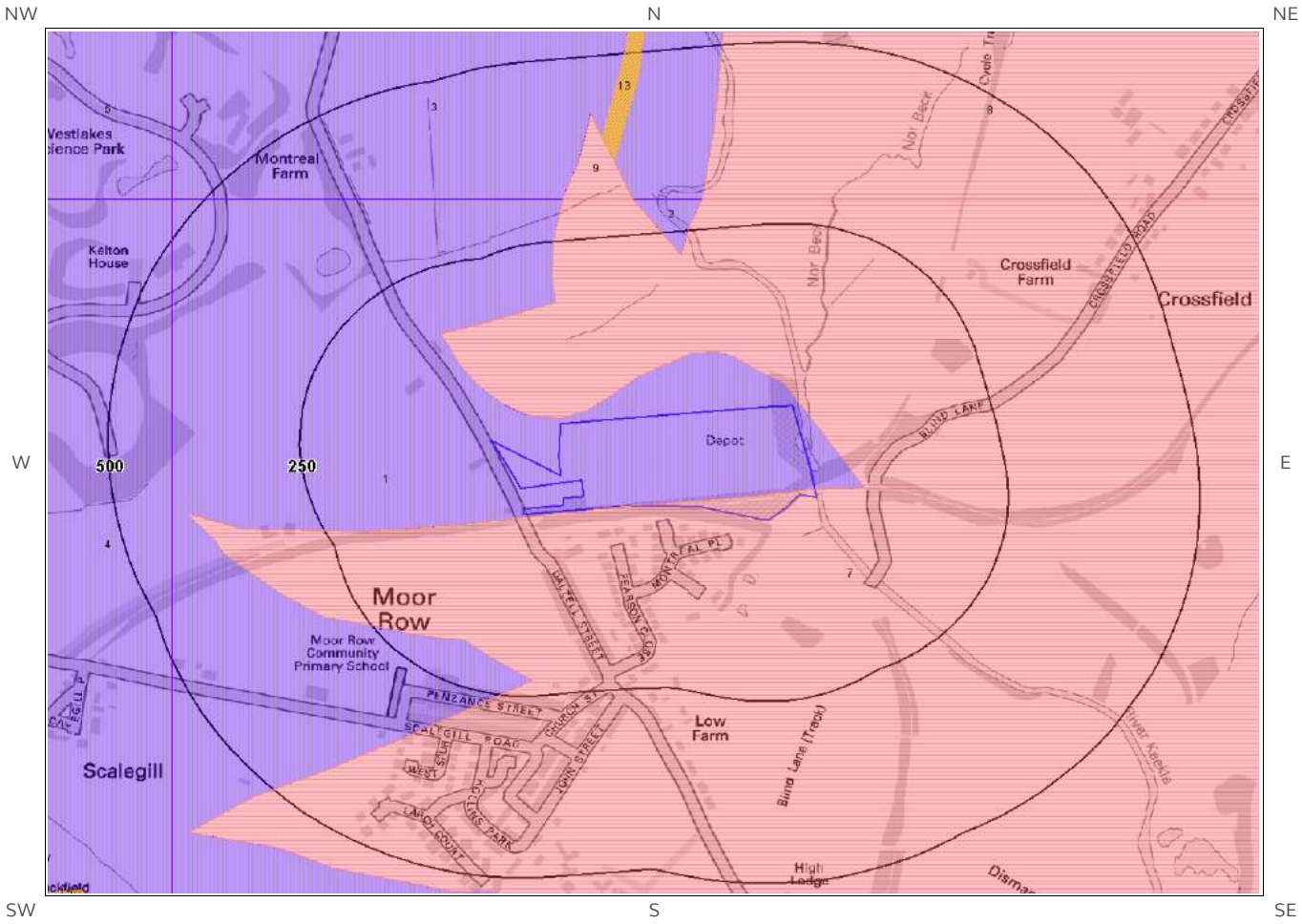
Secondary (B) Aquifer - Lower Permeability Layers

Secondary Aquifer - Undifferentiated Layers

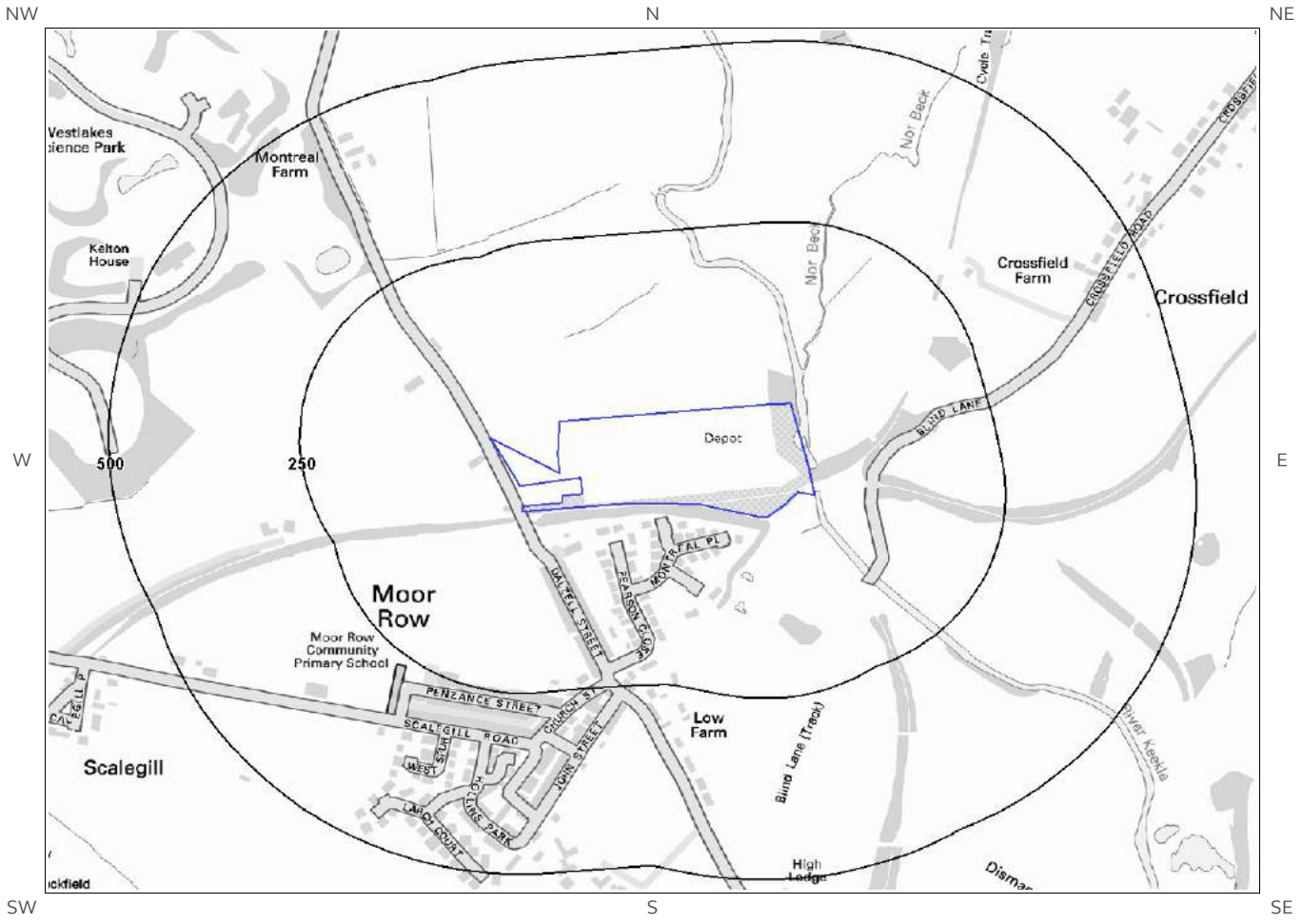
Unproductive

Unknown (lakes and landslip)

6b. Aquifer Within Bedrock Geology and Abstraction Licenses



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



Site Outline

250
500
Search Buffers (m)

Source Protection Zone 1 - Inner Catchment

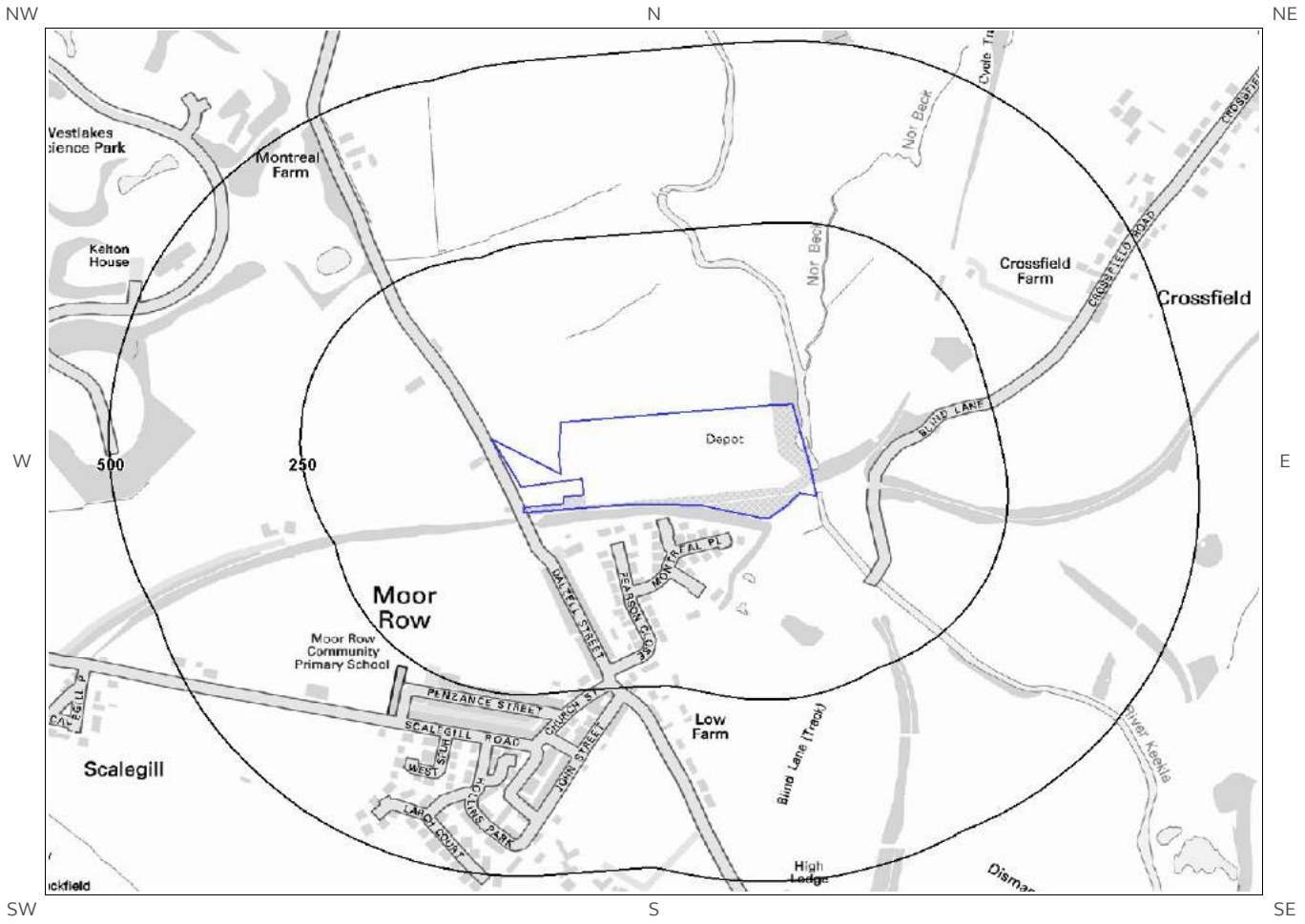
Source Protection Zone 2 - Outer Catchment

Source Protection Zone 3 - Total Catchment

Source Protection Zone 4 - Zone of Special Interest

Potable Water Abstraction Licence

6d. Hydrogeology – Source Protection Zones within confined aquifer



Site Outline

250
500
Search Buffers (m)

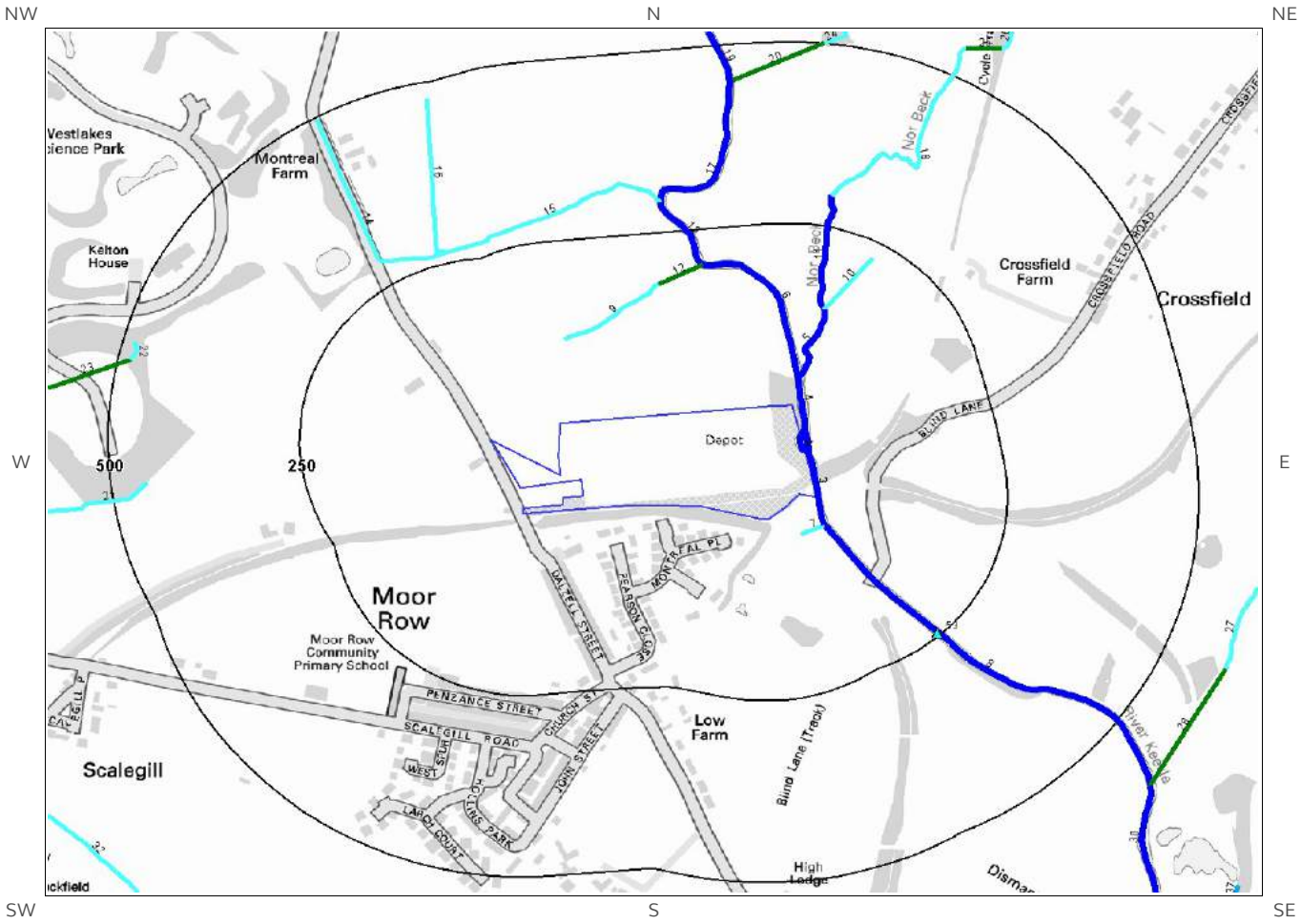
Source Protection Zone 1 - Inner Catchment

Source Protection Zone 2C - Outer Catchment within Confined Aquifer

Source Protection Zone 3C - Total Catchment within Confined Aquifer

Potable Water Abstraction Licence

6e. Hydrology – Detailed River Network and River Quality



Site Outline

250
500
Search Buffers (m)

Primary River
Secondary River
Tertiary River
Lake/Reservoir
Underground River (inferred)
General Quality Assessment: Biology
General Quality Assessment: Chemistry

Canal
Canal Tunnel
Culvert
Multiple Channel Culvert
Underground River (Potential Sewer)
Underground River (local knowledge)

6.Hydrogeology and Hydrology

6.1 Aquifer within Superficial Deposits

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

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

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

ID	Distance (m)	Direction	Designation	Description
1	0	On Site	Secondary A	Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers
5	0	On Site	Secondary (undifferentiated)	Assigned where it is not possible to attribute either category A or B to a rock type. In general these layers have previously been designated as both minor and non-aquifer in different locations due to the variable characteristics of the rock type
6	58	E	Secondary (undifferentiated)	Assigned where it is not possible to attribute either category A or B to a rock type. In general these layers have previously been designated as both minor and non-aquifer in different locations due to the variable characteristics of the rock type
2	284	N	Secondary A	Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers
7	298	N	Secondary (undifferentiated)	Assigned where it is not possible to attribute either category A or B to a rock type. In general these layers have previously been designated as both minor and non-aquifer in different locations due to the variable characteristics of the rock type
8	309	N	Secondary (undifferentiated)	Assigned where it is not possible to attribute either category A or B to a rock type. In general these layers have previously been designated as both minor and non-aquifer in different locations due to the variable characteristics of the rock type
3	339	S	Secondary A	Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers
9	417	W	Secondary (undifferentiated)	Assigned where it is not possible to attribute either category A or B to a rock type. In general these layers have previously been designated as both minor and non-aquifer in different locations due to the variable characteristics of the rock type

6.2 Aquifer within Bedrock Deposits

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

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

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

ID	Distance (m)	Direction	Designation	Description
1	0	On Site	Principal	Geology of high intergranular and/or fracture permeability, usually providing a high level of water storage and may support water supply/river base flow on a strategic scale. Generally principal aquifers were previously major aquifers
7	0	On Site	Secondary A	Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers
2	217	N	Principal	Geology of high intergranular and/or fracture permeability, usually providing a high level of water storage and may support water supply/river base flow on a strategic scale. Generally principal aquifers were previously major aquifers
8	284	N	Secondary A	Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers
3	292	N	Principal	Geology of high intergranular and/or fracture permeability, usually providing a high level of water storage and may support water supply/river base flow on a strategic scale. Generally principal aquifers were previously major aquifers
9	300	N	Secondary A	Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers
13	355	N	Secondary B	Predominantly lower permeability layers which may store/yield limited amounts of groundwater due to localised features such as fissures, thin permeablehorizons and weathering. These are generally the water-bearing parts of the former non-aquifers
4	417	W	Principal	Geology of high intergranular and/or fracture permeability, usually providing a high level of water storage and may support water supply/river base flow on a strategic scale. Generally principal aquifers were previously major aquifers

6.3 Groundwater Abstraction Licences

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

Database searched and no data found.

6.4 Surface Water Abstraction Licences

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

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

ID	Distance (m)	Direction	NGR	Details	
Not shown	649	W	299780 514790	Status: Historical Licence No: 2774002010 Details: Make-Up or Top Up Water Direct Source: "surface, Non-tidal - North West Region" Point: "spring Fed Catchpit @ Westlakes S&t Park, Moor Row" Data Type: Point Name: WESTLAKES PROPERTIES LTD	Annual Volume (m^3): - Max Daily Volume (m^3): - Application No: 9692 Original Start Date: - Expiry Date: 28/12/2015 Issue No: 1 Version Start Date: 29/12/2000 Version End Date:
Not shown	649	W	299780 514790	Status: Historical Licence No: 2774002010 Details: Make-Up or Top Up Water Direct Source: Surface, Non-tidal - North West Region Point: Spring Fed Catchpit @ Westlakes S&t Park, Moor Row Data Type: Point Name: WESTLAKES PROPERTIES LTD	Annual Volume (m^3): - Max Daily Volume (m^3): - Application No: 9692 Original Start Date: - Expiry Date: 28/12/2015 Issue No: 2 Version Start Date: 29/12/2000 Version End Date:
Not shown	954	W	299530 515020	Status: Historical Licence No: 2774002010 Details: Make-Up or Top Up Water Direct Source: "surface, Non-tidal - North West Region" Point: "spring Fed Catchpit @ Westlakes S&t Park, Moor Row" Data Type: Point Name: WESTLAKES PROPERTIES LTD	Annual Volume (m^3): - Max Daily Volume (m^3): - Application No: 9692 Original Start Date: - Expiry Date: 28/12/2015 Issue No: 1 Version Start Date: 29/12/2000 Version End Date:
Not shown	954	W	299530 515020	Status: Historical Licence No: 2774002010 Details: Make-Up or Top Up Water Direct Source: Surface, Non-tidal - North West Region Point: Spring Fed Catchpit @ Westlakes S&t Park, Moor Row Data Type: Point Name: WESTLAKES PROPERTIES LTD	Annual Volume (m^3): - Max Daily Volume (m^3): - Application No: 9692 Original Start Date: - Expiry Date: 28/12/2015 Issue No: 2 Version Start Date: 29/12/2000 Version End Date:
Not shown	1922	E	302700 514100	Status: Historical Licence No: 2774003011 Details: Fish Farm/Cress Pond Throughflow Direct Source: Surface, Non-tidal - North West Region Point: River Ehen At Beck Side Data Type: Point Name: JACQUES	Annual Volume (m^3): 416100 Max Daily Volume (m^3): 1140 Application No: 7240 Original Start Date: 14/9/1994 Expiry Date: - Issue No: 100 Version Start Date: 14/9/1994 Version End Date:

6.5 Potable Water Abstraction Licences

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

Database searched and no data found.

6.6 Source Protection Zones

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

Database searched and no data found.

6.7 Source Protection Zones within Confined Aquifer

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

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

Database searched and no data found.

6.8 Groundwater Vulnerability and Soil Leaching Potential

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

Distance (m)	Direction	Classification	Soil Vulnerability Category	Description
0	On Site	Minor Aquifer/Low Leaching Potential	L	Soils in which pollutants are unlikely to penetrate the soil layer because either water movement is largely horizontal, or they have the ability to attenuate diffuse pollutants.
0	On Site	Major Aquifer/Low Leaching Potential	L	Soils in which pollutants are unlikely to penetrate the soil layer because either water movement is largely horizontal, or they have the ability to attenuate diffuse pollutants.
53	N	Minor Aquifer/High Leaching Potential	H1	Soils which readily transmit liquid discharges because they are shallow or susceptible to rapid flow directly to rock, gravel or groundwater.
147	NE	Minor Aquifer/High Leaching Potential	HU	Soil information for urban areas and restored mineral workings. These soils are therefore assumed to be highly permeable in the absence of site-specific information.
204	E	Minor Aquifer/High Leaching Potential	H3	Coarse textured or moderately shallow soils which readily transmit non-adsorbed pollutants and liquid discharges but have some ability to attenuate adsorbed pollutants because of their clay or organic matter content.
482	W	Major Aquifer/Intermediate Leaching Potential	I1	Soils which can possibly transmit a wide range of pollutants.

6.9 River Quality

Is there any Environment Agency information on river quality within 1500m of the study site? Yes

6.9.1 Biological Quality:

Database searched and no data found.

6.9.2 Chemical Quality:

Chemical quality data is based on the General Quality Assessment Headline Indicators scheme (GQAHI). In England, each chemical sample is measured for ammonia and dissolved oxygen. In Wales, the samples are measured for biological oxygen demand (BOD), ammonia and dissolved oxygen. The results are graded from A ('Very Good') to F ('Bad').

The following Chemical Quality records are shown on the Hydrology Map (6e):

					Chemical Quality Grade				
ID	Distance (m)	Direction	NGR	River Quality Grade	2005	2006	2007	2008	2009
53	248	SE	301000 514400	River Name: Keekle Reach: Moor Row To Ehen End/Start of Stretch: Start of Stretch NGR	B	E	E	E	B

6.10 Detailed River Network

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

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

ID	Distance (m)	Direction	Details	
1A	0	On Site	River Name: River Keekle Welsh River Name: - Alternative Name: -	River Type: Primary River Main River Status: Currently Undefined
2A	2	E	River Name: River Keekle Welsh River Name: - Alternative Name: -	River Type: Primary River Main River Status: Currently Undefined
3	2	E	River Name: River Keekle Welsh River Name: - Alternative Name: -	River Type: Primary River Main River Status: Currently Undefined
4	6	E	River Name: River Keekle Welsh River Name: - Alternative Name: -	River Type: Primary River Main River Status: Currently Undefined
5	38	N	River Name: Nor Beck Welsh River Name: - Alternative Name: -	River Type: Primary River Main River Status: Currently Undefined
6	38	N	River Name: River Keekle Welsh River Name: - Alternative Name: -	River Type: Primary River Main River Status: Currently Undefined
7	40	S	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
8	40	S	River Name: River Keekle Welsh River Name: - Alternative Name: -	River Type: Primary River Main River Status: Currently Undefined
9	114	N	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
10	138	N	River Name: Drain Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined

ID	Distance (m)	Direction	Details	
11	138	N	River Name: Nor Beck Welsh River Name: - Alternative Name: -	River Type: Primary River Main River Status: Currently Undefined
12	179	N	River Name: - Welsh River Name: - Alternative Name: -	River Type: Culvert Main River Status: Currently Undefined
13	202	N	River Name: River Keekle Welsh River Name: - Alternative Name: -	River Type: Primary River Main River Status: Currently Undefined
14	264	N	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
15	265	N	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
16	265	N	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
17	291	N	River Name: River Keekle Welsh River Name: - Alternative Name: -	River Type: Primary River Main River Status: Currently Undefined
18	292	N	River Name: Nor Beck Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
19	449	N	River Name: River Keekle Welsh River Name: - Alternative Name: -	River Type: Primary River Main River Status: Currently Undefined
20	449	N	River Name: - Welsh River Name: - Alternative Name: -	River Type: Culvert Main River Status: Currently Undefined
21	453	W	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
22	478	W	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
23	483	W	River Name: - Welsh River Name: - Alternative Name: -	River Type: Culvert Main River Status: Currently Undefined
24	500	N	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined

6.11 Surface Water Features

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

The following surface water records are not represented on mapping:

Distance (m)	Direction
0	On Site
0	On Site
41	S
77	S
91	N
114	N
118	S
135	SE
139	N

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

Site Outline

100
250
Search Buffers (m)

Zone 2 Floodplain

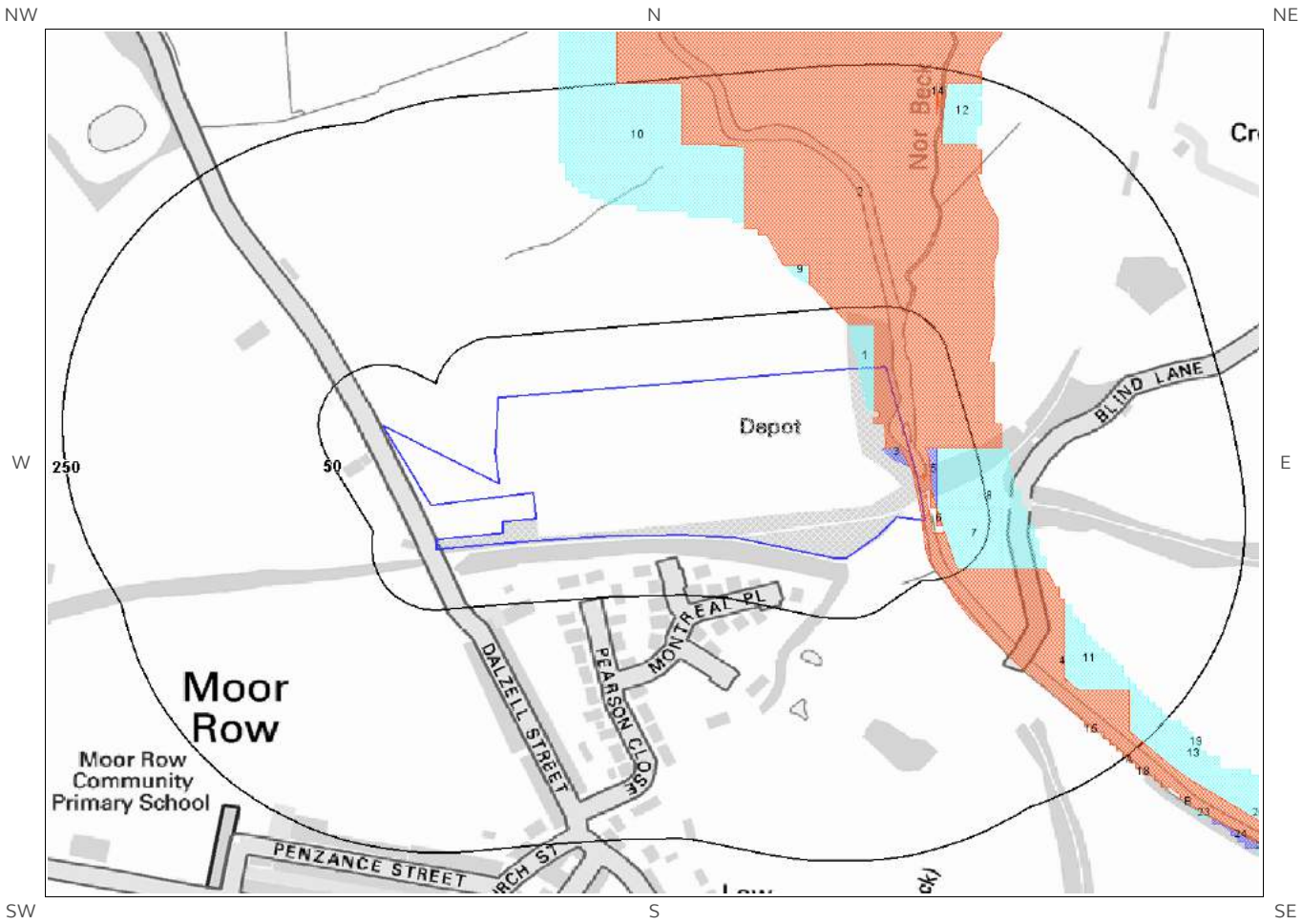
Zone 3 Floodplain

Flood Defences

Area used for Flood Storage

Area Benefiting from Flood Defences

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



Site Outline

100
250
Search Buffers (m)

RoFRaS Rating

- Very Low
- Low
- Medium
- High

7 Flooding

7.1 River and Coastal Zone 2 Flooding

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

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

ID	Distance (m)	Direction	Update	Type
1	0	On Site	08-Feb-2016	Zone 2 - (Fluvial /Tidal Models)

7.2 River and Coastal Zone 3 Flooding

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

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

ID	Distance (m)	Direction	Update	Type
1	0	On Site	23-Feb-2016	Zone 3 - (Fluvial Models)
	0	On Site	23-Feb-2016	Zone 3 - (Fluvial Models)

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

What is the highest risk of flooding onsite? High

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

RoFRaS data for the study site indicates the property is in an area with a High (1 in 30 or greater) chance of flooding in any given year.

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

ID	Distance (m)	Direction	RoFRas flood Risk

1	0.0	On Site	Low
2	0.0	On Site	High
3	0.0	On Site	Medium
4	0.0	On Site	High
5	9.0	E	Medium
6	9.0	E	High
7	11.0	E	Low
8	11.0	E	Low

7.4 Flood Defences

Are there any Flood Defences within 250m of the study site? No

Database searched and no data found.

7.5 Areas benefiting from Flood Defences

Are there any areas benefiting from Flood Defences within 250m of the study site? No

7.6 Areas benefiting from Flood Storage

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

7.7 Groundwater Flooding Susceptibility Areas

7.7.1 Are there any British Geological Survey groundwater flooding susceptibility areas within 50m of the boundary of the study site? Yes

Does this relate to Clearwater Flooding or Superficial Deposits Flooding? Superficial Deposits Flooding

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

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

Potential at Surface

Where potential for groundwater flooding to occur at surface is indicated, this means that given the geological conditions in the area groundwater flooding hazard should be considered in all land-use planning decisions. It is recommended that other relevant information e.g. records of previous incidence of groundwater flooding, rainfall, property type, and land drainage information be investigated in order to establish relative, but not absolute, risk of groundwater flooding.

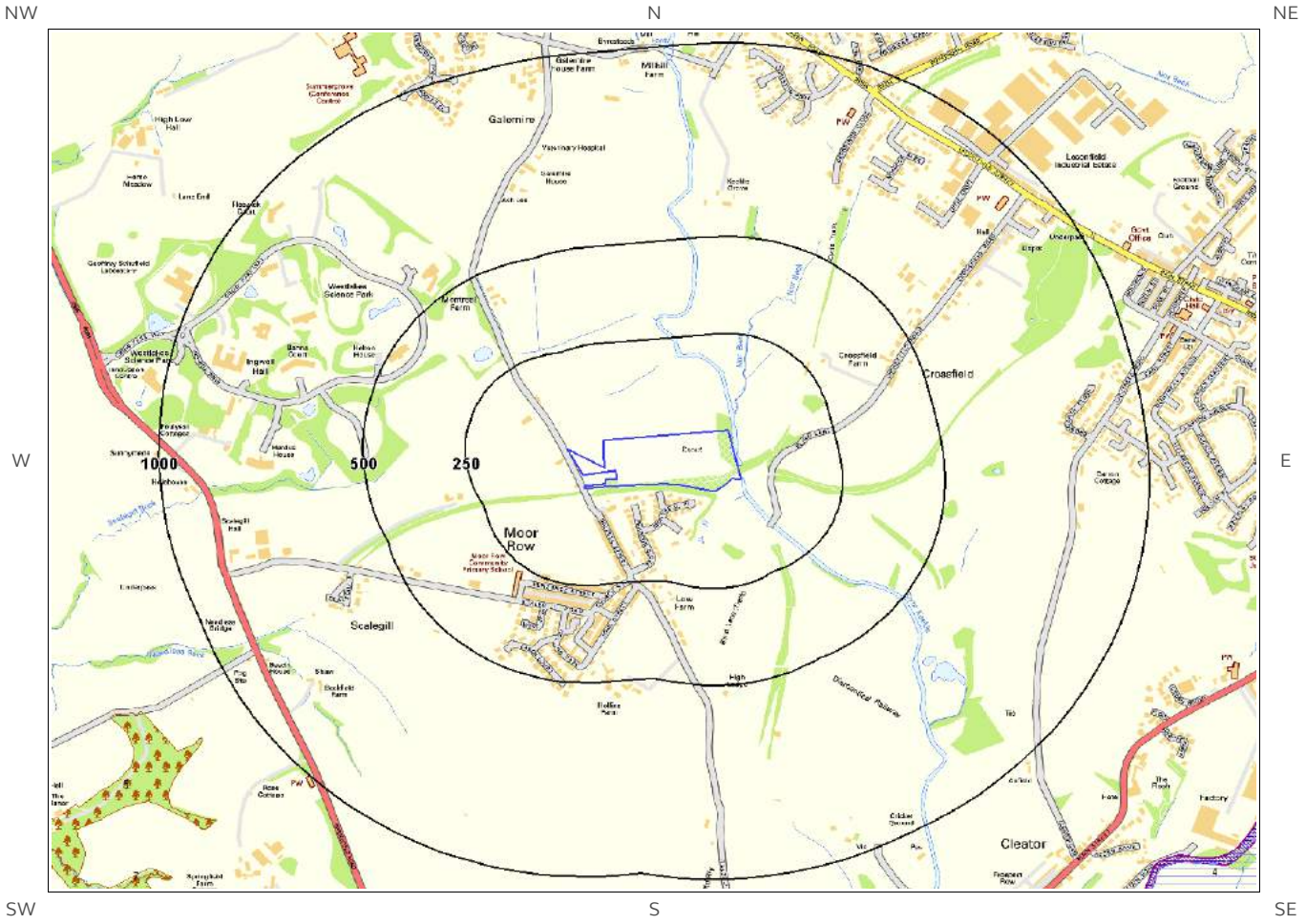
7.8 Groundwater Flooding Confidence Areas

What is the British Geological Survey confidence rating in this result?	High

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

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

8. Designated Environmentally Sensitive Sites Map



Site Outline

100
250
Search Buffers (m)

AONB
National Park
SSSI
Special Protection Areas
Nitrate Vulnerable Zones
Green Belt
Environmentally Sensitive Areas
Special Areas of Conservation
World Heritage Sites
Nitrate Sensitive Areas
Ancient Woodland
National Nature Reserve
Local Nature Reserves
Ramsar Sites

8. Designated Environmentally Sensitive Sites

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

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

2

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

ID	Distance (m)	Direction	SSSI Name	Data Source
2	1397	E	River Ehen (Ennerdale Water to Keekle Confluence)	Natural England
Not shown	1967	S	Clints Quarry	Natural England

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

0

Database searched and no data found.

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

1

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

ID	Distance (m)	Direction	SAC Name	Data Source
1	1397	E	River Ehen	Natural England

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

0

Database searched and no data found.

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

0

Database searched and no data found.

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

4

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

ID	Distance (m)	Direction	Ancient Woodland Name	Data Source
5	1136	SW	UNKNOWN	Ancient and Semi-Natural Woodland
6	1422	SW	UNKNOWN	Ancient Replanted Woodland
7	1423	SW	UNKNOWN	Ancient and Semi-Natural Woodland
Not shown	1937	SE	UNKNOWN	Ancient Replanted Woodland

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

0

Database searched and no data found.

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

0

Database searched and no data found.

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

1

The following Environmentally Sensitive Area records produced by DEFRA are represented as polygons on the Designated Environmentally Sensitive Sites Map:

ID	Distance (m)	Direction	ESA Name	Data Source
4	1422	SE	Lake District	Natural England

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

0

Database searched and no data found.

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

0

Database searched and no data found.

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

0

Database searched and no data found.

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

0

Database searched and no data found.

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

0

Database searched and no data found.

9. Natural Hazards Findings

9.1 Detailed BGS GeoSure Data

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

9.1.1 Shrink Swell

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

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

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

9.1.2 Landslides

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

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

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

9.1.3 Soluble Rocks

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

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

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

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

9.1.4 Compressible Ground

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

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

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

9.1.5 Collapsible Rocks

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

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

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

9.1.6 Running Sand

What is the maximum Running Sand*[*] hazard rating identified on the study site? Low

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

Hazard
Possibility of running sand problems after major changes in ground conditions. Normal maintenance to avoid leakage of water-bearing services or water bodies (ponds, swimming pools) should reduce likelihood of problems due to running sand. For new build Ö consider possibility of running sand into trenches or excavations if water table is high or sandy strata are exposed to water. Avoid concentrated water inputs to site. Unlikely to be an increase in construction costs due to potential for running sand. For existing property Ö no significant increase in insurance risk due to running sand problems is likely.

9.2 Radon

9.2.1 Radon Affected Areas

Is the property in a Radon Affected Area as defined by the Health Protection Agency (HPA) and if so what percentage of homes are above the Action Level? The property is in a Radon Affected Area, as between 10 and 30% of properties are above the Action Level.

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

9.2.2 Radon Protection

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

10. Mining

10.1 Coal Mining

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

The following coal mining information provided by the Coal Authority is not represented on Mapping:

Distance (m)	Direction	Details
0	On Site	The study site is located within the specified search distance of an identified mining area. Further details concerning this can be obtained from the Coal Authority Helpline on 0845 762 6848.

10.2 Non-Coal Mining

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

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

Distance (m)	Direction	Name	Commodity	Assessment of likelihood
0.0	On Site	Not available	Iron Ore (Non Vein)	Localised small scale underground mining may have occurred. Potential for difficult ground conditions are unlikely or localised and are at a level where they need not be considered
0.0	On Site	Not available	Iron Ore (Non Vein)	Underground mining is known to have occurred within or very close to the area. Potential for difficult ground conditions should be investigated. Potential for localised subsidence is at a level where it should be considered

These are areas known or suspected to contain past underground mining for minerals and/or other materials where workings are likely to be extensive. In the case of mineral veins these are areas within 200m of mapped mineral veins within which it is likely that mining activities may have occurred. It should be noted, however, that there is always the possibility of the existence of other sub-surface excavations, such as wells, cess pits, follies, air raid shelters/bunkers and other military structures etc. that could affect surface ground stability but which are outside the scope of this dataset. However, if in a coalfield area you should still consider a Coal Authority mining search for the area of interest.

10.3 Brine Affected Areas

Are there any brine affected areas within 75m of the study site? No
Guidance: No Guidance Required.

Contact Details

EmapSite
Telephone: 0118 9736883
sales@emapsite.com

British Geological Survey Enquiries
Kingsley Dunham Centre
Keyworth, Nottingham NG12 5GG
Tel: 0115 936 3143.
Fax: 0115 936 3276.
Email:
Web:**www.bgs.ac.uk**
BGS Geological Hazards Reports and general geological enquiries:
enquiries@bgs.ac.uk

Environment Agency
National Customer Contact Centre, PO Box 544
Rotherham, S60 1BY
Tel: 08708 506 506
Web:**www.environment-agency.gov.uk**
Email:**enquiries@environment-agency.gov.uk**

Public Health England
Public information access office
Public Health England, Wellington House
133-155 Waterloo Road, London, SE1 8UG
www.gov.uk/phe
Email:**enquiries@phe.gov.uk**
Main switchboard**: 020 7654 8000**

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

Ordnance Survey
Adanac Drive, Southampton
SO16 0AS
Tel: 08456 050505

Local Authority
Authority: Copeland Borough Council
Phone: 0845 054 8600
Web: http://www.copeland.gov.uk
Address: The Copeland Centre, Catherine Street, Whitehaven,

Gemapping PLC
Virginia Villas, High Street, Hartley Witney,
Hampshire RG27 8NW
Tel: 01252 845444

Standard Terms and Conditions

1 Definitions

I**n these terms and conditions unless the context otherwise requires:**

"Beneficiary" means the person or entity for whose benefit the Client has obtained the Services.

"Client" means the party or parties entering into a Contract with Groundsure.

"Commercial" means any building or property which is not Residential.

"Confidential Information" means the contents of this Contract and all information received from the Client as a result of, or in connection with, this Contract other than

(i) information which the Client can prove was rightfully in its possession prior to disclosure by Groundsure and

(ii) any information which is in the public domain (other than by virtue of a breach of this Contract).

"Support Services" means Support Services provided by Groundsure including, without limitation, interpreting third party and in-house environmental data, providing environmental support advice, undertaking environmental audits and assessments, Site investigation, Site monitoring and related items.

"Contract" means the contract between Groundsure and the Client for the provision of the Services, and which shall incorporate these terms and conditions, the Order, and the relevant User Guide.

"Third Party Data Provider" means any third party providing Third Party Content to Groundsure.

"Data Reports" means reports comprising factual data with no accompanying interpretation.

"Fees" has the meaning set out in clause 5.1.

"Groundsure" means Groundsure Limited, a company registered in England and Wales under number 03421028.

"Groundsure Materials" means all materials prepared by Groundsure and provided as part of the Services, including but not limited to Third Party Content, Data Reports, Mapping, and Risk Screening Reports.

"Intellectual Property" means any patent, copyright, design rights, trade or service mark, moral rights, data protection rights, know-how or trade mark in each case whether registered or not and including applications for the same or any other rights of a similar nature anywhere in the world.

"Mapping" means a map, map data or a combination of historical maps of various ages, time periods and scales.

"Order" means an electronic, written or other order form submitted by the Client requesting Services from Groundsure in respect of a specified Site.

"Ordnance Survey" means the Secretary of State for Business, Innovation and Skills, acting through Ordnance Survey, Adanac Drive, Southampton, SO16 0AS, UK.

"Order Website" means the online platform through which Orders may be placed by the Client and accepted by Groundsure.

"Report" means a Risk Screening Report or Data Report for Commercial or Residential property.

"Residential" means any building or property used as or intended to be used as a single dwelling.

"Risk Screening Report" means a risk screening report comprising factual data with an accompanying interpretation by Groundsure.

"Services" means any Report, Mapping and/or Support Services which Groundsure has agreed to provide by accepting an Order pursuant to clause 2.6.

"Site" means the area of land in respect of which the Client has requested Groundsure to provide the Services.

"Third Party Content" means data, database information or other information which is provided to Groundsure by a Third Party Data Provider.

"User Guide" means the user guide, as amended from time to time, available upon request from Groundsure and on the website (www.Groundsure.com) and forming part of this Contract.

2 Scope of Services, terms and conditions, requests for insurance and quotations

2.1 Groundsure agrees to provide the Services in accordance with the Contract.

2.2 Groundsure shall exercise reasonable skill and care in the provision of the Services.

2.3 Subject to clause 7.3 the Client acknowledges that it has not relied on any statement or representation made by or on behalf of Groundsure which is not set out and expressly agreed in writing in the Contract and all such statements and representations are hereby excluded to the fullest extent permitted by law.

2.4 The Client acknowledges that terms and conditions appearing on a Client's order form, printed stationery or other communication, or any terms or conditions implied by custom, practice or course of dealing shall be of no effect, and that this Contract shall prevail over all others in relation to the Order.

2.5 If the Client or Beneficiary requests insurance in conjunction with or as a result of the Services, Groundsure shall use reasonable endeavours to recommend such insurance, but makes no warranty that such insurance shall be available from insurers or that it will be offered on reasonable terms. Any insurance purchased by the Client or Beneficiary shall be subject solely to the terms of the policy issued by insurers and Groundsure will have no liability therefor. In addition you acknowledge and agree that Groundsure does not act as an agent or broker for any insurance providers. The Client should take (and ensure that the Beneficiary takes) independent advice to ensure that the insurance policy requested or offered is suitable for its requirements.

2.6 Groundsure's quotations or proposals are valid for a period of 30 days only unless an alternative period of time is explicitly stipulated by Groundsure. Groundsure reserves the right to withdraw any quotation or proposal at any time before an Order is accepted by Groundsure. Groundsure's acceptance of an Order shall be binding only when made in writing and signed by Groundsure's authorised representative or when accepted through the Order Website.

3 The Client's obligations

3.1The Client shall comply with the terms of this Contract and

(i) procure that the Beneficiary or any third party relying on the Services complies with and acts as if it is bound by the Contract and

(ii) be liable to Groundsure for the acts and omissions of the Beneficiary or any third party relying on the Services as if such acts and omissions were those of the Client.

3.2 The Client shall be solely responsible for ensuring that the Services are appropriate and suitable for its and/or the Beneficiary's needs.

3.3 The Client shall supply to Groundsure as soon as practicable and without charge all requisite information (and the Client warrants that such information is accurate, complete and appropriate), including without limitation any environmental information relating to the Site and shall give such assistance as Groundsure shall reasonably require in the provision of the Services including, without limitation, access to the Site, facilities and equipment.

3.4 Where the Client's approval or decision is required to enable Groundsure to carry out work in order to provide the Services, such approval or decision shall be given or procured in reasonable time and so as not to delay or disrupt the performance of the Services.

3.5 Save as expressly permitted by this Contract the Client shall not, and shall procure that the Beneficiary shall not, re-sell, alter, add to, or amend the Groundsure Materials, or use the Groundsure Materials in a manner for which they were not intended. The Client may make the Groundsure Materials available to a third party who is considering acquiring some or all of, or providing funding in relation to, the Site, but such third party cannot rely on the same unless expressly permitted under clause 4.

3.6 The Client is responsible for maintaining the confidentiality of its user name and password if using the Order Website and the Client acknowledges that Groundsure accepts no liability of any kind for any loss or damage suffered by the Client as a consequence of using the Order Website.

4 Reliance

4.1The Client acknowledges that the Services provided by Groundsure consist of the presentation and analysis of Third Party Content and other content and that information obtained from a Third Party Data Provider cannot be guaranteed or warranted by Groundsure to be reliable.

4.2 In respect of Data Reports, Mapping and Risk Screening Reports, the following classes of person and no other are entitled to rely on their contents;

(i) the Beneficiary,

(ii) the Beneficiary's professional advisers, (iii) any person providing funding to the Beneficiary in relation to the Site (whether directly or as part of a lending syndicate),

(iv) the first purchaser or first tenant of the Site, and

(v) the professional advisers and lenders of the first purchaser or tenant of the Site.

4.3 In respect of Support Services, only the Client, Beneficiary and parties expressly named in a Report and no other parties are entitled to rely on its contents.

4.4 Save as set out in clauses 4.2 and 4.3 and unless otherwise expressly agreed in writing, no other person or entity of any kind is entitled to rely on any Services or Report issued or provided by Groundsure. Any party considering such Reports and Services does so at their own risk.

5 Fees and Disbursements

5.1Groundsure shall charge and the Client shall pay fees at the rate and

frequency specified in the written proposal, Order Website or Order acknowledgement form, plus (in the case of Support Services) all proper disbursements incurred by Groundsure. The Client shall in addition pay all value added tax or other tax payable on such fees and disbursements in relation to the provision of the Services (together "Fees").

5.2 The Client shall pay all outstanding Fees to Groundsure in full without deduction, counterclaim or set off within 30 days of the date of Groundsure's invoice or such other period as may be agreed in writing between Groundsure and the Client ("Payment Date"). Interest on late payments will accrue on a daily basis from the Payment Date until the date of payment (whether before or after judgment) at the rate of 8% per annum.

5.3 The Client shall be deemed to have agreed the amount of any invoice unless an objection is made in writing within 28 days of the date of the invoice. As soon as reasonably practicable after being notified of an objection, without prejudice to clause 5.2 a member of Groundsure's management team will contact the Client and the parties shall then use all reasonable endeavours to resolve the dispute within 15 days.

6 Intellectual Property and Confidentiality

6.1 Subject to

(i) full payment of all relevant Fees and

(ii) compliance with this Contract, the Client is granted (and is permitted to sub-licence to the Beneficiary) a royalty-free, worldwide, non-assignable and (save to the extent set out in this Contract) non-transferable licence to make use of the Groundsure Materials.

6.2 All Intellectual Property in the Groundsure Materials are and shall remain owned by Groundsure or Groundsure's licensors (including without limitation the Third Party Data Providers) the Client acknowledges, and shall procure acknowledgement by the Beneficiary of, such ownership. Nothing in this Contract purports to transfer or assign any rights to the Client or the Beneficiary in respect of such Intellectual Property.

6.3 Third Party Data Providers may enforce any breach of clauses 6.1 and 6.2 against the Client or Beneficiary.

6.4 The Client shall, and shall procure that any recipients of the Groundsure Materials shall:

(i) not remove, suppress or modify any trade mark, copyright or other proprietary marking belonging to Groundsure or any third party from the Services;

(ii) use the information obtained as part of the Services in respect of the subject Site only, and shall not store or reuse any information obtained as part of the Services provided in respect of adjacent or nearby sites;

(iii) not create any product or report which is derived directly or indirectly from the Services (save that those acting in a professional capacity to the Beneficiary may provide advice based upon the Services);

(iv) not combine the Services with or incorporate such Services into any other information data or service;

(v) not reformat or otherwise change (whether by modification, addition or enhancement), the Services (save that those acting for the Beneficiary in a professional capacity shall not be in breach of this clause 6.4(v) where such reformatting is in the normal course of providing advice based upon the Services);

(vi) where a Report and/or Mapping contains material belonging to Ordnance Survey, acknowledge and agree that such content is protected by Crown Copyright and shall not use such content for any purpose outside of receiving the Services; and

(vii) not copy in whole or in part by any means any map prints or run-on copies containing content belonging to Ordnance Survey (other than that contained within Ordnance Survey's OS Street Map) without first being in possession of a valid Paper Map Copying Licence from Ordnance Survey,

6.5 Notwithstanding clause 6.4, the Client may make reasonable use of the Groundsure Materials in order to advise the Beneficiary in a professional capacity. However, Groundsure shall have no liability in respect of any advice, opinion or report given or provided to Beneficiaries by the Client.

6.6 The Client shall procure that any person to whom the Services are made available shall notify Groundsure of any request or requirement to disclose, publish or disseminate any information contained in the Services in accordance with the Freedom of Information Act 2000, the Environmental Information Regulations 2004 or any associated legislation or regulations in force from time to time.

7.Liability: Particular Attention Should Be Paid To This Clause

7.1 This Clause 7 sets out the entire liability of Groundsure, including any liability for the acts or omissions of its employees, agents, consultants, subcontractors and Third Party Content, in respect of:

(i) any breach of contract, including any deliberate breach of the Contract by Groundsure or its employees, agents or subcontractors;

(ii) any use made of the Reports, Services, Materials or any part of them; and

(iii) any representation, statement or tortious act or omission (including negligence) arising under or in connection with the Contract.

7.2 All warranties, conditions and other terms implied by statute or common law are, to the fullest extent permitted by law, excluded from the Contract.

7.3 Nothing in the Contract limits or excludes the liability of the Supplier for death or personal injury resulting from negligence, or for any damage or liability incurred by the Client or Beneficiary as a result of fraud or fraudulent misrepresentation.

7.4 Groundsure shall not be liable for

(i) loss of profits;

(ii) loss of business;

(iii) depletion of goodwill and/or similar losses;

(iv) loss of anticipated savings;

(v) loss of goods;

(vi) loss of contract;

(vii) loss of use;

(viii) loss or corruption of data or information;

(ix) business interruption;

(x) any kind of special, indirect, consequential or pure economic loss, costs, damages, charges or expenses;

(xi) loss or damage that arise as a result of the use of all or part of the Groundsure Materials in breach of the Contract;

(xii) loss or damage arising as a result of any error, omission or inaccuracy in any part of the Groundsure Materials where such error, omission or inaccuracy is caused by any Third Party Content or any reasonable interpretation of Third Party Content;

(xiii) loss or damage to a computer, software, modem, telephone or other property; and

(xiv) loss or damage caused by a delay or loss of use of Groundsure's internet ordering service.

7.5 Groundsure's total liability in relation to or under the Contract shall be limited to £10 million for any claim or claims.

7.6 Groundsure shall procure that the Beneficiary shall be bound by limitations and exclusions of liability in favour of Groundsure which accord with those detailed in clauses 7.4 and 7.5 (subject to clause 7.3) in respect of all claims which the Beneficiary may bring against Groundsure in relation to the Services or other matters arising pursuant to the Contract.

8 Groundsure's right to suspend or terminate

8.1 If Groundsure reasonably believes that the Client or Beneficiary has not provided the information or assistance required to enable the proper provision of the Services, Groundsure shall be entitled to suspend all further performance of the Services until such time as any such deficiency has been made good.

8.2 Groundsure shall be entitled to terminate the Contract immediately on written notice in the event that:

(i) the Client fails to pay any sum due to Groundsure within 30 days of the Payment Date; or

(ii) the Client (being an individual) has a bankruptcy order made against him or (being a company) shall enter into liquidation whether compulsory or voluntary or have an administration order made against it or if a receiver shall be appointed over the whole or any part of its property assets or undertaking or if the Client is struck off the Register of Companies or dissolved; or

(iii) the Client being a company is unable to pay its debts within the meaning of Section 123 of the Insolvency Act 1986 or being an individual appears unable to pay his debts within the meaning of Section 268 of the Insolvency Act 1986 or if the Client shall enter into a composition or arrangement with the Client's creditors or shall suffer distress or execution to be levied on his goods; or

(iv) the Client or the Beneficiary breaches any term of the Contract (including, but not limited to, the obligations in clause 4) which is incapable of remedy or if remediable, is not remedied within five days of notice of the breach.

9. Client's Right to Terminate and Suspend

9.1 Subject to clause 10.1, the Client may at any time upon written notice terminate or suspend the provision of all or any of the Services.

9.2 In any event, where the Client is a consumer (and not a business) he/she hereby expressly acknowledges and agrees that:

(i) the supply of Services under this Contract (and therefore the performance of this Contract) commences immediately upon Groundsure's acceptance of the Order; and

(ii) the Reports and/or Mapping provided under this Contract are

(a) supplied to the Client's specification(s) and in any event

(b) by their nature cannot be returned.

10 Consequences of Withdrawal, Termination or Suspension

10.1 Upon termination of the Contract:

(i) Groundsure shall take steps to bring to an end the Services in an orderly manner, vacate any Site with all reasonable speed and shall deliver to the Client and/or Beneficiary any property of the Client and/or Beneficiary in Groundsure's possession or control; and

(ii) the Client shall pay to Groundsure all and any Fees payable in respect of the performance of the Services up to the date of termination or suspension. In respect of any Support Services provided, the Client shall also pay Groundsure any additional costs incurred in relation to the termination or suspension of the Contract.

11 Anti-Bribery

11.1 The Client warrants that it shall:

(i) comply with all applicable laws, statutes and regulations relating to anti-bribery and anti-corruption including but not limited to the Bribery Act 2010;

(ii) comply with such of Groundsure's anti-bribery and anti-corruption policies as are notified to the Client from time to time; and

(iii) promptly report to Groundsure any request or demand for any undue financial or other advantage of any kind received by or on behalf of the Client in connection with the performance of this Contract.

11.2 Breach of this Clause 11 shall be deemed a material breach of this Contract.

12 General

12.1 The Mapping contained in the Services is protected by Crown copyright and must not be used for any purpose other than as part of the Services or as specifically provided in the Contract.

12.2 The Client shall be permitted to make one copy only of each Report or Mapping Order. Thereafter the Client shall be entitled to make unlimited copies of the Report or Mapping Order only in accordance with an Ordnance Survey paper map copy license available through Groundsure.

12.3 Groundsure reserves the right to amend or vary this Contract. No amendment or variation to this Contract shall be valid unless signed by an authorised representative of Groundsure.

12.4 No failure on the part of Groundsure to exercise, and no delay in exercising, any right, power or provision under this Contract shall operate as a waiver thereof.

12.5 Save as expressly provided in this Contract, no person other than the persons set out therein shall have any right under the Contract (Rights of Third Parties) Act 1999 to enforce any terms of the Contract.

12.6 The Secretary of State for Business, Innovation and Skills ("BIS") or BIS' successor body, as the case may be, acting through Ordnance Survey may enforce a breach of clause 6.4(vi) and clause 6.4(vii) of these terms and conditions against the Client in accordance with the provisions of the Contracts (Rights of Third Parties) Act 1999.

12.7 Groundsure shall not be liable to the Client if the provision of the Services is delayed or prevented by one or more of the following circumstances:

(i) the Client or Beneficiary's failure to provide facilities, access or information;

(ii) fire, storm, flood, tempest or epidemic;

(iii) Acts of God or the public enemy;

(iv) riot, civil commotion or war;

(v) strikes, labour disputes or industrial action;

(vi) acts or regulations of any governmental or other agency;

(vii) suspension or delay of services at public registries by Third Party Data Providers;

(viii) changes in law; or

(ix) any other reason beyond Groundsure's reasonable control.

In the event that Groundsure is prevented from performing the Services (or any part thereof) in accordance with this clause 12.6 for a period of not less than 30 days then Groundsure shall be entitled to terminate this Contract immediately on written notice to the Client.

12.8 Any notice provided shall be in writing and shall be deemed to be properly given if delivered by hand or sent by first class post, facsimile or by email to the address, facsimile number or email address of the relevant party as may have been notified by each party to the other for such purpose or in the absence of such notification the last known address.

12.9 Such notice shall be deemed to have been received on the day of delivery if delivered by hand, facsimile or email (save to the extent such day is not a working day where it shall be deemed to have been delivered on the next working day) and on the second working day after the day of posting if sent by first class post.

12.10 The Contract constitutes the entire agreement between the parties and shall supersede all previous arrangements between the parties relating to the subject matter hereof.

12.11 Each of the provisions of the Contract is severable and distinct from the others and if one or more provisions is or should become invalid, illegal or unenforceable, the validity and enforceability of the remaining provisions shall not in any way be tainted or impaired.

12.12 This Contract shall be governed by and construed in accordance with English law and any proceedings arising out of or connected with this Contract shall be subject to the exclusive jurisdiction of the English courts.

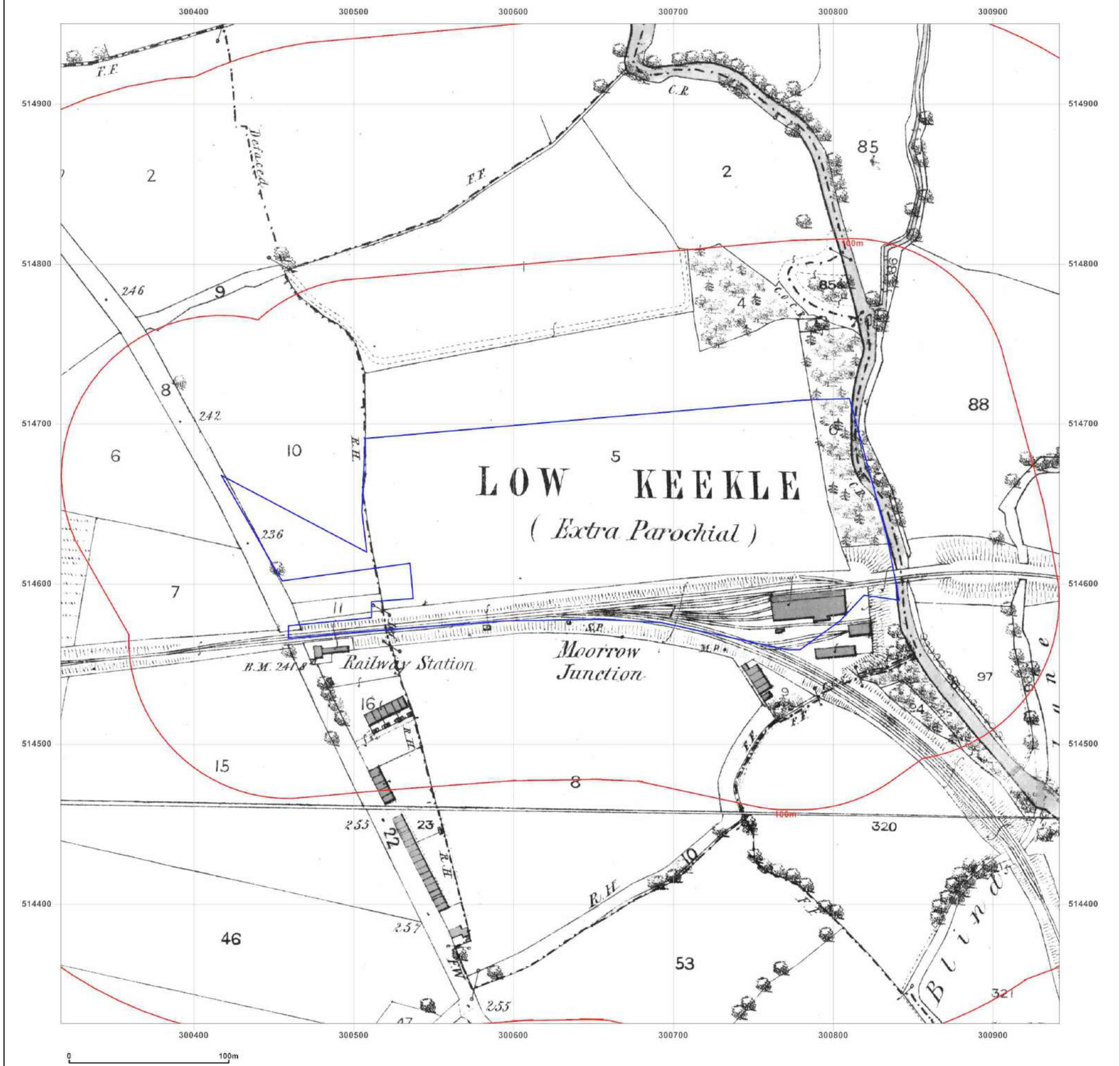
12.13 Groundsure is an executive member of the Council of Property Search Organisation (CoPSO) and has signed up to the Search Code administered by the Property Codes Compliance Board (PCCB). All Risk Screening Reports shall be supplied in accordance with the provisions of the Search Code.

12.14 If the Client or Beneficiary has a complaint about the Services, written notice should be given to the Compliance Officer at Groundsure who will respond in a timely manner. In the event you are not satisfied with Groundsure's complaints handling process or you are unable to resolve the complaint, at your discretion you may refer the complaint to The Property Ombudsman Scheme at the following URL/email: website www.tpos.co.uk or email: admin@tpos.co.uk

12.15 The Client agrees that it shall, and shall procure that each Beneficiary shall, treat in confidence all Confidential Information and shall not, and shall procure that each Beneficiary shall not (i) disclose any Confidential Information to any third party other than in accordance with the terms of this Contract; and (ii) use Confidential Information for a purpose other than the exercise of its rights and obligations under this Contract. Subject to clause 6.6, nothing shall prevent the Client or any Beneficiary from disclosing Confidential Information to the extent required by law.

Appendix III

- Ground Sure Report Historical Map Extracts (GSR – Mapinsight)



emapsite™

Site Details:

Land at ,Station Yard,Moor Row,CA

Client Ref: EMS_357047_479313
Report Ref: EMS-357047_479313
Grid Ref: 300629, 514638

Map Name: County Series

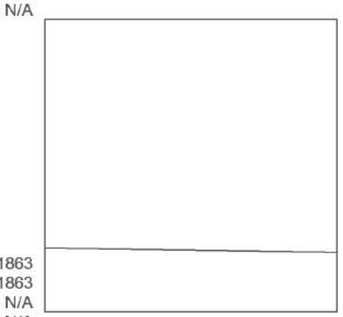
Map date: **1863**

Scale: 1:2,500

Printed at: 1:2,500

N
W E
S

Surveyed 1863
Revised 1863
Edition N/A
Copyright N/A
Levelled N/A



Surveyed 1863
Revised 1863
Edition N/A
Copyright N/A
Levelled N/A

Groundsure INSIGHTS

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Groundsure Insights
www.groundsure.com

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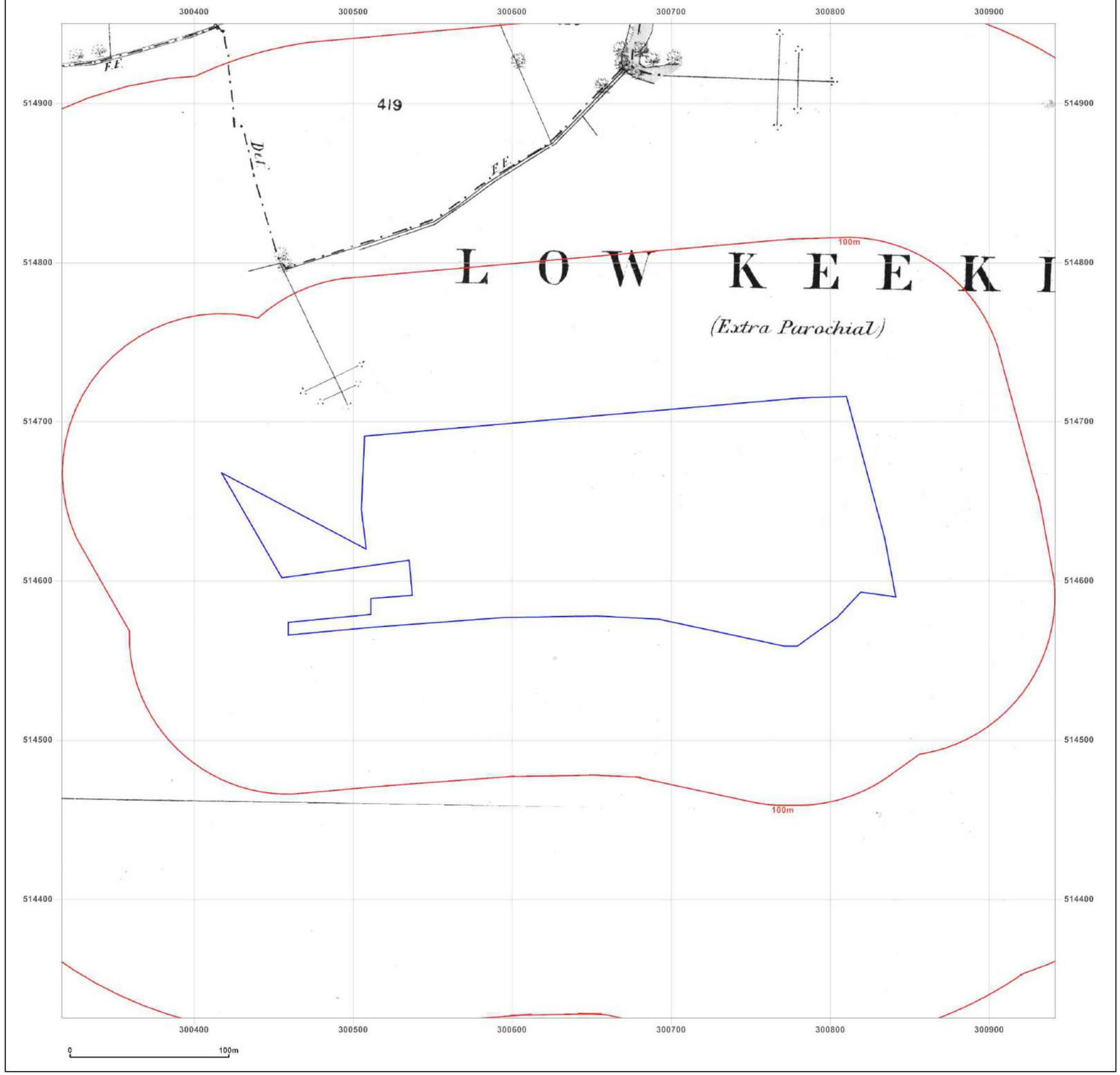
sales@emapsite.com

Production date: 14 April 2016

To view map legend click here *Legend*



emapsite™

Site Details:

Land at ,Station Yard,Moor Row,CA

Client Ref: EMS_357047_479313
Report Ref: EMS-357047_479313
Grid Ref: 300629, 514638

Map Name: County Series
Map date: **1864-1865**
Scale: 1:2,500
Printed at: 1:2,500

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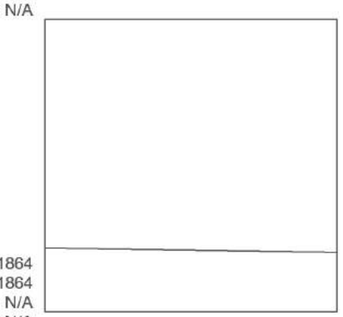
Surveyed 1865
Revised 1865
Edition N/A
Copyright N/A
Levelled N/A



Surveyed 1864
Revised 1864
Edition N/A
Copyright N/A
Levelled N/A

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Production date: 14 April 2016

To view map legend click here *Legend*

emapsite™

Site Details:

Land at ,Station Yard,Moor Row,CA

Client Ref: EMS_357047_479313
Report Ref: EMS-357047_479313
Grid Ref: 300629, 514638

Map Name: County Series
Map date: **1899**
Scale: 1:2,500
Printed at: 1:2,500

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

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

Groundsure INSIGHTS

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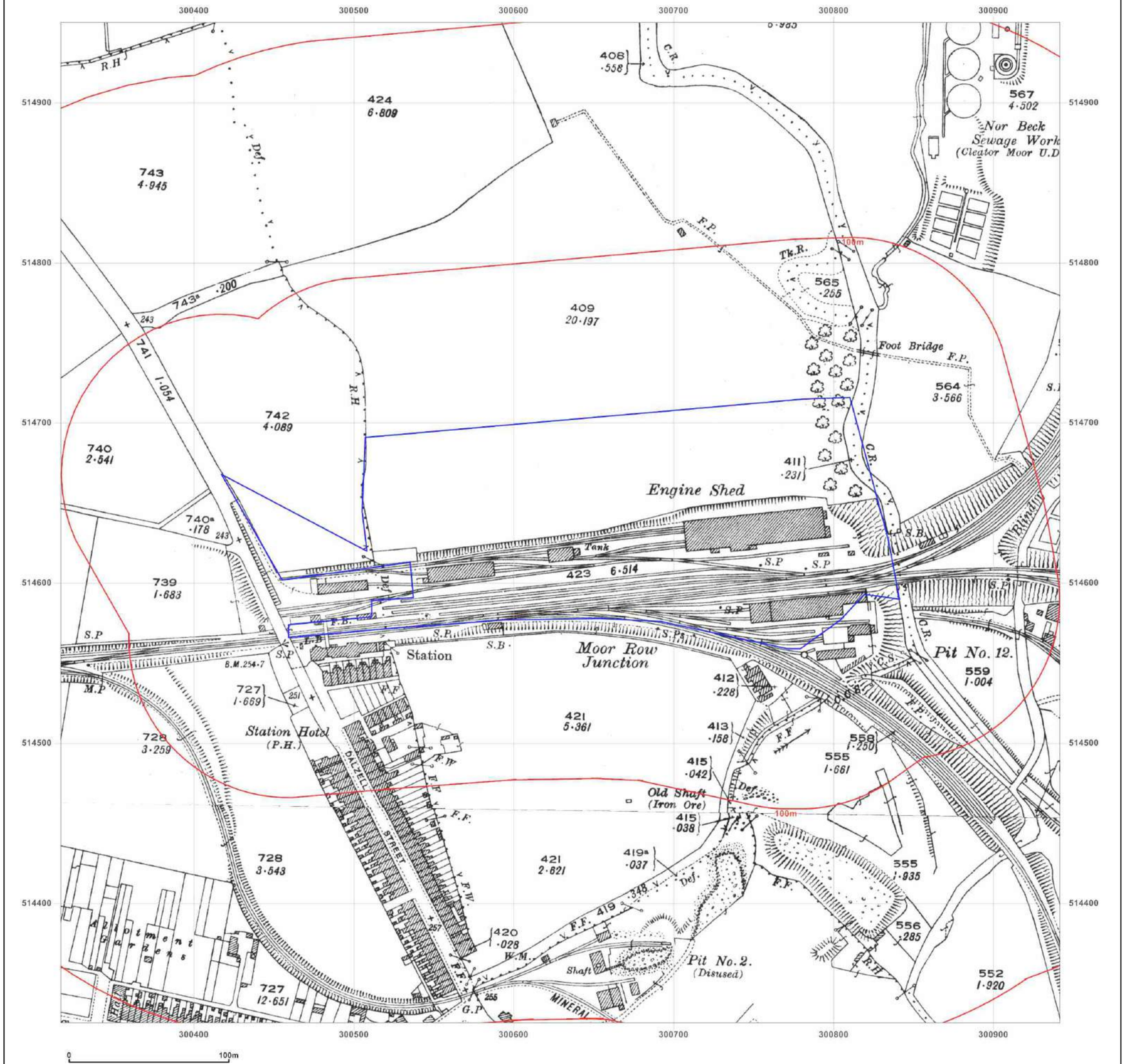
Production date: 14 April 2016

To view map legend click here *Legend*



emapsite™

Site Details:

Land at ,Station Yard,Moor Row,CA

Client Ref: EMS_357047_479313
Report Ref: EMS-357047_479313
Grid Ref: 300629, 514638

Map Name: County Series

Map date: **1925**

Scale: 1:2,500

Printed at: 1:2,500

N
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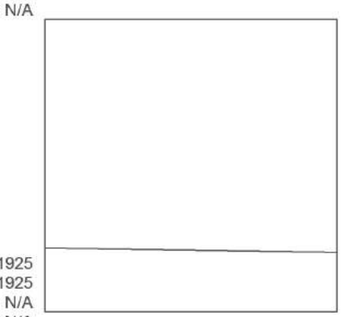
Surveyed 1925
Revised 1925
Edition N/A
Copyright N/A
Levelled N/A



Surveyed 1925
Revised 1925
Edition N/A
Copyright N/A
Levelled N/A

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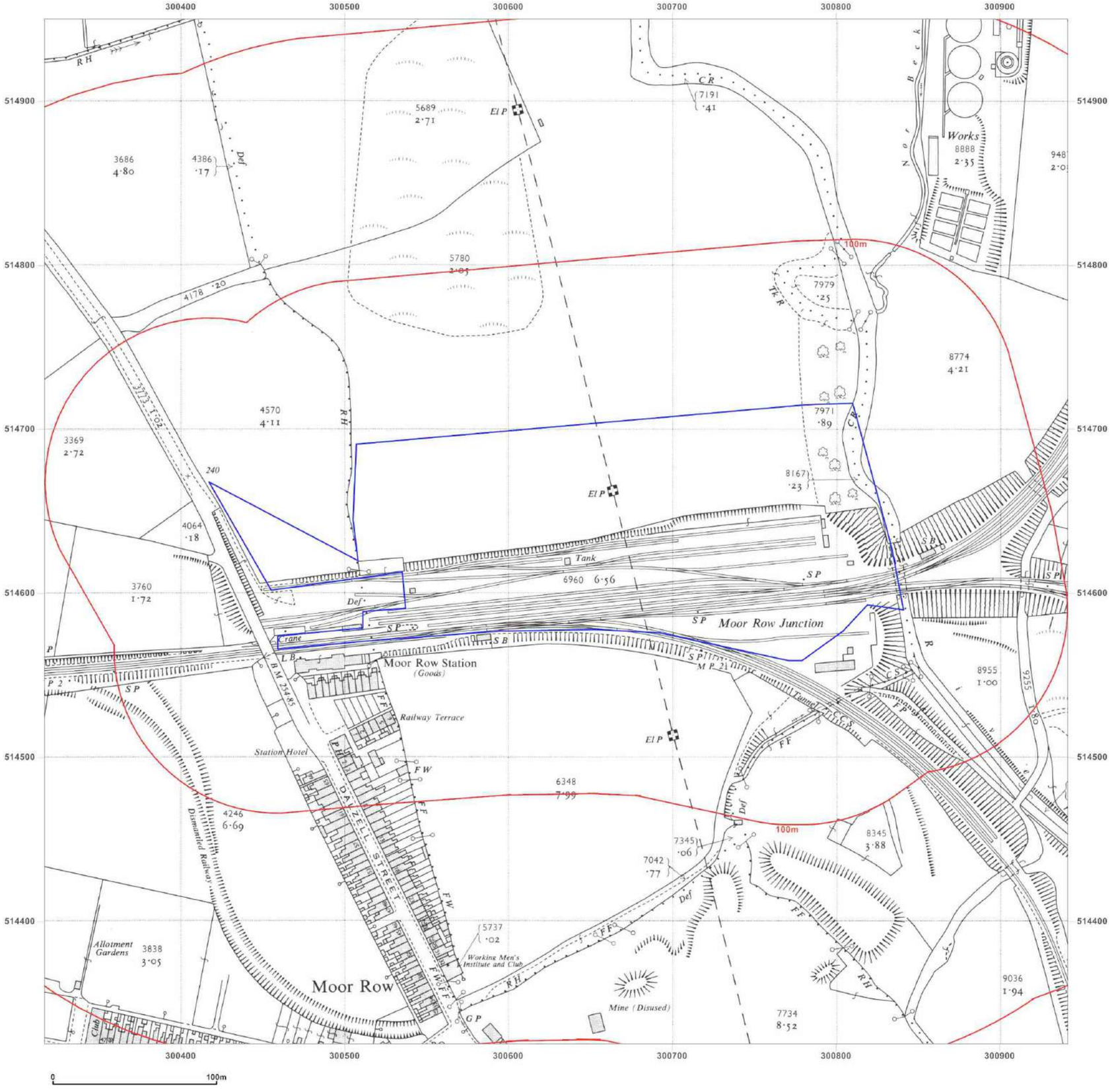
Production date: 14 April 2016

To view map legend click here *Legend*



emapsite™

Site Details:

Land at ,Station Yard,Moor Row,CA

Client Ref: EMS_357047_479313
Report Ref: EMS-357047_479313
Grid Ref: 300629, 514638

Map Name: National Grid

Map date: **1961**

Scale: 1:2,500

Printed at: 1:2,500

N
W E
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Surveyed 1961
Revised 1961
Edition N/A
Copyright 1962
Levelled 1956

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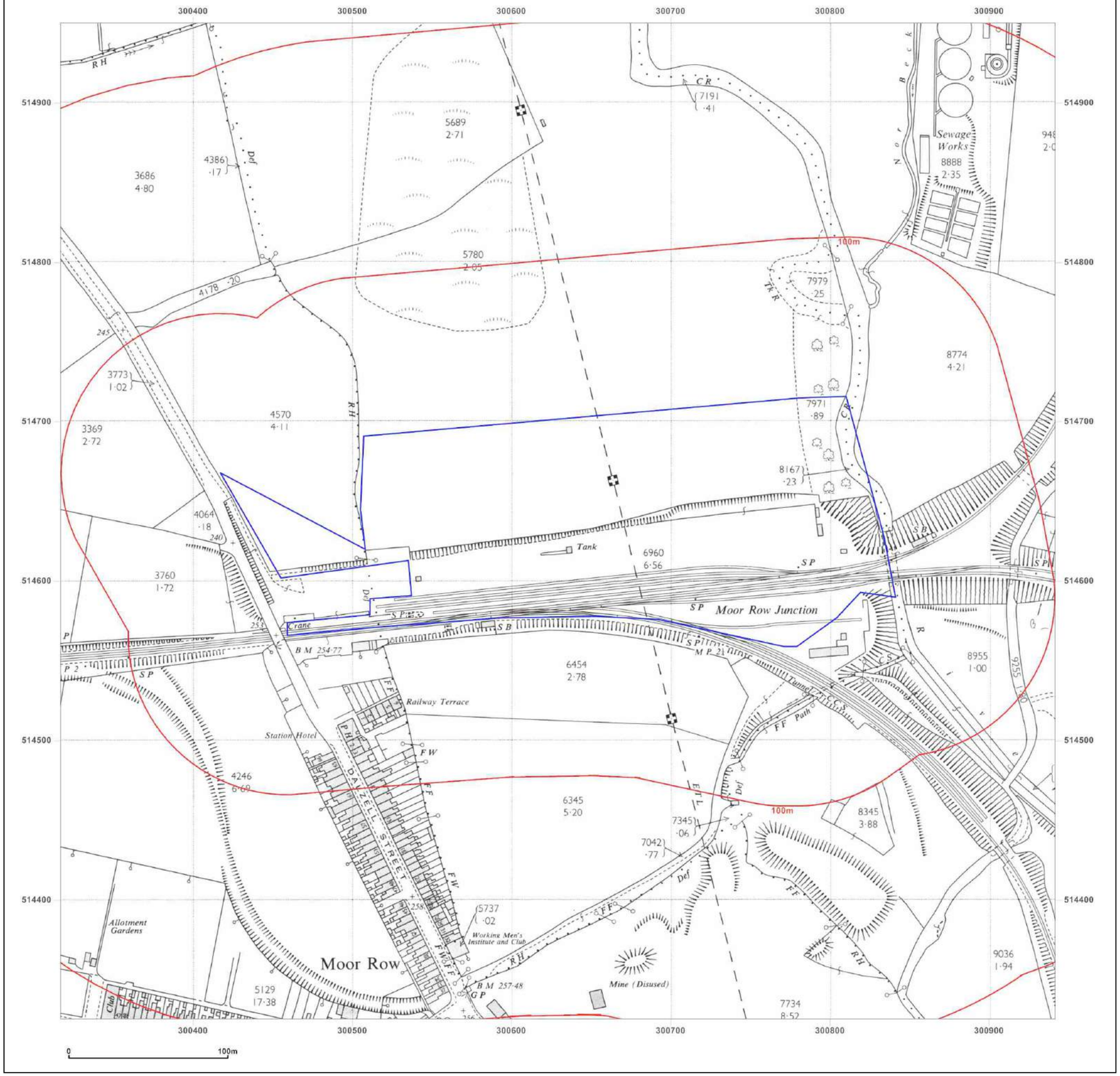

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Site Details:

Land at ,Station Yard,Moor Row,CA

Client Ref: EMS_357047_479313
Report Ref: EMS-357047_479313
Grid Ref: 300629, 514638

Map Name: National Grid

Map date: **1966**

Scale: 1:2,500

Printed at: 1:2,500

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Surveyed 1966
Revised 1966
Edition N/A
Copyright 1967
Levelled 1965

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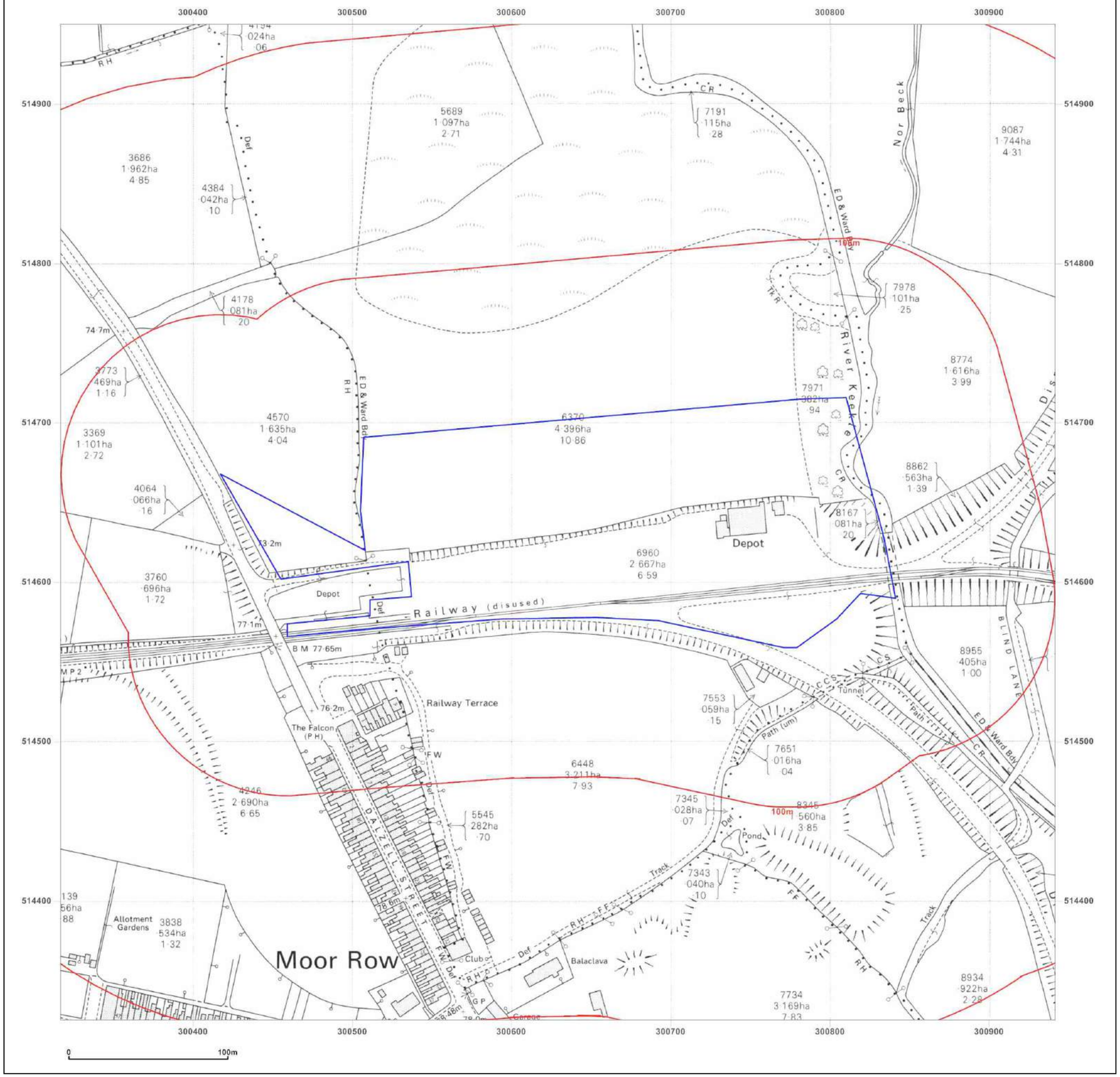

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Site Details:

Land at ,Station Yard,Moor Row,CA

Client Ref: EMS_357047_479313
Report Ref: EMS-357047_479313
Grid Ref: 300629, 514638

Map Name: National Grid

Map date: **1984**

Scale: 1:2,500

Printed at: 1:2,500

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Surveyed 1984
Revised 1984
Edition N/A
Copyright 1985
Levelled 1965

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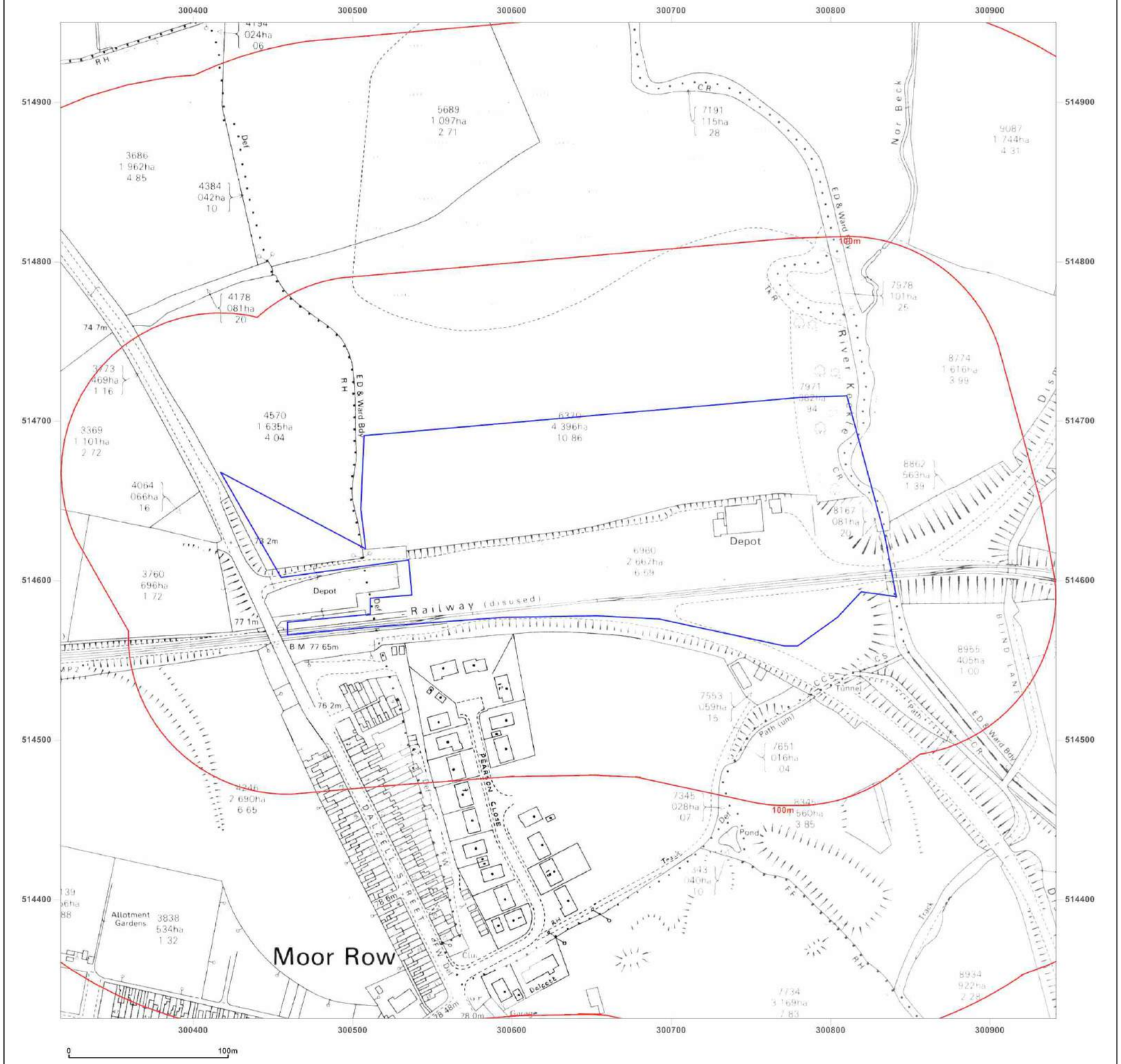

emapsite™

Site Details:

Land at ,Station Yard,Moor Row,CA

Client Ref: EMS_357047_479313
Report Ref: EMS-357047_479313
Grid Ref: 300629, 514638

Map Name: National Grid

Map date: **1989**

Scale: 1:2,500

Printed at: 1:2,500

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Surveyed 1965
Revised 1984
Edition N/A
Copyright 1989
Levelled 1965

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Production date: 14 April 2016

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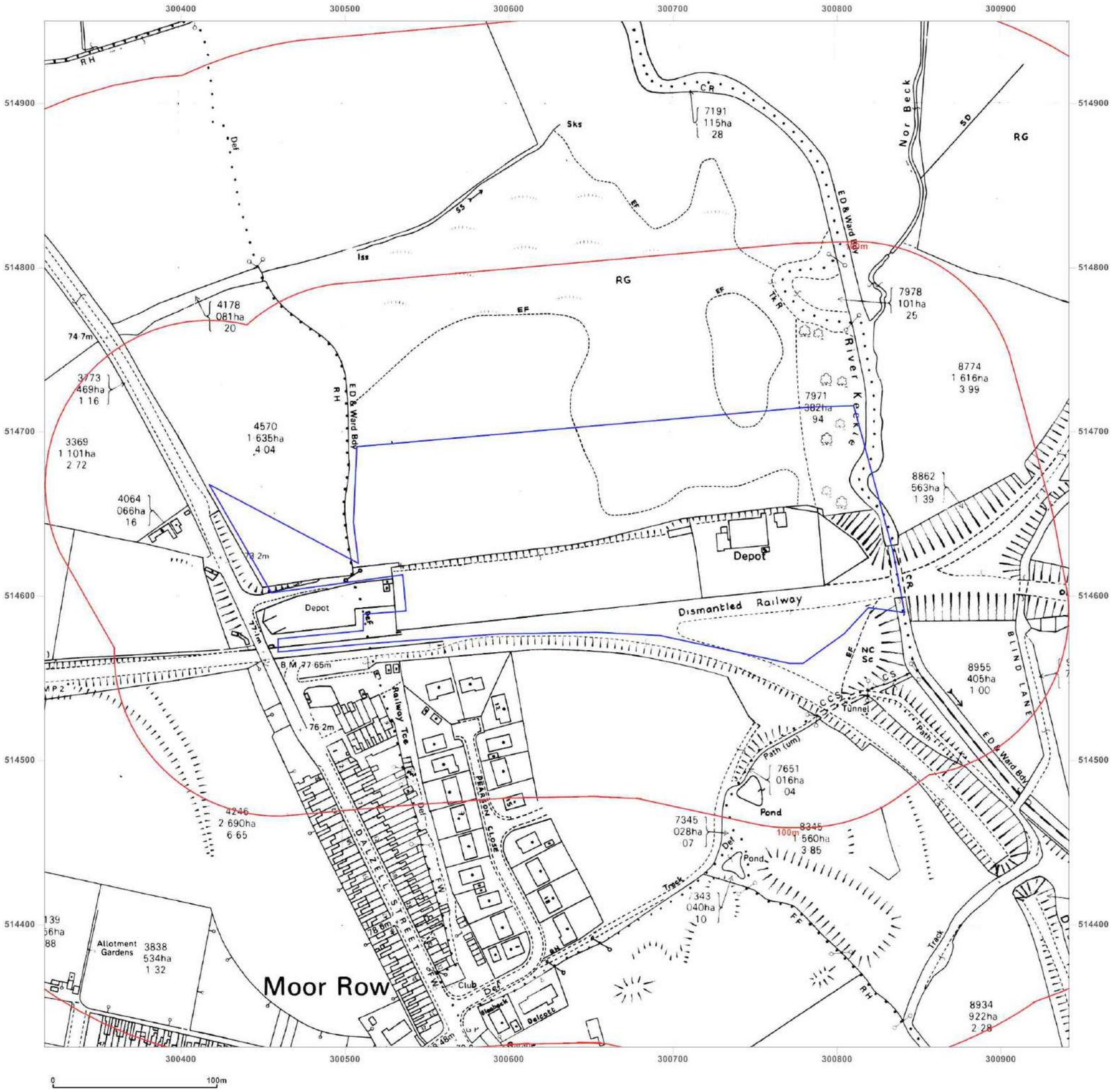

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Site Details:

Land at ,Station Yard,Moor Row,CA

Client Ref: EMS_357047_479313
Report Ref: EMS-357047_479313
Grid Ref: 300629, 514638

Map Name: National Grid

Map date: **1991**

Scale: 1:2,500

Printed at: 1:2,500

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Surveyed 1965
Revised 1991
Edition N/A
Copyright 1991
Levelled 1965

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Production date: 14 April 2016

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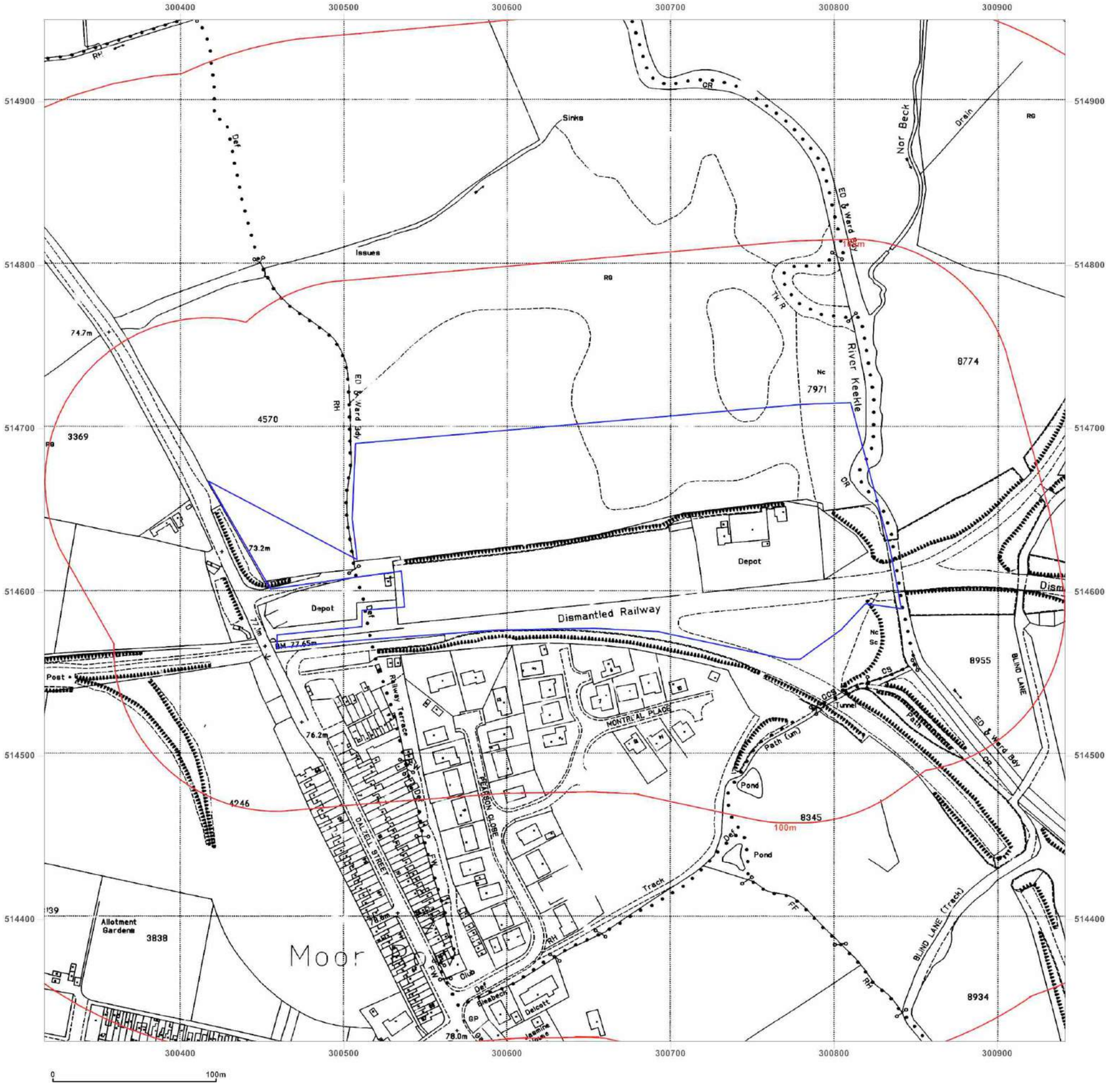

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Site Details:

Land at ,Station Yard,Moor Row,CA

Client Ref: EMS_357047_479313
Report Ref: EMS-357047_479313
Grid Ref: 300629, 514638

Map Name: National Grid

Map date: **1994**

Scale: 1:2,500

Printed at: 1:2,500

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Site Details:

Land at ,Station Yard,Moor Row,CA

Client Ref: EMS_357047_479313
Report Ref: EMS-357047_479313
Grid Ref: 300629, 514638

Map Name: National Grid

Map date: **1995**

Scale: 1:2,500

Printed at: 1:2,500

N
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Edition N/A
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Appendix IV

- The Coal Authority Coal Mining Report

The Coal Authority

Resolving the impacts of mining

CON29M Non-Residential Mining Report

M AND M SECURE
STATION YARD
MOOR ROW
MOOR ROW
CA24 3JR

Date of enquiry:	15 April 2016
Date enquiry received:	15 April 2016
Issue date:	15 April 2016
Our reference:	51001141867001
Your reference:	GEO2016-1961

CON29M Non-Residential Mining Report

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.

Client name

C Evans

Enquiry address

M AND M SECURE, STATION YARD, MOOR ROW, MOOR ROW, CA24 3JR

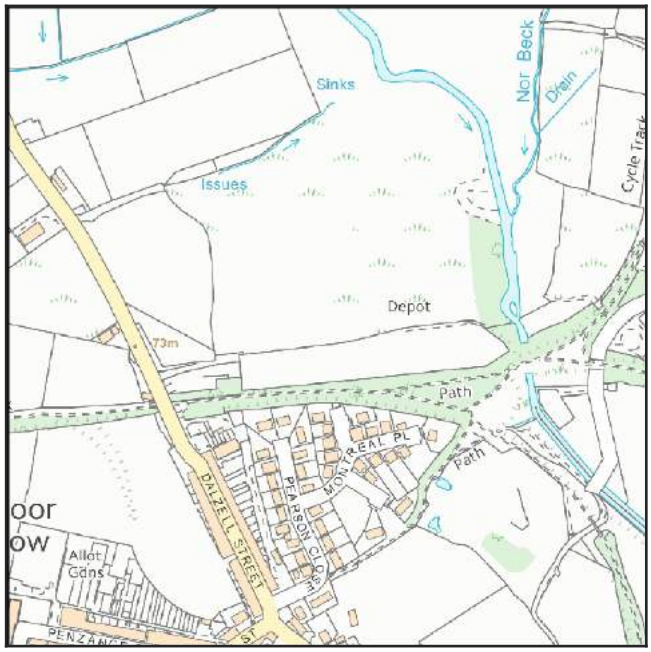
How to contact us

0345 762 6848 (UK)
+44 (0)1623 637 000 (International)

200 Lichfield Lane
Mansfield
Nottinghamshire
NG18 4RG

www.gov.uk/coalauthority

/company/the-coal-authority
/thecoalauthority
/coalauthority



Approximate position of property

Mapping sourced from Ordnance Survey®

Summary

Has the enquiry boundary identified evidence of		
1	Past underground coal mining	Yes
2	Present underground coal mining	No
3	Future underground coal mining	Yes
4	Mine entries	Yes
5	Coal mining geology	No
6	Past opencast coal mining	No
7	Present opencast coal mining	No
8	Future opencast coal mining	No
9	Coal mining subsidence	No
10	Mine gas	No
11	Hazards related to coal mining	No
12	Withdrawal of support	Yes
13	Working facilities order	No
14	Payments to owners of former copyhold land	No
15	Information from the Cheshire Brine Subsidence Compensation Board	No

For detailed findings, please go to page 4.

Detailed findings

1. Past underground coal mining

The property is in a surface area that could be affected by underground mining in 4 seams of coal at shallow to 170m depth, and last worked in 1918.

2. Present underground coal mining

The property is not within a surface area that could be affected by present underground mining.

3. Future underground coal mining

The property is not in an area where the Coal Authority has plans to grant a licence to remove coal using underground methods.

The property is not in an area where a licence has been granted to remove or otherwise work coal using underground methods.

The property is not in an area likely to be affected from any planned future underground coal mining.

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

No notices have been given, under section 46 of the Coal Mining Subsidence Act 1991, stating that the land is at risk of subsidence.

4. Mine entries

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

Records may be incomplete. Consequently, there may exist in the local area mine entries of which the Coal Authority has no knowledge.

5. Coal mining geology

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

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

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

8. Future opencast coal mining
There are no licence requests outstanding to remove coal by opencast methods within 800 metres of the boundary.

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.

9. Coal mining subsidence
The Coal Authority has not received a damage notice or claim for the subject property, or any property within 50 metres, since 31st October 1994.

There is no current Stop Notice delaying the start of remedial works or repairs to the property.

The Coal 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.

10. Mine gas
The Coal Authority has no record of a mine gas emission requiring action.

11. 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.

12. Withdrawal of support
The property is in an area where a notice to withdraw support was given in 1946.

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

13. Working facilities order
The property is not in an area where 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.

14. Payments to owners of former copyhold land

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

15. Information from the Cheshire Brine Subsidence Compensation Board

The property lies outside the Cheshire Brine Compensation District.

Comments on the Coal Authority information

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In view of the mining circumstances a prudent developer would seek appropriate technical advice before any works are undertaken.

Therefore if development proposals are being considered, technical advice relating to both the investigation of coal and former coal mines and their treatment should be obtained before beginning work on site. All proposals should apply good engineering practice developed for mining areas. No development should be undertaken that intersects, disturbs or interferes with any coal or mines of coal without the permission of the Coal Authority. Developers should be aware that the investigation of coal seams/former mines of coal may have the potential to generate and/or displace underground gases and these risks both under and adjacent to the development should be fully considered in developing any proposals. The need for effective measures to prevent gases entering into public properties either during investigation or after development also needs to be assessed and properly addressed. This is necessary due to the public safety implications of any development in these circumstances.

Additional remarks

Information provided by the Coal Authority in this report is compiled in response to the Law Society's Con29M Coal Mining and Brine Subsidence Claim enquiries. The said enquiries are protected by copyright owned by the Law Society of 113 Chancery Lane, London WC2A 1PL. Please note that Brine Subsidence Claim enquiries are only relevant for England and Wales. 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 applicable at the time the report was produced.

Disclaimer

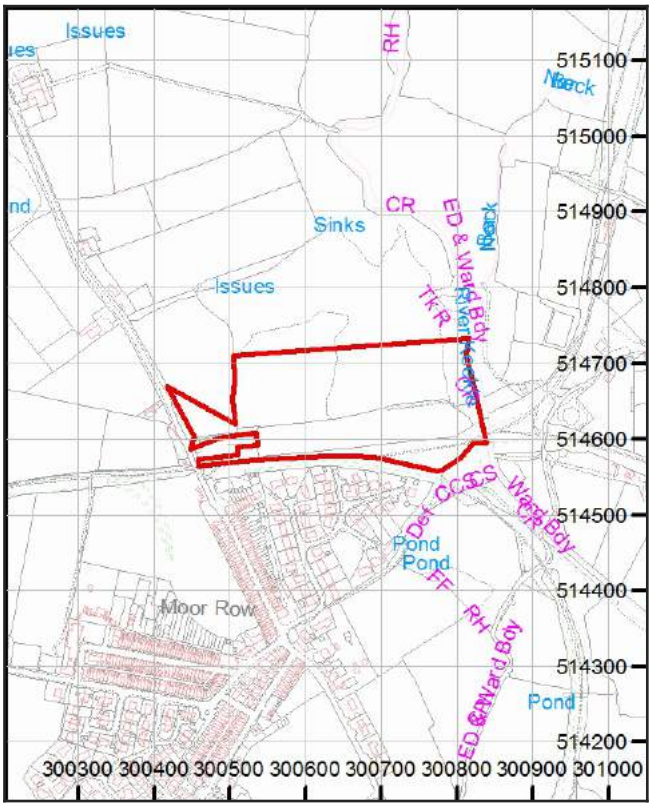
Alternative formats

If you would like this report in an alternative format, please contact our communications team.

Enquiry boundary

Key

Approximate position of enquiry boundary shown



Mapping sourced from Ordnance Survey

How to contact us

0345 762 6848 (UK)
+44 (0)1623 637 000 (International)

200 Lichfield Lane
Mansfield
Nottinghamshire
NG18 4RG

www.gov.uk/coalauthority

/company/the-coal-authority
/thecoalauthority
/coalauthority

VAT receipt	
Issued by:	The Coal Authority 200 Lichfield Lane Mansfield Nottinghamshire NG18 4RG
Tax point date:	15 April 2016
Issued to:	C EVANS 4 CULGARTH AVENUE COCKERMOUTH CA13 9PL
Property search for:	M AND M SECURE STATION YARD MOOR ROW MOOR ROW CA24 3JR
Reference number:	51001141867001
Date of issue:	15 April 2016
Cost:	£77.00
VAT @ 20%:	£15.40
Total received:	£92.40
VAT registration:	598 5850 68

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