constructiveevaluation
Building & Material Test Consultants

Stage 1:
Desktop Study & Walkover Survey

at

France Lane Wood Yard, France Lane, Patching, Worthing, West Sussex BN13 3UP

for

ARUN DISTRICT COUNCIL

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The following notes should be read in conjunction with the report. Any variation to the general procedures outlined below are indicated in the text.

Foreword

The recommendations made and opinions expressed in the report are based on the conditions revealed by the site works as indicated on the site record sheets, together with an assessment of the data from the insitu and laboratory testing or in respect of the desktop reports. No responsibility can be accepted for conditions that have not been revealed by the research, for example, due to inaccuracies in the data. While the report may offer opinions, these comments are for guidance only and no liability can be accepted for their accuracy.

Routine Sampling

During the site investigation, soil, water and leachate samples have been taken in accordance with recommendations within BS.5930: 1990, & BS.10175: 2001. All samples have been marked accordingly, and stored under suitable conditions to prevent any deterioration of the specimen (e.g. volatilisation of hydrocarbons). All samples have been placed in suitably labelled sealed plastic containers and sampling equipment cleaned between sample locations to prevent possible cross contamination.

During the compilation of desktop studies a number of sources have been contacted in order to provide any relevant information regarding the site in question. The sources contacted provide their own Terms & Conditions with regard to the data provided. As such, each source, e.g. Sitescope, Council Websites, etc. must be considered only in relation to these individual Terms & Conditions. All research has been carried out in accordance with recommendations within BS.10175: 2001.

The method of construction employed to form trial pits is entered on their records. In general, it is not possible to extend machine excavated trial pits to depths significantly below the local water table, especially in predominantly granular soils. Except for manually excavated pits, and unless otherwise stated, the trial pits have not been provided with temporary side support during their construction, hence personnel have not entered them and examined the strata or any construction details so exposed.

Laboratory Testing

Unless stated otherwise within the text, all laboratory tests have been performed in accordance with the requirements detailed in British Standards 1881:1990 or other standards or specifications that may be appropriate.

Regulatory Bodies

After the compilation of desktop study and walkover survey or site investigation works all parties must communicate with regulatory bodies including the Local Authority (both Planning & Environmental Health) and the Environment Agency. It must be accepted that further requirements may develop. It is possible that aspects of desktop study may need to be altered to conform to the requirements of the regulatory bodies.

Definitions

Reference to the word "contamination" in this report does not relate to the statutory definition of contaminated land under 1990 Environmental Protection Act unless otherwise stated. The definition used in this report is: "Land that contains substances that, when present in sufficient quantities or concentrations, are likely to cause harm, directly or indirectly, to man, to the environment, or on occasion to other targets" (NATO CCMS, 1985).

Walkover Survey

It should be noted that a walkover survey is designed as a brief inspection of the site in question, however every reasonable effort has been made to access all areas of the site, areas where this has not proved possible will be referenced in the text. The site reconnaissance is undertaken with permission of the client after the document search is completed with the aim of recording any further aspects of the site not revealed by the desktop study however this does not in itself guarantee that every possible risk has been seen.

Conceptual Model/Risk Assessment/ Sampling Regime

The conceptual model, Risk assessment and sampling regime has been formulated in accordance with BS10175:2001 and CLR 8 based upon the relevant information gained from the desktop and walkover survey. While the model and assessment offer opinions and interpretations of these guidelines, the comments made are for guidance only and no liability can be accepted for their accuracy.

Restrictions

In some instances a site investigation must be separated into two stages, depending on the access to the sub soils at the time of the initial site attendance. It must also be noted that in many instances the access afforded is restricted due to continuing activity on the site. In such instances all reasonable effort were to achieve maximum sampling coverage. This does not imply a guarantee that inaccessible areas are similar.

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SUMMARY

Context and Purpose	This assessment is a Stage 1 evaluation of environmental liability associated with contamination issues at the site.
Current Site Use	The site currently comprises of a small square yard which is occupied by a single caravan and a wooden building, used for general storage and welfare facilities. There are several wooden storage sheds noted on site. The site is covered in a mixture of gravel, wooden decking and soil.
Proposed End Use	The planning application is for the northern section of the wood yard on France Lane to be utilised for the stationing of a residential mobile home, and the erection of a high gate and formation of a crossover.
Surrounding Area	The site is bound by wooden fencing and large hedges; to the southern perimeter is heras fencing which divides the existing wood yard from the site. The surrounding environs largely comprise of a mixture of agricultural land, commercial buildings and residential dwellings.
Physical Setting	The site is likely to be underlain by Made Ground owing to the historic changes in site layout and the former use of the site. This in turn is underlain by Head Deposits over the Lambeth Group. The site is positioned upon a Minor Aquifer with soils of a intermediate leachate potential. The site is not located within a Source Protection Zone (SPZ); however there are four designations within 700m of the site including a Zone IIII, III, II and I. The nearest surface water feature is some 250m to the east and is noted to be the Patching (fish) Pond. However, several nearby field drains and ditches are noted in closer proximity of the site.
Environmental Sensitivity	There is one groundwater abstraction point within 1000m of the site; this is noted 771m northeast for general usage. The site is positioned within an environmentally sensitive area owing to the sites location on the South Downs, this is categorised as an Environmentally Sensitive Area (ESA) and Area of Outstanding Natural Beauty (AONB). The site is also noted to be on a Nitrate Vulnerable Zone (NVZ).
Site History	The earliest map 1875/76 indicates the site to be undeveloped and part of a larger wood land area. The site remains undeveloped until approximately 1971/72 when the site is referred to as a timber yard. It should be noted that the timber yard comprises of an area much greater than the current subject site boundaries. The first indication of a building on site is in approximately 1974; by 1994/95 the building is no longer present. No significant changes are noted until 2009 when the site is referred to as a wood yard and on site is the large single wooden building now evident.
Surrounding History	The surrounding environs historically have remained largely undeveloped due to the sites rural location. However to the south, north and east of the site between 500m to 1000m away is where most of the development consists. The earliest map indicates several residential dwellings, a Public House (P.H.) and brick works, no significant urban expansion are noted until approximately 1971/72 in which several further residential dwellings are noted and the brick works has further expanded.
Planning History	The planning history for the site has mainly referred to the site as a timber/wood yard, which has undergone several modifications including the construction and demolition of several units for storage purposes and the housing of Arun Mowers and a woodworks/cabinet maker.
Previous Investigations	We have no knowledge of any previous Site Investigations (SI) being undertaken at this site.

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Conceptual Model	The Conceptual Site Model (CSM) has identified that the major sources, pathways and receptors of contamination in accordance with BS10175:2001 are as follows: *Source* • Total Petroleum Hydrocarbons (TPH) and Poly Aromatic Hydrocarbons (PAH) from sites historical use as a timber/wood yard. • Heavy metals from the sites historical use as a timber/wood yard. • Poly Chlorinated Biphenyl's (PCBs) from the historical use as a timber yard. • Phenols from the manufacturing/timber treatment from the wood/timber yard. • Asbestos from potential Made Ground on site. • Sulphates in the Made Ground and natural soils. *Pathway* • Services. • Impacted soils. • Inhalation, ingestion and dermal contact. • Volatilisation. • Leaching of contaminants through soils. • Transport through groundwater. *Receptor* • End users. • Site workers. • Visitors. • Property. • Minor Aquifer. • Plant Species. • Service.
Recommendations	The site is considered to have a **LOW** to **MODERATE** risk to groundwater and a **LOW** to **MODERATE** risk to human health from organic and inorganic contamination. There is potential for Asbestos Containing Materials (ACMs) on site as well as a risk of sulphates from varying thicknesses of Made Ground. We would recommend that the proposed Stage 2: Site Investigation comprise the sinking of approximately three (3no.) window sample boreholes to a nominal depth of 3.0m to 4.0meters below ground level (mbgl) or refusal. All positions will be installed to enable future gas and groundwater monitoring to be completed. At present, the Client has requested for only one (1no.) round of monitoring to be completed, it should be considered that depending upon the results returned further monitoring rounds and groundwater (if encountered) analysis may be required to characterise the underlying groundwater conditions and gas regime. Samples shall be removed in accordance with current guidance and protocol and submitted to a UKAS and MCERTs accredited laboratory for representative contaminant analyses. Testing of soils should include specific tests for heavy metals, pH, PAH and TPH and sulphate. Selected samples should also be submitted for PCB analysis, in addition samples from within the Made Ground should be submitted for asbestos screening. If during the excavation and construction phases any visual and/or olfactory signs of contamination are noted we would recommend that a suitable geo-environmental consultant be contacted. If any landscaping materials are to be imported on site they should be tested to check that they are suitable for the intended use. We would expect site workers to be made aware of any risks during site inductions. We would recommend as part of good practice that all site workers wear appropriate Personnel Protective Equipment (PPE) and have access to adequate wash mess facilities. We would strongly recommend that this report be forwarded to the relevant authorities including Arun District Council (ADC) Planning and Environmental Health Departments as well as the Environment Agency (EA) prior to commencing with any site works for their subsequent comments and acceptance.

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1.0 INTRODUCTION

Constructive Evaluation (CE) Limited was instructed by Arun District Council (ADC) (EQ6176, dated 18th November 2010) to carry out a Stage 1: Desktop Study and Walkover Survey at France Lane Wood Yard, France Lane, Patching Worthing, West Sussex BN13 3UP.

This work has been undertaken in relation to the potential change in use from commercial/industrial premises to a residential usage. The planning application is for the northern section of the wood yard on France Lane to be utilised for the stationing of residential mobile home, and the erection of an 1.8 meter (m) high gates and formation of a crossover. We understand that the proposed development will not comprise of any areas of soft landscaping/private gardens. A copy of the scheme proposal can be reviewed within Appendix A.

The purpose of the Desktop Study was to provide information on:

- The expected geology & hydrogeology.
- The development history and most recent use.
- Potential sources of contamination.
- Potential for on site migration of contamination and nearby sensitive receptors that may be at risk from any potential contamination from the site.
- To enable the development of a Conceptual Site Model (CSM) and risk assessment.

This report presents results of the assessment, including historical Ordnance Survey maps and published geological & hydrogeological maps, as well as information from various other sources including Centremapslive. Reference has also been made to information received from the Client, the Environment Agency (EA), West Sussex County Council (WSCC) and Arun District Council (ADC).

The report has been formulated in accordance with BS10175:2001 *Investigations into Potentially Contaminated Sites – Code of Practice* and CLR11 – *Model Procedures for the Management of Land Contamination*, and from Planning Policy Statement (PPS) 23 – *Planning & Pollution Control.*

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2.0 PHYSICAL SETTING

The site is situated to the west of Worthing and to the south of Patching village, along the A27 by-pass. The site is centred on a National Grid Reference (NGR) 508582, 105821, occupying an approximate area of 0.03499 Hectares (Ha). The area of the proposed development occupies a broadly square plot, which is occupied by an existing caravan and outbuilding.

2.1 Geology

The 1: 50,000 Solid and Drift Geology Map (Sheet 317/332, Chichester & Bognor Regis) indicates the site to be underlain by Head Deposits, which is in turn underlain by the Lambeth Group.

Head Deposits – Comprising of variable deposits of impure Clay, Sands and Silts, locally gravelly.

Lambeth Group – Comprising of mottled Clays, Silts and Sands.

Made Ground - Owing to the site's former use as a timber/wood yard, it is likely that a variable thickness of Made Ground may be encountered across the site. Within 250m of the site there is a record of Made Ground evident to the south, along Arundel Road.

British Geological Society (BGS) Borehole Logs – Two logs have been obtained from between 89m to 242m from the site, the first was from 1973, reference TQ0859 0592 (Patching), the records identified the Reading Formation comprising of Clay with flints and Clay, to approximately 20.42m, which is in turn underlain by the Upper Chalk comprising of hard flint and Chalk. The second log dated 2002, reference TQ0875 0563 (Patching Pond), the records identify Topsoil over sandy gravelly sandy brown Clay, considered representative of the Reading Formation, which is underlain by brown Clays and gravelly sandy Clay, both representative Reading Formation to 40m. Copies of these logs can be found within Appendix B alongside their location in relation to the site.

Geological Hazards – The site has a very low to moderate risk from shrinking and swelling clays, landslide and running sand stability.

Mining – There is a negligible risk from shallow mining hazards on site.

Natural Cavities – There are no natural cavities on the site, however there are two within 501m to 1000m; these include two swallow holes within Lambeth Group and Upper Chalk Formation 501m and 768m to the northwest.

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Historical Surface Ground Workings – According to historical mapping there have been historical workings within 250m of the site between 1857 to 1909 which are utilised as a fish pond/pond now.

Current Ground Workings – There is one active record for the removal of shale and clay, 774m to the east of the site.

2.2 Hydrogeology

The Environment Agency 1:100,000 scale Groundwater Vulnerability Map (Sheet 45, West Sussex & Surrey) indicates that the site is situated on a Minor Aquifer. The underlying geology creates variability on permeability which may not produce vast quantities of water for abstraction but is important for local supplies and river base flows. The soils are classified intermediate (I1).

Owing to the potential for identifying Made Ground across the site, there is the potential for identifying a perched water table.

Water levels have been noted within the BGS borehole records obtained which identified groundwater at approximately 24m within the borehole in 1973 and 30m within the 2002 borehole. Further information is contained within Appendix B.

Source Protection Zones (SPZs) - The site is not located within a SPZ, however it is noted to be within close proximity to four of the following SPZ designations;

Zone of Special Interest (IIII): This is usually where local conditions mean that industrial sites and other polluters could affect the groundwater source even though they are outside the normal catchment area.

This is noted approximately 650m to the northeast in the region of a Major Aquifer with soils of a low leachate potential.

Total Catchment (III): The total area needed to support the discharge from the protected groundwater source.

This is noted approximately 650m to the northeast in the region of a Major Aquifer with soils of a low leachate potential.

Outer Protection Zone (II): Either 25% of the source area or a 400 day contaminant travel time, whichever is greater.

This is noted some 700m to the northwest in the region of a Minor Aquifer with soils of a low leachate potential.

Inner Protection Zones (I): Contaminant travel time of 50 days or less to the groundwater source

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This is noted approximately 650m to the northeast in the region of a Major Aquifer with soils of a low leachate potential.

Groundwater Flood Susceptibility Areas – The site is located within 50m of a risk from groundwater flooding. The risk from groundwater flooding based on the underlying geological conditions is considered high. This was particularly evident during the Walkover Survey which identified several waterlogged fields and drainage ditches.

Groundwater Abstractions – There are no abstraction points within 500m of the site, the nearest point is some 771m to the northeast for general use.

Discharge Consents – There are no discharge consents within 1000m of the site.

2.3 Hydrology

The nearest surface water feature is 250m to the east comprising of Patching Pond. However, several ditches are noted to the immediate east of the site and to the west.

Flood Risk – The site is not located within an area at prone from flooding, however approximately 300m to the south, is a Zone II and Zone III.

Zone II: Is an area that is estimated to have an annual probability of flooding as one in one thousand (0.1%) or greater from river and the sea but less than 1% from rivers or 0.5% from the sea. Alternatively, where information is available they may show the highest known flood level.

Zone III: Is an area that is estimated to have an annual probability of flooding as one in one hundred (1%) or greater from rivers and a one in two hundred (0.5%) or greater from the sea. Alternatively, where information is available they may show the highest known flood level.

Surface Water Abstractions – There are no abstractions within 1000m of the site.

Discharge Consents – There is one consent noted 150m to the north for final/treated sewage to a freshwater river.

Pollution Incidents to Controlled Waters – There are no recorded incidents within 1000m of the site.

2.4 Topography

The site is noted to be on an approximate topography of 29 meters Above Ordnance Datum (mAOD). The site is noted to be on generally level ground however a slight slope is noted from north to south, toward the existing wood yard.

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3.0 SITE CONDITIONS

3.1 Site Description

A Site Walkover Survey has been completed on the 4th February 2010 by an Environmental Scientist from CE. The weather conditions on the day were 8/8 cloud cover with occasional light showers.

Prior to undertaking the Walkover Survey discussions were held with the site owner, as a result of these and liaisons with our Client it was decided that the Walkover Survey would not comprise of any photographs on site, at the request of the site owner. Therefore we have only taken photographs of the surrounding environs. In addition, we have provided a plan which marks out any prominent features on the site and the surroundings.

Although we are satisfied that the Walkover Survey discussed below has identified any potential Sources, Pathways and Receptors, in relation to contamination issues on site, it is always beneficial to have visual evidence of the site conditions noted, particularly for those who have not visited the site.

On Site

The site is currently utilised as a residential premises comprising of a mobile caravan to the sites eastern boundary and a wooden clad single storey building to the northern elevation, which is occupied by welfare facilities including a toilet, bathroom and lounge. The unit is also used for storage purposes by the site owner, comprising of several fridges, wood, plastic and furniture etc.

The site is accessed via France Lane to the west which runs north to south, via some double wooden gates. We understand from the site owners that the site has been divided from the original wood yard to the south for approximately four (4no.) years. Anecdotal evidence from the site owners suggests prior to this the site was used as part of the wood yard and contained the existing wooden clad building for the storage of materials associated with the wood yard (understood not have consisted of chemicals).

The site is largely covered in loose gravel at present with some area of just soil.

In addition, we understand that part of the site was also used for the storage of an old car; there was no evidence of any vehicular spillages associated with this.

Also noted on site were two small wooden sheds which were evident to the eastern and central portion of the site. Access to these two facilities were not available at the time of completing the Walkover Survey, therefore we cannot comment upon their contents.

To the eastern perimeter of the site is a small area of wooden decking. In the close vicinity of this was a small quantity of logs, which we assume are used for the wood burner contained within the outbuilding. A BBQ was also noted, where a lot of ash debris was evident.

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Along the southern perimeter were several gas cylinders, presumably used for the caravans heating. Also noted along this perimeter was a small former metal container which has been utilised for the burning of waste products. Around the container was a lot of ash debris. From discussions with our Client we understand that there have been several complaints in relation to the burning of materials on site.

Along the western boundary a new potable water supply pipe is noted, at present, to run along the surface of the ground, we understand that this will be later placed underground. The pipework seemed to be made from suitable polymeric material, although this should be confirmed. Other services including a drain is noted along the western boundary approximately 3.0mbgl.

The site owner also mentioned that until a week or so ago a further mobile caravan was noted to the western boundary, evidence of disturbed ground was evident in this vicinity. It is understood the new caravan will also be positioned in the same location.

The site is bound by a mixture of wooden fencing large hedges and heras fencing. The heras fencing is noted along the southern perimeter dividing the site from the existing wood yard.

Surrounding Area

The surrounding area largely comprises of a mixture of agricultural fields, commercial and residential premises.

Agricultural fields are noted to the eastern and western boundary of the site, the fields to the west are noted to be severely waterlogged in places. In addition, a ditch was noted in this vicinity which was flowing in a north to south direction. Along the western flank of the site is a small ditch which was slowly running either side of France Lane.

To the immediate south of the site is the wood yard which was noted to contain several vehicles, a joiners and general wood and saw dust debris. Beyond the wood yard is a small area of woodland which was noted to have a lot of glass and bottle debris within it. It was difficult to obtain any further information due to the very high fencing and gate surrounding this land use.

To the east is a large presumed commercial unit, which seems relatively new in its construction, around this facility is a large area of concrete debris and building materials. It is now known what this unit is used for.

To the immediate north is s small parcel of land utilised for fly tipping including wood plastic, metal containers and the burning of waste materials, the site owners do not own this land. Further to north of this land is a small concreted parking area. To the east, south east are several residential properties.

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A photograph identification plan and site photos from the Walkover Survey can be reviewed within Appendix C, however the photographs are only those obtained from the surrounding environs, with the site plan providing an indication to the actual site layout.

3.2 Potential Sources of Contamination - Walkover Survey

The following potential sources of contamination have been identified by the site Walkover Survey:

On Site

- Ash and debris from burning of materials.
- Old metal container (former contents unknown, now used for general debris).
- Made Ground identified in the vicinity of the former caravan.

Off Site

- The land to the north indicated fly tipping of waste materials and general burning.
- Unknown metal containers (former contents unknown, now used for general debris).
- Wood yard to south.

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3.3 Site History

The following observations are made based on the available historic map extracts presented in Appendix D.

Date	*Scale*	*On Site*	*Surrounding Area*	*Potential Risks*
1875-1876	1:10,560	The site is occupied by an area of woodland, which is noted to extend further to the north and south of the site boundaries.	The surrounding environs are largely undeveloped, comprising of presumed agricultural land. To the north approximately 100m away is a small development, comprising of approximately five (5no.) presumed residential dwellings with formal gardens. To the northwest approximately 100m away are several buildings which seem to form a potential farm, or such like. Approximately 150m to the south are several further presumed residential dwellings including Selden Lodge; in addition to this is the Horse & Groom Public House (P.H.). To the immediate west of the site is an unknown road which is noted to run from north to south, joining a main road to the south. The town of Patching is noted approximately 1000m to the north of the site, which largely comprises of several residential dwellings, a farm, a church and rectory. To the southeast of the site approximately 300m away is Patching Pond. Also noted around the site are several wells, these are particularly evident 850m north, and between 800m to 1200m south-southwest. Noted 1200m to the east is a brick works.	Potential off site receptors/pathway in the form of several wells and pond. Potential risk if the wells are later infilled with unknown materials. Potential off site risk from brick works, although this is anticipated to be low owing to the distance away from the site.

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Date	*Scale*	*On Site*	*Surrounding Area*	*Potential Risks*
1876	1:2,500	The site remains unchanged.	The surrounding environs have not significantly changed, however a small presumed pond/surface water feature is noted some 200m to the north.	Potential off site receptor/pathway noted in the form of another presumed pond.
1898	1:2,500	The site is no longer part of the woodland, but still remains undeveloped.	The woodland to the north and south of the site boundary is no longer noted. The only significant change is the identification of several pumps, which are noted approximately 90m north, 160m south and 280m southeast, these are associated with Patching Pond and several residential dwellings.	Potential receptor/pathways from off site pumps.
1896 - 1899	1:10,560	The site appears to remain unchanged.	There are no significant changes to the immediate surroundings. However, the brick works to the east has expanded, within its local vicinity; to the south are several gravel pits, approximately 1100m and 1200m to the east of the site. In addition, one old gravel pit is also noted some 1400m to the east of the site. Furthermore, there are several old chalk pits noted approximately 1500m to the northeast and northwest of the site. Within the village of Patching which is noted to have expanded further a pumping station and smithy is noted some 1150m to the north.	No significant risks identified in the immediate surroundings. Potential off site risks from old chalk pits, gravels pits, particularly if they are later infilled. Further risks noted from expanding brick works and pumping station. All risks are considered low owing to distance from the site.
1909	1:10,560	No significant changes on site.	There are no discernable changes in the surrounding environs. Although the pumping station is now referred to as a pumping machine to the north, with the village of Patching.	No significant risks identified.

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Date	*Scale*	*On Site*	*Surrounding Area*	*Potential Risks*
1909 - 1910	1:10,560	There are no discernable changes to the site.	There are no significant changes to the surrounding environs. However a wind pump is noted some 800m to the southwest of the site. The pumps noted in the earlier maps are no longer present. The gravel and chalk pits previously noted are no longer listed on this map. The Patching Pond is referred to as a fish pond.	No significant risks identified apart from the potential infilling of the former gravel and chalk pits, but these are some distance from the site.
1911	1:2,500	The site remains unchanged.	There have been some minor changes to the buildings to the north and south of the site, with the modification of the site layout and additional buildings noted.	Potential off site risk from new buildings (unknown use).
1957	1:10,560	The site remains unchanged.	The immediate surroundings have not significantly changed. However, the pumping machine noted to the north is no longer listed. The brick works to the east is now referred to as a works and has further expanded.	Potential off site risk from expansion of the works (unknown use). Risk will be low owing to the distance from the site.

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Date	*Scale*	*On Site*	*Surrounding Area*	*Potential Risks*
1971 - 1972	1:2,500	The site is now referred to as a timber yard, although this site is part of the timber yard, the area of the proposed development remains undeveloped.	The timber yard is noted to expand further to the south and comprises of several presumed commercial/industrial premises, which are occupied by the timber yard. The surroundings environs have undergone significant development in relation to its rural location. To the immediate north is an area of grassland with a presumed commercial development beyond. Beyond which are several residential dwellings including France Cottage, Meadow Cottage, Cherrytrees and France Cottages. A pond and drain is noted some 100m to 120m to the northwest. The drain is noted to run from the northeast to the southwest, across a presumed agricultural field. To the immediate south is a filter bed. The road to the immediate west is now referred to as France Lane. Beyond the road to the west is Selden Black's, it is difficult from the maps to decipher the exact use of the buildings on site. Significant development in the form of several residential dwellings and a farm is noted to the southwest approximately 150m away. A nursery is noted 360m to the northwest of the site. On electrical sub station is noted some 220m to the southeast.	Potential on site risk and the off site risk from the timber yard. Potential risk from unknown buildings surrounding the site. Potential off site risk from nursery and electrical sub station.

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Date	*Scale*	*On Site*	*Surrounding Area*	*Potential Risks*
1974	1:10,000	The site indicates a small building to its northwestern boundary which we assume is associated with the timber yard.	The immediate surroundings have not significantly changed. However, the works to the east is now referred to as a brick and tile works and has further expanded encompassing a clay pit as well. A small telephone exchange is noted 850m to the southeast.	Potential off site risk from telephone exchange and expansion of brick and tile works. Further risk from the location of a clay pit if it is later infilled.
1994 - 1995	1:2,500	The building noted in the previous map to the northwestern boundary is no longer present.	No significant changes in the surrounding environs.	Potential on site risk from removal of former building i.e. Made Ground
2002	1:10,000	The site indicates no significant changes.	The immediate surroundings have not significantly changed. The brick and tile works to the east is now referred to as a depot.	Potential risk from depot (unknown use).
2009	1:2,500	The site is still noted to be part of the larger timber yard. The timber yard is now referred to as a wood yard. However, to the northern most boundary a small rectangular building is noted, which we assume is associated with the wood yard.	No significant changes to the surrounding environs.	Potential risk from on site building.
2009	1:2,500 & 1:10,000	No significant changes to the site.	To the immediate east of the site is an unknown presumed industrial/commercial unit.	Potential risk from unknown unit off site.

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3.4 Potential Contamination Sources - Historical

On Site

- Timber/wood yard and the associated buildings.
- Potential Made Ground owing to the changes in site layout.

Surroundings

- Electrical sub station – Poly Chlorinated Biphenyl's (PCBs).
- Chalk pit and gravels pits if subsequently infilled at a later date.
- Smithy.
- Brick works/ works and depot.
- Telephone exchange.
- Unknown commercial/industrial unit.
- Pumping station.

Due to factors such as topography, geology and distance from the site, it is unlikely that all of these sources identified off site will impact the site directly. The main concerns will be from the on site land use as a timber yard/wood yard.

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3.5 Planning Records

This section details the pertinent planning records obtained for the site pre 1980 and post 1980, the table below provides a summary of the information obtained from Arun District Council's (ADCs) planning portal and provides comments in relation to the potential contamination issues associated with them.

3.5.1 Pre 1980s Records

Planning Application No.	***Location***	***Development Description***	***Comments***
PA/7/60 PA/4/60B	Patching Street, Patching.	Outline application for garage for commercial vehicle.	Potential risk from vehicular spillages in relation to the construction of a new garage. It is understood from the Environmental Health Department (EHD) at ADC that this development was never built.
PA/5/61B	East side of France Lane, Patching.	Garage.	This application was permitted. Potential risk from vehicular spillages.
PA/8/69 and B	Wood Yard East side of France Lane, Patching.	Workshop extension and paraffin stove.	Potential risk from storage and use of paraffin stove. However, it is likely the location of this building is to the southeast of the subject site, taking into consideration the historical map extracts for the site.

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3.5.2 Post 1980s Records

Planning Application No.	***Location***	***Development Description***	***Comments***
PA/2/71 and B	Wood Yard East side of France Lane, Patching.	To dismantle old shed and construct new timber shed on same site.	Potential risk of encountering Made Ground and potential activities associated with the timber yard on site, when the shed was removed. However, based on the historical mapping extracts this is unlikely to be in the direct location of the proposed development.
PA/3/72/B	Wood Yard France Lane, Patching.	Extension to shed in respect of cabinet making and woodwork.	Potential risk from woodwork and cabinet making activities i.e. potential storage of oils, lubricants, polishes etc, depending upon the scale of the trade. The risk however is expected to be low owing to the location of said building in relation to the subject site.
PA/1/78	Timber Yard France Lane, Patching.	Extension of existing timber shed by erecting new shed alongside for storage.	Potential risk from storage of unknown materials within the new store. Although the risk taking into consideration the historical map extracts, indicates that this is not likely to be positioned on site.
PA/31/89	The Wood Yard, Patching.	Refurbishment and extension of existing buildings.	Potential risk from further expansion of the timber yard. However, as before this is unlikely to be on the subject site, owing to the findings of the historical map extracts.
PA/40/89	The Wood Yard, Patching.	Removal of Condition 7 imposed on planning permission PA/31/89 to allow the use of power tools and machinery.	Potential risk from storage and use of unknown mechanical power tools. Potentially located of the subject to site to the southeast.

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Planning Application No.	*Location*	*Development Description*	*Comments*
PA/41/89/EUC PA/6/93/CLE	Timber Yard, Patching.	Established use certificate for timber yard, fencing manufacture and wood product manufacture. Certificate of lawfulness of existing use as a timber yard, fencing manufacture, wood products manufacture.	Potential risk from continued use as a timber yard.
PA/17/98	The Wood Yard, Patching.	Erection of new gates and brick piers and brick toilet.	Potential risk from Made Ground through the construction of the new buildings.
PA/6/99/A	The Wood Yard, Patching.	One non illuminated pole sign.	Potential risk from construction of new sign, from Made Ground.
PA/5/01	The Wood Yard, Patching.	Demolition of four sheds and erection of one larger shed.	Potential risk from the expansion of the timber yard, which is potentially the unit noted to the northern boundary of the site. Potential risk from Made Ground from the demolition works.
PA/20/08	The old Wood Yard, Patching	Change in use from timber yard to offices and workshop for Arun Mowers.	Potential risk from storage of oils and lubricants associated with Arun Mowers.
PA/25/08	The Wood Yard, Patching.	Stationing of residential mobile home and erection of new gates and cross over.	This is the current application. The main risk is the change is use from commercial/industrial to residential, which is a more sensitive end land use.

The information contained within the above tables provides a brief summary of the planning history of the site and the immediate surroundings associated with the larger boundary of the timber/wood yard. It should be noted that the major sources of contamination identified as a result of the planning history of the site is from the timber yard, changes in site layout i.e. Made Ground, potential vehicular spillages from the construction of several garages, the storage and use of oils, lubricants and paraffin associated with the cabinet makers/woodworks, Arun Mowers and paraffin stove.

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3.6 Trading Standards

Discussions have been held with the Trading Standards Team at West Sussex County Council (WSCC) in relation to the potential location of Underground Storage Tanks/Above Ground Storage Tanks (UST/ASTs) and potentially the storage of petroleum products.

As a result of these liaisons the historical and current records for the site do not indicate the presence of said structures or products, however this does not mean they are not present, but are not recorded. Having been to the site and spoken with the owner there seems to be no evidence to support the presence of these structures.

3.7 Information on Public Record

The following information has been obtained from public archive via the data supplier Centremapslive or by direct application. The full GroundSure report is presented in Appendix E.

Discharge Consent – There is one consent noted 238m to the southeast for final/treated sewage into land.

Operational Landfill Sites – There are no current landfill sites within 1000m of the site.

Historical Landfill Sites (Environment Agency (EA)) – There are no records within 250m of the site. There is however three sites noted between 251m to 1000m of the site, the closest of which is 420m south, it is unknown what was deposited here. The other landfills are noted to have disposed of commercial and household waste. A further three sites are noted within 1001m to 2000m from the site of which household, commercial and industrial waste have been deposited.

Historical Landfill Sites (Landmark) – There are four sites within 501m to 1000m of the site, the closest is noted 814m south, for the disposal of inert waste.

Environment Agency (REGIS) Waste Sites – There is one site located 714m to the east for the disposal of non-biodegradable waste.

Radon Affected Areas – The site is located within a radon affected area, where between 1 and 3% of homes are above the action level. However, no radon protective measures are required in the construction of new dwellings or extensions. However, the Health Protection Agency (HPA) does recommend that radon gas should be measured in all properties within radon affected areas.

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Potentially Contaminative Land uses – There are several current industrial activities which have the potential to cause contamination, these are detailed below;

- **0-250m:** There is one active industry within this periphery, which is noted 71m to the south, referred to as a filter bed, used for waste storage, processing and disposal.

- **251-500m:** There is one active industry within this periphery, which is noted 209m to the southeast for an electrical sub station.

Fuel Station Entries – There are no active fuel station within 500m of the site.

Environmentally Sensitive Area – The site is located on a Environmentally Sensitive Area (ESA) and an Area of Outstanding Natural Beauty (AONB), in respect to the sites location on the South Downs. The site is also located within a Nitrate Vulnerable Zone (NVZ); a further zone is also noted some 285m to the southwest of the site.

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4.0 PRELIMINARY CONCEPTUAL SITE MODEL & RISK ASSESSMENT

The Conceptual Site Model (CSM) has been formulated in accordance with BS10175:2001 to provide information regarding the possible sources of contamination on site, the pathway in which the contamination can migrate and a vulnerable receptor to the contamination, all of which need to be present for there to be a risk. This is in relation to the change in land use from "commercial/industrial" to "residential", however it should be noted that the site is already being used in this way now. The following Source – Pathway – Receptor relationships have been identified:

Source	*Pathway*	*Receptor*	*Potential Risk*
Hydrocarbons (Total Petroleum Hydrocarbons - TPH & Poly Aromatic Hydrocarbons - PAH) from the historical and the existing nearby use of the site as a timber/wood yard. Including oils and lubricants stored on site for the manufacturing of wood based products and machinery historically. Vehicular spillages from on site parking. Potentially from the burning of waste products on site.	Inhalation, ingestion and dermal contact from exposure to contaminated soils.	End users.	Low to moderate risk owing to the change in use from a timber yard to a residential dwelling. However, it is understood that a majority of the site will be covered in hard standing, which will provide a barrier between the source and receptor.
		Site workers.	Moderate to high risk if impacted soils are encountered during the demolition and/or construction phases of the project, as soils are exposed.
		AONB & ESA.	The site is located within an ecological sensitive area therefore the risk is considered to be high.
	Impacted soils.	Services.	Moderate to high risk if the soils have been impacted owing to the potential inclusion of new services, particularly potable water supply pipework.
	Volatilisation of hydrocarbons from the underlying soils and groundwater to indoor and/or outdoor air.	Property & end user.	Moderate risk owing to the sites former use and the potential storage of hydrocarbon based products. This will be dependant upon whether the soils/groundwater has been impacted and the hydrocarbon fractions identified on site. In addition, the proposed development comprises of a mobile home and we would assume that this may include a void beneath the floor, providing a source of ventilation.
		Site workers.	Moderate risk if the soils have been impacted and only during the duration of the demolition and construction phases of the project.

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Source	*Pathway*	*Receptor*	*Potential Risk*
Hydrocarbons *continued....*	Leaching of contaminants through soil.	Minor Aquifer.	Moderate risk owing to the underlying geological and hydrogeological conditions, which will aid the potential migration of contaminants. In addition, the site is noted to be in an area at risk from groundwater flooding, which may heighten the potential risks.
		Patching Pond/ field drains and ditch.	Low risk owing to the underlying geological and hydrogeological conditions. Furthermore, many of these receptors are some distance from the site so the risk will be slightly lowered owing to this.
	Services (existing potable water pipework, electrical cables etc).	End users.	Low to moderate risk owing to the change in use from a timber yard to a residential dwelling. However, it is understood that a majority of the site will be covered in hard standing, which will provide a barrier between the source and receptor.
		Site workers.	Moderate to high risk if impacted soils are encountered during the demolition and/or construction phases of the project, as soils are exposed.
		Minor Aquifer.	Moderate risk owing to the underlying geological and hydrogeological conditions, which will aid the potential migration of contaminants. In addition, the site is noted to be in an area at risk from groundwater flooding, which may heighten the potential risks.
Potential Asbestos Containing Materials – potentially from the thickness of Made Ground of which we are anticipating to find.	Ingestion and inhalation of particles during demolition phase.	Site workers.	Moderate risk owing to the age of the buildings and the potential of finding Made Ground on site owing to the changes in site layout.
		End users.	
Sulphates from Made Ground due to changes in site layout and the underlying natural soils.	Migration via groundwater or soil pore moisture.	Property & end user.	Moderate risk owing to the propensity of sulphates to migrate and react with tricalcium aluminate in cement.

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Source	*Pathway*	*Receptor*	*Potential Risk*
Poly Chlorinated Biphenyl's (PCBs) from the historical and existing use of the site.	Leaching of contaminants through the soil.	End user.	Low to moderate risk owing to the change in use from a timber yard to a residential dwelling. However, it is understood that a majority of the site will be covered in hard standing, which will provide a barrier between the source and receptor.
		Site workers.	Moderate to low risk if impacted soils are encountered during the demolition and/or construction phases of the project, as soils are exposed.
	Migration of dissolved phase compounds to the groundwater.	Minor Aquifer.	Low risk owing to the nature of the underlying geology and the considerable distance from any abstraction points.
		Patching Pond/ field drains and ditch.	Low to negligible risk owing to the proximity of these features from the site and the nature of the underlying geology.
Soil gases (including carbon dioxide (CO_2), methane (CH_4), hydrogen sulphide (H_2S) and Volatile Organic Compounds (VOCs)) from the site's historical and existing use. Including sources such as waste disposal and storage areas. Additionally the potential for varying thickness of Made Ground. Off site risk from historical landfill sites within 500m of the site.	Migration through soil pores and fissures and fractures within the underlying Chalk.	Property.	Moderate risk owing to the sites former use and the potential for varying thickness of Made Ground and the underlying geology will enable sufficient movement/migration of gases. The risk will be greater than in a industrial/commercial premises as the time spent on site will be greater in a residential property. However, it should be noted that the development comprises of a mobile home which we would assume would not be in direct contact with the soils i.e. a void would be present beneath.
		End users.	
		Site workers.	Moderate risk during construction phase of works from excavation exposure pathways.

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Source	*Pathway*	*Receptor*	*Potential Risk*
Heavy metals from the historical and nearby use as a timber/wood yard. Potentially from the burning of waste products on site.	Inhalation, ingestion and dermal contact from exposure to contaminated soils.	End users.	Low to moderate risk owing to the change in use from a timber yard to a residential dwelling. However, it is understood that a majority of the site will be covered in hard standing, which will provide a barrier between the source and receptor.
		Plant uptake.	We understand that the development will not comprise of any areas of soft landscaping, therefore the risk to plant species is expected to be low.
		Site workers.	Moderate to high risk if impacted soils are encountered during the demolition and/or construction phases of the project, as soils are exposed.
		AONB & ESA.	The site is located within an ecological sensitive area therefore the risk is considered to be high.
	Leaching of contaminants through soil.	Minor Aquifer.	Moderate risk owing to the underlying geological and hydrogeological conditions, which will aid the potential migration of contaminants.
		Patching Pond/ field drains and ditch.	Low risk as many of these receptors are some distance from the site so the risk will be slightly lowered owing to this.

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Source	*Pathway*	*Receptor*	*Potential Risk*
Heavy metals *continued*.....	Services (existing potable water pipework, electrical cables etc).	End users.	Low to moderate risk owing to the change in use from a timber yard to a residential dwelling. However, it is understood that a majority of the site will be covered in hard standing, which will provide a barrier between the source and receptor.
		Site workers.	Moderate to high risk if impacted soils are encountered during the demolition and/or construction phases of the project.
		Minor Aquifer.	Moderate risk owing to the underlying geological and hydrogeological conditions, which will aid the potential migration of contaminants.
Phenols from the timber/wood yard as part of the manufacturing and treatment of wood products.	Leaching of contaminants through the soil.	End user.	Low to moderate risk owing to the change in use from a timber yard to a residential dwelling. However, it is understood that a majority of the site will be covered in hard standing, which will provide a barrier between the source and receptor.
		Site workers.	Moderate to low risk if impacted soils are encountered during the demolition and/or construction phases of the project, as soils are exposed.
	Migration of dissolved phase compounds to the groundwater.	Minor Aquifer.	Low risk owing to the nature of the underlying geology and the considerable distance from any abstraction points.
		Patching Pond/ field drains and ditch.	Low risk owing to the proximity of these features from the site and the nature of the underlying geology.

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Negligible Risk	Defined as the site should be considered suitable for the present or future use and environmental setting. Contaminants unlikely to be present, which might have unacceptable impact on key targets.
Low Risk	Defined as the site should be considered suitable for the present or future use and environmental setting. Contaminants may be present but unlikely to have unacceptable impact on key targets.
Moderate Risk	Defined as the site may not be suitable for the present or future use and environmental setting. Contaminants are probably present and might have unacceptable impact on key targets.
High Risk	Defined as the site is probably or certainly not suitable for the present or future use and environmental setting. Contaminants are probably or certainly present and likely to have unacceptable impact on key targets.

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4.1 Potential Source – Pathway – Receptor Linkages

A Source – Pathway – Receptor risk assessment, in accordance with Part IIA of the Environmental Protection Act 1990, has shown the following potential pollution links at the site:

- Exposure to site workers and end users to organic and inorganic contaminants from the historical/current setting of the site and the immediate surroundings is considered to be moderate to low/low to moderate owing to the on site and the immediate use of the site to the south as a timber/wood yard. The immediate risk will be that to site workers during the construction and excavation works of the development as they are likely to come into immediate contact with potentially contaminated soils. The risk to the end user will be lower than that posed to site workers as the site will be largely covered in hard standing, therefore minimising the direct exposure pathways between potential sources and the receptor. The hard standing will also minimise the migration of potential contaminants via leaching to the underlying groundwater, which is anticipated to be relatively high owing to the potential risk from groundwater flooding and the identification of several ditches etc.

- Potential risks may arise from the presence of hydrocarbon contaminants specifically TPH and PAH which are known to degrade polymeric materials associated with potable water supply pipework. During the Walkover Survey evidence of the installation of a new potable water supply pipework was noted at the surface, it seemed to made out of suitable materials, but this would require confirmation should the presence of organic contaminants are found, as this will later be installed below ground level.

- Sulphates may be present due to the change in the site's land use within the overlying Made Ground or natural soils which may have the potential to affect the proposed building's foundations and the site end user.

- Exposure to Asbestos Containing Materials (ACMs) which may be identified within the make up of the Made Ground (if encountered) on site, which will present a potential risk to site workers during the construction works via inhalation pathways.

- The risk posed by potential contamination to the underlying groundwater regime is expected to be low to moderate owing to the geological and hydrogeological conditions of the site, on a Minor Aquifer. Furthermore several surface water features including patching pond, field drains and ditches are noted to surround the site, however owing to the geological/ hydrogeological regime and the distance of some of these features from the site the risk is considered to be low. In addition, there are no significant water abstraction points within 500m of the site the nearest is approximately 700m away for general use from the groundwater.

- In addition owing to the potential risk from groundwater flooding the risk may be somewhat greater if the groundwater has been impacted particularly during the construction works to site workers who may come into direct contact with the impacted water.

- The site is located within an AONB and ESA and therefore the site is located within an environmentally sensitive area ecologically, therefore careful consideration should be made in relation to its ecological setting to the proposed end use of the site.

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- Owing to the former use as a wood yard and the potential for identifying Made Ground there is the potential risk from soil gases, however the proposed development comprises of a mobile home which will largely be covered in hard standing, furthermore the home may have a void beneath which will offer some ventilation between the source and receptor.

Generally, the site is considered to present **LOW** to **MODERATE** risk to human health and a **LOW** to **MODERATE** risk to ground/surface water from the sites current status. From the planning application proposals, it is presumed that the proposed development will be predominantly covered in hard standing and will not include any garden areas. However, if areas of soft landscaping are to be incorporated, then the risk to the site end users may be elevated. This risk of exposure will be greater in those areas designated for soft landscaping and so it must be ensured that the soils are fit for this purpose.

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5.0 PROPOSED SITE INVESTIGATION

From the review of information and the formulation of the outline Conceptual Site Model which highlights the potential pollutant linkages for the site. In order to adequately investigate any unacceptable risk presented by these, intrusive investigations are recommended.

Therefore the main objectives of the proposed Stage 2: Site Investigation (SI) works outlined below would be to establish whether or not the potential contaminants of concern are present on site and therefore present an unacceptable risk in relation to the proposed end use as "residential".

5.1 Testing Regime

The testing regime has been devised in accordance with BS10175:2001 *Guidelines for the Code of Practice for Contaminated Land* and CLR Report No.4 *Sampling Strategies*. The objective at this stage of the report is to attempt to delineate the extent of any contamination at the site by using intrusive soil sampling and testing techniques.

5.2 Sampling Strategy

A service search will be completed prior to any subsequent investigation to determine the service locations by lifting up any manhole/drain covers and the use of a Cable Avoidance Tool (CAT) Scan, therefore locations may be subject to change depending upon these results. A starter pit will be dug to a depth of approximately 1.2 meters below ground level (mbgl) to check for any buried services before any further excavations with depth are undertaken.

We would suggest that the Stage 2: Site Investigation incorporate the sinking of several window sample holes using a Dando 2000 Terrier Rig, employed to excavate a number of exploratory positions in order to gain a suitable spread of the site and enable adequate analysis of the soil conditions. This will be undertaken in three (3no.) positions to a depth of approximately 3.0m – 4.0mbgl or refusal.

The window sample positions have been located to provide a representative indication to the underlying ground conditions owing to the sites former and existing site layout. In addition the positions have been located to enable determination of the groundwater flow direction i.e. triangulation. Furthermore, they have been positioned in relation to the location of the new mobile caravan.

All positions shall be logged and samples removed in accordance with current protocol. In addition, groundwater conditions, if encountered, shall be logged and visual/olfactory observations noted.

Based on the environmental setting of the site we would recommend that all of the window samples are installed to enable characterisation of the gas regime and underlying groundwater conditions. Therefore upon completion the exploratory holes should be installed with 35mm diameter pipework and finished off with a lockable cover and gas tap to enable future monitoring to be completed. If a significant thickness of Made Ground is encountered the holes may be dual installed with 19mm diameter pipework.

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Installations will be completed to enable a suitable response zone beneath the groundwater table (if encountered). Installations will be determined by the on site soil and groundwater conditions identified during the intrusive works.

An indicative plan has been provided within Appendix F showing the proposed locations of the test positions for the existing layout and proposed development scheme of the site.

5.3 Monitoring Regime

The installed window samples will be monitored for ground gases and groundwater if encountered. At present, we have been asked by our Client to complete only one (1no.) monitoring round at the site, this will be completed one (1no.) week after the holes have been installed to enable equilibration of the soils and groundwater.

Monitoring shall be completed when atmospheric pressure is either falling and/or below 1005 millibars (mb).

A portable Gas Analyser (GA2000+) will be used to monitor soil gases (Oxygen, Carbon Dioxide, Methane and Hydrogen Sulphide) within the three window sample locations. A Photo Ionisation Detector (PID- MiniRae 2000 lamp 10.6eV) meter will also be used during monitoring rounds to analyse the presence of Volatile Organic Compounds (VOCs).

Once gas monitoring has been completed, a dip meter will be used to test for groundwater depth. If groundwater is encountered then the position will be adequately purged and samples subsequently removed in accordance with BS 6068-6.18: 2001 *Water Quality Sampling: Part 18 – Guidance on Sampling of Groundwater at Contaminated Sites.*

It should be considered as a result of only completing one (1no.) monitoring round further rounds may need to be completed depending upon the results received and subsequent liaisons with the Statutory Consultees. Further monitoring may be required to enable a detailed assessment of the underlying groundwater conditions and gas regime. The initial round of monitoring is being completed to determine the potential presence of ground gases and groundwater (if encountered) contaminants.

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5.4 Analysis

An appropriate and consistent analytical suite of contaminants should be applied to any samples retrieved from site.

Based on the findings contained within this report, we would recommend that testing should include: heavy metals, Total Petroleum Hydrocarbons (TPH - C_{10}-C_{40}), in some instances depending on the soil conditions identified speciated TPH (aromatic/aliphatic split C_5-C_{35}), speciated Polycyclic Aromatic Hydrocarbons (PAH – including benzo(a)pyrene & naphthalene) pH and sulphates. Selected samples will also be screened for phenols and PCBs as well as selected samples within Made Ground being screened for the presence of asbestos fibres.

Groundwater analysis will include a similar suite of analysis as the soils, to enable characterisation of the groundwater conditions.

A UKAS and MCERTS accredited laboratory will carry out all analysis.

5.5 Guidance

The results from the Site Investigation would be compared against standards, such as, Soil Guideline Values (SGVs) and LQM 'CIEH' Generic Assessment Criteria based on the sites proposed end use as "residential", where current UK guidance is not available either Dutch Guidance Values or the old ICRCL values will be used for correlative purposes.

Groundwater analysis, if encountered, would follow a similar scenario and would be compared against the Drinking Water Standards (DWS) for the United Kingdom (UK). At present, there are no current UK DWS guidance for TPH, however to enable suitable characterisation of the site the old UK DWS guidance value will be utilised for correlative purposes.

Gas monitoring results will be compared against current standards, such as C665 *Assessing Risks Posed by Hazardous Ground Gases to Buildings*, to enable the determination of a suitable design measure for the proposed development as "residential".

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6.0 CONCLUSIONS

The site currently comprises of a former wood yard, which is occupied by a mobile caravan and single storey wooden unit which is used for the storage of materials and welfare facilities.

The earliest map 1875/76 indicates the site to be undeveloped and part of a larger wood land area. The site remains undeveloped until approximately 1971/72 when the site is referred to as a timber yard. The first indication of a unit on site is in approximately 1974, by 1994/95 the building is no longer present. No significant changes are noted until 2009 where the site is now referred to as a wood yard and on site is a large single unit.

The surrounding environs historically have remained largely undeveloped due to the sites rural location. However to the south, north and east of the site between 500m to 1000m away is where the vast majority of the development which occurred has happened. The earliest map indicates several residential dwellings, a Public House (P.H.) and brick works, no significant urban expansion is noted until approximately 1971/72 in which several further residential dwellings are noted and the brick works has further expanded.

The site is underlain by the Head Deposits over the Lambeth Group. Due to the nature of the underlying geology, the site is situated upon a Minor Aquifer. There are no abstraction points within 500m of the site however there is a groundwater abstraction within 1000m; however this is only for general use. The site is not located within a SPZ but is noted within a NVZ.

The risk posed by contamination on site to human health is expected to be moderate to low owing to the change in land use; however a greater risk will be present to site workers during the construction phases of the development. Whilst the change in land use will result in a greater risk to the end user, it is anticipated that the development will largely be covered in hard standing minimising the direct exposure pathways to the receptor.

As a result of the findings contained within this report, it is believed that the current and historical status of the site may pose a risk to the future development and/or those associated with it, as a result of the change in land use from 'commercial/industrial' to 'residential', which will present a greater risk to end users.

Therefore, it would be precautionary to explore the surface and subsurface of the site for appropriate physical and chemical evidence by which the environmental threat can be evaluated. Without this information being gathered and appropriately assessed, the protection of residents, site and site area workers, local residents and the environment cannot adequately be determined.

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7.0 RECOMMENDATIONS

From the information contained within this report the following recommendations have been formulated, these are not fully exhaustive and may be subject to remission in-light of further information becoming available:

7.1 Statutory Consultees

We would recommend that this report be forwarded to the relevant Statutory Consultees including the Environment Agency (EA) and Arun District Council's (ADC) Environmental Health and Planning Department prior to any future site works commencing to seek their comments and subsequent approval.

The Statutory Consultees should review this information prior to commencement of the Site Investigation works.

7.2 Testing Regime

Any future Site Investigation should include the sinking of three (3no.) window samples to approximately to a depth of approximately 3-4 metres below ground level (mbgl) or refusal. We would recommend that all positions are installed to enable gas and groundwater analysis

Sample locations will however be dependant upon service locations and access to parts of the site.

Owing to the sites former use we would recommend that selected samples are submitted for heavy metal, TPH, PAH, pH, sulphate, asbestos screening and PCB analysis to assess the potential risks to the end user. In addition groundwater samples retrieved as part of the monitoring rounds will be analysed for a similar analytical suite.

7.3 Site Works

During construction works visual and olfactory appraisal of the underlying soils should be made. If during construction works any material is noted to show visual and/or olfactory sign of contamination a suitable geo-environmental consultant should be contacted to supervise/ guide further works. This material should be stockpiled separately and tested prior to its appropriate removal of site or re-use as necessary.

If any landscaping materials are to be imported on site they should be tested to check that they are suitable for the intended use. Clean, uncontaminated rock, subsoil, brick rubble, crushed concrete, ceramics and topsoil only shall be permitted as infill material.

For the disposal of any arisings off site, the completion of Waste Acceptance Criteria (WAC) testing may be required to ensure material complies with the chosen landfill site. It would be prudent to check with the relevant Local Authority and/or landfill operator for testing requirements, prior to the removal of any materials.

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7.4 Services

Soakaways are for the disposal of clean uncontaminated surface water only and must not be constructed in contaminated land.

Based on the sites former use, if the installation of new potable water supply pipework is to be undertaken liaisons with the local water company should be completed to ascertain their specific requirements. This is particularly pertinent as certain organic contaminants including TPH and PAH are known to degrade polymeric materials.

7.5 Asbestos Survey

The existing building on site seems to have been constructed relatively recently, in addition there was no immediate evidence of potentially Asbestos Containing Materials (ACMs) within the building. We understand that this building will remain on site as part of the redevelopment, however potential consideration to the completion of a Type 2 Asbestos Survey would be recommended.

7.6 Flood Risk

This report is not intended to replace a full hydrogeological survey and it is recommended that additional specialist studies be conducted to confirm the flood risks at the site.

7.7 Waste Disposal

We would recommend that owing to the identification of old metal containers and gas canisters etc that these materials are appropriately removed off site in accordance with current guidance and legislation.

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8.0 LIMITATIONS

Should the currently proposed layout and/or end-use of the development change, or areas of soft landscaping are subsequently included, then the risks posed by the contaminants of concern will need to be re-assessed.

Currently, the Environment Agency's Soil Guideline Values (SGVs) have been withdrawn for review. The results returned from the Site Investigation will be compared to the former SGVs in the absence of replacement standards for certain contaminants. It should be noted that once the updated SGVs are published, the standards contained within this report may be subject to change. In some instances, revised SGVs are now available and have been utilised.

Advice and recommendations given in this report are provided for information purposes; they are advisory and do not constitute a conclusive specification for a further investigation.

The advice given in this report with respect to contaminated land, groundwater and gas is based on current guidelines available at the time of writing.

The Client is advised that the conditions observed on site by Constructive Evaluation Limited at the time of the walkover survey are subject to change. Certain indicators of the presence of hazardous substances may have been latent at the time of the most recent site reconnaissance and they may subsequently have become noticeable.

The Client is advised that although every effort is made to identify suspect areas CE cannot be held responsible if buildings on site contain Asbestos, whilst every effort is made to identify materials which may contain it, access is not always afforded to all areas on site. Additionally Engineers sent on site are not specially trained in this aspect of work, if further determination is required the expertise of a BIOH trained surveyor should be sought.

Comments made relating to soil or groundwater conditions are obtained from the sources described within the text and observations made at the time of the walkover survey unless otherwise stated. Soil or groundwater conditions may vary as a result of seasonal fluctuations or other effects.

The accuracy of the map extracts can not be guaranteed and it should be noted that different conditions may have existed between and subsequent to the various map surveys. Therefore, there can be no certainty that all areas of contamination have been identified during the Phase 1 investigation.

Every effort is undertaken to provide detailed information regarding the potential risks associated with flooding, however CE may not be party to information the Local Authority and Environment Agency may hold in relation to historical or flash flood events.

This assessment is preliminary in its nature and may be subject to amendment in light of additional information becoming available or statutory consultee review, including the Environment Agency, Local Council and NHBC etc. This report ahs been forwarded to the Local Authority to review prior to completion of the Stage 2: Site Investigation.

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The findings and opinions conveyed in this report are based on information obtained from a variety of sources, including that from previous Site Investigations and chemical testing laboratories, and which Constructive Evaluation Limited has assumed that such information is correct. Nevertheless, Constructive Evaluation Limited cannot and does not guarantee the authenticity or reliability of the information it has relied upon. Constructive Evaluation Limited can accept no responsibility for inaccuracies within the data supplied by other parties.

This report is written in the context of an agreed scope of work between Constructive Evaluation Limited and the Client and should not be used in a different context. In light of additional information becoming available, improved practices and changes in legislation amendment or re-interpretation of the assessment or report in whole or part may be necessary after its original submission.

This report is provided for sole use by the Client and is confidential to them. No responsibility whatsoever for the contents of the report will be accepted to anyone other than the Client.

Constructive Evaluation Limited believes that providing information about limitations is essential to help the Client identify and thereby manage risks.

The copyright of written materials supplied shall remain the property of Constructive Evaluation Limited but with a royalty-free perpetual licence, granted to the Client on payment in full of any outstanding monies.

Constructive Evaluation Limited does not provide legal advice and the advice of the Client's legal advisors may also be required.

An ecological, topographical, archaeological or asbestos survey and service search was outside the scope of this report.

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11.0 BIBLIOGRAPHY

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APPENDICES

Their contents are listed below:

Appendix A – Proposed Development Scheme Plan.

Appendix B – British Geological Society (BGS) Borehole Logs.

Appendix C – Constructive Evaluation Limited's Walkover Photographs and Photograph Identification Plan.

Appendix D – Historical Maps.

Appendix E – GroundSure Report.

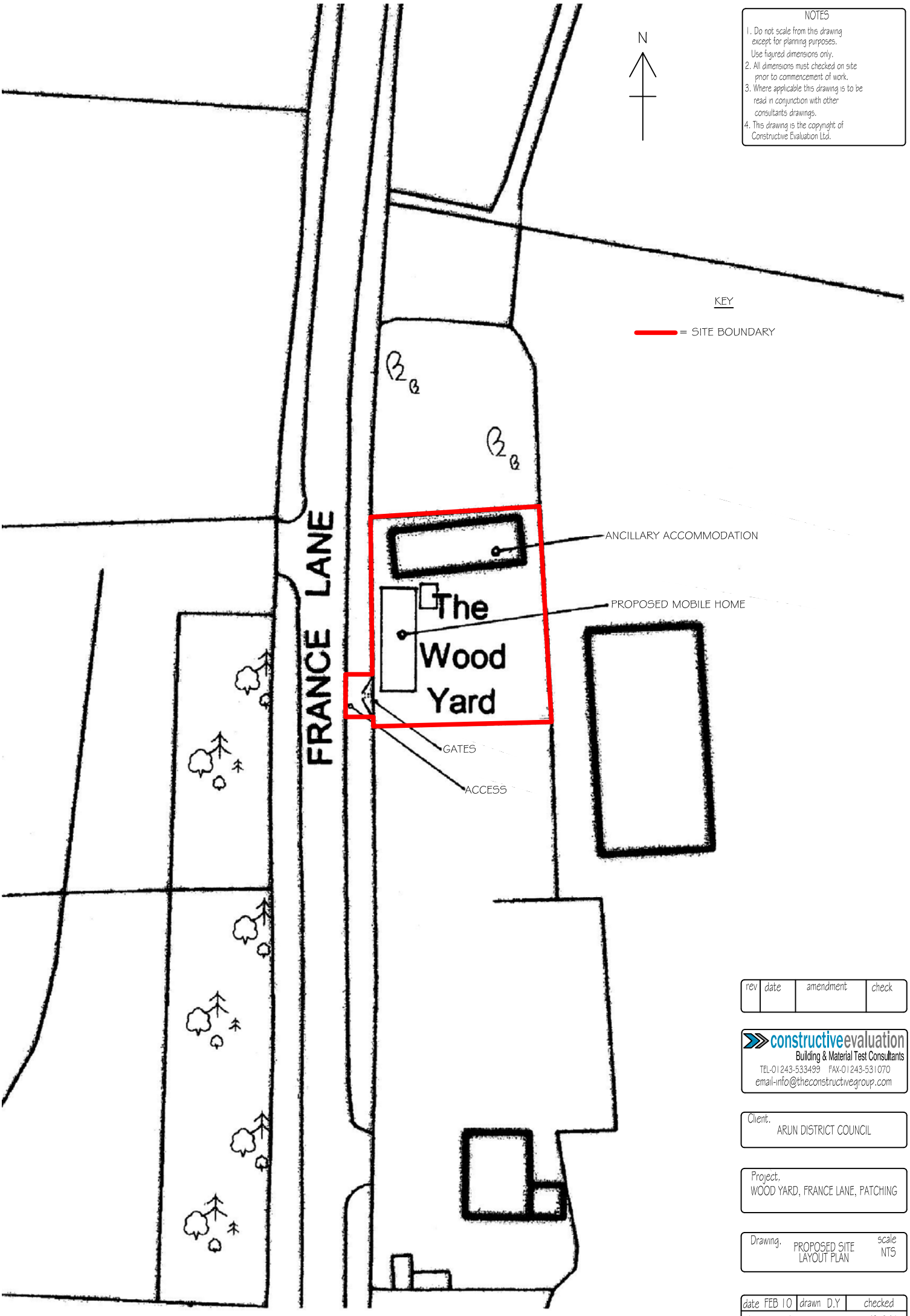
Appendix F – Proposed Site Investigation Plan (Existing and Proposed Site Layout).

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APPENDIX A

Proposed Development Scheme Plan

constructiveevaluation
Building & Material Test Consultants



rev	date	amendment	check

constructiveevaluation
Building & Material Test Consultants
TEL-01243-533499 FAX-01243-531070
email-info@theconstructivegroup.com

Client.
ARUN DISTRICT COUNCIL

Project.
WOOD YARD, FRANCE LANE, PATCHING

Drawing. PROPOSED SITE LAYOUT PLAN
scale NTS

date FEB 10	drawn D.Y	checked
drawing number 10.6174		revision

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APPENDIX B

British Geological Society (BGS) Borehole Logs

constructiveevaluation
Building & Material Test Consultants

317/204

TQ 0859 0592

PATCHING

TQ00/132

COTTAGE close to house for Mr Goad. By Duke & Ockenden

Water level 8 ft. down.

R.B.	Blue & yellow clay	30	30
	Blue & black clay	25	55
	Clay & flint	10	65
	Clay	2	67
Ck.	Hard flint & chalk	58	125

Geological classification

Reading Beds	67'	67'
Upper Chalk	58'	125'

MH 5/2/73

Mr Toad's (not Goad) house is now shown on 6" map as Drelamy Cottage.

The well is at France about ¼ mile NNW of the south

Drained OD 101

Sited on 6" Sussex 63 NE.E

J. Beckham
27.2.41

F.W. Ockenden (records at Basingstoke, May, 1941): 5/1894 Goad.
Patching Pond. Bore 3in.
Depth 125 ft.
Water 87 ft.

R.W.L. 87'. Dtd. Cando (London)
3/9/41.

J.COH

The well has been built over. Visited HH. 16.10.57.

W. S. Sx. 1 p. 73

P.T.O.

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[TQ00NE BJ 40 .]

2

Mr. Joad's Cottage, – Later known as Dolaney Cottage, now known as Dolaney House.

The present owner has no specific knowledge of a borehole on the property, although there are several old wells, all sealed. (A shaft diameter 3'6", domed at the top and 6" above ground level is situated outside Dolaney lodge, with a handpump inside the house. R.W.L. 4'6" b.s. "soft water well" — ∴ prob. not the bore referred to. O.D. 105.)

'France Cottage'

The original record may refer to the well at this cottage. This is now filled in and built over. OD. 101.
(The log agrees with this site.) 18-5-57. AES.

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~~311~~ / ~~204~~

TQ 00 NE/40
0859 0592 PATCHING

COTTAGE close to house for Mr Goad. By Duke & Ockenden
Water level 8 ft. down.

R.B.	Blue & yellow clay	30	30	9.14 m
	Blue & black clay	25	55	16.76
	Clay & flint	10	65	19.81
	Clay	2	67	20.42
Ck.	Hard flint & chalk	58	125	38.10

Geological description

Reading Beds	67'	67'
Upper Chalk	~~58~~'	125'

MH 5/2/73

Mr Toad's (not Goad) house is now shown on 6" map as Delany Cottage.

The well is at France about ¼ mile NNW of
Drowned OD 101 (30.78m)
Sited on 6" Sussex 68 NE.E

S.Bedford
27.2.41

F.W. Ockenden (records at Basingstoke, May, 1941): 5/1894 Goad.
Patching Pond. Boring.
Depth 125 ft.
Water 87 ft.

R.W.L. 87'. D+O. Cards (London)
3/9/41.

S.CAH

The well has been built over. Visited HH. 16.10.57.

W. S. Sx. 1 p. 73

P.T.O.

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[TQ00NE BJ 40 .]

British Geological Survey

HYDROGEOLOGY RESEARCH GROUP

317

TQ00/172

Form WR-38 (BGS)

BOREHOLE RECORD FOR WC 10

SOUTHERN EA

TQ00 NE/71

A SITE DETAILS		
Borehole drilled for	THE ENVIRONMENT AGENCY	
Location	WEST SUSSEX (PATCHING POND) MONITORING BH WC10	
NGR (8 fig.)	TQ 0875/0563 *	Please attach site plan
Ground Level (if known)		
Drilling Company	FOUNDATION AND EXPLORATION SERVICES	
Date of Drilling	Commenced 18/02/2002	Completed 19/02/2002

B CONSTRUCTION DETAILS

Borehole Datum (if not ground level) _____ above / m below GL

(point from which all measurements of depth are taken e.g. flange, edge of chamber, etc.)

Borehole drilled diameter	300	mm from	0.00	to	40.00 m/depth
	_____	mm from	_____	to	_____ m/depth
	_____	mm from	_____	to	_____ m/depth
Casing material PLAIN STEEL diameter and type (e.g. if plain steel, plastic slotted)	0	mm from	0	to	0 m/depth
_____ diameter	_____	mm from	_____	to	_____ m/depth
_____ diameter	_____	mm from	_____	to	_____ m/depth
_____ diameter	_____	mm from	_____	to	_____ m/depth

Grouting details _____

Water struck at _____ m (depth below datum — mbd)

_____ m (depth below datum — mbd)

Rest water level on completion 30.00 mbd

C TEST PUMPING SUMMARY (Please supply full details on Forms WR-39)

Test Pumping Datum (if different from borehole datum)	_____ m	above / below borehole datum (mbd)
Pump Suction depth	_____	mbd
Water Level (Start of Test)	_____	mbd
Water Level (End of Test)	_____	mbd
Pumping rate	_____	m^3/d:l/s
for	_____	days/hours
Recovery to (from end of pumping)	_____ mbd in	mins: hrs: days
Date(s) of measurements	_____	

Please supply chemical Analysis if available.

* NB - SITE PLAN ATTACHED SHOWS LOCATION OF PROPOSED BH, NOT ACTUAL SITE WHERE DRILLED

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D STRATA LOG

Geological Classification (BGS only)	Description of strata	Thickness m	Depth m
	TOPSOIL OVER S. GRAVELLY S. SANDY BROWN CLAY. (READING BEDS ?)	14.00	14.00
	RED BROWN CLAY (READING BEDS ?)	18.00	32.00
	S. GRAVELLY S. SANDY BLACK CLAY (READING BEDS)	8.00+	40.00
	(continue on separate page if necessary		
	Other comments (e.g. gas encountered, saline water intercepted, etc.)		

FOR OFFICIAL USE ONLY

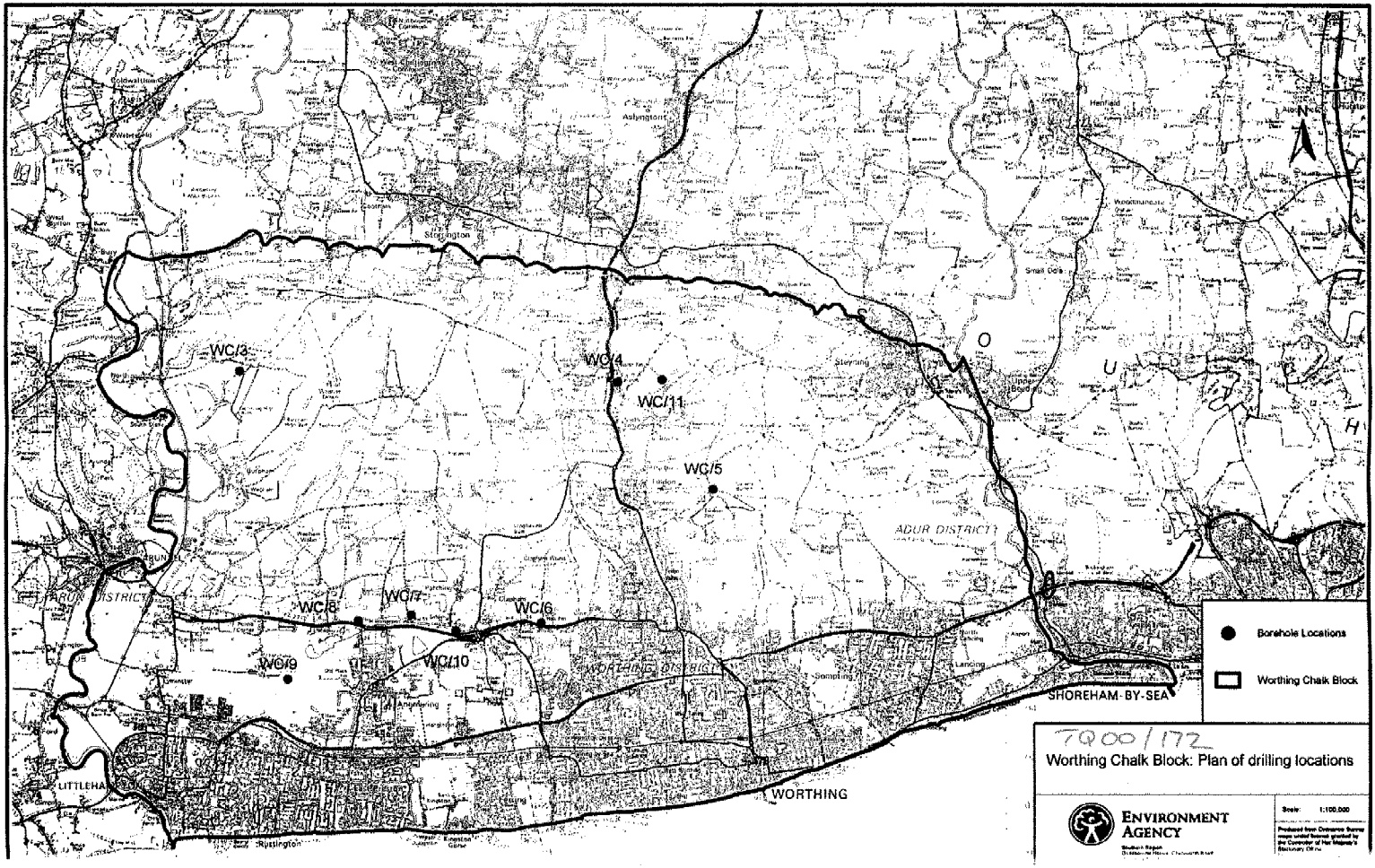
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LIC NO. ..... PURPOSE ..... NRA REF NO. .....

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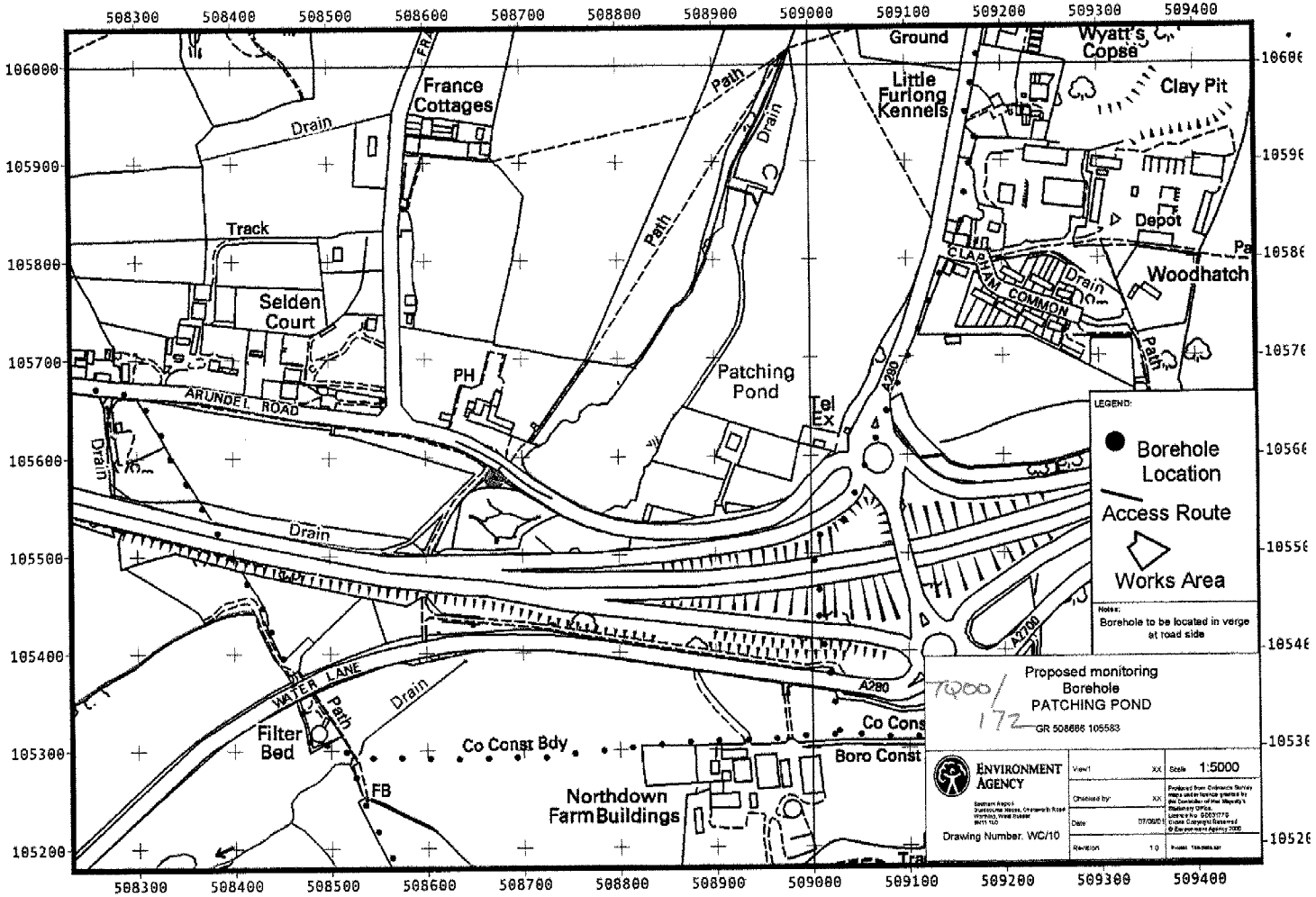
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HYDROGEOLOGY RESEARCH GROUP

317

TQ00/172

Form WR-38 (BGS)
SOUTHERN EA

BOREHOLE RECORD FOR WC 10

TQ00 NE/71

A SITE DETAILS	
Borehole drilled for	THE ENVIRONMENT AGENCY
Location	WEST SUSSEX (PATCHING POND) MONITORING BH WC10
NGR (8 fig.)	TQ 0875/0563 * — Please attach site plan
Ground Level (if known)	
Drilling Company	FOUNDATION AND EXPLORATION SERVICES
Date of Drilling	Commenced 18/02/2002 — Completed 19/02/2002

B CONSTRUCTION DETAILS

Borehole Datum (if not ground level) _____ above / m below GL

(point from which all measurements of depth are taken e.g. flange, edge of chamber, etc.)

Borehole drilled diameter	300 mm	from	0.00	to	40.00 m/depth
	_____ mm	from	_____	to	_____ m/depth
	_____ mm	from	_____	to	_____ m/depth
Casing material PLAIN STEEL diameter and type (e.g. if plain steel, plastic slotted)	0 mm	from	0	to	0 m/depth
_____ diameter	_____ mm	from	_____	to	_____ m/depth
_____ diameter	_____ mm	from	_____	to	_____ m/depth
_____ diameter	_____ mm	from	_____	to	_____ m/depth

Grouting details _____

Water struck at _____ m (depth below datum — mbd)

_____ m (depth below datum — mbd)

Rest water level on completion 30.00 mbd

C TEST PUMPING SUMMARY (Please supply full details on Forms WR-39)

Test Pumping Datum (if different from borehole datum)	_____ m	above / below borehole datum (mbd)
Pump Suction depth	_____ mbd	
Water Level (Start of Test)	_____ mbd	
Water Level (End of Test)	_____ mbd	
Pumping rate	_____ m^3/d:l/s	
for	_____ days/hours	
Recovery to (from end of pumping)	_____ mbd in	mins: hrs: days
Date(s) of measurements	_____	

Please supply chemical Analysis if available.

* NB - SITE PLAN ATTACHED SHOWS LOCATION OF PROPOSED BH, NOT ACTUAL SITE WHERE DRILLED

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D STRATA LOG

Geological Classification (BGS only)	Description of strata	Thickness m	Depth m
	TOPSOIL OVER S. GRAVELLY S. SANDY BROWN CLAY. (READING BEDS ?)	14.00	14.00
	RED BROWN CLAY (READING BEDS ?)	18.00	32.00
	S. GRAVELLY S. SANDY BLACK CLAY (READING BEDS)	8.00+	40.00
	(continue on separate page if necessary		
	Other comments (e.g. gas encountered, saline water intercepted, etc.)		

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FILE ..... CONSENT NO. ..... NGS REF NO. .....

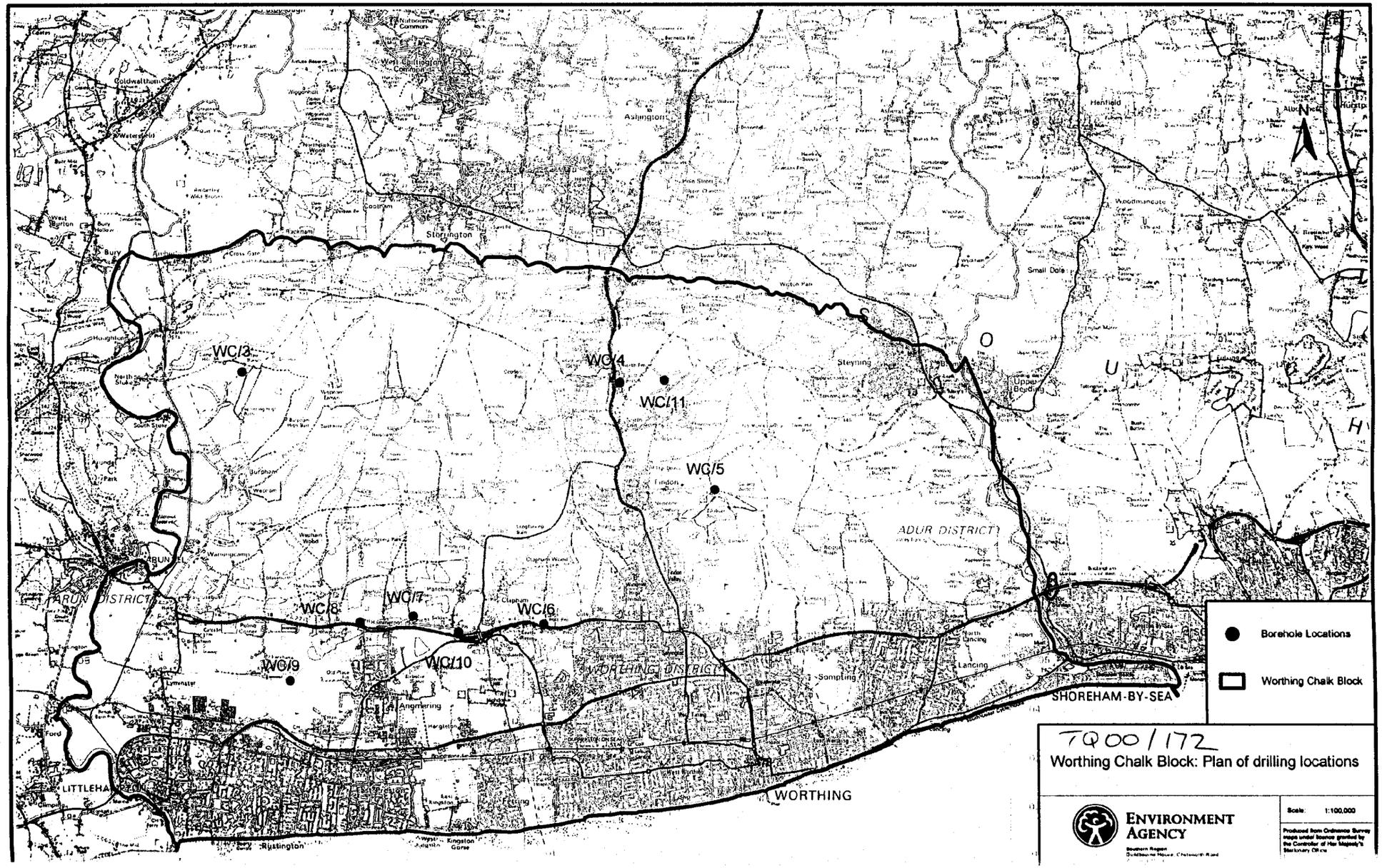
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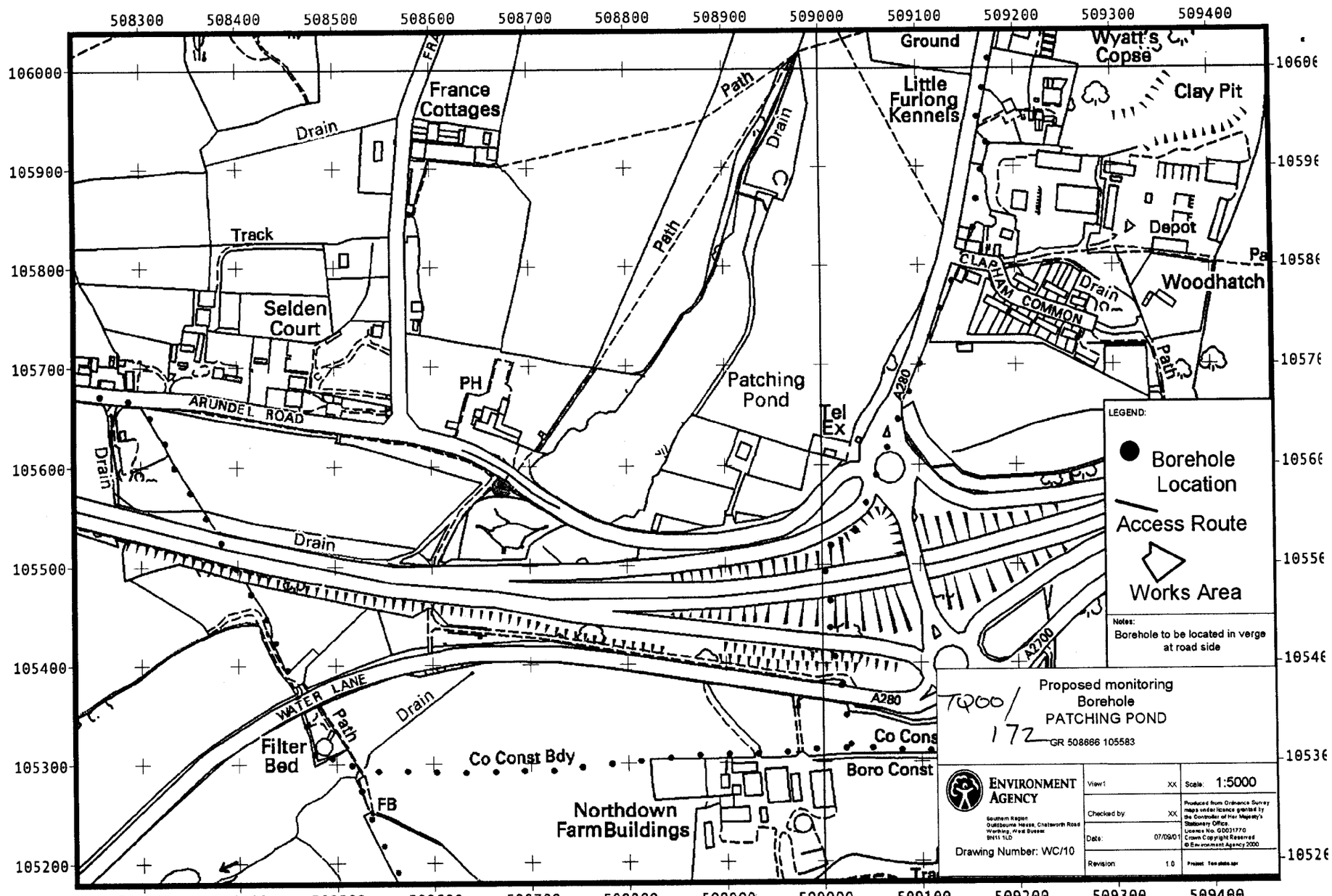
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[TQ00NE BJ 71 .]

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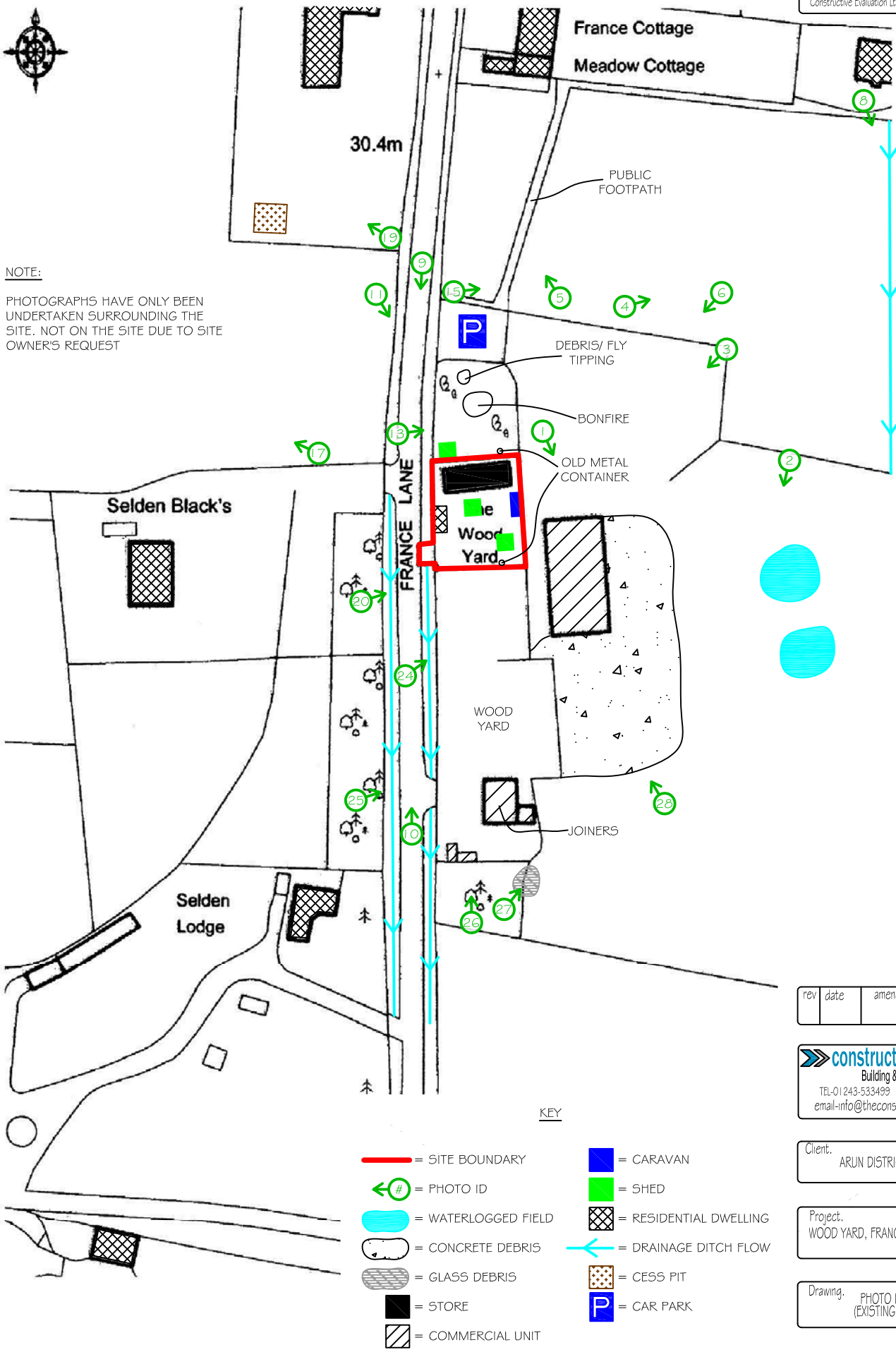
APPENDIX C

Constructive Evaluation Limited's Walkover Photographs and Photograph Identification Plan

constructiveevaluation
Building & Material Test Consultants

NOTES

1. Do not scale from this drawing except for planning purposes. Use figured dimensions only.
2. All dimensions must checked on site prior to commencement of work.
3. Where applicable this drawing is to be read in conjunction with other consultants drawings.
4. This drawing is the copyright of Constructive Evaluation Ltd.



NOTE:

PHOTOGRAPHS HAVE ONLY BEEN UNDERTAKEN SURROUNDING THE SITE. NOT ON THE SITE DUE TO SITE OWNER'S REQUEST

KEY

- = SITE BOUNDARY
- = PHOTO ID
- = WATERLOGGED FIELD
- = CONCRETE DEBRIS
- = GLASS DEBRIS
- = STORE
- = COMMERCIAL UNIT
- = CARAVAN
- = SHED
- = RESIDENTIAL DWELLING
- = DRAINAGE DITCH FLOW
- = CESS PIT
- = CAR PARK

rev	date	amendment	check

constructiveevaluation
Building & Material Test Consultants
TEL-01243-533499 FAX-01243-531070
email-info@theconstructivegroup.com

Client.
ARUN DISTRICT COUNCIL

Project.
WOOD YARD, FRANCE LANE, PATCHING

Drawing. PHOTO ID PLAN (EXISTING LAYOUT) scale NTS

date FEB 10	drawn D.Y	checked
drawing number 10.6174		revision



1. View of commercial industrial unit



2. Waterlogged field



3. View of site to the north



4. Agricultural fields



5. Agricultural fields and residential property



6. Industrial unit



7. View of site and industrial unit



8. View of drainage ditch



9. France Lane to south



10. Frabnce Lane to north



11. Parking to north



12. Land to north



13. Burnt debris and fly tipping to north



14. View of fly tipping to north



15. Fly tipping and storage container to north



16. Old fire to north



17. Fields to east



18. Public Footpath to north



19. Cess pit to northeast



20. Entrance to site



21. View of France Lane to south



22. View of France Lane to north



23. Drainage ditch along France Lane



24. Drainage ditch along France Lane



25. Entrance to wood yard to the south



26. View of wood yard to south



27. Fly tipping near wood yard to south



28. View of southeast corner of wood yard



29. View of wood yard to southeast



30. View of commercial unit and concrete debris



31. View along Main Road



32. View of fields to southwest

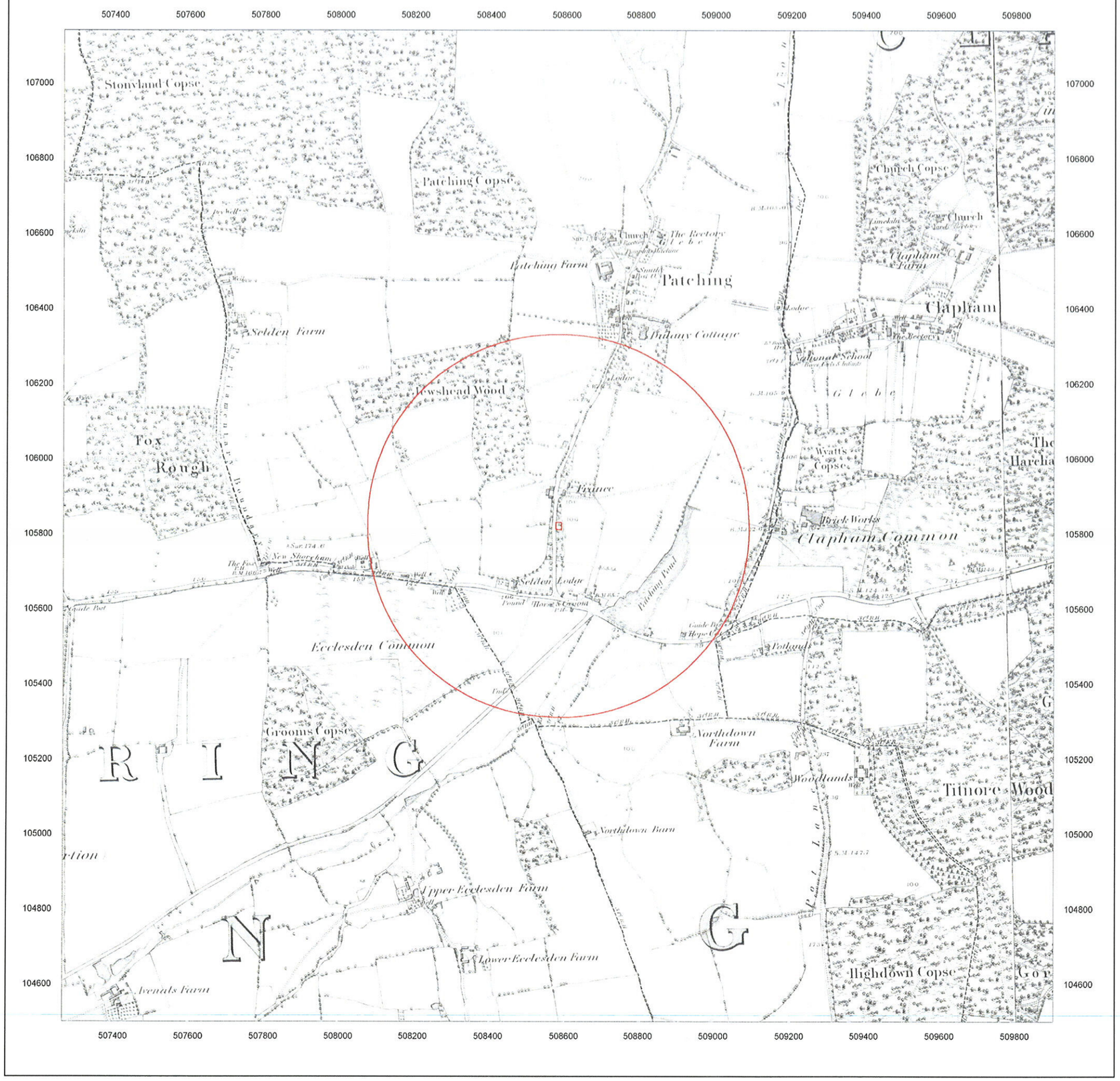


33. Residential dwellings to southeast

APPENDIX D

Historical Maps

constructiveevaluation
Building & Material Test Consultants



Ordnance Survey® Historical Mapping Extract

www.centremaps*live*.com

Site Details:

FRANCE LANE WOOD
YARD,FRANCE
LANE,PATCHING,WORTHING,
BN13 3UP

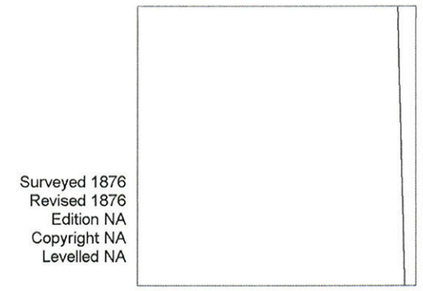
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Grid Ref: 508582, 105821

Map Name: County Series

Map date: **1875-1876**

Scale: 1:10,560

Printed at: 1:10,560



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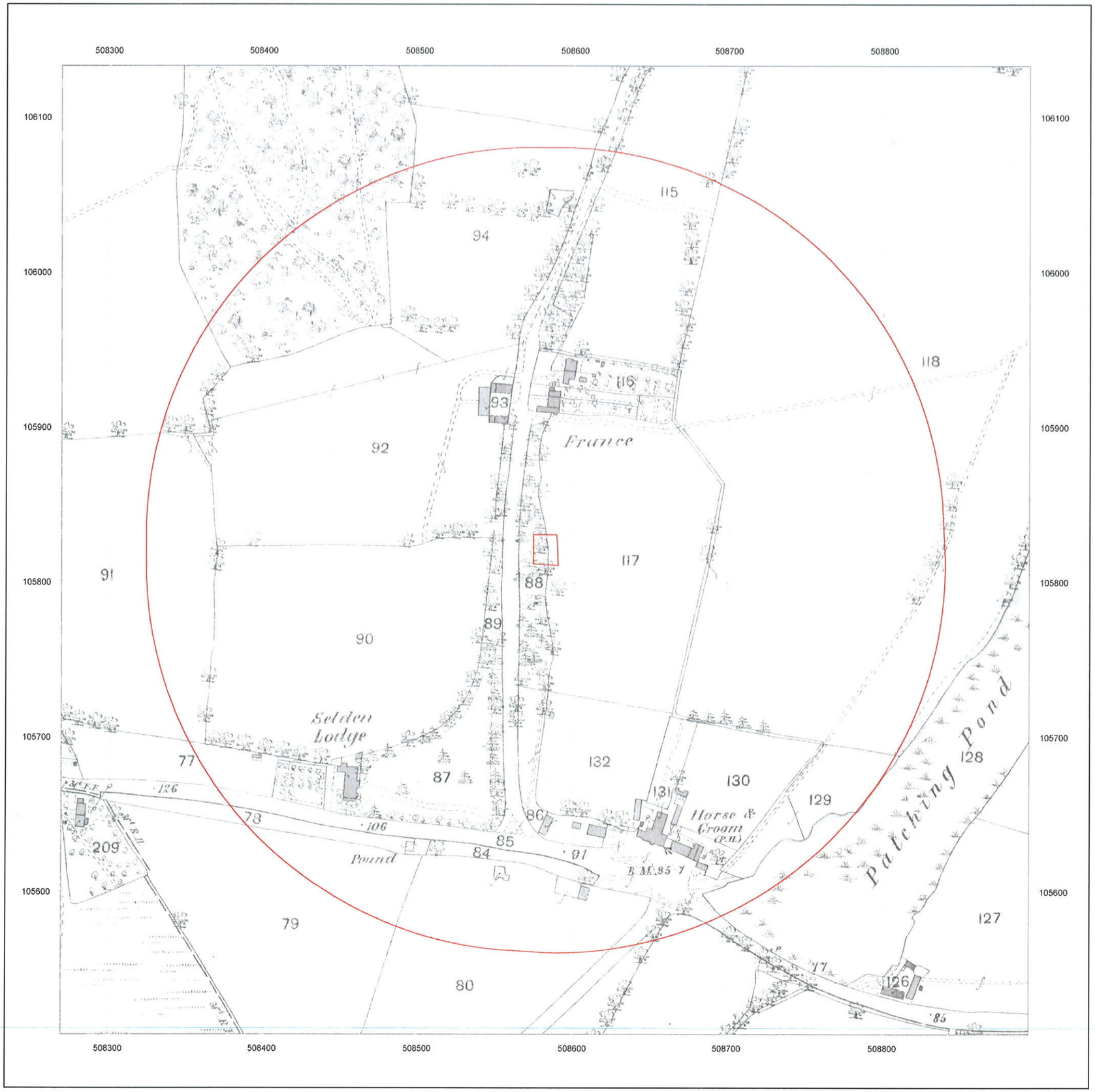
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Site Details:

FRANCE LANE WOOD
YARD,FRANCE
LANE,PATCHING,WORTHING,
BN13 3UP

Client Ref: 11344
Report Ref: CMAPS-CM-40201-11344-290110HIS
Grid Ref: 508582, 105821

Map Name: County Series

Map date: **1876**

Scale: 1:2,500

Printed at: 1:2,500

Surveyed 1876
Revised 1876
Edition NA
Copyright NA
Levelled NA

GroundSure

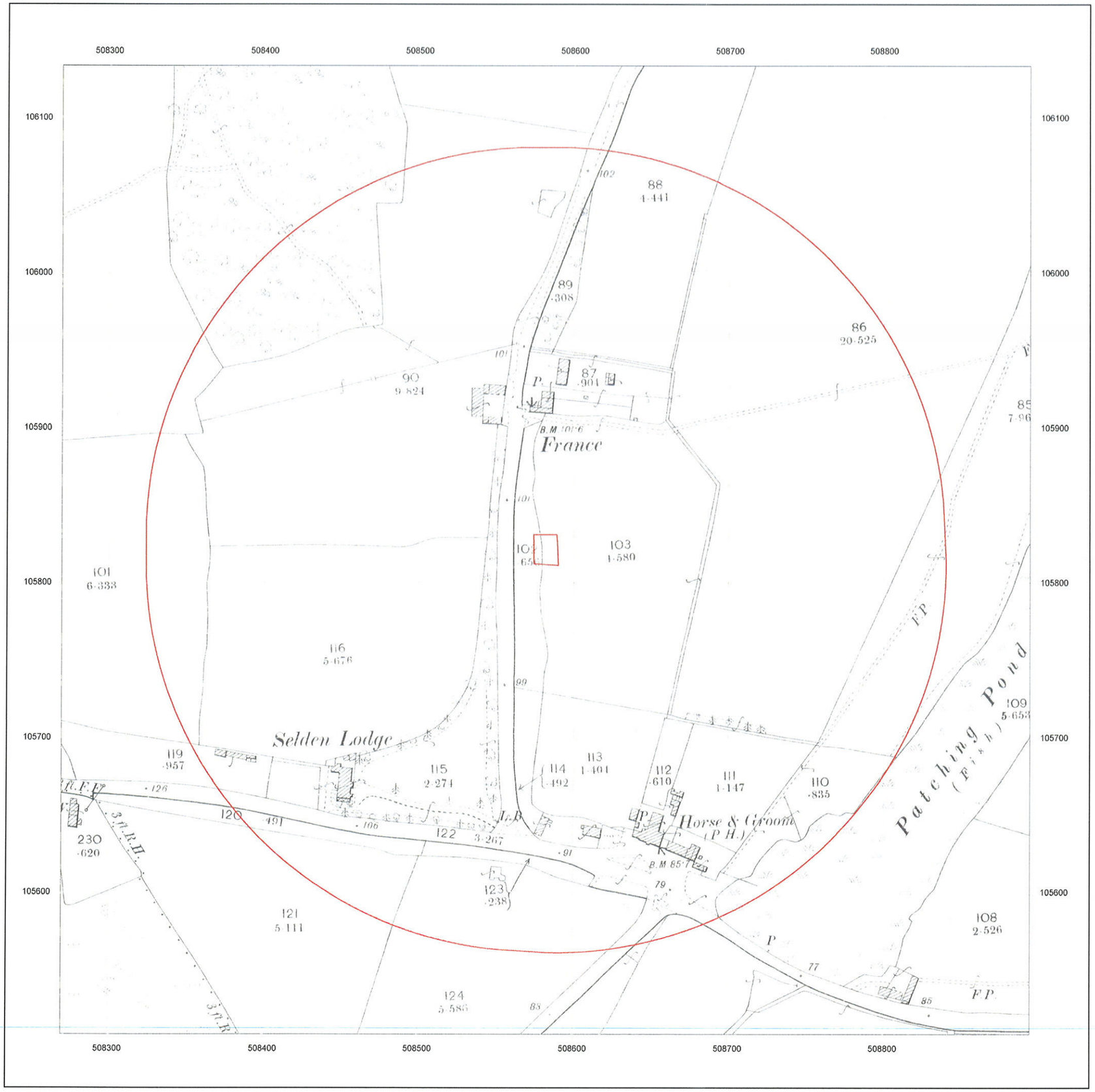
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YARD,FRANCE
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BN13 3UP

Client Ref: 11344
Report Ref: CMAPS-CM-40201-11344-290110HIS
Grid Ref: 508582, 105821

Map Name: County Series

Map date: **1898**

Scale: 1:2,500

Printed at: 1:2,500

Surveyed 1898
Revised 1898
Edition NA
Copyright NA
Levelled NA

GroundSure

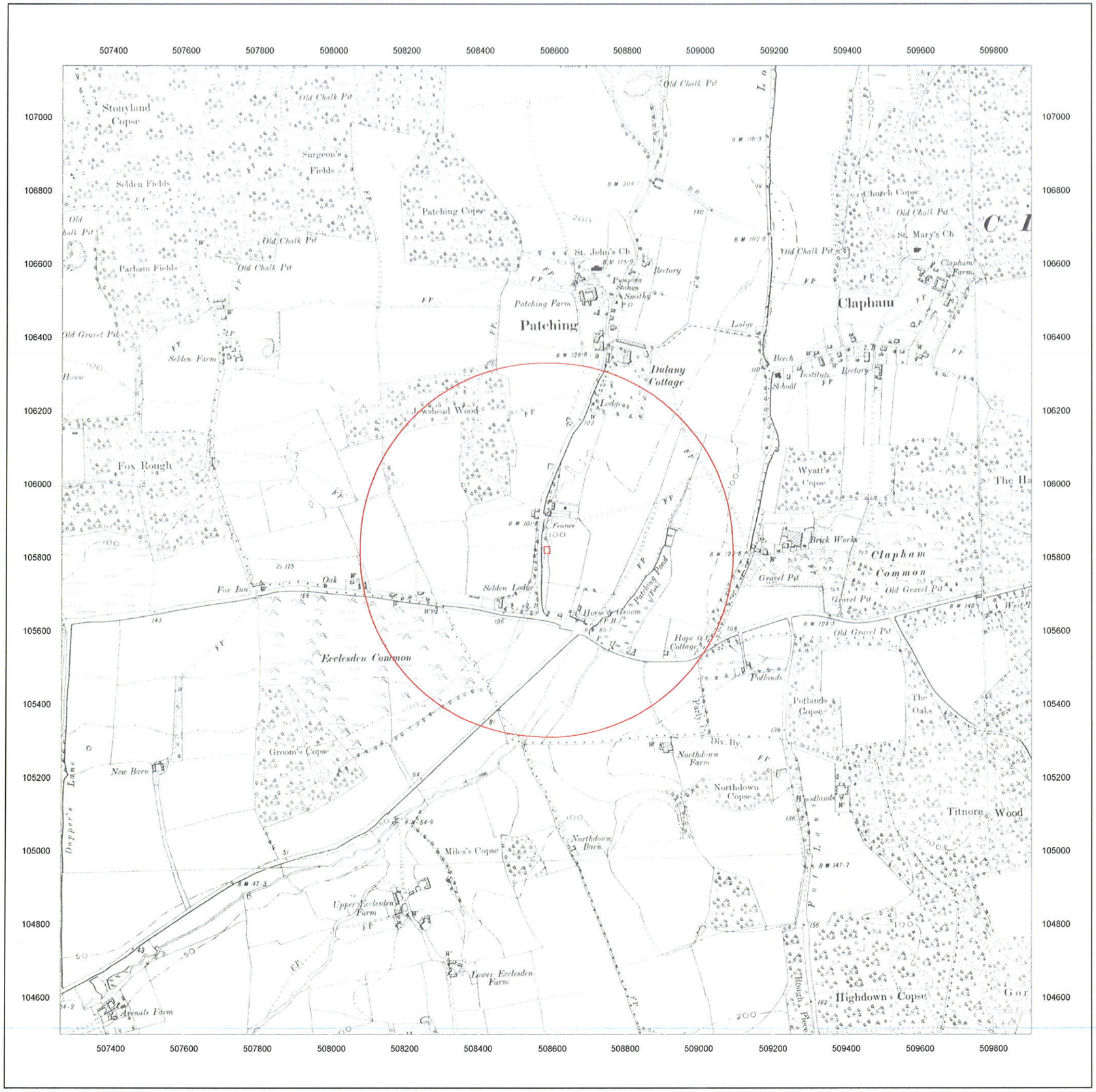
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YARD,FRANCE
LANE,PATCHING,WORTHING,
BN13 3UP

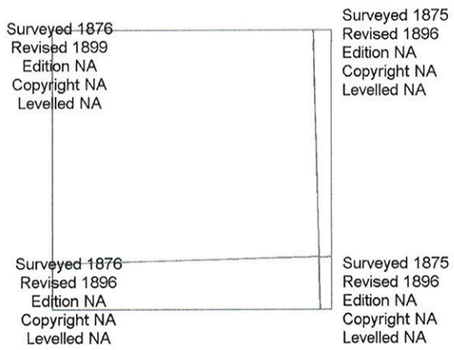
Client Ref: 11344
Report Ref: CMAPS-CM-40201-11344-290110HIS
Grid Ref: 508582, 105821

Map Name: County Series

Map date: **1896-1899**

Scale: 1:10,560

Printed at: 1:10,560



GroundSure

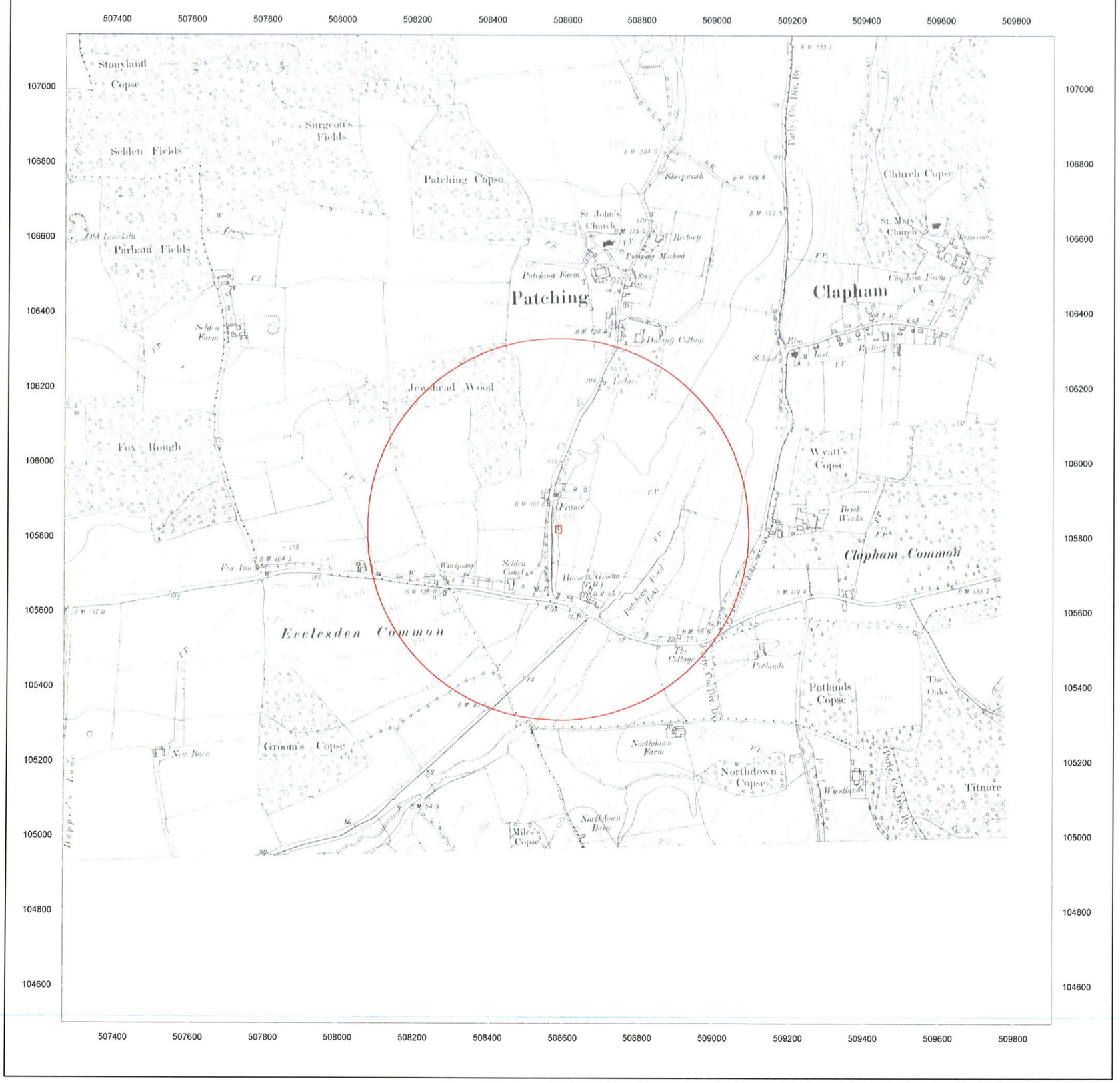
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Production date:29 January 2010



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BN13 3UP

Client Ref: 11344
Report Ref: CMAPS-CM-40201-11344-290110HIS
Grid Ref: 508582, 105821

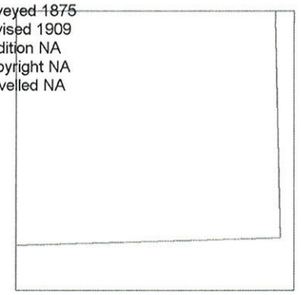
Map Name: County Series

Map date: **1909**

Scale: 1:10,560

Printed at: 1:10,560

Surveyed 1875
Revised 1909
Edition NA
Copyright NA
Levelled NA



GroundSure

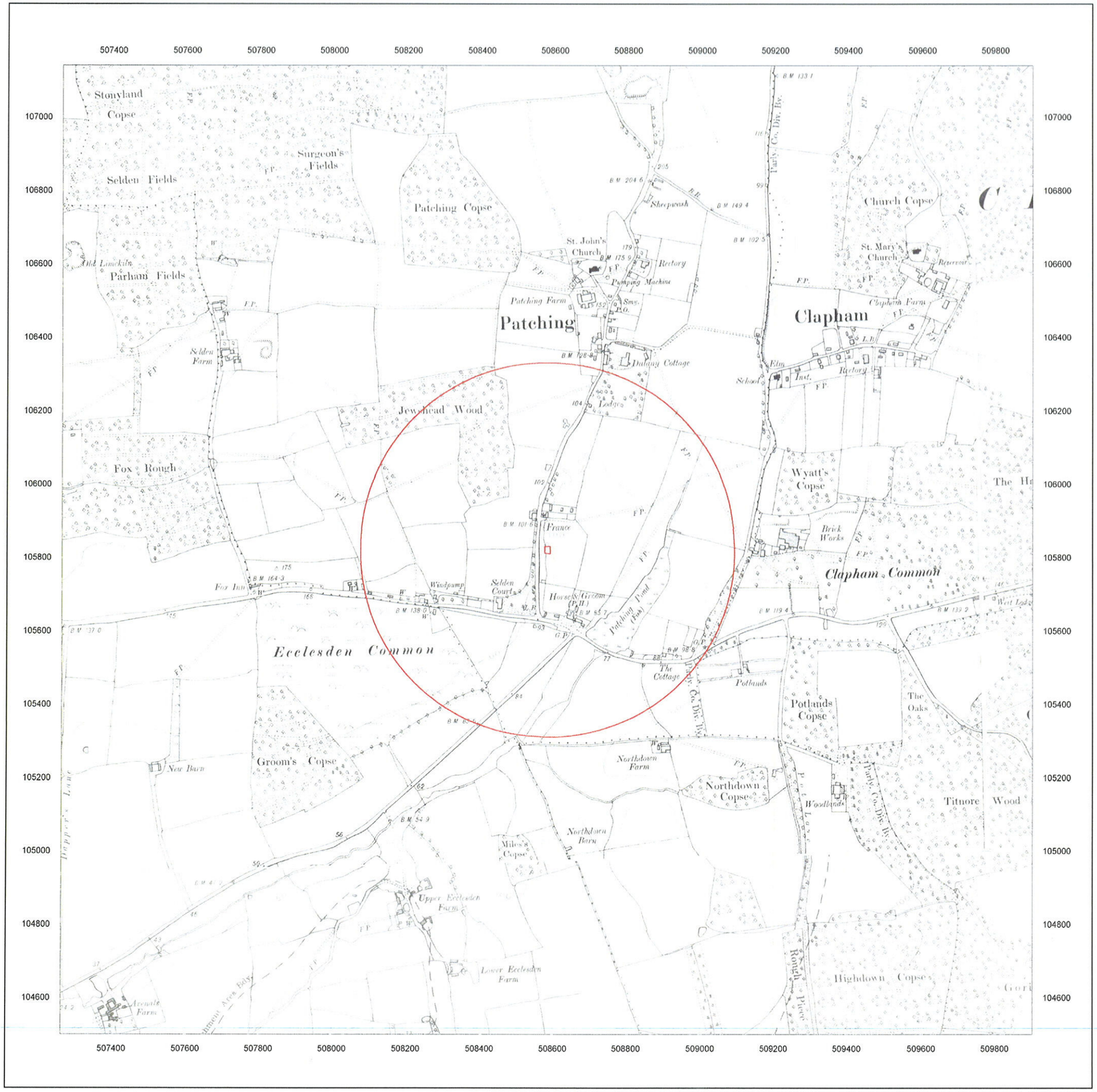
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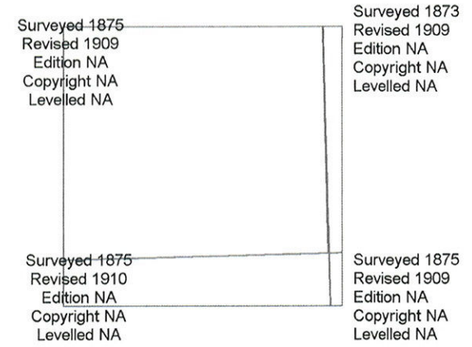
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Report Ref: CMAPS-CM-40201-11344-290110HIS
Grid Ref: 508582, 105821

Map Name: County Series

Map date: **1909-1910**

Scale: 1:10,560

Printed at: 1:10,560



GroundSure

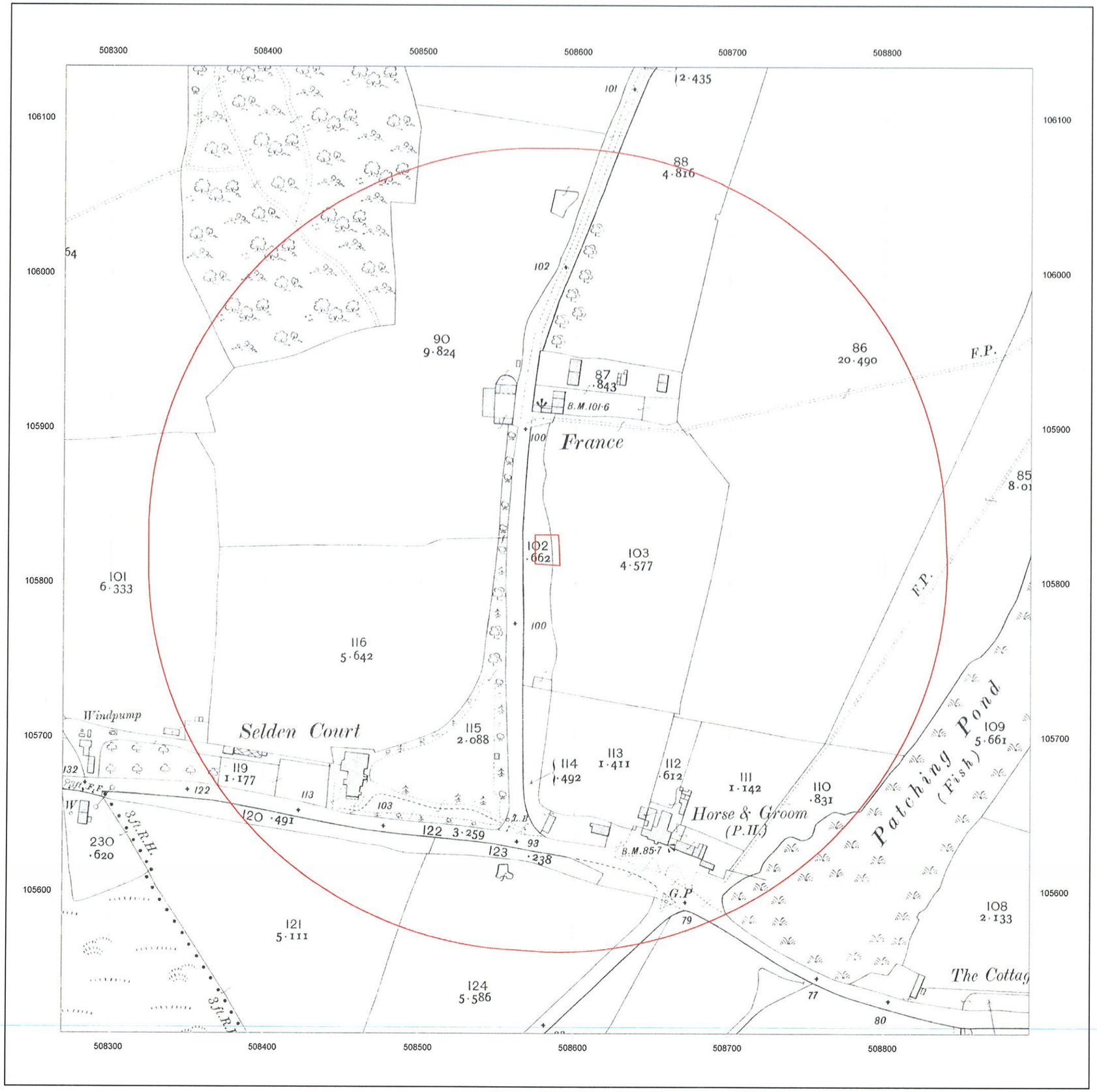
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BN13 3UP

Client Ref: 11344
Report Ref: CMAPS-CM-40201-11344-290110HIS
Grid Ref: 508582, 105821

Map Name: County Series

Map date: **1911**

Scale: 1:2,500

Printed at: 1:2,500

Surveyed 1911
Revised 1911
Edition NA
Copyright NA
Levelled NA

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Client Ref: 11344
Report Ref: CMAPS-CM-40201-11344-290110HIS
Grid Ref: 508582, 105821

Map Name: Provisional

Map date: **1957**

Scale: 1:10,560

Printed at: 1:10,560

Surveyed 1957
Revised 1957
Edition NA
Copyright NA
Levelled NA

Surveyed 1957
Revised 1957
Edition NA
Copyright NA
Levelled NA

GroundSure

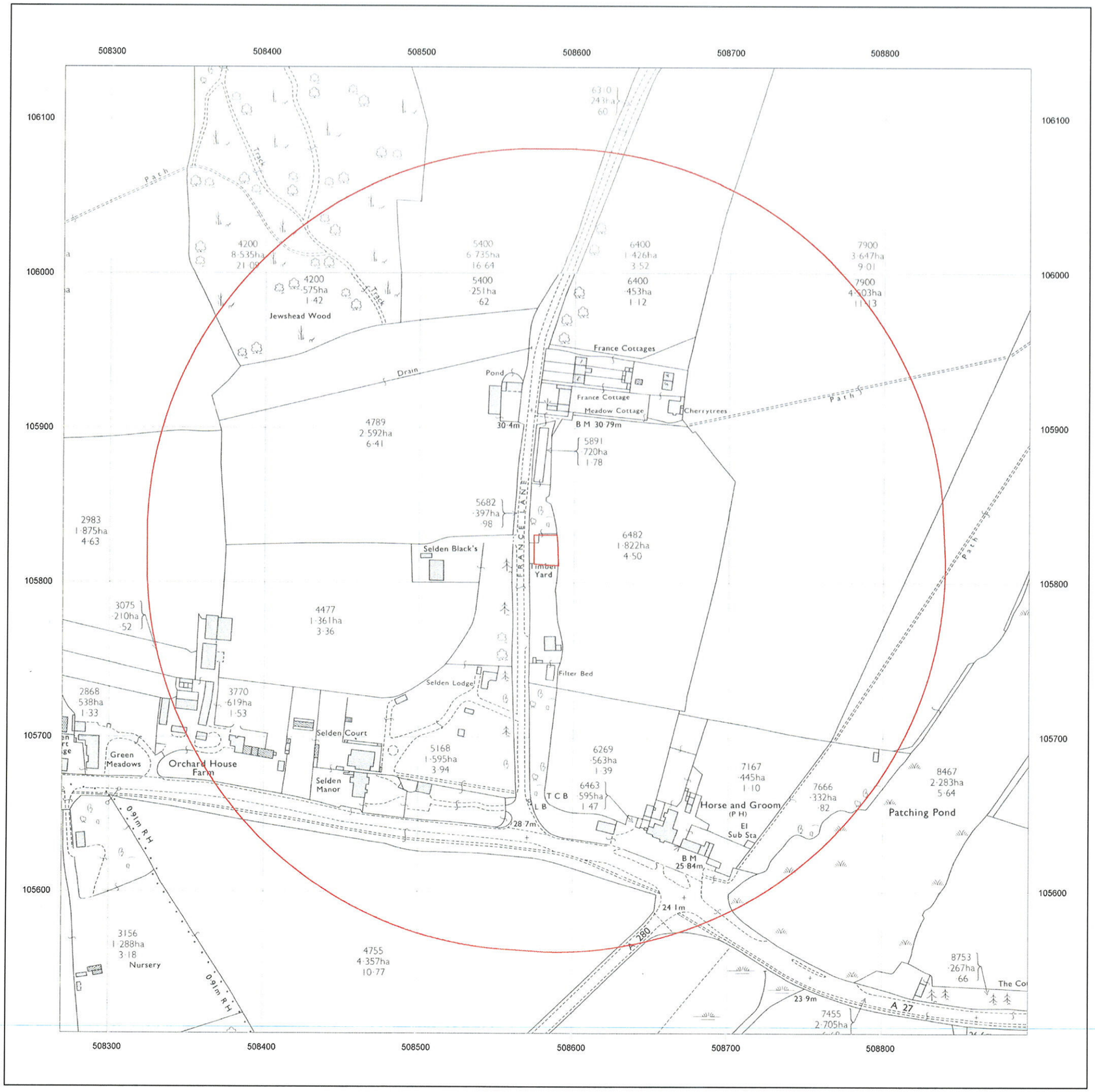
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BN13 3UP

Client Ref: 11344
Report Ref: CMAPS-CM-40201-11344-290110HIS
Grid Ref: 508582, 105821

Map Name: National Grid

Map date: **1971-1972**

Scale: 1:2,500

Printed at: 1:2,500

Surveyed 1972
Revised 1972
Edition NA
Copyright NA
Levelled 1966

Surveyed 1971
Revised 1971
Edition NA
Copyright 1972
Levelled 1966

GroundSure

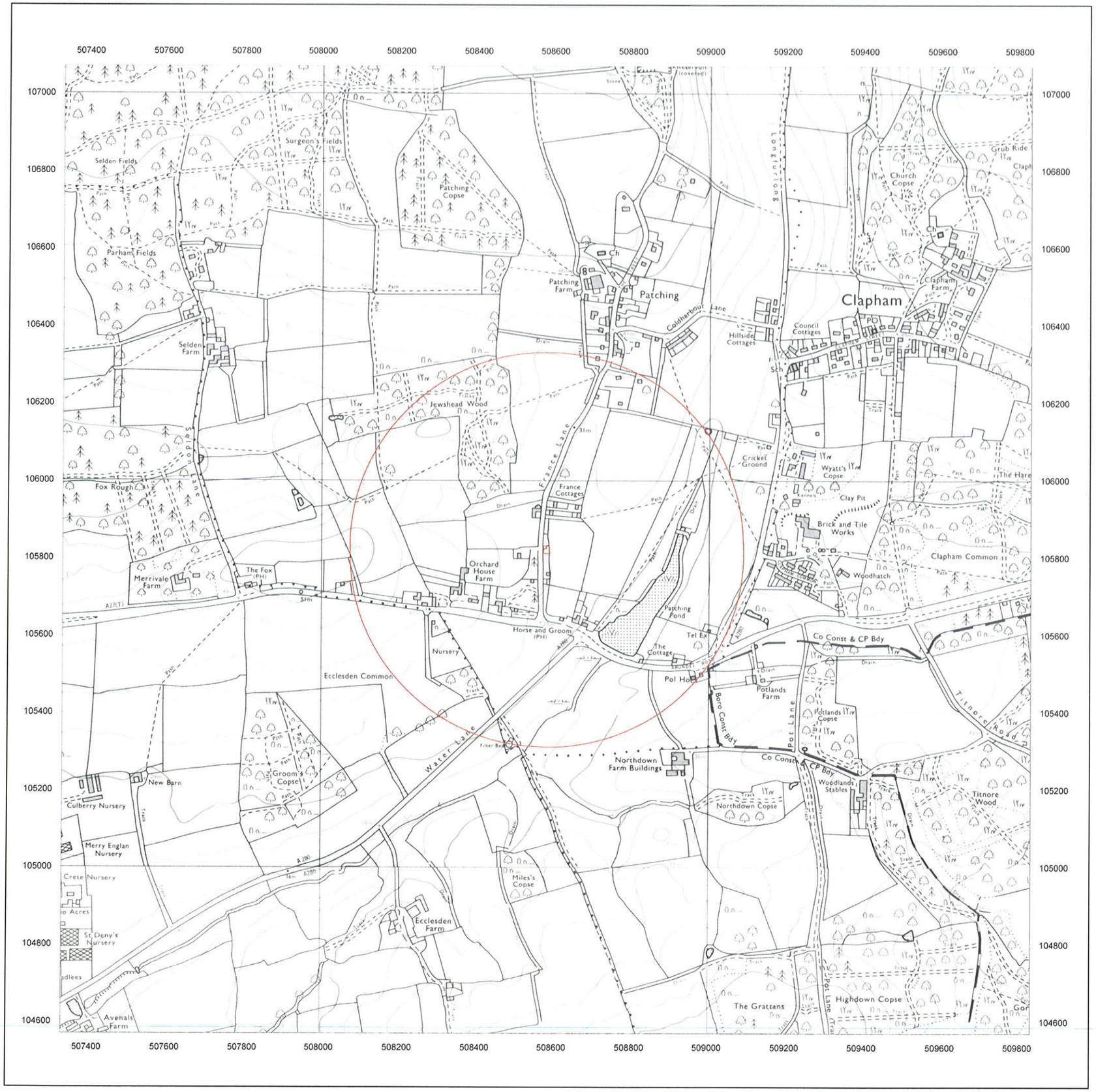
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Client Ref: 11344
Report Ref: CMAPS-CM-40201-11344-290110HIS
Grid Ref: 508582, 105821

Map Name: National Grid

Map date: **1974-1976**

Scale: 1:10,000

Printed at: 1:10,000

Surveyed 1972
Revised 1976
Edition NA
Copyright NA
Levelled NA

Surveyed 1973
Revised 1974
Edition NA
Copyright NA
Levelled NA

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Client Ref: 11344
Report Ref: CMAPS-CM-40201-11344-290110HIS
Grid Ref: 508582, 105821

Map Name: National Grid

Map date: **1994-1995**

Scale: 1:2,500

Printed at: 1:2,500

Surveyed ?
Revised ?
Edition NA
Copyright NA
Levelled NA

Surveyed 1995
Revised 1995
Edition NA
Copyright 1995
Levelled NA

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BN13 3UP

Client Ref: 11344
Report Ref: CMAPS-CM-40201-11344-290110HIS
Grid Ref: 508582, 105821

Map Name: 1:10,000 Raster

Map date: **2002**

Scale: 1:10,000

Printed at: 1:10,000

2002

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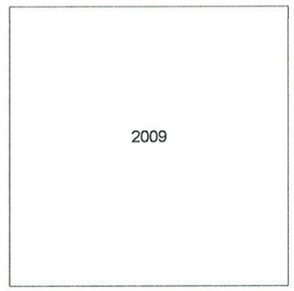
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Report Ref: CMAPS-CM-40201-11344-290110HIS
Grid Ref: 508582, 105821

Map Name: MasterMap

Map date: **2009**

Scale: 1:2,500

Printed at: 1:2,500



GroundSure

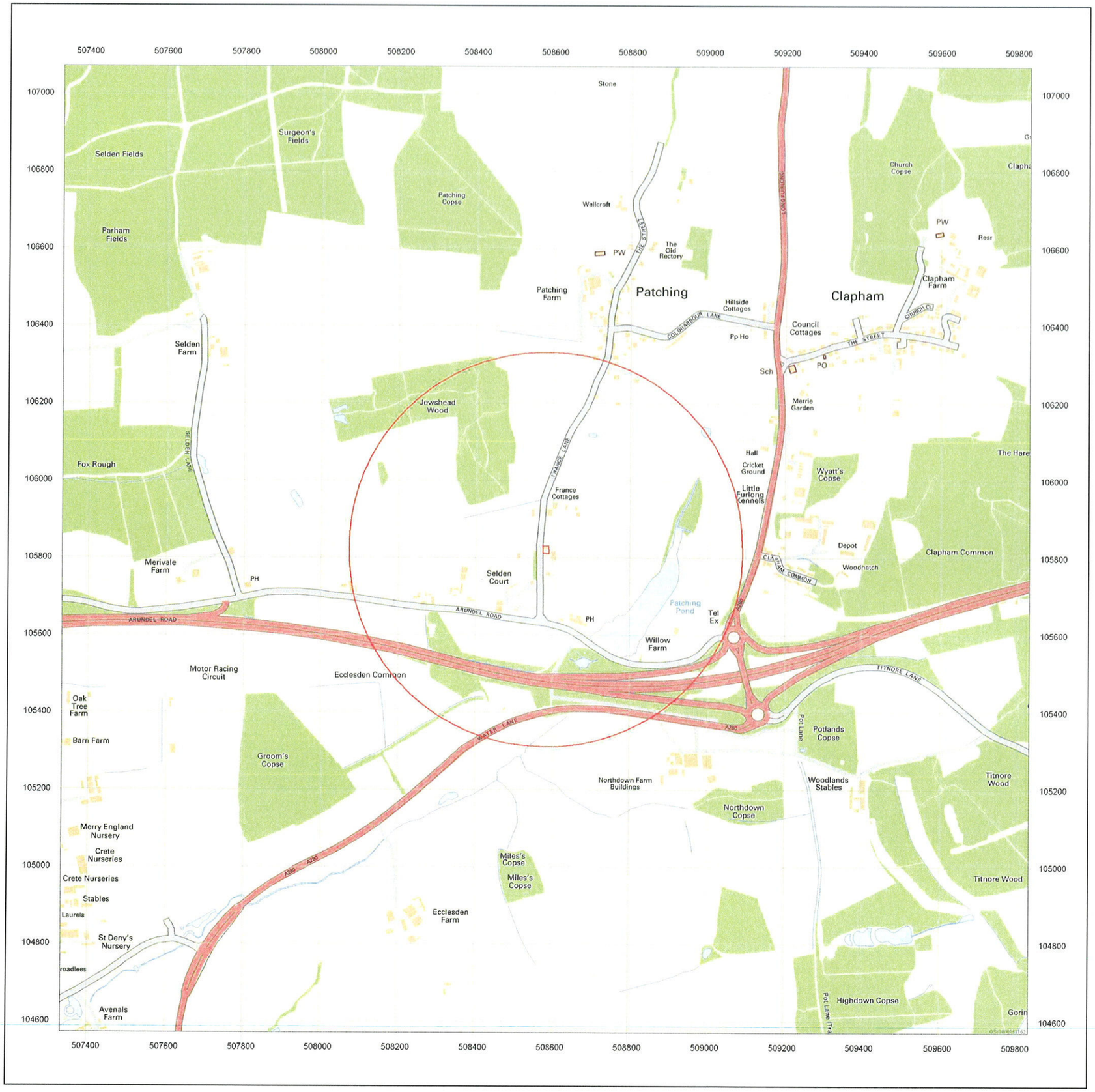
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BN13 3UP

Client Ref: 11344
Report Ref: CMAPS-CM-40201-11344-290110HIS
Grid Ref: 508582, 105821

Map Name: National Grid

Map date: **2009**

Scale: 1:10,000

Printed at: 1:10,000

2009

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APPENDIX E

GroundSure Report

constructiveevaluation
Building & Material Test Consultants

centremapslive.com
the mapping portal from Laser Surveys

CENTREMAPS
Brockamin House, Leigh,
WR6 5JU

Report Reference:	CMAPS-CM-40201-11344-290110GEO
Your Reference:	11344
Report Date	Jan 29, 2010
Report Delivery Method:	Email - pdf

GroundSure GeoInsight

Address: **FRANCE LANE WOOD YARD,FRANCE LANE,PATCHING,WORTHING, BN13 3UP**

Dear Sir/Madam,

Thank you for placing your order with GroundSure. Please find enclosed the **GroundSure GeoInsight** as requested.

If you need any further assistance, please do not hesitate to contact our helpline on 01886 832972 quoting the above CENTREMAPS reference number.

Yours faithfully,

CENTREMAPS

Enc.
GroundSure GeoInsight

centremapslive.com
the mapping portal from Laser Surveys

GroundSure

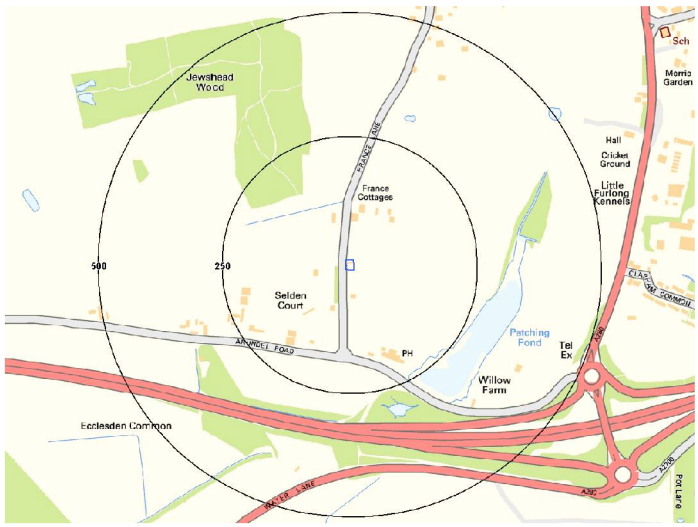
GroundSure GeoInsight

Address: FRANCE LANE WOOD YARD,FRANCE LANE,PATCHING,WORTHING, BN13 3UP

Date: Jan 29, 2010

Report Reference: CMAPS-CM-40201-11344-290110GEO

Your Reference: 11344



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If you would like any further assistance regarding this report then please contact
CENTREMAPS on (T) 01886 832972, (F) 01883 833485, email: groundsure@centremaps.co.uk

ARUN DISTRICT COUNCIL PA/25/08/

Aerial Photograph of Study Site

NW N NE



W E

SW S SE

Aerial photography supplied by Getmapping PLC.
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Site Name: FRANCE LANE WOOD YARD,FRANCE LANE,PATCHING,WORTHING, BN13 3UP

Grid Reference: 508582,105821

ARUN DISTRICT COUNCIL PA/25/08/

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 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.

Report Section	Number of records found within (X) m of the study site boundary
1. Geology	Description
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 & 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?	No
1.3.4 Is the property in a Radon Affected Area as defined by the Health Protection Agency (HPA) and if so what percentage of homes are above the Action Level?	The property is in a radon Affected Area, as between 1 and 3% of properties are above the Action Level
1.3.5 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 Resea rch Establishment?	No radon protective measures are necessary

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

Source:Scale 1:50,000 BGS Sheet No:317

ARUN DISTRICT COUNCIL PA/25/08/

2. Ground Workings	on-site	0-50	51-250	251-500	501-1000
2.1 Historical Surface Ground Working Features from Small Scale Mapping	0	0	6	-	-
2.2 Historical Underground Workings Features from Small Scale Mapping	0	0	0	0	0
2.3 Current Ground Workings	0	0	0	0	1

3. Mining, Extraction & Natural Cavities	on-site	0-50	51-250	251-500	501-1000
3.1 Historical Mining	0	0	0	0	0
3.2 Coal Mining	0	0	0	0	0
3.3 Shallow Mining*	1	-	-	-	-
3.4 Non – Coal Mining Cavities	0	0	0	0	0
3.5 Natural Cavities	0	0	0	0	2
3.6 Brine Extraction	0	0	0	0	0
3.7 Gypsum Extraction	0	0	0	0	0
3.8 Tin Mining	0	0	0	0	0
3.9 Clay Mining	0	0	0	0	0

*This includes an automatically generated 150m buffer zone around the site

4. Natural Ground Subsidence	on-site*	0-50	51-250	251-500	501-1000
4.1 Shrink-Swell Clay	Moderate	-	-	-	-
4.2 Landslides	Very Low	-	-	-	-
4.3 Ground Dissolution of Soluble Rocks	Negligible	-	-	-	-
4.4 Compressible Deposits	Negligible	-	-	-	-
4.5 Collapsible Deposits	Negligible	-	-	-	-
4.6 Running Sand	Very Low	-	-	-	-

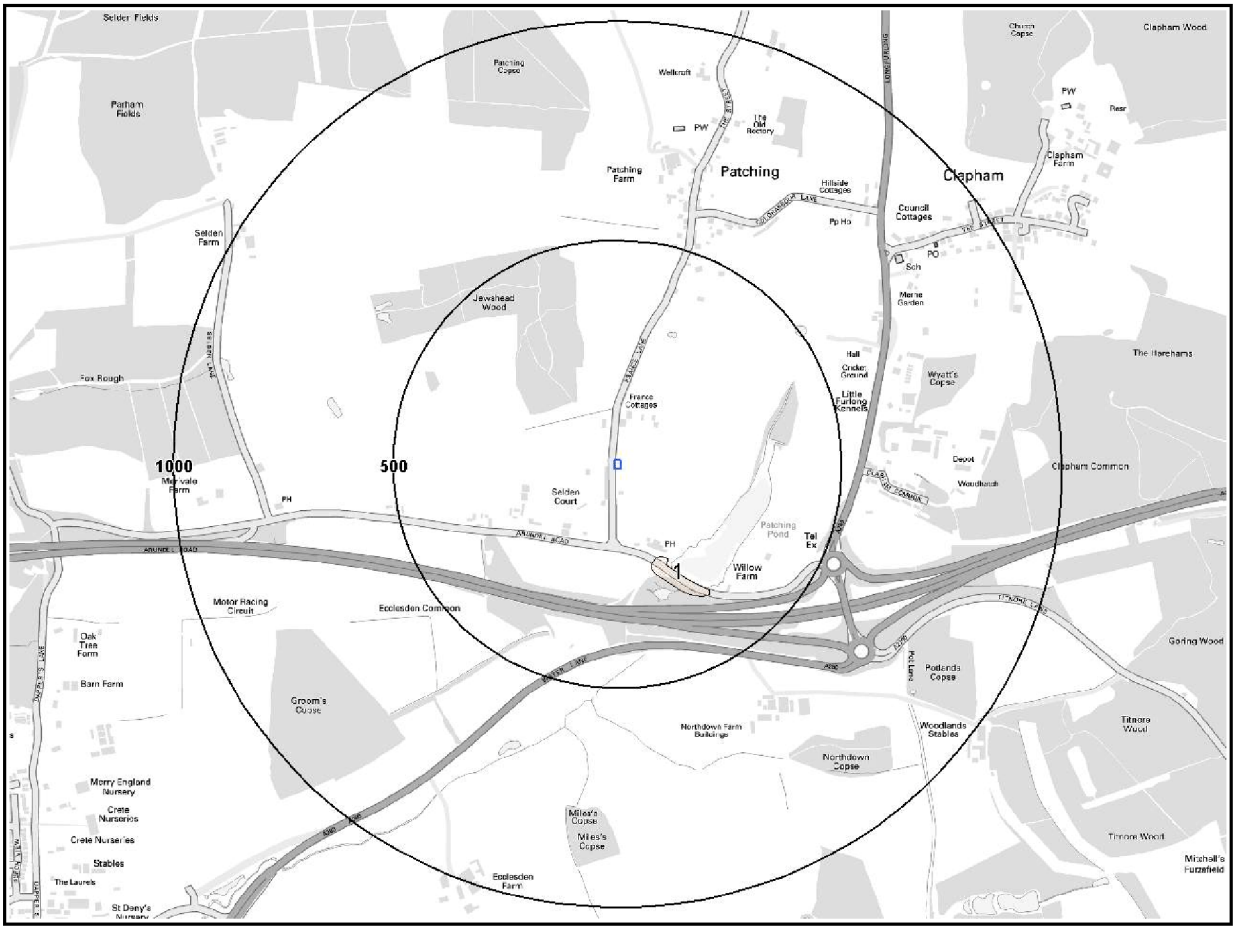
* This includes an automatically generated 50m buffer zone around the site

5. Borehole Records	on-site	0-50	51-250	251-500	501-1000
5.1 BGS Recorded Boreholes	0	0	2	-	-

ARUN DISTRICT COUNCIL PA/25/08/

1.1 Artificial Ground Map

NW N NE



W E

SW S SE

Artificial Ground Legend

Enabled by Ordnance Survey

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Site Outline

500
1000
Search Buffers (m)

Made Ground (undivided)

Disturbed Ground (undivided)

Worked Ground (undivided)

Landscaped Ground (undivided)

Infilled Ground

Reclaimed Ground

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

1.1 Artificial Ground

The following geological information represented on the mapping is derived from 1:50,000 scale BGS Geological mapping, Sheet No:317

1.1.1 Artificial/Made Ground

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	218.0	S	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**

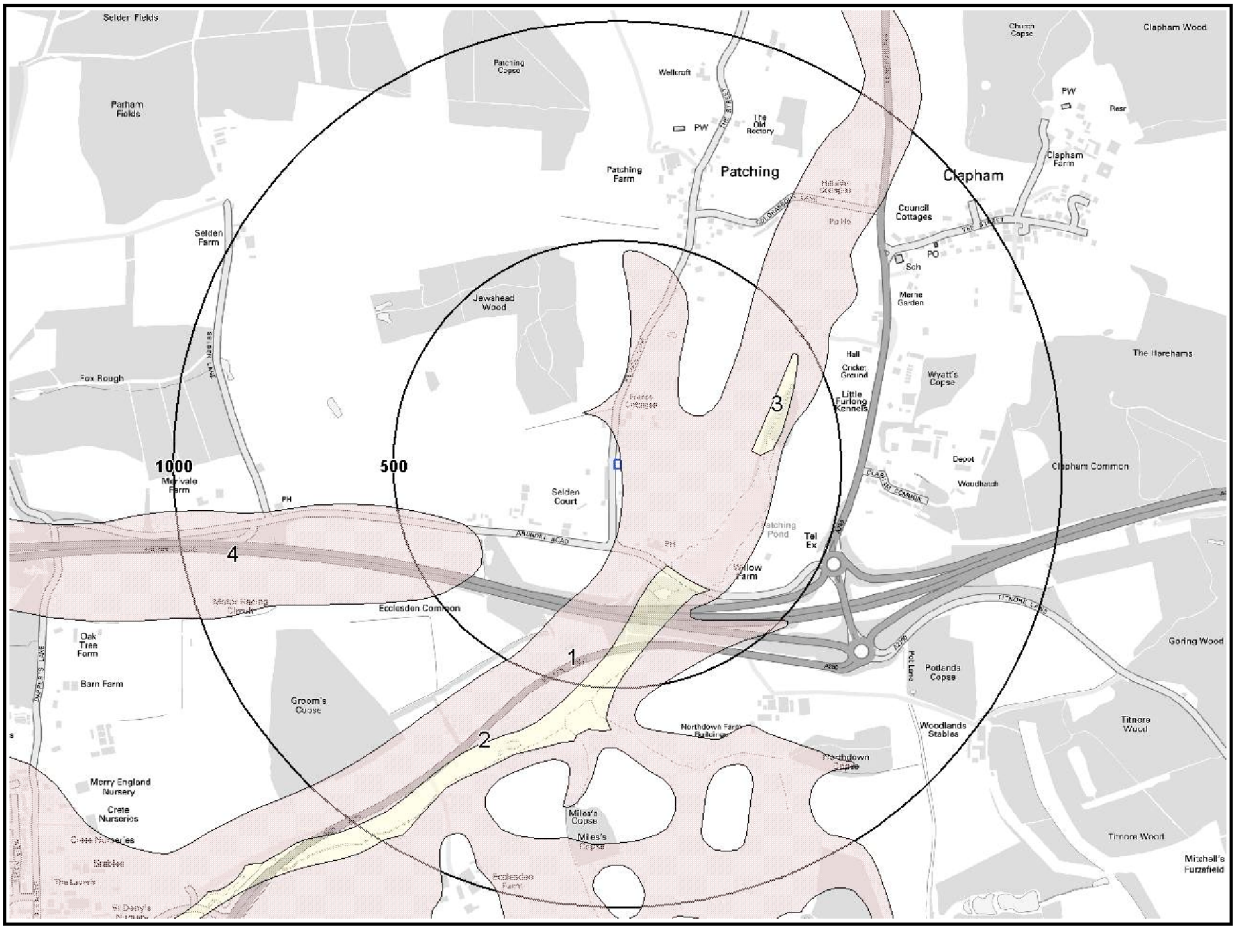
Database searched and no data found.

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

ARUN DISTRICT COUNCIL PA/25/08/

1.2 Superficial Deposits and Landslips Map

NW N NE



W E

SW S SE

Superficial and Landslips Legend

Enabled by Ordnance Survey

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Site Outline

500
1000
Search Buffers (m)

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

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	E	HEAD-CSSG	HEAD	CLAY, SILT, SAND AND GRAVEL
2	242.0	SE	ALV-CSSG	ALLUVIUM	CLAY, SILT, SAND AND GRAVEL
3	296.0	E	ALV-CSSG	ALLUVIUM	CLAY, SILT, SAND AND GRAVEL
4	347.0	SW	HEAD-CSSG	HEAD	CLAY, SILT, SAND AND GRAVEL

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	E	Mixed	High	Very Low

1.2.3 Landslip

Database searched and no data found.

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

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 discreet 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**

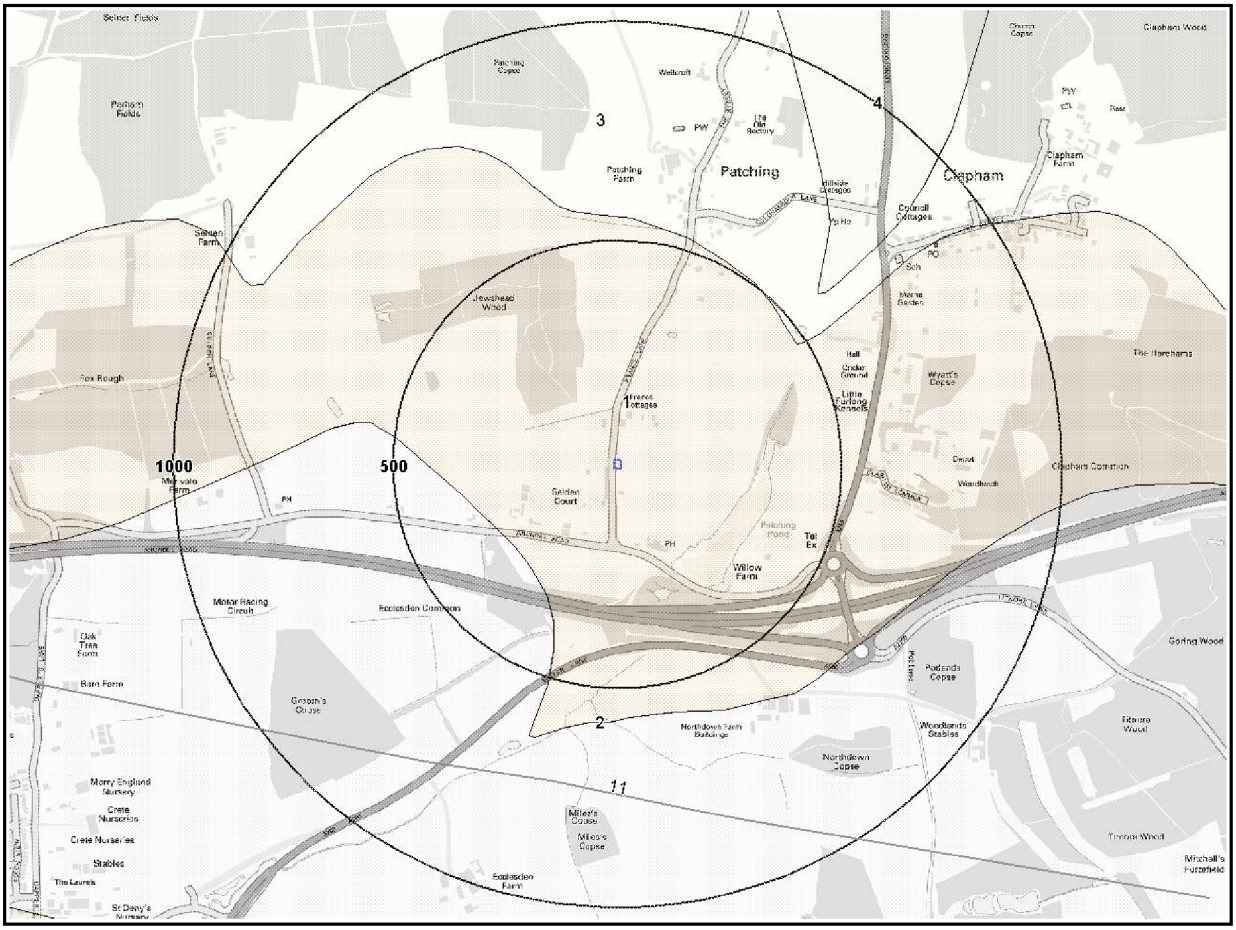
Database searched and no data found.

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

ARUN DISTRICT COUNCIL PA/25/08/

1.3 Bedrock and Faults Map

NW N NE



◄W E►

SW S SE

Bedrock & Faults Deposits Legend

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Licence Number: 100035207

Site Outline

500
1000
Search Buffers (m)

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

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:317

1.3.1 Bedrock/Solid Geology

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

ID	Distance (m)	Direction	LEX Code	Rock Description	Rock Age
1	0.0	On Site	LMBE-CLSS	Lambeth Group - Clay, Silt And Sand	Paleocene
2	286.0	SW	LC-CLSS	London Clay Formation - Clay, Silt And Sand	Eocene
3	480.0	NE	SPCH-CHLK	Spetisbury Chalk Member - Chalk	Campanian

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	Mixed	Moderate	Very Low

1.3.3 Faults

Database searched and no data found.

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

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 discreet 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.

1.3.4 Radon Affected Areas

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

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

1.3.5 Radon Protection

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

No radon protective measures are necessary

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

ARUN DISTRICT COUNCIL PA/25/08/

2. Ground Workings Map



Ground Workings Legend

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Site Outline

125
250
Search Buffers (m)

Historic Surface Ground Workings

Historic Underground Workings

Current Ground Workings

2. Ground Workings

2.1 Historical Surface Ground Working Features derived from the 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	221.0	SE	508877,105709	Pond	1876
2A	221.0	SE	508877,105709	Pond	1876
3B	227.0	SE	508809,105687	Fish Pond	1899
4B	227.0	SE	508809,105687	Fish Pond	1909
5B	229.0	SE	508867,105713	Pond	1976
6B	229.0	SE	508867,105713	Fish Pond	1957

2.2 Historical Underground Workings Features derived from the Historical Mapping

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

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

Database searched and no data found.

2.3 Current Ground Workings

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

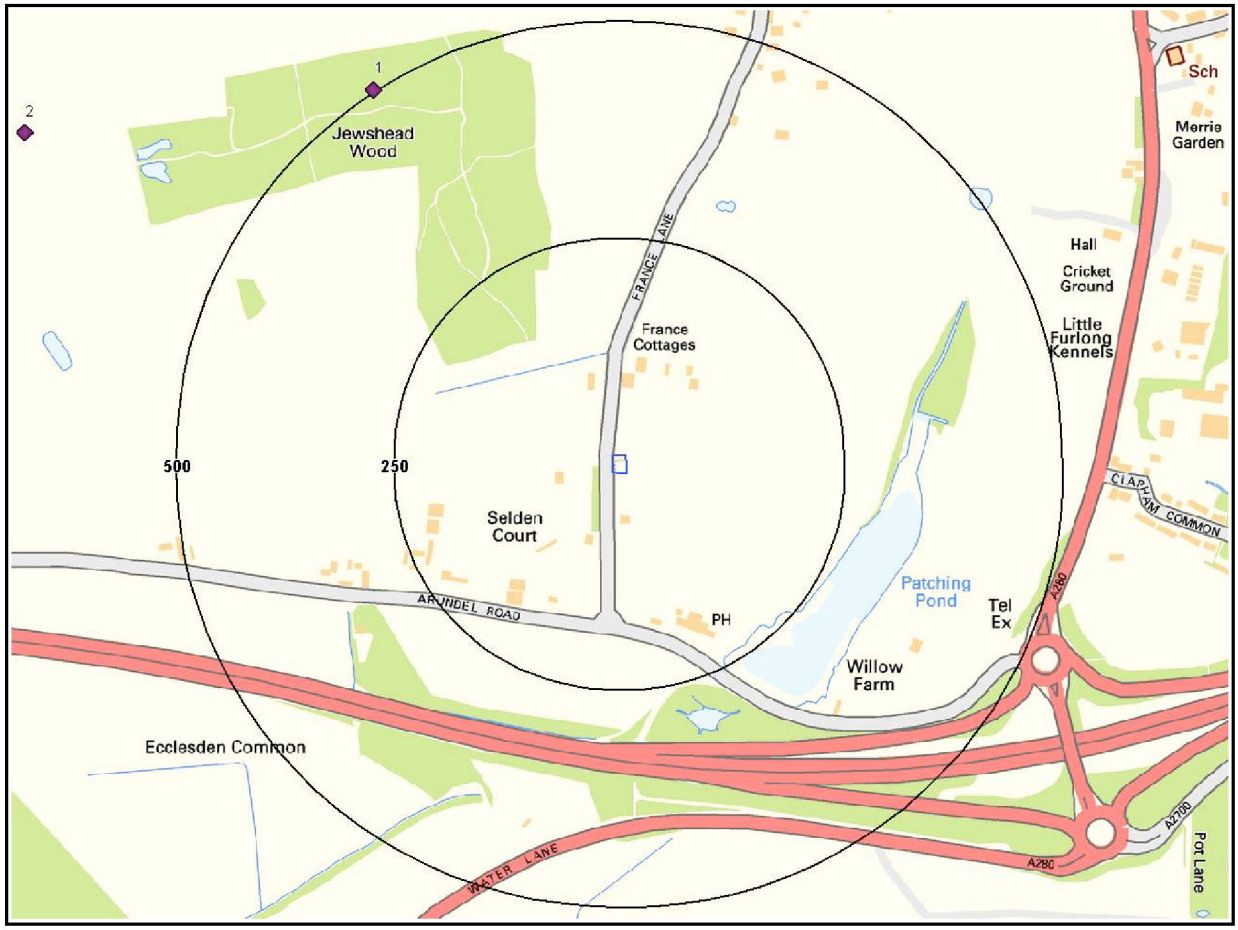
Are there any BGS Current Ground Workings within 1000m of the study site boundary? **Yes**

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

ID	Distance (m)	Direction	NGR	Use	Date Updated
Not shown	774.0	E	509360,105900	Clay & Shale	28/10/2008

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3. Mining, Extraction & Natural Cavities Map



Mining, Extraction & Natural Cavities Legend

Enabled by Ordnance Survey

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Licence Number: 100035207

Site Outline

250
500
Search Buffers (m)

Historical Mining

Non-Coal Mining Cavities

Natural Cavities

3. Mining, Extraction & Natural Cavities

3.1 Historical Mining

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

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

Database searched and no data found.

3.2 Coal Mining

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

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

Database searched and no data found.

3.3 Shallow Mining

This dataset refers to the (largely very old) extraction of mineral deposits by means of near surface underground workings.

What is the maximum hazard rating of subsidence relating to shallow mining within the study site* boundary? **Negligible**

*This includes an automatically generated 150m buffer zone around the study site boundary

The following Shallow Mining information provided by the British Geological Survey is not represented on Mapping:

Distance (m)	Direction	Hazard Rating	Details
0.0	On Site	Negligible	Where negligible potential is indicated, this means that the rocks underlying the area are not likely to have been mined at shallow depth. However, you should still find out whether or not a Coal Authority mining search is required in the area, for example, to check for deeper mining.
143.0	S	Negligible	Where negligible potential is indicated, this means that the rocks underlying the area are not likely to have been mined at shallow depth. However, you should still find out whether or not a Coal Authority mining search is required in the area, for example, to check for deeper mining.

3.4 Non – Coal Mining Cavities

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

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

Database searched and no data found.

3.5 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? **Yes**

The following Natural Cavities information provided by Peter Brett Association:

ID	Distance (m)	Direction	NGR	Superficial Deposits	Bedrock Deposits	Cavity Type and Number
1	501.0	NW	TQ	-	Lambeth Group, Upper Chalk Formation	Swallow Hole x 2
2	768.0	NW	TQ	-	Lambeth Group, Upper Chalk Formation	Swallow Hole x 1

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3.6 Brine Extraction

This dataset provides information from the Brine compensation board which has been discontinued and is now covered by the Coal Authority.

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

Database searched and no data found.

3.7 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.

3.8 Tin Mining

This dataset provides information on tin mining areas and is derived from tin mining records.

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

Database searched and no data found.

3.9 Clay Mining

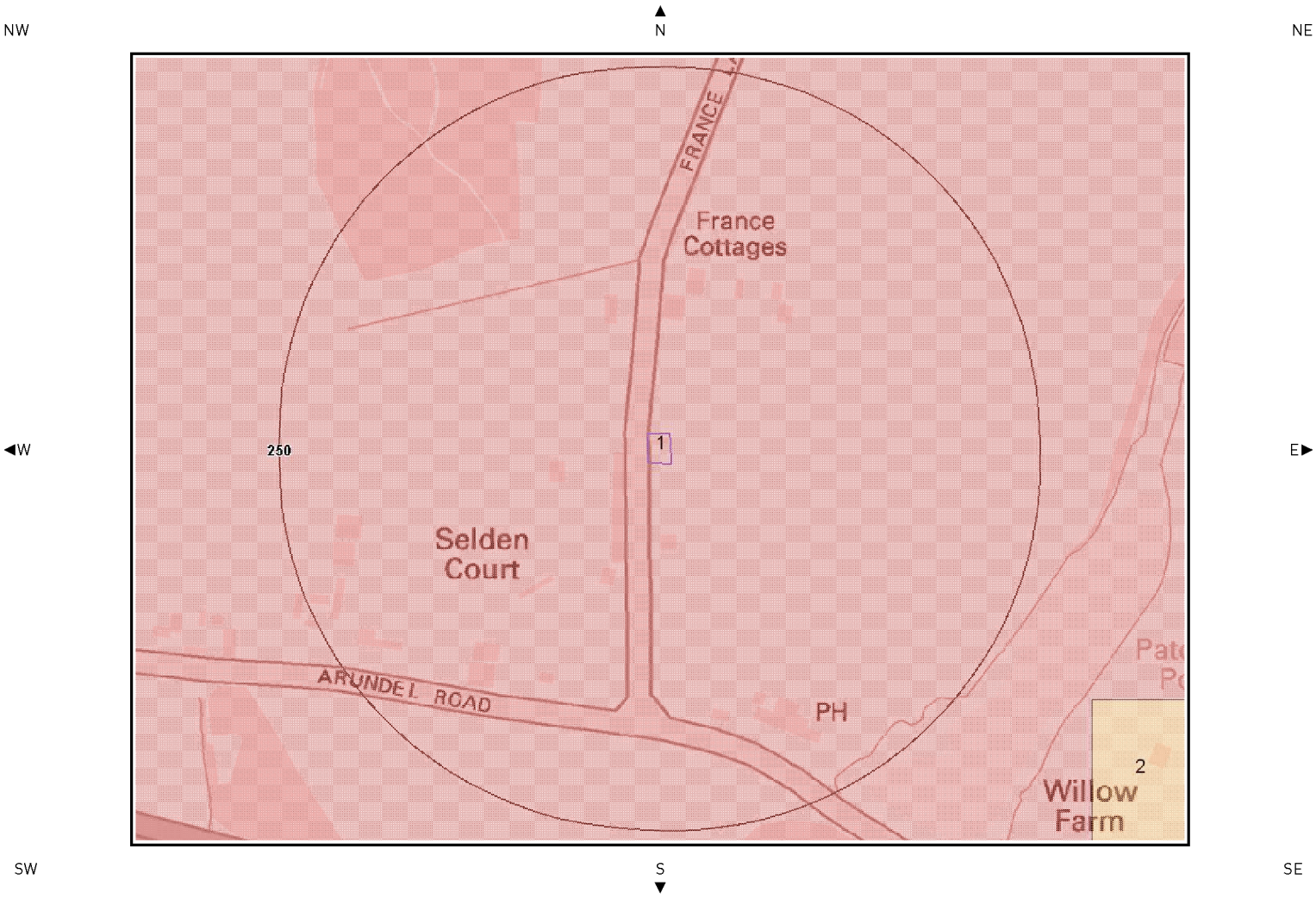
This dataset provides information on Kalin and Ball Clay mining from relevant mining records.

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

Database searched and no data found.

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4. Natural Ground Subsidence
4.1 Shrink-Swell Clay Map



Shrink-Swell Clay Legend

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Site Outline

125
250
Search Buffers (m)

No Data / Null
Negligible
Very Low
Low
Moderate
High

4.2 Landslides Map



Landslides Legend

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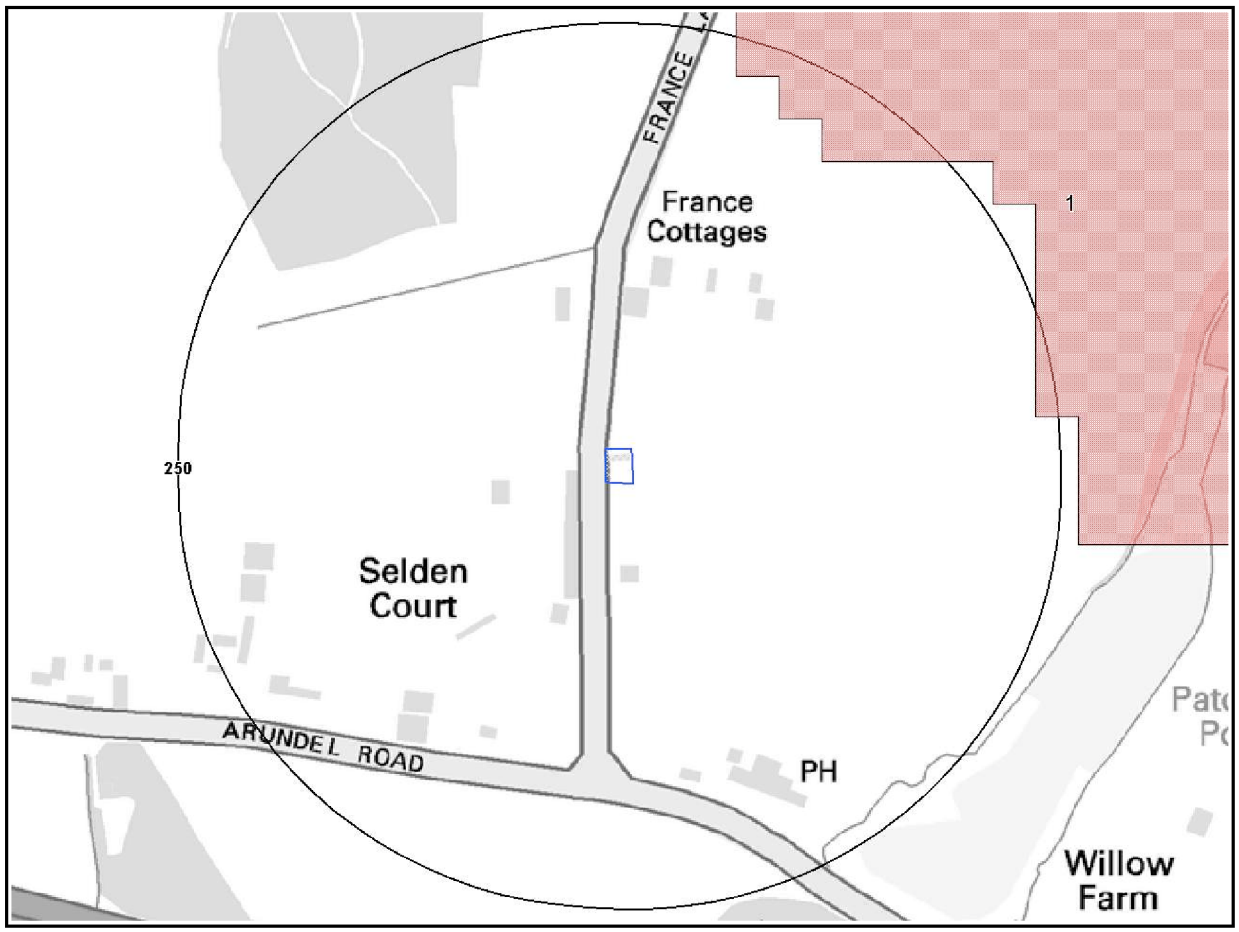
Site Outline

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

Enabled by Ordnance Survey

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Site Outline

125
250
Search Buffers (m)

No Data / Null

Negligible

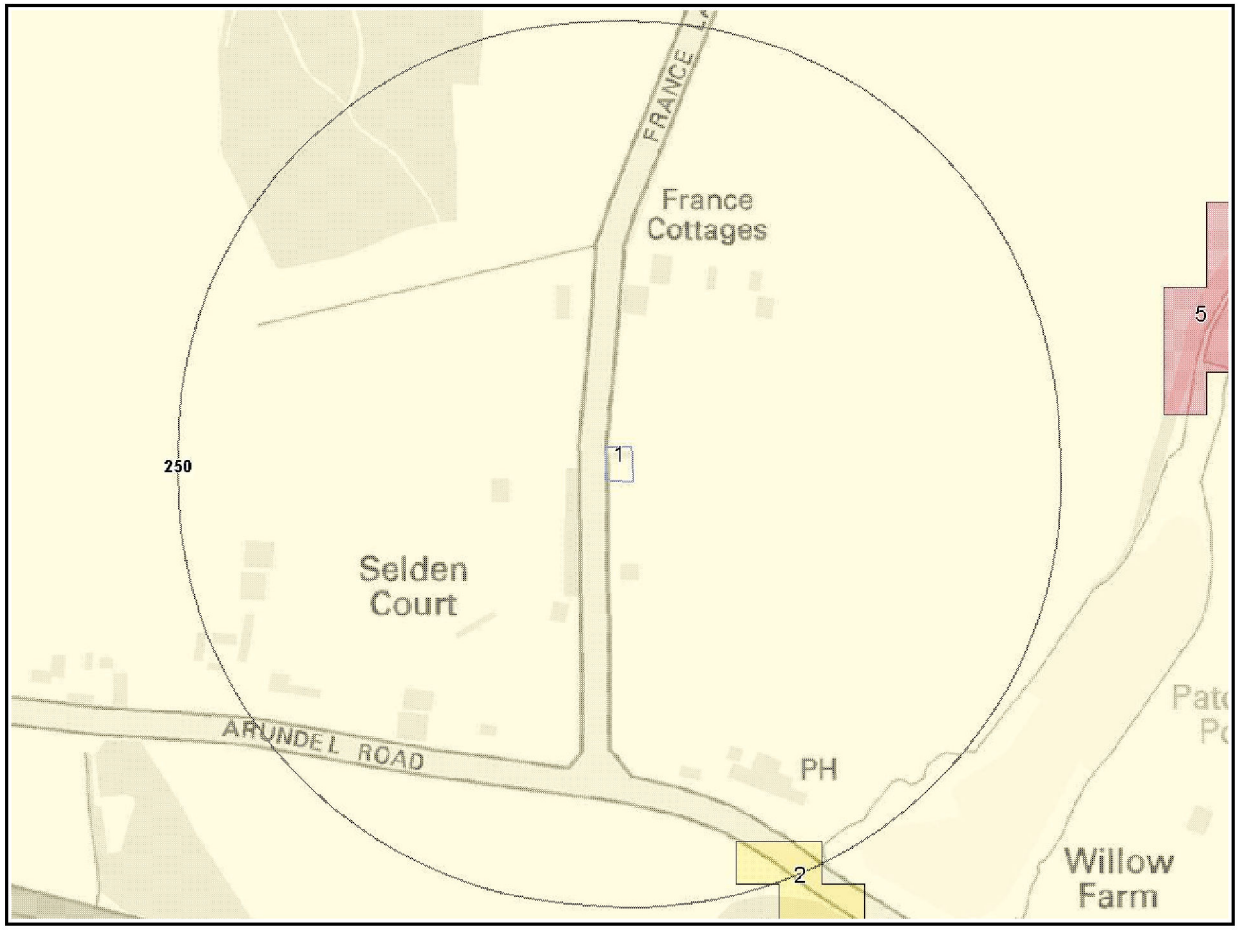
Very Low

Low

Moderate

High

4.4 Compressible Deposits Map



Compressible Deposits Legend

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Site Outline

125
250
Search Buffers (m)

No Data / Null

Negligible

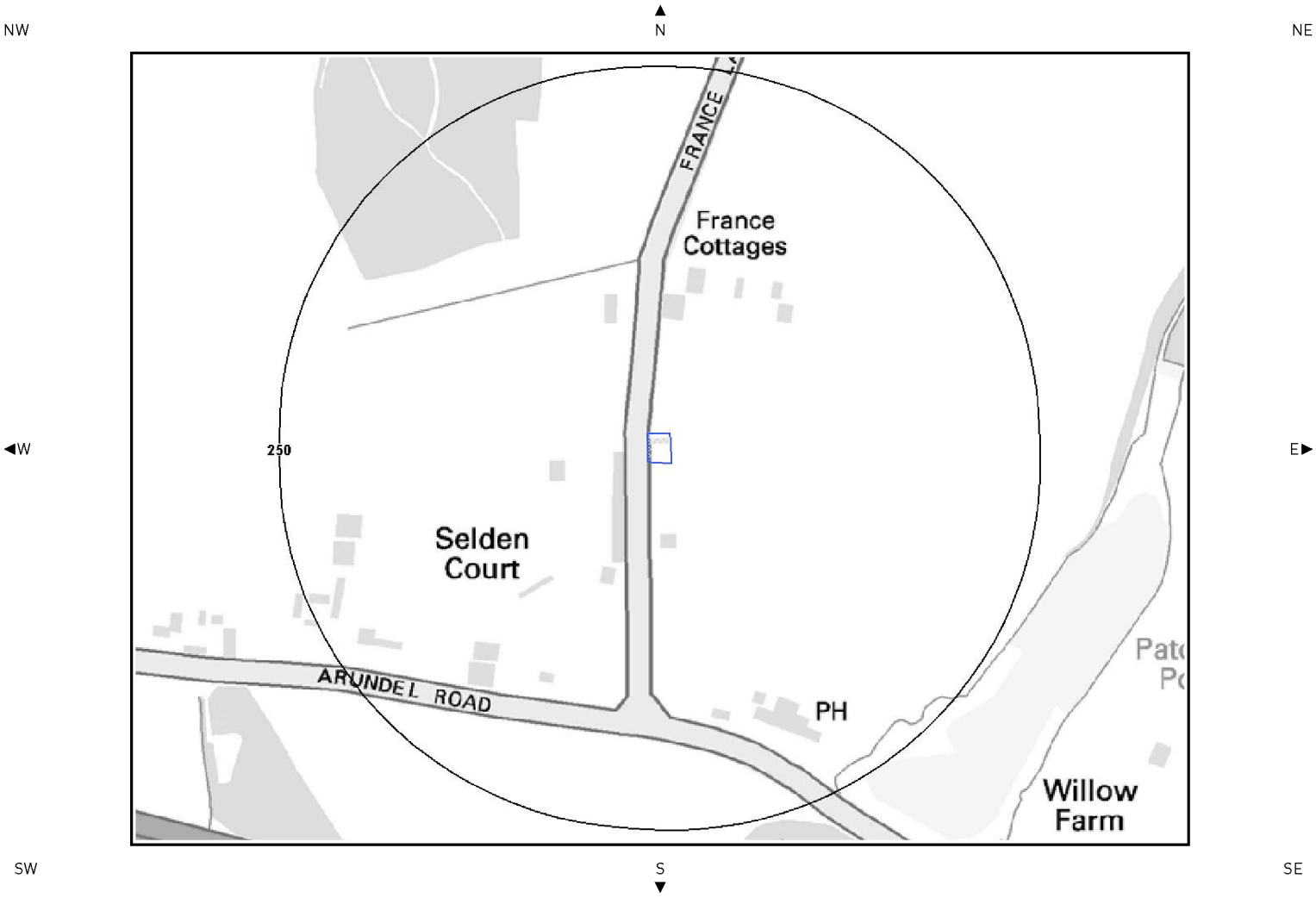
Very Low

Low

Moderate

High

4.5 Collapsible Deposits Map



Collapsible Deposits Legend

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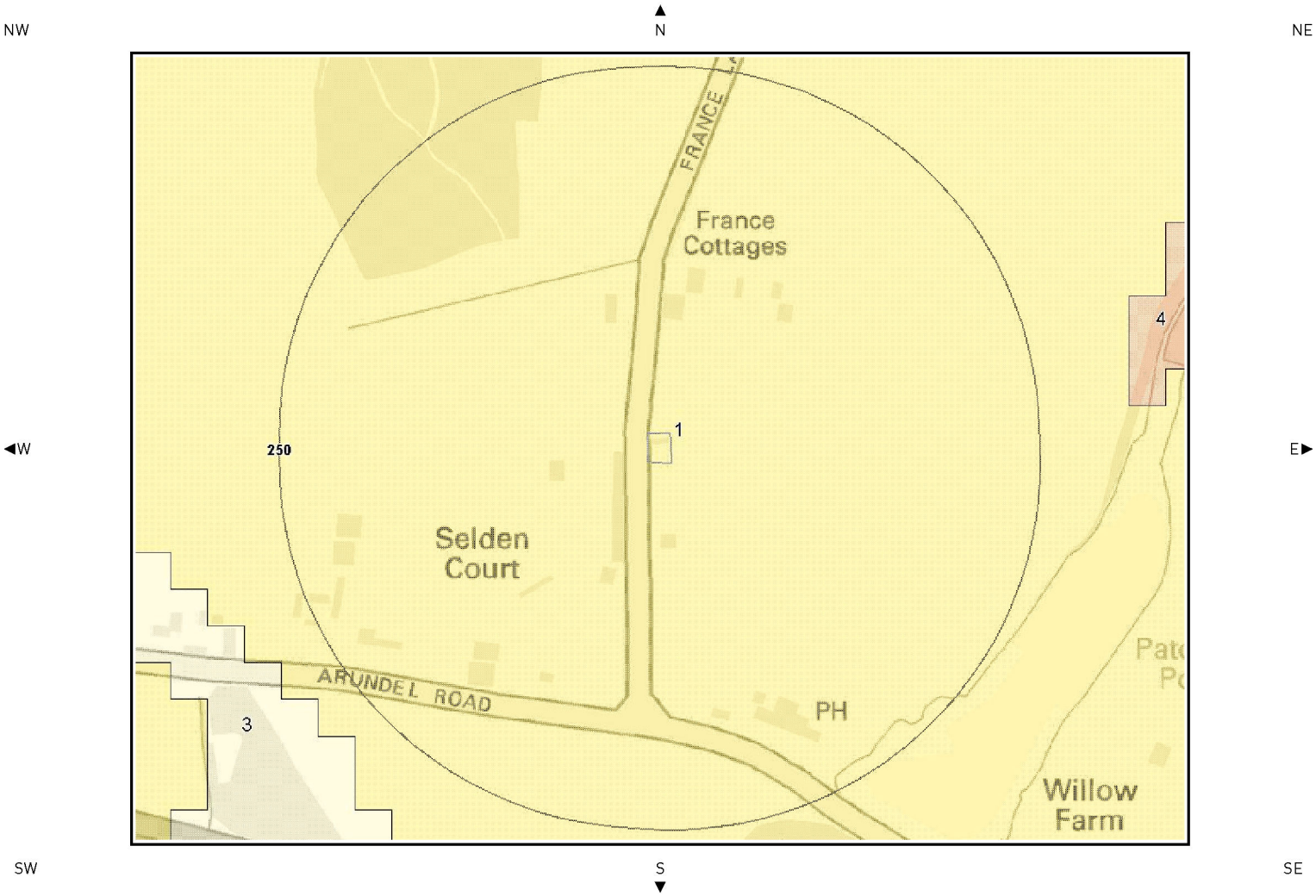
Site Outline

125
250
Search Buffers (m)

No Data / Null
Negligible
Very Low

Low
Moderate
High

4.6 Running Sand Map



Running Sand Legend

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Site Outline

125
250
Search Buffers (m)

No Data / Null
Negligible
Very Low

Low
Moderate
High

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**

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

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	Moderate	Ground conditions predominantly high plasticity. Do not plant or remove trees or shrubs near to buildings without expert advice about their effect and management. For new build, consideration should be given to advice published by the National House Building Council (NHBC) and the Building Research Establishment (BRE). There is a probable increase in construction cost to reduce potential shrink-swell problems. For existing property, there is a probable increase in insurance risk during droughts or where vegetation with high moisture demands is present.

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	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.

4.3 Ground Dissolution of Soluble Rocks

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

Distance (m)*	Direction	Hazard Rating	Details
0	On site	Null-Negligible	Soluble rocks are not present in the search area. 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 Ground information provided by the British Geological Survey:

ID	Distance (m)*	Direction	Hazard Rating	Details
1	0.0	On Site	Negligible	No indicators for compressible deposits identified. No special actions required to avoid problems due to compressible deposits. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with compressible deposits.

4.5 Collapsible Deposits

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

Distance (m)*	Direction	Hazard Rating	Details

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	0	On site	Null-Negligible	No Indicators for collapsible deposits identified. No Special actions required to avoid problems due to collapsible deposit.

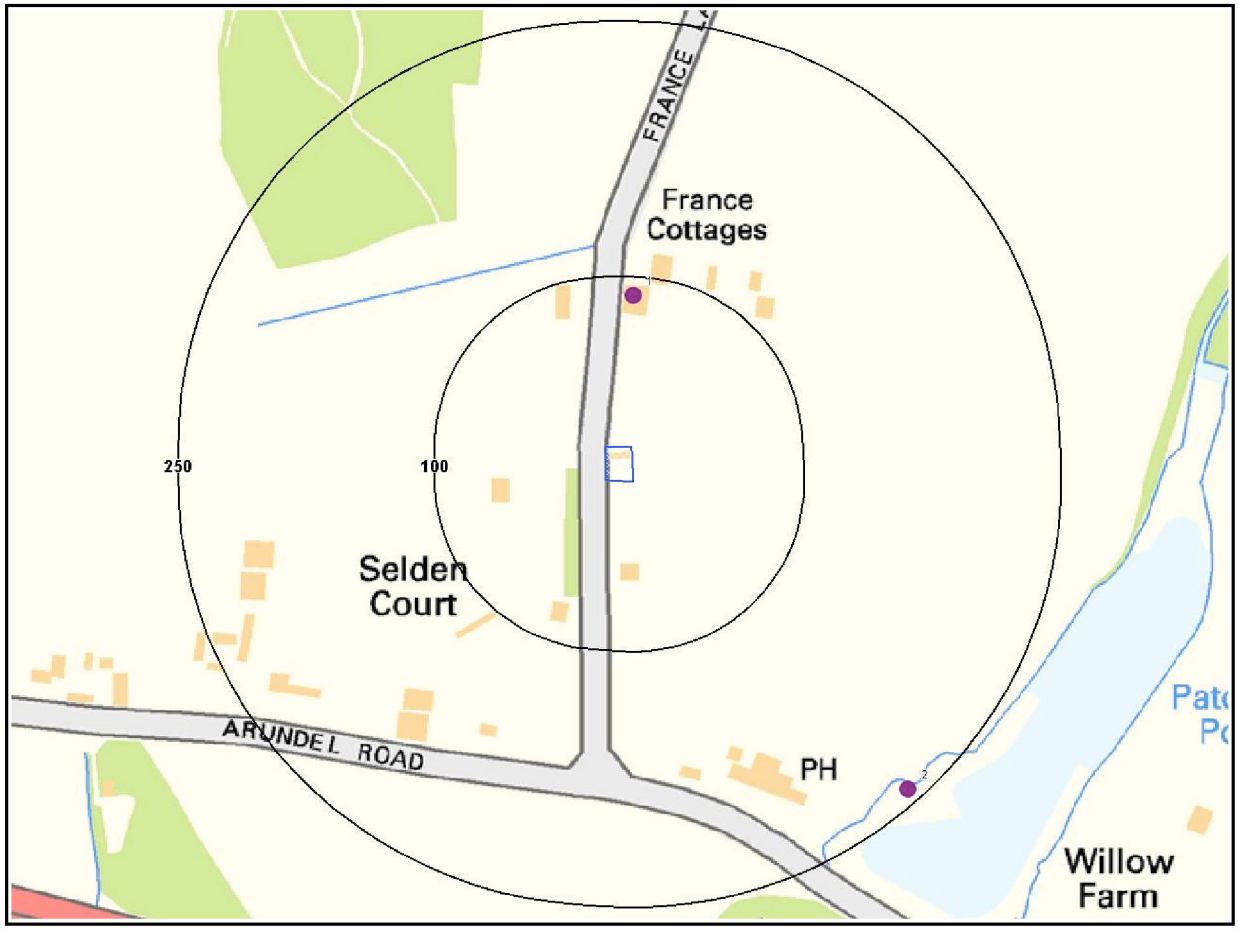
4.6 Running Sands

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

ID	Distance (m)*	Direction	Hazard Rating	Details
1	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.

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5. Borehole Records Map



Borehole Records Legend

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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: **2**

ID	Distance (m)	Direction	NGR	BGS Reference	Drilled Length (m)	Borehole Name
1	89.0	N	508590,0105920	TQ00NE40	38.1	COTTAGE PATCHING
2	242.0	SE	508750,0105630	TQ00NE71	40.0	PATCHING POND MONITORING WC10

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Contacts

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Telephone: 01886 832972
groundsure@centremaps.co.uk
CENTREMAPS, Brockamin House, Leigh, Worcester,
London, WR6 5JU

Directors: M C Walker, MInst C.E.S., C M Walker,
S J Hawkins BSc (Hons), S E Stewart BSc (Hons)
Registered No. 1890261 Registered in England and Wales
Registered Company: Laser Surveys Limited
Brockamin House, Leigh, Worcester, WR6 5JU.

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 Gypsum
British Gypsum Ltd, East Leake, Loughborough, Leicestershire, LE12 6HX
Tel: www.british-gypsum.bpb.com

The Coal Authority
200 Lichfield Lane, Mansfield, Notts NG18 4RG
Tel: 0845 762 6848
DX 716176 Mansfield 5 www.coal-authority.co.uk

Ordnance Survey
Romsey Road, Southampton SO16 4GU
Tel: 08456 050505

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

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Caversham Bridge House, Waterman Place, Reading
Berkshire RG1 8DN
Tel: +44 (0)118 950 0761 E-mail: reading@pba.co.uk

Acknowledgements

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This report has been prepared in accordance with the GroundSure Ltd standard Terms and Conditions of business for work of this nature.

Standard Terms and Conditions

1 Definitions

In these conditions unless the context otherwise requires:
"Beneficiary" means the Client or the customer of the Client for whom the Client has procured the Services.
"Commission" means an order for Consultancy Services submitted by a Client.
"Consultancy Services" mean consultancy services provided by GroundSure including, without limitation, carrying out interpretation of third party and in-house environmental data, provision of environmental consultancy advice, undertaking environmental audits and assessments, Site investigation, Site monitoring and related items.
"Content" means any data, database or other information contained in a Report or Mapping which is provided to GroundSure by a Data Provider.
"Contract" means the contract between GroundSure and the Client for the performance of the Services which arises upon GroundSure's acceptance of an Order or Commission and which shall incorporate these conditions, the relevant GroundSure User Guide, proposal by GroundSure and the content of any subsequent report, and any agreed amendments in accordance with condition 11 .
"Client" means the party that submits an Order or Commission.
"Data Provider" means any third party providing Content to GroundSure.
"Data Report" means reports comprising factual data with no professional interpretation in respect of the level of likely risk and/or liability available from GroundSure.
"GroundSure" means GroundSure Limited, a company registered in England and Wales under number 03421028 and whose registered office is at Greater London House, Hampstead Road, London NW1 7EJ.
"Home Information Pack" means a combination of reports required when selling a residential property.
"Intellectual Property" means any patent, copyright, design rights, service marks, moral rights, data protection rights, know-how, trade mark or any other intellectual property rights.
"Mapping" an historical map or a combination of historical maps of various ages, time periods and scales available from GroundSure.
"Order" means an order form submitted by the Client requiring Services from GroundSure in respect of a specified Site.
"Order Website" means online platform via which Orders may be placed.
"Report" means a Risk Screening Report or Data Report for commercial or residential property available from GroundSure relating to the Site prepared in accordance with the specifications set out in the relevant User Guide.
"Risk Screening Report" means one of GroundSure's risk screening reports such as GroundSure Homebuyers, GroundSure Home Environmental GroundSure SiteGuard, GroundSure Screening, GroundSure Review, GroundSure Developer Review, or any other risk screening report available from GroundSure.
"Services" means the provision of any Report, Mapping or Consultancy Services which GroundSure has agreed to carry out for the Client/Beneficiary on these terms and conditions in respect of the Site.
"Site" means the landsite in respect of which GroundSure provides the Services.
"User Guide" means the relevant current version of the user guide, available upon request from GroundSure.

2 Scope of Services

2.1 GroundSure agrees to carry out the Services in accordance with the Contract and to the extent set out therein.
2.2 GroundSure shall exercise all the reasonable skill, care and diligence to be expected of experienced environmental consultants in the performance of the Services.
2.3 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 the Contract.
2.4 Terms and conditions appearing on a Client's order form, printed stationery or other communication, including invoices, to GroundSure, its employees, servants, agents or other representatives or any terms implied by custom, practice or course of dealing shall be of no effect and these terms and conditions shall prevail over all others.
2.5 In the event that a Client/Beneficiary opts to take out insurance in conjunction with or as a result of the Services, such insurance shall be subject solely to the terms of any policy issued to it in that respect and GroundSure will have no liability therefore.
2.6 GroundSure's quotations/proposals are valid for a period of 30 days only. GroundSure reserves the right to withdraw any quotation at any time before GroundSure accepts an Order or Commission. GroundSure's acceptance of an Order or Commission shall be effective only where such acceptance is in writing and signed by GroundSure's authorised representative or where accepted via GroundSure's Order Website.

3 The Client's obligations

3.1 The Client shall be solely responsible for ensuring that the Report/Mapping ordered is appropriate and suitable for the Beneficiary's needs.
3.2 The Client shall (or shall procure that the Beneficiary shall) supply to GroundSure as soon as practicable and without charge all information necessary and accurate relevant data including any specific and/or unusual environmental information relating to the Site known to the Client/Beneficiary which may pertain to the Services and shall give such assistance as GroundSure shall reasonably require in the performance of the Services (including, without limitation, access to a Site, facilities and equipment as agreed in the Contract).
3.3 Where Client/Beneficiary approval or decision is required, such approval or decision shall be given or procured in reasonable time as not to delay or disrupt the performance of any other part of the Services.
3.4 The Client shall not and shall not knowingly permit the Beneficiary to, save as expressly permitted by these terms and conditions, re-sell, alter, add to, amend or use out of context the content of any Report, Mapping or, in respect of any Services, information given by GroundSure. For the avoidance of doubt, the Client and Beneficiary may make the Report, Mapping or GroundSure's findings available to a third party, but such third party cannot rely on the same unless expressly permitted under condition 4.
3.5 The Client is responsible for maintaining the confidentiality of its user name and password if using GroundSure's internet ordering service and accepts responsibility for all activity that occurs under such account and password.

4 Reliance

4.1 Upon full payment of all relevant fees and subject to the provisions of these terms and conditions, the Client and Beneficiary are granted an irrevocable royalty-free licence to use the information contained in the Report, Mapping or in a report prepared by GroundSure in respect of or arising out of the Consultancy Services. The Services may only be used for the benefit of the Client and those persons listed in conditions 4.2 and 4.3.
4.2 In relation to Data Reports, Mapping and Risk Screening Reports, the Client shall be entitled to make Reports available to (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 (v) the professional advisers and lenders of the first purchaser or tenant of the Site. For the avoidance of doubt, such persons shall include any entity necessary under the Housing Act 2004 (as amended). Accordingly GroundSure shall have the same duties and obligations to those persons in respect of the Services as it has to the Client and those persons shall have the benefit of any of the Client's rights under the Contract as if those persons were parties to the Contract. For the avoidance of doubt, the limitations of GroundSure's liability as set out in condition 7 shall apply.
4.3 In relation to Consultancy Services, reliance shall be limited to the Client, Beneficiary and named parties on the Report.
4.4 Save as set out in conditions 4.2 and 4.3 and unless otherwise agreed in writing with GroundSure, any other party considering the information supplied by GroundSure as part of the Services, including (but not limited to) insurance underwriters, does so at their own risk and GroundSure has no legal obligations to such party unless otherwise agreed in writing.
4.5 The Client shall not and shall not knowingly permit any person (including the Beneficiary) who is provided with a copy of any Report shall not except as permitted herein or by separate agreement with GroundSure: (a) remove, suppress or modify any trade mark, copyright or other proprietary marking from the Report or Mapping; (b) create any product which is derived directly or indirectly from the data contained in the Report or Mapping; (c) combine the Report or Mapping with, or incorporate the Report or Mapping into any other information data or service; or (d) re-format or otherwise change (whether by modification, addition or enhancement) data or images contained in the Report or Mapping.
4.6 Notwithstanding condition 4.5, if the Client acts in a professional capacity, it may make reasonable use of a Report and/or findings made as a result of Consultancy Services to advise Beneficiaries. However, GroundSure shall have no liability in respect of any opinion or report given to such Beneficiaries by the Client or a third party.

5 Fees and Disbursements

5.1 GroundSure shall charge the Client fees at the rate and frequency specified in the Contract together, in the case of Consultancy Services, with all proper disbursements incurred by GroundSure in performing the Services. For the avoidance of doubt, the fees payable for the Services are as set out in GroundSure's written proposal, Order Website or Order acknowledgement form. 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.
5.2 Unless GroundSure requires prepayment, the Client shall promptly pay all fees disbursements and other monies due to GroundSure in full without deduction, counterclaim or set off together with such value added tax or other tax as may be required within 30 days from the date of GroundSure's invoice or such other period as may be agreed in writing between GroundSure and the Client ("Payment Date"). GroundSure reserves the right to charge interest which shall accrue on a daily basis from 30 days after the date of Payment Date until the date of payment (whether before or after judgement) at the rate of five per cent per annum above the Bank of England base rate from time to time.
5.3 In the event that the Client disputes the amount payable in respect of GroundSure's invoice it shall notify GroundSure no later than 28 days after the date thereof that it is in dispute. In default of such notification the Client shall be deemed to have agreed the amount thereof. As soon as reasonably practicable following receipt of a notification in respect of any disputed invoice, a member of the management team at GroundSure shall contact the Client and the parties shall use all reasonable endeavours to resolve the dispute.

6 Intellectual Property

6.1 Subject to the provisions of condition 4.1, the Client and the Beneficiary hereby acknowledge that all Intellectual Property in the Services are and shall remain owned by either GroundSure or the Data Providers and nothing in these terms purports to transfer or assign any rights to the Client or the Beneficiary in respect of the Intellectual Property.
6.2 The Client shall acknowledge the ownership of the Content where such Content is incorporated or used in the Client's own documents, reports, systems or services whether or not these are supplied to a third party.
6.3 Data Providers may enforce any breach of condition 6.1 against the Client or Beneficiary.

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7. Liability

7.1 Nothing in these terms and conditions shall limit GroundSure's liability for causing death or personal injury through negligence or wilful default.
7.2 Save as otherwise set out in these conditions, any information provided by one party ("Disclosing party") to the other party ("Receiving Party") shall be treated as confidential except so far as authorised by the Disclosing Party to provide such information in whole or in part to a third party.
7.3 Nothing in these conditions shall affect the statutory rights of a consumer under the applicable consumer protection legislation from time to time.
7.4 In relation to Data Reports, Mapping and Risk Screening Reports, GroundSure's liability under the Contract shall cease upon the expiry of six years from the date when the Beneficiary became aware that it may have a claim against GroundSure in respect of the Services provided always that there shall be no liability at the expiration of twelve years from the completion of the Contract. For the avoidance of doubt, any claims in respect of which proceedings are notified to GroundSure in writing prior to the expiry of the time periods referred to in this clause shall survive the expiry of those time periods provided any such claim is actually commenced within six months of notification.
7.5 In relation to Consultancy Services GroundSure's liability under the Contract shall cease upon the expiry of six years from the date the Services were completed.
7.6 GroundSure shall not be liable to the Client or any person to whom the Client provides a copy of a Data Report, Mapping or Risk Screening Report in any circumstances whatsoever unless arising out of a breach on its part of the obligations set out in the Contract.
7.7 GroundSure shall not be liable if the Data Reports, Mapping or Risk Screening Report are used otherwise than as provided or referred to in these conditions and the relevant User Guide.
7.8 Subject to the provisions of condition 7.3, GroundSure makes no representation, warranties, express or implied, as to the accuracy, reliability, completeness, validity or fitness for purpose of any Content and shall not be liable for any omission, error or inaccuracy in relation thereto unless GroundSure should reasonably have been alerted to any omission, error or inaccuracy in the Content.
7.9 Subject to the provisions of clause 7.1 notwithstanding anything to the contrary contained elsewhere in the Contract, and irrespective of whether multiple parties make use of the same Services, the total liability of GroundSure under or in connection with the Contract, whether in contract in tort for breach of statutory duty or otherwise shall not exceed £5 million per claim or series of connected claims.
7.10 Whilst GroundSure will use all reasonable endeavours to maintain operability of its internet ordering service it will not be liable for any loss or damages caused by a delay or loss of use of such service. The Client shall use GroundSure's internet ordering service at its own risk. GroundSure shall not be responsible for any damage to a Client or permitted assignee's computer, software, modem, telephone or other property resulting from the use of GroundSure's internet ordering service.
7.11 The Client accepts, and shall use all reasonable endeavours to procure that anyone who is provided with a copy of the Report accepts, that it has no claim or recourse to any Data Provider or to GroundSure in respect of the acts or omissions of such Data Providers including Content supplied by them save for where a Risk Screening Report comprises part of a Home Information Pack:

(i) the Data Providers set out in the relevant User Guide shall be responsible for the quality and accuracy of the data supplied by them; and
(ii) where GroundSure makes an assessment of a Site to determine if it is likely to fall within Part II(A) of the Environmental Protection Act 1990, GroundSure shall be responsible for the interpretation of any Content provided by a Data Provider subject to the limitations set out in these terms and conditions.

7.12 GroundSure shall provide the Services using reasonable skill and care, however, GroundSure shall not be liable for any inaccurate statement or risk rating in a Report which resulted from a reasonable interpretation of the Content.
7.13 Subject to the provisions of clause 7.1, GroundSure shall not be liable for any losses (whether direct or indirect) and including (but not limited to) loss of profit caused by the suspension or reduction of activity on a Site, business interruption, all third party off-Site claims or any loss in value of a Site, loss of goodwill, loss of business opportunity or other similar losses alleged to be sustained by the Client, the Beneficiary or any third party.
7.14 GroundSure undertakes for the duration of the liability periods referred to in conditions 7.4 and 7.5 to maintain professional indemnity insurance in respect of its liabilities in respect of the Contract for £5 million in the aggregate which amount shall first include the whole of any sum payable for death or personal injury provided such insurance is readily available at commercially viable rates or for a lesser amount to be agreed with the Client should the cost of such insurance become commercially unviable. GroundSure shall produce evidence of such insurance if requested by the Client. A greater level of cover may be available upon request and agreement with the Client.

8 GroundSure right to suspend or terminate

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

(i)the Client shall fail to pay any sum due to GroundSure within 28 days of the due date for payment; 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 breaches any material term of the Contract (including, but not limited to, the obligations in condition 4) incapable of remedy or if remediable, is not remedied within 14 days of notice of the breach.

9. Client's Right to Terminate and Suspend

9.1 Subject to condition 10.2, the Client may at any time after commencement of the Services by notice in writing to GroundSure require GroundSure to terminate or suspend immediately performance of all or any of the Services.
9.2 The Client waives all and any right of cancellation it may have under the Consumer Protection (Distance Selling) Regulations 2000 (as amended) in respect of the Order of a Report/Mapping. This does not affect the Beneficiary's statutory rights.

10 Consequences of Withdrawal, Termination or Suspension

10.1 Upon termination or any suspension of the Services, 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/Beneficiary any property of the Client/ Beneficiary in GroundSure's possession or control.
10.2 In the event of termination/suspension of the Contract under conditions 8 or 9, 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/suspension. In respect of any Consultancy Services provided, the Client shall also pay GroundSure any additional costs incurred in relation to the termination/suspension of the Contract.

11 General

11.1 The mapping contained in the Services is protected by Crown copyright and must not be used for any purpose outside the context of the Services or as specifically provided in these terms.
11.2 GroundSure reserves the right to amend these terms and conditions. No variation to these terms shall be valid unless signed by an authorised representative of GroundSure.
11.3 No failure on the part of GroundSure to exercise and no delay in exercising, any right, power or provision under these terms and conditions shall operate as a waiver thereof.
11.4 Save as expressly provided in conditions 4.2, 4.3, 6.3 and 11.5, 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.
11.5 The Secretary of State for Communities and Local Government acting through Ordnance Survey, may enforce breach of conditions 6.1 or 11.1 of these terms and conditions against the Client in accordance with the provisions of the Contracts (Rights of Third Parties) Act 1999.
11.6 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 Data Providers; or
(viii)changes in law.

11.7 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.
11.8 Such notice shall be deemed to have been received on the day of delivery if delivered by hand, facsimile or email and on the second working day after the day of posting if sent by first class post.
11.9 The Contract constitutes the entire contract between the parties and shall supersede all previous arrangements between the parties.
11.10 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.
11.11 These terms and conditions shall be governed by and construed in accordance with English law and any proceedings arising out of or connected with these terms and conditions shall be subject to the exclusive jurisdiction of the English courts.
11.12 If the Client or Beneficiary has a complaint about the Services, notice should be given in writing to the Compliance Officer at GroundSure who will respond in a timely manner.

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the mapping portal from Laser Surveys

CENTREMAPS
Brockamin House, Leigh,
, WR6 5JU

GroundSure Reference:	CMAPS-CM-40201-11344-290110EDR
Your Reference:	11344
Report Date:	Jan 29, 2010
Report Delivery Method:	**Email - pdf**
Client Email:	groundsure@centremaps.co.uk

GroundSure EnviroInsight

Address: **FRANCE LANE WOOD YARD,FRANCE LANE,PATCHING,WORTHING, BN13 3UP**

Dear Sir/Madam,

Thank you for placing your order with CENTREMAPS. Please find enclosed the GroundSure EnviroInsight as requested

If you need any further assistance, please do not hesitate to contact our helpline on 01886 832972 quoting the above CENTREMAPS reference number.

Yours faithfully,

CENTREMAPS

Enc.
GroundSure EnviroInsight

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GroundSure

GroundSure EnviroInsight

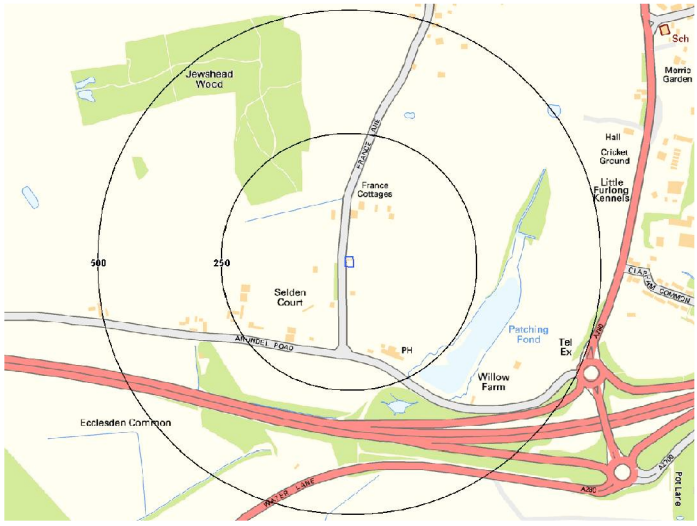
Address: FRANCE LANE WOOD YARD,FRANCE LANE,PATCHING,WORTHING, BN13 3UP

Date: Jan 29, 2010

GroundSure Reference: CMAPS-CM-40201-11344-290110EDR

Your Reference: 11344

Client: CENTREMAPS



Brought to you by CENTREMAPS

If you would like any further assistance regarding this report then please contact
CENTREMAPS on (T) 01886 832972, (F) 01883 833485, email: groundsure@centremaps.co.uk

ARUN DISTRICT COUNCIL PA/25/08/

Aerial Photograph of Study Site

NW N NE



◄W E►

SW S SE

Aerial photography supplied by Getmapping PLC.
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Site Name: FRANCE LANE WOOD YARD,FRANCE LANE,PATCHING,WORTHING, BN13 3UP

Grid Reference: 508582,105821

ARUN DISTRICT COUNCIL PA/25/08/

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.

Report Section	Number of records found within (X) m of the study site boundary					
1. Authorisations, Incidents and Registers	on-site	0-50	51-250	251-500	501-1000	1000-1500
1.1 Industrial Sites Holding Licences and/or Authorisations						
Records of IPC Authorisations	0	0	0	0	-	-
Records of IPPC Authorisations	0	0	0	0	-	-
Records of Water Industry Referrals (potentially harmful discharges to the public sewer)	0	0	0	0	-	-
Records of Red List Discharge Consents (potentially harmful discharges to controlled waters)	0	0	0	0	-	-
Records of List 1 Dangerous Substances Inventory sites	0	0	0	0	-	-
Records of List 2 Dangerous Substances Inventory sites	0	0	0	0	-	-
Records of LAPPC Authorisations	0	0	0	0	-	-
Records of Category 3 or 4 Radioactive Substances Authorisations	0	0	0	0	-	-
Records of Licensed Discharge Consents	0	0	2	0	-	-
Records of Planning Hazardous Substance Consents	0	0	0	0		
1.2 Records of COMAH and NIHHS sites	0	0	0	0	-	-
1.3 Environment Agency Recorded Pollution Incidents						
National Incidents Recording System, List 2	0	0	0	-	-	-
National Incidents Recording System, List 1	0	0	0	-	-	-
1.4 Sites Determined as Contaminated Land under Part IIA EPA 1990	0	0	0	0	-	-
1.5 Planning Hazardous Substance Enforcements	0	0	0	0	-	-
2. Landfill and Other Waste Sites	on-site	0-50	51-250	251-500	501-1000	1000-1500
2.1 Landfill Sites						
Environment Agency Registered landfill Sites	0	0	0	0	0	-
Landfill Data – Operational Landfill Sites	0	0	0	0	0	-
Environment Agency Historic Landfill Sites	0	0	0	1	2	3
Landfill Data – Non-Operational Landfill Sites	0	0	0	0	4	-
BGS/DoE Landfill Site Survey	0	0	0	0	0	0
GroundSure Local Authority Landfill Sites Data	0	0	0	0	0	0
2.2 Landfill and Other Waste Sites Findings						
Operational Waste Treatment, Transfer and Disposal Sites	0	0	0	0	-	-
Non-Operational Waste Treatment, Transfer and Disposal Sites	0	0	0	0	-	-
Environment Agency (REGIS) Waste Sites	0	0	0	0	4	0
3. Current Land Uses	on-site	0-50	51-250	251-500	501-1000	1000-1500
3.1 Current Industrial Sites Data	0	0	2	-	-	-
3.2 Records of Petrol and Fuel Sites	0	0	0	0	-	-

3.3 Underground High Pressure Oil and Gas Pipelines	0	0	0	0	-	-

4. Geology

	Description
4.1 Are there any records of Artificial Ground and Made Ground present beneath the study site? *	No
4.2 Are there any records of Superficial Ground and Drift Geology present beneath the study site? *	Yes
4.3 For records of Bedrock and Solid Geology beneath the study site* see the detailed findings section.	
Source: Scale: 1:50,000 BGS Sheet 317	

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

5. Hydrogeology and Hydrology

	on-site	0-50	51-250	251-500	501-1000	1001-2000
5.1 Environment Agency Groundwater Vulnerability and Soil Classification						
Is a Minor Aquifer present on site?	Yes	-	-	-	-	-
Is a Major Aquifer present on site?	No	-	-	-	-	-
Are there any Soil Classification records present on site?	Yes	-	-	-	-	-
5.2 Groundwater Abstraction Licences (within 1000m of the study site).	0	0	0	0	2	-
5.3 Surface Water Abstraction Licences (within 1000m of the study site).	0	0	0	0	0	-
5.4 Potable Water Abstraction Licences (within 2000m of the study site).	0	0	0	0	0	0
5.5 Are there any Source Protection Zones within 500m of the study site?			No			
5.6 River Quality						
Is there any Environment Agency information on river quality within 500m of the study site?	No	No	No	No	-	-
5.7 Main Rivers within 500m of the study site.	0	0	0	0	-	-
5.8 Surface water features within 250m of the study site	No	No	Yes	-	-	-

6. Flooding

6.1 Are there any Environment Agency indicative Zone 2 floodplains within 250m of the study site?	No
6.2 Are there any Environment Agency indicative Zone 3 floodplains within 250m of the study site?	No
6.3 Are there any Flood Defences within 250m of the study site?	No
6.4 Are there any areas benefiting from Flood Defences within 250m of the study site?	No
6.5 Are there any areas used for Flood Storage within 250m of the study site?	No
6.6 What is the maximum BGS Groundwater Flooding susceptibility within 50m of the study site?	High
6.7 What is the BGS confidence rating for the Groundwater Flooding susceptibility areas?	Moderately High

7. Designated Environmentally Sensitive Sites

	on-site	0-50	51-250	251-500	501-1000	1001-1500
7.1 Records of Sites of Special Scientific Interest (SSSI)	0	0	0	0	-	-
7.2 Records of National Nature Reserves (NNR)	0	0	0	0	-	-
7.3 Records of Local Nature Reserves (LNR)	0	0	0	0	-	-
7.4 Records of Special Areas of Conservation (SAC)	0	0	0	0	-	-
7.5 Records of Special Protection Areas (SPA)	0	0	0	0	-	-
7.6 Records of Ramsar sites	0	0	0	0	-	-
7.7 Records of World Heritage Sites	0	0	0	0	-	-
7.8 Records of Environmentally Sensitive Areas	1	0	0	0	-	-
7.9 Records of Areas of Outstanding Natural Beauty (AONB)	1	0	0	0	-	-
7.10 Records of National Parks	0	0	0	0	-	-

7.1 Records of Sites of Special Scientific Interest (SSSI)	0	0	0	0	-	-
7.11 Records of Nitrate Sensitive Areas	0	0	0	0	-	-
7.12 Records of Nitrate Vulnerable Zones	1	0	0	1	-	-

8. Natural Hazards

8.1 What is the maximum risk of natural ground subsidence?	Moderate

9. Mining

9.1 Are there any coal mining areas within 75m of the study site?	No
9.2 What is the risk of subsidence relating to shallow mining within 150m of the study site?	Negligible
9.3 Are there any brine affected areas within 75m of the study site?	No

ARUN DISTRICT COUNCIL PA/25/08/

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. Authorisations, 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.

2. 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.

3. 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 underground oil and gas pipelines.

4. Geology

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

5. Hydrogeology and Hydrology

Provides information on groundwater vulnerability, soil leaching potential, abstraction licenses, Source Protection Zones (SPZ) and river quality. These searches are conducted using radii of up to 2000m.

6. Flooding

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

7. 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. These searches are conducted using radii of up to 500m.

8. 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.

ARUN DISTRICT COUNCIL PA/25/08/

9. Mining

Provides information on areas of coal and shallow mining.

10. 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.

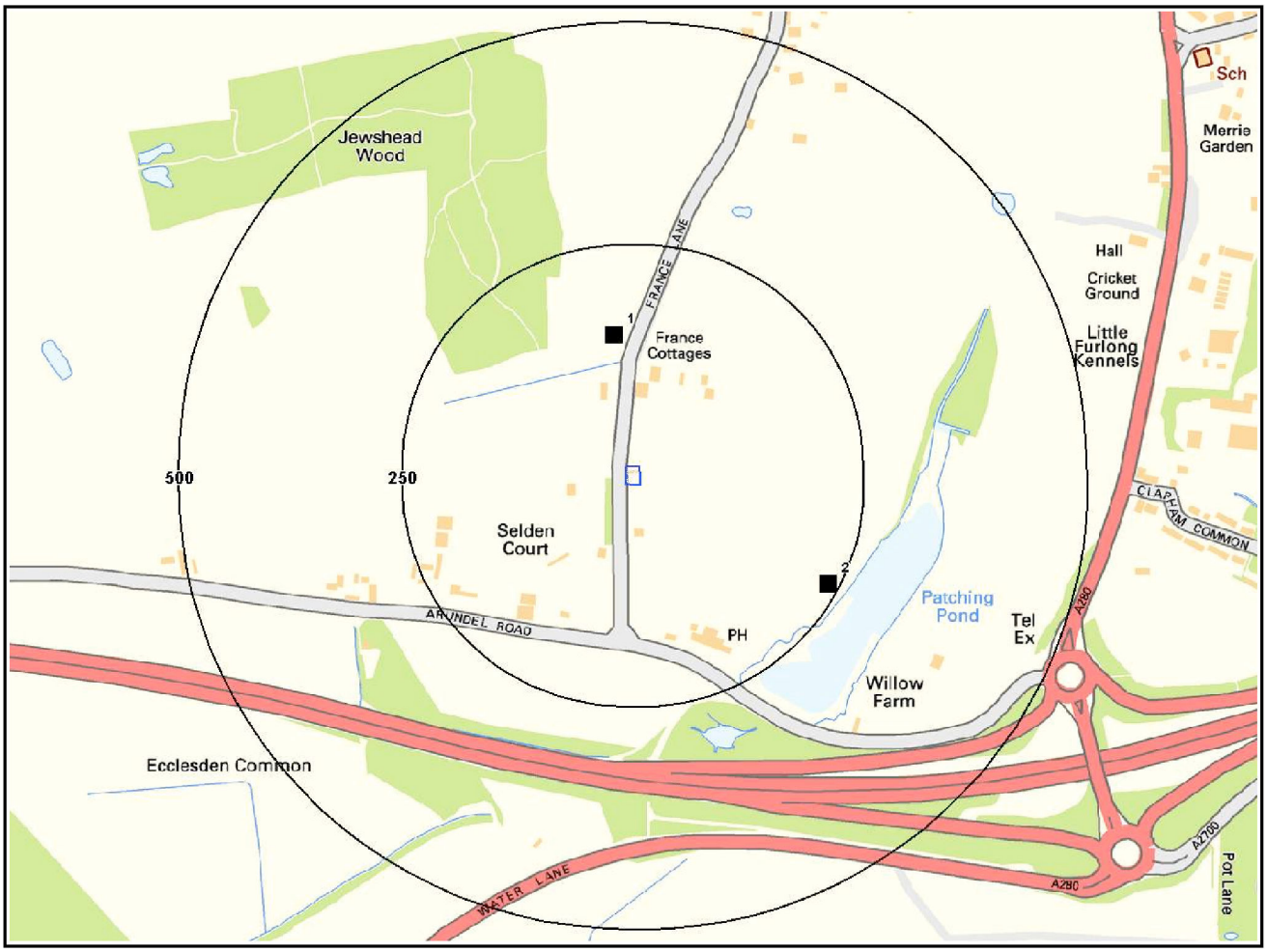
Note: Maps

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. Authorisations, Incidents and Registers Map



Authorisations,Incidents and Registers Legend

Enabled by Ordnance Survey

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Licence Number: 100035207

- 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
- IPPC & IPC Authorisations
- LAPPC Authorisations
- COMAH / NIHHS Sites
- Sites Determined as Contaminated Land
- Hazardous Substance Consents
- Hazardous Substance Enforcements

1.Authorisations, Incidents and Registers

1.1 Industrial Sites Holding Licences and/or Authorisations

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

Records of IPC Authorisations within 500m of the study site: **0**

Database searched and no data found.

Records of IPPC Authorisations within 500m of the study site: **0**

Database searched and no data found.

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.

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.

Records of List 1 Dangerous Substances Inventory Sites within 500m of the study site: **0**

Database searched and no data found.

Records of List 2 Dangerous Substance Inventory Sites within 500m of the study site: **0**

Database searched and no data found.

Records of LAPPC Authorisations within 500m of the study site: **0**

Database searched and no data found.

Records of Category 3 or 4 Radioactive Substance Licences within 500m of the study site: **0**

Database searched and no data found.

Records of Licensed Discharge Consents within 500m of the study site: **2**

The following Licensed Discharge Consents records are represented as points on the Authorisations, Incidents and Registers map:

ID	Distance	Direction	NGR	Details	
1	150.0	N	508560, 105980	Address: France Barn, France Barn, France Lane, Patching, West Sussex Effluent Type: Sewage Discharges - Final/treated Effluent - Not Water Company Permit Number: P03911 Permit Version: 1	Receiving Water: Freshwater River Status: Post Nra Legislation Where Issue Date → 31-aug-89 (historic Only) Issue date: 2/10/1991 Effective Date: 2/10/1991 Revocation Date: -

2	238.0	SE	508800, 105700	Address: The Cottage, The Cottage, Arundel Road, Patching, Nr Worthing, West Sussex, BN13 3UZ Effluent Type: Sewage Discharges - Final/treated Effluent - Not Water Company Permit Number: P05247 Permit Version: 1	Receiving Water: Into Land Status: Lapsed Under Schedule 23 Environment Act 1995 Issue date: 14/4/1994 Effective Date: 14/4/1994 Revocation Date: 31/3/1997

Records of Planning Hazardous Substance Consents within 500m of the study site **0**

Database searched and no data found.

1.2 Dangerous or Hazardous Sites

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

Database searched and no data found.

1.3 Environment Agency Recorded Pollution Incidents

Records of National Incidents Recording System, List 2 within 250m of the study site: **0**

Database searched and no data found.

Records of National Incidents Recording System, List 1 within 250m of the study site: **0**

Database searched and no data found.

1.4 Sites Determined as Contaminated Land under Part IIA EPA 1990[1]

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.

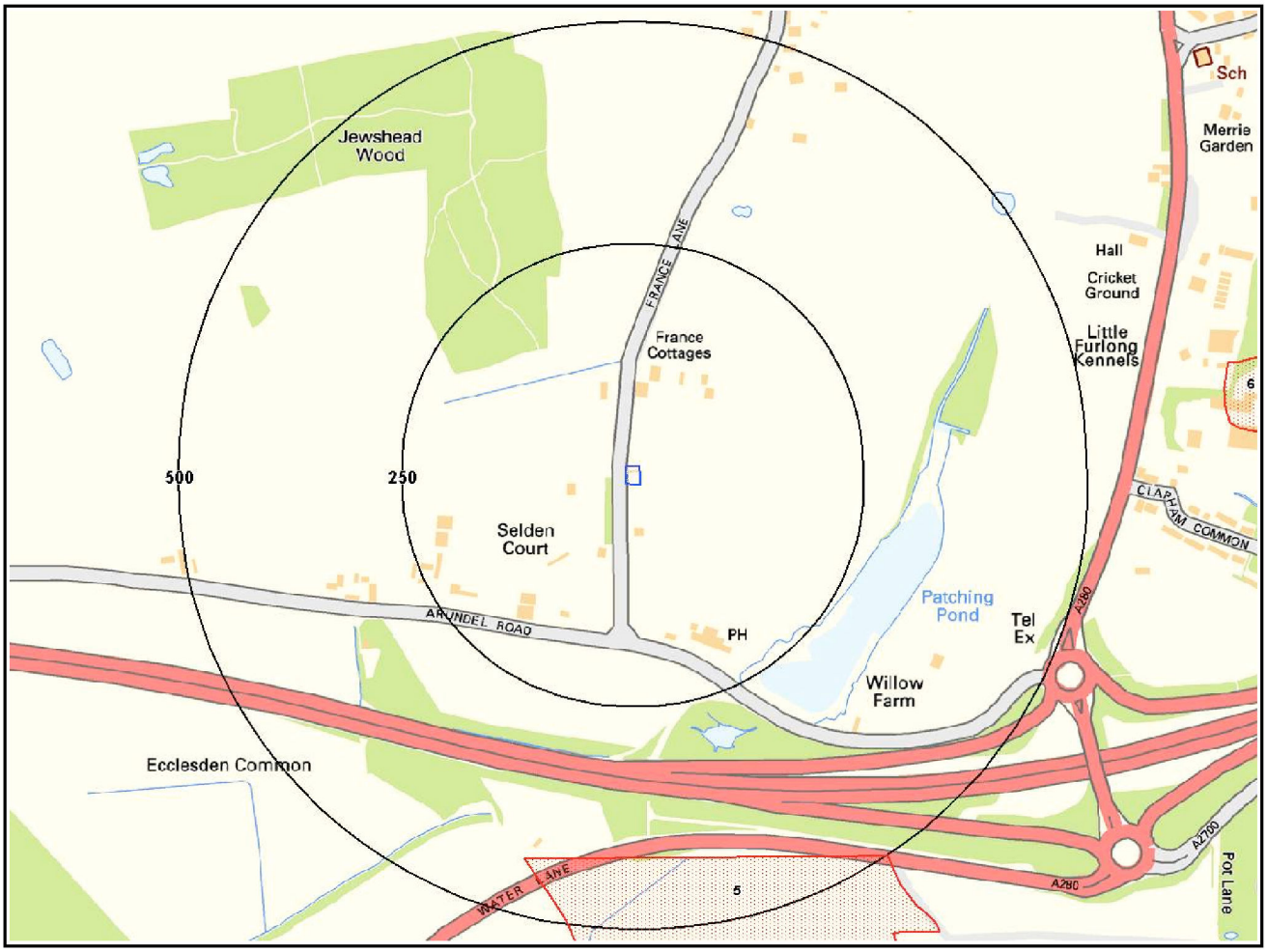
1.5 Planning Hazardous Substance Enforcements

Records of planning hazardous substance enforcements within 500m of the study site: **0**

Database searched and no data found.

[1]Further information on sites that have been determined under the Contaminated Land Regime is maintained by Local Authorities under Section 78R of the Environmental Protection Act 1990. Information should be available on both sites currently determined as Contaminated Land and Special Sites.

2. Landfill and Other Waste Sites Map



Landfill & Other Waste Sites Legend

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- Site Outline
- 250 / 500 Search Buffers (m)
- E.A. Active Landfill
- E.A. Historic Landfill (Area Data)
- E.A. Historic Landfill (Point Data)
- BGS / DoE Survey Landfill
- Local Authority Landfill (Area Data)
- Local Authority Landfill (Point Data)
- Operational Waste Treatment Licence
- Closed Waste Treatment Licence
- REGIS Waste Licence
- Operational Landfill
- Closed Landfill

2. Landfill and Other Waste Sites

2.1 Landfill Sites

Records from Environment Agency landfill data within 1000m of the study site: **0**

Database searched and no data found.

Records of operational landfill sites sourced from Landmark within 1000m of the study site: **0**

Database searched and no data found.

Records of Environment Agency historic landfill sites within 1500m of the study site: **6**

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

ID	Distance	Direction	NGR	Details	
5	420.0	S	508700,105200	Site Address: Northdown Farm, Patching, Worthing, Sussex Waste Licence: - Site Reference: WD27/327 Waste Type: - Regis Reference: -	Licence Issue: Licence Surrendered: Licence Hold Address: - Operator: -
6	659.0	E	509300,105900	Site Address: Clapham Brickworks, Wyatts Copse, Patching, Clapham, Sussex Waste Licence: Yes Site Reference: WD27/060, WD13/58 Waste Type: Commercial, Household Regis Reference: -	Licence Issue: 07-Sep-1981 Licence Surrendered: Licence Hold Address: - Operator: -
Not shown	807.0	SE	509400,105300	Site Address: Titnore, Titrnore Lane, Patching, Worthing, Sussex Waste Licence: - Site Reference: WD27/326 Waste Type: - Regis Reference: -	Licence Issue: Licence Surrendered: Licence Hold Address: - Operator: -
Not shown	1107.0	E	510100,105900	Site Address: Castle Goring Tip, Clapham, Near Worthing, Sussex Waste Licence: Yes Site Reference: WD27/059, WD13/13, WD13/85 Waste Type: Inert, Industrial, Commercial Regis Reference: -	Licence Issue: 14-Jun-1977 Licence Surrendered: 17-Sep-1987 Licence Hold Address: - Operator: -
Not shown	1266.0	NW	507200,106500	Site Address: Swillage Lane, Angmering, Sussex Waste Licence: Yes Site Reference: WD27/012 Waste Type: Inert, Commercial, Household Regis Reference: -	Licence Issue: 01-Jan-1976 Licence Surrendered: Licence Hold Address: - Operator: -
Not shown	1461.0	E	510200,105800	Site Address: Holt Park and Holt Rough, Clapham, Sussex Waste Licence: - Site Reference: - Waste Type: Commercial Regis Reference: -	Licence Issue: Licence Surrendered: Licence Hold Address: - Operator: Castle Goring Farm

Records of non-operational landfill sites sourced from Landmark within 1000m of the study site: **4**

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

ID	Distance	Direction	NGR	Details

ARUN DISTRICT COUNCIL PA/25/08/

Not shown	814.0	S	508501,105001	Site Address: Northdown Farm, Water Lane, Patching, WORTHING, West Sussex, Landfill Licence: 440BCXAL Agency Reference: Waste Type: Inert Waste Description: Inert Landfill Known Restrictions: No known restriction on source of waste	Record Date: 01-May-1994 Transfer Date: Modification Date: Status: Licence has completion certificate Category: LANDFILL Regulator: EA - Southern Region - Sussex Area (West) Size: Large (← 250,000 tonnes/year)
Not shown	908.0	SE	509400,105400	Site Address: Woodland Stables, Titnore Lane, Patching, WORTHING, West Sussex, Landfill Licence: 440BCYAL Agency Reference: Waste Type: Inert Waste Description: Inert Landfill Known Restrictions: No known restriction on source of waste	Record Date: 01-May-1994 Transfer Date: Modification Date: Status: Licence has completion certificate Category: LANDFILL Regulator: EA - Southern Region - Sussex Area (West) Size: Large (← 250,000 tonnes/year)
Not shown	914.0	E	509500,105900	Site Address: East of Wyatts Copse, Clapham, WORTHING, West Sussex Landfill Licence: 44BAEJAL Agency Reference: Waste Type: Difficult Waste Description: Difficult Landfill Known Restrictions: No known restriction on source of waste	Record Date: 01-Feb-1987 Transfer Date: Modification Date: 01-Aug-1989 Status: Licence lapsed/cancelled/defunct/not applicable/surrendered Category: LANDFILL Regulator: EA - Southern Region - Sussex Area (West) Size: Very Small (←10,000 tonnes/year)
Not shown	919.0	E	509505,105900	Site Address: Clay Pit East of Wyatts Copse, Clapham, WORTHING, West Sussex Landfill Licence: 44EAAEAL Agency Reference: Waste Type: Inert Waste Description: Inert Landfill Known Restrictions: No known restriction on source of waste	Record Date: 01-Sep-1981 Transfer Date: Modification Date: Status: Record superseded Category: LANDFILL Regulator: EA - Southern Region - Sussex Area (West) Size: Undefined

Records of BGS/DoE non-operational landfill sites within 1500m of the study site: **0**

Database searched and no data found.

Records of Local Authority landfill sites within 1500m of the study site: **0**

Database searched and no data found.

2.2 Other Waste Sites

Records of operational waste treatment, transfer or disposal sites within 500m of the study site: **0**

Database searched and no data found.

Records of non-operational waste treatment, transfer or disposal sites within 500m of the study site: **0**

Database searched and no data found.

Records of Environment Agency (REGIS) 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:

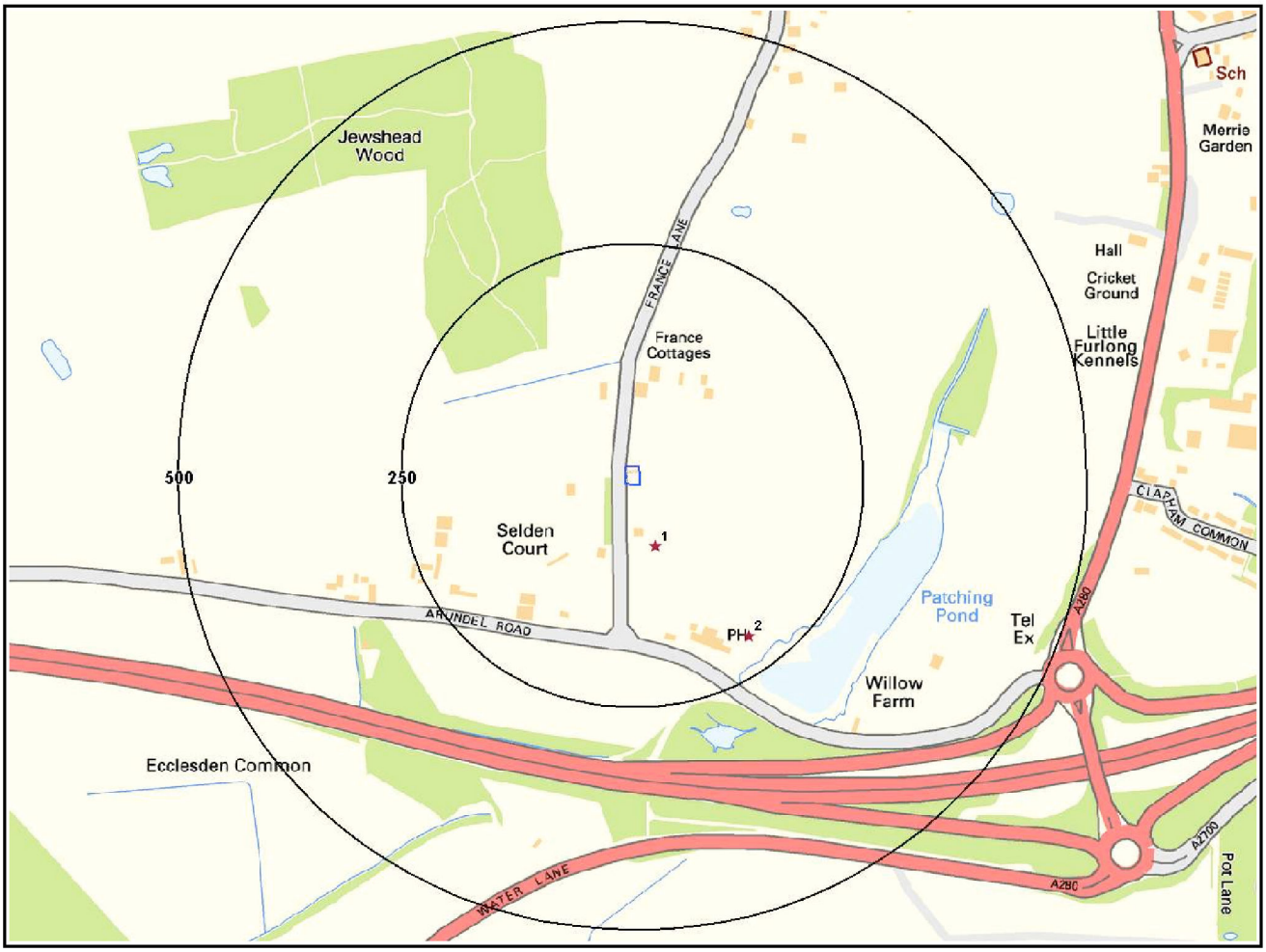
ID	Distance	Direction	NGR	Details	
Not shown	714.0	E	509300,105900	Site Address: Clapham Depot, Clapham Common, Worthing, West Sussex, BN13 3UR Type: Transfer stations taking non-biodegradable wastes Size: ← 25000 tonnes Regis Licence Number: MAY003 Operator: May Gurney Ltd Surrendered Date: Waste Management licence No: 19673 Annual Tonnage: 3650.0	Issue Date: 28/04/1994 Expiry Date: Effective Date: 04/08/2007 Status: Transferred Modified: 24/11/2005 Site Name: Clapham Depot Cancelled Date: Correspondence Address: -

Not shown	714.0	E	509300,105900	Site Address: Roadforce Clapham Common Depot, Worthing, West Sussex, BN13 3UR Type: Transfer stations taking non-biodegradable wastes Size: ← 25000 tonnes Regis Licence Number: ROA001 Operator: Roadforce Surrendered Date: Waste Management licence No: 19673 Annual Tonnage: 3650.0	Issue Date: 28/04/1994 Expiry Date: Effective Date: Status: Issued Modified: Site Name: Roadforce Clapham Common Depot Cancelled Date: Correspondence Address: City Gates, 2-4, Southgate, Chichester, West Sussex, PO19 2DJ
Not shown	714.0	E	509300,105900	Site Address: Roadforce Clapham Common Depot, Worthing, West Sussex, BN13 3UR Type: Transfer stations taking non-biodegradable wastes Size: ← 25000 tonnes Regis Licence Number: MAY003 Operator: May Gurney Integrated Services Surrendered Date: Waste Management licence No: 19673 Annual Tonnage: 3650.0	Issue Date: 28/04/1994 Expiry Date: Effective Date: 04/08/2007 Status: Transferred Modified: 24/11/2005 Site Name: Roadforce Clapham Common Depot Cancelled Date: Correspondence Address: Holland Court, The Close, Trowse, Norwich, Norfolk, NR14 8SZ
Not shown	714.0	E	509300,105900	Site Address: Clapham Depot, Clapham Common, Worthing, West Sussex, BN13 3UR Type: Transfer stations taking non-biodegradable wastes Size: ← 25000 tonnes Regis Licence Number: MAY003 Operator: May Gurney Limited Surrendered Date: Waste Management licence No: 19673 Annual Tonnage: 3650.0	Issue Date: 28/04/1994 Expiry Date: Effective Date: 04/08/2007 Status: Transferred Modified: 24/11/2005 Site Name: Clapham Depot Cancelled Date: Correspondence Address: Holland Court, The Close, Trowse, Norwich, Norfolk, NR14 8SZ

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3. Current Land Use Map

NW N NE



W E

SW S SE

Current Land Use Legend

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Site Outline

250
500
Search Buffers (m)

Current Industrial Sites

Petrol & Fuel Sites

Underground High Pressure Oil & Fuel Pipelines

3. Current Land Uses

3.1 Current Industrial Data

Records of potentially contaminative industrial sites within 250m of the study site: **2**

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

ID	Distance	Direction	Company	Address	Activity	Category
1	71.0	S	Filter Bed	-	Waste Storage, Processing and Disposal	Infrastructure And Facilities
2	209.0	SE	Electricity Sub Station	-	Electrical Features	Infrastructure And Facilities

3.2 Petrol and Fuel Sites

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

Database searched and no data found.

3.3 Underground High Pressure Oil and Gas Pipelines

Records of high pressure underground pipelines within 500m of the study site: **0**

Database searched and no data found.

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4. Geology

4.1 Artificial Ground and Made Ground

Database searched and no data found.

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

4.2 Superficial Ground and Drift Geology

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

Lex Code	Description	Rock Type
HEAD-CSSG	HEAD	CLAY, SILT, SAND AND GRAVEL

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

4.3 Bedrock and Solid Geology

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

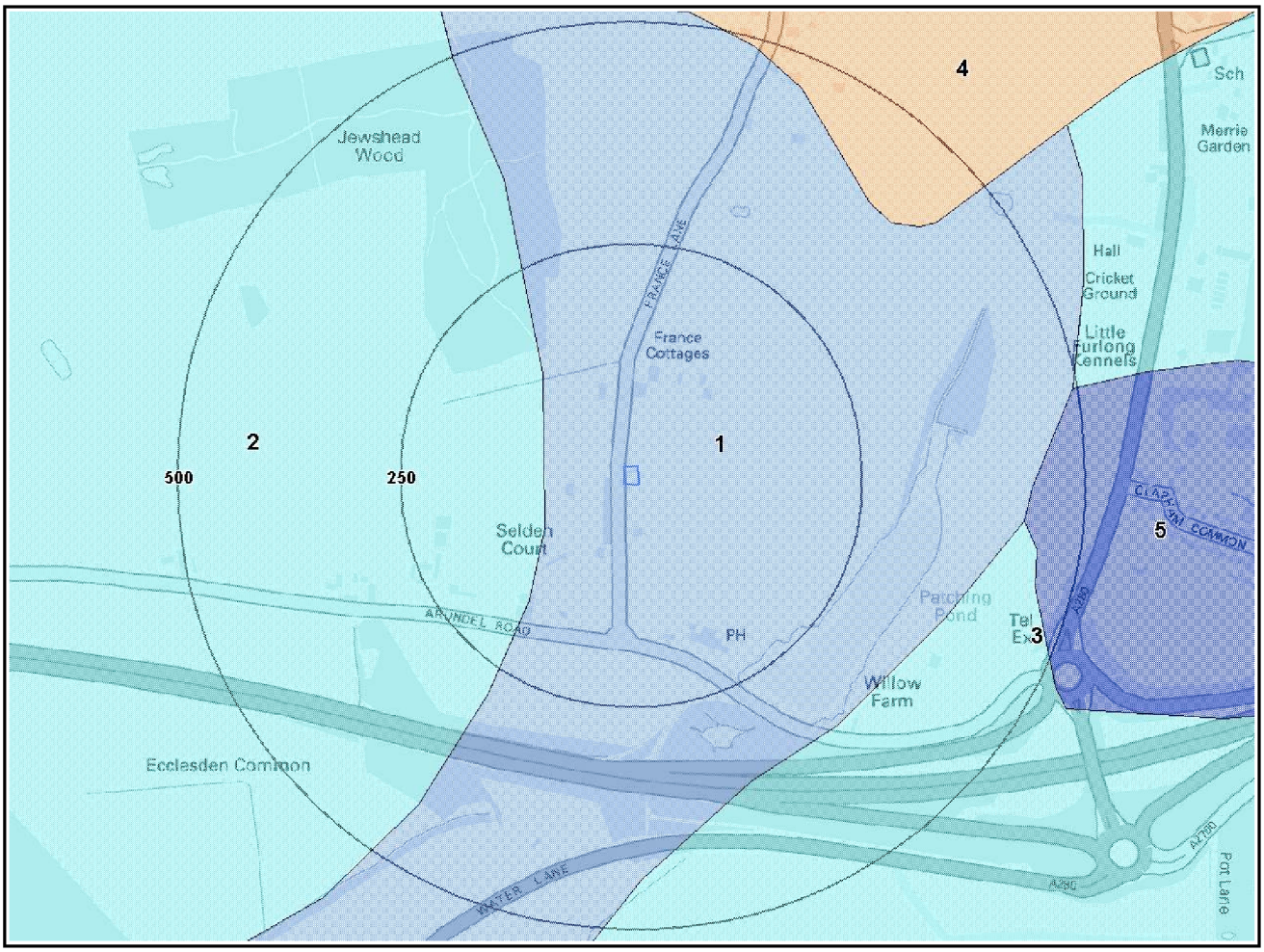
LEX Code	Description	Rock Type
LMBE-CLSS	LAMBETH GROUP	CLAY, SILT AND SAND

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

For more detailed geological and ground stability data please refer to the "GroundSure GeoInsight". Available from our website.

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5. Hydrogeology and Hydrology - Aquifer and Abstraction Licence Map



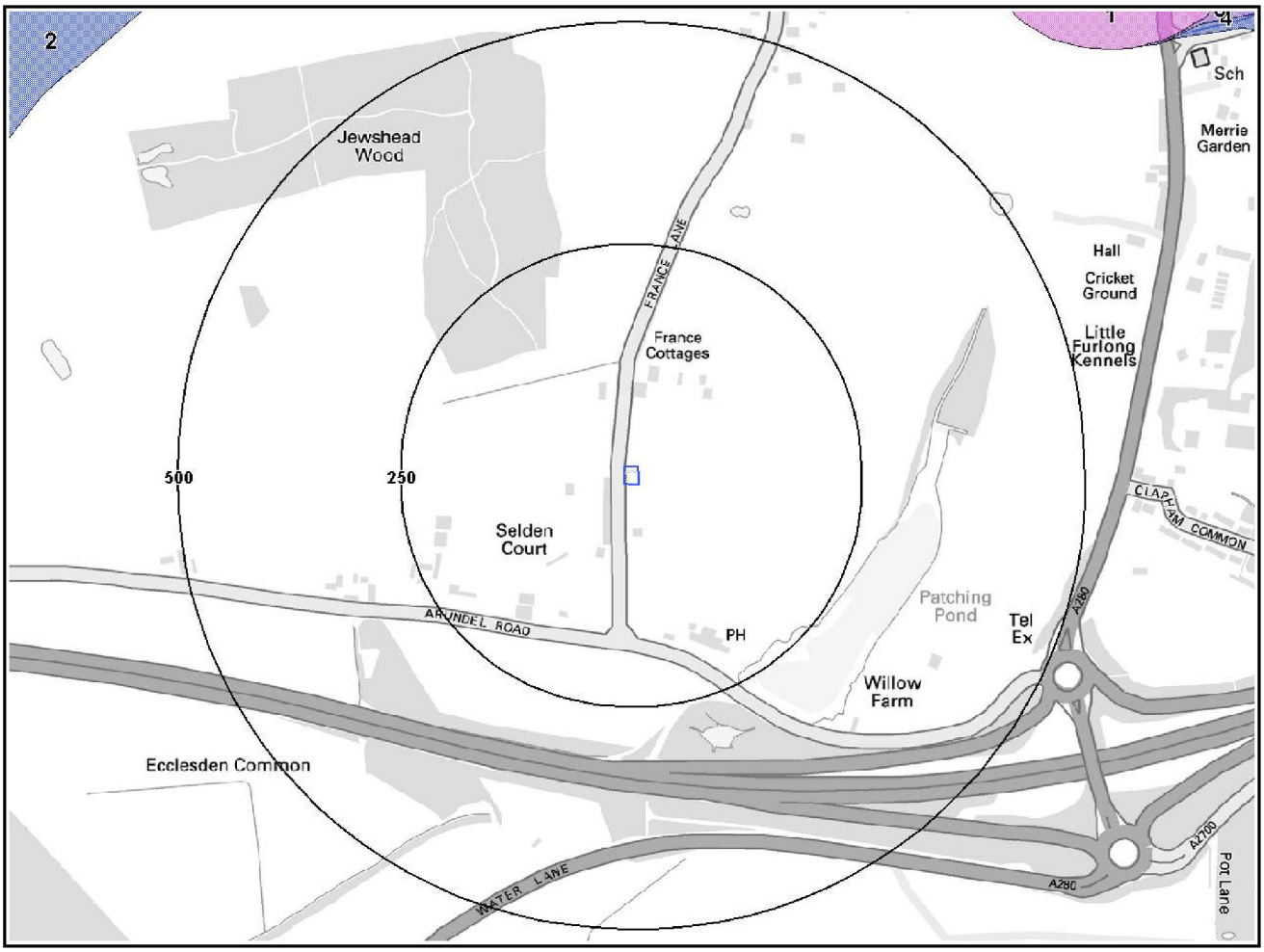
Hydrogeology and Hydrology Legend

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- Site Outline
- Search Buffers (m) 250 500
- Minor Aquifer - Low Leaching Potential
- Minor Aquifer - Intermediate Leaching Potential
- Minor Aquifer - High Leaching Potential
- Major Aquifer - Low Leaching Potential
- Major Aquifer - Intermediate Leaching Potential
- Major Aquifer - High Leaching Potential
- Main River
- Groundwater Abstraction Licence
- Surface Water Abstraction Licence

5b. Hydrogeology and Hydrology - SPZ and Potable Water Abstraction Map



Hydrogeology and Hydrology Legend

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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

5. Hydrogeology and Hydrology

5.1 Groundwater Vulnerability and Soil Classification

Records of aquifer and soil classification within 200m of the study site: **Yes**

The following groundwater information is represented as polygons on the Aquifer and Abstraction Licence Map:

ID	Distance	Direction	Classification
1	0.0	On Site	Minor Aquifer/Intermediate Leaching Potential
2	90.0	W	Minor Aquifer/Low Leaching Potential

5.2 Groundwater Abstraction Licences

Are there any Groundwater Abstraction Licences within 1000m of the study site? **Yes**

The following Abstraction Licences records are represented as points, lines and regions on the Aquifer and Abstraction Licence Map:

ID	Distance	Direction	NGR	Details	
Not shown	771.0	NE	509120,106390	Licence No: 10/41/310210 Details: General Use Relating To Secondary Category (Medium Loss) Direct Source: Southern Region Groundwater Point: Clapham Ps Point 1 Data Type: Point	Original Application No: Original Start Date: - Expiry Date: - Issue No: 101 Version Start Date: 8/6/2009 Version End Date: -
Not shown	771.0	NE	509120,106390	Licence No: 10/41/310210 Details: General Use Relating To Secondary Category (Medium Loss) Direct Source: Southern Region Groundwater Point: Clapham Ps Point 2 Data Type: Point	Original Application No: Original Start Date: - Expiry Date: - Issue No: 101 Version Start Date: 8/6/2009 Version End Date: -

5.3 Surface Water Abstraction Licences

Are there any Surface Water Abstraction Licences within 1000m of the study site? **No**

Database searched and no data found.

5.4 Potable Water Abstraction Licences

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

Database searched and no data found.

5.5 Source Protection Zones

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

Database searched and no data found.

5.6 River Quality

Is there any Environment Agency information on river quality within 500m of the study site? **No**

Database searched and no data found.

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5.7 Main Rivers

Are there any Main Rivers within 500m of the study site? **No**

Database searched and no data found.

5.8 Surface Water Features

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

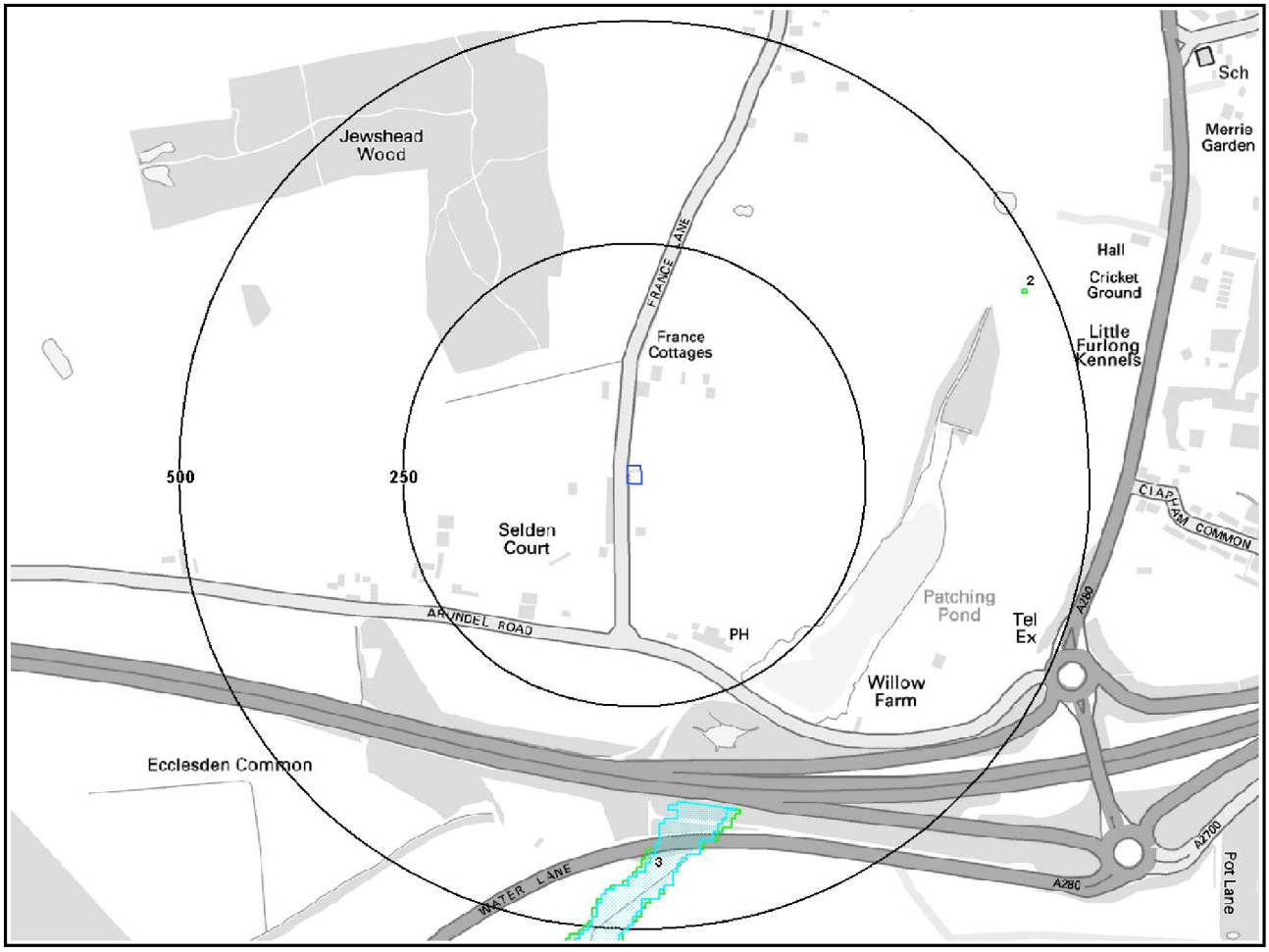
The following surface water records are not represented on mapping:

Distance to Surface Water (m)	on-site	0-50	51-250
Surface water features within 250m of the study site	No	No	Yes

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6. Surface Water Flood Map

NW N NE



W E

SW S SE

Surface Water Flood Legend

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Site Outline

250
500
Search Buffers (m)

Zone 2 Floodplain

Zone 3 Floodplain

Flood Storage Area

Area Benefiting from Flood Defences

Flood Defences

6. Flooding

6.1 Zone 2 Flooding

Zone 2 floodplain estimates the annual probability of flooding as one in one thousand (0.1%) or greater from rivers and the sea but less than 1% from rivers or 0.5% from the sea. Alternatively, where information is available they may show the highest known flood level.

Is the site within 250m of an Environment Agency indicative Zone 2 floodplain? **No**

Guidance: More detailed information may be available from the Environment Agency through their floodline (0845 988 1188) or by ordering an Environment Agency Flood Report from the local Environment Agency Office.

Database searched and no data found.

6.2 Zone 3 Flooding

Zone 3 estimates the annual probability of flooding as one in one hundred (1%) or greater from rivers and a one in two hundred (0.5%) or greater from the sea. Alternatively, where information is available they may show the highest known flood level.

Is the site within 250m of an Environment Agency indicative Zone 3 floodplain? **No**

Guidance: More detailed information may be available from the Environment Agency through their floodline (0845 988 1188) or by ordering an Environment Agency Flood Report from the local Environment Agency Office.

Database searched and no data found.

6.3 Flood Defences

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

6.4 Areas benefiting from Flood Defences

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

Guidance: More detailed information may be available from the Environment Agency through their floodline (0845 988 1188) or by ordering an Environment Agency Flood Report from the local Environment Agency Office.

6.5 Areas used for Flood Storage

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

Guidance: More detailed information may be available from the Environment Agency through their floodline (0845 988 1188) or by ordering an Environment Agency Flood Report from the local Environment Agency Office.

6.6 Groundwater Flooding Susceptibility Areas

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

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

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Guidance: Where high groundwater flooding susceptibility 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.

6.7 Groundwater Flooding Confidence Areas

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

Notes:

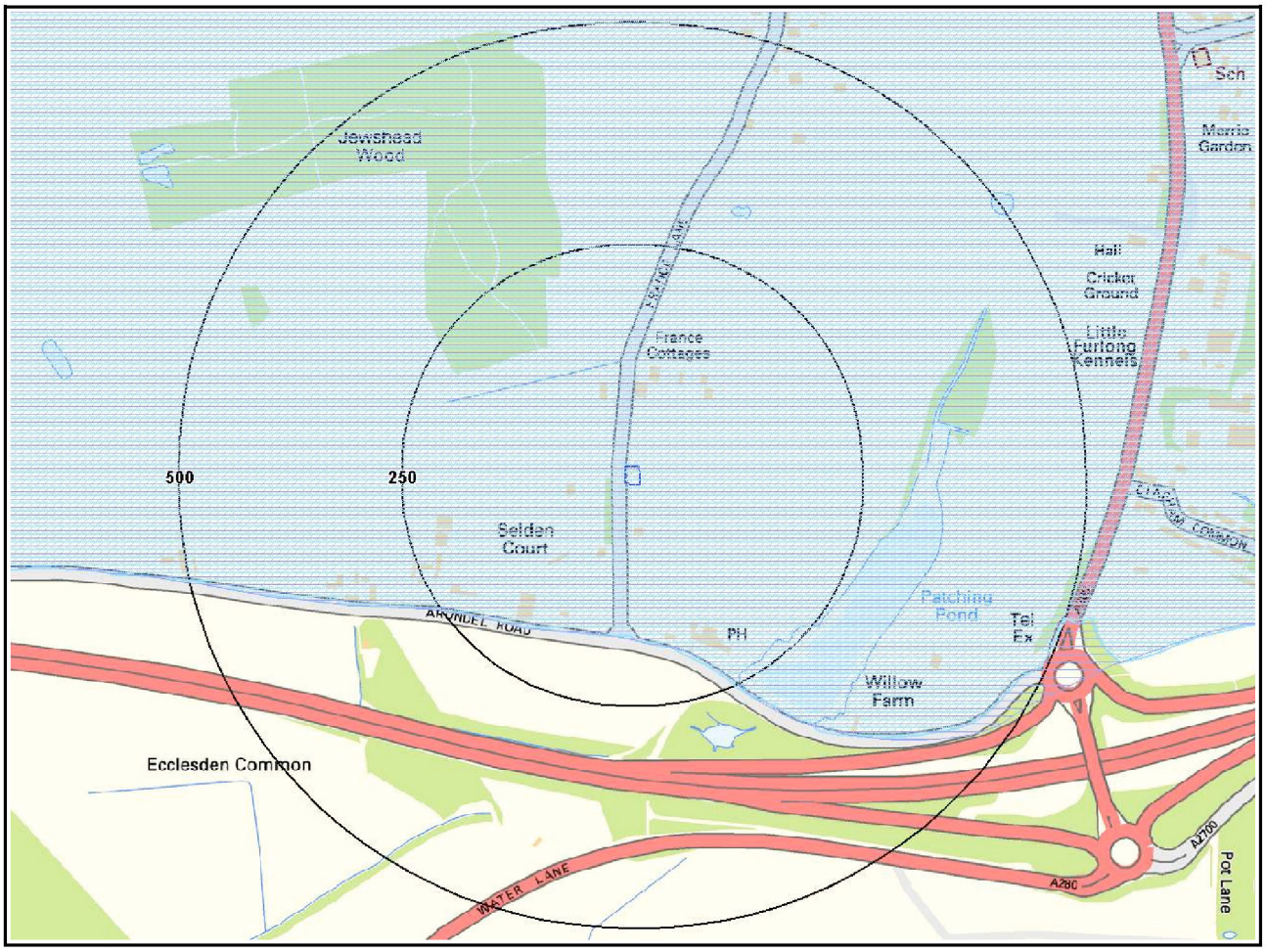
Groundwater flooding is defined as the emergence of groundwater at the ground surface or the rising of groundwater into man-made ground under conditions where the normal range of groundwater levels is exceeded.

The confidence rating is on a fivefold scale - Low, Moderately Low, Moderate, Moderately High 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.

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7.Designated Environmentally Sensitive Sites Map

NW N NE



W E

S

SW SE

Designated Environmentally Sensitive Sites Legend

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- Site Outline
- Search Buffers (m) 250 500
- SAC
- SSSI
- NNR
- World Heritage Sites
- SPA
- Ramsar
- LNR
- Environmentally Sensitive Areas
- Areas of Outstanding Natural Beauty
- Nitrate Sensitive Areas
- National Parks

7.Designated Environmentally Sensitive Sites

Presence of Designated Environmentally Sensitive Sites within 500m of the study site? **Yes**

Records of Sites of Special Scientific Interest (SSSI) within 500m of the study site: **0**

Database searched and no data found.

Records of National Nature Reserves (NNR) within 500m of the study site: **0**

Database searched and no data found.

Records of Special Areas of Conservation (SAC) within 500m of the study site: **0**

Database searched and no data found.

Records of Special Protection Areas (SPA) within 500m of the study site: **0**

Database searched and no data found.

Records of Ramsar sites within 500m of the study site: **0**

Database searched and no data found.

Records of Local Nature Reserves (LNR) within 500m of the study site: **0**

Database searched and no data found.

Records of World Heritage Sites within 500m of the study site: **0**

Database searched and no data found.

Records of Environmentally Sensitive Areas within 500m 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	Direction	ESA Name	Data Source
2	0.0	On Site	South Downs	Natural England

Records of Areas of Outstanding Natural Beauty (AONB) within 500m of the study site: **1**

The following Area of Outstanding Natural Beauty (AONB) records and Scottish National Scenic Area (NSA) records provided by Natural England/Countryside Council for Wales/Scottish Government are represented as polygons on the Designated Environmentally Sensitive Sites Map:

ID	Distance	Direction	AONB/NSA Name	Data Source
1	0.0	On Site	Sussex Downs	Natural England

Records of National Parks (NP) within 500m of the study site: **0**

Database searched and no data found.

Records of Nitrate Sensitive Areas within 500m of the study site: **0**

Database searched and no data found.

Records of Nitrate Vulnerable Zones within 500m of the study site: **2**

The following Nitrate Vulnerable Zone records produced by DEFRA are not represented as polygons on the Designated Environmentally Sensitive Sites Map:

ID	Distance	Direction	NVZ Name	Data Source
	0.0	On Site	No place name provided	DEFRA
	285.0	SW	No place name provided	DEFRA

8. Natural Hazards Findings

8.1 Detailed BGS GeoSure Data

BGS GeoSure Data has been searched to 50m. The data is included in tabular format. If you require further information, please obtain a GroundSure GeoInsight. Available from our website. The following information has been found:

8.1.1 Shrink Swell

What is the maximum Shrink-Swell* 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
Ground conditions predominantly high plasticity. Do not plant or remove trees or shrubs near to buildings without expert advice about their effect and management. For new build, consideration should be given to advice published by the National House Building Council (NHBC) and the Building Research Establishment (BRE). There is a probable increase in construction cost to reduce potential shrink-swell problems. For existing property, there is a probable increase in insurance risk during droughts or where vegetation with high moisture demands is present.

8.1.2 Landslides

What is the maximum Landslide* 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
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.

8.1.3 Soluble Rocks

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

Soluble rocks are not present in the search area. 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.

8.1.4 Compressible Ground

What is the maximum Compressible Ground* 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
No indicators for compressible deposits identified. No special actions required to avoid problems due to compressible deposits. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with compressible deposits.

8.1.5 Collapsible Rocks

What is the maximum Collapsible Rocks* hazard rating identified on the study site? **Null - Negligible**

No indicators for collapsible deposits identified; No special actions required to avoid problems due to collapsible deposits. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with collapsible deposits.

8.1.6 Running Sand

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

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

Hazard
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.

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

9.Mining

9.1 Coal Mining

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

Database searched and no data found.

9.2 Shallow Mining

What is the hazard of subsidence relating to shallow mining on-site (including a 150m buffer) ? **Negligible**

Guidance: Where negligible potential is indicated, this means that the rocks underlying the area are not likely to have been mined at shallow depth.

9.3 Brine Affected Areas

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

Database searched and no data found.

10.Contacts

CENTREMAPS

Telephone: 01886 832972
groundsure@centremaps.co.uk
CENTREMAPS, Brockamin House, Leigh, Worcester, London, WR6 5JU

centremapslive.com
the mapping portal from Laser Surveys

Directors: M C Walker, MInst C.E.S., C M Walker,
S J Hawkins BSc (Hons), S E Stewart BSc (Hons)
Registered No. 1890261 Registered in England and Wales
Registered Company: Laser Surveys Limited
Brockamin House, Leigh, Worcester, WR6 5JU.

British Geological Survey (England & Wales)

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

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

Environment Agency

Health Protection Agency

Chilton, Didcot, Oxon, OX11 0RQ
Tel: 01235 822622 www.hpa.org.uk/radiation
Radon measures and general radon information and guidance

Health Protection Agency

The Coal Authority

200 Lichfield Lane, Mansfield, Notts NG18 4RG
Tel: 0845 762 6848. DX 716176 Mansfield 5
www.coal-authority.co.uk
Coal mining reports and related enquiries

The COAL AUTHORITY

Ordnance Survey

Romsey Road
Southampton SO16 4GU
Tel: 08456 050505

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Local Authority

Authority: Arun District Council
Phone: 01903 737500
Web: www.arun.gov.uk
Address: The Arun Civic Centre, Maltavers Road, Littlehampton, West Sussex, BN17 5LF

Get Mapping PLC

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

getmapping®

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Standard Terms and Conditions

1 Definitions

In these conditions unless the context otherwise requires:
"Beneficiary" means the Client or the customer of the Client for whom the Client has procured the Services.
"Commission" means an order for Consultancy Services submitted by a Client.
"Consultancy Services" mean consultancy services provided by GroundSure including, without limitation, carrying out interpretation of third party and in-house environmental data, provision of environmental consultancy advice, undertaking environmental audits and assessments, Site investigation, Site monitoring and related items.
"Content" means any data, database or other information contained in a Report or Mapping which is provided to GroundSure by a Data Provider.
"Contract" means the contract between GroundSure and the Client for the performance of the Services which arises upon GroundSure's acceptance of an Order or Commission and which shall incorporate these conditions, the relevant GroundSure User Guide, proposal by GroundSure and the content of any subsequent report, and any agreed amendments in accordance with condition 11 .
"Client" means the party that submits an Order or Commission.
"Data Provider" means any third party providing Content to GroundSure.
"Data Report" means reports comprising factual data with no professional interpretation in respect of the level of likely risk and/or liability available from GroundSure.
"GroundSure" means GroundSure Limited, a company registered in England and Wales under number 03421028 and whose registered office is at Greater London House, Hampstead Road, London NW1 7EJ.
"Home Information Pack" means a combination of reports required when selling a residential property.
"Intellectual Property" means any patent, copyright, design rights, service marks, moral rights, data protection rights, know-how, trade mark or any other intellectual property rights.
"Mapping" an historical map or a combination of historical maps of various ages, time periods and scales available from GroundSure.
"Order" means an order form submitted by the Client requiring Services from GroundSure in respect of a specified Site.
"Order Website" means online platform via which Orders may be placed.
"Report" means a Risk Screening Report or Data Report for commercial or residential property available from GroundSure relating to the Site prepared in accordance with the specifications set out in the relevant User Guide.
"Risk Screening Report" means one of GroundSure's risk screening reports such as GroundSure Homebuyers, GroundSure Home Environmental GroundSure SiteGuard, GroundSure Screening, GroundSure Review, GroundSure Developer Review, or any other risk screening report available from GroundSure.
"Services" means the provision of any Report, Mapping or Consultancy Services which GroundSure has agreed to carry out for the Client/Beneficiary on these terms and conditions in respect of the Site.
"Site" means the landsite in respect of which GroundSure provides the Services.
"User Guide" means the relevant current version of the user guide, available upon request from GroundSure.

2 Scope of Services

2.1 GroundSure agrees to carry out the Services in accordance with the Contract and to the extent set out therein.
2.2 GroundSure shall exercise all the reasonable skill, care and diligence to be expected of experienced environmental consultants in the performance of the Services.
2.3 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 the Contract.
2.4 Terms and conditions appearing on a Client's order form, printed stationery or other communication, including invoices, to GroundSure, its employees, servants, agents or other representatives or any terms implied by custom, practice or course of dealing shall be of no effect and these terms and conditions shall prevail over all others.
2.5 In the event that a Client/Beneficiary opts to take out insurance in conjunction with or as a result of the Services, such insurance shall be subject solely to the terms of any policy issued to it in that respect and GroundSure will have no liability therefore.
2.6 GroundSure's quotations/proposals are valid for a period of 30 days only. GroundSure reserves the right to withdraw any quotation at any time before GroundSure accepts an Order or Commission. GroundSure's acceptance of an Order or Commission shall be effective only where such acceptance is in writing and signed by GroundSure's authorised representative or where accepted via GroundSure's Order Website.

3 The Client's obligations

3.1 The Client shall be solely responsible for ensuring that the Report/Mapping ordered is appropriate and suitable for the Beneficiary's needs.
3.2 The Client shall (or shall procure that the Beneficiary shall) supply to GroundSure as soon as practicable and without charge all information necessary and accurate relevant data including any specific and/or unusual environmental information relating to the Site known to the Client/Beneficiary which may pertain to the Services and shall give such assistance as GroundSure shall reasonably require in the performance of the Services (including, without limitation, access to a Site, facilities and equipment as agreed in the Contract).
3.3 Where Client/Beneficiary approval or decision is required, such approval or decision shall be given or procured in reasonable time as not to delay or disrupt the performance of any other part of the Services.
3.4 The Client shall not and shall not knowingly permit the Beneficiary to, save as expressly permitted by these terms and conditions, re-sell, alter, add to, amend or use out of context the content of any Report, Mapping or, in respect of any Services, information given by GroundSure. For the avoidance of doubt, the Client and Beneficiary may make the Report, Mapping or GroundSure's findings available to a third party, but such third party cannot rely on the same unless expressly permitted under condition 4.
3.5 The Client is responsible for maintaining the confidentiality of its user name and password if using GroundSure's internet ordering service and accepts responsibility for all activity that occurs under such account and password.

4 Reliance

4.1 Upon full payment of all relevant fees and subject to the provisions of these terms and conditions, the Client and Beneficiary are granted an irrevocable royalty-free licence to use the information contained in the Report, Mapping or in a report prepared by GroundSure in respect of or arising out of the Consultancy Services. The Services may only be used for the benefit of the Client and those persons listed in conditions 4.2 and 4.3.
4.2 In relation to Data Reports, Mapping and Risk Screening Reports, the Client shall be entitled to make Reports available to (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 (v) the professional advisers and lenders of the first purchaser or tenant of the Site. For the avoidance of doubt, such persons shall include any entity necessary under the Housing Act 2004 (as amended). Accordingly GroundSure shall have the same duties and obligations to those persons in respect of the Services as it has to the Client and those persons shall have the benefit of any of the Client's rights under the Contract as if those persons were parties to the Contract. For the avoidance of doubt, the limitations of GroundSure's liability as set out in condition 7 shall apply.
4.3 In relation to Consultancy Services, reliance shall be limited to the Client, Beneficiary and named parties on the Report.
4.4 Save as set out in conditions 4.2 and 4.3 and unless otherwise agreed in writing with GroundSure, any other party considering the information supplied by GroundSure as part of the Services, including (but not limited to) insurance underwriters, does so at their own risk and GroundSure has no legal obligations to such party unless otherwise agreed in writing.
4.5 The Client shall not and shall not knowingly permit any person (including the Beneficiary) who is provided with a copy of any Report shall not except as permitted herein or by separate agreement with GroundSure: (a) remove, suppress or modify any trade mark, copyright or other proprietary marking from the Report or Mapping; (b) create any product which is derived directly or indirectly from the data contained in the Report or Mapping; (c) combine the Report or Mapping with, or incorporate the Report or Mapping into any other information data or service; or (d) re-format or otherwise change (whether by modification, addition or enhancement) data or images contained in the Report or Mapping.
4.6 Notwithstanding condition 4.5, if the Client acts in a professional capacity, it may make reasonable use of a Report and/or findings made as a result of Consultancy Services to advise Beneficiaries. However, GroundSure shall have no liability in respect of any opinion or report given to such Beneficiaries by the Client or a third party.

5 Fees and Disbursements

5.1 GroundSure shall charge the Client fees at the rate and frequency specified in the Contract together, in the case of Consultancy Services, with all proper disbursements incurred by GroundSure in performing the Services. For the avoidance of doubt, the fees payable for the Services are as set out in GroundSure's written proposal, Order Website or Order acknowledgement form. 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.
5.2 Unless GroundSure requires prepayment, the Client shall promptly pay all fees disbursements and other monies due to GroundSure in full without deduction, counterclaim or set off together with such value added tax or other tax as may be required within 30 days from the date of GroundSure's invoice or such other period as may be agreed in writing between GroundSure and the Client ("Payment Date"). GroundSure reserves the right to charge interest which shall accrue on a daily basis from 30 days after the date of Payment Date until the date of payment (whether before or after judgement) at the rate of five per cent per annum above the Bank of England base rate from time to time.
5.3 In the event that the Client disputes the amount payable in respect of GroundSure's invoice it shall notify GroundSure no later than 28 days after the date thereof that it is in dispute. In default of such notification the Client shall be deemed to have agreed the amount thereof. As soon as reasonably practicable following receipt of a notification in respect of any disputed invoice, a member of the management team at GroundSure shall contact the Client and the parties shall use all reasonable endeavours to resolve the dispute.

6 Intellectual Property

6.1 Subject to the provisions of condition 4.1, the Client and the Beneficiary hereby acknowledge that all Intellectual Property in the Services are and shall remain owned by either GroundSure or the Data Providers and nothing in these terms purports to transfer or assign any rights to the Client or the Beneficiary in respect of the Intellectual Property.
6.2 The Client shall acknowledge the ownership of the Content where such Content is incorporated or used in the Client's own documents, reports, systems or services whether or not these are supplied to a third party.
6.3 Data Providers may enforce any breach of condition 6.1 against the Client or Beneficiary.

7. Liability

7.1 Nothing in these terms and conditions shall limit GroundSure's liability for causing death or personal injury through negligence or wilful default.
7.2 Save as otherwise set out in these conditions, any information provided by one party ("Disclosing party") to the other party ("Receiving Party") shall be treated as confidential except so far as authorised by the Disclosing Party to provide such information in whole or in part to a third party.
7.3 Nothing in these conditions shall affect the statutory rights of a consumer under the applicable consumer protection legislation from time to time.
7.4 In relation to Data Reports, Mapping and Risk Screening Reports, GroundSure's liability under the Contract shall cease upon the expiry of six years from the date when the Beneficiary became aware that it may have a claim against GroundSure in respect of the Services provided always that there shall be no liability at the expiration of twelve years from the completion of the Contract. For the avoidance of doubt, any claims in respect of which proceedings are notified to GroundSure in writing prior to the expiry of the time periods referred to in this clause shall survive the expiry of those time periods provided any such claim is actually commenced within six months of notification.
7.5 In relation to Consultancy Services GroundSure's liability under the Contract shall cease upon the expiry of six years from the date the Services were completed.
7.6 GroundSure shall not be liable to the Client or any person to whom the Client provides a copy of a Data Report, Mapping or Risk Screening Report in any circumstances whatsoever unless arising out of a breach on its part of the obligations set out in the Contract.
7.7 GroundSure shall not be liable if the Data Reports, Mapping or Risk Screening Report are used otherwise than as provided or referred to in these conditions and the relevant User Guide.
7.8 Subject to the provisions of condition 7.3, GroundSure makes no representation, warranties, express or implied, as to the accuracy, reliability, completeness, validity or fitness for purpose of any Content and shall not be liable for any omission, error or inaccuracy in relation thereto unless GroundSure should reasonably have been alerted to any omission, error or inaccuracy in the Content.
7.9 Subject to the provisions of clause 7.1 notwithstanding anything to the contrary contained elsewhere in the Contract, and irrespective of whether multiple parties make use of the same Services, the total liability of GroundSure under or in connection with the Contract, whether in contract in tort for breach of statutory duty or otherwise shall not exceed £5 million per claim or series of connected claims.
7.10 Whilst GroundSure will use all reasonable endeavours to maintain operability of its internet ordering service it will not be liable for any loss or damages caused by a delay or loss of use of such service. The Client shall use GroundSure's internet ordering service at its own risk. GroundSure shall not be responsible for any damage to a Client or permitted assignee's computer, software, modem, telephone or other property resulting from the use of GroundSure's internet ordering service.
7.11 The Client accepts, and shall use all reasonable endeavours to procure that anyone who is provided with a copy of the Report accepts, that it has no claim or recourse to any Data Provider or to GroundSure in respect of the acts or omissions of such Data Providers including Content supplied by them save for where a Risk Screening Report comprises part of a Home Information Pack:

(i) the Data Providers set out in the relevant User Guide shall be responsible for the quality and accuracy of the data supplied by them; and
(ii) where GroundSure makes an assessment of a Site to determine if it is likely to fall within Part IIA of the Environmental Protection Act 1990, GroundSure shall be responsible for the interpretation of any Content provided by a Data Provider subject to the limitations set out in these terms and conditions.

7.12 GroundSure shall provide the Services using reasonable skill and care, however, GroundSure shall not be liable for any inaccurate statement or risk rating in a Report which resulted from a reasonable interpretation of the Content.
7.13 Subject to the provisions of clause 7.1, GroundSure shall not be liable for any losses (whether direct or indirect) and including (but not limited to) loss of profit caused by the suspension or reduction of activity on a Site, business interruption, all third party off-Site claims or any loss in value of a Site, loss of goodwill, loss of business opportunity or other similar losses alleged to be sustained by the Client, the Beneficiary or any third party.
7.14 GroundSure undertakes for the duration of the liability periods referred to in conditions 7.4 and 7.5 to maintain professional indemnity insurance in respect of its liabilities in respect of the Contract for £5 million in the aggregate which amount shall first include the whole of any sum payable for death or personal injury provided such insurance is readily available at commercially viable rates or for a lesser amount to be agreed with the Client should the cost of such insurance become commercially unviable. GroundSure shall produce evidence of such insurance if requested by the Client. A greater level of cover may be available upon request and agreement with the Client.

8 GroundSure right to suspend or terminate

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

(i) the Client shall fail to pay any sum due to GroundSure within 28 days of the due date for payment; 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 breaches any material term of the Contract (including, but not limited to, the obligations in condition 4) incapable of remedy or if remediable, is not remedied within 14 days of notice of the breach.

9. Client's Right to Terminate and Suspend

9.1 Subject to condition 10.2, the Client may at any time after commencement of the Services by notice in writing to GroundSure require GroundSure to terminate or suspend immediately performance of all or any of the Services.
9.2 The Client waives all and any right of cancellation it may have under the Consumer Protection (Distance Selling) Regulations 2000 (as amended) in respect of the Order of a Report/Mapping. This does not affect the Beneficiary's statutory rights.

10 Consequences of Withdrawal, Termination or Suspension

10.1 Upon termination or any suspension of the Services, 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/Beneficiary any property of the Client/ Beneficiary in GroundSure's possession or control.
10.2 In the event of termination/suspension of the Contract under conditions 8 or 9, 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/suspension. In respect of any Consultancy Services provided, the Client shall also pay GroundSure any additional costs incurred in relation to the termination/suspension of the Contract.

11 General

11.1 The mapping contained in the Services is protected by Crown copyright and must not be used for any purpose outside the context of the Services or as specifically provided in these terms.
11.2 GroundSure reserves the right to amend these terms and conditions. No variation to these terms shall be valid unless signed by an authorised representative of GroundSure.
11.3 No failure on the part of GroundSure to exercise and no delay in exercising, any right, power or provision under these terms and conditions shall operate as a waiver thereof.
11.4 Save as expressly provided in conditions 4.2, 4.3, 6.3 and 11.5, 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.
11.5 The Secretary of State for Communities and Local Government acting through Ordnance Survey, may enforce breach of conditions 6.1 or 11.1 of these terms and conditions against the Client in accordance with the provisions of the Contracts (Rights of Third Parties) Act 1999.
11.6 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 Data Providers; or
(viii) changes in law.

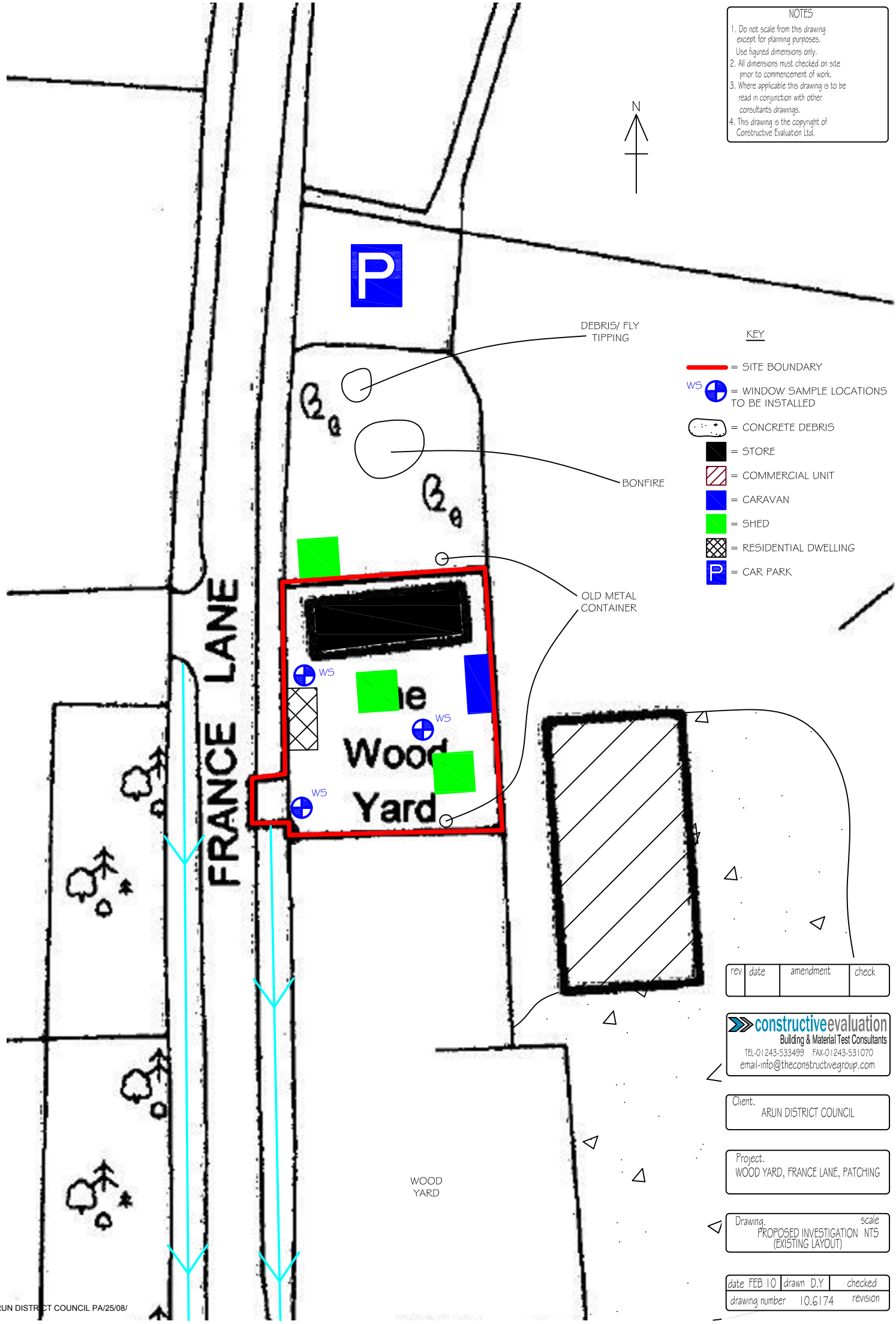
11.7 Any notice provided shall be in writing and shall be deemed to be properly given if delivered by hand or sent by first class post, facsimile or by email to the address, facsimile number or email address of the relevant party as may have been notified by each party to the other for such purpose or in the absence of such notification the last known address.
11.8 Such notice shall be deemed to have been received on the day of delivery if delivered by hand, facsimile or email and on the second working day after the day of posting if sent by first class post.
11.9 The Contract constitutes the entire contract between the parties and shall supersede all previous arrangements between the parties.
11.10 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.
11.11 These terms and conditions shall be governed by and construed in accordance with English law and any proceedings arising out of or connected with these terms and conditions shall be subject to the exclusive jurisdiction of the English courts.
11.12 If the Client or Beneficiary has a complaint about the Services, notice should be given in writing to the Compliance Officer at GroundSure who will respond in a timely manner.

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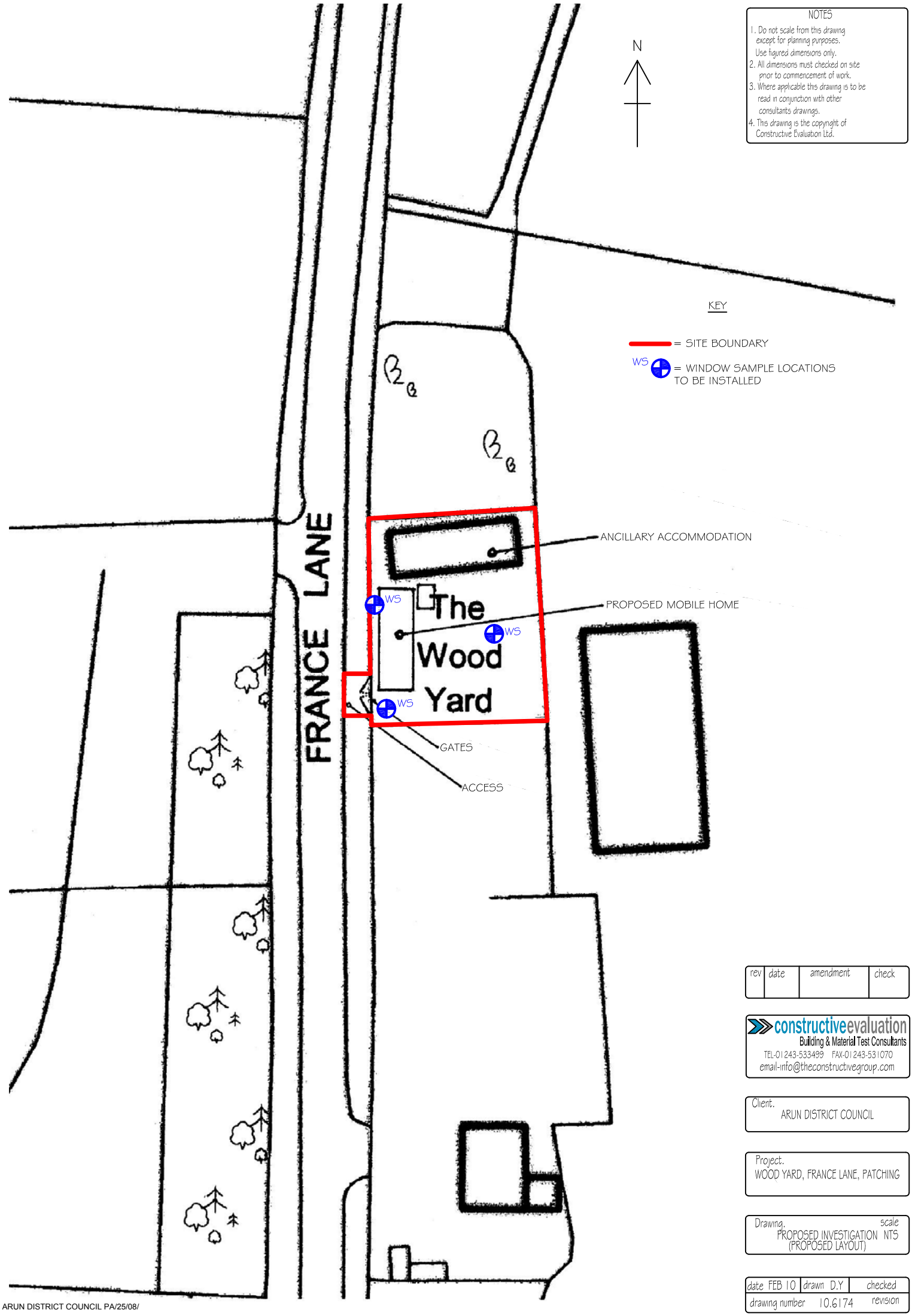
APPENDIX F

Proposed Site Investigation Plan (Existing and Proposed Site Layout)

constructiveevaluation
Building & Material Test Consultants



ARUN DISTRICT COUNCIL PA/25/08/



rev	date	amendment	check

constructive evaluation
Building & Material Test Consultants
TEL-01243-533499 FAX-01243-531070
email-info@theconstructivegroup.com

Client.
ARUN DISTRICT COUNCIL

Project.
WOOD YARD, FRANCE LANE, PATCHING

Drawing. scale
PROPOSED INVESTIGATION (PROPOSED LAYOUT) NTS

date FEB 10	drawn D.Y	checked
drawing number 10.6174		revision