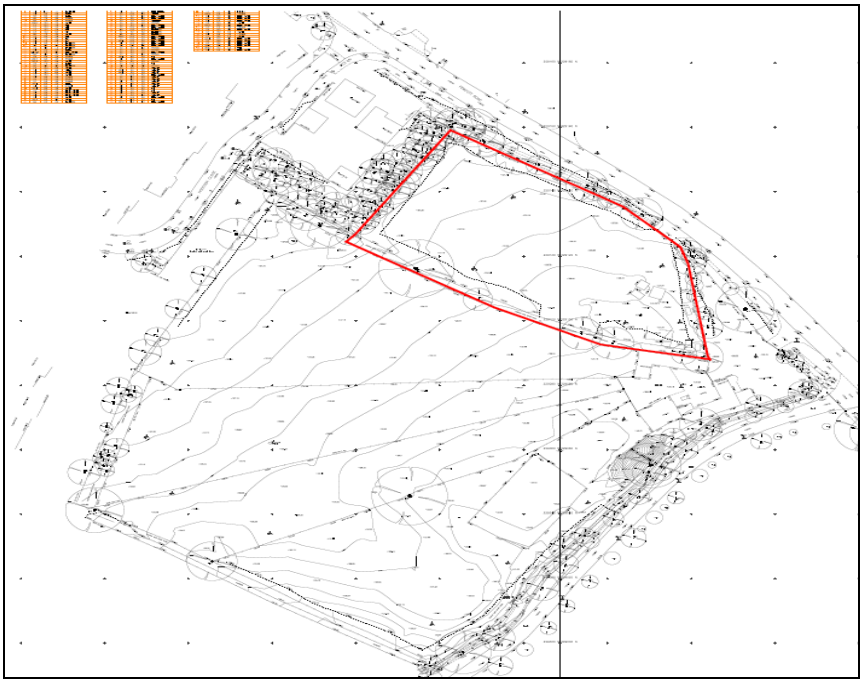
DESK TOP STUDY & SITE INVESTIGATION REPORT

NORTHERN PARCEL, FEWCOTT ROAD, FRITWELL, OXFORDSHIRE.
OX27 7QA

Prepared for: **Cala Homes (Chiltern) Ltd**

Report Reference: BC195 RE002

1st November 2021



The Brownfield Consultancy

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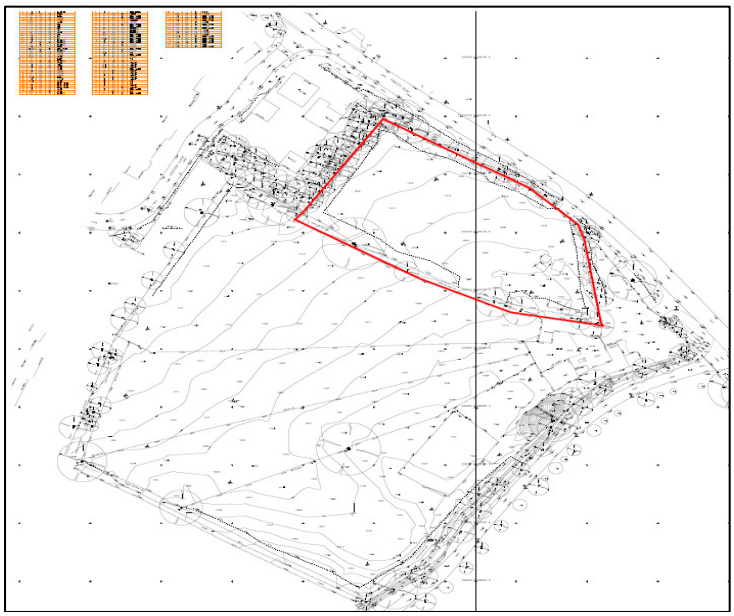
NORTHERN PARCEL, LAND OFF FEWCOTT ROAD, FRITWELL. OX27 7QA

1 INTRODUCTION

The Brownfield Consultancy was instructed by Cala (Homes) Chiltern Ltd to carry out a Desk Study and Site Investigation at the above site.

The site comprises of a roughly triangular shaped plot of land, formerly an allotment, approximately 100m east of the centre of Fritwell. The site forms part of a larger development which extends to the south and east. Cherwell Council have granted planning permission to construct 28 residential dwellings with associated infrastructure (Planning Ref: 19/00616/OUT) across the entire site. Condition 7, 8, 9 and 10 of the planning permission stipulates a requirement for a Contaminated Land Risk Assessment at the site.

The site to which this report pertains is denoted below in red outline.



A ground investigation was undertaken by the Brownfield Consultancy Ltd on land to the south and our findings are reported in *'Phase 1 and Phase 2 Site Investigation, Land off Fewcott Road, Fritwell, OX27 7QA'* (Ref: BC195 RE001 31.1.21).

The purpose of the Desk Top Study and Site Investigation is to provide an assessment of the likelihood of any soil and groundwater contamination at the site. The Desk Study includes a review of geological maps and historical Ordnance Survey maps and inspection and review of environmental data held by the Environment Agency, Local Authority and other statutory bodies. The information which is gathered is then used to construct a conceptual site model which includes an understanding of potential contaminant sources, pathways and receptors. The Contamination Assessments have been carried out with reference to CLR 11 (Model Procedures for the Management of Land Contamination), as well as Environment Agency Guidance for the Safe Development of Housing on Land Affected by Contamination (R&D Publication 66-2008) and BS 10175 (Code of Practice for the Investigation of Potentially

The report is subject to limitations which are set out in Appendix I.

2 SITE DESCRIPTION

The site is level, roughly rectangular in shape and was overgrown at the time of investigation. A former burning area of approximate dimensions 10m x 6m is present in the southern central area and is indicated on the Exploratory Hole Location Plan in Appendix A.

To the North lies Fewcott Road with fields beyond, to the East and South is a stable block and Paddocks respectively which will form part of the new residential development and to the West lies residential housing. The proposed residential housing layout for the northern parcel and the wider site is set out below:-

Photographs of the site are presented in Appendix G.

3 GEOLOGY, HYDROLOGY AND HYDROGEOLOGY

3.1 Geology

Reference to BGS online mapping indicates that the site is immediately underlain by the Great Oolite Group described as limestone. Superficial deposits are not denoted. The following table details the risk of geological hazard potential on or underlying the site as identified in the Groundsure Enviroinsight Report included in Appendix C.

Table 1 Geological Hazards

Hazard	Risk
Compressible ground	Negligible
Landslide ground	Negligible
Running sand	Negligible
Shrink and swell	Negligible
Collapsible Rocks	Very Low
Ground dissolution	Very Low
Coal Mining Area	No
Mining Area	No

The Groundsure Report indicates that geological hazards do not present a constraint to development.

3.2 Hydrology and Flood Risk

The closest surface water feature is a Tertiary River located 270m southwest of the site. There are no water quality records within 1500m of the site.

There are no surface water abstractions within 2000m of the site.

The site is not located within an area considered at risk of flooding from rivers or the sea.

3.3 Hydrogeology

The Groundwater Vulnerability map contained in the Groundsure Report indicates that the Great Oolite is designated as a 'Principal Aquifer' defined as:-

'Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers'

Thus groundwater resources are considered at risk of pollution.

No potable groundwater or groundwater abstraction licenses are recorded within 500m of the site.

4 SITE HISTORY

The history of the site and the surrounding area has been determined from historical map extracts. Copies of these extracts are included in Appendix B.

4.1 On Site History

The earliest historical map of 1880 denotes the site as open grass land. There are no further changes.

Scrutiny of Google Earth images dating back to 2004 show the following:-

2004
The site appears to be used as a large allotment with a small polytunnel in the east.

2006

2009
Further activity in the east of the site.

2017

2020 – Activity has largely ceased.

4.2 Off-Site History

Off site, the earliest historical map denotes the site as being immediately surrounded by agricultural fields. A small quarry is denoted 130m south east of the site. The village of Fritwell is located 100m west of the site, comprising residential dwellings, a School and a Post Office running adjacent to the north-south trending 'East Street'.

At some date between 1965 and 1976 the quarry is no longer denoted, presumably backfilled.

The 1976 map denotes some further residential expansion 40m to the northeast.

The 1981 map denotes further residential expansion of the village of Fritwell.

There are no further changes.

5 INFORMATION HELD BY STATUTORY AUTHORITIES

This section details any relevant information held in the registers maintained by statutory bodies as identified in the Groundsure Enviroinsight Report in Appendix C.

5.1 Waste Management Facilities

The Groundsure Report identifies a landfill site 60m south east of the site at Lodge Farm, Fritwell. Materials deposited were 'inert'. There is no further information on this site. The historical maps indicate that the site was backfilled (completed) at some date between 1956 and 1976.

5.2 Historical Industrial Uses

There are no records of industrial or current potentially contaminative uses on the site.

5.3 Environmental Permits and Registers

There are no active permits and registers within 500m of the site.

5.4 Pollution Incidents to Controlled Waters

Records held by the Environment Agency identify no pollution incidents to controlled waters or land within 500m of the site.

5.5 Discharge Consents

The Groundsure Report identifies 1No. licensed discharge consent within 500m of the site. This is located at Fritwell Sewage Treatment Works, 460m to the southwest and relates to storm overflow.

5.6 Fuel Sites

The Groundsure Report identifies no fuel station entries within 500m of the site.

5.7 Radon

The Groundsure Report indicates that no radon protection measures are necessary.

5.8 Environmentally Sensitive Areas

The site is located within a Nitrate Vulnerable Zone (NVZ).

6 UK CONTAMINATED LAND LEGISLATIVE FRAMEWORK

6.1 Legislation on Contaminated Land

Part IIA of the Environmental Protection Act, 1990, enacted by Section 57 of the Environment Act 1995 and the associated Contaminated Land (England) Regulations 2000 (SI 2000/227) was introduced on 1 April 2000.

Part IIA provides a statutory definition of contaminated land:

"any land which appears to the Local Authority in whose area it is situated to be in such a condition by reason of substances in, on or under the land, that significant harm is being caused, or that there is a significant possibility of significant harm being caused, or that pollution of controlled waters is being or is likely to be caused".

Controlled waters are considered to be all groundwaters, inland surface waters and estuarine and coastal waters.

To determine whether land falls under the Part IIA definition of contaminated land the site should be evaluated in the context of a risk based framework. The assessment of contaminated land is typically a two-phase process which is initially based on a qualitative assessment of the likelihood of complete pollution linkages, with a quantitative element

which seeks to determine the degree and the significance of the harm. Land is only defined as 'Contaminated Land' if a "significant pollutant linkage" is present.

A pollutant linkage must comprise of the following:-

Source - a contaminant or substance which is located in, on or under the land and has potential to cause harm to human health, water resources or the wider environment.

Pathway - the means or route by which a source can migrate;

Receptor - something which could come to harm, including human health, water resources, surface water courses or the wider environment.

The responsible authority then needs to consider whether the identified pollution linkage:

- is resulting in significant harm being caused to the receptor in the pollutant linkage;
- presents a significant possibility of significant harm being caused to that receptor;
- is resulting in the pollution of controlled waters, which constitute the receptor; or is likely to result in such pollution.

If a pollutant linkage is demonstrated, then the Part IIA legislation provides powers for remedial action to be enforced by the Local Authority in whose area the contaminated land is situated.

7 CONCEPTUAL MODEL

7.1 General

This section uses information from the site walkover, the Enviroinsight Report and historical maps to provide a conceptual model and qualitative assessment of the potential risks posed to human health and environmental receptors from potential on-site and off-site sources of contamination. The assessment is presented as a 'source-pathway-receptor' model in accordance with Part IIa of the Environmental Protection Act 1990. The conceptual model has been developed assuming that the site will be redeveloped for a residential end use with gardens.

7.2 Potential Sources of Contamination

Potential On-site Sources of Contamination

- Google Earth aerial imagery indicates that the site has been used as an allotment. The far west of the site appears to have been used for storage of materials relating to the allotment. This is a source of metals, semi-volatile hydrocarbons and asbestos.
- The site walkover identified a large (10m x 6m) burning area. This is a source of ash which can contain elevated levels of metals and semi-volatile hydrocarbons.
- Other than the burning area, the site walkover did not identify any contamination concerns.

Potential Off-Site Sources of Contamination

- The Groundsure Report identifies a landfill site approximately 50m south east of the site at Lodge Farm, Fritwell. Materials deposited were 'inert'. There is no further

information on this site. The historical maps indicate that the site was backfilled (completed) at some date between 1956 and 1976. This is a source of land-borne gas. However the risk is considered to be 'low'.

7.3 Receptors

The site is to be redeveloped for a residential housing with private gardens. The site overlies a Principal Aquifer, the Great Oolite, though is not within a SPZ. However based upon the likely sources of contamination at the site (metals, semi-volatile hydrocarbons and asbestos), we do not consider that groundwater resources are at risk of impact. The primary receptors, considered to be potentially at risk from any identified contamination are as follows:-

Human Health

- Construction workers during the redevelopment phase.
- Residential end users.

7.4 Pathways

Potential contaminant migration pathways considered relevant to the site are:-

Human Health

- Ingestion of contaminated soils and dust particles.
- Direct physical contact with near surface soils and contaminated dust particles.
- Inhalation of wind-blown contaminated dust.
- Consumption of home-grown vegetable produce.

Infrastructure

- Water supply pipework.

7.5 Pollutant Linkages

The potentially active 'source – pathway – receptor' linkages are summarised in the following table:-

Conceptual Site Model – Potential Source-Pathway-Receptor

Potential Source	Pathway	Receptor
Metals, semi-volatile hydrocarbons, asbestos resulting from the former use as allotments.	Lateral migration Ingestion of soil Direct Contact with soil Inhalation of dust Vegetable uptake	Site workers and residential end users.
Land borne gas. Former Landfill Site 60m distant – Inert waste.	Lateral migration	Site workers and residential end users.

Based on the sites former and current use, the overall risk from land contamination at the site is considered to be 'low'. However this would need to be confirmed by appropriate intrusive investigation, testing and assessment of the results of the investigation.

8 FIELDWORK

The intrusive fieldwork was carried out on the 22nd and 23rd of September 2021 and comprised 6No. dynamic windowless sampler boreholes and 12No. trial pits.

The site work was undertaken by The Brownfield Consultancy, with the ground investigation procedures and sample descriptions based on BS 5930 (2020) 'Code of Practice for Site Investigations' and BS 10175 (2015) "Investigation of potentially contaminated sites - code of practice". The locations of the exploratory holes are shown on the drawing included in Appendix A. The exploratory hole records are presented in Appendix D. The full details of the fieldwork undertaken are summarised in the following sections.

8.1 Dynamic Sampler Boreholes

The boreholes, denoted WS1 to WS6 were advanced to depths of 0.60m to 1.46m using the dynamic windowless sampling technique. All holes were terminated short of their target depth on reaching ground too hard to penetrate. The drilling technique utilises a lightweight tracked rig to advance the borehole in 1m lengths using 1m long steel sampler tubes containing plastic liners, into which the substrata deposits are driven, at diameters of 100mm reducing to 70mm. The soils are then recovered from each sampler tube as continuous core samples, which are then logged and sub-sampled on site. Standard Penetration Tests (SPTs) were undertaken in accordance with BS EN ISO 22476-3:2005+A1:2011.

Standpipes were installed in WS1 to 1.46m bgl and WS5 to 1.40m bgl. The response zones were from 0.50m down to the base of each borehole.

8.2 Trial Pits

The trial pits, TP1 to TP12, were excavated to depths of 1.20m to 1.90m by a hydraulic backhoe excavator. The pits were terminated on reaching hard ground, too difficult to penetrate. The excavating was supervised by a Geotechnical Engineer who recorded and described the strata encountered in accordance with BS5930:2020 along with groundwater observations and other salient features.

8.3 Monitoring Fieldwork

Gas monitoring was undertaken on 6No. occasions between 3rd August 2021 and 1st November 2021. Gas monitoring involved the measurement of methane (CH4), carbon dioxide (CO2) and oxygen (O2) together with atmospheric pressure, downhole pressure and flow rates using a calibrated Geotech GA 2000 gas analyser. After the measurement of gas levels, the depth to any groundwater within the standpipes was recorded. The monitoring results are presented in Appendix H.

9 LABORATORY TESTING

9.1 Geotechnical and Geochemical

A programme of laboratory testing was scheduled to determine the geotechnical properties of selected soil samples obtained from the investigation. The details of the geotechnical testing are summarised below:-

Summary of Geotechnical Laboratory Testing Suites

Determinant	No
Atterberg Limits with moisture content determination	4
BRE SD1 Suite B (sulphate, pH etc.)	5

Tests were carried out in accordance with BS1377 (1990) "Methods of test for Soils for Civil Engineering purposes" and Building Research Establishment Special Digest 1 "Concrete in Aggressive Ground". The results of the geotechnical testing are presented in Appendix E.

9.2 Soils - Chemical

A programme of chemical laboratory testing was scheduled on 18No. soil samples taken from various depths in near surface soils recovered from the trial pits and boreholes. The laboratory results (presented in Appendix F) include analysis of 3No. samples of soil from WS8. This hole was drilled in a former riding arena on the central eastern boundary of the paddock land to the south. Samples from WS8 do not form part of this assessment. A more targeted sampling approach was undertaken in the east of the site where more human activity appears to have taken place (see Section 4.1-Site History). All of the soil samples were placed into suitable containers for the required chemical analysis.

The samples were transported to I2 in Watford which is accredited under UKAS and MCerts. The following table summarises the contaminants scheduled:-

Summary of Soil Chemical Laboratory Testing Suites

Determinant	No.
Metal suite	15
Speciated Polycyclic Aromatic Hydrocarbons (PAH)	11
Asbestos screen	9
TPH Texas banded	4

10 GROUND AND GROUNDWATER CONDITIONS

10.1 Strata Encountered

Below Topsoil, the trial pits revealed the site to be underlain by weathered Limestone of the Oolite Group, as indicated on BGS mapping. Minor deposits of Made Ground were encountered in one hole location (WS2).

10.2 Topsoil

Topsoil was encountered in all exploratory holes with the exception of WS2 to a maximum depth of 0.40m. Materials comprised dark brown clay with variable quantities of sand and gravel. Gravel comprised limestone and occasionally quartzite. Rare flecks of coal were recorded in some locations.

10.3 Made Ground

Made Ground was encountered in WS2 only (0.00-0.35m) and comprised the same material as Topsoil but with the addition of red brick.

10.4 Great Oolite Group

Oolite was encountered in all exploratory holes underlying Topsoil or Made Ground. Materials comprised of highly weathered limestone consisting of limestone gravel and cobbles, in a variable matrix of sand and clay. Thin units of clay with variable quantities of sand and gravel were encountered in WS1 (1.00-1.10m), TP5 (1.70-1.90m), TP6 1.40-1.60m) and TP7 (1.25-1.50m). Thin (≤0.40m) units of gravelly sand were also encountered in a small number of exploratory holes. The presence of these sand and clay beds was entirely random.

There was insufficient clay and silt content in the composition of the Oolite deposits for them to be susceptible to significant volume change through variation in moisture content, such as may be brought about by tree root action.

The trial pits terminated at slightly deeper depths than the boreholes. Each pit was terminated upon the instruction of the machine driver as further excavation may have damaged his bucket teeth. It must be noted that the term bedrock has been used to define stratum that a JCB 3CX was unable to penetrate using a bucket with teeth. It is possible that a heavier excavator could penetrate this stratum to greater depths.

10.5 Groundwater

Groundwater was not encountered in the trial pits or boreholes.

10.6 Contamination

With the exception of the burning area, visual and olfactory evidence of contamination was not recorded. An inspection of the burning residue was made for asbestos sheeting and this was not visually identified.

11 HUMAN HEALTH QUANTITATIVE RISK ASSESSMENT

Qualitative assessment of risks may be sufficient in many cases to eliminate the possibility of significant pollutant linkages. However, quantitative risk assessment is formally required to determine whether there is a 'significant possibility of significant harm being caused'. Part IIA of the Environmental Protection Act 1990 recommends that ‘authoritative and scientifically based guideline values for concentrations of the potential pollutants in or under the land’ be used to quantify the risk posed by contamination.

Under the Planning Regime a quantitative risk assessment can be used to decide whether the site is suitable for the proposed use. In addition, the National Planning Policy Framework (March 2012) also indicates that after remediation as a minimum land should not be capable of being determined as contaminated land under Part IIA.

11.1 Current UK Screening Values

The UK technical guidance for assessing risks to human health is issued from various UK bodies including the Environment Agency (EA), the DEFRA, Contaminated Land: Applications in Real Environment (CL:AIRE), Chartered Institute of Environmental Health (CIEH) and Land Quality Management (LQM) Ltd (part of the University of Nottingham).

New and updated screening values in the form of provisional Category four Screening Levels (C4SL) (published in 2014) and Suitable for Use Levels (S4UL) (published 2015) have been produced by DEFRA and CIEH / LQM respectively using modified versions of the EA's Contaminated Land Exposure Assessment (CLEA) software.

11.2 C4SL

Provisional C4SL have been derived by CL:AIRE following guidance and as a tool to assist in applying the Part IIA Category 1- 4 classifications to a site. The purpose of the C4SL is to provide a simple test for deciding that land is suitable for use and 'definitely not' contaminated land under Part IIA. They describe a level of risk that is above minimal but is still low.

Six contaminants have been assigned provisional C4SL: arsenic; benzene; benzo[a]pyrene; cadmium; chromium VI and lead for the standard land uses (residential with and without plant uptake, allotments, commercial and public open space (parks and residential).

The C4SL are also considered suitable to be used under the planning regime.

11.3 S4UL

The LQM / CIEH S4UL represent generic assessment criteria based on minimal or tolerable risk that are intended to be protective of human health. They represent values above which further assessment of the risks or remedial actions may be needed.

S4UL have been derived for a comprehensive list of organic and inorganic determinants.

12 SOIL CHEMISTRY

12.1 Soil Results

The results of chemical testing of near surface soils are compared with the S4UL and C4SL for a residential with plant uptake end use. Exceedances are highlighted in bold in the following table and a discussion on the results are presented in Sections 12.2 – 12.3.

Comparison of Soil Chemical Test Results with Guideline Values

Determinant	Maximum Measured Concentration (mg/kg)	LQM/CIEH S4UL Residential with Plant Uptake (mg/kg)	No. of tests carried out	No. of exceedences
Arsenic	20	37	15	0
Cadmium	<dl	11	15	0
Chromium (total)	47	910	15	0
Mercury	<dl	1.2	15	0
Lead	37	200	15	0
Nickel	19	180	15	0
Selenium	<dl	250	15	0
Copper	26	2400	15	0
Zinc	130	3700	15	0
Naphthalene	<dl	2.3	11	0
Acenaphthylene	<dl	170	11	0
Acenaphthene	<dl	210	11	0
Fluorene	<dl	170	11	0
Phenanthrene	<dl	95	11	0

Determinant	Maximum Measured Concentration (mg/kg)	LQM/CIEH S4UL Residential with Plant Uptake (mg/kg)	No. of tests carried out	No. of exceedences
Anthracene	<dl	2400	11	0
Fluoranthene	<dl	280	11	0
Pyrene	<dl	620	11	0
Benzo(a)anthracene	<dl	7.2	11	0
Chrysene	<dl	15	11	0
Benzo(b)fluoranthene	<dl	2.6	11	0
Benzo(k)fluoranthene	<dl	77	11	0
Benzo(a)pyrene	<dl	2.2	11	0
Indeno(1,2,3-c,d)pyrene	<dl	27	11	0
Dibenzo(a,h)anthracene	<dl	0.24	11	0
Benzo(ghi)perylene	<dl	320	11	0

12.2 Interpretation

Seven samples of Topsoil and one sample of Made Ground were submitted to speciated polycyclic aromatic hydrocarbons and concentrations were not recorded above the laboratory limit of detection. Fourteen samples of Topsoil and one sample of Made Ground were scheduled for metals and concentrations did not exceed the acceptable guideline values for a residential end use.

Eight samples of Topsoil and one sample of Made Ground were submitted to asbestos screening and all samples were reported as 'not detected'.

The fieldwork and laboratory testing have determined that, with the exception of the burning area, remediation is not a requirement.

12.3 Protection of incoming water supply pipes

Plastic based water pipes can be affected by hydrocarbon contaminated soil. Samples of soil from WS1 (0.90m), WS3 (1.00m), WS5 (0.80m) and TP6 (0.80m) were scheduled for hydrocarbons and semi-volatile hydrocarbons and concentrations were not recorded above the laboratory limit of detection. Thus upgraded pipework is not required for this development.

12.4 Controlled Waters

The Oolite Limestone is designated as a 'Principal' aquifer. However based upon our observations and the recorded chemistry of near surface soils, groundwater is not considered to be at risk of impact.

13 GEOTECHNICAL ENGINEERING ASSESSMENT

13.1 Proposed Redevelopment

The proposed development comprises an estate of low-rise housing with access roads. The proposals are presented in Appendix A.

13.2 Summary of Ground Conditions

The site is underlain by deposits of Great Oolite, comprising highly weathered limestone consisting of limestone gravel and cobbles, in a variable matrix of sand and clay.

The deposits contained an insufficient clay and/or silt fraction to have significant volume change potential in the context of tree-root action.

No groundwater was observed in the exploratory holes. The trial pits remained stable and 'overbreak' was not observed.

13.3 Foundations

Spread foundations bearing in Oolite will be suitable for the loads likely to be generated by low-rise residences. Foundations should be taken below any clay layers and be placed at a minimum depth of 0.75m to avoid seasonal effects on the soil. A net allowable bearing pressure of 125kN/m^2 is recommended for the design of footings *up to* 1.0m wide. This should maintain settlements to less than 10mm, most of which will occur immediately upon loading.

13.4 Ground Slabs

If preferred over suspended systems, floor slabs bearing on the Oolite deposits would be feasible.

13.5 Excavations

On the evidence of the trial pits, the short-term stability of shallow excavations should be good, and groundwater is unlikely to present. As with all sites, however, where personnel are required to enter excavations greater than 1.2m deep, or excavations of any depth that are exhibiting instability, shoring or battering back of the sides should be undertaken.

13.6 Road Pavement Design

It is recommended that a CBR value of 5% is assumed for pavements formed in the granular Oolite, provided the formation is proof rolled and any soft spots removed and replaced with granular fill.

13.7 Chemical Considerations for Buried Concrete

Chemical analysis of five samples of the subsoils yielded water-soluble sulphate concentrations (SO4 in 2:1 soil aqueous extract) of 3.5mg/l to 7.3mg/l with pH values of 8.2 to 8.9. The groundwater regime can be assumed to be *static*. On this basis and in accordance with BRE SD1 (2005) "Concrete in aggressive ground" a Design Sulphate Class of **DS-1** and ACEC of **AC-1s** would apply for all buried concrete.

No special precautions will be necessary to protect buried concrete from ground-borne chemical attack.

14 GAS PROTECTION REQUIREMENTS

14.1 Ground Gas

The Desk Top Study and preliminary conceptual model identified a landfill site approximately 60m south east of the site at Lodge Farm, Fritwell. Materials deposited were 'inert'. There is no further information on this site. The historical maps indicate that the site was backfilled (completed) at some date between 1956 and 1976. This is a source of land-borne gas. However the risk is considered to be 'low'.

Six gas monitoring visits were undertaken between 3rd October 2021 and 1st November 2021 from monitoring boreholes WS1 and WS5. Atmospheric pressures ranged from 980mb to 1016mb.

The current guidance on protecting buildings from ground gas hazards is contained in the document Code of practice for the design of protective measures for methane and carbon dioxide ground gases for new buildings (BS8485 : 2015).

The level of gas protection is determined by comparing the following parameters to cut-off values prescribed within BS8485 (2015):

- "Typical Maximum Concentrations" for initial screening purposes.
- Risk based "Gas Screening Values" (GSV) for consideration where the typical maximum concentrations are exceeded.

The GSV is calculated using the following equation and the resulting GSV are compared to the Site Characteristic GSV given in Table 2 of BS8485 (2015).

Maximum gas concentration (%) x worst case borehole flow rate (l/h)

Methane was not recorded. A maximum carbon dioxide concentration of 2.4% vol. together with a maximum flow rate of <0.1l/hr was recorded. The calculated GSV for carbon dioxide is 0.0024l/hr.

Referring to Table 2 of BS8485 (2015), the site can be categorised as a Characteristic Situation 1 (CS1). Gas protection measures are not required.

The gas monitoring records are presented in Appendix H.

15 CONCLUSIONS AND RECOMMENDATIONS

15.1 Contaminated Land

The Desk Top Study and subsequent contamination investigations have revealed the following:-

1. The conceptual site model determined the risk of contamination at the site to be 'low'. This was confirmed by our intrusive investigations. With the exception of a former burning area, the site is suitable for its proposed end use. Remediation is not required.

2. In connection with the former burning area, the location of which is indicated on the Exploratory Hole Location Plan in Appendix A, burning residues will need to be removed where they lie coincident with future gardens. The impacted area will need to be scraped down to weathered limestone and this surplus burning residue can be placed below hardstanding or structures. The Brownfield Consultancy will return to site and inspect the gardens that were formerly coincident with the burning area to ensure that no residues remain. This will comprise a number of hand dug pits in all affected gardens to confirm the thickness of soils, with a photographic record.

3. Surplus Topsoil, resulting from groundworks, outside of the burning area, can be re-used in residential gardens.

15.2 Protection of incoming water supply pipes

Upgraded water supply pipe is not required for this development.

15.3 Gas Protection Measures

Gas protection measures are not required for this development. Radon protection measures are not necessary.

15.4 Watching Brief

It is possible that additional hotspots of contamination may be encountered during groundworks. During groundworks it is the responsibility of the Site Manager to ensure a strict watching brief is maintained. It is also the responsibility of the Site Manager to inform the Brownfield Consultancy should unexpected contamination be observed.

15.5 Waste Disposal

Foundation arisings will consist principally of granular soils of limestone. With regard to the European Waste Catalogue Code 17 05 04 'Stone and soils from uncontaminated sites' should be classified as inert. No evidence of anthropogenic contamination has been identified in the natural soils, therefore in our opinion the Oolite deposits from this site may be classified as such.

Waste Acceptance Criteria analysis was undertaken on a sample of the Oolite from 0.80m bgl which confirms this inert classification. The WAC result is presented in Appendix F.

15.6 Foundations

The reader is referred to Section 13 where foundations recommendations are presented in full.

Prepared and approved by

JIM TWADDLE BSc (Hons) CGeol
Director

16 REFERENCES

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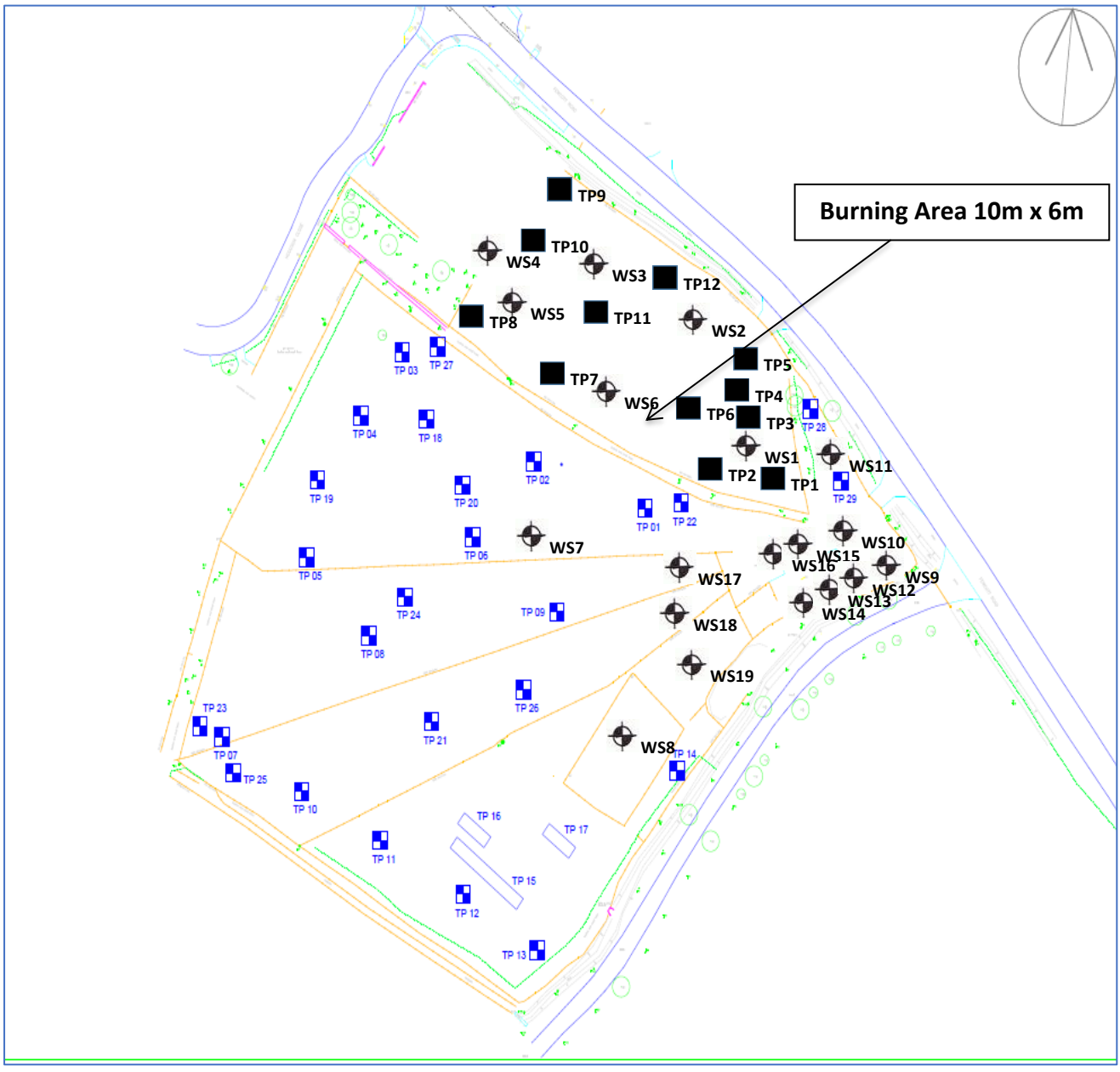
APPENDIX A

Exploratory Hole Location Plan

NORTHERN PARCEL, FEWCOTT ROAD, FRITWELL

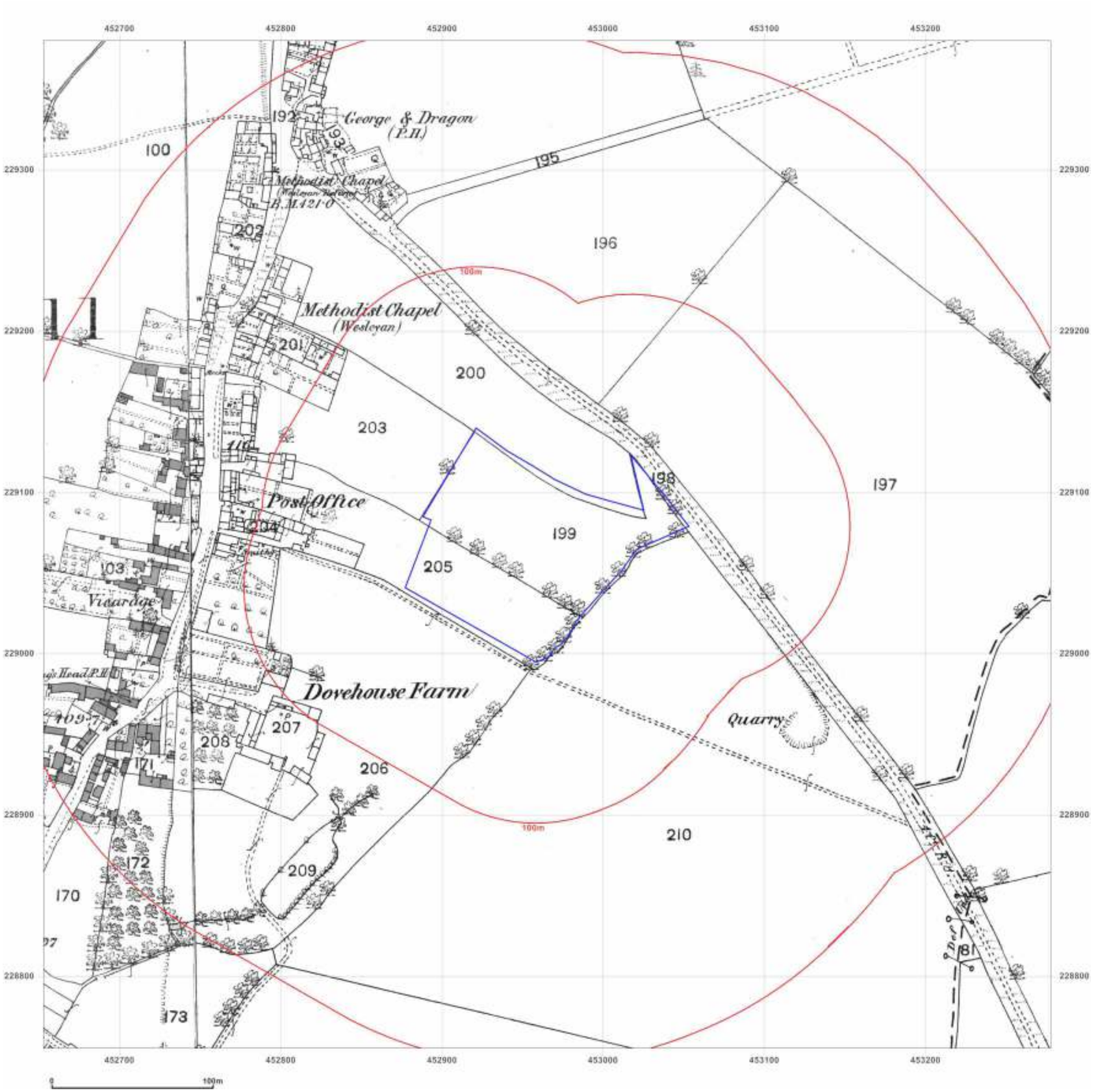
EXPLORATORY HOLE LOCATION PLAN



SEE ‘STABLE BLOCK’ PLAN OVERLEAF

APPENDIX B

Historical Map Extracts



Groundsure INSIGHTS

Site Details:

30,FEWCOTT ROAD,FRITWELL,BICESTER, OX27 7QA

Client Ref: BC195
Report Ref: GS-2803295
Grid Ref: 452965, 229068

Map Name: County Series
Map date: **1881**
Scale: 1:2,500
Printed at: 1:2,500

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Surveyed 1881
Revised 1881
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1880
Revised N/A
Edition 1881
Copyright N/A
Levelled N/A

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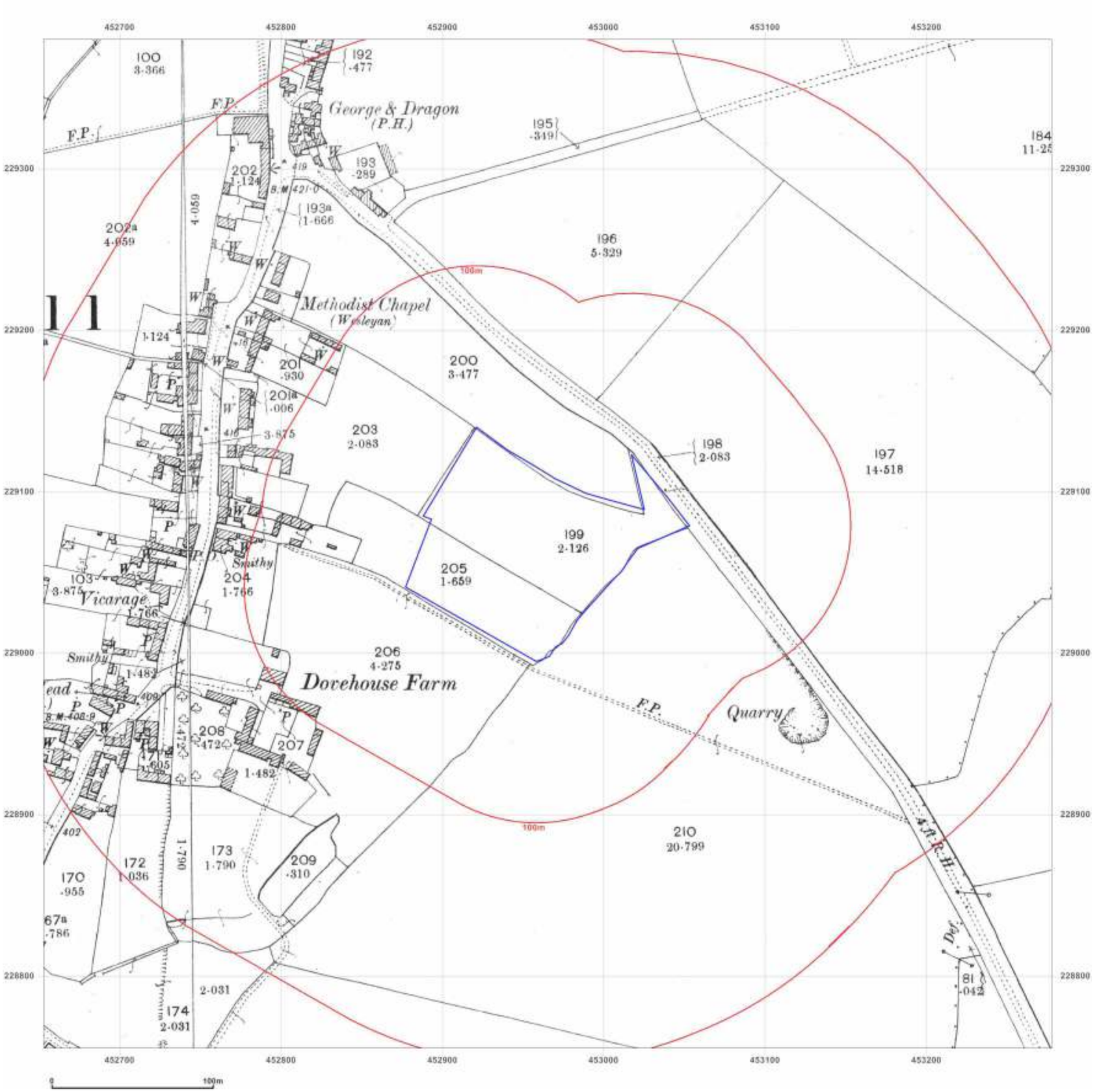
Production date: 07 March 2016

To view map legend click here *Legend*



Groundsure INSIGHTS

Site Details:

30,FEWCOTT ROAD,FRITWELL,BICESTER, OX27 7QA

Client Ref: BC195
Report Ref: GS-2803295
Grid Ref: 452965, 229068

Map Name: County Series
Map date: **1900**
Scale: 1:2,500
Printed at: 1:2,500

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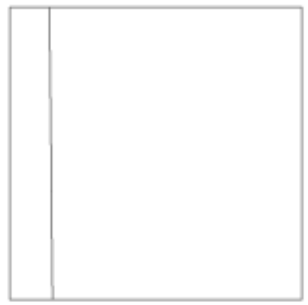
Surveyed 1900
Revised 1900
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1900
Revised 1900
Edition N/A
Copyright N/A
Levelled N/A



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Site Details:

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Client Ref: BC195
Report Ref: GS-2803295
Grid Ref: 452965, 229068

Map Name: County Series

Map date: **1922**

Scale: 1:2,500

Printed at: 1:2,500

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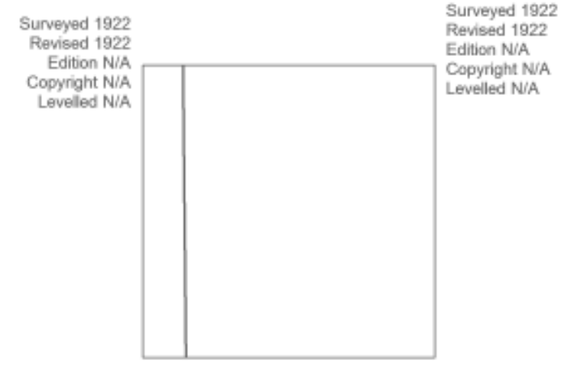

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Production date: 07 March 2016

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Site Details:

30,FEWCOTT ROAD,FRITWELL,BICESTER, OX27 7QA

Client Ref: BC195
Report Ref: GS-2803295
Grid Ref: 452965, 229068

Map Name: National Grid

Map date: **1975-1976**

Scale: 1:2,500

Printed at: 1:2,500

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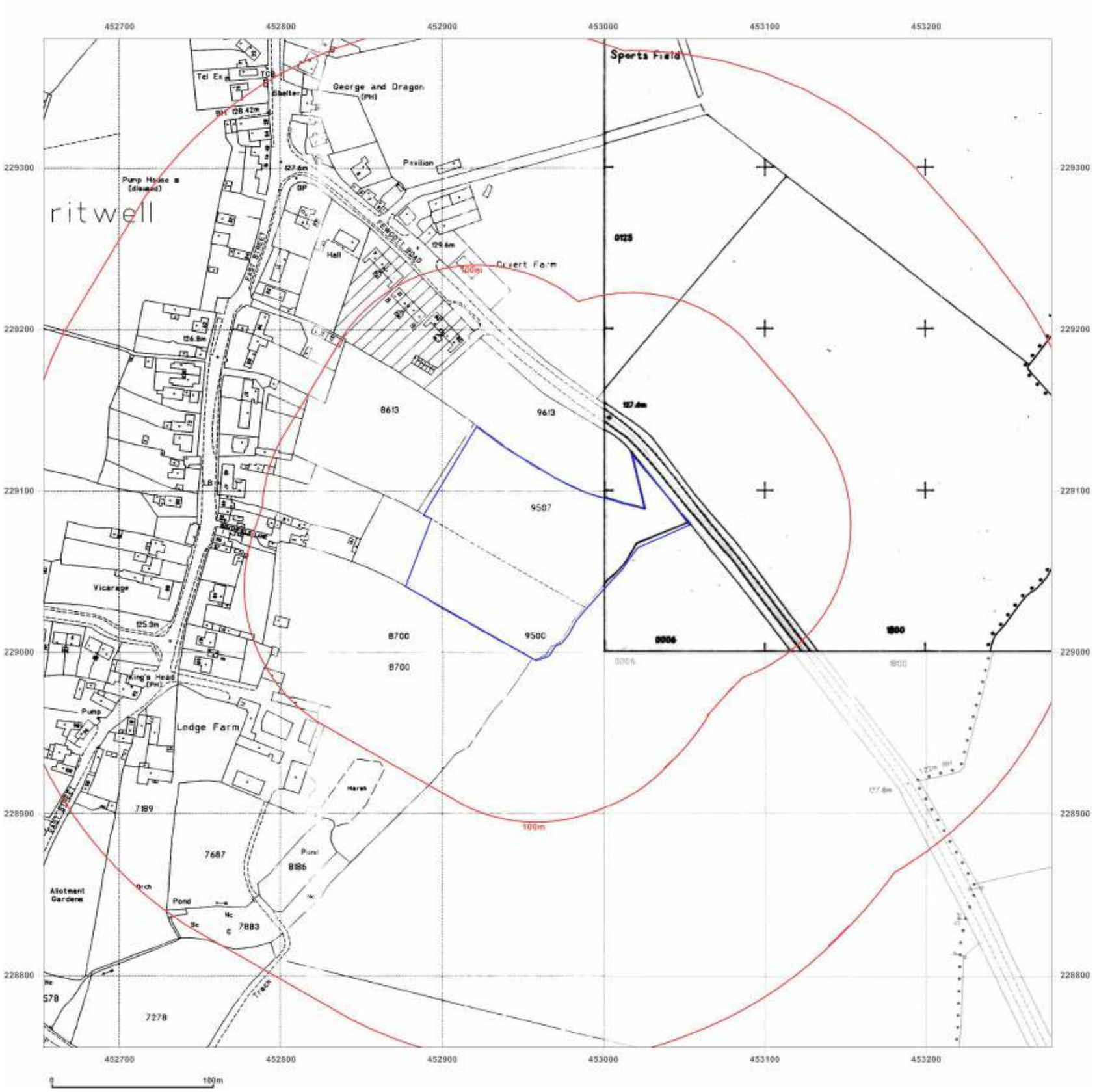

Groundsure INSIGHTS

Site Details:

30,FEWCOTT ROAD,FRITWELL,BICESTER, OX27 7QA

Client Ref: BC195
Report Ref: GS-2803295
Grid Ref: 452965, 229068

Map Name: National Grid

Map date: **1992-1994**

Scale: 1:2,500

Printed at: 1:2,500

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Surveyed N/A
Revised N/A
Edition N/A
Copyright 1994
Levelled N/A

Surveyed 1992
Revised 1992
Edition N/A
Copyright 1992
Levelled N/A

Surveyed N/A
Revised N/A
Edition N/A
Copyright 1994
Levelled N/A

Surveyed 1994
Revised 1994
Edition N/A
Copyright N/A
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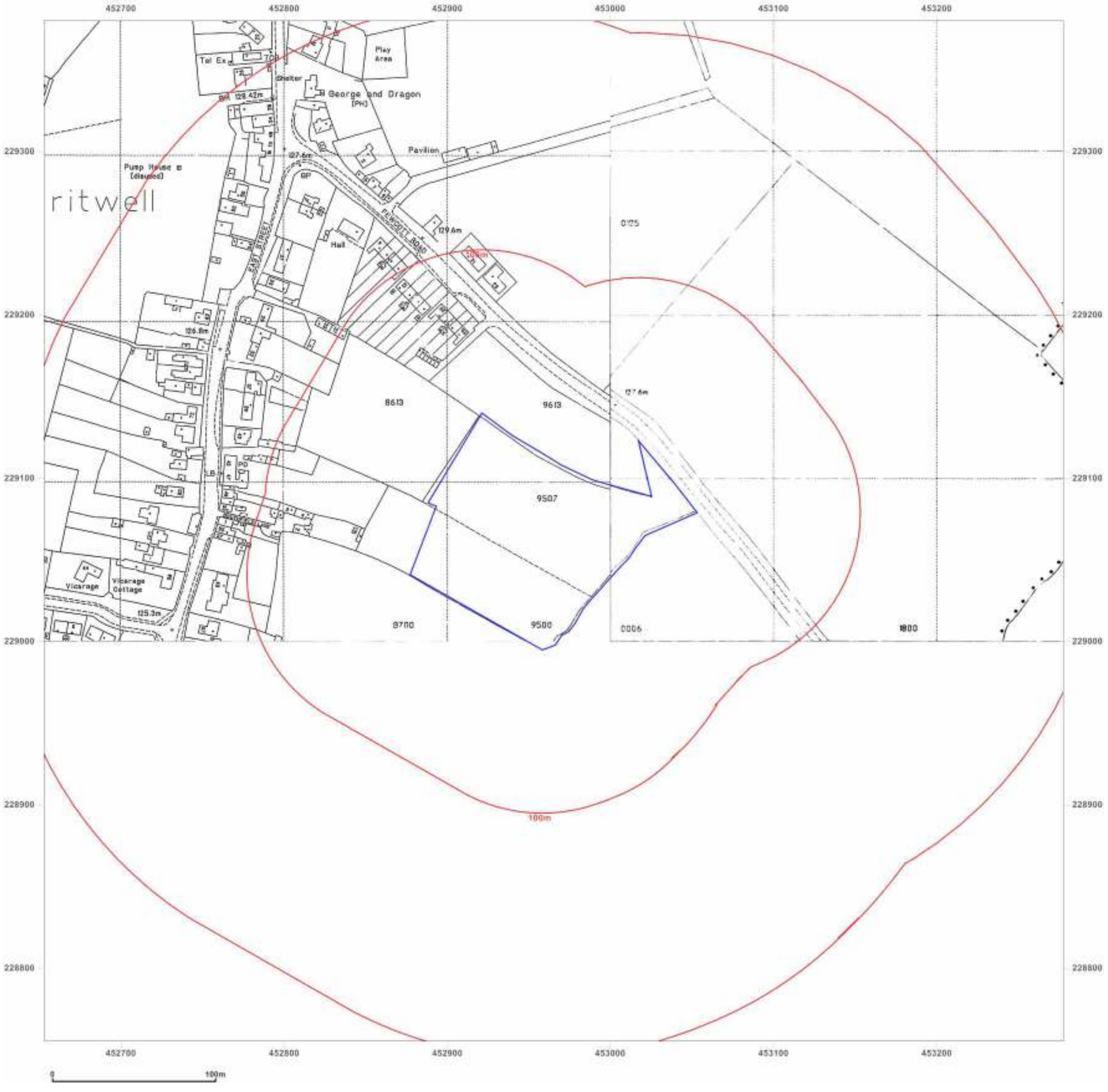

Groundsure INSIGHTS

Site Details:

30,FEWCOTT ROAD,FRITWELL,BICESTER, OX27 7QA

Client Ref: BC195
Report Ref: GS-2803295
Grid Ref: 452965, 229068

Map Name: National Grid

Map date: **1994-1995**

Scale: 1:2,500

Printed at: 1:2,500

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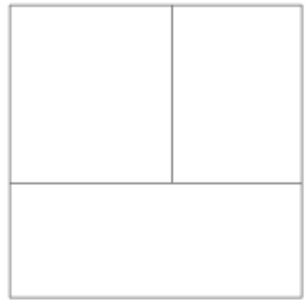
Surveyed N/A
Revised N/A
Edition N/A
Copyright 1995
Levelled N/A

Surveyed N/A
Revised N/A
Edition N/A
Copyright 1994
Levelled N/A



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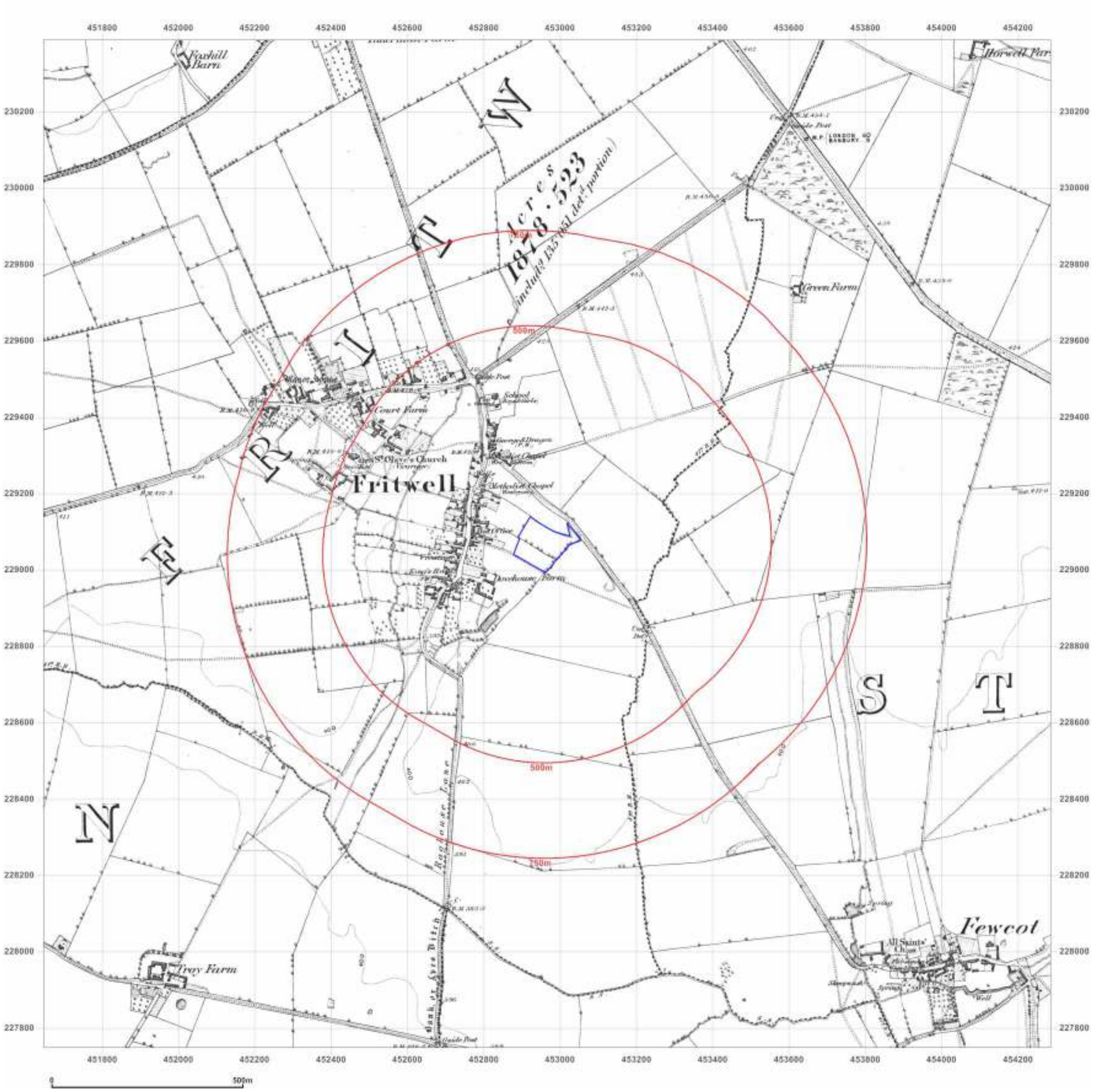

Groundsure INSIGHTS

Site Details:

30,FEWCOTT ROAD,FRITWELL,BICESTER, OX27 7QA

Client Ref: BC195
Report Ref: GS-2803295
Grid Ref: 452965, 229068

Map Name: County Series

Map date: **1880**

Scale: 1:10,560

Printed at: 1:10,560

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Surveyed 1880
Revised 1880
Edition N/A
Copyright N/A
Levelled N/A

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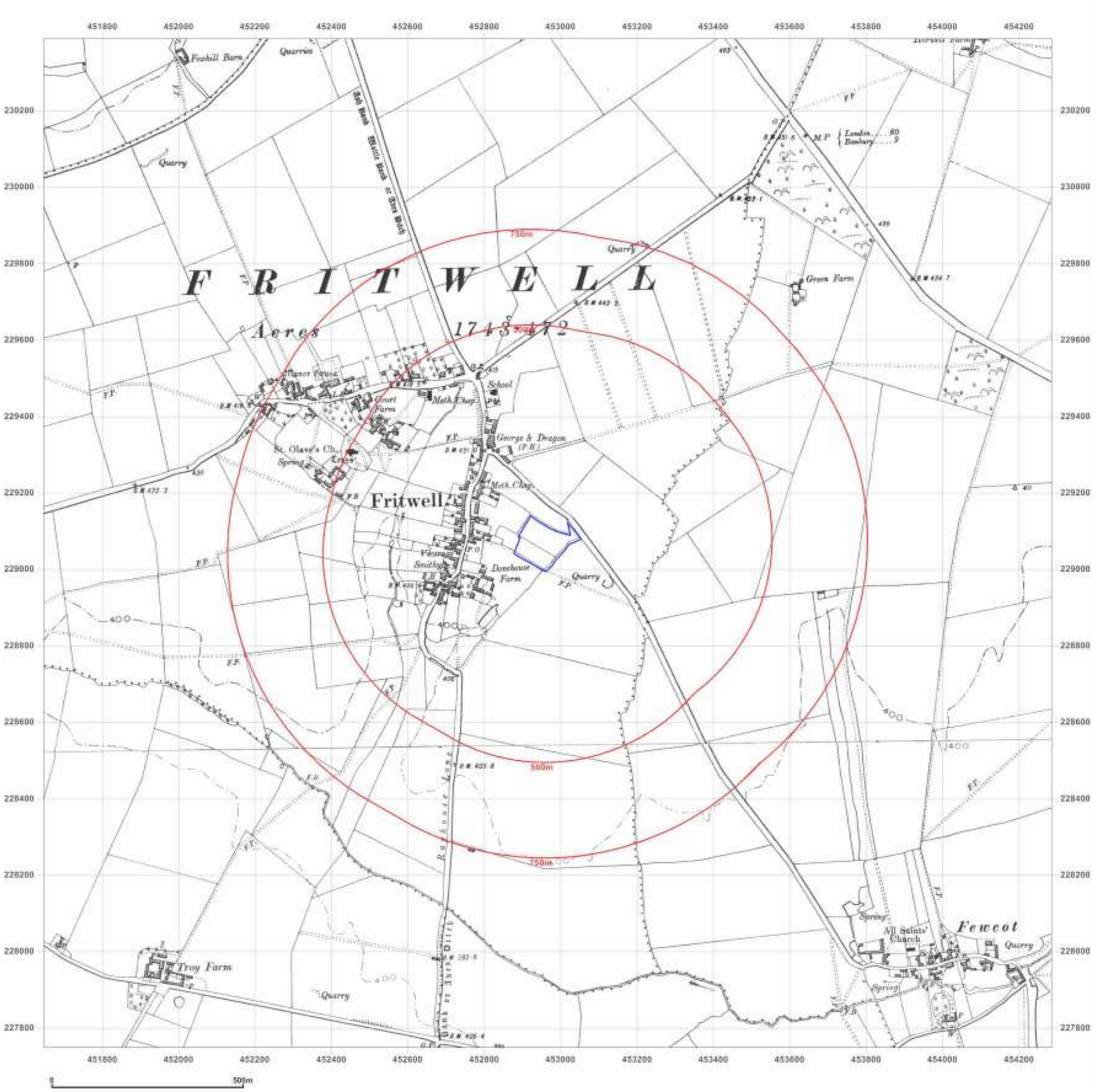
Production date: 07 March 2016

To view map legend click here *Legend*



Groundsure INSIGHTS

Site Details:

30,FEWCOTT ROAD,FRITWELL,BICESTER, OX27 7QA

Client Ref: BC195
Report Ref: GS-2803295
Grid Ref: 452965, 229068

Map Name: County Series

Map date: **1898-1900**

Scale: 1:10,560

Printed at: 1:10,560

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Surveyed 1880
Revised 1900
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1880
Revised 1898
Edition N/A
Copyright N/A
Levelled N/A

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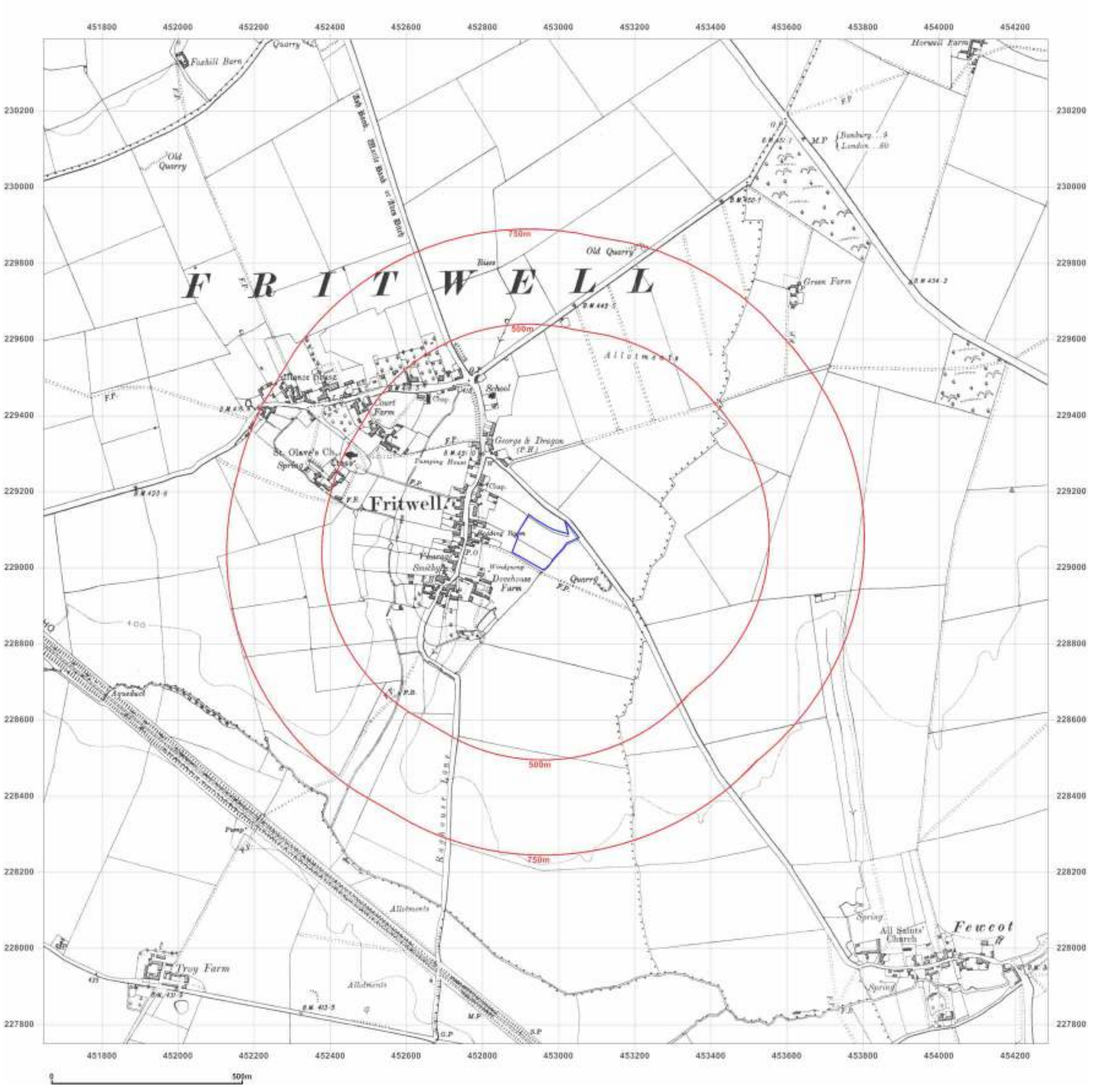
Production date: 07 March 2016

To view map legend click here *Legend*



Groundsure INSIGHTS

Site Details:

30,FEWCOTT ROAD,FRITWELL,BICESTER, OX27 7QA

Client Ref: BC195
Report Ref: GS-2803295
Grid Ref: 452965, 229068

Map Name: County Series

Map date: **1923**

Scale: 1:10,560

Printed at: 1:10,560

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Surveyed 1882
Revised 1923
Edition N/A
Copyright N/A
Levelled N/A

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Production date: 07 March 2016

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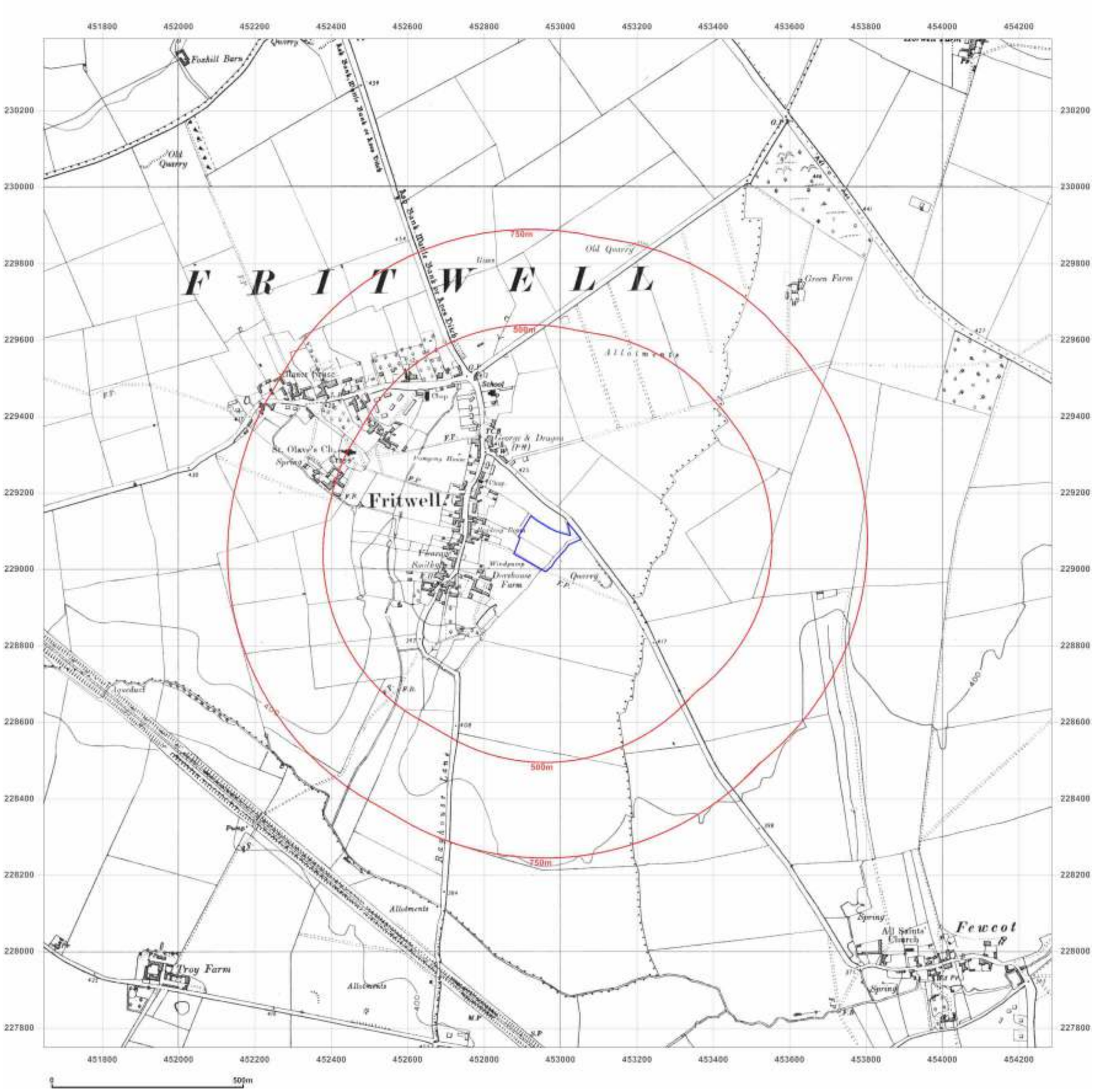

Groundsure INSIGHTS

Site Details:

30,FEWCOTT
ROAD,FRITWELL,BICESTER,
OX27 7QA

Client Ref: BC195
Report Ref: GS-2803295
Grid Ref: 452965, 229068

Map Name: Provisional

Map date: **1954**

Scale: 1:10,560

Printed at: 1:10,560

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Surveyed N/A
Revised 1954
Edition N/A
Copyright N/A
Levelled N/A

Surveyed N/A
Revised 1954
Edition N/A
Copyright N/A
Levelled N/A

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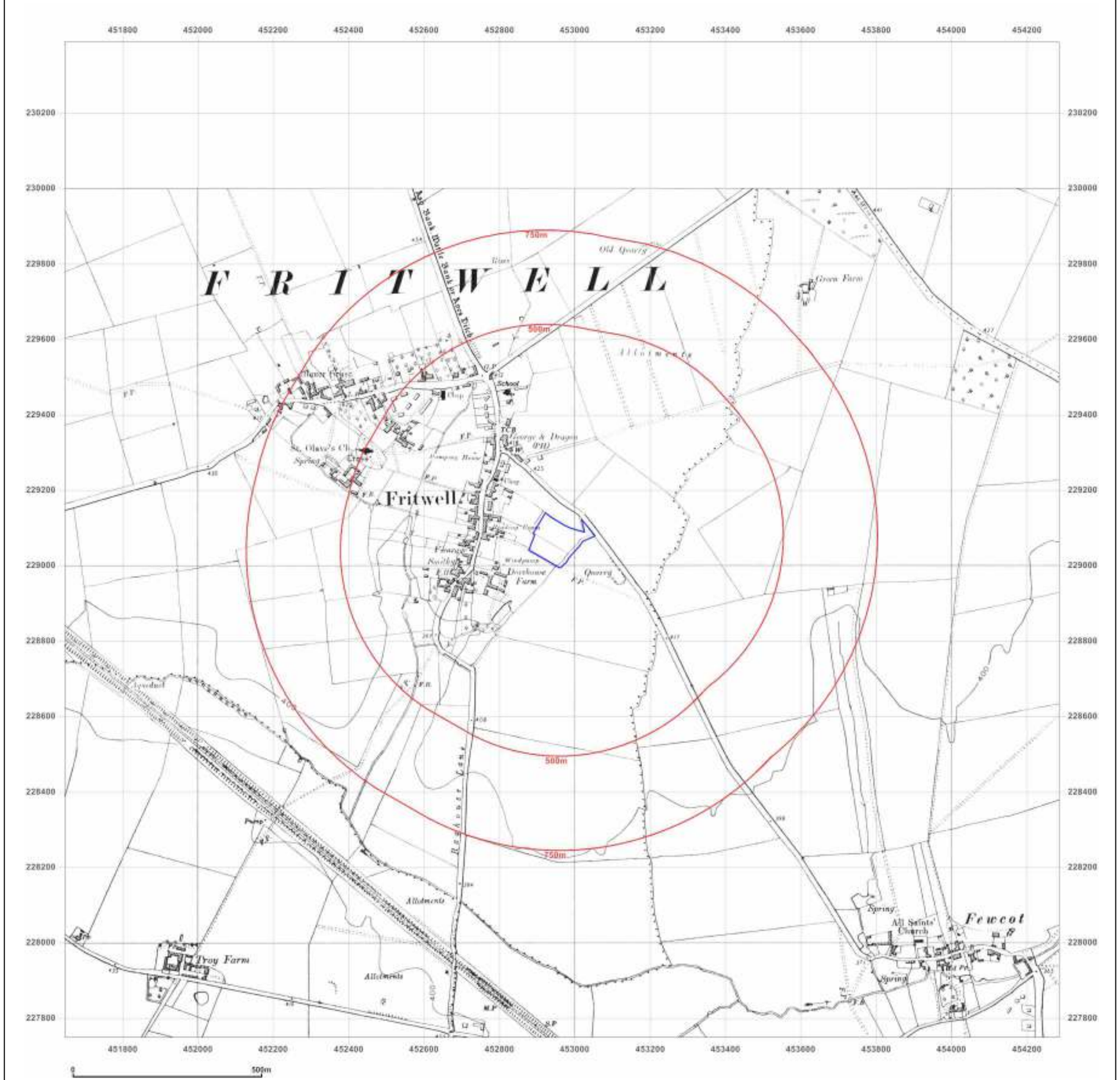
Production date: 05 March 2016

To view map legend click here *Legend*



Groundsure INSIGHTS

Site Details:

30,FEWCOTT ROAD,FRITWELL,BICESTER, OX27 7QA

Client Ref: BC195
Report Ref: GS-2803295
Grid Ref: 452965, 229068

Map Name: Provisional
Map date: **1965**
Scale: 1:10,560
Printed at: 1:10,560

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

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Production date: 05 March 2016

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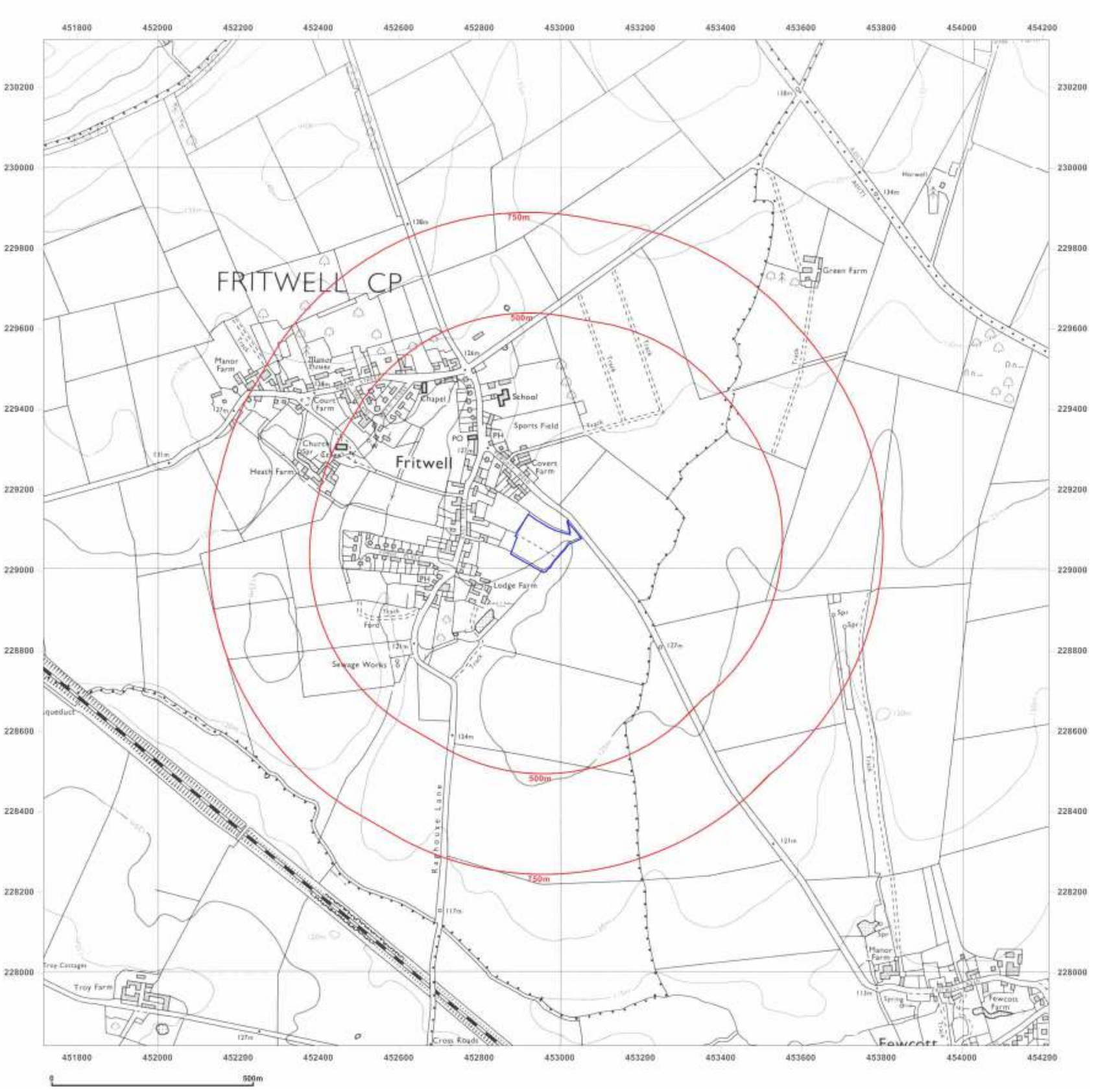

Groundsure INSIGHTS

Site Details:

30,FEWCOTT ROAD,FRITWELL,BICESTER, OX27 7QA

Client Ref: BC195
Report Ref: GS-2803295
Grid Ref: 452965, 229068

Map Name: National Grid

Map date: **1980-1981**

Scale: 1:10,000

Printed at: 1:10,000

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Surveyed 1977
Revised 1981
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1975
Revised 1980
Edition N/A
Copyright N/A
Levelled N/A

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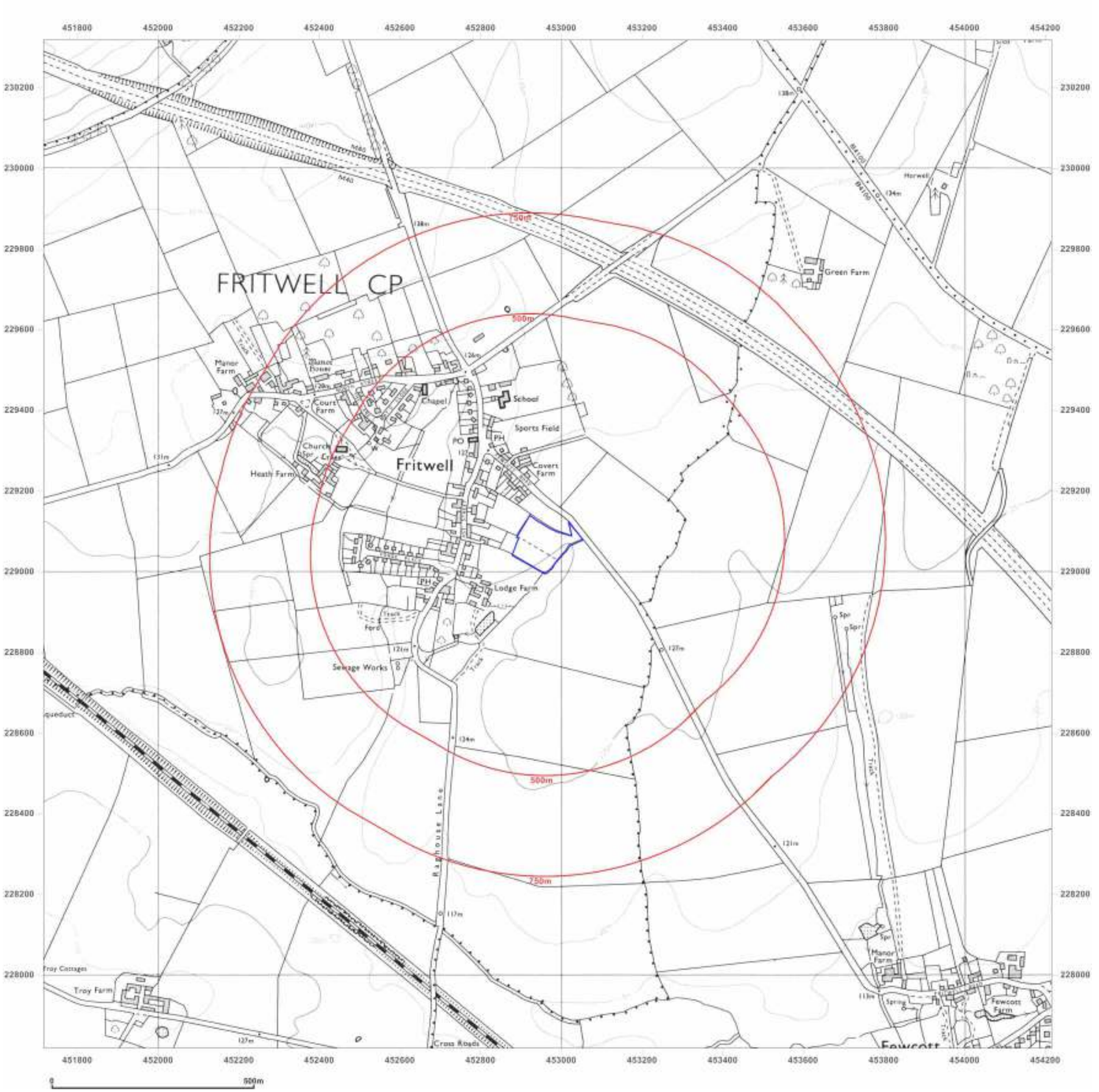
W: www.groundsure.com

Production date: 05 March 2016

To view map legend click here *Legend*



Groundsure INSIGHTS

Site Details:

30,FEWCOTT ROAD,FRITWELL,BICESTER, OX27 7QA

Client Ref: BC195
Report Ref: GS-2803295
Grid Ref: 452965, 229068

Map Name: National Grid

Map date: **1992**

Scale: 1:10,000

Printed at: 1:10,000

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Surveyed 1977
Revised 1992
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Copyright N/A
Levelled N/A

Surveyed 1975
Revised 1992
Edition N/A
Copyright N/A
Levelled N/A

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Production date: 05 March 2016

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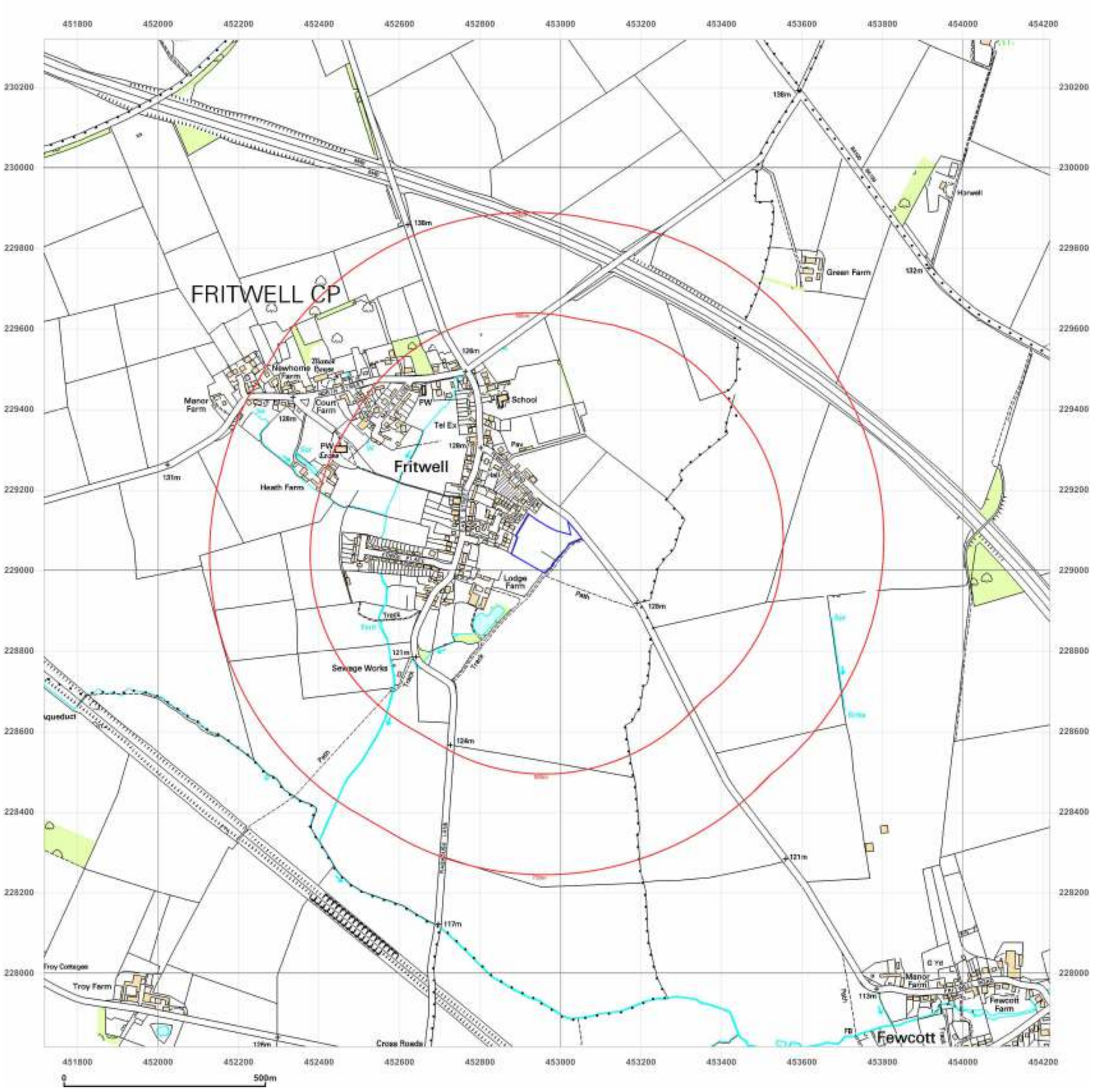

Groundsure INSIGHTS

Site Details:

30,FEWCOTT ROAD,FRITWELL,BICESTER, OX27 7QA

Client Ref: BC195
Report Ref: GS-2803295
Grid Ref: 452965, 229068

Map Name: 1:10,000 Raster
Map date: **2002**
Scale: 1:10,000
Printed at: 1:10,000

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W: www.groundsure.com

Production date: 05 March 2016

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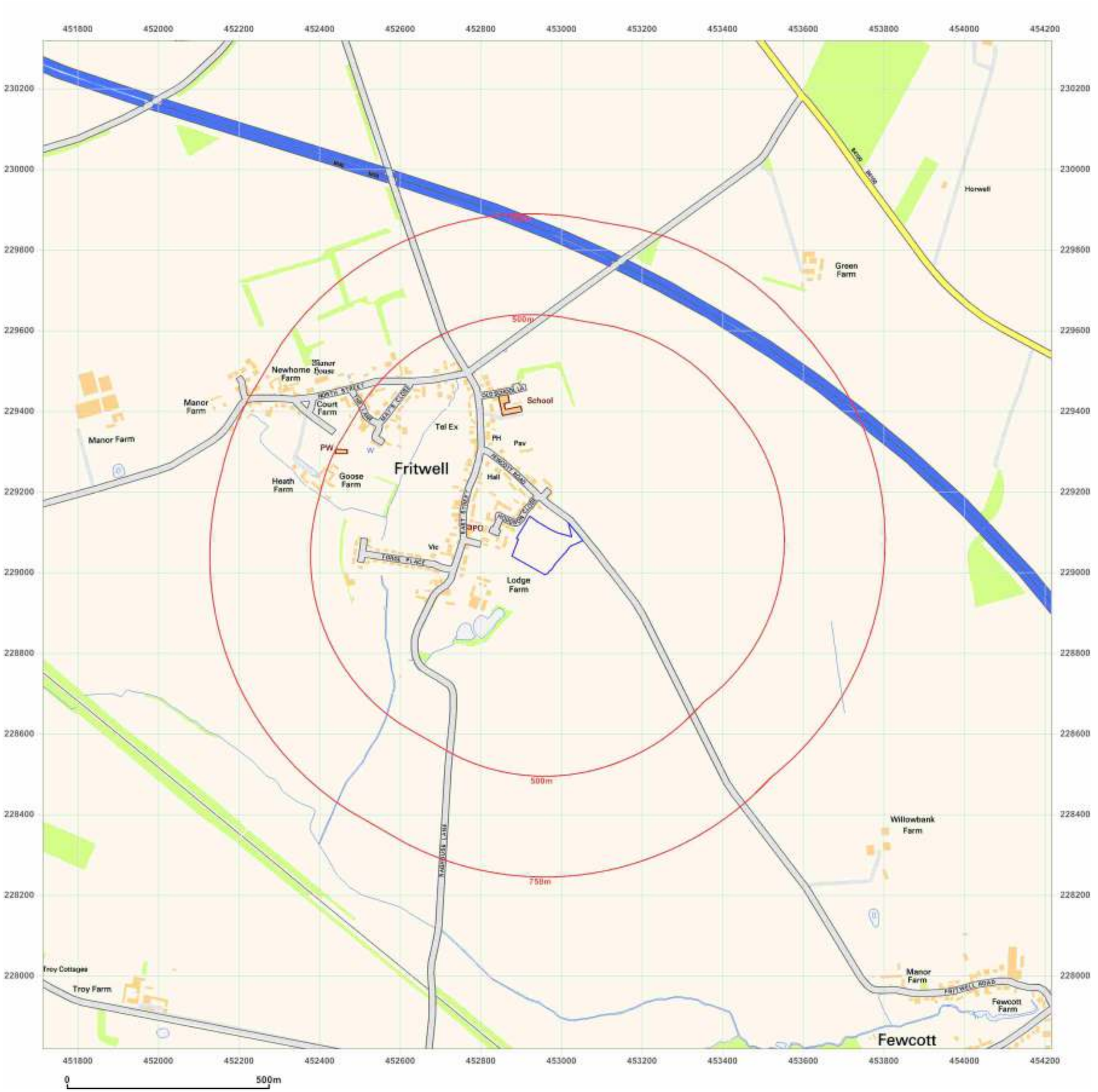

Groundsure INSIGHTS

Site Details:

30,FEWCOTT ROAD,FRITWELL,BICESTER, OX27 7QA

Client Ref: BC195
Report Ref: GS-2803295
Grid Ref: 452965, 229068

Map Name: National Grid
Map date: **2010**
Scale: 1:10,000
Printed at: 1:10,000

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2010

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W: www.groundsure.com

Production date: 05 March 2016

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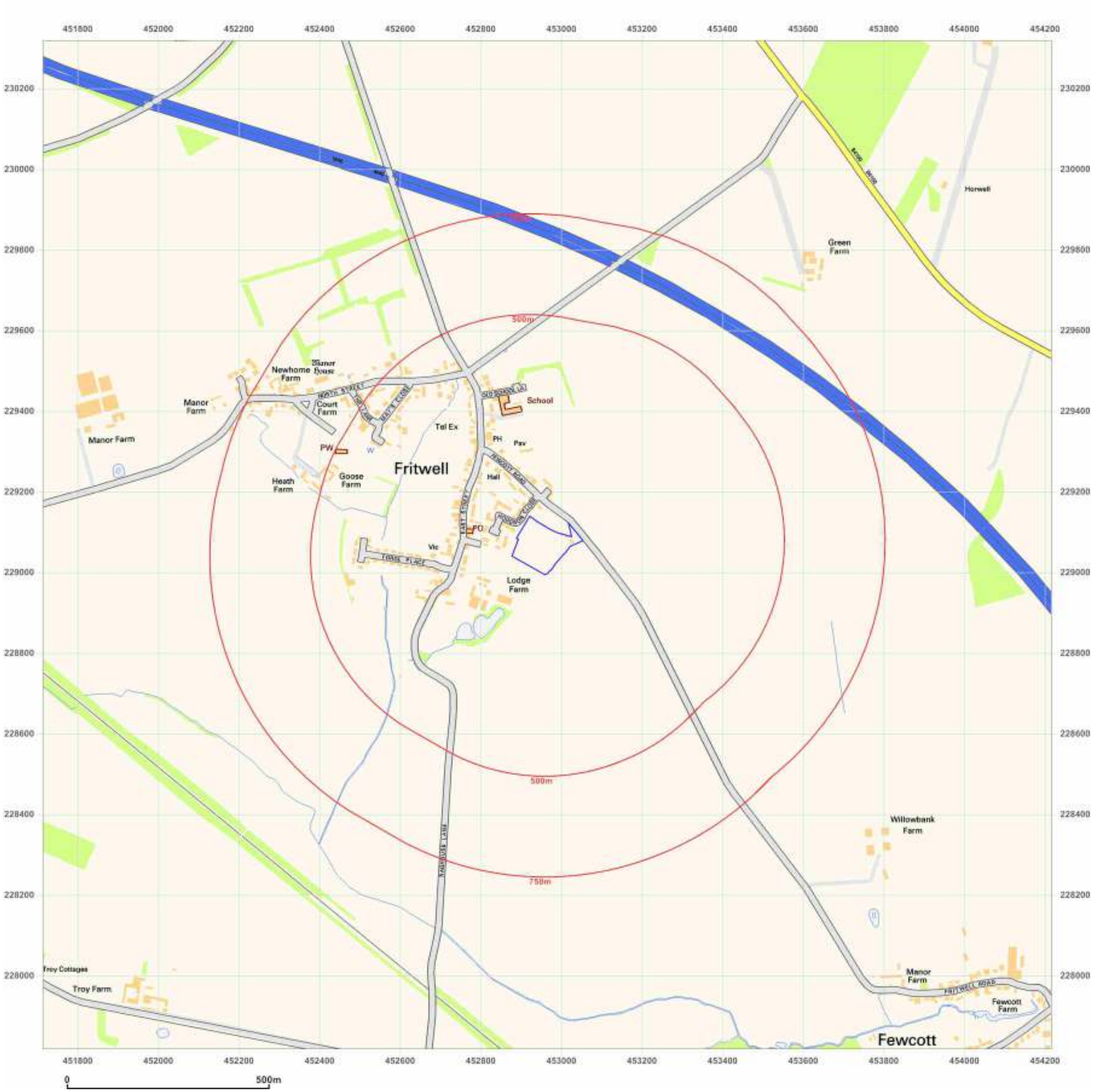

Groundsure INSIGHTS

Site Details:

30,FEWCOTT ROAD,FRITWELL,BICESTER, OX27 7QA

Client Ref: BC195
Report Ref: GS-2803295
Grid Ref: 452965, 229068

Map Name: National Grid
Map date: 2014
Scale: 1:10,000
Printed at: 1:10,000

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Production date: 05 March 2016

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APPENDIX C

Envirosight Report

The Brownfield Consultancy

The Cottage, Mill Lane,
Southam, CV47 2YF

Groundsure Reference:	GS-2803296
Your Reference:	BC195
Report Date	5 Mar 2016
Report Delivery Method:	Email - pdf

Groundsure Enviroinsight

Address: 30,FEWCOTT ROAD,FRITWELL,BICESTER, OX27 7QA

Dear Sir/ Madam,

Thank you for placing your order with Groundsure. Please find enclosed the **Groundsure Enviroinsight** as requested.

If you need any further assistance, please do not hesitate to contact our helpline on 08444 159000 quoting the above Groundsure reference number.

Yours faithfully,

Managing Director
Groundsure Limited

Enc.
Groundsure Enviroinsight

Groundsure Enviroinsight

Address:	**30,FEWCOTT ROAD,FRITWELL,BICESTER, OX27 7QA**
Date:	**5 Mar 2016**
Reference:	**GS-2803296**
Client:	**The Brownfield Consultancy**

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Aerial Photograph Capture date:	12-Jun-2014
Grid Reference:	452946,229063
Site Size:	1.30ha

Report Reference: GS-2803296
Client Reference: BC195

Contents Page

Overview of Findings

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

Section 1: Historical Industrial Sites	On-site	0-50	51-250	251-500
1.1 Potentially Contaminative Uses identified from 1:10,000 scale mapping	0	0	12	8
1.2 Additional Information – Historical Tank Database	0	0	0	6
1.3 Additional Information – Historical Energy Features Database	0	1	0	0
1.4 Additional Information – Historical Petrol and Fuel Site Database	0	0	0	0
1.5 Additional Information – Historical Garage and Motor Vehicle Repair Database	0	0	0	0
1.6 Potentially Infilled Land	0	0	12	7

Section 2: Environmental Permits, Incidents and Registers	On-site	0-50m	51-250	251-500
2.1 Industrial Sites Holding Environmental Permits and/or Authorisations				
2.1.1 Records of historic IPC Authorisations	0	0	0	0
2.1.2 Records of Part A(1) and IPPC Authorised Activities	0	0	0	0
2.1.3 Records of Red List Discharge Consents	0	0	0	0
2.1.4 Records of List 1 Dangerous Substances Inventory sites	0	0	0	0
2.1.5 Records of List 2 Dangerous Substances Inventory sites	0	0	0	0
2.1.6 Records of Part A(2) and Part B Activities and Enforcements	0	0	0	0
2.1.7 Records of Category 3 or 4 Radioactive Substances Authorisations	0	0	0	0
2.1.8 Records of Licensed Discharge Consents	0	0	0	6
2.1.9 Records of Water Industry Referrals	0	0	0	0
2.1.10 Records of Planning Hazardous Substance Consents and Enforcements within 500m of the study site	0	0	0	0
2.2 Records of COMAH and NIHHS sites	0	0	0	0
2.3 Environment Agency Recorded Pollution Incidents				
2.3.1 National Incidents Recording System, List 2	0	0	0	0
2.3.2 National Incidents Recording System, List 1	0	0	0	0
2.4 Sites Determined as Contaminated Land under Part 2A EPA 1990	0	0	0	0

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

Section 4: Current Land Use	On-site	0-50m	51-250	251-500
4.1 Current Industrial Sites Data	0	1	3	Not searched
4.2 Records of Petrol and Fuel Sites	0	0	0	0
4.3 National Grid Underground Electricity Cables	0	0	0	0
4.4 National Grid Gas Transmission Pipelines	0	0	0	0

Section 5: Geology	
5.1 Are there any records of Artificial Ground and Made Ground present beneath the study site?	No
5.2 Are there any records of Superficial Ground and Drift Geology present beneath the study site?	None
5.3 For records of Bedrock and Solid Geology beneath the study site see the detailed findings section.	

Section 6: Hydrogeology and Hydrology	0-500m
6.1 Are there any records of Strata Classification in the Superficial Geology within 500m of the study site?	Yes
6.2 Are there any records of Strata Classification in the Bedrock Geology within 500m of the study site?	Yes

	On-site	0-50m	51-250	251-500	501-1000	1000-2000
6.3 Groundwater Abstraction Licences (within 2000m of the study site)	0	0	0	0	3	12
6.4 Surface Water Abstraction Licences (within 2000m of the study site)	0	0	0	0	0	0
6.5 Potable Water Abstraction Licences (within 2000m of the study site)	0	0	0	0	0	2
6.6 Source Protection Zones (within 500m of the study site)	0	0	0	0	Not searched	Not searched
6.7 Source Protection Zones within Confined Aquifer	0	0	0	0	Not searched	Not searched
6.8 Groundwater Vulnerability and Soil Leaching Potential (within 500m of the study site)	1	0	0	0	Not searched	Not searched

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

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

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

Section 8: Designated Environmentally Sensitive Sites	On-site	0-50m	51-250	251-500	501-1000	1000-2000
8.1 Records of Sites of Special Scientific Interest (SSSI)	0	0	0	0	1	1
8.2 Records of National Nature Reserves (NNR)	0	0	0	0	0	0
8.3 Records of Special Areas of Conservation (SAC)	0	0	0	0	0	0
8.4 Records of Special Protection Areas (SPA)	0	0	0	0	0	0
8.5 Records of Ramsar sites	0	0	0	0	0	0
8.6 Records of Ancient Woodlands	0	0	0	0	0	3
8.7 Records of Local Nature Reserves (LNR)	0	0	0	0	0	0
8.8 Records of World Heritage Sites	0	0	0	0	0	0
8.9 Records of Environmentally Sensitive Areas	0	0	0	0	0	0
8.10 Records of Areas of Outstanding Natural Beauty (AONB)	0	0	0	0	0	0

Section 8: Designated Environmentally Sensitive Sites	On-site	0-50m	51-250	251-500	501-1000	1000-2000
8.11 Records of National Parks	0	0	0	0	0	0
8.12 Records of Nitrate Sensitive Areas	0	0	0	0	0	0
8.13 Records of Nitrate Vulnerable Zones	2	0	0	0	3	1
8.14 Records of Green Belt land	0	0	0	0	0	0

Section 9: Natural Hazards

9.1 What is the maximum risk of natural ground subsidence?	Very Low
9.1.1 What is the maximum Shrink-Swell hazard rating identified on the study site?	Negligible
9.1.2 What is the maximum Landslides hazard rating identified on the study site?	Negligible
9.1.3 What is the maximum Soluble Rocks hazard rating identified on the study site?	Very Low
9.1.4 What is the maximum Compressible Ground hazard rating identified on the study site?	Negligible
9.1.5 What is the maximum Collapsible Rocks hazard rating identified on the study site?	Very Low
9.1.6 What is the maximum Running Sand hazard rating identified on the study site?	Negligible
9.2 Radon	
9.2.1 Is the property in a Radon Affected Area as defined by the Health Protection Agency (HPA) and if so what percentage of homes are above the Action Level?	The property is in a Radon Affected Area, as between 1 and 3% of properties are above the Action Level.
9.2.2 Is the property in an area where Radon Protection are required for new properties or extensions to existing ones as described in publication BR211 by the Building Research Establishment?	No radon protective measures are necessary.

Section 10: Mining

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

Using this report

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

1. Historical Industrial Sites

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

2. Environmental Permits, Incidents and Registers

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

3. Landfills and Other Waste Sites

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

4. Current Land Uses

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

5. Geology

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

6. Hydrogeology and Hydrology

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

7. Flooding

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

8. Designated Environmentally Sensitive Sites

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

9. Natural Hazards

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

10. Mining

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

11. Contacts

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

Note: Maps

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

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

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

1. Historical Land Use

Site Outline

250
500
Search Buffers (m)

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

Industrial Land Use

Potentially Infilled Land

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

Energy Features

Petrol Stations

Tanks

Garages

1. Historical Industrial Sites

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

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

Records of sites with a potentially contaminative past land use within 500m of the search boundary: 20

ID	Distance [m]	Direction	Use	Date
1A	68	SE	Unspecified Quarry	1923
2A	69	SE	Unspecified Quarry	1954
3A	80	SE	Unspecified Quarry	1923
4	122	NW	Pumping House	1923
5A	123	SE	Unspecified Quarry	1900
6F	130	SE	Unspecified Pit	1880
7B	132	W	Smithy	1923
8C	156	W	Smithy	1900
9B	181	W	Smithy	1923
10C	184	W	Smithy	1954
11	198	NW	Pumping House	1923
12	242	NW	Pumping House	1954
13D	356	SW	Sewage Works	1980
14D	356	SW	Sewage Works	1992
15D	382	SW	Unspecified Tanks	1980
16D	382	SW	Unspecified Tanks	1992
17H	423	NW	Grave Yard	1880
18E	428	NW	Unspecified Heap	1923
19E	431	N	Unspecified Heap	1880
20E	444	N	Unspecified Heap	1923

1.2 Additional Information – Historical Tank Database

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

Records of historical tanks within 500m of the search boundary: 6

ID	Distance (m)	Direction	Use	Date
21D	377	SW	Unspecified Tank	1975
22D	380	SW	Unspecified Tank	1975
23D	385	SW	Unspecified Tank	1975

24D	387	SW	Filter Tanks	1975
25D	392	SW	Unspecified Tank	1975
26D	400	SW	Unspecified Tank	1975

1.3 Additional Information – Historical Energy Features Database

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

Records of historical energy features within 500m of the search boundary: 1

ID	Distance (m)	Direction	Use	Date
27	11	NW	Electricity Substation	1999

1.4 Additional Information – Historical Petrol and Fuel Site Database

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

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

Database searched and no data found.

1.5 Additional Information – Historical Garage and Motor Vehicle Repair Database

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

Records of historical garage and motor vehicle repair sites within 500m of the search boundary: 0

Database searched and no data found.

1.6 Potentially Infilled Land

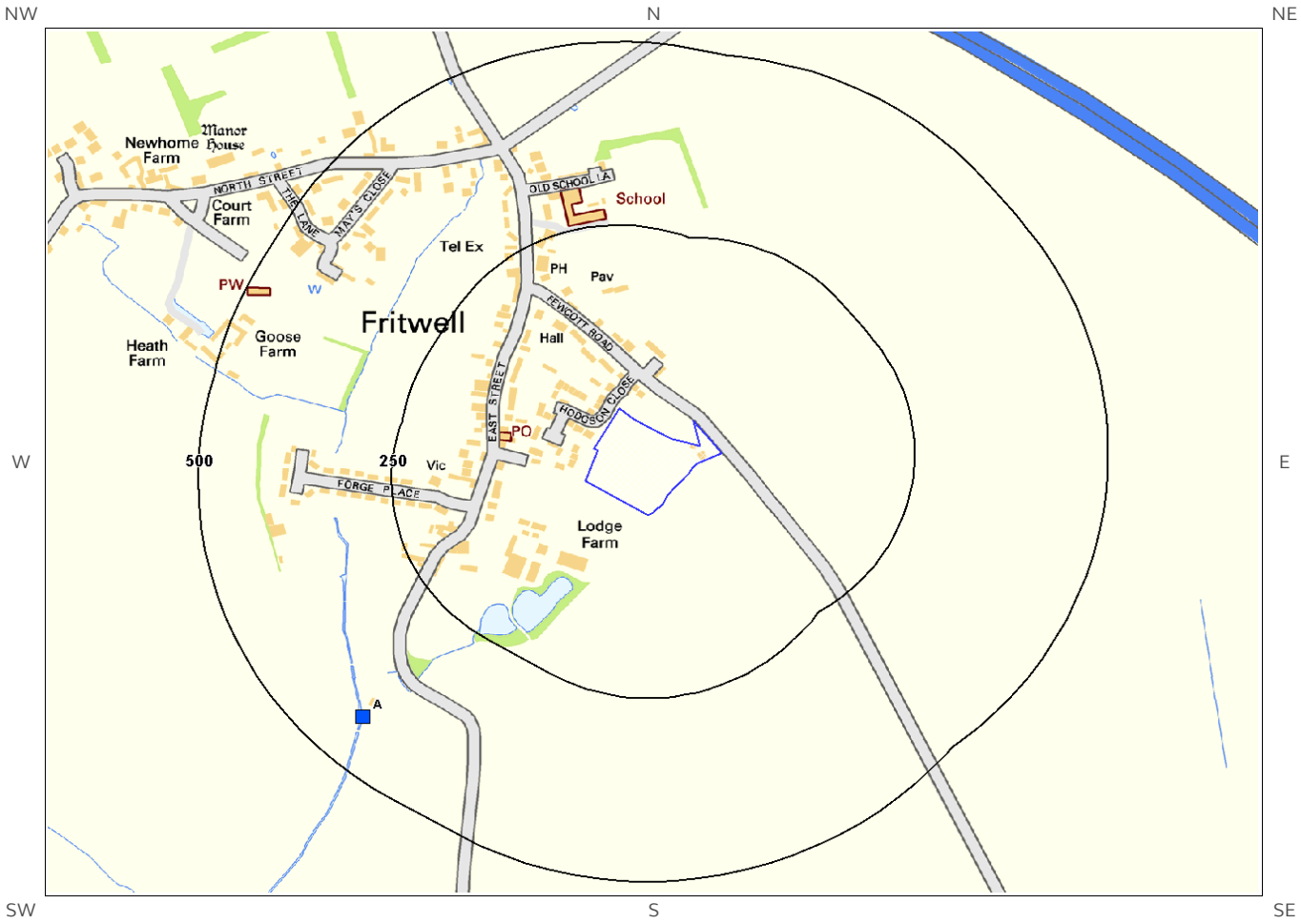
Records of Potentially Infilled Features from 1:10,000 scale mapping within 500m of the study site: 19

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

ID	Distance(m)	Direction	Use	Date
28A	68	SE	Unspecified Quarry	1923
29A	69	SE	Unspecified Quarry	1954
30A	80	SE	Unspecified Quarry	1923
31A	123	SE	Unspecified Quarry	1900

32F	130	SE	Unspecified Pit	1880
33G	138	SW	Pond	1900
34G	138	SW	Pond	1923
35G	139	SW	Pond	1954
36G	143	SW	Pond	1992
37G	143	SW	Pond	1980
38G	145	SW	Pond	1880
39G	150	SW	Pond	1923
40D	356	SW	Sewage Works	1992
41D	356	SW	Sewage Works	1980
42	359	SW	Ponds	1923
43H	423	NW	Grave Yard	1880
44E	428	NW	Unspecified Heap	1923
45E	431	N	Unspecified Heap	1880
46E	444	N	Unspecified Heap	1923

2. Environmental Permits, Incidents and Registers Map



Site Outline

250
500
Search Buffers (m)

Recorded Pollution Incident

Dangerous Substances (List 1)

Dangerous Substances (List 2)

Water Industry Referrals

Licenced Discharge Consents

Red List Discharge Consents

RAS 3 & 4 Authorisations

Part A(1) Authorised Processes and Historic IPC Authorisations

Part A(2) and Part B Authorised Processes

COMAH / NIHHS Sites

Sites Determined as Contaminated Land

Hazardous Substance Consents and Enforcements

2. Environmental Permits, Incidents and Registers

2.1 Industrial Sites Holding Licences and/or Authorisations

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

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

0

Database searched and no data found.

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

0

Database searched and no data found.

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

0

Database searched and no data found.

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

0

Database searched and no data found.

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

0

Database searched and no data found.

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

0

Database searched and no data found.

2.1.7 Records of Category 3 or 4 Radioactive Substances Authorisations:

0

Database searched and no data found.

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

6

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

ID	Distance (m)	Direction	NGR	Details	
1A	431	SW	452590 228720	Address: FRITWELL STW, RAGHOUSE LANE, FRITWELL, BICESTER, OXON, OX27 7QG Effluent Type: SEWAGE DISCHARGES - STW STORM OVERFLOW/STORM TANK - WATER COMPANY Permit Number: AW1NF2895 Permit Version: 3	Receiving Water: Status: MODIFIED - (WRA 91 SCHED 10 - AS AMENDED BY ENV ACT 1995) Issue date: 31/03/2010 Effective Date: 31-Mar-2010 Revocation Date: -
2A	431	SW	452590 228720	Address: FRITWELL STW, RAGHOUSE LANE, FRITWELL, BICESTER, OXON, OX27 7QG Effluent Type: SEWAGE DISCHARGES - FINAL/TREATED EFFLUENT - WATER COMPANY Permit Number: AW1NF2895 Permit Version: 2	Receiving Water: Status: MODIFIED - (WRA 91 SCHED 10 - AS AMENDED BY ENV ACT 1995) Issue date: 24/09/2004 Effective Date: 24-Sep-2004 Revocation Date: 30/03/2010
3A	431	SW	452590 228720	Address: FRITWELL STW, RAGHOUSE LANE, FRITWELL, BICESTER, OXON, OX27 7QG Effluent Type: SEWAGE DISCHARGES - STW STORM OVERFLOW/STORM TANK - WATER COMPANY Permit Number: AW1NF2895 Permit Version: 1	Receiving Water: Status: PRE NRA LEGISLATION WHERE ISSUE DATE < 01-SEP-89 (HISTORIC ONLY) Issue date: 26/04/1988 Effective Date: 26-Apr-1988 Revocation Date: 23/09/2004
4A	431	SW	452590 228720	Address: FRITWELL STW, RAGHOUSE LANE, FRITWELL, BICESTER, OXON, OX27 7QG Effluent Type: SEWAGE DISCHARGES - FINAL/TREATED EFFLUENT - WATER COMPANY Permit Number: AW1NF2895 Permit Version: 1	Receiving Water: Status: PRE NRA LEGISLATION WHERE ISSUE DATE < 01-SEP-89 (HISTORIC ONLY) Issue date: 26/04/1988 Effective Date: 26-Apr-1988 Revocation Date: 23/09/2004
5A	431	SW	452590 228720	Address: FRITWELL STW, RAGHOUSE LANE, FRITWELL, BICESTER, OXON, OX27 7QG Effluent Type: SEWAGE DISCHARGES - STW STORM OVERFLOW/STORM TANK - WATER COMPANY Permit Number: AW1NF2895 Permit Version: 2	Receiving Water: Status: MODIFIED - (WRA 91 SCHED 10 - AS AMENDED BY ENV ACT 1995) Issue date: 24/09/2004 Effective Date: 24-Sep-2004 Revocation Date: 30/03/2010

ID	Distance (m)	Direction	NGR	Details	
6A	431	SW	452590 228720	Address: FRITWELL STW, RAGHOUSE LANE, FRITWELL, BICESTER, OXON, OX27 7QG Effluent Type: SEWAGE DISCHARGES - FINAL/TREATED EFFLUENT - WATER COMPANY Permit Number: AW1NF2895 Permit Version: 3	Receiving Water: Status: MODIFIED - (WRA 91 SCHED 10 - AS AMENDED BY ENV ACT 1995) Issue date: 31/03/2010 Effective Date: 31-Mar-2010 Revocation Date: -

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

0

Database searched and no data found.

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

0

Database searched and no data found.

2.2 Dangerous or Hazardous Sites

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

Database searched and no data found.

2.3 Environment Agency Recorded Pollution Incidents

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

0

Database searched and no data found.

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

0

Database searched and no data found.

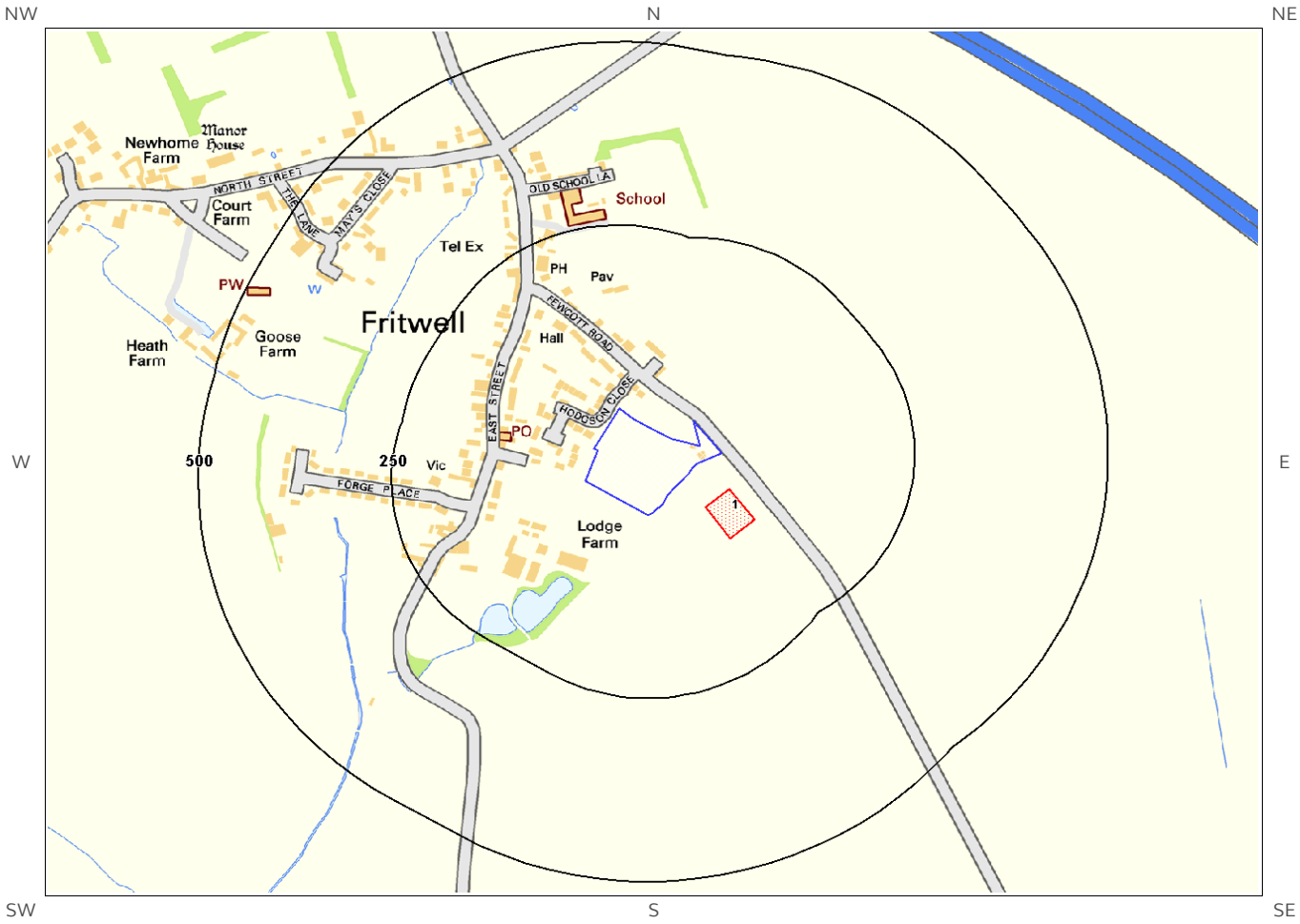
2.4 Sites Determined as Contaminated Land under Part 2A EPA 1990

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

Database searched and no data found.

---

3. Landfill and Other Waste Sites Map



Site Outline

250
500
Search Buffers (m)

E.A. Active Landfill

E.A. Historic Landfill

BGS / DoE Survey Landfill

Historic and Planned Waste Sites

E.A. Licensed Waste Site

Local Authority/Historical Mapping Landfill Records

3. Landfill and Other Waste Sites

3.1 Landfill Sites

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

0

Database searched and no data found.

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

1

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

ID	Distance (m)	Direction	NGR	Details	
1	47	SE	453000 228900	Site Address: Fritwell, Lodge Farm Waste Licence: - Site Reference: 1365329 Waste Type: Inert Environmental Permitting Regulations (Waste) Reference: -	Licence Issue: Licence Surrendered: Licence Hold Address: - Operator: - First Recorded: - Last Recorded: -

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

0

Database searched and no data found.

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

0

Database searched and no data found.

3.2 Other Waste Sites

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

0

Database searched and no data found.

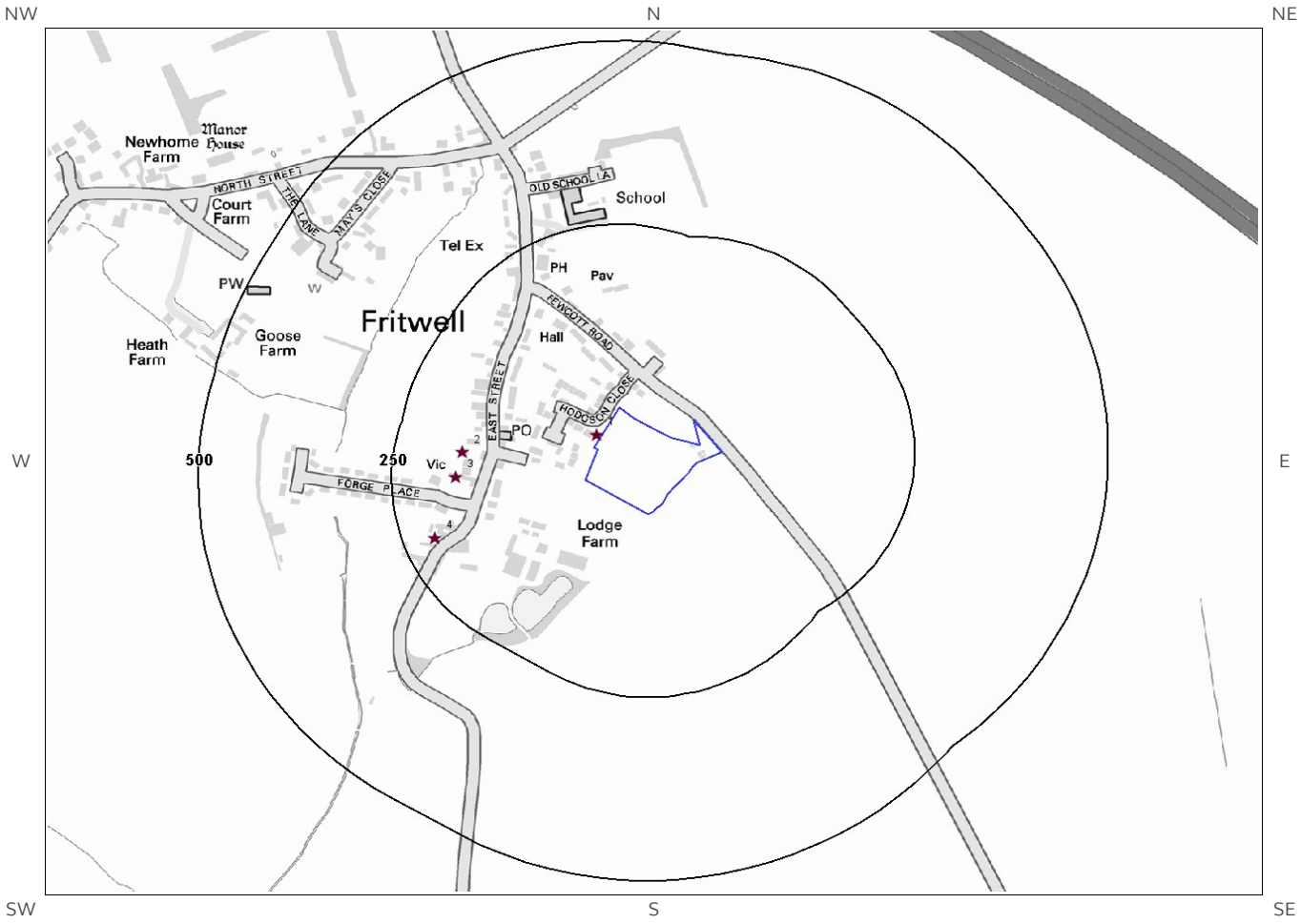
3.2.2 Records of Environment Agency licensed waste sites within 1500m of the study site:

0

Database searched and no data found.

---

4. Current Land Use Map



Site Outline

Search Buffers (m)

250

500

Current Industrial Sites

Petrol & Fuel Sites

Electricity Transmission Cables

Gas Transmission Pipelines

4. Current Land Uses

4.1 Current Industrial Data

Records of potentially contaminative industrial sites within 250m of the study site: 4

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

ID	Distance (m)	Direction	Company	NGR	Address	Activity	Category
1	6	NW	Electricity Sub Station	452892 229104	OX27	Electrical Features	Infrastructure and Facilities
2	164	W	Windsor Great Cars	452718 229080	82, East Street, Fritwell, Bicester, OX27 7QF	New Vehicles	Motoring
3	167	W	Mobile Recording Services	452709 229046	45, Forge Place, Fritwell, Bicester, OX27 7QQ	Recording Studios and Record Companies	IT, Advertising, Marketing and Media Services
4	209	W	Pump	452683 228963	OX27	Water Pumping Stations	Industrial Features

4.2 Petrol and Fuel Sites

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

Database searched and no data found.

4.3 National Grid High Voltage Underground Electricity Transmission Cables

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

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

Database searched and no data found.

4.4 National Grid High Pressure Gas Transmission Pipelines

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

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

Database searched and no data found.

5. Geology

5.1 Artificial Ground and Made Ground

Database searched and no data found.

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

5.2 Superficial Ground and Drift Geology

Database searched and no data found.

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

5.3 Bedrock and Solid Geology

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

Lex Code	Description	Rock Type
GOG-LMAR	GREAT OOLITE GROUP	LIMESTONE AND [SUBEQUAL/SUBORDINATE] ARGILLACEOUS ROCKS, INTERBEDDED

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

6 Hydrogeology and Hydrology

6a. Aquifer Within Superficial Geology

Site Outline

250
500
Search Buffers (m)

Principal Aquifer

Secondary (A) Aquifer - Permeable Layers

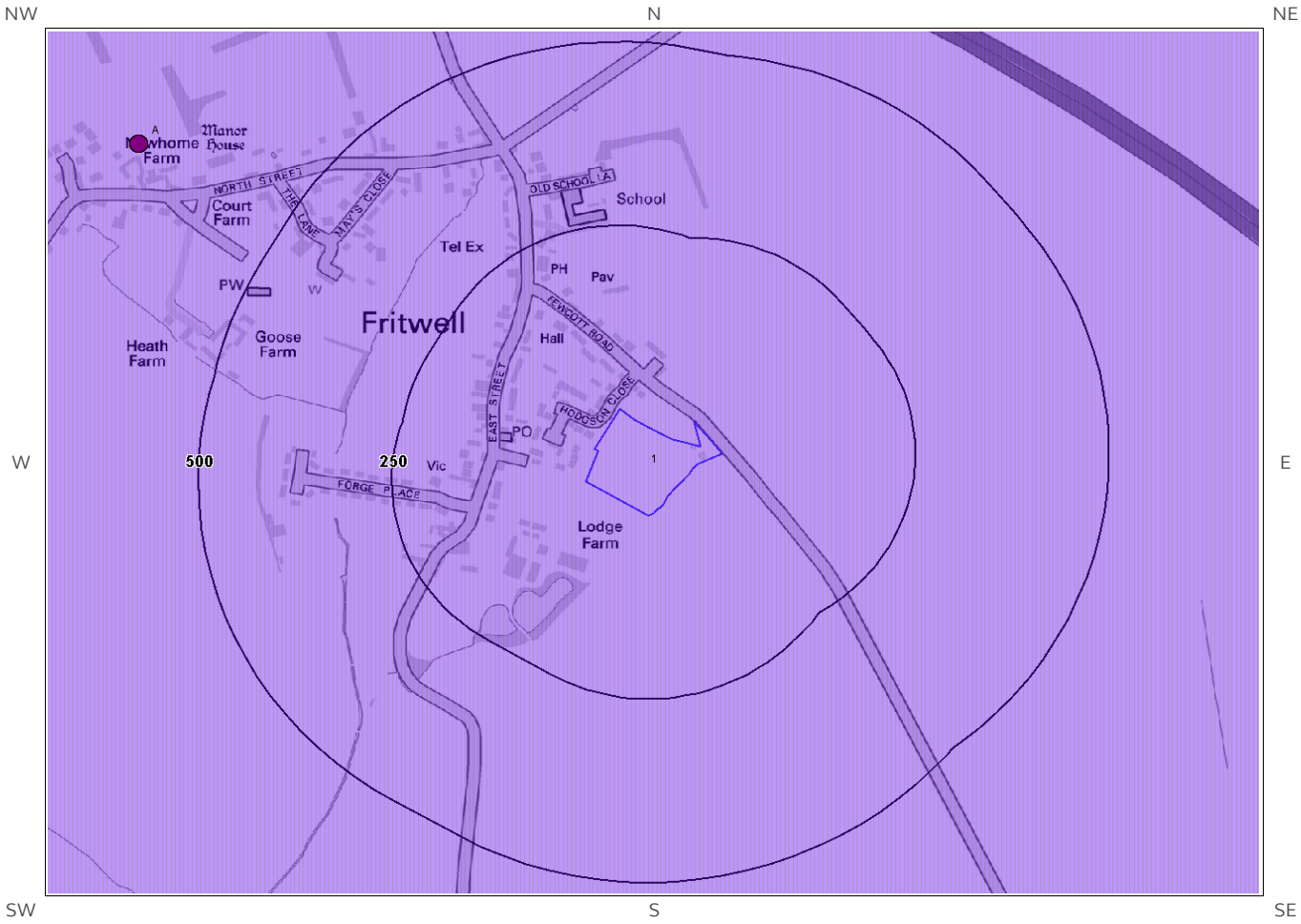
Secondary (B) Aquifer - Lower Permeability Layers

Secondary Aquifer - Undifferentiated Layers

Unproductive

Unknown (lakes and landslip)

6b. Aquifer Within Bedrock Geology and Abstraction Licenses



Site Outline

250

500

Search Buffers (m)

Principal Aquifer

Secondary (A) Aquifer - Permeable Layers

Secondary (B) Aquifer - Lower Permeability Layers

Groundwater Abstraction Licence

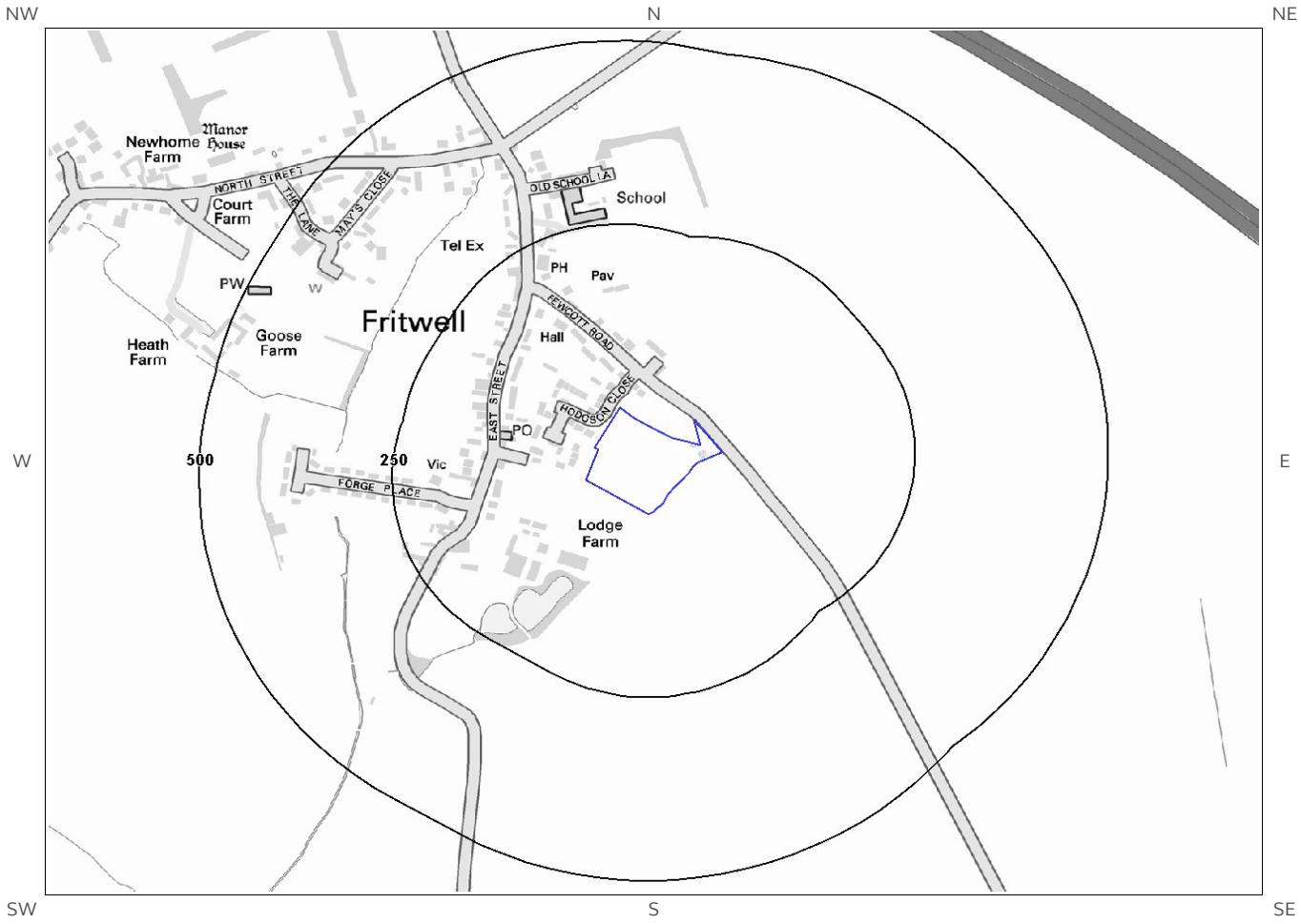
Secondary Aquifer - Undifferentiated Layers

Unproductive

Unknown (lakes and landslip)

Surface Water Abstraction Licence

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



Site Outline

250
500
Search Buffers (m)

Source Protection Zone 1 - Inner Catchment

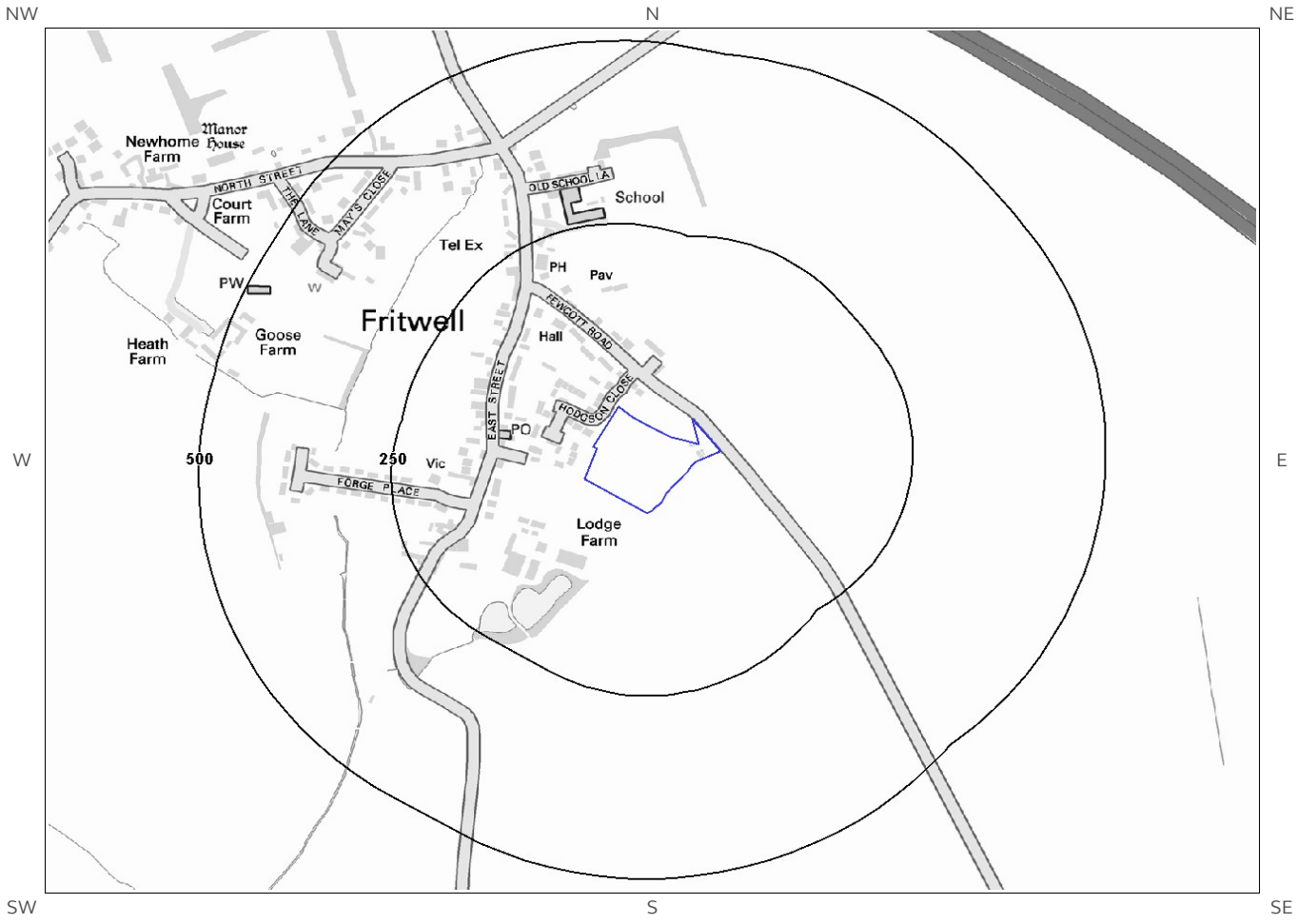
Source Protection Zone 2 - Outer Catchment

Source Protection Zone 3 - Total Catchment

Source Protection Zone 4 - Zone of Special Interest

Potable Water Abstraction Licence

6d. Hydrogeology – Source Protection Zones within confined aquifer



Site Outline

250 — 500 Search Buffers (m)

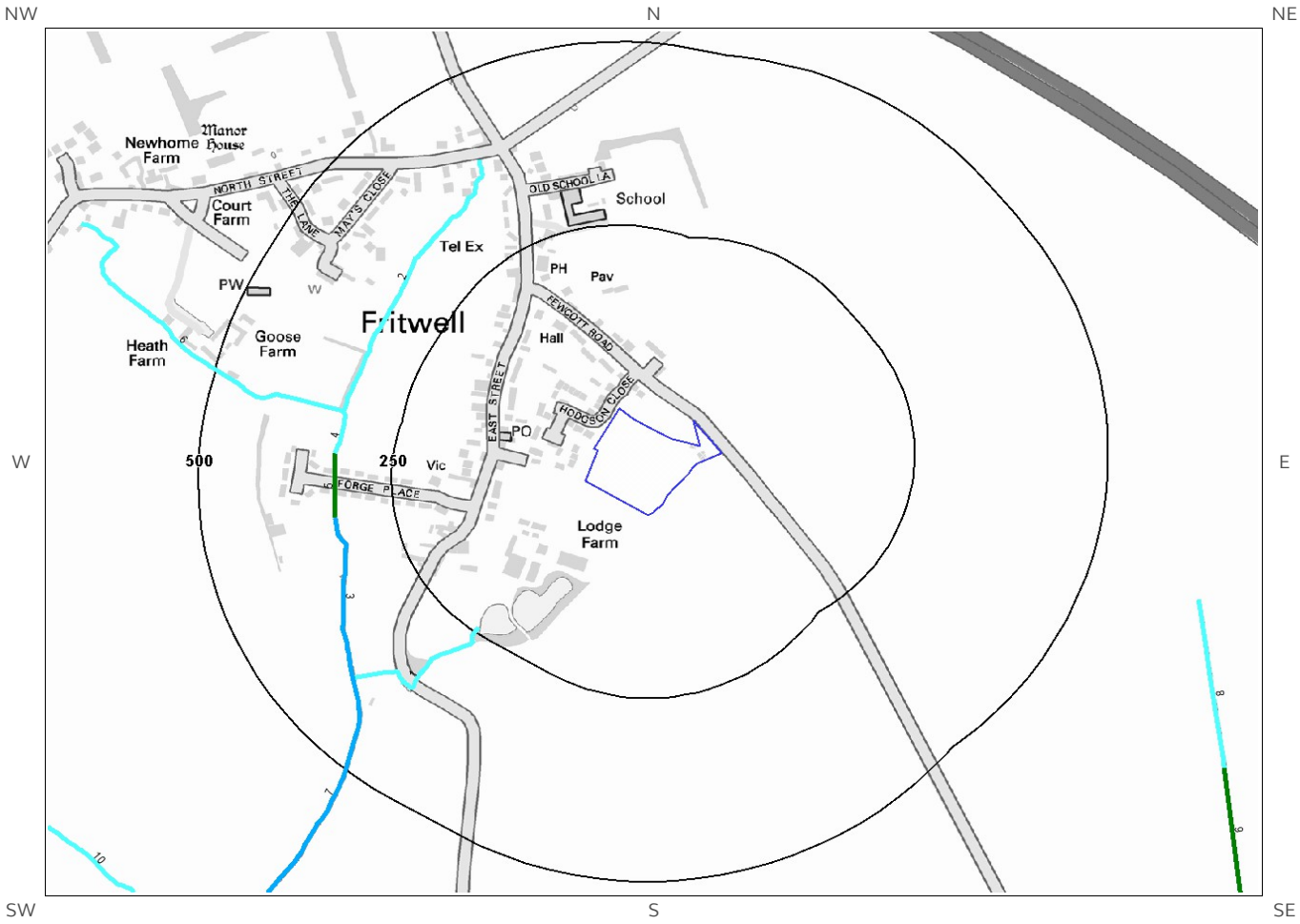
Source Protection Zone 1 - Inner Catchment

Source Protection Zone 2C - Outer Catchment within Confined Aquifer

Source Protection Zone 3C - Total Catchment within Confined Aquifer

Potable Water Abstraction Licence

6e. Hydrology – Detailed River Network and River Quality



Site Outline

250
500
Search Buffers (m)

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

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

6.Hydrogeology and Hydrology

6.1 Aquifer within Superficial Deposits

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

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

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

ID	Distance (m)	Direction	Designation	Description
1	299	W	Secondary A	Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers

6.2 Aquifer within Bedrock Deposits

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

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

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

ID	Distance (m)	Direction	Designation	Description
1	0	On Site	Principal	Geology of high intergranular and/or fracture permeability, usually providing a high level of water storage and may support water supply/river base flow on a strategic scale. Generally principal aquifers were previously major aquifers

6.3 Groundwater Abstraction Licences

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

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

ID	Distance (m)	Direction	NGR	Details	
3A	718	NW	452300 229500	Status: Historical Licence No: 6/33/02/*G/0012 Details: General Farming & Domestic Direct Source: Ground Water Source Of Supply Point: Well At Fritwell Data Type: Point Name: DALTON	Annual Volume (m^3): 15092 Max Daily Volume (m^3): 41.36 Original Application No: - Original Start Date: 1/6/1967 Expiry Date: - Issue No: 101 Version Start Date: 1/4/2008 Version End Date:

ID	Distance (m)	Direction	NGR	Details	
4A	718	NW	452300 229500	Status: Historical Licence No: 6/33/02/*G/0012 Details: Spray Irrigation - Direct Direct Source: Ground Water Source Of Supply Point: Well At Fritwell Data Type: Point Name: DALTON	Annual Volume (m^3): 15092 Max Daily Volume (m^3): 41.36 Original Application No: - Original Start Date: 1/6/1967 Expiry Date: - Issue No: 101 Version Start Date: 1/4/2008 Version End Date:
Not shown	820	NE	453600 229700	Status: Historical Licence No: 6/33/02/*G/0056 Details: General Farming & Domestic Direct Source: Ground Water Source Of Supply Point: Well At Green Farm Fritwell Data Type: Point Name: EVANS	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 1/6/1966 Expiry Date: - Issue No: 100 Version Start Date: 1/6/1966 Version End Date:
Not shown	1223	S	452700 227800	Status: Historical Licence No: 6/33/02/*G/0092 Details: General Farming & Domestic Direct Source: Ground Water Source Of Supply Point: Borehole At Ardley Data Type: Point Name: PARKER	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 1/11/1967 Expiry Date: - Issue No: 100 Version Start Date: 1/3/1977 Version End Date:
Not shown	1328	N	452500 230400	Status: Historical Licence No: 28/39/14/0193 Details: General Farming & Domestic Direct Source: Thames Groundwater Point: Inkerman Farm, Souldern (a) Data Type: Point Name: J A HAZELL & SON	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: WR.A/2368 Original Start Date: 10/4/1967 Expiry Date: - Issue No: 100 Version Start Date: 31/12/1977 Version End Date:
Not shown	1379	SE	453800 227900	Status: Historical Licence No: 6/33/02/*G/0091 Details: General Farming & Domestic Direct Source: Ground Water Source Of Supply Point: Well At Fewcott Data Type: Point Name: GODWIN	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: CV 3120 Original Start Date: 15/1/1968 Expiry Date: - Issue No: 102 Version Start Date: 21/11/2003 Version End Date:
Not shown	1476	SW	451940 227900	Status: Historical Licence No: 6/33/02/*G/0128 Details: General Farming & Domestic Direct Source: Ground Water Source Of Supply Point: Borehole At Somerton Data Type: Point Name: POWER	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 1/3/1994 Expiry Date: - Issue No: 100 Version Start Date: 1/3/1994 Version End Date:
Not shown	1476	SW	451940 227900	Status: Historical Licence No: 6/33/02/*G/0128 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Household Direct Source: Ground Water Source Of Supply Point: Borehole At Somerton Data Type: Point Name: POWER	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 1/3/1994 Expiry Date: - Issue No: 100 Version Start Date: 1/3/1994 Version End Date:
Not shown	1481	NW	452000 230300	Status: Historical Licence No: 28/39/14/0225 Details: General Farming & Domestic Direct Source: Thames Groundwater Point: Manor Farm, Souldern (d) Data Type: Point Name: W S DEELEY & SON	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: WR.A/3668 Original Start Date: 12/6/1967 Expiry Date: - Issue No: 100 Version Start Date: 12/6/1967 Version End Date:

ID	Distance (m)	Direction	NGR	Details	
Not shown	1533	NE	454000 230300	Status: Historical Licence No: 6/33/02/*G/0093 Details: General Farming & Domestic Direct Source: Ground Water Source Of Supply Point: Borehole At Horwell Farm Data Type: Point Name: RANSOM	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 1/1/1968 Expiry Date: - Issue No: 100 Version Start Date: 1/1/1968 Version End Date:
Not shown	1763	E	454790 229380	Status: Historical Licence No: 6/33/02/*G/0131 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Household Direct Source: Ground Water Source Of Supply Point: Borehole At Stoke Lyne Data Type: Point Name: CURTIS	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 1/6/1997 Expiry Date: - Issue No: 100 Version Start Date: 1/6/1997 Version End Date:
Not shown	1763	E	454790 229380	Status: Historical Licence No: 6/33/02/*G/0131 Details: General Farming & Domestic Direct Source: Ground Water Source Of Supply Point: Borehole At Stoke Lyne Data Type: Point Name: CURTIS	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 1/6/1997 Expiry Date: - Issue No: 100 Version Start Date: 1/6/1997 Version End Date:
Not shown	1835	N	452400 230900	Status: Historical Licence No: 28/39/14/0225 Details: General Farming & Domestic Direct Source: Thames Groundwater Point: Manor Farm, Souldern (c) Data Type: Point Name: W S DEELEY & SON	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: WR.A/3668 Original Start Date: 12/6/1967 Expiry Date: - Issue No: 100 Version Start Date: 12/6/1967 Version End Date:
Not shown	1884	NW	451300 230100	Status: Historical Licence No: 28/39/14/0093 Details: General Farming & Domestic Direct Source: Thames Groundwater Point: Souldern Grounds, Nr Bicester (a) Data Type: Point Name: ABERNETHY	Annual Volume (m^3): 4546 Max Daily Volume (m^3): 22.73 Original Application No: WR.A/3570 Original Start Date: 14/11/1966 Expiry Date: - Issue No: 100 Version Start Date: 14/11/1966 Version End Date:
Not shown	1983	E	454900 229800	Status: Historical Licence No: 6/33/02/*G/0007 Details: General Farming & Domestic Direct Source: Ground Water Source Of Supply Point: Well At Baynard Green Data Type: Point Name: CURTIS	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 1/4/1966 Expiry Date: - Issue No: 100 Version Start Date: 1/9/1966 Version End Date:

6.4 Surface Water Abstraction Licences

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

Database searched and no data found.

6.5 Potable Water Abstraction Licences

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

The following Potable Water Abstraction Licences records are represented as points, lines and regions on the SPZ and Potable Water Abstraction Licences Map (6c):

ID	Distance (m)	Direction	NGR	Details	
Not shown	1476	SW	451940 227900	Status: Historical Licence No: 6/33/02/*G/0128 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Household Direct Source: Ground Water Source Of Supply Point: Borehole At Somerton Data Type: Point Name: POWER	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 1/3/1994 Expiry Date: - Issue No: 100 Version Start Date: Version End Date:
Not shown	1763	E	454790 229380	Status: Historical Licence No: 6/33/02/*G/0131 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Household Direct Source: Ground Water Source Of Supply Point: Borehole At Stoke Lyne Data Type: Point Name: CURTIS	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 1/6/1997 Expiry Date: - Issue No: 100 Version Start Date: Version End Date:

6.6 Source Protection Zones

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

Database searched and no data found.

6.7 Source Protection Zones within Confined Aquifer

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

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

Database searched and no data found.

6.8 Groundwater Vulnerability and Soil Leaching Potential

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

Distance (m)	Direction	Classification	Soil Vulnerability Category	Description
0	On Site	Major Aquifer/High Leaching Potential	H3	Coarse textured or moderately shallow soils which readily transmit non-adsorbed pollutants and liquid discharges but have some ability to attenuate adsorbed pollutants because of their clay or organic matter content.

6.9 River Quality

Is there any Environment Agency information on river quality within 1500m of the study site? No

6.9.1 Biological Quality:

Database searched and no data found.

6.9.2 Chemical Quality:

Database searched and no data found.

6.10 Detailed River Network

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

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

ID	Distance (m)	Direction	Details	
1	242	SW	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
2	318	NW	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
3	320	W	River Name: - Welsh River Name: - Alternative Name: -	River Type: Secondary River Main River Status: Currently Undefined
4	321	W	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined

ID	Distance (m)	Direction	Details	
5	323	W	River Name: - Welsh River Name: - Alternative Name: -	River Type: Culvert Main River Status: Currently Undefined
6	326	W	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
7	402	SW	River Name: - Welsh River Name: - Alternative Name: -	River Type: Secondary River Main River Status: Currently Undefined

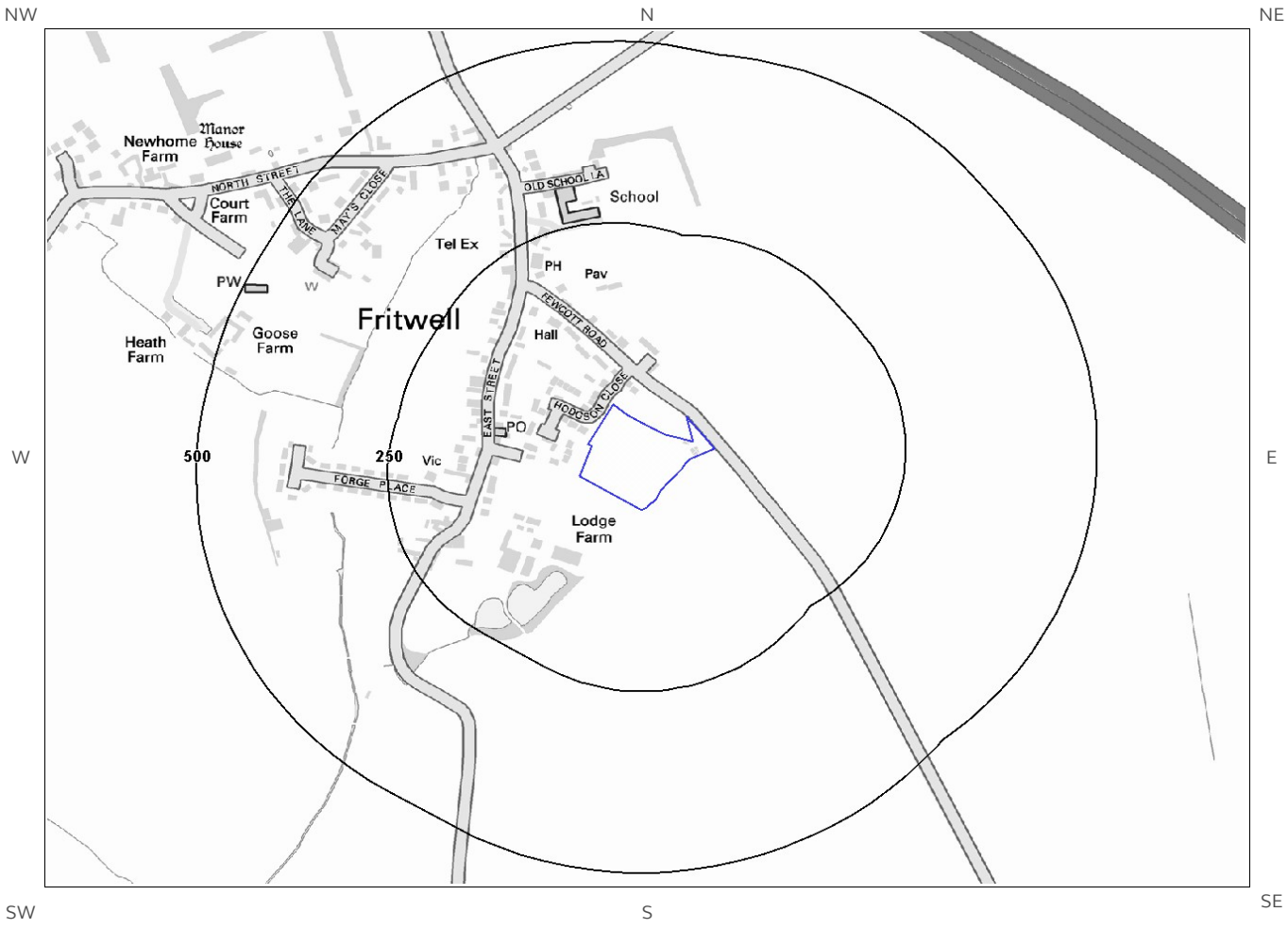
6.11 Surface Water Features

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

The following surface water records are not represented on mapping:

Distance (m)	Direction
128	SW
199	SW
242	SW

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



Site Outline

100
250
Search Buffers (m)

Zone 2 Floodplain

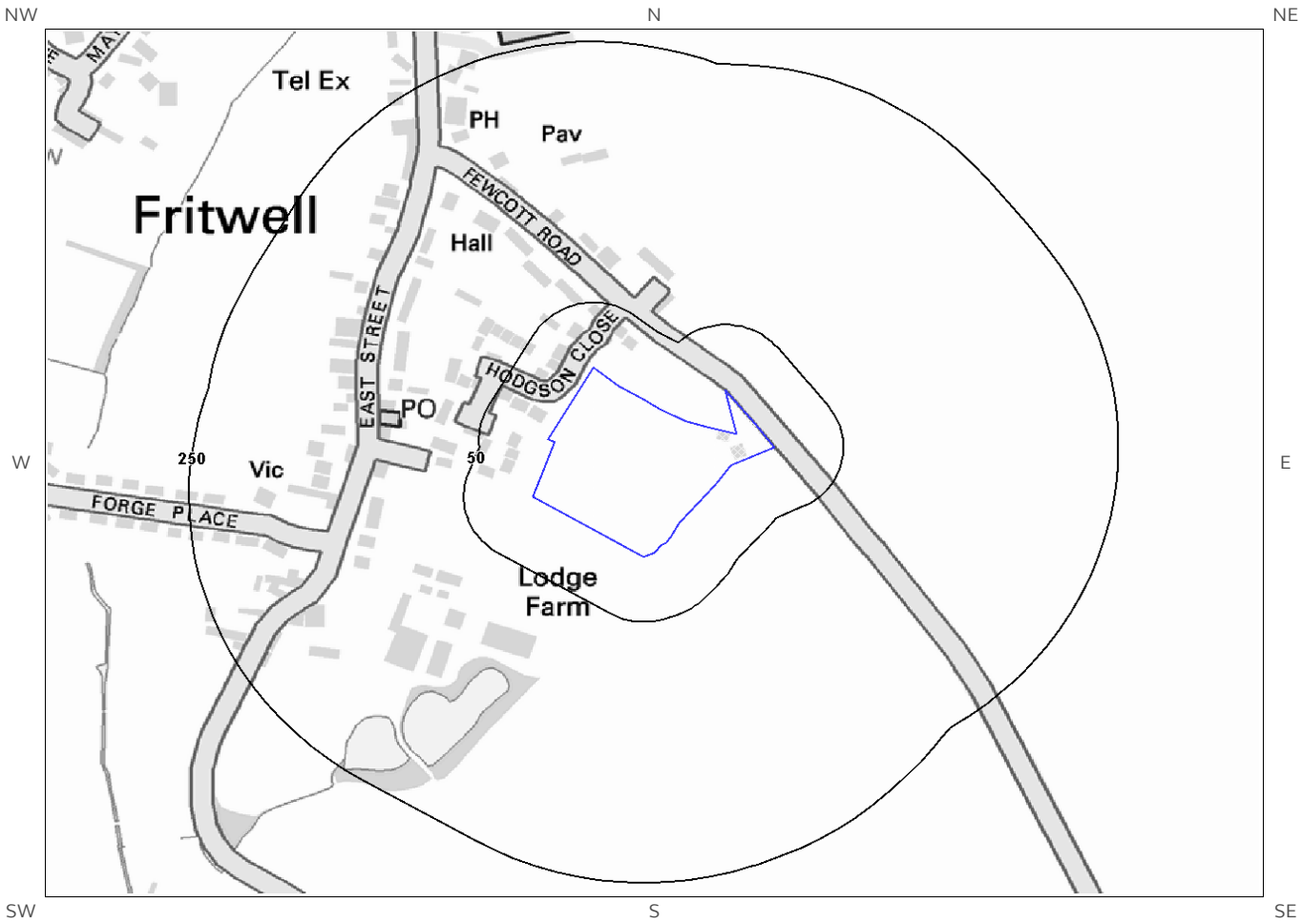
Zone 3 Floodplain

Flood Defences

Area used for Flood Storage

Area Benefiting from Flood Defences

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



Site Outline

100
250
Search Buffers (m)

RoFRaS Rating

Very Low

Low

Medium

High

7 Flooding

7.1 River and Coastal Zone 2 Flooding

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

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

Database searched and no data found.

7.2 River and Coastal Zone 3 Flooding

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

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

Database searched and no data found.

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

What is the highest risk of flooding onsite? Very Low

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

RoFRaS data for the study site indicates the property is in an area with a Very Low (less than 1 in 1000) chance of flooding in any given year.

7.4 Flood Defences

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

Database searched and no data found.

7.5 Areas benefiting from Flood Defences

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

7.6 Areas benefiting from Flood Storage

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

7.7 Groundwater Flooding Susceptibility Areas

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

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

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

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

Limited potential

Where limited potential for groundwater flooding to occur is indicated, this means that although given the geological conditions there may be a groundwater flooding hazard, unless other relevant information, e.g. records of previous flooding, suggests groundwater flooding has occurred before in this area, you need take no further action in relation to groundwater flooding hazard.

7.8 Groundwater Flooding Confidence Areas

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

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

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

8. Designated Environmentally Sensitive Sites Map

Site Outline

100
250
Search Buffers (m)

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

8. Designated Environmentally Sensitive Sites

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

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

2

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

ID	Distance (m)	Direction	SSSI Name	Data Source
1	941	SW	Ardley Cutting and Quarry	Natural England
Not shown	1756	S	Ardley Cutting and Quarry	Natural England

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

0

Database searched and no data found.

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

0

Database searched and no data found.

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

0

Database searched and no data found.

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

0

Database searched and no data found.

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

3

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

ID	Distance (m)	Direction	Ancient Woodland Name	Data Source
Not shown	1525	S	UNKNOWN	Ancient and Semi-Natural Woodland
Not shown	1544	SE	UNKNOWN	Ancient and Semi-Natural Woodland
Not shown	1573	S	UNKNOWN	Ancient and Semi-Natural Woodland

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

0

Database searched and no data found.

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

0

Database searched and no data found.

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

0

Database searched and no data found.

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

0

Database searched and no data found.

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

0

Database searched and no data found.

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

0

Database searched and no data found.

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

6

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

ID	Distance (m)	Direction	NVZ Name	Data Source
3	0	On Site	Existing	DEFRA
4	0	On Site	Existing	DEFRA
5	860	N	Existing	DEFRA
6	860	N	Existing	DEFRA
7	960	NW	Existing	DEFRA
8	1039	NW	Existing	DEFRA

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

0

Database searched and no data found.

9. Natural Hazards Findings

9.1 Detailed BGS GeoSure Data

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

9.1.1 Shrink Swell

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

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

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

9.1.2 Landslides

What is the maximum Landslide* 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 slope instability identified. 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.

9.1.3 Soluble Rocks

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

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

Hazard
Significant soluble rocks are present. Problems unlikely except with considerable surface or subsurface water flow. No special actions required to avoid problems due to soluble rocks. No special ground investigation required or increased construction costs are likely. An increase in financial risk due to potential problems with soluble rocks is unlikely.

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

9.1.4 Compressible Ground

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

9.1.5 Collapsible Rocks

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

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

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

9.1.6 Running Sand

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

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

Hazard
No indicators for running sand identified. 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.

9.2 Radon

9.2.1 Radon Affected Areas

Is the property in a Radon Affected Area as defined by the Health Protection Agency (HPA) and if so what percentage of homes are above the Action Level? The property is in a Radon Affected Area, as between 1 and 3% of properties are above the Action Level.

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

9.2.2 Radon Protection

Is the property in an area where Radon Protection are required for new properties or extensions to existing
ones as described in publication BR211 by the Building Research Establishment? No radon protective measures are necessary.

10. Mining

10.1 Coal Mining

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

Database searched and no data found.

10.2 Non-Coal Mining

Are there any Non-Coal Mining areas within 50m of the study site boundary? No

Database searched and no data found.

10.3 Brine Affected Areas

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

Contact Details

Groundsure Helpline
Telephone: 08444 159 000
info@groundsure.com

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

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

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

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

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

Local Authority
Authority: Cherwell District Council
Phone: 01295 252 535
Web: http://www.cherwell-dc.gov.uk/
Address: Bodicote House, Bodicote, Banbury, Oxfordshire, OX15 4AA

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

Standard Terms and Conditions

1 Definitions

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

3 The Client's obligations

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

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

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

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

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

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

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

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

4 Reliance

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

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

(i) the Beneficiary,

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

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

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

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

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

5 Fees and Disbursements

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

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

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

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

6 Intellectual Property and Confidentiality

6.1 Subject to

(i) full payment of all relevant Fees and

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

7.4 Groundsure shall not be liable for

(i) loss of profits;

(ii) loss of business;

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

(iv) loss of anticipated savings;

(v) loss of goods;

(vi) loss of contract;

(vii) loss of use;

(viii) loss or corruption of data or information;

(ix) business interruption;

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

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

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

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

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

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

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

8 Groundsure's right to suspend or terminate

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

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

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

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

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

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

9. Client's Right to Terminate and Suspend

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

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

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

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

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

(b) by their nature cannot be returned.

10 Consequences of Withdrawal, Termination or Suspension

10.1 Upon termination of the Contract:

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

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

11 Anti-Bribery

11.1 The Client warrants that it shall:

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

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

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

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

12 General

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

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

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

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

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

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

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

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

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

(iii) Acts of God or the public enemy;

(iv) riot, civil commotion or war;

(v) strikes, labour disputes or industrial action;

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

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

(viii) changes in law; or

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

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

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

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

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

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

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

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

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

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

APPENDIX D

Exploratory Hole Records

Brownfield Consultancy
The Cottage, Mill Lane
Fenny Compton, CV47 2YF
Phone: 07852881086

BOREHOLE LOG

The Brownfield Consultancy

Project				BOREHOLE No
Fewcott Road, Fritwell				WS1
Job No	Date	Ground Level (m)	Co-Ordinates ()	
BC195	22-09-21			
Contractor				Sheet
BROWNFIELD CONSULTANCY				1 of 1

SAMPLES & TESTS			Water	STRATA				Geology	Instrument/ Backfill
Depth	Type No	Test Result		Reduced Level	Legend	Depth (Thick-ness)	DESCRIPTION		
0.10	ES					(0.30) 0.30	Dark brown slightly sandy slightly gravelly CLAY. Gravel is angular and subangular medium to coarse limestone (TOPSOIL)		
						(0.20) 0.50	Brown sandy very clayey GRAVEL of subangular fine to coarse limestone. (OOLITE)		
0.50	ES					(0.50) 1.00	Buff brown gravelly fine to medium SAND. Gravel is angular and subangular fine to coarse limestone. (OOLITE)		
0.90	ES								
1.00	D					1.10	Firm brown slightly gravelly very sandy CLAY. Gravel is angular and subangular fine to coarse limestone. (OOLITE)		
1.00		N50/260mm 5,6/ 4,4,20,22				(0.36) 1.46	Very dense buff brown sandy very clayey GRAVEL of subangular fine to coarse limestone. (OOLITE)		
							Borehole terminated on SPT refusal.		

Boring Progress and Water Observations					
Date	Time	Depth	Casing Depth	Casing Dia. mm	Water Dpt

Chiselling			Water Added	
From	To	Hours	From	To

GENERAL REMARKS

50mm monitoring pipework installed.

All dimensions in metres Scale 1:18.75	Client CALA CHILTERN	Method/ Plant Used Dynamic Sampling Rig	Logged By JT

Brownfield Consultancy
The Cottage, Mill Lane
Fenny Compton, CV47 2YF
Phone: 07852881086

BOREHOLE LOG

The Brownfield Consultancy

Project				BOREHOLE No
Fewcott Road, Fritwell				WS2
Job No	Date	Ground Level (m)	Co-Ordinates ()	
BC195	22-09-21			
Contractor				Sheet
BROWNFIELD CONSULTANCY				1 of 1

SAMPLES & TESTS			Water	STRATA				Geology	Instrument/ Backfill
Depth	Type No	Test Result		Reduced Level	Legend	Depth (Thick-ness)	DESCRIPTION		
0.20	ES					(0.35) 0.35	Dark brown slightly sandy slightly gravelly CLAY. Gravel is angular and subangular medium to coarse limestone. Rare flecks of coal. One coarse subangular gravel of red brick. (MADE GROUND)		
0.50		N50/125mm 12,13/ 22,28				(0.25) 0.60	Very dense buff brown sandy silty GRAVEL of subangular fine to coarse limestone. (OOLITE)		
							Borehole terminated on SPT refusal.		

Boring Progress and Water Observations					
Date	Time	Depth	Casing Depth	Casing Dia. mm	Water Dpt

Chiselling			Water Added	
From	To	Hours	From	To

GENERAL REMARKS

Backfilled with arisings upon completion.

All dimensions in metres Scale 1:18.75	Client CALA CHILTERN	Method/ Plant Used Dynamic Sampling Rig	Logged By JT

BROWNFIELD DS LOG FRITWELL LOGS.GPJ GINT STD AGS 3_1.GDT 1/11/21

Brownfield Consultancy
The Cottage, Mill Lane
Fenny Compton, CV47 2YF
Phone: 07852881086

BOREHOLE LOG

The Brownfield Consultancy

Project				BOREHOLE No
Fewcott Road, Fritwell				WS3
Job No	Date	Ground Level (m)	Co-Ordinates ()	
BC195	22-09-21			
Contractor				Sheet
BROWNFIELD CONSULTANCY				1 of 1

SAMPLES & TESTS			Water	STRATA				Geology	Instrument/ Backfill
Depth	Type No	Test Result		Reduced Level	Legend	Depth (Thick-ness)	DESCRIPTION		
0.10	ES					(0.30) 0.30	Dark brown slightly sandy slightly gravelly CLAY. Gravel is angular and subangular medium to coarse limestone. (TOPSOIL)		
1.00 1.00	ES	N50/150mm 7,8/ 35,15				(0.95) 1.25	Buff brown sandy silty GRAVEL of angular to subrounded fine to coarse limestone. (OOLITE) 1.00 Very dense.		
							Borehole terminated on SPT refusal.		

Boring Progress and Water Observations						Chiselling			Water Added		GENERAL REMARKS
Date	Time	Depth	Casing Depth	Casing Dia. mm	Water Dpt	From	To	Hours	From	To	Backfilled with arisings upon completion.

All dimensions in metres Scale 1:18.75	Client CALA CHILTERN	Method/ Plant Used Dynamic Sampling Rig	Logged By JT

BROWNFIELD DS LOG FRITWELL LOGS.GPJ GINT STD AGS 3_1.GDT 1/11/21

Brownfield Consultancy
The Cottage, Mill Lane
Fenny Compton, CV47 2YF
Phone: 07852881086

BOREHOLE LOG

The Brownfield Consultancy

Project				BOREHOLE No
Fewcott Road, Fritwell				WS4
Job No	Date	Ground Level (m)	Co-Ordinates ()	
BC195	22-09-21			
Contractor				Sheet
BROWNFIELD CONSULTANCY				1 of 1

SAMPLES & TESTS			Water	STRATA				Geology	Instrument/ Backfill
Depth	Type No	Test Result		Reduced Level	Legend	Depth (Thick-ness)	DESCRIPTION		
0.10	ES					(0.30) 0.30	Dark brown slightly sandy slightly gravelly CLAY. Gravel is angular and subangular medium to coarse limestone. (TOPSOIL)		
0.90	ES					(0.90)	Buff brown sandy clayey GRAVEL of subangular fine to coarse limestone. (OOLITE)		
1.00		N50/150mm 25/ 32,18				1.20	1.00 Very dense.		
							Borehole terminated on SPT refusal.		

Boring Progress and Water Observations						Chiselling			Water Added		GENERAL REMARKS
Date	Time	Depth	Casing Depth	Casing Dia. mm	Water Dpt	From	To	Hours	From	To	Backfilled with arisings upon completion.

All dimensions in metres Scale 1:18.75	Client CALA CHILTERN	Method/ Plant Used Dynamic Sampling Rig	Logged By JT

BROWNFIELD DS LOG FRITWELL LOGS.GPJ GINT STD AGS 3_1.GDT 1/11/21

Brownfield Consultancy
The Cottage, Mill Lane
Fenny Compton, CV47 2YF
Phone: 07852881086

BOREHOLE LOG

The Brownfield Consultancy

Project				BOREHOLE No
Fewcott Road, Fritwell				WS5
Job No	Date	Ground Level (m)	Co-Ordinates ()	
BC195	22-09-21			
Contractor				Sheet
BROWNFIELD CONSULTANCY				1 of 1

SAMPLES & TESTS			Water	STRATA				Geology	Instrument/ Backfill
Depth	Type No	Test Result		Reduced Level	Legend	Depth (Thick-ness)	DESCRIPTION		
0.10	ES					(0.30) 0.30	Dark brown slightly sandy slightly gravelly CLAY. Gravel is angular and subangular medium to coarse limestone. (TOPSOIL)		
						(0.20) 0.50	Brown slightly sandy clayey GRAVEL of subangular fine to coarse limestone. (OOLITE)		
						(0.20) 0.70	Buff brown clayey gravelly fine to medium SAND. Gravel is angular and subangular fine to coarse limestone. (OOLITE)		
0.80	ES						Very dense buff brown sandy clayey GRAVEL of subangular fine to coarse limestone. (OOLITE)		
1.00		N50/190mm 9,7/ 9,8,33				(0.70) 1.40			
							Borehole terminated on SPT refusal.		

Boring Progress and Water Observations					
Date	Time	Depth	Casing Depth	Casing Dia. mm	Water Dpt

Chiselling			Water Added	
From	To	Hours	From	To

GENERAL REMARKS

50mm monitoring pipework installed.

All dimensions in metres Scale 1:18.75	Client CALA CHILTERN	Method/ Plant Used Dynamic Sampling Rig	Logged By JT

BROWNFIELD DS LOG FRITWELL LOGS.GPJ GINT STD AGS 3_1.GDT 1/11/21

Brownfield Consultancy
The Cottage, Mill Lane
Fenny Compton, CV47 2YF
Phone: 07852881086

BOREHOLE LOG

The Brownfield Consultancy

Project				BOREHOLE No
Fewcott Road, Fritwell				WS6
Job No	Date	Ground Level (m)	Co-Ordinates ()	
BC195	22-09-21			
Contractor				Sheet
BROWNFIELD CONSULTANCY				1 of 1

SAMPLES & TESTS			Water	STRATA				Geology	Instrument/ Backfill
Depth	Type No	Test Result		Reduced Level	Legend	Depth (Thick-ness)	DESCRIPTION		
						(0.20) 0.20	Dark brown slightly sandy slightly gravelly CLAY. Gravel is angular and subangular medium to coarse limestone. (TOPSOIL)		
						(0.80) 1.00	Buff brown locally clayey sandy GRAVEL of subangular fine to coarse limestone. (OOLITE)		
0.80		N50/150mm 7,14/ 23,27					0.80 Very dense.		
							Borehole terminated on SPT refusal.		

Boring Progress and Water Observations						Chiselling			Water Added		GENERAL REMARKS
Date	Time	Depth	Casing Depth	Casing Dia. mm	Water Dpt	From	To	Hours	From	To	Backfilled with arisings upon completion.

All dimensions in metres Scale 1:18.75	Client CALA CHILTERN	Method/ Plant Used Dynamic Sampling Rig	Logged By JT

Brownfield Consultancy
The Cottage, Mill Lane
Fenny Compton, CV47 2YF
Phone: 07852881086

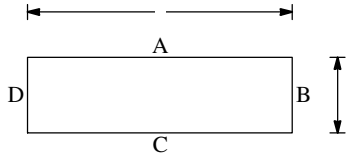
TRIAL PIT LOG

The Brownfield Consultancy

Project				TRIAL PIT No
Fewcott Road, Fritwell. Northern Plot.				TP1
Job No	Date	Ground Level (m)	Co-Ordinates ()	
BC195	23-09-21			
Contractor				Sheet
The Brownfield Consultancy				1 of 1

STRATA				SAMPLES & TESTS		
				Depth	No	Remarks/Tests
Depth	No		DESCRIPTION			
0.00-0.30			Dark brown slightly sandy slightly gravelly CLAY. Gravel is angular and subangular medium to coarse limestone. Roots and rootlets. (TOPSOIL)	0.20	ES	
0.30-0.60			Brown sandy very clayey GRAVEL of angular and subangular fine to coarse limestone. (OOLITE)			
0.60-1.00			Buff brown sandy GRAVEL of angular and subangular, occasionally subrounded fine to coarse limestone with a medium cobble content. Cobbles are angular and subangular, occasionally tabular limestone. (OOLITE)			
1.00-1.40			Buff brown very sandy GRAVEL of angular and subangular, occasionally subrounded fine to coarse limestone with a medium cobble content. Cobbles are angular and subangular, occasionally tabular limestone. (OOLITE)			
1.40			Pit terminated - hard digging.	1.40	ES	

Shoring/Support:
Stability: Sides stable.



GENERAL REMARKS

Groundwater not encountered. Backfilled with arisings.

All dimensions in metres Scale 1:18.75	Client Cala Homes Chiltern Ltd	Method/ Plant Used JCB 3CX	Logged By JT

BROWNFIELD TP FRITWELL NORTHERN PARCEL TP.GPJ GINT STD AGS 3_1.GDT 1/11/21

Brownfield Consultancy
The Cottage, Mill Lane
Fenny Compton, CV47 2YF
Phone: 07852881086

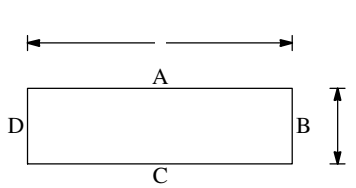
TRIAL PIT LOG

The Brownfield Consultancy

Project				TRIAL PIT No
Fewcott Road, Fritwell. Northern Plot.				TP2
Job No	Date	Ground Level (m)	Co-Ordinates ()	
BC195	23-09-21			
Contractor				Sheet
The Brownfield Consultancy				1 of 1

STRATA				SAMPLES & TESTS		
				Depth	No	Remarks/Tests
Depth	No		DESCRIPTION			
0.00-0.35			Dark brown slightly sandy slightly gravelly CLAY. Gravel is angular and subangular medium to coarse limestone. Rare rounded medium gravel of quartzite. Roots and rootlets. (TOPSOIL)	0.30	ES	
0.35-1.30			Buff brown sandy GRAVEL of angular and subangular, occasionally subrounded fine to coarse limestone with a medium cobble content. Cobbles are angular and subangular, occasionally tabular limestone. (OOLITE)			
1.30-1.50			Buff brown very sandy GRAVEL of angular and subangular, occasionally subrounded fine to coarse limestone with a medium cobble content. Cobbles are angular and subangular, occasionally tabular limestone. Locally a silty gravelly sand. (OOLITE)			
1.50			Pit terminated - hard digging.			

Shoring/Support:
Stability: Sides stable.



GENERAL REMARKS

Groundwater not encountered. Backfilled with arisings.

All dimensions in metres Scale 1:18.75	Client Cala Homes Chiltern Ltd	Method/ Plant Used JCB 3CX	Logged By JT

BROWNFIELD TP FRITWELL NORTHERN PARCEL TP.GPJ GINT STD AGS 3_1.GDT 1/11/21

Brownfield Consultancy
The Cottage, Mill Lane
Fenny Compton, CV47 2YF
Phone: 07852881086

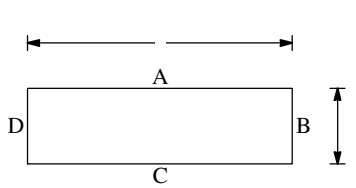
TRIAL PIT LOG

The Brownfield Consultancy

Project				TRIAL PIT No
Fewcott Road, Fritwell. Northern Plot.				TP3
Job No	Date	Ground Level (m)	Co-Ordinates ()	
BC195	23-09-21			
Contractor				Sheet
The Brownfield Consultancy				1 of 1

STRATA				SAMPLES & TESTS		
				Depth	No	Remarks/Tests
Depth	No		DESCRIPTION			
0.00-0.40			Dark brown slightly sandy slightly gravelly CLAY. Gravel is angular and subangular medium to coarse limestone. Roots and rootlets. (TOPSOIL)	0.05	ES	
0.40-0.60			Brown sandy clayey GRAVEL of angular and subangular, occasionally subrounded fine to coarse limestone. Rare subangular cobble. (OOLITE)	0.50	ES	
0.60-1.35			Buff brown sandy GRAVEL of angular and subangular, occasionally subrounded fine to coarse limestone with a medium cobble content. Cobbles are angular and subangular, occasionally tabular limestone. Locally a silty gravelly sand. (OOLITE) 1.00 - 1.20 Very sandy.			
1.35			Pit terminated - hard digging.			

Shoring/Support:
Stability: Sides stable.



GENERAL REMARKS

Groundwater not encountered. Backfilled with arisings.

All dimensions in metres Scale 1:18.75	Client Cala Homes Chiltern Ltd	Method/ Plant Used JCB 3CX	Logged By JT

BROWNFIELD TP FRITWELL NORTHERN PARCEL TP.GPJ GINT STD AGS 3_1.GDT 1/11/21

Brownfield Consultancy
The Cottage, Mill Lane
Fenny Compton, CV47 2YF
Phone: 07852881086

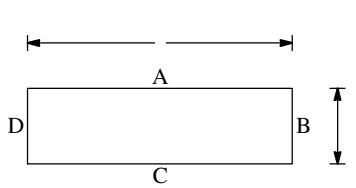
TRIAL PIT LOG

The Brownfield Consultancy

Project				TRIAL PIT No
Fewcott Road, Fritwell. Northern Plot.				TP4
Job No	Date	Ground Level (m)	Co-Ordinates ()	
BC195	23-09-21			
Contractor				Sheet
The Brownfield Consultancy				1 of 1

STRATA				SAMPLES & TESTS		
				Depth	No	Remarks/Tests
Depth	No		DESCRIPTION			
0.00-0.30			Dark brown slightly sandy slightly gravelly CLAY. Gravel is angular and subangular medium to coarse limestone. (TOPSOIL)	0.15	ES	
0.30-0.50			Brown slightly sandy clayey GRAVEL of angular and subangular, occasionally subrounded fine to coarse limestone with a medium cobble content. (OOLITE)			
0.50-1.50			Buff brown sandy GRAVEL of angular and subangular, occasionally subrounded fine to coarse limestone with a low cobble content. Cobbles are angular and subangular, occasionally tabular limestone. (OOLITE)	0.70	ES	
			1.20 - 1.40 Very sandy.			
1.50			Pit terminated - hard digging.			

Shoring/Support:
Stability: Sides stable.



GENERAL REMARKS

Groundwater not encountered. Backfilled with arisings.

All dimensions in metres Scale 1:18.75	Client Cala Homes Chiltern Ltd	Method/ Plant Used JCB 3CX	Logged By JT

BROWNFIELD TP FRITWELL NORTHERN PARCEL TP.GPJ GINT STD AGS 3_1.GDT 1/11/21

Brownfield Consultancy
The Cottage, Mill Lane
Fenny Compton, CV47 2YF
Phone: 07852881086

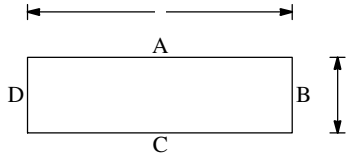
TRIAL PIT LOG

The Brownfield Consultancy

Project				TRIAL PIT No
Fewcott Road, Fritwell. Northern Plot.				TP5
Job No	Date	Ground Level (m)	Co-Ordinates ()	
BC195	23-09-21			
Contractor				Sheet
The Brownfield Consultancy				1 of 1

STRATA				SAMPLES & TESTS		
				Depth	No	Remarks/Tests
Depth	No		DESCRIPTION			
0.00-0.30			Dark brown slightly sandy slightly gravelly CLAY. Gravel is angular and subangular medium to coarse limestone. Becoming very gravelly towards the base of the deposit. Roots and rootlets. (TOPSOIL)	0.05	ES	
0.30-1.70			Buff brown sandy GRAVEL of angular and subangular, occasionally subrounded fine to coarse limestone with a medium cobble content. Cobbles are angular and subangular, occasionally tabular limestone. (OOLITE)			
1.70-1.90			Firm brown locally friable slightly sandy slightly gravelly CLAY. Gravel is angular fine and medium limestone. (OOLITE)	1.70	D	
1.90			Pit terminated - hard digging.			

Shoring/Support:
Stability: Sides stable.



GENERAL REMARKS

Groundwater not encountered. Backfilled with arisings.

All dimensions in metres Scale 1:18.75	Client Cala Homes Chiltern Ltd	Method/ Plant Used JCB 3CX	Logged By JT

BROWNFIELD TP FRITWELL NORTHERN PARCEL TP.GPJ GINT STD AGS 3_1.GDT 1/11/21

Brownfield Consultancy
The Cottage, Mill Lane
Fenny Compton, CV47 2YF
Phone: 07852881086

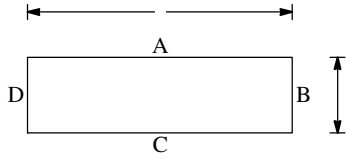
TRIAL PIT LOG

The Brownfield Consultancy

Project				TRIAL PIT No
Fewcott Road, Fritwell. Northern Plot.				TP6
Job No	Date	Ground Level (m)	Co-Ordinates ()	
BC195	23-09-21			
Contractor				Sheet
The Brownfield Consultancy				1 of 1

STRATA				SAMPLES & TESTS		
				Depth	No	Remarks/Tests
Depth	No		DESCRIPTION			
0.00-0.40			Dark brown slightly sandy slightly gravelly CLAY. Gravel is angular and subangular medium to coarse limestone. Becoming very gravelly towards the base of the deposit. Roots and rootlets. (TOPSOIL)	0.05	ES	
0.40-1.40			Buff brown very sandy GRAVEL of angular and subangular, occasionally subrounded fine to coarse limestone with a medium cobble content. Cobbles are angular and subangular, occasionally tabular limestone. (OOLITE)	0.80	ES	
1.40-1.60			Firm locally friable slightly sandy slightly gravelly CLAY. Gravel is angular fine and medium limestone. Rootlets of a live appearance. (OOLITE)	1.40	D	
1.60			Pit terminated - hard digging.			

Shoring/Support:
Stability: Sides stable.



GENERAL REMARKS

Groundwater not encountered. Backfilled with arisings.

All dimensions in metres Scale 1:18.75	Client Cala Homes Chiltern Ltd	Method/ Plant Used JCB 3CX	Logged By JT

BROWNFIELD TP FRITWELL NORTHERN PARCEL TP.GPJ GINT STD AGS 3_1.GDT 1/11/21

Brownfield Consultancy
The Cottage, Mill Lane
Fenny Compton, CV47 2YF
Phone: 07852881086

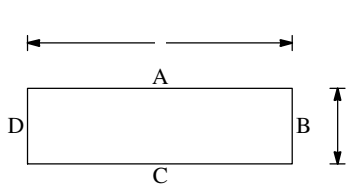
TRIAL PIT LOG

The Brownfield Consultancy

Project				TRIAL PIT No
Fewcott Road, Fritwell. Northern Plot.				TP7
Job No	Date	Ground Level (m)	Co-Ordinates ()	
BC195	23-09-21			
Contractor				Sheet
The Brownfield Consultancy				1 of 1

STRATA				SAMPLES & TESTS		
				Depth	No	Remarks/Tests
Depth	No		DESCRIPTION			
0.00-0.20			Dark brown slightly sandy slightly gravelly CLAY. Gravel is angular and subangular medium to coarse limestone. Rare rounded medium gravel of quartzite. Roots and rootlets. (TOPSOIL)	0.10	ES	
0.20-0.50			Brown slightly sandy clayey GRAVEL of angular and subangular, occasionally subrounded fine to coarse limestone. (OOLITE)			
0.50-1.25			Buff brown very sandy GRAVEL of angular and subangular, occasionally subrounded fine to coarse limestone with a medium cobble content. Cobbles are angular and subangular, occasionally tabular limestone. (OOLITE)			
1.25-1.50			Firm brown locally friable slightly sandy slightly gravelly CLAY. Gravel is angular fine and medium limestone. (OOLITE)	1.25	D	

Shoring/Support:
Stability: Sides stable.



GENERAL REMARKS

Groundwater not encountered. Backfilled with arisings.

All dimensions in metres Scale 1:18.75	Client Cala Homes Chiltern Ltd	Method/ Plant Used JCB 3CX	Logged By JT

BROWNFIELD TP FRITWELL NORTHERN PARCEL TP.GPJ GINT STD AGS 3_1.GDT 1/11/21

Brownfield Consultancy
The Cottage, Mill Lane
Fenny Compton, CV47 2YF
Phone: 07852881086

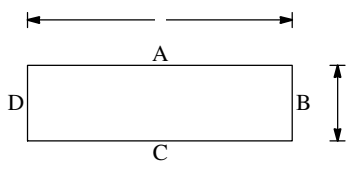
TRIAL PIT LOG

The Brownfield Consultancy

Project				TRIAL PIT No
Fewcott Road, Fritwell. Northern Plot.				TP8
Job No	Date	Ground Level (m)	Co-Ordinates ()	
BC195	23-09-21			
Contractor				Sheet
The Brownfield Consultancy				1 of 1

STRATA				SAMPLES & TESTS		
				Depth	No	Remarks/Tests
Depth	No		DESCRIPTION			
0.00-0.40			Dark brown slightly sandy slightly gravelly CLAY. Gravel is angular and subangular medium to coarse limestone. Roots and rootlets. (TOPSOIL)	0.05	ES	
0.40-0.70			Brown slightly sandy clayey GRAVEL of angular and subangular, occasionally subrounded fine to coarse limestone. (OOLITE)			
0.70-1.00			Buff brown slightly gravelly fine to medium SAND. Gravel is angular and subangular fine to coarse limestone. (OOLITE)			
1.00-1.40			Buff brown very sandy GRAVEL of angular and subangular, occasionally subrounded fine to coarse limestone with a high cobble content. Cobbles are angular and subangular, frequently tabular limestone. (OOLITE)			
1.40-1.50			Buff brown sandy very clayey GRAVEL of angular and subangular fine to coarse limestone. (OOLITE)			
1.50			Pit terminated - hard digging.			

Shoring/Support:
Stability: Sides stable.



GENERAL REMARKS

Groundwater not encountered. Backfilled with arisings.

All dimensions in metres Scale 1:18.75	Client Cala Homes Chiltern Ltd	Method/ Plant Used JCB 3CX	Logged By JT

BROWNFIELD TP FRITWELL NORTHERN PARCEL TP.GPJ GINT STD AGS 3_1.GDT 1/11/21

Brownfield Consultancy
The Cottage, Mill Lane
Fenny Compton, CV47 2YF
Phone: 07852881086

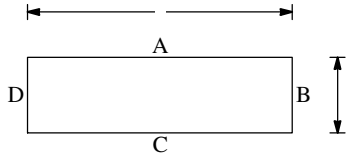
TRIAL PIT LOG

The Brownfield Consultancy

Project				TRIAL PIT No
Fewcott Road, Fritwell. Northern Plot.				TP9
Job No	Date	Ground Level (m)	Co-Ordinates ()	
BC195	23-09-21			
Contractor				Sheet
The Brownfield Consultancy				1 of 1

STRATA				SAMPLES & TESTS		
				Depth	No	Remarks/Tests
Depth	No		DESCRIPTION			
0.00-0.30			Dark brown slightly sandy gravelly CLAY. Gravel is angular and subangular medium to coarse limestone. Roots and rootlets. (TOPSOIL)			
0.30-1.10			Buff brown very sandy GRAVEL of angular and subangular, occasionally subrounded fine to coarse limestone with a high cobble content. Cobbles are angular and subangular, frequently tabular limestone. (OOLITE)			
1.10-1.30			Buff brown slightly gravelly fine to medium SAND. Gravel is angular and subangular fine to coarse limestone. (OOLITE)			
1.30			Pit terminated - hard digging.			

Shoring/Support:
Stability: Sides stable.



GENERAL REMARKS

Groundwater not encountered. Backfilled with arisings.

All dimensions in metres Scale 1:18.75	Client Cala Homes Chiltern Ltd	Method/ Plant Used JCB 3CX	Logged By JT

Brownfield Consultancy
The Cottage, Mill Lane
Fenny Compton, CV47 2YF
Phone: 07852881086

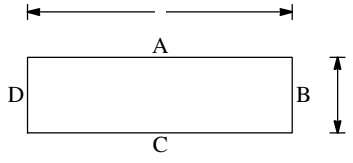
TRIAL PIT LOG

The Brownfield Consultancy

Project				TRIAL PIT No
Fewcott Road, Fritwell. Northern Plot.				TP10
Job No	Date	Ground Level (m)	Co-Ordinates ()	
BC195	23-09-21			
Contractor				Sheet
The Brownfield Consultancy				1 of 1

STRATA				SAMPLES & TESTS		
				Depth	No	Remarks/Tests
Depth	No		DESCRIPTION			
0.00-0.30			Dark brown slightly sandy slightly gravelly CLAY. Gravel is angular and subangular medium to coarse limestone. Roots and rootlets. (TOPSOIL)	0.10	ES	
0.30-0.55			Brown slightly clayey sandy GRAVEL of angular and subangular, occasionally subrounded fine to coarse limestone. (OOLITE)			
0.55-1.60			Buff brown sandy GRAVEL of angular and subangular, occasionally subrounded fine to coarse limestone with a high cobble content. Cobbles are angular and subangular, occasionally tabular limestone. (OOLITE)			
1.60			Pit terminated - hard digging.			

Shoring/Support:
Stability: Sides stable.



GENERAL REMARKS

Groundwater not encountered. Backfilled with arisings.

All dimensions in metres Scale 1:18.75	Client Cala Homes Chiltern Ltd	Method/ Plant Used JCB 3CX	Logged By JT

BROWNFIELD TP FRITWELL NORTHERN PARCEL TP.GPJ GINT STD AGS 3_1.GDT 1/11/21

Brownfield Consultancy
The Cottage, Mill Lane
Fenny Compton, CV47 2YF
Phone: 07852881086

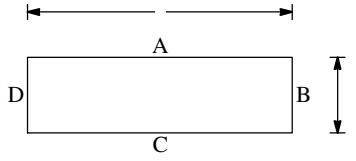
TRIAL PIT LOG

The Brownfield Consultancy

Project				TRIAL PIT No
Fewcott Road, Fritwell. Northern Plot.				TP11
Job No	Date	Ground Level (m)	Co-Ordinates ()	
BC195	23-09-21			
Contractor				Sheet
The Brownfield Consultancy				1 of 1

STRATA				SAMPLES & TESTS		
				Depth	No	Remarks/Tests
Depth	No		DESCRIPTION			
0.00-0.30			Dark brown slightly sandy gravelly CLAY. Gravel is angular and subangular medium to coarse limestone. Roots and rootlets. (TOPSOIL)			
0.30-1.05			Buff brown very sandy GRAVEL of angular and subangular, occasionally subrounded fine to coarse limestone with a medium cobble content. Cobbles are angular and subangular, frequently tabular limestone. (OOLITE)			
1.05-1.20			Buff brown slightly gravelly clayey fine to medium SAND. Gravel is angular and subangular fine to coarse limestone. (OOLITE)			
1.20			Pit terminated - hard digging.			

Shoring/Support:
Stability: Sides stable.



GENERAL REMARKS

Groundwater not encountered. Backfilled with arisings.

All dimensions in metres Scale 1:18.75	Client Cala Homes Chiltern Ltd	Method/ Plant Used JCB 3CX	Logged By JT

BROWNFIELD TP FRITWELL NORTHERN PARCEL TP.GPJ GINT STD AGS 3_1.GDT 1/11/21

Brownfield Consultancy
The Cottage, Mill Lane
Fenny Compton, CV47 2YF
Phone: 07852881086

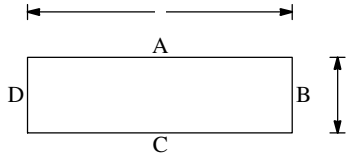
TRIAL PIT LOG

The Brownfield Consultancy

Project				TRIAL PIT No
Fewcott Road, Fritwell. Northern Plot.				TP12
Job No	Date	Ground Level (m)	Co-Ordinates ()	
BC195	23-09-21			
Contractor				Sheet
The Brownfield Consultancy				1 of 1

STRATA				SAMPLES & TESTS		
				Depth	No	Remarks/Tests
Depth	No		DESCRIPTION			
0.00-0.25			Dark brown slightly sandy gravelly CLAY. Gravel is angular and subangular medium to coarse limestone. Roots and rootlets. (TOPSOIL)	0.10	ES	
0.25-0.70			Buff brown very sandy GRAVEL of angular and subangular, occasionally subrounded fine to coarse limestone with a high cobble content. Cobbles are angular and subangular, frequently tabular limestone. (OOLITE)			
0.70-1.00			Buff brown slightly gravelly clayey fine to medium SAND. Gravel is angular and subangular fine to coarse limestone. (OOLITE)			
1.00-1.40			Buff brown very sandy GRAVEL of angular and subangular, occasionally subrounded fine to coarse limestone with a high cobble content. Cobbles are angular and subangular, frequently tabular limestone. (OOLITE)			
1.40			Pit terminated - hard digging.			

Shoring/Support:
Stability: Sides stable.



GENERAL REMARKS

Groundwater not encountered. Backfilled with arisings.

All dimensions in metres Scale 1:18.75	Client Cala Homes Chiltern Ltd	Method/ Plant Used JCB 3CX	Logged By JT

APPENDIX E

Geotechnical Laboratory Results

TEST CERTIFICATE

DETERMINATION OF LIQUID AND PLASTIC LIMITS
Tested in Accordance with:BS 1377-2:1990:Clause 4.4 and 5

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB

4041

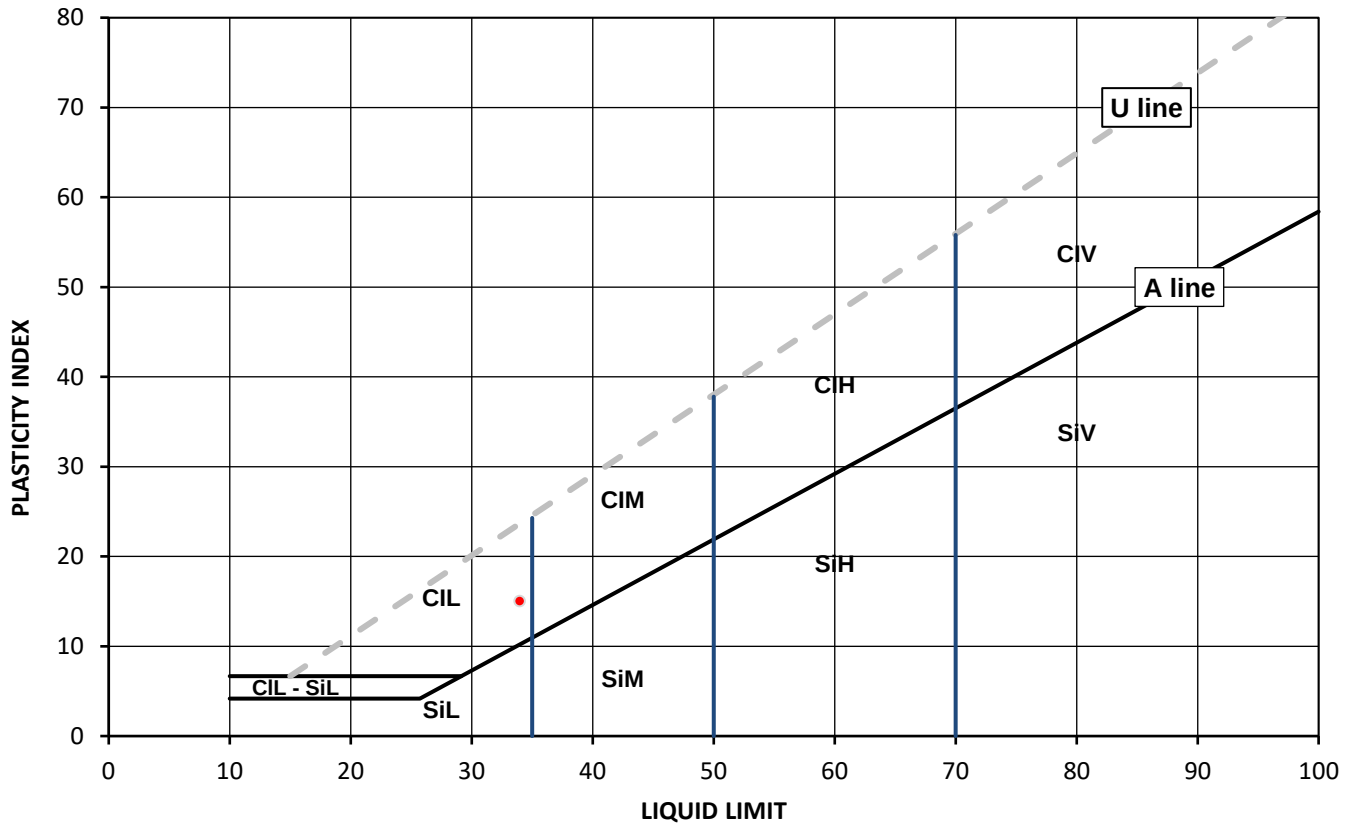
Client:	The Brownfield Consultancy	Client Reference:	BC195
Client Address:	Woodstock, Memorial Road, Fenny Compton, Warwickshire, CV47 2XU	Job Number:	21-12836
		Date Sampled:	22/09/2021
		Date Received:	28/09/2021
Contact:	Jim Twaddle	Date Tested:	08/10/2021
Site Address:	Fewcott Road, Fritwell - Phase 2	Sampled By:	Not Given

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Test Results:

Laboratory Reference:	2027193	Depth Top [m]:	1.00
Hole No.:	WS1	Depth Base [m]:	Not Given
Sample Reference:	Not Given	Sample Type:	D
Sample Description:	Light brown slightly gravelly very sandy CLAY		
Sample Preparation:	Tested after >425um removed by hand		

As Received Moisture Content [W] %	Liquid Limit [WL] %	Plastic Limit [Wp] %	Plasticity Index [Ip] %	% Passing 425µm BS Test Sieve
19	34	19	15	80



Legend, based on BS EN ISO 14688 2:2018 Geotechnical investigation and testing – Identification and classification of soil

		Plasticity		Liquid Limit
Cl	Clay	L	Low	below 35
Si	Silt	M	Medium	35 to 50
		H	High	50 to 70
		V	Very high	exceeding 70
		O	Organic	append to classification for organic material (eg ClHO)

Note: Moisture Content by BS 1377-2: 1990: Clause 3.2

Remarks:

Signed:

Szczepan Bielatowicz
PL Deputy Head of Geotechnical Section
for and on behalf of i2 Analytical Ltd

Date Reported: 15/10/2021

GF 232.11

TEST CERTIFICATE

DETERMINATION OF LIQUID AND PLASTIC LIMITS
Tested in Accordance with:BS 1377-2:1990:Clause 4.4 and 5

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB

4041

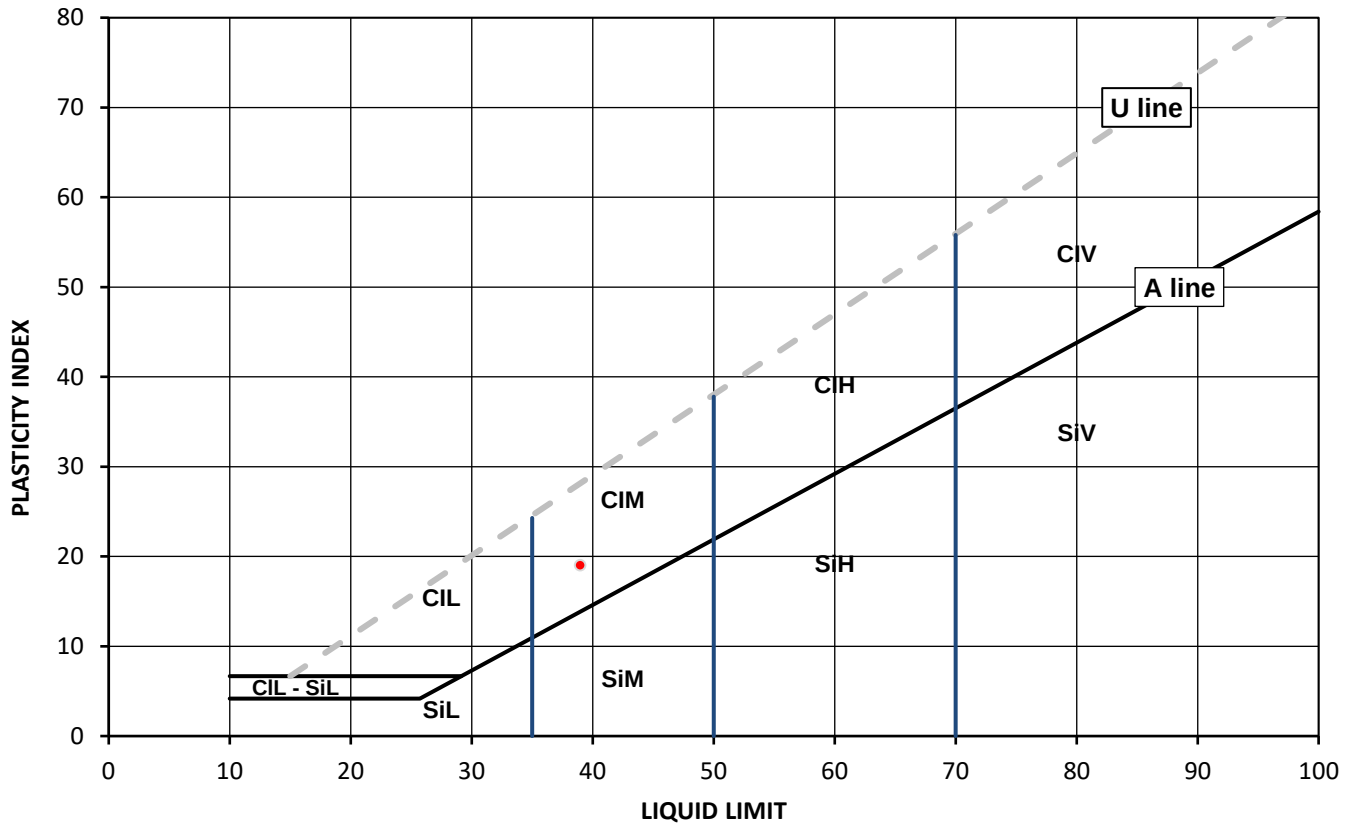
Client:	The Brownfield Consultancy	Client Reference:	BC195
Client Address:	Woodstock, Memorial Road, Fenny Compton, Warwickshire, CV47 2XU	Job Number:	21-12836
		Date Sampled:	23/09/2021
		Date Received:	28/09/2021
Contact:	Jim Twaddle	Date Tested:	08/10/2021
Site Address:	Fewcott Road, Fritwell - Phase 2	Sampled By:	Not Given

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Test Results:

Laboratory Reference:	2027194	Depth Top [m]:	1.70
Hole No.:	TP5	Depth Base [m]:	Not Given
Sample Reference:	Not Given	Sample Type:	D
Sample Description:	Light brown slightly gravelly sandy CLAY		
Sample Preparation:	Tested after >425um removed by hand		

As Received Moisture Content [W] %	Liquid Limit [WL] %	Plastic Limit [Wp] %	Plasticity Index [Ip] %	% Passing 425µm BS Test Sieve
19	39	20	19	97



Legend, based on BS EN ISO 14688 2:2018 Geotechnical investigation and testing – Identification and classification of soil

		Plasticity		Liquid Limit
Cl	Clay	L	Low	below 35
Si	Silt	M	Medium	35 to 50
		H	High	50 to 70
		V	Very high	exceeding 70
		O	Organic	append to classification for organic material (eg ClHO)

Note: Moisture Content by BS 1377-2: 1990: Clause 3.2

Remarks:

Signed:

Szczepan Bielatowicz
PL Deputy Head of Geotechnical Section
for and on behalf of i2 Analytical Ltd

Date Reported: 15/10/2021

GF 232.11

TEST CERTIFICATE

DETERMINATION OF LIQUID AND PLASTIC LIMITS
Tested in Accordance with:BS 1377-2:1990:Clause 4.4 and 5

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB

4041

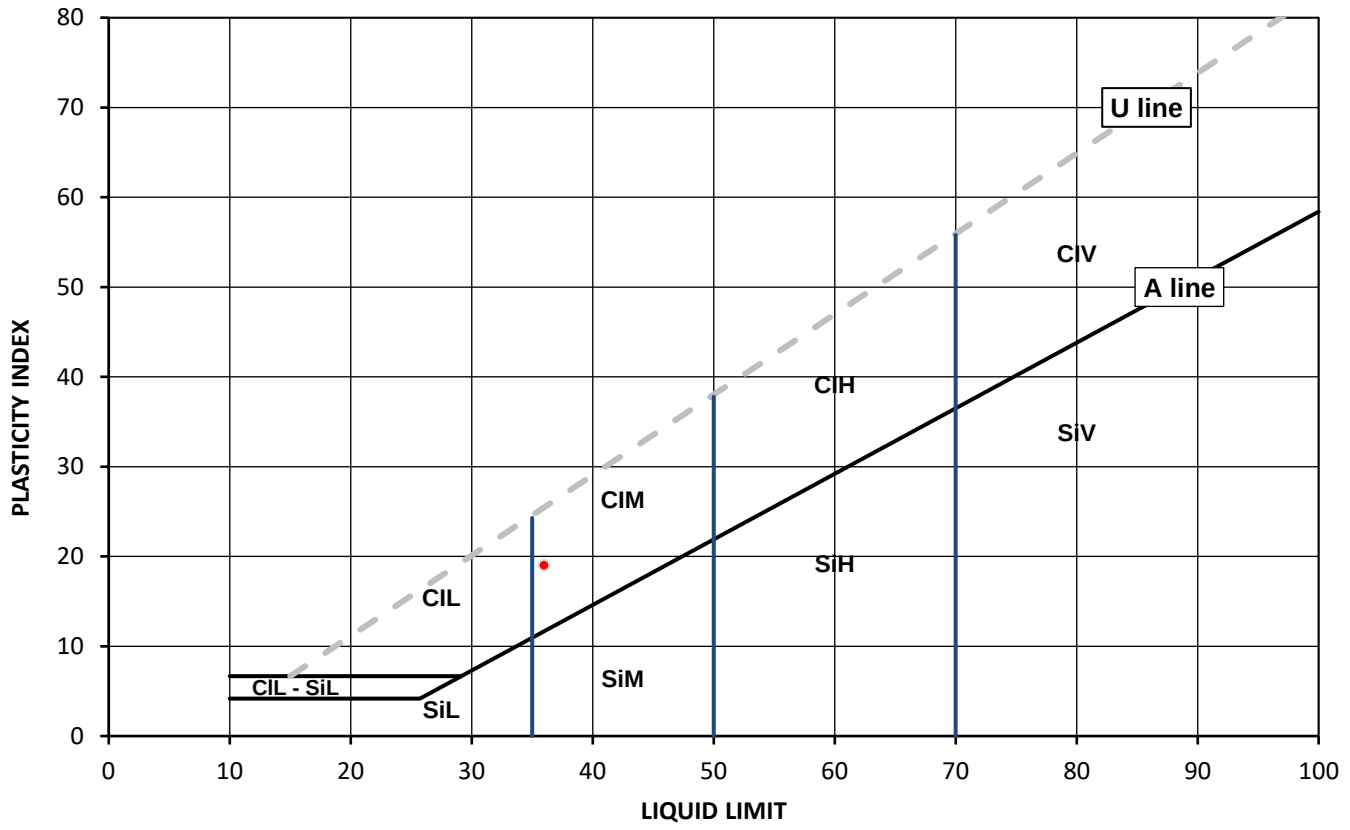
Client:	The Brownfield Consultancy	Client Reference:	BC195
Client Address:	Woodstock, Memorial Road, Fenny Compton, Warwickshire, CV47 2XU	Job Number:	21-12836
		Date Sampled:	23/09/2021
		Date Received:	28/09/2021
Contact:	Jim Twaddle	Date Tested:	08/10/2021
Site Address:	Fewcott Road, Fritwell - Phase 2	Sampled By:	Not Given

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Test Results:

Laboratory Reference:	2027195	Depth Top [m]:	1.40
Hole No.:	TP6	Depth Base [m]:	Not Given
Sample Reference:	Not Given	Sample Type:	D
Sample Description:	Light brown slightly gravelly sandy CLAY		
Sample Preparation:	Tested after >425um removed by hand		

As Received Moisture Content [W] %	Liquid Limit [WL] %	Plastic Limit [Wp] %	Plasticity Index [Ip] %	% Passing 425µm BS Test Sieve
19	36	17	19	99



Legend, based on BS EN ISO 14688 2:2018 Geotechnical investigation and testing – Identification and classification of soil

		Plasticity		Liquid Limit
Cl	Clay	L	Low	below 35
Si	Silt	M	Medium	35 to 50
		H	High	50 to 70
		V	Very high	exceeding 70
		O	Organic	append to classification for organic material (eg ClHO)

Note: Moisture Content by BS 1377-2: 1990: Clause 3.2

Remarks:

Signed:

Szczepan Bielatowicz
PL Deputy Head of Geotechnical Section
for and on behalf of i2 Analytical Ltd

Date Reported: 15/10/2021

GF 232.11

TEST CERTIFICATE

DETERMINATION OF LIQUID AND PLASTIC LIMITS
Tested in Accordance with:BS 1377-2:1990:Clause 4.4 and 5

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB

UKAS TESTING
4041

Environmental Science

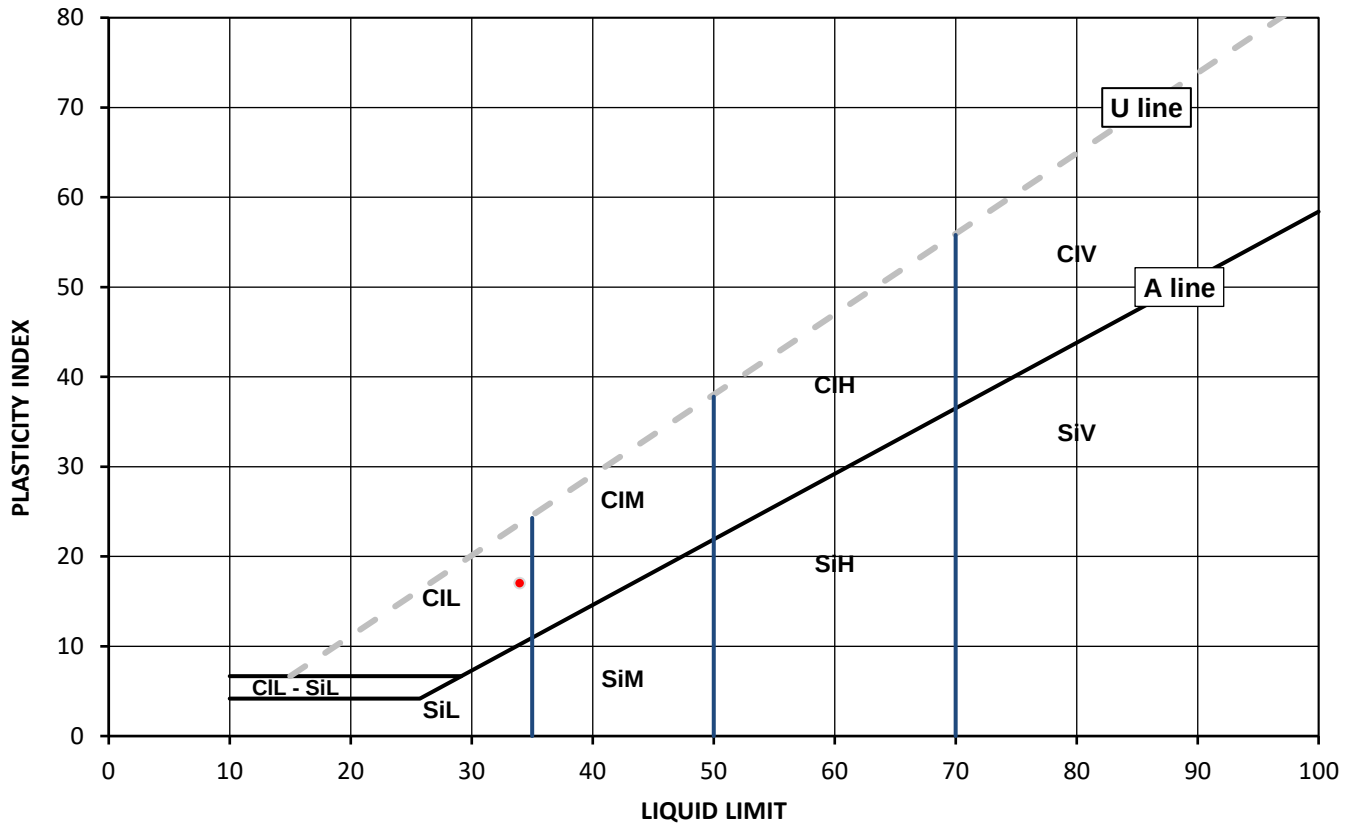
Client:	The Brownfield Consultancy	Client Reference:	BC195
Client Address:	Woodstock, Memorial Road, Fenny Compton, Warwickshire, CV47 2XU	Job Number:	21-12836
		Date Sampled:	23/09/2021
		Date Received:	28/09/2021
Contact:	Jim Twaddle	Date Tested:	08/10/2021
Site Address:	Fewcott Road, Fritwell - Phase 2	Sampled By:	Not Given

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Test Results:

Laboratory Reference:	2027196	Depth Top [m]:	1.25
Hole No.:	TP7	Depth Base [m]:	Not Given
Sample Reference:	Not Given	Sample Type:	D
Sample Description:	Light brown slightly gravelly very sandy CLAY		
Sample Preparation:	Tested after >425um removed by hand		

As Received Moisture Content [W] %	Liquid Limit [WL] %	Plastic Limit [Wp] %	Plasticity Index [Ip] %	% Passing 425µm BS Test Sieve
17	34	17	17	95



Legend, based on BS EN ISO 14688 2:2018 Geotechnical investigation and testing – Identification and classification of soil

		Plasticity		Liquid Limit
Cl	Clay	L	Low	below 35
Si	Silt	M	Medium	35 to 50
		H	High	50 to 70
		V	Very high	exceeding 70
		O	Organic	append to classification for organic material (eg ClHO)

Note: Moisture Content by BS 1377-2: 1990: Clause 3.2

Remarks:

Signed:

Szczepan Bielatowicz
PL Deputy Head of Geotechnical Section
for and on behalf of i2 Analytical Ltd

Date Reported: 15/10/2021

GF 232.11

SUMMARY REPORT

SUMMARY OF CLASSIFICATION TEST RESULTS

Tested in Accordance with:

Moisture Content by BS 1377-2: 1990: Clause 3.2; Water Content by BS EN 17892-1: 2014; Atterberg by BS 1377-2: 1990: Clause 4.3 (4 Point Test), Clause 4.4 (1 Point Test) and 5; PD by BS 1377-2: 1990: Clause 8.2

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB

4041

Client: The Brownfield Consultancy

Client Address: Woodstock, Memorial Road, Fenny Compton, Warwickshire, CV47 2XU

Contact: Jim Twaddle

Site Address: Fewcott Road, Fritwell - Phase 2

Client Reference: BC195
Job Number: 21-12836
Date Sampled: 22/09 - 23/09/2021
Date Received: 28/09/2021
Date Tested: 08/10/2021
Sampled By: Not Given

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Test results

Laboratory Reference	Hole No.	Sample				Description	Remarks	Moisture Content [W]	Water Content [W]	Atterberg				Density			Total Porosity#		
		Reference	Depth Top m	Depth Base m	Type			%	%	% Passing 425um %	WL %	Wp %	Ip %	bulk Mg/m3	dry Mg/m3	PD Mg/m3	%		
2027194	TP5	Not Given	1.70	Not Given	D	Light brown slightly gravelly sandy CLAY	Atterberg 1 Point	19		97	39	20	19						
2027195	TP6	Not Given	1.40	Not Given	D	Light brown slightly gravelly sandy CLAY	Atterberg 1 Point	19		99	36	17	19						
2027196	TP7	Not Given	1.25	Not Given	D	Light brown slightly gravelly very sandy CLAY	Atterberg 1 Point	17		95	34	17	17						
2027193	WS1	Not Given	1.00	Not Given	D	Light brown slightly gravelly very sandy CLAY	Atterberg 1 Point	19		80	34	19	15						

Note: # Non accredited; NP - Non plastic

Comments:

Signed:

Szczepan Bielatowicz
PL Deputy Head of Geotechnical Section
for and on behalf of i2 Analytical Ltd

Date Reported: 15/10/2021

GF 234.13

APPENDIX F

Chemical Laboratory Results

Jim Twaddle
The Brownfield Consultancy
Woodstock
Memorial Road
Fenny Compton
Warwickshire
CV47 2XU

e: jim.twaddle@brownfieldconsultancy.co.uk

i2 Analytical Ltd.
7 Woodshots Meadow,
Croxley Green
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Watford,
Herts,
WD18 8YS

t: 01923 225404
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e: reception@i2analytical.com

Analytical Report Number : 21-12395

Project / Site name:	Fewcott Road, Fritwell Phase 2	**Samples received on:**	24/09/2021
Your job number:	BC195	**Samples instructed on/ Analysis started on:**	27/09/2021
Your order number:		**Analysis completed by:**	08/10/2021
Report Issue Number:	1	**Report issued on:**	08/10/2021
Samples Analysed:	25 soil samples		

Signed: A. Czerwińska

Agnieszka Czerwińska
Technical Reviewer (Reporting Team)
For & on behalf of i2 Analytical Ltd.

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

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

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

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

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

Analytical Report Number: 21-12395
Project / Site name: Fewcott Road, Fritwell Phase 2

Lab Sample Number				2024413	2024414	2024415	2024416	2024417
Sample Reference				WS1	WS1	WS1	WS2	WS3
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.10	0.90	0.50	0.20	1.00
Date Sampled				22/09/2021	22/09/2021	22/09/2021	22/09/2021	22/09/2021
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Moisture Content	%	0.01	NONE	13	10	8.1	12	8.0
Total mass of sample received	kg	0.001	NONE	0.70	0.50	0.70	0.70	0.50
Asbestos in Soil	Type	N/A	ISO 17025	Not-detected	-	-	Not-detected	-
General Inorganics								
pH - Automated	pH Units	N/A	MCERTS	-	-	8.2	-	8.6
Total Sulphate as SO4	%	0.005	MCERTS	-	-	0.083	-	0.109
Water Soluble SO4 16hr extraction (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	-	-	0.0073	-	0.0046
Water Soluble SO4 16hr extraction (2:1 Leachate Equivalent)	mg/l	1.25	MCERTS	-	-	7.3	-	4.6
Total Sulphur	%	0.005	MCERTS	-	-	0.053	-	0.052
Speciated PAHs								
Naphthalene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	-	< 0.05	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	-	< 0.05	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	-	< 0.05	< 0.05
Fluorene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	-	< 0.05	< 0.05
Phenanthrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	-	< 0.05	< 0.05
Anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	-	< 0.05	< 0.05
Fluoranthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	-	< 0.05	< 0.05
Pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	-	< 0.05	< 0.05
Benzo(a)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	-	< 0.05	< 0.05
Chrysene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	-	< 0.05	< 0.05
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	-	< 0.05	< 0.05
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	-	< 0.05	< 0.05
Benzo(a)pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	-	< 0.05	< 0.05
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	-	< 0.05	< 0.05
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	-	< 0.05	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	-	< 0.05	< 0.05
Total PAH								
Speciated Total EPA-16 PAHs	mg/kg	0.8	MCERTS	< 0.80	< 0.80	-	< 0.80	< 0.80
Heavy Metals / Metalloids								
Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	15	-	-	15	-
Boron (water soluble)	mg/kg	0.2	MCERTS	0.8	-	-	0.3	-
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	< 0.2	-	-	< 0.2	-
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	29	-	-	29	-
Copper (aqua regia extractable)	mg/kg	1	MCERTS	21	-	-	22	-
Lead (aqua regia extractable)	mg/kg	1	MCERTS	26	-	-	30	-
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	-	-	< 0.3	-
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	15	-	-	17	-
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	-	-	< 1.0	-
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	120	-	-	71	-

Analytical Report Number: 21-12395
Project / Site name: Fewcott Road, Fritwell Phase 2

Lab Sample Number				2024413	2024414	2024415	2024416	2024417
Sample Reference				WS1	WS1	WS1	WS2	WS3
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.10	0.90	0.50	0.20	1.00
Date Sampled				22/09/2021	22/09/2021	22/09/2021	22/09/2021	22/09/2021
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
Monoaromatics & Oxygenates								
Benzene	µg/kg	1	MCERTS	-	-	-	-	-
Toluene	µg/kg	1	MCERTS	-	-	-	-	-
Ethylbenzene	µg/kg	1	MCERTS	-	-	-	-	-
p & m-xylene	µg/kg	1	MCERTS	-	-	-	-	-
o-xylene	µg/kg	1	MCERTS	-	-	-	-	-
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	1	MCERTS	-	-	-	-	-
Petroleum Hydrocarbons								
TPH5 (C6 - C10)	mg/kg	0.1	MCERTS	-	< 0.1	-	-	< 0.1
TPH5 (C10 - C20)	mg/kg	10	MCERTS	-	< 10	-	-	< 10
TPH5 (C20 - C30)	mg/kg	10	NONE	-	< 10	-	-	< 10
TPH5 (C30 - C40)	mg/kg	10	NONE	-	< 10	-	-	< 10
TPH5 (C6 - C40)	mg/kg	10	NONE	-	< 10	-	-	< 10
TPH-CWG - Aliphatic >EC5 - EC6	mg/kg	0.001	MCERTS	-	-	-	-	-
TPH-CWG - Aliphatic >EC6 - EC8	mg/kg	0.001	MCERTS	-	-	-	-	-
TPH-CWG - Aliphatic >EC8 - EC10	mg/kg	0.001	MCERTS	-	-	-	-	-
TPH-CWG - Aliphatic >EC10 - EC12	mg/kg	1	MCERTS	-	-	-	-	-
TPH-CWG - Aliphatic >EC12 - EC16	mg/kg	2	MCERTS	-	-	-	-	-
TPH-CWG - Aliphatic >EC16 - EC21	mg/kg	8	MCERTS	-	-	-	-	-
TPH-CWG - Aliphatic >EC21 - EC35	mg/kg	8	MCERTS	-	-	-	-	-
TPH-CWG - Aliphatic (EC5 - EC35)	mg/kg	10	MCERTS	-	-	-	-	-
TPH-CWG - Aromatic >EC5 - EC7	mg/kg	0.001	MCERTS	-	-	-	-	-
TPH-CWG - Aromatic >EC7 - EC8	mg/kg	0.001	MCERTS	-	-	-	-	-
TPH-CWG - Aromatic >EC8 - EC10	mg/kg	0.001	MCERTS	-	-	-	-	-
TPH-CWG - Aromatic >EC10 - EC12	mg/kg	1	MCERTS	-	-	-	-	-
TPH-CWG - Aromatic >EC12 - EC16	mg/kg	2	MCERTS	-	-	-	-	-
TPH-CWG - Aromatic >EC16 - EC21	mg/kg	10	MCERTS	-	-	-	-	-
TPH-CWG - Aromatic >EC21 - EC35	mg/kg	10	MCERTS	-	-	-	-	-
TPH-CWG - Aromatic (EC5 - EC35)	mg/kg	10	MCERTS	-	-	-	-	-

U/S = Unsuitable Sample I/S = Insufficient Sample

Analytical Report Number: 21-12395
Project / Site name: Fewcott Road, Fritwell Phase 2

Lab Sample Number				2024418	2024419	2024420	2024421	2024422
Sample Reference				WS4	WS4	WS5	WS5	WS8
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.10	0.90	0.10	0.80	0.02
Date Sampled				22/09/2021	22/09/2021	22/09/2021	22/09/2021	22/09/2021
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Moisture Content	%	0.01	NONE	10	6.9	16	6.2	5.0
Total mass of sample received	kg	0.001	NONE	0.70	0.70	0.70	0.50	0.70
Asbestos in Soil	Type	N/A	ISO 17025	Not-detected	-	Not-detected	-	Not-detected
General Inorganics								
pH - Automated	pH Units	N/A	MCERTS	-	8.3	-	8.9	-
Total Sulphate as SO4	%	0.005	MCERTS	-	0.105	-	0.103	-
Water Soluble SO4 16hr extraction (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	-	0.0058	-	0.0035	-
Water Soluble SO4 16hr extraction (2:1 Leachate Equivalent)	mg/l	1.25	MCERTS	-	5.8	-	3.5	-
Total Sulphur	%	0.005	MCERTS	-	0.063	-	0.043	-
Speciated PAHs								
Naphthalene	mg/kg	0.05	MCERTS	-	-	-	< 0.05	-
Acenaphthylene	mg/kg	0.05	MCERTS	-	-	-	< 0.05	-
Acenaphthene	mg/kg	0.05	MCERTS	-	-	-	< 0.05	-
Fluorene	mg/kg	0.05	MCERTS	-	-	-	< 0.05	-
Phenanthrene	mg/kg	0.05	MCERTS	-	-	-	< 0.05	-
Anthracene	mg/kg	0.05	MCERTS	-	-	-	< 0.05	-
Fluoranthene	mg/kg	0.05	MCERTS	-	-	-	< 0.05	-
Pyrene	mg/kg	0.05	MCERTS	-	-	-	< 0.05	-
Benzo(a)anthracene	mg/kg	0.05	MCERTS	-	-	-	< 0.05	-
Chrysene	mg/kg	0.05	MCERTS	-	-	-	< 0.05	-
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	-	-	-	< 0.05	-
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	-	-	-	< 0.05	-
Benzo(a)pyrene	mg/kg	0.05	MCERTS	-	-	-	< 0.05	-
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	-	-	-	< 0.05	-
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	-	-	-	< 0.05	-
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	-	-	-	< 0.05	-
Total PAH								
Speciated Total EPA-16 PAHs	mg/kg	0.8	MCERTS	-	-	-	< 0.80	-
Heavy Metals / Metalloids								
Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	13	-	15	-	2.1
Boron (water soluble)	mg/kg	0.2	MCERTS	1.4	-	0.4	-	< 0.2
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	< 0.2	-	< 0.2	-	< 0.2
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	21	-	27	-	3.7
Copper (aqua regia extractable)	mg/kg	1	MCERTS	13	-	18	-	13
Lead (aqua regia extractable)	mg/kg	1	MCERTS	17	-	23	-	2.9
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	-	< 0.3	-	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	13	-	15	-	3.1
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	-	< 1.0	-	< 1.0
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	42	-	65	-	530

Analytical Report Number: 21-12395
Project / Site name: Fewcott Road, Fritwell Phase 2

Lab Sample Number				2024418	2024419	2024420	2024421	2024422
Sample Reference				WS4	WS4	WS5	WS5	WS8
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.10	0.90	0.10	0.80	0.02
Date Sampled				22/09/2021	22/09/2021	22/09/2021	22/09/2021	22/09/2021
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
Monoaromatics & Oxygenates								
Benzene	µg/kg	1	MCERTS	-	-	-	-	-
Toluene	µg/kg	1	MCERTS	-	-	-	-	-
Ethylbenzene	µg/kg	1	MCERTS	-	-	-	-	-
p & m-xylene	µg/kg	1	MCERTS	-	-	-	-	-
o-xylene	µg/kg	1	MCERTS	-	-	-	-	-
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	1	MCERTS	-	-	-	-	-
Petroleum Hydrocarbons								
TPH5 (C6 - C10)	mg/kg	0.1	MCERTS	-	-	-	< 0.1	-
TPH5 (C10 - C20)	mg/kg	10	MCERTS	-	-	-	< 10	-
TPH5 (C20 - C30)	mg/kg	10	NONE	-	-	-	< 10	-
TPH5 (C30 - C40)	mg/kg	10	NONE	-	-	-	< 10	-
TPH5 (C6 - C40)	mg/kg	10	NONE	-	-	-	< 10	-
TPH-CWG - Aliphatic >EC5 - EC6	mg/kg	0.001	MCERTS	-	-	-	-	-
TPH-CWG - Aliphatic >EC6 - EC8	mg/kg	0.001	MCERTS	-	-	-	-	-
TPH-CWG - Aliphatic >EC8 - EC10	mg/kg	0.001	MCERTS	-	-	-	-	-
TPH-CWG - Aliphatic >EC10 - EC12	mg/kg	1	MCERTS	-	-	-	-	-
TPH-CWG - Aliphatic >EC12 - EC16	mg/kg	2	MCERTS	-	-	-	-	-
TPH-CWG - Aliphatic >EC16 - EC21	mg/kg	8	MCERTS	-	-	-	-	-
TPH-CWG - Aliphatic >EC21 - EC35	mg/kg	8	MCERTS	-	-	-	-	-
TPH-CWG - Aliphatic (EC5 - EC35)	mg/kg	10	MCERTS	-	-	-	-	-
TPH-CWG - Aromatic >EC5 - EC7	mg/kg	0.001	MCERTS	-	-	-	-	-
TPH-CWG - Aromatic >EC7 - EC8	mg/kg	0.001	MCERTS	-	-	-	-	-
TPH-CWG - Aromatic >EC8 - EC10	mg/kg	0.001	MCERTS	-	-	-	-	-
TPH-CWG - Aromatic >EC10 - EC12	mg/kg	1	MCERTS	-	-	-	-	-
TPH-CWG - Aromatic >EC12 - EC16	mg/kg	2	MCERTS	-	-	-	-	-
TPH-CWG - Aromatic >EC16 - EC21	mg/kg	10	MCERTS	-	-	-	-	-
TPH-CWG - Aromatic >EC21 - EC35	mg/kg	10	MCERTS	-	-	-	-	-
TPH-CWG - Aromatic (EC5 - EC35)	mg/kg	10	MCERTS	-	-	-	-	-

U/S = Unsuitable Sample I/S = Insufficient Sample

Analytical Report Number: 21-12395
Project / Site name: Fewcott Road, Fritwell Phase 2

Lab Sample Number				2024423	2024424	2024425	2024426	2024427
Sample Reference				WS8	WS8	TP1	TP1	TP2
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.07	0.10	0.20	1.40	0.30
Date Sampled				22/09/2021	22/09/2021	23/09/2021	23/09/2021	23/09/2021
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Moisture Content	%	0.01	NONE	6.7	22	12	7.5	10
Total mass of sample received	kg	0.001	NONE	0.70	0.50	0.60	0.60	0.60
Asbestos in Soil	Type	N/A	ISO 17025	Not-detected	Not-detected	Not-detected	-	Not-detected
General Inorganics								
pH - Automated	pH Units	N/A	MCERTS	-	-	-	8.5	-
Total Sulphate as SO4	%	0.005	MCERTS	-	-	-	0.099	-
Water Soluble SO4 16hr extraction (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	-	-	-	0.0050	-
Water Soluble SO4 16hr extraction (2:1 Leachate Equivalent)	mg/l	1.25	MCERTS	-	-	-	5.0	-
Total Sulphur	%	0.005	MCERTS	-	-	-	0.045	-
Speciated PAHs								
Naphthalene	mg/kg	0.05	MCERTS	-	< 0.05	< 0.05	-	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	-	< 0.05	< 0.05	-	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	-	< 0.05	< 0.05	-	< 0.05
Fluorene	mg/kg	0.05	MCERTS	-	< 0.05	< 0.05	-	< 0.05
Phenanthrene	mg/kg	0.05	MCERTS	-	< 0.05	< 0.05	-	< 0.05
Anthracene	mg/kg	0.05	MCERTS	-	< 0.05	< 0.05	-	< 0.05
Fluoranthene	mg/kg	0.05	MCERTS	-	0.35	< 0.05	-	< 0.05
Pyrene	mg/kg	0.05	MCERTS	-	0.34	< 0.05	-	< 0.05
Benzo(a)anthracene	mg/kg	0.05	MCERTS	-	0.21	< 0.05	-	< 0.05
Chrysene	mg/kg	0.05	MCERTS	-	0.23	< 0.05	-	< 0.05
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	-	0.19	< 0.05	-	< 0.05
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	-	0.22	< 0.05	-	< 0.05
Benzo(a)pyrene	mg/kg	0.05	MCERTS	-	0.25	< 0.05	-	< 0.05
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	-	< 0.05	< 0.05	-	< 0.05
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	-	< 0.05	< 0.05	-	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	-	< 0.05	< 0.05	-	< 0.05
Total PAH								
Speciated Total EPA-16 PAHs	mg/kg	0.8	MCERTS	-	1.79	< 0.80	-	< 0.80
Heavy Metals / Metalloids								
Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	12	16	16	-	15
Boron (water soluble)	mg/kg	0.2	MCERTS	< 0.2	0.6	0.3	-	2.0
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	0.5	< 0.2	< 0.2	-	< 0.2
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	19	24	29	-	26
Copper (aqua regia extractable)	mg/kg	1	MCERTS	13	24	20	-	18
Lead (aqua regia extractable)	mg/kg	1	MCERTS	32	43	30	-	26
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	< 0.3	< 0.3	-	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	12	17	16	-	16
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	-	< 1.0
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	150	87	74	-	64

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Lab Sample Number				2024423	2024424	2024425	2024426	2024427
Sample Reference				WS8	WS8	TP1	TP1	TP2
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.07	0.10	0.20	1.40	0.30
Date Sampled				22/09/2021	22/09/2021	23/09/2021	23/09/2021	23/09/2021
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
Monoaromatics & Oxygenates								
Benzene	µg/kg	1	MCERTS	-	< 1.0	-	-	-
Toluene	µg/kg	1	MCERTS	-	< 1.0	-	-	-
Ethylbenzene	µg/kg	1	MCERTS	-	< 1.0	-	-	-
p & m-xylene	µg/kg	1	MCERTS	-	< 1.0	-	-	-
o-xylene	µg/kg	1	MCERTS	-	< 1.0	-	-	-
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	1	MCERTS	-	< 1.0	-	-	-
Petroleum Hydrocarbons								
TPH5 (C6 - C10)	mg/kg	0.1	MCERTS	-	-	-	-	-
TPH5 (C10 - C20)	mg/kg	10	MCERTS	-	-	-	-	-
TPH5 (C20 - C30)	mg/kg	10	NONE	-	-	-	-	-
TPH5 (C30 - C40)	mg/kg	10	NONE	-	-	-	-	-
TPH5 (C6 - C40)	mg/kg	10	NONE	-	-	-	-	-
TPH-CWG - Aliphatic >EC5 - EC6	mg/kg	0.001	MCERTS	-	< 0.001	-	-	-
TPH-CWG - Aliphatic >EC6 - EC8	mg/kg	0.001	MCERTS	-	< 0.001	-	-	-
TPH-CWG - Aliphatic >EC8 - EC10	mg/kg	0.001	MCERTS	-	< 0.001	-	-	-
TPH-CWG - Aliphatic >EC10 - EC12	mg/kg	1	MCERTS	-	< 1.0	-	-	-
TPH-CWG - Aliphatic >EC12 - EC16	mg/kg	2	MCERTS	-	< 2.0	-	-	-
TPH-CWG - Aliphatic >EC16 - EC21	mg/kg	8	MCERTS	-	< 8.0	-	-	-
TPH-CWG - Aliphatic >EC21 - EC35	mg/kg	8	MCERTS	-	< 8.0	-	-	-
TPH-CWG - Aliphatic (EC5 - EC35)	mg/kg	10	MCERTS	-	< 10	-	-	-
TPH-CWG - Aromatic >EC5 - EC7	mg/kg	0.001	MCERTS	-	< 0.001	-	-	-
TPH-CWG - Aromatic >EC7 - EC8	mg/kg	0.001	MCERTS	-	< 0.001	-	-	-
TPH-CWG - Aromatic >EC8 - EC10	mg/kg	0.001	MCERTS	-	< 0.001	-	-	-
TPH-CWG - Aromatic >EC10 - EC12	mg/kg	1	MCERTS	-	< 1.0	-	-	-
TPH-CWG - Aromatic >EC12 - EC16	mg/kg	2	MCERTS	-	< 2.0	-	-	-
TPH-CWG - Aromatic >EC16 - EC21	mg/kg	10	MCERTS	-	< 10	-	-	-
TPH-CWG - Aromatic >EC21 - EC35	mg/kg	10	MCERTS	-	< 10	-	-	-
TPH-CWG - Aromatic (EC5 - EC35)	mg/kg	10	MCERTS	-	< 10	-	-	-

U/S = Unsuitable Sample I/S = Insufficient Sample

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Lab Sample Number				2024428	2024429	2024430	2024431	2024432
Sample Reference				TP3	TP3	TP4	TP5	TP6
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.05	0.50	0.15	0.05	0.05
Date Sampled				23/09/2021	23/09/2021	23/09/2021	23/09/2021	23/09/2021
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Moisture Content	%	0.01	NONE	13	10	13	8.3	9.4
Total mass of sample received	kg	0.001	NONE	0.60	0.70	0.60	0.20	0.70
Asbestos in Soil	Type	N/A	ISO 17025	Not-detected	-	Not-detected	-	Not-detected
General Inorganics								
pH - Automated	pH Units	N/A	MCERTS	-	-	-	-	-
Total Sulphate as SO4	%	0.005	MCERTS	-	-	-	-	-
Water Soluble SO4 16hr extraction (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	-	-	-	-	-
Water Soluble SO4 16hr extraction (2:1 Leachate Equivalent)	mg/l	1.25	MCERTS	-	-	-	-	-
Total Sulphur	%	0.005	MCERTS	-	-	-	-	-
Speciated PAHs								
Naphthalene	mg/kg	0.05	MCERTS	-	-	< 0.05	< 0.05	-
Acenaphthylene	mg/kg	0.05	MCERTS	-	-	< 0.05	< 0.05	-
Acenaphthene	mg/kg	0.05	MCERTS	-	-	< 0.05	< 0.05	-
Fluorene	mg/kg	0.05	MCERTS	-	-	< 0.05	< 0.05	-
Phenanthrene	mg/kg	0.05	MCERTS	-	-	< 0.05	< 0.05	-
Anthracene	mg/kg	0.05	MCERTS	-	-	< 0.05	< 0.05	-
Fluoranthene	mg/kg	0.05	MCERTS	-	-	< 0.05	< 0.05	-
Pyrene	mg/kg	0.05	MCERTS	-	-	< 0.05	< 0.05	-
Benzo(a)anthracene	mg/kg	0.05	MCERTS	-	-	< 0.05	< 0.05	-
Chrysene	mg/kg	0.05	MCERTS	-	-	< 0.05	< 0.05	-
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	-	-	< 0.05	< 0.05	-
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	-	-	< 0.05	< 0.05	-
Benzo(a)pyrene	mg/kg	0.05	MCERTS	-	-	< 0.05	< 0.05	-
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	-	-	< 0.05	< 0.05	-
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	-	-	< 0.05	< 0.05	-
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	-	-	< 0.05	< 0.05	-
Total PAH								
Speciated Total EPA-16 PAHs	mg/kg	0.8	MCERTS	-	-	< 0.80	< 0.80	-
Heavy Metals / Metalloids								
Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	20	16	16	15	16
Boron (water soluble)	mg/kg	0.2	MCERTS	0.7	0.4	0.7	0.6	0.3
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	33	30	27	28	30
Copper (aqua regia extractable)	mg/kg	1	MCERTS	26	19	22	21	24
Lead (aqua regia extractable)	mg/kg	1	MCERTS	33	29	29	29	32
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	17	18	17	17	18
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	96	70	130	74	86

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Lab Sample Number				2024428	2024429	2024430	2024431	2024432
Sample Reference				TP3	TP3	TP4	TP5	TP6
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.05	0.50	0.15	0.05	0.05
Date Sampled				23/09/2021	23/09/2021	23/09/2021	23/09/2021	23/09/2021
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
Monoaromatics & Oxygenates								
Benzene	µg/kg	1	MCERTS	-	-	-	-	-
Toluene	µg/kg	1	MCERTS	-	-	-	-	-
Ethylbenzene	µg/kg	1	MCERTS	-	-	-	-	-
p & m-xylene	µg/kg	1	MCERTS	-	-	-	-	-
o-xylene	µg/kg	1	MCERTS	-	-	-	-	-
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	1	MCERTS	-	-	-	-	-
Petroleum Hydrocarbons								
TPH5 (C6 - C10)	mg/kg	0.1	MCERTS	-	-	-	-	-
TPH5 (C10 - C20)	mg/kg	10	MCERTS	-	-	-	-	-
TPH5 (C20 - C30)	mg/kg	10	NONE	-	-	-	-	-
TPH5 (C30 - C40)	mg/kg	10	NONE	-	-	-	-	-
TPH5 (C6 - C40)	mg/kg	10	NONE	-	-	-	-	-
TPH-CWG - Aliphatic >EC5 - EC6	mg/kg	0.001	MCERTS	-	-	-	-	-
TPH-CWG - Aliphatic >EC6 - EC8	mg/kg	0.001	MCERTS	-	-	-	-	-
TPH-CWG - Aliphatic >EC8 - EC10	mg/kg	0.001	MCERTS	-	-	-	-	-
TPH-CWG - Aliphatic >EC10 - EC12	mg/kg	1	MCERTS	-	-	-	-	-
TPH-CWG - Aliphatic >EC12 - EC16	mg/kg	2	MCERTS	-	-	-	-	-
TPH-CWG - Aliphatic >EC16 - EC21	mg/kg	8	MCERTS	-	-	-	-	-
TPH-CWG - Aliphatic >EC21 - EC35	mg/kg	8	MCERTS	-	-	-	-	-
TPH-CWG - Aliphatic (EC5 - EC35)	mg/kg	10	MCERTS	-	-	-	-	-
TPH-CWG - Aromatic >EC5 - EC7	mg/kg	0.001	MCERTS	-	-	-	-	-
TPH-CWG - Aromatic >EC7 - EC8	mg/kg	0.001	MCERTS	-	-	-	-	-
TPH-CWG - Aromatic >EC8 - EC10	mg/kg	0.001	MCERTS	-	-	-	-	-
TPH-CWG - Aromatic >EC10 - EC12	mg/kg	1	MCERTS	-	-	-	-	-
TPH-CWG - Aromatic >EC12 - EC16	mg/kg	2	MCERTS	-	-	-	-	-
TPH-CWG - Aromatic >EC16 - EC21	mg/kg	10	MCERTS	-	-	-	-	-
TPH-CWG - Aromatic >EC21 - EC35	mg/kg	10	MCERTS	-	-	-	-	-
TPH-CWG - Aromatic (EC5 - EC35)	mg/kg	10	MCERTS	-	-	-	-	-

U/S = Unsuitable Sample I/S = Insufficient Sample

Analytical Report Number: 21-12395
Project / Site name: Fewcott Road, Fritwell Phase 2

Lab Sample Number				2024433	2024434	2024435	2024436	2024437
Sample Reference				TP6	TP7	TP8	TP10	TP12
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.80	0.10	0.05	0.10	0.10
Date Sampled				23/09/2021	23/09/2021	23/09/2021	23/09/2021	23/09/2021
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Moisture Content	%	0.01	NONE	7.5	8.7	15	13	8.8
Total mass of sample received	kg	0.001	NONE	1.2	0.70	0.70	0.70	0.70
Asbestos in Soil	Type	N/A	ISO 17025	-	-	-	-	-
General Inorganics								
pH - Automated	pH Units	N/A	MCERTS	-	-	-	-	-
Total Sulphate as SO4	%	0.005	MCERTS	-	-	-	-	-
Water Soluble SO4 16hr extraction (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	-	-	-	-	-
Water Soluble SO4 16hr extraction (2:1 Leachate Equivalent)	mg/l	1.25	MCERTS	-	-	-	-	-
Total Sulphur	%	0.005	MCERTS	-	-	-	-	-
Speciated PAHs								
Naphthalene	mg/kg	0.05	MCERTS	-	< 0.05	-	< 0.05	-
Acenaphthylene	mg/kg	0.05	MCERTS	-	< 0.05	-	< 0.05	-
Acenaphthene	mg/kg	0.05	MCERTS	-	< 0.05	-	< 0.05	-
Fluorene	mg/kg	0.05	MCERTS	-	< 0.05	-	< 0.05	-
Phenanthrene	mg/kg	0.05	MCERTS	-	< 0.05	-	< 0.05	-
Anthracene	mg/kg	0.05	MCERTS	-	< 0.05	-	< 0.05	-
Fluoranthene	mg/kg	0.05	MCERTS	-	< 0.05	-	< 0.05	-
Pyrene	mg/kg	0.05	MCERTS	-	< 0.05	-	< 0.05	-
Benzo(a)anthracene	mg/kg	0.05	MCERTS	-	< 0.05	-	< 0.05	-
Chrysene	mg/kg	0.05	MCERTS	-	< 0.05	-	< 0.05	-
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	-	< 0.05	-	< 0.05	-
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	-	< 0.05	-	< 0.05	-
Benzo(a)pyrene	mg/kg	0.05	MCERTS	-	< 0.05	-	< 0.05	-
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	-	< 0.05	-	< 0.05	-
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	-	< 0.05	-	< 0.05	-
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	-	< 0.05	-	< 0.05	-
Total PAH								
Speciated Total EPA-16 PAHs	mg/kg	0.8	MCERTS	-	< 0.80	-	< 0.80	-
Heavy Metals / Metalloids								
Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	-	15	15	15	14
Boron (water soluble)	mg/kg	0.2	MCERTS	-	< 0.2	1.4	0.9	< 0.2
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	-	< 0.2	< 0.2	< 0.2	< 0.2
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	-	28	30	34	47
Copper (aqua regia extractable)	mg/kg	1	MCERTS	-	22	20	25	19
Lead (aqua regia extractable)	mg/kg	1	MCERTS	-	22	30	37	28
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	-	< 0.3	< 0.3	< 0.3	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	-	15	17	19	17
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	-	< 1.0	< 1.0	< 1.0	< 1.0
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	-	57	70	75	65

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Lab Sample Number				2024433	2024434	2024435	2024436	2024437
Sample Reference				TP6	TP7	TP8	TP10	TP12
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.80	0.10	0.05	0.10	0.10
Date Sampled				23/09/2021	23/09/2021	23/09/2021	23/09/2021	23/09/2021
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
Monoaromatics & Oxygenates								
Benzene	µg/kg	1	MCERTS	-	-	-	-	-
Toluene	µg/kg	1	MCERTS	-	-	-	-	-
Ethylbenzene	µg/kg	1	MCERTS	-	-	-	-	-
p & m-xylene	µg/kg	1	MCERTS	-	-	-	-	-
o-xylene	µg/kg	1	MCERTS	-	-	-	-	-
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	1	MCERTS	-	-	-	-	-
Petroleum Hydrocarbons								
TPH5 (C6 - C10)	mg/kg	0.1	MCERTS	< 0.1	-	-	-	-
TPH5 (C10 - C20)	mg/kg	10	MCERTS	< 10	-	-	-	-
TPH5 (C20 - C30)	mg/kg	10	NONE	< 10	-	-	-	-
TPH5 (C30 - C40)	mg/kg	10	NONE	< 10	-	-	-	-
TPH5 (C6 - C40)	mg/kg	10	NONE	< 10	-	-	-	-
TPH-CWG - Aliphatic >EC5 - EC6	mg/kg	0.001	MCERTS	-	-	-	-	-
TPH-CWG - Aliphatic >EC6 - EC8	mg/kg	0.001	MCERTS	-	-	-	-	-
TPH-CWG - Aliphatic >EC8 - EC10	mg/kg	0.001	MCERTS	-	-	-	-	-
TPH-CWG - Aliphatic >EC10 - EC12	mg/kg	1	MCERTS	-	-	-	-	-
TPH-CWG - Aliphatic >EC12 - EC16	mg/kg	2	MCERTS	-	-	-	-	-
TPH-CWG - Aliphatic >EC16 - EC21	mg/kg	8	MCERTS	-	-	-	-	-
TPH-CWG - Aliphatic >EC21 - EC35	mg/kg	8	MCERTS	-	-	-	-	-
TPH-CWG - Aliphatic (EC5 - EC35)	mg/kg	10	MCERTS	-	-	-	-	-
TPH-CWG - Aromatic >EC5 - EC7	mg/kg	0.001	MCERTS	-	-	-	-	-
TPH-CWG - Aromatic >EC7 - EC8	mg/kg	0.001	MCERTS	-	-	-	-	-
TPH-CWG - Aromatic >EC8 - EC10	mg/kg	0.001	MCERTS	-	-	-	-	-
TPH-CWG - Aromatic >EC10 - EC12	mg/kg	1	MCERTS	-	-	-	-	-
TPH-CWG - Aromatic >EC12 - EC16	mg/kg	2	MCERTS	-	-	-	-	-
TPH-CWG - Aromatic >EC16 - EC21	mg/kg	10	MCERTS	-	-	-	-	-
TPH-CWG - Aromatic >EC21 - EC35	mg/kg	10	MCERTS	-	-	-	-	-
TPH-CWG - Aromatic (EC5 - EC35)	mg/kg	10	MCERTS	-	-	-	-	-

U/S = Unsuitable Sample I/S = Insufficient Sample

Analytical Report Number : 21-12395
Project / Site name: Fewcott Road, Fritwell Phase 2

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

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

Lab Sample Number	Sample Reference	Sample Number	Depth (m)	Sample Description *
2024413	WS1	None Supplied	0.1	Brown clay and loam with gravel and vegetation.
2024414	WS1	None Supplied	0.9	Brown clay and loam with gravel and vegetation.
2024415	WS1	None Supplied	0.5	Brown sandy clay with gravel.
2024416	WS2	None Supplied	0.2	Brown loam and clay with vegetation.
2024417	WS3	None Supplied	1	Brown gravel.**
2024418	WS4	None Supplied	0.1	Brown loam and clay with gravel and vegetation.
2024419	WS4	None Supplied	0.9	Brown sandy clay.
2024420	WS5	None Supplied	0.1	Brown loam and clay with gravel and vegetation.
2024421	WS5	None Supplied	0.8	Brown sandy clay.
2024422	WS8	None Supplied	0.02	Brown sand with vegetation.
2024423	WS8	None Supplied	0.07	Brown sandy clay with gravel.
2024424	WS8	None Supplied	0.1	Brown loam.
2024425	TP1	None Supplied	0.2	Brown loam with vegetation.
2024426	TP1	None Supplied	1.4	Brown sandy clay with gravel.
2024427	TP2	None Supplied	0.3	Brown loam with gravel.
2024428	TP3	None Supplied	0.05	Brown loam and clay with gravel.
2024429	TP3	None Supplied	0.5	Brown loam and clay with gravel.
2024430	TP4	None Supplied	0.15	Brown loam and clay with vegetation.
2024431	TP5	None Supplied	0.05	Brown loam and clay with vegetation.
2024432	TP6	None Supplied	0.05	Brown loam and clay with gravel and vegetation.
2024433	TP6	None Supplied	0.8	Brown sandy clay with gravel.
2024434	TP7	None Supplied	0.1	Brown loam and clay with gravel and vegetation.
2024435	TP8	None Supplied	0.05	Brown loam and clay with gravel and vegetation.
2024436	TP10	None Supplied	0.1	Brown loam and clay with gravel and vegetation.
2024437	TP12	None Supplied	0.1	Brown loam and clay with gravel and vegetation.

** Non MCERTS Matrix

Analytical Report Number : 21-12395
Project / Site name: Fewcott Road, Fritwell Phase 2

Water matrix abbreviations: Surface Water (SW) Potable Water (PW) Ground Water (GW)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Metals in soil by ICP-OES	Determination of metals in soil by aqua-regia digestion followed by ICP-OES.	In-house method based on MEWAM 2006 Methods for the Determination of Metals in Soil.	L038-PL	D	MCERTS
Asbestos identification in soil	Asbestos Identification with the use of polarised light microscopy in conjunction with disperion staining techniques.	In house method based on HSG 248	A001-PL	D	ISO 17025
Boron, water soluble, in soil	Determination of water soluble boron in soil by hot water extract followed by ICP-OES.	In-house method based on Second Site Properties version 3	L038-PL	D	MCERTS
Moisture Content	Moisture content, determined gravimetrically. (30 oC)	In house method.	L019-UK/PL	W	NONE
Speciated EPA-16 PAHs in soil	Determination of PAH compounds in soil by extraction in dichloromethane and hexane followed by GC-MS with the use of surrogate and internal standards.	In-house method based on USEPA 8270	L064-PL	D	MCERTS
pH in soil (automated)	Determination of pH in soil by addition of water followed by automated electrometric measurement.	In house method.	L099-PL	D	MCERTS
Stones content of soil	Standard preparation for all samples unless otherwise detailed. Gravimetric determination of stone > 10 mm as % dry weight.	In-house method based on British Standard Methods and MCERTS requirements.	L019-UK/PL	D	NONE
TPH5 (Soil)	Determination of TPH bands by HS-GC-MS/GC-FID	In-house method with silica gel split/clean up.	L076-PL	D	MCERTS
BTEX and MTBE in soil (Monoaromatics)	Determination of BTEX in soil by headspace GC-MS.	In-house method based on USEPA8260	L073B-PL	W	MCERTS
TPHCWG (Soil)	Determination of hexane extractable hydrocarbons in soil by GC-MS/GC-FID.	In-house method with silica gel split/clean up.	L088/76-PL	W	MCERTS
Total Sulphate in soil as %	Determination of total sulphate in soil by extraction with 10% HCl followed by ICP-OES.	In house method.	L038-PL	D	MCERTS
Total Sulphur in soil as %	Determination of total sulphur in soil by extraction with aqua-regia, potassium bromide/bromate followed by ICP-OES.	In house method.	L038-PL	D	MCERTS
Sulphate, water soluble, in soil (16hr extraction)	Determination of water soluble sulphate by ICP-OES. Results reported directly (leachate equivalent) and corrected for extraction ratio (soil equivalent).	In house method.	L038-PL	D	MCERTS
Sulphate, water soluble, in soil	Determination of water soluble sulphate by ICP-OES. Results reported directly (leachate equivalent) and corrected for extraction ratio (soil equivalent).	In house method.	L038-PL	D	MCERTS

For method numbers ending in 'UK' analysis have been carried out in our laboratory in the United Kingdom.
For method numbers ending in 'PL' analysis have been carried out in our laboratory in Poland.
Soil analytical results are expressed on a dry weight basis. Where analysis is carried out on as-received the results obtained are multiplied by a moisture correction factor that is determined gravimetrically using the moisture content which is carried out at a maximum of 30oC.

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

Sample Deviation Report

Analytical Report Number : 21-12395
Project / Site name: Fewcott Road, Fritwell Phase 2

Sample ID	Other ID	Sample Type	Lab Sample Number	Sample Deviation	Test Name	Test Ref	Test Deviation
TP7	None Supplied	S	2024434	b	Speciated EPA-16 PAHs in soil	L064-PL	b

Jim Twaddle
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t: 01923 225404
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Analytical Report Number : 21-12398

Project / Site name:	Fewcott Road, Fritwell - Phase 2	**Samples received on:**	24/09/2021
Your job number:	BC195	**Samples instructed on/ Analysis started on:**	24/09/2021
Your order number:		**Analysis completed by:**	05/10/2021
Report Issue Number:	1	**Report issued on:**	05/10/2021
Samples Analysed:	10:1 WAC sample		

Signed:

Joanna Wawrzeczko
Technical Reviewer (Reporting Team)
For & on behalf of i2 Analytical Ltd.

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

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

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

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

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

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

i2 Analytical
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Waste Acceptance Criteria Analytical Results

Report No:	**21-12398**							
					Client:	**BROWNFIELD**		
Location	**Fewcott Road, Fritwell - Phase 2**							
Lab Reference (Sample Number)	2024461 / 2024462				**Landfill Waste Acceptance Criteria Limits**			
Sampling Date	23/09/2021				Inert Waste Landfill	Stable Non-reactive HAZARDOUS waste in non-hazardous Landfill	Hazardous Waste Landfill
Sample ID	TP6						
Depth (m)	0.80						
Solid Waste Analysis							
TOC (%)**	0.3				3%	5%	6%
Loss on Ignition (%) **	0.6				--	--	10%
BTEX (µg/kg) **	< 10				6000	--	--
Sum of PCBs (mg/kg) **	< 0.007				1	--	--
Mineral Oil (mg/kg)	< 10				500	--	--
Total PAH (WAC-17) (mg/kg)	< 0.85				100	--	--
pH (units)**	8.5				--	>6	--
Acid Neutralisation Capacity (mol / kg)	19				--	To be evaluated	To be evaluated
Eluate Analysis	10:1			10:1	Limit values for compliance leaching test		
(BS EN 12457 - 2 preparation utilising end over end leaching procedure)	mg/l			mg/kg	using BS EN 12457-2 at L/S 10 l/kg (mg/kg)		
Arsenic *	< 0.0010			< 0.0100	0.5	2	25
Barium *	0.0065			0.0596	20	100	300
Cadmium *	< 0.0001			< 0.0008	0.04	1	5
Chromium *	0.0008			0.0070	0.5	10	70
Copper *	0.0021			0.019	2	50	100
Mercury *	< 0.0005			< 0.0050	0.01	0.2	2
Molybdenum *	< 0.0004			< 0.0040	0.5	10	30
Nickel *	0.0032			0.029	0.4	10	40
Lead *	< 0.0010			< 0.010	0.5	10	50
Antimony *	< 0.0017			< 0.017	0.06	0.7	5
Selenium *	< 0.0040			< 0.040	0.1	0.5	7
Zinc *	0.0037			0.034	4	50	200
Chloride *	1.7			15	800	15000	25000
Fluoride	0.30			2.7	10	150	500
Sulphate *	5.4			50	1000	20000	50000
TDS*	55			500	4000	60000	100000
Phenol Index (Monohydric Phenols) *	< 0.010			< 0.10	1	-	-
DOC	10.9			99.0	500	800	1000
Leach Test Information							
Stone Content (%)	< 0.1						
Sample Mass (kg)	1.2						
Dry Matter (%)	93						
Moisture (%)	7.5						

Results are expressed on a dry weight basis, after correction for moisture content where applicable.
*= UKAS accredited (liquid eluate analysis only)
Stated limits are for guidance only and i2 cannot be held responsible for any discrepancies with current legislation
** = MCERTS accredited

Landfill WAC analysis (specifically leaching test results) must not be used for hazardous waste classification purposes as defined by the Waste (England and Wales) Regulations 2011 (as amended) and EA Guidance WM3.
This analysis is only applicable for landfill acceptance criteria (The Environmental Permitting (England and Wales) Regulations) and does not give any indication as to whether a waste may be hazardous or non-hazardous.

Analytical Report Number : 21-12398
Project / Site name: Fewcott Road, Fritwell - Phase 2

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

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

Lab Sample Number	Sample Reference	Sample Number	Depth (m)	Sample Description *
2024461	TP6	None Supplied	0.8	Brown sandy clay with gravel.

Analytical Report Number : 21-12398
Project / Site name: Fewcott Road, Fritwell - Phase 2

Water matrix abbreviations: Surface Water (SW) Potable Water (PW) Ground Water (GW)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
BS EN 12457-2 (10:1) Leachate Prep	10:1 (as recieved, moisture adjusted) end over end extraction with water for 24 hours. Eluate filtered prior to analysis.	In-house method based on BSEN12457-2.	L043-PL	W	NONE
Acid neutralisation capacity of soil	Determination of acid neutralisation capacity by addition of acid or alkali followed by electronic probe.	In-house method based on Guidance an Sampling and Testing of Wastes to Meet Landfill Waste Acceptance""	L046-PL	W	NONE
Loss on ignition of soil @ 450oC	Determination of loss on ignition in soil by gravimetrically with the sample being ignited in a muffle furnace.	In house method.	L047-PL	D	MCERTS
Mineral Oil (Soil) C10 - C40	Determination of mineral oil fraction extractable hydrocarbons in soil by GC-MS/GC-FID.	In-house method with silica gel split/clean up.	L076-PL	D	NONE
Moisture Content	Moisture content, determined gravimetrically. (30 oC)	In house method.	L019-UK/PL	W	NONE
Speciated WAC-17 PAHs in soil	Determination of PAH compounds in soil by extraction in dichloromethane and hexane followed by GC-MS with the use of surrogate and internal standards.	In-house method based on USEPA 8270. MCERTS accredited except Coronene.	L064-PL	D	NONE
PCB's By GC-MS in soil	Determination of PCB by extraction with acetone and hexane followed by GC-MS.	In-house method based on USEPA 8082	L027-PL	D	MCERTS
pH at 20oC in soil	Determination of pH in soil by addition of water followed by electrometric measurement.	In house method.	L005-PL	W	MCERTS
Stones content of soil	Standard preparation for all samples unless otherwise detailed. Gravimetric determination of stone > 10 mm as % dry weight.	In-house method based on British Standard Methods and MCERTS requirements.	L019-UK/PL	D	NONE
Total organic carbon (Automated) in soil	Determination of organic matter in soil by oxidising with potassium dichromate followed by titration with iron (II) sulphate.	In house method.	L009-PL	D	MCERTS
BTEX in soil (Monoaromatics)	Determination of BTEX in soil by headspace GC-MS.	In-house method based on USEPA8260	L073B-PL	W	MCERTS
Total BTEX in soil (Poland)	Determination of BTEX in soil by headspace GC-MS.	In-house method based on USEPA8260	L073-PL	W	MCERTS
Metals in leachate by ICP-OES	Determination of metals in leachate by acidification followed by ICP-OES.	In-house method based on MEWAM 2006 Methods for the Determination of Metals in Soil""	L039-PL	W	ISO 17025
Chloride 10:1 WAC	Determination of Chloride colorimetrically by discrete analyser.	In house based on MEWAM Method ISBN 0117516260.	L082-PL	W	ISO 17025
Fluoride 10:1 WAC	Determination of fluoride in leachate by 1:1ratio with a buffer solution followed by Ion Selective Electrode.	In-house method based on Use of Total Ionic Strength Adjustment Buffer for Electrode Determination"	L033B-PL	W	ISO 17025
Sulphate 10:1 WAC	Determination of sulphate in leachate by ICP-OES	In-house method based on MEWAM 1986 Methods for the Determination of Metals in Soil""	L039-PL	W	ISO 17025
Total dissolved solids 10:1 WAC	Determination of total dissolved solids in water by EC probe using a factor of 0.6.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L004-PL	W	ISO 17025

Analytical Report Number : 21-12398
Project / Site name: Fewcott Road, Fritwell - Phase 2

Water matrix abbreviations: Surface Water (SW) Potable Water (PW) Ground Water (GW)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Monohydric phenols 10:1 WAC	Determination of phenols in leachate by distillation followed by colorimetry.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L080-PL	W	ISO 17025
Dissolved organic carbon 10:1 WAC	Determination of dissolved inorganic carbon in leachate by TOC/DOC NDIR Analyser.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L037-PL	W	NONE

For method numbers ending in 'UK' analysis have been carried out in our laboratory in the United Kingdom.
For method numbers ending in 'PL' analysis have been carried out in our laboratory in Poland.
Soil analytical results are expressed on a dry weight basis. Where analysis is carried out on as-received the results obtained are multiplied by a moisture correction factor that is determined gravimetrically using the moisture content which is carried out at a maximum of 30oC.

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

APPENDIX G

Photographs

Looking westerly.

Looking southwesterly

Photographs of the Site

Looking easterly.

Looking easterly following clearance.

Photographs of the Site

Looking northerly towards the existing site entrance.

Burning residue.

Burning residue.

APPENDIX H

Gas Monitoring Records

GAS MONITORING DATA

The Brownfield Consultancy

Site:	**Fewcott Road, Fritwell**	**Operator:**	**H King**
Project:	**BC195**	**Date:**	**3.8.21**
Weather:	**Warm, sunny**		

Monitoring Location	Standpipe diameter (mm)	Standpipe Depth (m bgl)	Water Level (m bgl)	Atmos. Pressure (mb)	Initial Flow Rate (litres/hr)	Temp (°C)	Reading Duration (s)	CH_4 (% v/v)	CO_2 (% v/v)	O_2 (% v/v)	Notes
WS1	50	1.46	1.36	982	<0.1		30	<0.1	1.6	18.8	
							60	<0.1	1.6	18.8	
							120	<0.1	1.6	18.8	
							180	<0.1	1.6	18.8	
							240	<0.1	1.6	18.8	
							300	<0.1	1.6	18.8	
WS5	50	1.40	dry	982	<0.1		30	<0.1	0.1	20.2	
							60	<0.1	0.1	20.2	
							120	<0.1	0.1	20.2	
							180	<0.1	0.1	20.2	
							240	<0.1	0.1	20.2	
							300	<0.1	0.1	20.2	
WS7	50	1.55	dry	982	<0.1		30	<0.1	1.3	19.3	
							60	<0.1	1.3	19.0	
							120	<0.1	1.3	19.0	
							180	<0.1	1.3	19.0	
							240	<0.1	1.3	19.0	
							300	<0.1	1.3	19.0	
WS8	50	1.46	dry	982	<0.1		30	<0.1	0.3	19.4	
							60	<0.1	0.4	19.6	
							120	<0.1	0.7	19.3	
							180	<0.1	1.3	18.7	
							240	<0.1	1.7	18.3	
							300	<0.1	1.8	18.2	

GAS MONITORING DATA

The Brownfield Consultancy

Site:	**Fewcott Road, Fritwell**	**Operator:**	**H King**
Project:	**BC195**	**Date:**	**8.10.21**
		Weather:	**Misty, damp**

Monitoring Location	Standpipe diameter (mm)	Standpipe Depth (m bgl)	Water Level (m bgl)	Atmos. Pressure (mb)	Initial Flow Rate (litres/hr)	Temp (^{o}C)	Reading Duration (s)	CH_4 (% v/v)	CO_2 (% v/v)	O_2 (% v/v)	Notes
WS1	50	1.46	dry	1016	<0.1		30	<0.1	1.8	18.4	
							60	<0.1	1.8	18.3	
							120	<0.1	1.8	18.3	
							180	<0.1	1.8	18.3	
							240	<0.1	1.8	18.3	
							300	<0.1	1.8	18.3	
WS5	50	1.40	dry	1016	<0.1		30	<0.1	1.6	18.5	
							60	<0.1	1.6	18.3	
							120	<0.1	1.6	18.3	
							180	<0.1	1.6	18.3	
							240	<0.1	1.6	18.3	
							300	<0.1	1.6	18.3	
WS7	50	1.55	dry	1016	<0.1		30	<0.1	1.0	19.4	
							60	<0.1	1.0	19.3	
							120	<0.1	1.1	19.2	
							180	<0.1	1.2	19.1	
							240	<0.1	1.2	19.0	
							300	<0.1	1.2	19.0	
WS8	50	1.46	1.40	1016	<0.1		30	<0.1	2.1	17.7	
							60	<0.1	2.4	17.2	
							120	<0.1	2.8	16.8	
							180	<0.1	3.3	16.1	
							240	<0.1	4.1	15.3	
							300	<0.1	4.9	14.4	
							360	<0.1	5.1	14.2	
							420	<0.1	5.1	14.2	

GAS MONITORING DATA

The Brownfield Consultancy

Site:	**Fewcott Road, Fritwell**	**Operator:**	**H King**
Project:	**BC195**	**Date:**	**15.10.21**
		Weather:	**Mild, dry.**

Monitoring Location	Standpipe diameter (mm)	Standpipe Depth (m bgl)	Water Level (m bgl)	Atmos. Pressure (mb)	Initial Flow Rate (litres/hr)	Temp (^{o}C)	Reading Duration (s)	CH_4 (% v/v)	CO_2 (% v/v)	O_2 (% v/v)	Notes
WS1	50	1.46	dry	1007	<0.1		30	<0.1	2.1	18.8	
							60	<0.1	2.1	18.6	
							120	<0.1	2.1	18.6	
							180	<0.1	2.1	18.6	
							240	<0.1	2.1	18.6	
							300	<0.1	2.1	18.6	
WS5	50	1.40	dry	1007	<0.1		30	<0.1	1.8	18.8	
							60	<0.1	1.8	18.7	
							120	<0.1	1.8	18.7	
							180	<0.1	1.8	18.7	
							240	<0.1	1.8	18.7	
							300	<0.1	1.8	18.7	
WS7	50	1.55	dry	1007	<0.1		30	<0.1	1.3	19.0	
							60	<0.1	1.3	18.9	
							120	<0.1	1.4	18.8	
							180	<0.1	1.4	18.8	
							240	<0.1	1.4	18.8	
							300	<0.1	1.4	18.8	
WS8	50	1.46	1.39	1007	<0.1		30	<0.1	0.8	19.4	
							60	<0.1	0.9	19.2	
							120	<0.1	1.1	18.9	
							180	<0.1	1.4	18.6	
							240	<0.1	1.9	18.0	
							300	<0.1	2.5	17.4	
							360	<0.1	2.6	17.1	
							420	<0.1	2.5	17.2	

GAS MONITORING DATA

The Brownfield Consultancy

Site: Fewcott Road, Fritwell | **Operator:** J Twaddle

Project: BC195 | **Date:** 20.10.21 | **Weather:** Mild, dry.

Monitoring Location	Standpipe diameter (mm)	Standpipe Depth (m bgl)	Water Level (m bgl)	Atmos. Pressure (mb)	Initial Flow Rate (litres/hr)	Temp (^{o}C)	Reading Duration (s)	CH_4 (% v/v)	CO_2 (% v/v)	O_2 (% v/v)	Notes
WS1	50	1.46	dry	984	<0.1		30	<0.1	2.1	18.7	
							60	<0.1	2.2	18.6	
							120	<0.1	2.2	18.6	
							180	<0.1	2.2	18.6	
							240	<0.1	2.2	18.6	
							300	<0.1	2.2	18.6	
WS5	50	1.40	dry	984	<0.1		30	<0.1	1.8	19.0	
							60	<0.1	1.8	18.9	
							120	<0.1	1.8	18.9	
							180	<0.1	1.8	18.9	
							240	<0.1	1.8	18.9	
							300	<0.1	1.8	18.9	
WS7	50	1.55	dry	984	<0.1		30	<0.1	1.6	18.9	
							60	<0.1	1.6	18.8	
							120	<0.1	1.6	18.8	
							180	<0.1	1.6	18.8	
							240	<0.1	1.6	18.8	
							300	<0.1	1.6	18.8	
WS8	50	1.46	1.40	984	<0.1		30	<0.1	1.8	17.7	
							60	<0.1	2.4	16.7	
							120	<0.1	3.8	14.9	
							180	<0.1	4.8	13.8	
							240	<0.1	5.5	13.1	
							300	<0.1	6.0	12.6	
							360	<0.1	6.1	12.3	
							420	<0.1	6.2	12.2	

GAS MONITORING DATA

The Brownfield Consultancy

Site:	**Fewcott Road, Fritwell**	**Operator:**	**J Twaddle**
Project:	**BC195**	**Date:**	**23.10.21**
		Weather:	**Mild, sun.**

Monitoring Location	Standpipe diameter (mm)	Standpipe Depth (m bgl)	Water Level (m bgl)	Atmos. Pressure (mb)	Initial Flow Rate (litres/hr)	Temp (^{o}C)	Reading Duration (s)	CH_4 (% v/v)	CO_2 (% v/v)	O_2 (% v/v)	Notes
WS1	50	1.46	dry	1011	<0.1		30	<0.1	2.2	18.4	
							60	<0.1	2.2	18.2	
							120	<0.1	2.2	18.2	
							180	<0.1	2.2	18.2	
							240	<0.1	2.2	18.2	
							300	<0.1	2.2	18.2	
WS5	50	1.40	dry	1011	<0.1		30	<0.1	1.8	18.3	
							60	<0.1	1.8	18.3	
							120	<0.1	1.8	18.3	
							180	<0.1	1.8	18.3	
							240	<0.1	1.8	18.3	
							300	<0.1	1.8	18.3	
WS7	50	1.55	dry	1011	<0.1		30	<0.1	1.5	19.3	
							60	<0.1	1.5	19.3	
							120	<0.1	1.5	19.3	
							180	<0.1	1.5	19.3	
							240	<0.1	1.5	19.3	
							300	<0.1	1.5	19.3	
WS8	50	1.46	1.37	1011	<0.1		30	<0.1	2.3	18.0	
							60	<0.1	2.5	17.7	
							120	<0.1	3.1	17.0	
							180	<0.1	3.7	16.7	
							240	<0.1	4.0	15.8	
							300	<0.1	4.3	15.5	
							360	<0.1	4.5	15.2	

GAS MONITORING DATA

The Brownfield Consultancy

Site:	**Fewcott Road, Fritwell**	**Operator:**	**H King**
Project:	**BC195**	**Date:**	**01 Nov 2021**
		Weather:	**Cold, sunny**

Monitoring Location	Standpipe diameter (mm)	Standpipe Depth (m bgl)	Water Level (m bgl)	Atmos. Pressure (mb)	Initial Flow Rate (litres/hr)	Temp (°C)	Reading Duration (s)	CH_4 (% v/v)	CO_2 (% v/v)	O_2 (% v/v)	Notes
WS1	50	1.46	dry	980	<0.1		30	<0.1	2.4	17.8	
							60	<0.1	2.4	17.8	
							120	<0.1	2.4	17.8	
							180	<0.1	2.4	17.8	
							240	<0.1	2.4	17.8	
							300	<0.1	2.4	17.8	
WS5	50	1.40	1.38	980	<0.1		30	<0.1	1.5	18.8	
							60	<0.1	1.5	18.7	
							120	<0.1	1.5	18.7	
							180	<0.1	1.5	18.7	
							240	<0.1	1.5	18.7	
							300	<0.1	1.3	19.2	
WS7	50	1.55	dry	980	<0.1		30	<0.1	1.6	18.7	
							60	<0.1	1.6	18.7	
							120	<0.1	1.6	18.7	
							180	<0.1	1.6	18.7	
							240	<0.1	1.6	18.7	
							300	<0.1	1.6	18.7	
WS8	50	1.46	1.38	980	<0.1		30	<0.1	0.5	20.5	
							60	<0.1	0.5	20.5	
							120	<0.1	0.6	20.4	
							180	<0.1	0.7	20.2	
							240	<0.1	1.0	19.8	
							300	<0.1	1.5	19.3	
							360	<0.1	1.4	19.3	

APPENDIX I

Limitations

NOTES ON LIMITATIONS

This report has been prepared by the Brownfield Consultancy with all reasonable skill, care and diligence. This report is confidential and has been prepared solely for the benefit of the client as stated at the front of the report in relation to a specific development or scheme; and those parties with whom a warranty agreement has been executed, or with whom an assignment has been agreed.

Should any third party wish to use or rely upon the contents of the report, written approval must be sought from The Brownfield Consultancy; a charge may be levied against such approval. We accept no responsibility or liability for the consequences of this document being used for any purpose or project other than for which it was commissioned, and: this document to any third party with whom an agreement has not been executed.

Any comments given are based on the understanding that the proposed development will be as detailed. The Brownfield Consultancy warrants the accuracy of this report up to and including the published date. Additional information, improved practice or changes in legislation may necessitate this report having to be reviewed in whole or in part after that date.

This report is only valid when used it its entirety. Any information or advice included in the report should not be relied upon until considered in the context of the whole report. Whilst this report and the opinion made herein are correct to the best of our belief we cannot guarantee the accuracy or completeness of any information provided by third parties.

The opinions and recommendations expressed in this report are based on statute, guidance, and appropriate practice current at the date of its preparation. The Brownfield Consultancy does not accept any liability whatsoever for the consequences of any future legislative changes or the release of subsequent guidance documentation, etc. Such changes may render some of the opinions and advice in this report inappropriate or incorrect and we will be pleased to advise if any report requires revision due to changing circumstances. Following delivery of a report we have no obligation to advise the Client or any other party of such changes or their repercussions.

Phase 1 Reports

The work undertaken to provide the basis of a Phase I report comprised a study of available documented information from a variety of sources, together with (where appropriate) a brief walk over inspection of the site. The opinions given in this report have been dictated by the finite data on which they are based and are relevant only to the purpose for which the report was commissioned. The information reviewed should not be considered exhaustive and has been accepted in good faith as providing true and representative data pertaining to site conditions. It should be noted that any risks identified in this report are perceived risks based on the information reviewed; actual risks can only be assessed following a physical investigation of the site.

Historical maps and aerial photographs provide a “snap shot” in time about conditions or activities at the site and cannot be relied upon as indicators of any events or activities that may have taken place at other times. Any borehole data from the British Geological Survey sources are included on the following basis: “The British Geological Survey accept no responsibility for omissions or misinterpretation of the data from their Data Bank as this may be old or obtained from non-BGS sources and may not represent current interpretation’’.

Phase II Intrusive Investigations

The investigation of the site has been carried out to provide sufficient information concerning the type and degree of contamination, and ground and groundwater conditions to allow a reasonable risk assessment to be made. The conclusions and recommendations made in this site appraisal report and the opinions expressed are based on the information reviewed and/or the ground conditions encountered in exploratory holes and the results of any field or laboratory testing undertaken. There may be ground conditions at the site that have not been disclosed by the information reviewed or by the investigative work undertaken. Such undisclosed conditions cannot be taken into account in any analysis and reporting.

Some of the conclusions in this site appraisal report may be based on third party data. No guarantee can be given for the accuracy or completeness of any of the third party data used.

The evaluation and conclusions do not preclude the existence of contamination, which could not reasonably have been revealed by the current work. Given the discrete nature of sampling, no investigation technique is capable of identifying all conditions present in all areas. The number of sampling points and the methods of sampling and testing do not preclude the existence of localised "hotspots" of contamination or different ground conditions where concentrations may be significantly higher than those actually encountered. Hence this report should be used for information purposes only and should not be construed as a comprehensive characterisation of all site conditions.

It should be noted that groundwater levels, groundwater chemistry, surface water levels, surface water chemistry, soil gas concentrations and soil gas flow rates can vary due to seasonal, climatic, tidal and man-made effects.

Exploratory hole locations provided in the report are generally established by tape measurement from existing features or boundaries. Hole locations are not accurately surveyed and ground levels at these locations are not obtained unless specifically requested.

The interpretation carried out in this report is based on scientific and engineering appraisal carried out by suitably experienced and qualified technical consultants based on the scope of our engagement. We have not taken into account the perceptions of, for example, banks, insurers, other funders, lay people, etc., unless the report has been prepared specifically for that purpose. Advice from other specialists may be required such as the legal, planning and architecture professions, whether specifically recommended in our report or not.

The objectives of the investigation have been linked to establishing the risks associated with potential human targets, building materials, the environment (including adjacent land), and to surface and ground water. The amount of exploratory work and chemical testing undertaken has necessarily been restricted by the short timescale available, and the locations of exploratory holes have been restricted to areas unoccupied by the building(s) on the site and by buried services.

New information, improved practices and legislation may necessitate an alteration to the report in whole, or in part, after its submission. Therefore with any change in circumstances or after the expiry of one year from the date of the report, the report should be referred to the Brownfield Consultancy Limited for re-assessment and, if necessary, re-appraisal.

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