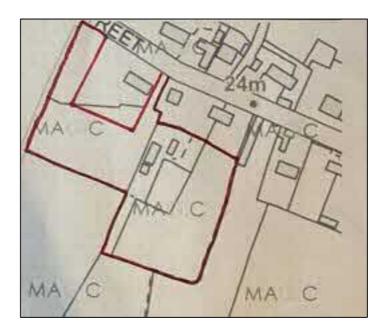


AT

ORCHID MEADOWS, NETHERGATE STREET, HOPTON, NORFOLK, IP22 2QZ

FOR

MR TOBY THOMPSON



## GEOENVIRONMENTAL DESK STUDY REPORT REPORT NUMBER 15874DS

JUNE 2021

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#### Use and reliance

This report has been prepared for the sole internal use and reliance of Mr Toby Thompson. This report shall not be relied upon by other parties without the express written authority of RSA Geotechnics Ltd. If an unauthorised third party comes into possession of this report they rely on it at their own risk and the authors owe them no duty of care and skill.

#### Authorisation

Authorisation for the investigation was given by Mr Toby Thomson in an email, dated 27 May 2021.

#### Limitations

This report considers the proposals for the subject site at the time of issue of the report. Should the scheme change significantly then the implications regarding the geotechnical and geoenvironmental aspects will need consideration relative to the new proposals.

RSA Geotechnics Limited have based this report on the results of the desk study, as well as the other sources detailed within the report, which are believed to be reliable. However, RSA Geotechnics Limited cannot and does not guarantee the authenticity or reliability of the third-party information that it has relied upon.

## CONTENTS

		Page No.		
DOCUMENT (	CONTROL PAGE	1		
CONTENTS		2		
1. INT	RODUCTION	3		
2. SITE	E SETTING	4		
2.1 Site lo	cation	4		
2.2 Site de	escription	4		
3. DES	SK STUDY	11		
3.1 Source	es of information	11		
3.2 Histor	ical land use	11		
3.3 Public	Register data	13		
3.4 Environmental site reconnaissance visit				
3.5 Summ	nary of desk study	18		
3.6 Outlin	e conceptual model	19		
3.6.1 Intr	oduction	19		
3.6.2 Pot	ential sources, pathways and receptors	20		
3.6.3 Pot	ential pollutant linkages	21		
4. REC	COMMENDATIONS	24		
5. CO	NCLUSIONS	26		

## DRAWINGS

	Drawing No.
Site location plan	15874DS/1
APPENDICES	

- Appendix 1: Risk assessment methodology and legislative background;
- Risk classification system; Published guidelines
- Appendix 2: Landmark Envirocheck data search report
- Appendix 3: Landmark ordnance survey map extracts
- Appendix 4: Mining and ground stability datasheet

## 1. INTRODUCTION

Consideration is being given by Mr Toby Thompson to the redevelopment of existing agricultural premises located on a site known as Orchid Meadows, situated on Nethergate Street, Hopton Norfolk, IP22 2QZ. At the time of preparation of this report, no details were known about the proposed scheme. It is understood from informal discussions with the Client that the main structure on the site is to be converted into a single private residential property with surrounding meadows/garden areas, although at the time of the preparation of this report, full details had not been established.

The layout of the site at the time of preparation of this report is shown on drawing number 15874DS/1.

This geoenvironmental report describes a Phase 1 desk study carried out by RSA Geotechnics Limited for Mr Toby Thompson. The scope of the works was as requested verbally by the Client and outlined in RSA Geotechnics Limited's quotation AJS/QUO/7662 dated 27 May 2021 which comprised the following:

- Undertake a reconnaissance survey of the site and desk study review of historical maps and environmental records sourced via the Envirocheck database.
- Provide a report presenting the desk study data, including an outline conceptual model and preliminary qualitative risk assessment.

The purpose of this Phase 1 desk study investigation was to determine past uses of the site and surrounding area to assess potential sources of contamination and determine if a Phase 2 geoenvironmental site investigation was required.

The remit did not include consideration of geotechnical aspects of the scheme.

## 2. SITE SETTING

#### 2.1 Site location

The site was located on the southern side of Nethergate Street in the village of Hopton, Suffolk. The site can be located using National Grid Reference TL 988 792. Residential properties extended along both sides of Nethergate Street to the east of the site, with open land to the west and south.

#### 2.2 <u>Site description</u>

A reconnaissance visit was undertaken on 17 June 2021 by an engineer from RSA Geotechnics Ltd when the site was found to be in the following condition:

The overall site approximated an inverted 'L' shape with two corridors (western end and central) between the site and Nethergate Street to the north. Access to the site at the time of the visit was gained via the central access (Figure 1). 'Grey Cottage' (Figure 2) was present to the west of the access and to the north of the site, with a further residential property 'The Grannery' to the east of the access.



Figure 1 - Entrance and track leading south from Nethergate Street



Figure 2 - Residential property to north of site (Grey Cottage)

The main body of the site was formed of two rectangular areas, referenced in the following text as 'eastern meadow' and 'western meadow' for purposes of description.

A brick-built barn with flint cladding and a tiled roof was present in the north-western area of the eastern meadow Figure 3). The Client indicated that historically, this was used for small scale dairy purposes. At the time of the visit there were various domestic items present including a lawnmower, petrol can, paint tins, carpets, sheet insulation and timber.



Figure 3 - Brick/stone barn, north-western area of eastern meadow



Figure 5 - Barn and stables viewed from south



olf Southernes

Figure 4 - Stables, southern end of barn



Figure 6 - Sheds, north-western corner of eastern meadow

The southern part of the barn together with adjoining buildings of timber construction were in use as stables (Figures 4 and 5). Two timber sheds were present on the site boundary to the north of the barn (Figure 6), with two further small sheds to the east of these. They contained various items including timber, wire mesh, an electric cement mixer, lawnmower, fuel can, gas heater, gas bottles, a small generator, battery charger, fitness equipment, drums, paint tins and occasional agricultural items. An electric circular saw stood outside of the sheds.

A number of tyres, some with wheels, were present to the east of the sheds (Figure 7).



Figure 7 - Tyres, north-western area of eastern meadow



Figure 8 - Timber sheds, no roof



Figure 9 - Oil drums



Figure 10 - Caravan and barn viewed from south looking north

A terrace of three timber sheds with no roofs was present to the east of the barn. A number of old oil drums were present; these were painted and some had ropes attached, and appeared to have been for equestrian use (Figures 8 and 9). A caravan was present to the south of the barn (Figure 10).

The remainder of the eastern meadow was laid to grass. Various stockpiles/heaps of materials and items were present including timber, scrap metal, wire mesh, old barbeques, 'pit' bikes, wood, pallets, bricks and blocks, agricultural items, tyres, rubber matting, furniture, lawn tractors and a small caravan (Figures 11 to 13). Cars and a motorised horsebox were present in the central area of the meadow (Figure 14).



Figure 11 – Materials and items in eastern meadow area



Figure 12 – Materials and items in eastern meadow area



Figure 13 – Materials and items in eastern meadow area



Figure 14 - Cars and horsebox, eastern meadow area

15874DS - Report, AJH, AMP, JLJ - 28-06-21 - Vers. 1

A bonfire heap was present in the south-western area of the meadow (Figure 15). A small shed, partially collapsed, and a moped, stood at the north-western corner of the meadow (Figure 16). Telegraph poles carried overhead lines across the meadow.



Figure 15 - Bonfire, south-western area of eastern meadow



Figure 16 - Shed and moped, north-western area of eastern meadow



Figure 17 - Eastern meadow, viewed from north-west looking south



Figure 18 - Paddock to south of eastern meadow

The eastern boundary of the meadow had hedgerows and a number of mature trees present, including acers. A paddock stood to the south of the meadow (Figure 18).

There was a break in level of about one to one and a half metres between the western side of the eastern meadow area and the track and western meadow area to the west (Figures 19 and 20).



Figure 19 - Break in level between eastern and western areas



Figure 20 - Break in level between eastern and western areas

The western meadow area generally comprised grassland with a row of small trees (hawthorn?) along its southern side (Figures 21 and 22).



Figure 21 - Western meadow, looking south



Figure 22 - Looking north-east at Grey cottage from south-western corner of western meadow



Figure 23 - Caravan, lodge, gazebo in western meadow area



Figure 24 - Caravan to south of gazebo

An accommodation area comprising a caravan/lodge was present on the eastern side of the area, with a large 'gazebo' structure with decking, seating area, hot-tub and barbeque areas to the south-west of the accommodation (Figures 23 to 28).



Figure 25 – Accommodation area



Figure 26 – Gazebo to south west of accommodation



Figure 27 - Overgrown area, western side of western meadow



Figure 28 - Garden furniture in western meadow

A corridor extended north between the western meadow area and Nethergate Street to the north, with a gate at its northern end (Figures 29 and 30). A number of fridges/freezers and other domestic waste items (pushchair, bicycles) were present at the north-western end of the corridor (Figure 31).



Figure 29 - Western corridor looking north



Figure 30 - Gate at northern end of western access



Figure 31 - White goods and other domestic waste, northern end of western access

## 3. DESK STUDY

## 3.1 <u>Sources of information</u>

Historical Ordnance Survey maps and data from a search of Public Registers were obtained from the Landmark Information Group Limited using their Envirocheck product (reference number 280187841\_1\_1). This included information from organisations such as the Environment Agency, Local Authority, British Geological Survey, Natural England and others. The maps included a range of historic and modern Ordnance Survey maps sourced at a range of scales.

It should be noted that the following text does not generally consider features beyond a search radius of 250 m, since based on their distance from the site, a risk from these features was not generally identified. However, for further details outside this 250 m radius a full list is given in Appendix 2.

## 3.2 <u>Historical land use</u>

The historical land use of the site and immediate surrounding area has been assessed by reference to the Ordnance Survey maps in the Envirocheck Report, as detailed in Table 3.2. The table does not describe an exhaustive description of historic events but highlights pertinent potential contaminative sources within a 250 m radius of the site.

The earlier maps appear to have 'shifted' placing the site outline slightly out of the true position. The following description takes this into account, and where features appear to be within the site boundary on the earlier maps, they have been excluded from the site in the text.

Table 3.2 – Historica	Table 3.2 – Historical land use					
Date	On site	Surrounding area				
1883 - 1885	Undeveloped. Footpath in eastern part of site. Possible that smithy immediately to the east of the site encroaches within the footprint of the site.	Site lies in a mostly undeveloped arable area. Some houses in the vicinity along Fen Street and Nethergate Street. Houses were present in the area between Nethergate Street and the northern boundary of the site. Wells were noted associated with several of these houses. The closest well was located immediately to the north of the site in the garden of The Cottages, Nethergate Street. A smithy was located immediately to the E of the site. It is possible that this encroaches within the eastern boundary of the site. Area of Rough pasture immediately to the west of the site. This is marked as 'Floods' and is crossed with drains and/or streams. An area of marsh was located 200 m to SW. Clay pits 160 m S, 180 m E, and 210 m NW of site.				

Table 3.2 – Historica	al land use continued	
Date	On site	Surrounding area
1883 – 1886	No significant changes	No significant changes
1884 – 1885	No significant changes	No significant changes
1905	Route of footpath changed,	No significant changes
	but no other significant	
	changes	
1904 - 1905	No significant changes	No significant changes
1905	No significant changes	No significant changes. Some additional
		buildings shown on plot on northern side of
1050 1050		Nethergate Street.
1952 – 1953	No significant changes	Development commenced to E of site with
1052	No significant changes	houses along Nethergate Street.
1953 1958	No significant changes No significant changes	No significant changes Smithy no longer shown. No other significant
1958	NO SIGNIFICANT Changes	changes
1976	Small outhouse associated	Clay pit to S of site no longer shown; clay pit t
	with Grey Cottage is	o E of site much reduced in size. Pit to NW of
	situated within site	site marked 'disused' but had extended over
	boundary in area considered	a larger area than previously shown.
	to be an access drive in NE	Robson's Farm 50 m to NE redeveloped with
	of site.	additional buildings and access road. Further
		development with houses built 75 m NW.
1983 – 1985	No significant changes	Pit to E of site no longer shown. No other
1005	No significant changes	significant changes
1995 1999 (Aerial photo)	No significant changes Structure situated in centre	No significant changes No significant changes
1999 (Aenai prioto)	of site.	No significant changes
2000	No significant changes	No significant changes
2003	No significant changes	No significant changes
2006	No significant changes	No significant changes
2009	No significant changes	No significant changes
2013	No significant changes	No significant changes
2016	No significant changes	No significant changes
2021	Additional structures	No significant changes
	associated with structure in	
	centre of site.	

Aerial photographs of the site dated 1945 to 2020 are publicly available. Inspection of these photographs gleaned the following information regarding the site and immediate environs:

The 1945 photograph confirmed the findings of the maps at that time. The 1985 photo was unclear. The 1999 photo showed a number of features to the north-west and west of the barn, including possibly a storage container and a vehicle. At this time, Grey Cottage and the subject site appeared to be possibly under the same ownership, based on the absence of obvious boundaries. By 2007, a further structure was located to the north-east of the barn, with vegetation to the north and east. A possible caravan/container was situated to the west of the structure, but was not present from 2008 onwards. By 2018, the barn had been extended with buildings on the southern side of the barn, and sheds to the north.

A terrace of three small pens, with a surrounding enclosure (possible animal pens?) were located to the east of the barn. Immediately to the west of the barn was a vegetated area with a number of unidentifiable objects/materials, including possibly a car. In this photograph, some form of excavation or other earthworks could be seen in the south-western quadrant of the eastern field. A further possible caravan/container was located within this area on the 2019 and 2020 photos, although these images were out of focus.

Inspection of the aerial photos did not reveal the growing of crops on the site. It appeared that animals may have been kept on the site.

Trees were recorded around the field boundaries from the earliest available images. The 1999, 2006, 2007 and 2008 photographs showed mature trees close to the north-west face of the main structure on site. The 2018 photo showed the trees to have been cleared.

#### 3.3 Public Register data

Public Register data and other information was received as part of the Envirocheck Report. This included information from the Environment Agency, Local Authority, British Geological Survey, Natural England and several other sources. A full list of the data obtained can be found in Appendix 2 of this report. It should be noted that the positions of symbols on the environment map supplied are not always very accurate and that judgement should be used in locating each item. It should also be noted that the following summary is generally restricted to a search radius of 250 m on the basis that beyond this distance a low to negligible risk is identified. The environmental information is summarised in Table 3.3.

Table 3.3 – Summary of environmental data from Envirocheck Report				
Agency, authorisations & controls				
Subject	On site	Within 250 m	Details/Remarks	
Discharge Consents	0	1	A discharge consent was in place between 1990 and 1998 for the discharge of storm/emergency overflow of freshwater into the tributary of the River Little Ouse, 46 m N of site.	
Waste	Waste			
Subject	On site	Within 250 m	Details/Remarks	
Historical Landfill Sites	0	1	128 m E of site. No other details supplied.	
Local Authority Recorded Landfill Sites	0	1	151 m E of site. Adjacent to 12 Nethergate Street; reported as closed.	
Hazardous substances				
No entries in this category within 250 m of the site				

Table 3.3 – Sumn	nary of envir	onmental da	ata from Envirocheck Report continued	
Geological				
Subject	Details/Remarks			
BGS 1:50,000	The site lies within the flood plain of the Little Ouse. Superficial deposits			
Sheet 175 'Diss'	beneath the site comprise Head Deposits, Ingham Sand and Gravel			
and BGS Online			oft Formation – Diamicton. Alluvium outcrops	
Geology Viewer			undary of the site. The solid geology beneath the	
	whole of th	e site is indic	cated to be White Chalk Subgroup.	
BGS Boreholes*	There were	no publicly	available borehole records within 250 m of the	
DOS DOT CHOICS			les (TL97NE15 and TL97NE21) were listed	
			and 467 m E of the site and revealed granular	
			bout 12 and 17 m overlying the White Chalk	
			es were completed at depths of between 41 and	
	U 1		enetrate the chalk.	
		100 0 '		
BGS Recorded			215 m E of site – for 'common clay and shale' –	
Mineral Sites*			Both pits described as 'ceased'.	
Coal Mining Affected Areas	'in an area	inal might n	ot be affected by Coal Mining'	
	No optrios	in those sate	aorios	
Mining instability;		in these cate	gories.	
Man-Made				
Mining Cavities;				
Natural				
Cavities.				
Non-Coal	Rare risk			
Mining Areas of				
Great Britain*				
Ground stability		ntial*		
Subject	On site	Within	Details/Remarks	
		250 m		
Collapsible	Very Low	No	No Hazard recorded 18 m W	
Ground	NL-	Hazard		
Compressible	No	Moderate	Moderate recorded 18 m W	
Ground	Hazard	Low	Low recorded 132 m W and 199 m NE	
Ground	Low to	Low	LOW RECORDED 132 III W and 199 III NE	
Dissolution	Very Low			
Landslide	Very Low	No	No Hazard recorded 23 m SW	
	- J -	Hazard		
Running Sand	Very Low	No	Low recorded 18 m W and No Hazard recorded	
_	-	Hazard to	23 m SW	
		Low		
Shrinking or	No	No	No Hazard recorded 84 m NW	
Swelling Clay	Hazard to	Hazard		
	Low			

BGS Estimated so Subject Arsenic		marka		
Arsenic	Details/Rer	marka		
	Details/Remarks			
	<15 mg/kg			
Cadmium	<1.8 mg/kg			
Chromium	20 to 60 mg	g/kg		
Lead	<100 mg/kg	<u>,                                     </u>		
Nickel	<15 mg/kg	,		
Radon Potential	Less than 1	% of homes e	estimated to be at or above Action Level	
– Radon				
Affected Areas				
(NGIS*)				
Radon Potential	No radon p	rotection me	asures considered necessary (BGS)	
– Radon				
Protection				
Measures				
(NGIS*)				
Hydrogeological,	hydrological	, flooding		
Subject	On site	Within	Details/Remarks	
		250 m		
Water	0	0	Nearest abstraction 370 m NW of the site: for	
Abstractions			the use of general farming and domestic.	
(Groundwater/				
Surface Water)				
Source			n/a	
Protection	site			
Zones				
Extreme	Yes	Yes	The site is described as being at risk of	
0	а а а а			
			along the western boundary of the site.	
	No entry	No entry	n/a	
•				
Defences?				
Subject	Details/Rer	l narks	-1	
	Details/ Reillarks			
Groundwater	High – Productive Bedrock Aquifer, Productive Superficial Aquifer.			
Vulnerability	J			
	Principal Ac	uifer [White	Chalk Subgroup]	
	F		5 12	
	Secondary	Aquifer - A [Ir	ngham Sand and Gravel Formation]	
Superficial	Secondary Aquifer (Undifferentiated) [Lowestoft Formation – Diamicton;			
Superficial Aquifer	Secondary	Aquifer (Undi	fferentiated) [Lowestoft Formation – Diamicton;	
(Groundwater/ Surface Water) Source Protection Zones Extreme Flooding or Flooding from Rivers or Sea without Defences Areas Benefiting from Flood Defences? Subject Groundwater Vulnerability Bedrock Aquifer Designations	No entry Details/Rer High – Proc Principal Ac	No entry No entry narks luctive Bedro quifer [White Aquifer - A [Ir	n/a The site is described as being at risk of flooding and extreme flooding. The risk is only along the western boundary of the site. n/a	

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Table 3.3 – Summ	nary of env	vironmental da	ata from Envirocheck Report continued
Subject	Details/Remarks		
Groundwater Vulnerability – Soluble Rock Risk	Significant Risk – Low Possibility		
Nearest Surface Water Feature	The ditch 279184	/stream along	the western boundary of the site, NGR 598728,
River Quality	No data v	vithin 250 m	
BGS Groundwater Flooding Susceptibility	Potential	0	ter flooding to occur at surface on the site. ter flooding of property situated below ground ite.
Risk of Flooding from Surface Water	Potential for groundwater flooding to occur on the site and within 250 m of the site. There is a High risk (30-year return), Medium risk (100-year return) and Low risk (1000-year return) of flooding in a band orientated NE-SW across the western portion of the site.		
Industrial land us	е		-
Subject	On site	Within 250 m	Details/Remarks
Contemporary Trade Directory Entries	None	2	Plastic Piling Limited (Inactive) a plastics extrusion company was located 22 m N of the site. A laboratory equipment supplies company (Inactive) was located 155 m E of the site.
Fuel Station Entries	None none None		
Sensitive land use	<u>Э</u>	•	
Subject	On site	Within 250 m	Details/Remarks
Environmentally Sensitive Areas	1		Breckland (decommissioned) – designated by Natural England.
Nitrate Vulnerable Zones	Yes		Ely Ouse and Cut-off channel Nitrate Vulnerable Zone for surface water.
Sites of Special Scientific Interest	None	Yes	Weston Fen located 89 m SW is designated a local wildlife site, a special area of conservation, a site of special scientific interest and a water framework directive.
Special Areas of Conservation	None	Yes	Waveney and Little Ouse Valley Fen89 m SW is designated a special area of conservation.
* National Geosci	ence Infori	mation Service	

#### 3.4 Environmental site reconnaissance visit

The site appeared generally well organised, with no evidence of spills or visible contamination. No obvious evidence of asbestos was noted either within the existing structures or stockpiled on site. Informal discussions with the Client did not disclose the former use of asbestos containing materials on the site. The Client also confirmed that no oil tanks were present on site, and that there had been no industrial past use, except historically his father used to keep Jersey cows for the purpose of milking.

Various areas of the site were considerably overgrown, and it was not possible to fully inspect all areas. There was the potential for invasive species to be present, but none were observed during the site visit.

The site appeared to be essentially greenfield, but the site reconnaissance visit encountered the following potential contaminative sources:

- piles of materials including bonfire.
- paint tins, drums, fuel canisters and other items from sheds and barn.
- cars, motorised horsebox, and other current and former vehicles.
- break in slope between the eastern and western site areas potentially indicative of earthworks/reprofiling although the Client stated he is not aware of any significant earthworks having been undertaken on the site.
- possible excavation or other earthworks in the south-western quadrant of the eastern meadow shown in the 2018 aerial photograph.

## 3.5 <u>Summary of desk study</u>

A summary of the salient points from the desk study review is provided in Table 3.5.

Table 3.5 – Summary	of key points identified by desk study research and site inspection
Subject	Relevant detail
Site History	Earliest records of 1883 – 1885 showed the site to be undeveloped within a mostly rural setting. A smithy was located immediately to the east of the site, possibly encroaching to within the site boundary. A small outhouse was placed within the site boundary by 1976, and the main part of the existing structure was on site by 1999. At this time, small structures/vehicles/container were noted in the vicinity of the main structure. A further structure was in place by 2007, and extensions were placed by 2008. The site appeared to have been used for animals. The surrounding area remained predominantly arable, with residential premises in the vicinity. Clay pits were recorded within 250 m of the site.
Geological Units and Aquifer Designations	Bedrock: White Chalk Subgroup - Principal Aquifer Superficial: Secondary Aquifer - A [Ingham Sand and Gravel Formation] Secondary Aquifer (Undifferentiated) [Lowestoft Formation – Diamicton; Head Deposits]
Identified potential sources of on-site contaminants	Made ground associated with previous phases of construction and demolition. Potential ACM within the fabric of the existing buildings.
	Area of unidentified materials to west of main barn in 2018 aerial photograph. Possible chemicals stored in existing outbuildings. Previous vehicular use on site. Former use of site for animals.
Identified potential sources of off-site contaminants	Off-site historic landfill sites, former pits and infilled ground (unlikely to have impacted the site). Possible contamination from nearby plastics extrusion company to N of site and historic smithy to east of site (unlikely to have impacted the site).
Other key information	No water abstractions within 250 m of the site; a discharge consent for fresh water from a sewage works was recorded 46 m N of site. Site and surrounding area lie within a SPZ3, and a watercourse (ditch/stream) flows along the western site boundary. Potential for groundwater flooding to occur at surface and below ground on site. The soils beneath the site were of high combined vulnerability, with a Productive Bedrock Aquifer and a Productive Superficial Aquifer. There is a risk from 'Flooding and Extreme Flooding from Rivers or Sea without Defences' along the western boundary of the site. This report does not consider flood risk, and these aspects are not discussed further. The remit did not include a survey for invasive, noxious or otherwise problematic plant species to be present; none were observed during the site reconnaissance however their presence cannot be discounted at this stage. Ecological aspects will need to be considered prior to development. Geotechnical aspects will need suitable consideration prior to development given the anticipated variation in ground conditions across the site, the presence of shrinkable soils and former trees in the vicinity of the structure, as well as existing various trees and hedges around site.

#### 3.6 Outline conceptual model

#### 3.6.1 Introduction

A conceptual model represents the characteristics of the site that show the possible relationship between sources (contaminants), pathways and receptors (or targets). The following outline conceptual model has been based on the results of the desk study and environmental reconnaissance of the site.

In order to classify the anticipated risk associated with the proposed development the classification system defined in Table A shown in Appendix 1 has been adopted (from CIRIA C552). The level of risk was determined by the product of the potential consequence (minor, mild, medium, severe) of the contaminant hazard and probability of it occurring (unlikely, low likelihood, likely, high likelihood). A risk level has been assigned to each possible pollutant linkage.

## 3.6.2 Potential sources, pathways and receptors

The potential sources, pathways and receptors identified by the desk study data are summarised in Table 3.6.2.

Table 3.6.2 – Potential sources, pathways and receptors					
Potential sources					
On site:	Off site:				
Made ground associated with previous phases of construction, demolition and earthworks. Possible ACM within the fabric of the existing buildings. Piles of materials, including bonfire, and materials to west of barn identified in 2018 aerial photograph. Chemicals/paints/fuels stored in small quantities in existing barn and sheds. Previous and current vehicular use on site. Sulphate and acidic pH contents in the made ground and natural deposits. Ground gas from made ground. Potential pathways	Off-site historic landfill sites, former pits and infilled ground. Possible migration of contamination from nearby plastics extrusion company to N of site and historic smithy to east of site. Ground gas from made ground and other off- site sources.				
Direct contact Inhalation Ingestion Leaching and migration via groundwater Migration via permeable soils Uptake by plants. Potential receptors					
End users Groundworkers Controlled Waters Off-Site receptors Building materials Vegetation.					

Proposed Residential Development at Orchid Meadows, Nethergate Street, Hopton, Norfolk IP22 2QZ

## 3.6.3 Potential pollutant linkages

The considered potential source-pathway-receptor linkages for the site and their perceived level of associated risk are summarised in Table 3.6.3A.

Table 3.6.3A – Potential relevant pollutant linkages							
Source	Contaminants	Pathway	Receptor	Probability	Consequence	Risk classification	Comments
Made ground associated	Heavy metals,	Direct contact	End users	Likely	Medium	Moderate	Risk to off-site receptors only
with previous phases of	PAH, TPH, VOC,	Ingestion	Groundworkers	Likely	Minor	Low	present via mobilisation of
construction, demolition and	SVOC	Inhalation	Off-site	Likely	Minor	Low	dust or migration of site soils
earthworks.			receptors				via vehicles leaving site.
Piles of materials, including		Leaching and	Controlled	Likely	Medium	Moderate	The potential is present
bonfire, and former		migration via	Waters	Unlikely	Low	Low	however no sources have
stockpile identified in 2018		groundwater or	Off-site				been identified that are likely
aerial photograph.		surface water	receptors				to result in significant impact
Possible impact from							to off-site receptors.
adjacent off-site industries		Plant uptake	Vegetation	Likely	Minor	Low	
(Smithy).		Direct contact	Building	Likely	Minor	Low	
Chemicals/paints/fuels			materials				
stored in small quantities in	Ground gas,	Inhalation	End users	Likely	Medium	Moderate	Although a Moderate worst
existing barn and sheds.	vapour		Groundworkers	Likely	Medium	Moderate	case risk has been designated,
							no significant sources
							identified to date.
	Sulphate and pH	Direct contact	Building	Likely	Medium	Moderate	
			materials				

Table 3.6.3A – Potential relevant pollutant linkages continued							
Source	Contaminants	Pathway	Receptor	Probability	Consequence	Risk classification	Comments
Previous and current vehicle uses on site.	Hydrocarbons (TPH, PAH, BTEX, VOC, SVOC, MTBE, Lead)	Direct contact Ingestion Inhalation	End users Groundworkers Off-site receptors	Likely Likely Likely	Medium Severe Medium	Moderate High Moderate	Impact likely to be limited.
		Leaching and migration via groundwater or permeable soils	Controlled Waters Off-site receptors	Likely Likely	Medium Minor	Moderate Low	Potential is present however impact likely to be very low unless significant incidents have occurred.
		Direct contact	Building materials	Likely	Minor	Low	Fuels and oils can impact potable water supply if present.
Off-site historic landfill sites, former pits and infilled ground, made ground and organic alluvial soils	Ground gas	Inhalation	End users Groundworkers	Likely Likely	Medium Medium	Moderate Moderate	Identified off-site sources considered unlikely to affect the subject site based on distance and no identified preferential pathways for migration.
Natural deposits	Sulphate and pH	Direct contact	Building materials	Likely	Medium	Moderate	

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Assessment of asbestos and invasive plant species is not compatible with the above risk assessment matrix, so these items have been given separate consideration in Table 3.6.3B.

Table 3.6.3B – Risk associated with asbestos and invasive plants					
Source/Contaminant	Associated impacts/Issues				
Asbestos	No asbestos or asbestos containing materials (ACM) were				
	observed during the site walkover, and the Client was not				
	aware of such materials having been used on the site. However,				
	on a precautionary basis it is recommended that an asbestos				
	survey of the buildings should be undertaken by a suitably				
	competent person to identify any asbestos containing				
	materials, which should then be suitably removed from site				
	with full duty of care, prior to any demolition or refurbishment				
	work. Asbestos can also potentially be present in made ground				
	and disturbed ground as the provenance of such materials is				
	commonly unknown.				
Invasive Plant Species	No obvious signs of invasive or problematic plant species such				
	as Japanese Knotweed or Giant Hogweed were noted during				
	the site reconnaissance visit, but due to the size of the site and				
	the presence of some vegetated areas, there is the potential for				
	such plants to be present on site. A low risk was therefore				
	identified for such plants.				

## 4. **RECOMMENDATIONS**

Based on the findings of the desk study and site reconnaissance, no indicators of gross contaminative impact have been identified for the site, which could be considered largely 'greenfield' and previously undeveloped. However, limited potential sources of contamination have been identified, such as the contents of the barn and sheds, the current and previous vehicular use of the site, the presence of engine powered machinery (e.g. lawnmowers, generator, motorcycles), contemporary and former piles of materials including the bonfire, and possible areas of earthworks/ground disturbance such as the break in slope and the area identified in the south-western quadrant of the eastern meadow.

It is anticipated that the majority of the identified minor sources of contamination can be easily removed to avoid the risk of contaminating the site. The materials, machinery and vehicles together with any bonfire remains will need to be carefully cleared, together with tins of paint, chemicals, fuel etc. from sheds and the barn. Vigilance will need to be maintained throughout any clearance and development works for indicators of contamination, including asbestos.

Given the sensitive residential development proposed for the site it is recommended that a limited Phase 2 intrusive investigation is undertaken to inspect and sample shallow site soils and enable a refined geoenvironmental risk assessment to be undertaken with respect to sensitive site receptors. This would hopefully confirm the absence of significant contamination in areas of main interest (potentially disturbed/made ground, building areas, sensitive areas of the new development). The investigation could also provide further details of ground conditions and soil parameters to inform the design of the scheme if necessary.

For geoenvironmental appraisal, the intrusive investigation could comprise a number of exploratory holes to provide reasonable coverage of the site, to enable the inspection of shallow ground conditions and recover samples for chemical analysis. This could be undertaken using a compact rubber tracked window sampling rig to form small diameter boreholes while minimising disturbance to the site. The investigation should include sampling within identified areas of interest including the vicinity of the main buildings, potentially disturbed ground and areas of waste and vehicle storage, as well as targeting more sensitive areas of the proposed development such as private garden areas where end users are more likely to come into direct contact with site soils.

Samples of made ground and shallow site soils recovered from the exploratory holes should be scheduled for appropriate chemical analyses to enable risk assessment to sensitive human health and environmental receptors in line with current guidance.

Potential sources of ground gas have been identified in the form of made ground and nearby organic alluvial soils, however the presence and extent of such are yet to be confirmed with respect to the proposed area of development. Should significant such soils be encountered it would be recommended to install ground gas wells within three of the exploratory holes to facilitate monitoring of ground gas concentrations. An initial three visits would be recommended for initial appraisal; further visits may be necessary depending on the findings of the initial monitoring.

Consideration will also need to be given to the geotechnical aspects of the scheme, with respect to the design of foundations, floors and hardstandings. Clay soils in the vicinity of trees and hedges (existing, proposed or historic) can be subject to volume change from tree root action or recovery from such activity, and this should be considered in the design of any development. Geotechnical investigation and assessment should include soil classification with respect to volume change potential, and measurement of moisture profiles where proposed foundations and floors may fall within the zone of influence of hedges or proposed trees. Guidance on the design of foundations and floors in clay soils in the zone of influence of trees is contained within Chapter 4.2 of the NHBC standards.

The geoenvironmental investigation could also include geotechnical appraisal as required to provide information to inform the design of foundations and floors.

The results of the intrusive investigation would be presented in an interpretative report, to include risk assessment in line with current guidance, recommendations for remedial works considered necessary for the proposed development and discussion of initial waste classification for surplus site soils. The report would also discuss geotechnical considerations for the scheme, where appropriate investigation and testing has been instructed and carried out. Site investigation is an iterative process, and additional investigation and assessment may be required depending on the findings of the initial investigation.

The report would be intended to be suitable for submission to the Local Authority to inform planning considerations.

It is recommended that an asbestos survey is undertaken on the existing site buildings and if any asbestos containing materials are identified, they should be suitably removed from site with best practice and full duty of care.

It would also be prudent to undertake a survey for invasive, noxious and otherwise problematic plants.

## 5. CONCLUSIONS

The desk study and site reconnaissance have recorded no indicators of existing gross contaminative impact for the site; they have however identified potential sources of contamination that could pose a possible risk to identified site receptors, and a limited geoenvironmental ground investigation is recommended to assess the site in terms of the proposed development. Geotechnical assessment could be undertaken at the same time to inform the design of foundations, floors and hardstanding.

Advice and recommendations given in this report have been based on the findings of the desk study investigation by RSA Geotechnics Limited and the review of publicly available records and maps, as described in this report. It must be appreciated that no intrusive investigation was carried out as part of this report.

RSA Geotechnics Limited have based this report on the sources detailed earlier in this report and believes them to be reliable but cannot and does not guarantee the authenticity or reliability of the information it has relied upon.

MA C MA C M	AC
SITE LOCATION PLAN	NOTE: All locations are approximate Date 28 JUNE 2021
SITE LOCATION PLAN (Based upon drawing supplied by others) ORCHID MEADOWS, NETHERGATE STREET, HOPTON, NORFOLK	Scale NOT TO SCALE
RSA GEOTECHNICS LIMITED	Drawing No 15874DS/1 Version A

# **APPENDIX 1**

Risk assessment methodology and legislative background, Risk classification system; Published guidelines



## RISK ASSESSMENT METHODOLOGY AND LEGISLATIVE BACKGROUND

The legislative document regarding land contamination is the 1995 Environment Act. Forming Part 2A of the Environmental Protection Act of 1990, this act created the framework for the identification and remediation of contaminated land. It established the Environment Agency as the overall National Enforcement Agency, with regional control provided by the Local Authorities.

This Act defines "contaminated land" as any land which appears by the Local Authority to be "in such a condition, by reason of substances, in, on or under the land that:

- significant harm is being caused or there is significant possibility of such harm being caused; or
- significant pollution of Controlled Waters is being caused, or there is significant possibility of such harm being caused."

The Act is supported by other key guidance including BS10175, 2011+A2:2017 and the National Planning Policy Framework, 2019. In relation to regulatory intervention (Part 2A) and 'voluntary' investigation (including redevelopment of sites which may be affected by contamination), the Model Procedures (CLR-11, Environment Agency 2004) provided a generic framework indicating key technical activities applicable in each of those contexts; these have been replaced by the online guidance Land Contamination Risk Management (LCRM) from GOV.UK. The management of land contamination broadly comprises three components, which are identified as 'Risk Assessment', 'Options Appraisal' and 'Implementation'. These in turn determine if any unacceptable risks exist, ascertain the most appropriate remediation strategy for the site and demonstrate that the strategy will be effective.

In accordance with this and other current guidance, where a 'land quality' risk assessment is required each 'Relevant Pollutant Linkage' (formerly referred to as 'source-pathway-receptor' framework), is separately identified and a level of risk attached. The risk assessment takes account of the local environment, end user behaviour patterns and the nature of the development in relation to proven 'unacceptable' risk. This is the approach supported by current guidance and therefore has been adopted in the assessment of this site.

The guidance requires a Phase 1 investigation or desk study to be undertaken as the first stage of the risk assessment. This derives potential sources, pathways and receptors for the site taking into account the proposed end use. It results in the generation of potential pollutant linkages which are documented in the form of an 'Outline Conceptual Model'. This is then used to direct and target a Phase 2 or intrusive investigation, if deemed necessary.

In order to classify the anticipated risk associated with the proposed development the classification system defined in Table A has been adopted (from CIRIA C552). The level of risk was determined by the product of the potential consequence (minor, mild, medium, severe) of the contaminant hazard and probability of it occurring (unlikely, low likelihood, likely, high likelihood). A risk level has been assigned to each possible pollutant linkage in accordance with Table B.

Table A – Definitions of consequence, probability and risk ratings							
Potential consequence							
Term	Description						
Severe	evere Short term (acute) risk to human health likely to result in 'significant harm' defined by the Environment Protection Act 1990, Part IIA. Short-term risk pollution of sensitive water resources. Catastrophic damage to buildings property. Short-term risk to an ecosystem or organism forming part of th ecosystem.						
Medium	Chronic damage to human health, or pollution of sensitive water resources, significant changes in an ecosystem or organism forming part of that ecosystem.						
Mild	Pollution of non-sensitive water resources. Significant damage to crops, building structures and services. Damage to sensitive buildings, structures, or the environment.						
Minor							
Probability							
Highly likely	The event appears very likely in the short term and almost inevitable over the long term, or there is evidence at the receptor of harm or pollution.						
Likely	It is probable that an event will occur, or circumstances are such that the event in not inevitable, but possible in the short term and likely over the long term.						
Low likelihood	Circumstances are possible under which an event could occur, but it is not certain even in the long term that an event would occur and it is less likely in the short term.						
Unlikely	Circumstances are such that it is improbable the event would occur even in the long term.						
Risk rating							
Term	Description						
Very high risk	There is a high probability that severe harm could arise to a designated receptor from an identified hazard at the site without appropriate remedial action.						
High risk	Harm is likely to arise to a designated receptor from an identified hazard at the site without appropriate remedial action.						
Moderate risk	It is possible that without appropriate remedial action harm could arise to a designated receptor but it is relatively unlikely that any such harm would be severe, and if any harm were to occur it is more likely that such harm would be relatively mild.						
Low risk	It is possible that harm could arise to a designated receptor from an identified hazard but is likely that at worst, this harm if realised would normally be mild.						
Very Low/ Negligible risk	The presence of an identified hazard does not give rise to the potential to cause significant harm to a designated receptor.						

Table	e B – Risk Matrix	Consequence				
		Severe	ere Medium Mild		Minor	
Probability	Highly Likely	Very High	High	Moderate	Moderate/Low	
	Likely	High	Moderate	Moderate/Low	Low	
	Low Likelihood	Moderate	Moderate/Low	Low	Very Low/Negligible	
Pr	Unlikely	Moderate/Low	Low	Very Low/Negligible	Very Low/Negligible	

The outcome of the intrusive investigation and subsequent 1and quality' risk assessment is the establishment of plausible relevant pollutant linkages shown in the form of a 'Refined Conceptual Model'. This is then used to determine the need for further investigation, or remediation to appropriately mitigate any determined unacceptable risks.

In accordance with the Model Procedures and Regulatory preference, detailed remedial measures should be provided in a separate report to the investigation and risk assessment generally referred to as a Remediation Method Statement (RMS).

The National Planning Policy Framework (NPPF) places responsibility with the Applicant and Developer to ensure that the land and development is suitable for the proposed purpose, and that unacceptable risks have been suitably mitigated.

## Human Health Generic Risk Assessment

Generic risk assessment includes the comparison of concentrations of determinands measured in site soils with 'Tier 1' screening values derived from reference to current guidance, principally comprising Land Quality Management/Chartered Institute of Environmental Health (LQM/CIEH) 'Suitable for Use Levels (S4ULs) 2015, Defra Category 4 Screening Levels (C4SL) 2014 and CL:AIRE Generic Assessment Criteria (GAC) values 2010. Reference may be made to other sources where considered appropriate, including non-UK sources where no screening values are readily available, such as the USEPA Regional Screening Levels (RSLs).

Screening values must be appropriate to the site setting and/or proposals for development. 'Default' generic categories include 'Residential with home-grown produce'; 'Residential without home-grown produce'; 'Allotment'; 'Commercial'; 'Public Open Space<sub>residential</sub>'; and 'Public Open Space<sub>park</sub>'.

Generic screening values considered appropriate to the development proposals for the subject site have been tabulated and included within this section, together with their source.

For some projects it may be appropriate to derive site specific screening values using the Environment Agency Contaminated Land Exposure Assessment (CLEA) model or other tools, to more appropriately reflect site conditions, receptors and the context of exposure.

Screening values for organic determinands can be sensitive to the soil organic matter content and this is taken into account in their derivation.

The assessment of cumulative risk to human health from total petroleum hydrocarbons is undertaken through Hazard Index calculation based on the methodology of the EA 'UK Approach for Evaluating

Human Health Risks from Petroleum Hydrocarbons in Soils', Science Report P5-080/TR3. Hazard Indices greater than one typically require remedial action or further consideration.

## Groundwater Risk Assessment

Generic assessment criteria for groundwater are principally derived from reference to Environmental Quality Standards or Drinking Water Standards, as appropriate for the site environs, or in the absence of such values from other sources as considered appropriate. Modelling of the fate and transport of contaminants in soil or groundwater and their potential effects on Controlled Waters may be appropriate depending on the sensitivity of the site setting.

## Asbestos

There are currently no generic assessment criteria concentrations for asbestos in soils however industry guidance is contained within CIRIA C733 and CAR-SOIL 2012 (2016). It is recognised that the risk is proportional to the potential for fibre release, with a lower risk from asbestos in bonded form, in damp conditions and at low (trace) concentrations. The type of asbestos is also important, with blue asbestos (crocidolite) generally considered two orders of magnitude more hazardous than white asbestos (chrysotile), and brown asbestos (amosite) being in between. The current approach is to reduce exposure to asbestos as far as practically possible, both during siteworks and post-development. This is typically achieved through removal or the provision of a suitable break in pathway between source and receptor.

## Ground Gas

Guidance with respect to risk assessment and protective measures for ground gases is contained within CIRIA C665, 2007 'Assessing risks posed by hazardous ground gases to buildings'; the Ground Gas Handbook, 2009; BS8485: 2015+A1:2019, 'Code of practice for the design of protective measures for methane and carbon dioxide ground gases for new buildings' and CL:AIRE Research Bulletin 'A Pragmatic Approach to Ground Gas Risk Assessment' (RB 17, 2012). Gas Screening Values are calculated using the recorded concentrations of methane and carbon dioxide from borehole well monitoring together with the flow rate from the borehole installations, to categorise the site with respect to the typical ground gas precautions anticipated to mitigate unacceptable risks.

## Buried Concrete

The potential risk to buried concrete is assessed with reference to the guidance of BRE Special Digest 1 (SD-1), 2005, 'Concrete in Aggressive Ground'. This publication attributes a Design Sulphate Class and an Aggressive Chemical Environment for Concrete (ACEC) Class for the site under consideration, based upon the nature of the site, sulphate concentrations, pH values and mobility of groundwater.

## Potable Water Pipes

Guidance on the selection of potable water supply pipework is contained within the UK Water Industry Research (UKWIR) report reference 10/WM/0321, 'Guidance for the Selection of Water Supply Pipes to be used in Brownfield Sites', and this has been adopted by a number of water authorities. The report recommends specific investigation of the proposed pipeline route and level, with laboratory analysis and associated risk assessment to determine the specification for the pipework, once the proposed route and level is confirmed.

## **Vegetation**

Nickel, copper and zinc are phytotoxic and could therefore inhibit plant growth or establishment. In order to assess the risk posed to vegetation on site from these potentially phytotoxic contaminants the concentrations of copper, zinc and nickel are compared against values given in the British Standard BS 3882: 2015, 'Specification for topsoil', taking into account the typical pH of the site soils.

## PUBLISHED GUIDELINES

- i) Land Contamination Risk Management (LCRM), GOV.UK
- ii) Contaminated Land Statutory Guidance, DEFRA, 2012
- iii) CIRIA C552 Contaminated Land Risk Assessment: A Guide to Good Practice, 2001
- iv) BS10175:2011+A2:2017 Investigation of potentially contaminated sites, code of practice
- v) LQM-CIEH Suitable for Use Levels (S4ULs) for Human Health Risk Assessment, 2015 (Publication Number S4UL3364)
- vi) EIC/AGS/CL:AIRE Soil Generic Assessment Criteria for Human Health Risk Assessment, 2010
- vii) Category 4 Screening Levels (C4SL) DEFRA 2014
- viii) The Water Supply (Water Quality) Regulations 2018 Drinking Water Standards
- ix) The Water Environment (Water Framework Directove) (England and Wales) Regulations 2017
- x) Environmental Quality Standards (EQS) for freshwaters; estuaries and coastal waters; specific pollutants; operational EQS; priority hazardous substances; priority substances and other pollutants
- xi) CL:AIRE 'Guidance on Comparing Soil Contamination Data with a Critical Concentration', 2008
- xii) Environment Agency Technical Advice to Third Parties on Pollution of Controlled Waters for Part 2A, Version 2, 2002
- xiii) BRE Special Digest 1, 'Concrete in Aggressive Ground', 2005
- xiv) UK Water Industry Research 'Guidance for the Selection of Water Supply Pipes to be used in Brownfield Sites' Report Ref. No. 10/WM/03/21, 2011
- xv) BS 3882: 2015, 'Specification for topsoil'
- xvi) CIRIA C665 'Assessing risks posed by hazardous ground gases to buildings', 2007
- xvii) Environment Agency 'Guidance on the classification and assessment of waste' Technical Guidance WM3, 2015, (1st Edition V1.1), May 2018
- xviii) Environment Agency 'Soil Guideline Values for dioxins furans and dioxin-like PCBs in soil' Science Report SC050021, 2009
- xix) United States Environmental Protection Agency (USEPA) Regional Screening Values, 2020
- xx) CL:AIRE Research Bulletin 17 'A Pragmatic Approach to Ground Gas Risk Assessment', 2012
- xxi) Health Protection Agency Indicative Atlas of Radon', 2007
- xxii) BRE 211 'Radon: Protective Measures for New Buildings', 2015
- xxiii) Water UK 'Contaminated Land Assessment Guidance' 2014
- xxiv) BS 8485:2015+A1:2019 'Code of Practice for the Design'
- xxv) CL:AIRE Research Bulletin 17 'A Pragmatic Approach to Ground Gas Risk Assessment', 2012.

# **APPENDIX 2**

Landmark Envirocheck Data Search

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#### **Envirocheck® Report:**

#### Datasheet

#### **Order Details:**

Order Number: 280187841\_1\_1

Customer Reference: 15874DS

National Grid Reference: 598800, 279180

Slice:

A

Site Area (Ha): 0.93

Search Buffer (m): 1000

#### Site Details:

Orchid Meadows, Nethergate Street Hopton DISS IP22 2QZ

#### **Client Details:**

Ms A Holden RSA Geotechnics Ltd Ashburnham House 1 Maitland Road Lion Barn Estate Needham Market Suffolk IP6 8NZ



Report Section	Page Number
Summary	-
Agency & Hydrological	1
Waste	16
Hazardous Substances	-
Geological	17
Industrial Land Use	22
Sensitive Land Use	23
Data Currency	24
Data Suppliers	30
Useful Contacts	31

#### Introduction

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The Environment Act 1995 has made site sensitivity a key issue, as the legislation pays as much attention to the pathways by which contamination could spread,

and to the vulnerable targets of contamination, as it does the potential sources of contamination. For this reason, Landmark's Site Sensitivity maps and Datasheet(s) place great emphasis on statutory data provided by the Environment Agency/Natural Resources Wales and the Scottish Environment Protection Agency; it also incorporates data from Natural England (and the Scottish and Welsh equivalents) and Local Authorities; and highlights hydrogeological features required by environmental and geotechnical consultants. It does not include any information concerning past uses of land. The datasheet is produced by querying the Landmark database to a distance defined by the client from a site boundary provided by the client. In this datasheet the National Grid References (NGRs) are rounded to the nearest 10m in accordance with Landmark's agreements with a number of Data Suppliers.

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#### Report Version v53.0

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
Agency & Hydrological					
BGS Groundwater Flooding Susceptibility	pg 1	Yes	Yes	Yes	n/a
Contaminated Land Register Entries and Notices					
Discharge Consents	pg 2		1	2	5
Prosecutions Relating to Controlled Waters			n/a	n/a	n/a
Enforcement and Prohibition Notices					
Integrated Pollution Controls					
Integrated Pollution Prevention And Control					
Local Authority Integrated Pollution Prevention And Control					
Local Authority Pollution Prevention and Controls					
Local Authority Pollution Prevention and Control Enforcements					
Nearest Surface Water Feature	pg 3	Yes			
Pollution Incidents to Controlled Waters					
Prosecutions Relating to Authorised Processes					
Registered Radioactive Substances					
River Quality					
River Quality Biology Sampling Points					
River Quality Chemistry Sampling Points					
Substantiated Pollution Incident Register					
Water Abstractions	pg 4			1	(*19)
Water Industry Act Referrals					
Groundwater Vulnerability Map	pg 9	Yes	n/a	n/a	n/a
Groundwater Vulnerability - Soluble Rock Risk	pg 9	1	n/a	n/a	n/a
Groundwater Vulnerability - Local Information			n/a	n/a	n/a
Bedrock Aquifer Designations	pg 9	Yes	n/a	n/a	n/a
Superficial Aquifer Designations	pg 9	Yes	n/a	n/a	n/a
Source Protection Zones	pg 9	1			
Extreme Flooding from Rivers or Sea without Defences	pg 9	Yes		n/a	n/a
Flooding from Rivers or Sea without Defences	pg 9	Yes		n/a	n/a
Areas Benefiting from Flood Defences				n/a	n/a
Flood Water Storage Areas				n/a	n/a
Flood Defences				n/a	n/a
OS Water Network Lines	pg 10		20	20	8

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Summary

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
Waste					
BGS Recorded Landfill Sites					
Historical Landfill Sites	pg 16		1		
Integrated Pollution Control Registered Waste Sites					
Licensed Waste Management Facilities (Landfill Boundaries)					
Licensed Waste Management Facilities (Locations)					
Local Authority Landfill Coverage	pg 16	2	n/a	n/a	n/a
Local Authority Recorded Landfill Sites	pg 16		1		
Potentially Infilled Land (Non-Water)	pg 16			1	
Potentially Infilled Land (Water)					
Registered Landfill Sites					
Registered Waste Transfer Sites					
Registered Waste Treatment or Disposal Sites					
Hazardous Substances					
Control of Major Accident Hazards Sites (COMAH)					
Explosive Sites					
Notification of Installations Handling Hazardous Substances (NIHHS)					
Planning Hazardous Substance Consents					
Planning Hazardous Substance Enforcements					

Summary

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Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
Geological					
BGS 1:625,000 Solid Geology	pg 17	Yes	n/a	n/a	n/a
BGS Estimated Soil Chemistry	pg 17	Yes	Yes	Yes	Yes
BGS Recorded Mineral Sites	pg 18		2	1	7
BGS Urban Soil Chemistry					
BGS Urban Soil Chemistry Averages					
CBSCB Compensation District			n/a	n/a	n/a
Coal Mining Affected Areas			n/a	n/a	n/a
Mining Instability			n/a	n/a	n/a
Man-Made Mining Cavities					
Natural Cavities					
Non Coal Mining Areas of Great Britain	pg 20	Yes		n/a	n/a
Potential for Collapsible Ground Stability Hazards	pg 20	Yes		n/a	n/a
Potential for Compressible Ground Stability Hazards	pg 20		Yes	n/a	n/a
Potential for Ground Dissolution Stability Hazards	pg 20	Yes	Yes	n/a	n/a
Potential for Landslide Ground Stability Hazards	pg 20	Yes		n/a	n/a
Potential for Running Sand Ground Stability Hazards	pg 20	Yes	Yes	n/a	n/a
Potential for Shrinking or Swelling Clay Ground Stability Hazards	pg 20	Yes		n/a	n/a
Radon Potential - Radon Affected Areas			n/a	n/a	n/a
Radon Potential - Radon Protection Measures			n/a	n/a	n/a
Industrial Land Use					
Contemporary Trade Directory Entries	pg 22		2		4
Fuel Station Entries					
Points of Interest - Commercial Services					
Points of Interest - Education and Health					
Points of Interest - Manufacturing and Production	pg 22			1	3
Points of Interest - Public Infrastructure					
Points of Interest - Recreational and Environmental	pg 22			1	1
Gas Pipelines					
Underground Electrical Cables					

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#### Summary

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
Sensitive Land Use					
Ancient Woodland					
Areas of Adopted Green Belt					
Areas of Unadopted Green Belt					
Areas of Outstanding Natural Beauty					
Environmentally Sensitive Areas	pg 23	1			
Forest Parks					
Local Nature Reserves					
Marine Nature Reserves					
National Nature Reserves					
National Parks					
Nitrate Sensitive Areas					
Nitrate Vulnerable Zones	pg 23	1		1	
Ramsar Sites					
Sites of Special Scientific Interest	pg 23		1	1	
Special Areas of Conservation	pg 23		1		
Special Protection Areas					
World Heritage Sites					

Summary

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Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Groundwater Flooding Susceptibility				
	Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A13SE (SE)	0	1	598850 279150
	BGS Groundwater Flooding Susceptibility           Flooding Type:         Potential for Groundwater Flooding of Property Situated Below Ground Level	A13SE (E)	0	1	598800 279182
	BGS Groundwater Flooding Susceptibility           Flooding Type:         Potential for Groundwater Flooding to Occur at Surface	A13SE (SW)	0	1	598797 279182
	BGS Groundwater Flooding Susceptibility           Flooding Type:         Limited Potential for Groundwater Flooding to Occur	A13SE (E)	89	1	598950 279150
	BGS Groundwater Flooding Susceptibility           Flooding Type:         Potential for Groundwater Flooding of Property Situated Below Ground Level	A13NW (NW)	117	1	598650 279300
	BGS Groundwater Flooding Susceptibility           Flooding Type:         Potential for Groundwater Flooding of Property Situated Below Ground Level	A13SW (W)	179	1	598550 279182
	BGS Groundwater Flooding Susceptibility           Flooding Type:         Potential for Groundwater Flooding of Property Situated Below Ground Level	A13NW (W)	180	1	598550 279200
	BGS Groundwater Flooding Susceptibility           Flooding Type:         Potential for Groundwater Flooding of Property Situated Below Ground Level	A13NW (NW)	183	1	598600 279350
	BGS Groundwater Flooding Susceptibility           Flooding Type:         Potential for Groundwater Flooding of Property Situated Below Ground Level	A13NE (NE)	214	1	599000 279350
	BGS Groundwater Flooding Susceptibility           Flooding Type:         Limited Potential for Groundwater Flooding to Occur	A13NW (NW)	228	1	598550 279350
	BGS Groundwater Flooding Susceptibility           Flooding Type:         Limited Potential for Groundwater Flooding to Occur	A13NE (E)	264	1	599100 279300
	BGS Groundwater Flooding Susceptibility           Flooding Type:         Potential for Groundwater Flooding of Property Situated Below Ground Level	A12SE (W)	279	1	598450 279182
	BGS Groundwater Flooding Susceptibility           Flooding Type:         Potential for Groundwater Flooding of Property Situated Below Ground Level	A13NE (NE)	281	1	599000 279450
	BGS Groundwater Flooding Susceptibility           Flooding Type:         Potential for Groundwater Flooding of Property Situated Below Ground Level	A18SW (N)	304	1	598650 279550
	BGS Groundwater Flooding Susceptibility           Flooding Type:         Potential for Groundwater Flooding of Property Situated Below Ground Level	A13NE (NE)	315	1	599050 279450
	BGS Groundwater Flooding Susceptibility           Flooding Type:         Potential for Groundwater Flooding of Property Situated Below Ground Level	A12SE (W)	330	1	598400 279150
	BGS Groundwater Flooding Susceptibility           Flooding Type:         Potential for Groundwater Flooding of Property Situated Below Ground Level	A12SE (W)	388	1	598350 279100
	BGS Groundwater Flooding Susceptibility           Flooding Type:         Potential for Groundwater Flooding of Property Situated Below Ground Level	A18SE (NE)	422	1	599100 279550
	BGS Groundwater Flooding Susceptibility           Flooding Type:         Potential for Groundwater Flooding of Property Situated Below Ground Level	A8NW (S)	423	1	598700 278700
	BGS Groundwater Flooding Susceptibility           Flooding Type:         Potential for Groundwater Flooding of Property Situated Below Ground Level	A18SW (N)	447	1	598650 279700
	BGS Groundwater Flooding Susceptibility           Flooding Type:         Potential for Groundwater Flooding of Property Situated Below Ground Level	A8NW (S)	486	1	598650 278650



Map ID		Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
1	Discharge Consents Operator: Property Type: Location: Authority: Catchment Area: Reference: Permit Version: Effective Date: Issued Date: Revocation Date: Discharge Type: Discharge Environment: Receiving Water: Status: Positional Accuracy:	s Anglian Water Services Limited WWTW/SEWAGE TREATMENT WORKS (WATER COMPANY) Nethergate Street, Hopton Environment Agency, Anglian Region Upper Little Ouse River (Rushmore) Ascnf2489 1 2nd January 1990 2nd January 1990 2nd January 1990 16th April 1998 Storm /emergency overflow Freshwater Stream/River Trib Little Ouse Post National Rivers Authority Legislation where issue date > 31/08/1989 Located by supplier to within 100m	A13NE (N)	46	2	598800 279300
2	Discharge Consents Operator: Property Type: Location: Authority: Catchment Area: Reference: Permit Version: Effective Date: Issued Date: Revocation Date: Discharge Type: Discharge Type: Discharge Type: Discharge Environment: Receiving Water: Status: Positional Accuracy:	s Mrs C Noel FARMS (NOT HOUSE)/CROP + ANIMAL REARING/PLANT NURSERY Dairy Farm, Hopton Environment Agency, Anglian Region Not Supplied Pr1nfg0551 1 15th May 1963 15th May 1963 4th June 1991 Agricultural effluents Freshwater Stream/River Little Ouse Pre National Rivers Authority Legislation where issue date < 01/09/1989 Located by supplier to within 100m	A18SE (N)	334	2	598800 279600
3	Discharge Consents Operator: Property Type: Location: Authority: Catchment Area: Reference: Permit Version: Effective Date: Issued Date: Revocation Date: Discharge Environment: Receiving Water: Status: Positional Accuracy:	s I.C. Baker Not Supplied 2 Bury Road Hopton, Diss, Norfolk. lp22 2nu, lp22 2nu Environment Agency, Anglian Region Not Supplied Pr1lf2665 1 15th April 1987 15th April 1987 9th May 1997 Unknown Onto Land Land Pre National Rivers Authority Legislation where issue date < 01/09/1989 Located by supplier to within 10m	A14SW (SE)	452	2	599260 278930
4	Discharge Consents Operator: Property Type: Location: Authority: Catchment Area: Reference: Permit Version: Effective Date: Issued Date: Revocation Date: Discharge Type: Discharge Environment: Receiving Water: Status: Positional Accuracy:	s Silkstone Stuart Domestic Property (Single) Pemberley Shortgrove Lane, Hopton, Diss, Norfolk, Ip22 2rp Environment Agency, Anglian Region Upper Little Ouse River (Rushmore) Prcnf14852 2 28th May 2004 28th May 2004 28th May 2004 28th May 2004 Not Supplied Sewage Discharges - Final/Treated Effluent - Not Water Company Freshwater Stream/River Unnamed Ditch Trib Of L. Ouse Modified (Water Resources Act 1991, Schedule 10 as amended by Environment Act 1995) Located by supplier to within 100m	A9NW (SE)	635	2	599400 278800



Map ID		Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Discharge Consent	S				
4	Operator: Property Type: Location: Authority: Catchment Area: Reference: Permit Version: Effective Date: Issued Date: Revocation Date: Discharge Type: Discharge Environment: Receiving Water: Status: Positional Accuracy:	Mr Leonard Stuart Silkstone Domestic Property (Single) Pemberley Shortgrove Lane, Hopton, Diss, Norfolk, Ip22 2rp Environment Agency, Anglian Region Upper Little Ouse River (Rushmore) Prcnf14852 1 17th June 2003 17th July 2003 27th May 2004 Sewage Discharges - Final/Treated Effluent - Not Water Company Freshwater Stream/River Unnamed Ditch Trib Of L. Ouse New Consent (Water Resources Act 1991, Section 88 & Schedule 10 as amended by Environment Act 1995) Located by supplier to within 100m	A9NW (SE)	635	2	599400 278800
	Discharge Consent	S				
5	-	Mr Alan Mitchell WWTW (NOT WATER CO) (NOT STP AT A PRIVATE PREMISES) Hopton Grange Shortgrove Lane, Hopton, Suffolk, Ip22 2rp Environment Agency, Anglian Region Not Supplied Prclf17198 1 22nd March 2004 22nd March 2004 Not Supplied Sewage Discharges - Final/Treated Effluent - Not Water Company Land/Soakaway Groundwater New Consent (Water Resources Act 1991, Section 88 & Schedule 10 as amended by Environment Act 1995) Located by supplier to within 10m	A14SW (SE)	642	2	599433 278853
	Discharge Consent					
5	Operator: Property Type: Location: Authority: Catchment Area: Reference: Permit Version: Effective Date: Issued Date: Revocation Date: Discharge Type: Discharge Environment: Receiving Water: <b>Status:</b> Positional Accuracy:	Filler Mark And Phillipa WWTW (NOT WATER CO) (NOT STP AT A PRIVATE PREMISES) Plot B Short Grove Lane, Hopton, Suffolk, Ip22 2rp Environment Agency, Anglian Region Upper Little Ouse River (Rushmore) Prcnf17256 1 18th June 2004 18th June 2004 Not Supplied Sewage Discharges - Final/Treated Effluent - Not Water Company Freshwater Stream/River Ditch Trib R. Little Ouse New Consent (Water Resources Act 1991, Section 88 & Schedule 10 as amended by Environment Act 1995) Located by supplier to within 10m	A14SW (SE)	653	2	599443 278848
	Discharge Consent	s				
6	Operator: Property Type: Location: Authority: Catchment Area: Reference: Permit Version: Effective Date: Issued Date: Revocation Date: Discharge Type: Discharge Environment: Receiving Water: <b>Status:</b> Positional Accuracy:	M K & C F Farley Arable Farming Hopton End Farm Church Road, Market Weston, Norfolk, Ip22 2nx Environment Agency, Anglian Region Catchment 29 Unknown Detail Gwclf30344 1 1st April 1999 26th July 2000 Not Supplied Trade Discharge - Agricultural And Surface Onto Land Groundwater Deemed Groundwater Regulations Authorisation Located by supplier to within 10m	A9SW (SE)	906	2	599200 278270
	Nearest Surface Wa	ter Feature				
			A13SW (W)	0	-	598728 279184



Map ID		Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
7	Water Abstractions Operator: Licence Number: Permit Version: Location: Authority: Abstraction Type: Source: Daily Rate (m3): Yearly Rate (m3): Details: Authorised Start: Authorised Start: Authorised End: Permit Start Date: Permit End Date: Positional Accuracy:	A Brown & Son 6/33/42/*G/0030 100 Borehole At Hopton Environment Agency, Anglian Region General Farming And Domestic Water may be abstracted from a single point Groundwater Not Supplied Not Supplied C Chalk 9; Status: Perpetuity 01 January 31 December 1st January 1968 Not Supplied Located by supplier to within 10m	A18SW (NW)	370	2	598600 279600
	Water Abstractions Operator: Licence Number: Permit Version: Location: Authority: Abstraction Type: Source: Daily Rate (m3): Yearly Rate (m3): Yearly Rate (m3): Details: Authorised Start: Authorised Start: Permit Start Date: Permit End Date: Positional Accuracy:	H F Capon & Son 6/33/42/*G/0042 100 Borehole At Village Farm Environment Agency, Anglian Region General Farming And Domestic Water may be abstracted from a single point Groundwater Not Supplied Not Supplied C Chalk 9; Status: Perpetuity 01 January 31 December 1st May 1966 Not Supplied Located by supplier to within 10m	A3SW (S)	1408	2	598700 277700
	Water Abstractions Operator: Licence Number: Permit Version: Location: Authority: Abstraction Type: Source: Daily Rate (m3): Yearly Rate (m3): Details: Authorised Start: Authorised Start: Authorised End: Permit Start Date: Permit End Date: Positional Accuracy:	J B Sarson 6/33/42/*G/0014 100 Borehole At Market Weston Environment Agency, Anglian Region General Farming And Domestic Water may be abstracted from a single point Groundwater Not Supplied Not Supplied C Chalk 9; Status: Perpetuity 01 January 31 December 1st December 1966 Not Supplied Located by supplier to within 10m	A6SE (SW)	1417	2	597700 278200
	Water Abstractions Operator: Licence Number: Permit Version: Location: Authority: Abstraction Type: Source: Daily Rate (m3): Yearly Rate (m3): Details: Authorised Start: Authorised Start: Authorised End: Permit Start Date: Permit End Date: Positional Accuracy:	Douglas Hugh Atkins 6/33/42/*s/083 Not Supplied Little Ouse River, GARBOLDISHAM Environment Agency, Anglian Region Unspecified Not Supplied Stream 5 273000 Status: Revoked Not Supplied Not Supplied Not Supplied Not Supplied Not Supplied Not Supplied Located by supplier to within 10m	A20NW (NE)	1459	2	600001 280096



Map ID		Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Water Abstractions Operator:	Douglas Hugh Atkins	A20NW	1463	2	600001
	Licence Number: Permit Version:	6/33/42/*s/083 Not Supplied	(NE)			280101
	Location:	Little Ouse River, GARBOLDISHAM				
	Authority: Abstraction:	Environment Agency, Anglian Region Spray Irrigation				
	Abstraction Type:	Not Supplied				
	Source: Daily Rate (m3):	Stream 5				
	Yearly Rate (m3): Details:	273000 Status: Revoked				
	Authorised Start:	Not Supplied				
	Authorised End: Permit Start Date:	Not Supplied Not Supplied				
	Permit End Date:	Not Supplied				
	Positional Accuracy:	Located by supplier to within 10m				
	Water Abstractions			/	_	
	Operator: Licence Number:	C W G Hatten 6/33/42/*G/0002	A2SE (S)	1563	2	598400 277600
	Permit Version:	100	(0)			211000
	Location: Authority:	Borehole At Market Weston Environment Agency, Anglian Region				
	Abstraction:	General Farming And Domestic				
	Abstraction Type: Source:	Water may be abstracted from a single point Groundwater				
	Daily Rate (m3):	Not Supplied				
	Yearly Rate (m3): Details:	Not Supplied C Chalk 9; Status: Perpetuity				
	Authorised Start: Authorised End:	01 January 31 December				
	Permit Start Date:	1st December 1966				
	Permit End Date: Positional Accuracy:	Not Supplied Located by supplier to within 10m				
	Water Abstractions					
	Operator:	Douglas H Atkins	A25SW	1591	2	600001
	Licence Number: Permit Version:	6/33/42/*s/102 Not Supplied	(NE)			280301
	Location:	River Little Ouse				
	Authority: Abstraction:	Environment Agency, Anglian Region Spray Irrigation				
	Abstraction Type:	Not Supplied				
	Source: Daily Rate (m3):	Stream 1				
	Yearly Rate (m3):	218180				
	Details: Authorised Start:	Status: Revoked Not Supplied				
	Authorised End: Permit Start Date:	Not Supplied				
	Permit End Date:	Not Supplied Not Supplied				
		Located by supplier to within 10m				
	Water Abstractions			4000	0	E00000
	Operator: Licence Number:	J W Kemp 6/33/42/*G/0041	A22NE (N)	1600	2	598300 280800
	Permit Version:	100 Borehole 1 At Gasthorpe Lodge				
	Location: Authority:	Environment Agency, Anglian Region				
	Abstraction: Abstraction Type:	General Farming And Domestic				
	Source:	Water may be abstracted from a single point Groundwater				
	Daily Rate (m3):	Not Supplied				
	Yearly Rate (m3): Details:	Not Supplied C Chalk 9; Status: Perpetuity				
	Authorised Start:	01 January				
	Authorised End: Permit Start Date:	31 December 1st December 1966				
	Permit End Date:	Not Supplied				
	Fositional Accuracy:	Located by supplier to within 100m				



Map ID		Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Water Abstractions Operator: Licence Number: Permit Version: Location:	Douglas Hugh Atkins 6/33/42/*s/083 Not Supplied Little Ouse River, GARBOLDISHAM	A20NE (NE)	1636	2	600250 280050
	Authority: Abstraction: Abstraction Type: Source: Daily Rate (m3): Yearly Rate (m3): Details:	Environment Agency, Anglian Region Frost Protection Not Supplied Stream 5 273000 Status: Revoked				
		Not Supplied Not Supplied Not Supplied Not Supplied Located by supplier to within 10m				
	Water Abstractions Operator: Licence Number: Permit Version: Location: Authority: Abstraction:	Douglas Hugh Atkins 6/33/42/*s/083 Not Supplied Little Ouse River, GARBOLDISHAM Environment Agency, Anglian Region Unspecified Not Supplied	A20NE (NE)	1637	2	600255 280045
	Abstraction Type: Source: Daily Rate (m3): Yearly Rate (m3): Details: Authorised Start: Authorised End: Permit Start Date: Permit End Date: Positional Accuracy:	Stream 5 273000 Status: Revoked Not Supplied Not Supplied Not Supplied Not Supplied Located by supplier to within 10m				
	Water Abstractions					
	Operator: Licence Number: Permit Version: Location: Authority: Abstraction: Abstraction Type: Source: Daily Rate (m3): Jearly Rate (m3): Details: Authorised Start: Authorised Start: Authorised End: Permit Start Date: Permit End Date:	Douglas H Atkins 6/33/42/*s/102 Not Supplied Location Description Not Available Environment Agency, Anglian Region Spray Irrigation Not Supplied Stream 1 218180 Status: Revoked Not Supplied Not Supplied Not Supplied Not Supplied Located by supplier to within 10m	A20NE (NE)	1705	2	600300 280100
	Operator: Licence Number: Permit Version: Location: Authority: Abstraction: Abstraction Type: Source: Daily Rate (m3): Jearly Rate (m3): Details: Authorised Start: Authorised Start: Authorised End: Permit Start Date: Permit End Date:	Environment Agency 6/33/42/*G/0074 100 Work No.26,Bore At TheInetham Environment Agency, Anglian Region Environmental: Transfer between sources Water may be abstracted from a single point Groundwater Not Supplied Not Supplied C Chalk 9; Status: Perpetuity 01 January 31 December 21st November 1990 Not Supplied Located by supplier to within 10m	A5NW (SE)	1720	2	600090 277920



Map ID		Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Water Abstractions Operator:	J K Bucher	A21SE	1765	2	597500
	Licence Number: Permit Version:	6/33/42/*s/072 Not Supplied	(NW)			280500
	Location:	Little Ouse, KNETTISHALL				
	Authority: Abstraction:	Environment Agency, Anglian Region Spray Irrigation				
	Abstraction Type:	Not Supplied				
	Source: Daily Rate (m3):	Stream 59				
	Yearly Rate (m3): Details:	1091000 Status: Revoked				
	Authorised Start:	Not Supplied				
	Authorised End: Permit Start Date:	Not Supplied Not Supplied				
	Permit End Date:	Not Supplied				
	Positional Accuracy:	Located by supplier to within 10m				
	Water Abstractions					
	Operator: Licence Number:	T L Phoenix 6/33/42/*G/0044	A4SE (SE)	1773	2	599600 277500
	Permit Version:	100	(02)			211000
	Location: Authority:	Borehole At Manor Farm Environment Agency, Anglian Region				
	Abstraction:	General Farming And Domestic				
	Abstraction Type: Source:	Water may be abstracted from a single point Groundwater				
	Daily Rate (m3):	Not Supplied				
	Yearly Rate (m3): Details:	Not Supplied C Chalk 9; Status: Perpetuity				
	Authorised Start:	01 January				
	Authorised End: Permit Start Date:	31 December 1st November 1966				
	Permit End Date: Positional Accuracy:	Not Supplied Located by supplier to within 10m				
	Water Abstractions					
	Operator:	Robin Tacchi Plants	A25SW	1800	2	600100
	Licence Number:	6/33/42/*G/0110	(NE)	1000	_	280500
	Permit Version: Location:	100 Borehole - Garboldisham				
	Authority:	Environment Agency, Anglian Region				
	Abstraction: Abstraction Type:	General Agriculture: Spray Irrigation - Direct Water may be abstracted from a single point				
	Source:	Groundwater				
	Daily Rate (m3): Yearly Rate (m3):	Not Supplied Not Supplied				
	Details:	C Chalk 9; Status: Temporary				
	Authorised Start: Authorised End:	01 January 31 December				
	Permit Start Date:	1st February 1993				
1	Permit End Date: Positional Accuracy:	Not Supplied Located by supplier to within 10m				
	Water Abstractions					
	Operator:	R B Tacchi	A25NE	1913	2	600150
	Licence Number: Permit Version:	6/33/42/*G/0124 1	(NE)			280610
	Location:	Borehole At Garboldisham				
	Authority: Abstraction:	Environment Agency, Anglian Region General Agriculture: Spray Irrigation - Direct				
	Abstraction Type:	Water may be abstracted from a single point				
	Source: Daily Rate (m3):	Groundwater Not Supplied				
	Yearly Rate (m3):	Not Supplied				
	Details: Authorised Start:	Not Supplied 01 January				
	Authorised End:	31 December				
	Permit Start Date: Permit End Date:	28th April 2003 Not Supplied				
		Located by supplier to within 10m				



Map ID		Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Water Abstractions Operator:	Robin Tacchi Plants Limited	A25NE	1917	2	600150
	Licence Number: Permit Version:	An/033/0042/005/R01 1	(NE)			280615
	Location: Authority:	Borehole At Garboldisham Environment Agency, Anglian Region				
	Abstraction: Abstraction Type:	General Agriculture: Spray Irrigation - Direct Water may be abstracted from a single point				
	Source: Daily Rate (m3):	Groundwater Not Supplied				
	Yearly Rate (m3): Details:	Not Supplied Not Supplied				
	Authorised Start: Authorised End:	01 April 31 March				
	Permit Start Date:	1st April 2018				
	Permit End Date: Positional Accuracy:	Not Supplied Located by supplier to within 10m				
	Water Abstractions					
	Operator: Licence Number:	Robin Tacchi Plants Limited An/033/0042/005	A25NE (NE)	1917	2	600150 280615
	Permit Version: Location:	2 Borehole At Garboldisham	(112)			200010
	Authority:	Environment Agency, Anglian Region				
	Abstraction: Abstraction Type:	General Agriculture: Spray Irrigation - Direct Water may be abstracted from a single point				
	Source: Daily Rate (m3):	Groundwater Not Supplied				
	Yearly Rate (m3): Details:	Not Supplied Not Supplied				
	Authorised Start: Authorised End:	01 April 31 March				
	Permit Start Date:	27th September 2017				
	Permit End Date: Positional Accuracy:	Not Supplied Located by supplier to within 10m				
	Water Abstractions					
	Operator: Licence Number:	R B Tacchi An/033/0042/005	A25NE (NE)	1917	2	600150 280615
	Permit Version: Location:	1 Borehole At Garboldisham	. ,			
	Authority:	Environment Agency, Anglian Region				
	Abstraction: Abstraction Type:	General Agriculture: Spray Irrigation - Direct Water may be abstracted from a single point				
	Source: Daily Rate (m3):	Groundwater Not Supplied				
	Yearly Rate (m3): Details:	Not Supplied Not Supplied				
	Authorised Start: Authorised End:	01 April 31 March				
	Permit Start Date:	22nd January 2015				
	Permit End Date: Positional Accuracy:	Not Supplied Located by supplier to within 10m				
	Water Abstractions					
	Operator: Licence Number:	R Tacchi 6/33/42/*g/086	A25NE (NE)	1941	2	600200 280600
	Permit Version: Location:	Not Supplied Borehole Garboldisham Common, GARBOLDISHAM				
	Authority: Abstraction:	Environment Agency, Anglian Region Spray Irrigation				
	Abstraction Type:	Not Supplied				
	Source: Daily Rate (m3):	Well And Borehole 4				
	Yearly Rate (m3): Details:	136000 C Chalk 9; Status: Revoked				
	Authorised Start: Authorised End:	Not Supplied Not Supplied				
	Permit Start Date: Permit End Date:	Not Supplied Not Supplied				
		Located by supplier to within 10m				



Map ID		Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Groundwater Vulne	erability Map				
	Combined	Secondary Superficial Aquifer - High Vulnerability	A13SE	0	3	598834
	Classification:		(SE)			279134
	Combined Vulnerability:	High				
	Combined Aquifer:	Productive Bedrock Aquifer, Productive Superficial Aquifer				
	Pollutant Speed:	High				
	Bedrock Flow: Dilution:	Well Connected Fractures <300 mm/year				
	Baseflow Index:	>70%				
	Superficial Patchiness:	>90%				
	Superficial	3-10m				
	Thickness:					
	Superficial Recharge:	Low				
	Groundwater Vulne	vrahility Man				
	Combined	Secondary Superficial Aquifer - High Vulnerability	A13NW	0	3	598772
	Classification:	Secondary Supericial Aquiler - High Vullerability	(NW)	0	5	279194
	Combined	High	, , ,			
	Vulnerability: Combined Aquifer:	Productive Bedrock Aquifer, Productive Superficial Aquifer				
	Pollutant Speed:	High				
	Bedrock Flow:	Well Connected Fractures				
	Dilution: Baseflow Index:	<300 mm/year >70%				
	Superficial	>90%				
	Patchiness:	2 10m				
	Superficial Thickness:	3-10m				
	Superficial	Low				
	Recharge:					
	Groundwater Vulne	erability Map				
	Combined	Secondary Superficial Aquifer - High Vulnerability	A13SE	0	3	598797
	Classification: Combined	High	(SW)			279182
	Vulnerability:	, igii				
	Combined Aquifer:	Productive Bedrock Aquifer, Productive Superficial Aquifer				
	Pollutant Speed: Bedrock Flow:	High Well Connected Fractures				
	Dilution:	<300 mm/year				
	Baseflow Index: Superficial	>70% >90%				
	Patchiness:	23070				
	Superficial	3-10m				
	Thickness: Superficial	Low				
	Recharge:	Low				
	Groundwater Vulne	erability - Soluble Rock Risk				
	Classification:	Significant Risk - Low Possibility	A13SE	0	3	598797
			(SW)	-		279182
	Bedrock Aquifer De	esignations				
	Aquifer Designation:	Principal Aquifer	A13SE	0	3	598797
	Suporficial America	Designations	(SW)			279182
	Superficial Aquifer	-	A13NW	_	2	509770
	Aquiter Designation:	Secondary Aquifer - Undifferentiated	A13NW (NW)	0	3	598772 279194
	Superficial Aquifer	Designations				
		Secondary Aquifer - A	A13SE	0	3	598797
			(SW)			279182
	Source Protection 2					
8	Name:	Not Supplied	A13SE	0	2	598797
	Source: Reference:	Environment Agency, Head Office Not Supplied	(SW)			279182
	Туре:	Zone III (Total Catchment): The total area needed to support the discharge from the protected groundwater source.				
	Extreme Flooding f	rom Rivers or Sea without Defences				
	Type:	Extent of Extreme Flooding from Rivers or Sea without Defences	A13NW	0	2	598758
	Flood Plain Type: Boundary Accuracy:	Fluvial Models	(NW)			279218
	-	rs or Sea without Defences			_	
				0	2	598743 279208
	Boundary Accuracy:					213200
	Type: Flood Plain Type: Boundary Accuracy:	Extent of Flooding from Rivers or Sea without Defences Fluvial Models As Supplied	A13NW (NW)	0	2	



Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Areas Benefiting from Flood Defences				
	None				
	Flood Water Storage Areas				
	None Flood Defences				
	None				
	OS Water Network Lines				
9	Watercourse Form:Inland riverWatercourse Length:330.6Watercourse Level:On ground surfacePermanent:TrueWatercourse Name:Not SuppliedCatchment Name:Cam Ely Ouse and South LevelPrimacy:2	A13NW (NW)	1	4	598737 279210
10	OS Water Network Lines         Watercourse Form:       Inland river         Watercourse Length:       42.1         Watercourse Level:       On ground surface         Permanent:       True         Watercourse Name:       Not Supplied         Catchment Name:       Cam Ely Ouse and South Level         Primacy:       1	A13NW (NW)	6	4	598759 279271
11	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 57.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1	A13SW (W)	9	4	598720 279184
	OS Water Network Lines				
12	Watercourse Form:       Inland river         Watercourse Length:       105.3         Watercourse Level:       On ground surface         Permanent:       True         Watercourse Name:       Not Supplied         Catchment Name:       Cam Ely Ouse and South Level         Primacy:       1	A13NW (W)	48	4	598678 279227
	OS Water Network Lines				
13	Watercourse Form:       Inland river         Watercourse Length:       11.3         Watercourse Level:       Underground         Permanent:       True         Watercourse Name:       Not Supplied         Catchment Name:       Cam Ely Ouse and South Level         Primacy:       1	A13NW (NW)	48	4	598723 279293
	OS Water Network Lines				
14	Watercourse Form:       Inland river         Watercourse Length:       68.9         Watercourse Level:       On ground surface         Permanent:       True         Watercourse Name:       Not Supplied         Catchment Name:       Cam Ely Ouse and South Level         Primacy:       1	A13NW (NW)	49	4	598729 279302
	OS Water Network Lines				
15	Watercourse Form:       Inland river         Watercourse Length:       29.8         Watercourse Level:       On ground surface         Permanent:       True         Watercourse Name:       Not Supplied         Catchment Name:       Cam Ely Ouse and South Level         Primacy:       1	A13NW (W)	66	4	598667 279206
	OS Water Network Lines				
16	Watercourse Form:       Inland river         Watercourse Length:       87.5         Watercourse Level:       On ground surface         Permanent:       True         Watercourse Name:       Not Supplied         Catchment Name:       Cam Ely Ouse and South Level         Primacy:       1	A13SW (W)	78	4	598651 279181



Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
17	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 30.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1	A13SW (W)	78	4	598651 279181
18	OS Water Network Lines Watercourse Form: Inland river Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1	A13SW (SW)	92	4	598697 279077
19	OS Water Network Lines         Watercourse Form:       Inland river         Watercourse Length:       110.6         Watercourse Level:       On ground surface         Permanent:       True         Watercourse Name:       Not Supplied         Catchment Name:       Cam Ely Ouse and South Level         Primacy:       1	A13NW (N)	94	4	598764 279362
20	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 69.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1	A13SW (SW)	114	4	598670 279085
21	OS Water Network Lines         Watercourse Form:       Inland river         Watercourse Length:       56.1         Watercourse Level:       On ground surface         Permanent:       True         Watercourse Name:       Not Supplied         Catchment Name:       Cam Ely Ouse and South Level         Primacy:       1	A13SW (W)	146	4	598605 279107
22	OS Water Network Lines         Watercourse Form:       Inland river         Watercourse Length:       146.9         Watercourse Level:       On ground surface         Permanent:       True         Watercourse Name:       Not Supplied         Catchment Name:       Cam Ely Ouse and South Level         Primacy:       1	A13SW (SW)	157	4	598669 279007
23	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 46.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1	A13SW (SW)	157	4	598669 279007
24	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 122.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1	A13NE (NE)	193	4	598897 279417
25	OS Water Network Lines         Watercourse Form:       Inland river         Watercourse Length:       224.2         Watercourse Level:       On ground surface         Permanent:       True         Watercourse Name:       Not Supplied         Catchment Name:       Cam Ely Ouse and South Level         Primacy:       1	A13NE (N)	198	4	598819 279458



Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
26	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 204.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 2	A13SW (SW)	202	4	598583 279039
27	OS Water Network Lines         Watercourse Form:       Inland river         Watercourse Length:       126.0         Watercourse Level:       On ground surface         Permanent:       True         Watercourse Name:       Not Supplied         Catchment Name:       Cam Ely Ouse and South Level         Primacy:       1	A13SW (SW)	202	4	598559 279074
28	OS Water Network Lines         Watercourse Form:       Inland river         Watercourse Length:       296.1         Watercourse Level:       On ground surface         Permanent:       True         Watercourse Name:       Not Supplied         Catchment Name:       Cam Ely Ouse and South Level         Primacy:       1	A13SW (S)	233	4	598743 278886
29	OS Water Network Lines         Watercourse Form:       Inland river         Watercourse Length:       153.9         Watercourse Level:       On ground surface         Permanent:       True         Watercourse Name:       Not Supplied         Catchment Name:       Cam Ely Ouse and South Level         Primacy:       2	A13SE (SE)	277	4	599042 278912
30	OS Water Network Lines         Watercourse Form:       Inland river         Watercourse Length:       154.4         Watercourse Level:       On ground surface         Permanent:       True         Watercourse Name:       Not Supplied         Catchment Name:       Cam Ely Ouse and South Level         Primacy:       1	A13SW (SW)	305	4	598551 278914
31	OS Water Network Lines         Watercourse Form:       Inland river         Watercourse Length:       1.9         Watercourse Level:       On ground surface         Permanent:       True         Watercourse Name:       Not Supplied         Catchment Name:       Cam Ely Ouse and South Level         Primacy:       2	A13SW (SW)	306	4	598542 278925
32	OS Water Network Lines         Watercourse Form:       Inland river         Watercourse Length:       112.4         Watercourse Level:       On ground surface         Permanent:       True         Watercourse Name:       Not Supplied         Catchment Name:       Cam Ely Ouse and South Level         Primacy:       1	A13SW (SW)	308	4	598542 278923
33	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 6.1 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1	A8NE (SE)	315	4	599018 278842
34	OS Water Network Lines         Watercourse Form:       Inland river         Watercourse Length:       2.6         Watercourse Level:       On ground surface         Permanent:       True         Watercourse Name:       Not Supplied         Catchment Name:       Cam Ely Ouse and South Level         Primacy:       1	A8NE (SE)	319	4	599024 278841



Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
35	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 2.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1	A8NE (SE)	320	4	599026 278841
36	OS Water Network Lines         Watercourse Form:       Inland river         Watercourse Length:       5.9         Watercourse Level:       Underground         Permanent:       True         Watercourse Name:       Not Supplied         Catchment Name:       Cam Ely Ouse and South Level         Primacy:       1	A8NE (SE)	322	4	599029 278842
37	OS Water Network Lines         Watercourse Form:       Inland river         Watercourse Length:       10.7         Watercourse Level:       On ground surface         Permanent:       True         Watercourse Name:       Not Supplied         Catchment Name:       Cam Ely Ouse and South Level         Primacy:       1	A8NE (SE)	326	4	599035 278840
38	OS Water Network Lines         Watercourse Form:       Inland river         Watercourse Length:       56.6         Watercourse Level:       On ground surface         Permanent:       True         Watercourse Name:       Not Supplied         Catchment Name:       Cam Ely Ouse and South Level         Primacy:       1	A12SE (SW)	327	4	598459 278999
39	OS Water Network Lines         Watercourse Form:       Inland river         Watercourse Length:       155.7         Watercourse Level:       On ground surface         Permanent:       True         Watercourse Name:       Not Supplied         Catchment Name:       Cam Ely Ouse and South Level         Primacy:       1	A8NE (SE)	334	4	599045 278838
40	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 238.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1	A13SW (SW)	360	4	598511 278876
41	OS Water Network Lines         Watercourse Form:       Inland river         Watercourse Length:       33.3         Watercourse Level:       On ground surface         Permanent:       True         Watercourse Name:       Not Supplied         Catchment Name:       Cam Ely Ouse and South Level         Primacy:       1	A8NW (SW)	367	4	598587 278806
42	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 360.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1	A12SE (SW)	384	4	598412 278967
43	OS Water Network Lines         Watercourse Form:       Inland river         Watercourse Length:       5.1         Watercourse Level:       Underground         Permanent:       True         Watercourse Name:       Not Supplied         Catchment Name:       Cam Ely Ouse and South Level         Primacy:       1	A18SE (N)	418	4	598935 279649



Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
44	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 479.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1	A18SE (N)	423	4	598938 279654
45	OS Water Network Lines         Watercourse Form:       Inland river         Watercourse Length:       35.3         Watercourse Level:       Underground         Permanent:       True         Watercourse Name:       Not Supplied         Catchment Name:       Cam Ely Ouse and South Level         Primacy:       1	A9NW (SE)	448	4	599177 278805
46	OS Water Network Lines         Watercourse Form:       Inland river         Watercourse Length:       1096.0         Watercourse Level:       On ground surface         Permanent:       True         Watercourse Name:       Not Supplied         Catchment Name:       Cam Ely Ouse and South Level         Primacy:       1	A9NW (SE)	469	4	599172 278770
47	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 5.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1	A18SE (N)	494	4	598868 279751
48	OS Water Network Lines         Watercourse Form:       Inland river         Watercourse Length:       339.5         Watercourse Level:       On ground surface         Permanent:       True         Watercourse Name:       Not Supplied         Catchment Name:       Cam Ely Ouse and South Level         Primacy:       1	A18SE (N)	500	4	598868 279757
49	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 453.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1	A7NW (SW)	738	4	598074 278842
50	OS Water Network Lines         Watercourse Form:       Inland river         Watercourse Length:       188.6         Watercourse Level:       On ground surface         Permanent:       True         Watercourse Name:       Not Supplied         Catchment Name:       Cam Ely Ouse and South Level         Primacy:       1	A7NW (SW)	738	4	598074 278842
51	OS Water Network Lines         Watercourse Form:       Inland river         Watercourse Length:       152.8         Watercourse Level:       On ground surface         Permanent:       True         Watercourse Name:       Not Supplied         Catchment Name:       Cam Ely Ouse and South Level         Primacy:       1	A18NE (N)	769	4	598954 280013
52	OS Water Network Lines         Watercourse Form:       Inland river         Watercourse Length:       69.7         Watercourse Level:       On ground surface         Permanent:       True         Watercourse Name:       Not Supplied         Catchment Name:       Cam Ely Ouse and South Level         Primacy:       1	A7NE (SW)	779	4	598145 278667



Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
53	OS Water Network Lines         Watercourse Form:       Inland river         Watercourse Length:       49.6         Watercourse Level:       On ground surface         Permanent:       True         Watercourse Name:       Not Supplied         Catchment Name:       Cam Ely Ouse and South Level         Primacy:       1	A7NE (SW)	779	4	598145 278667
54	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 6.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Cam Ely Ouse and South Level Primacy: 1	A18NE (N)	834	4	598872 280096
55	OS Water Network Lines         Watercourse Form:       Inland river         Watercourse Length:       327.7         Watercourse Level:       On ground surface         Permanent:       True         Watercourse Name:       Not Supplied         Catchment Name:       Cam Ely Ouse and South Level         Primacy:       1	A18NE (N)	840	4	598870 280102
56	OS Water Network Lines         Watercourse Form:       Inland river         Watercourse Length:       519.7         Watercourse Level:       On ground surface         Permanent:       True         Watercourse Name:       Not Supplied         Catchment Name:       Cam Ely Ouse and South Level         Primacy:       1	A19NW (NE)	963	4	599200 280130



#### Waste

Map ID		Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
57	Historical Landfill S Licence Holder: Location: Name: Operator Location: Boundary Accuracy: Provider Reference: First Input Date: Last Input Date: Last Input Date: Specified Waste Type: EA Waste Ref: Regis Ref: WRC Ref: BGS Ref: Other Ref:	Not Supplied Hopton Land By 12 Nethergate Street Not Supplied As Supplied	A13SE (E)	128	2	598979 279110
	Local Authority Lan Name:	dfill Coverage Suffolk County Council - Has supplied landfill data		0	5	598797 279182
	Local Authority Lan Name:	<b>dfill Coverage</b> St Edmundsbury Borough Council - Has supplied landfill data		0	6	598797 279182
58	Location: Reference: Authority: Last Reported Status: Types of Waste: Date of Closure:	orded Landfill Sites Adj 12 Nethergate Street, Nethergate Street, Hopton Not Supplied St Edmundsbury Borough Council (now part of West Suffolk Council), Environmental Health & Housing Services Closed Not Supplied Not Supplied Located by supplier to within 100m Not Applicable	A13SE (E)	151	6	599000 279100
59	Potentially Infilled L Bearing Ref: Use: Date of Mapping:	<b>and (Non-Water)</b> S Unknown Filled Ground (Pit, quarry etc) 1984	A8NW (S)	403	-	598764 278705



Map ID		Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS 1:625,000 Solid	d Geology				
	Description:	White Chalk Subgroup	A13SE (SW)	0	1	598797 279182
	BGS Estimated Soil Source: Soil Sample Type:	British Geological Survey, National Geoscience Information Service Rural Soil	A13SE (SW)	0	1	598797 279182
	Arsenic Concentration: Cadmium Concentration:	<15 mg/kg <1.8 mg/kg				
	Chromium Concentration: Lead Concentration: Nickel	20 - 40 mg/kg <100 mg/kg <15 mg/kg				
	Concentration:					
	BGS Estimated Soil	Chemistry				
	Source: Soil Sample Type: Arsenic Concentration:	British Geological Survey, National Geoscience Information Service Rural Soil <15 mg/kg	A13NW (NW)	0	1	598772 279194
	Cadmium Concentration:	<1.8 mg/kg				
	Chromium Concentration:	40 - 60 mg/kg				
	Lead Concentration: Nickel Concentration:	<100 mg/kg <15 mg/kg				
	BGS Estimated Soil	Chemistry				
	Source: Soil Sample Type: Arsenic Concentration:	British Geological Survey, National Geoscience Information Service Rural Soil <15 mg/kg	A13SE (SE)	189	1	599000 279000
	Cadmium Concentration: Chromium	<1.8 mg/kg 40 - 60 mg/kg				
	Concentration: Lead Concentration: Nickel Concentration:					
	BGS Estimated Soil	Chemistry				
	Source: Soil Sample Type: Arsenic	British Geological Survey, National Geoscience Information Service Rural Soil <15 mg/kg	A12NE (NW)	387	1	598441 279483
	Concentration: Cadmium Concentration:	<1.8 mg/kg				
	Chromium Concentration:	40 - 60 mg/kg				
	Lead Concentration: Nickel Concentration:	<100 mg/kg <15 mg/kg				
	BGS Estimated Soil	Chemistry				
	Source: Soil Sample Type: Arsenic Concentration:	British Geological Survey, National Geoscience Information Service Rural Soil <15 mg/kg	A8NE (SE)	580	1	599105 278586
	Cadmium Concentration:	<1.8 mg/kg				
	Chromium Concentration:	20 - 40 mg/kg				
	Lead Concentration: Nickel Concentration:	<100 mg/kg <15 mg/kg				
	BGS Estimated Soil	-				
	Source: Soil Sample Type: Arsenic Concentration:	British Geological Survey, National Geoscience Information Service Rural Soil <15 mg/kg	A9NW (SE)	791	1	599421 278564
	Cadmium Concentration: Chromium	<1.8 mg/kg 20 - 40 mg/kg				
	Concentration: Lead Concentration: Nickel					
	Concentration:					



Map ID		Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Estimated Soil	Chemistry				
	Source: Soil Sample Type: Arsenic Concentration:	British Geological Survey, National Geoscience Information Service Rural Soil <15 mg/kg	A9NE (SE)	879	1	599621 278696
	Cadmium Concentration:	<1.8 mg/kg				
	Chromium Concentration:	20 - 40 mg/kg				
	Lead Concentration: Nickel Concentration:	<100 mg/kg <15 mg/kg				
	BGS Estimated Soil	Chemistry				
	Source: Soil Sample Type: Arsenic Concentration:	British Geological Survey, National Geoscience Information Service Rural Soil <15 mg/kg	A8SE (S)	948	1	599036 278174
	Cadmium Concentration:	<1.8 mg/kg				
	Chromium Concentration:	20 - 40 mg/kg				
	Lead Concentration: Nickel Concentration:	<100 mg/kg <15 mg/kg				
	BGS Recorded Mine	eral Sites				
60	Site Name: Location: Source: Reference:	Hopton Pit Hopton, Bury St Edmunds, Suffolk British Geological Survey, National Geoscience Information Service 210343	A13SE (S)	193	1	598889 278915
	Type: Status: Operator:	Opencast Ceased Unknown Operator				
	Operator Location: Periodic Type: Geology:	Not Supplied Quaternary Lowestoft Formation				
	Commodity: Positional Accuracy:	Common Clay and Shale Located by supplier to within 10m				
	BGS Recorded Mine	eral Sites				
61	Site Name: Location: Source: Reference:	Hopton Pit Hopton, Bury St Edmunds, Suffolk British Geological Survey, National Geoscience Information Service 210344	A13NE (E)	215	1	599080 279196
	Type: Status:	Opencast Ceased				
	Operator: Operator Location:	Unknown Operator Not Supplied				
	Periodic Type: Geology:	Quaternary Lowestoft Formation				
	Commodity: Positional Accuracy:	Common Clay and Shale Located by supplier to within 10m				
	BGS Recorded Mine					
62	Site Name: Location:	Fen Farm Gravel Pit Hopton, Bury St Edmunds, Suffolk	A8NW (S)	402	1	598753 278708
	Source: Reference:	British Geological Survey, National Geoscience Information Service 210313				
	Type: Status:	Opencast Ceased				
	Operator: Operator Location:	Unknown Operator Not Supplied				
	Periodic Type: Geology:	Quaternary Ingham Sand And Gravel Formation				
	Commodity:	Sand and Gravel Located by supplier to within 10m				
	BGS Recorded Mine	eral Sites				
63	Site Name: Location: Source:	Fen Street Gravel Pit Hopton, Bury St Edmunds, Suffolk British Calcological Survey, National Geoscience Information Service	A12SW (W)	714	1	598055 278947
	Reference: Type:	British Geological Survey, National Geoscience Information Service 210304 Opencast				
	Status: Operator:	Ceased Unknown Operator				
	Operator Location: Periodic Type:	Not Supplied Quaternary				
	Geology: Commodity:	Ingham Sand And Gravel Formation Sand and Gravel				
		Located by supplier to within 10m				



Map ID		Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
64	BGS Recorded Mine Site Name: Location: Source: Reference: Type: Status: Operator: Operator: Operator Location: Periodic Type: Geology: Commodity:	eral Sites Wall Covert Pit Hopton, Bury St Edmunds, Suffolk British Geological Survey, National Geoscience Information Service 210299 Opencast Ceased Unknown Operator Not Supplied Quaternary Lowestoft Formation Common Clay and Shale	A12NW (W)	779	1	597956 279280
	BGS Recorded Mine					
65	Site Name: Location: Source: Reference: Type: <b>Status:</b> Operator: Operator Location: Periodic Type: Geology: Commodity: Positional Accuracy:	Dairy Farm Pit Hopton, Bury St Edmunds, Suffolk British Geological Survey, National Geoscience Information Service 210301 Opencast <b>Ceased</b> Unknown Operator Not Supplied Quaternary Lowestoft Formation Common Clay and Shale Located by supplier to within 10m	A17SE (NW)	793	1	598134 279749
	BGS Recorded Mine					
65	Site Name: Location: Source: Reference: Type: <b>Status:</b> Operator: Operator Location: Periodic Type: Geology: Commodity: Positional Accuracy:	Dairy Farm Pit Hopton, Bury St Edmunds, Suffolk British Geological Survey, National Geoscience Information Service 210302 Opencast <b>Ceased</b> Unknown Operator Not Supplied Quaternary Lowestoft Formation Common Clay and Shale Located by supplier to within 10m	A17SE (NW)	809	1	598150 279795
	BGS Recorded Mine					
66	Site Name: Location: Source: Reference: Type: <b>Status:</b> Operator: Operator Location: Periodic Type: Geology: Commodity:	Dairy Farm Pit Hopton, Bury St Edmunds, Suffolk British Geological Survey, National Geoscience Information Service 210303 Opencast <b>Ceased</b> Unknown Operator Not Supplied Quaternary Lowestoft Formation Common Clay and Shale Located by supplier to within 10m	A17NE (NW)	809	1	598297 279929
	BGS Recorded Mine					
67	Site Name: Location: Source: Reference: Type: <b>Status:</b> Operator: Operator Location: Periodic Type: Geology: Commodity: Positional Accuracy:	Wall Covert Pit Hopton, Bury St Edmunds, Suffolk British Geological Survey, National Geoscience Information Service 210300 Opencast <b>Ceased</b> Unknown Operator Not Supplied Quaternary Croxton Sand And Gravel Member Sand and Gravel Located by supplier to within 10m	A12NW (W)	838	1	597927 279427
	BGS Recorded Mine		4400144	050		E07047
68	Site Name: Location: Source: Reference: Type: <b>Status:</b> Operator: Operator Location: Periodic Type: Geology: Commodity: Positional Accuracy:	Fen Street Pit Market Weston, Bury St Edmunds, Suffolk British Geological Survey, National Geoscience Information Service 210306 Opencast <b>Ceased</b> Unknown Operator Not Supplied Quaternary Ingham Sand And Gravel Formation Sand and Gravel Located by supplier to within 10m	A12SW (W)	958	1	597817 278890



Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Measured Urban Soil Chemistry				
	No data available				
	BGS Urban Soil Chemistry Averages No data available				
	Coal Mining Affected Areas				
	In an area that might not be affected by coal mining				
	Non Coal Mining Areas of Great Britain           Risk:         Rare           Source:         British Geological Survey, National Geoscience Information Service	A13SE (SW)	0	1	598797 279182
	Potential for Collapsible Ground Stability Hazards Hazard Potential: Very Low	A13SE	0	1	598797
	Source: British Geological Survey, National Geoscience Information Service Potential for Collapsible Ground Stability Hazards	(SW)			279182
	Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13NW (W)	18	1	598719 279211
	Potential for Compressible Ground Stability Hazards           Hazard Potential:         No Hazard           Source:         British Geological Survey, National Geoscience Information Service	A13SE (SW)	0	1	598797 279182
	Potential for Compressible Ground Stability Hazards           Hazard Potential:         Moderate           Source:         British Geological Survey, National Geoscience Information Service	A13NW (W)	18	1	598719 279211
	Potential for Ground Dissolution Stability Hazards           Hazard Potential:         Low           Source:         British Geological Survey, National Geoscience Information Service	A13SE (SW)	0	1	598797 279182
	Potential for Ground Dissolution Stability Hazards           Hazard Potential:         Very Low           Source:         British Geological Survey, National Geoscience Information Service	A13NW (NW)	0	1	598772 279194
	Potential for Ground Dissolution Stability Hazards           Hazard Potential:         Low           Source:         British Geological Survey, National Geoscience Information Service	A13NW (W)	132	1	598601 279217
	Potential for Ground Dissolution Stability Hazards           Hazard Potential:         Low           Source:         British Geological Survey, National Geoscience Information Service	A13NE (NE)	199	1	599027 279297
	Potential for Landslide Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13SE (SW)	0	1	598797 279182
	Potential for Landslide Ground Stability Hazards           Hazard Potential:         No Hazard           Source:         British Geological Survey, National Geoscience Information Service	A13SW (SW)	23	1	598754 279128
	Potential for Running Sand Ground Stability Hazards           Hazard Potential:         Very Low           Source:         British Geological Survey, National Geoscience Information Service	A13SE (SW)	0	1	598797 279182
	Potential for Running Sand Ground Stability Hazards           Hazard Potential:         Low           Source:         British Geological Survey, National Geoscience Information Service	A13NW (W)	18	1	598719 279211
	Potential for Running Sand Ground Stability Hazards           Hazard Potential:         No Hazard           Source:         British Geological Survey, National Geoscience Information Service	A13SW (SW)	23	1	598754 279128
	Potential for Shrinking or Swelling Clay Ground Stability Hazards           Hazard Potential:         Low           Source:         British Geological Survey, National Geoscience Information Service	A13SE (SE)	0	1	598834 279134
	Potential for Shrinking or Swelling Clay Ground Stability Hazards           Hazard Potential:         Very Low           Source:         British Geological Survey, National Geoscience Information Service	A13NW (NW)	0	1	598772 279194
	Potential for Shrinking or Swelling Clay Ground Stability Hazards           Hazard Potential:         No Hazard           Source:         British Geological Survey, National Geoscience Information Service	A13SE (SW)	0	1	598797 279182
	Potential for Shrinking or Swelling Clay Ground Stability Hazards           Hazard Potential:         No Hazard           Source:         British Geological Survey, National Geoscience Information Service	A13NW (NW)	84	1	598663 279248



Map ID		Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Radon Potential - R	adon Affected Areas				
	Affected Area:	The property is in a Lower probability radon area (less than 1% of homes are	A13SE	0	1	598797
	Source:	estimated to be at or above the Action Level). British Geological Survey, National Geoscience Information Service	(SW)			279182
	Radon Potential - R	adon Protection Measures				
	Protection Measure:	No radon protective measures are necessary in the construction of new dwellings or extensions	A13SE (SW)	0	1	598797 279182
	Source:	British Geological Survey, National Geoscience Information Service	(- )			



#### **Industrial Land Use**

Map ID		Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
69	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	e Directory Entries Plastic Piling Ltd Cottars Hall, Nethergate Street, Hopton, Diss, Norfolk, IP22 2QZ Plastics - Extrusion Inactive Automatically positioned to the address	A13NE (N)	22	-	598823 279257
70	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	e Directory Entries Charts & Marking Systems (International) Bryndle House, Nethergate Street, Hopton, Diss, Norfolk, IP22 2QZ Laboratory Equipment, Instruments & Supplies Inactive Automatically positioned to the address	A13NE (E)	155	-	599019 279194
71	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	e Directory Entries Harling Collection The Old Greyhound Barn, Bury Road, Hopton, Diss, Norfolk, IP22 2NU Furniture Manufacturers - Home & Office Inactive Automatically positioned to the address	A9NW (SE)	502	-	599189 278741
71	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	e Directory Entries Eastern Vulcanising Services Ltd The Old Greyhound Barn, Bury Road, Hopton, Diss, Norfolk, IP22 2NU Conveyors & Conveyor Belts Inactive Automatically positioned to the address	A9NW (SE)	502	-	599189 278741
72	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	e Directory Entries Printing.Com @ Printlink Ltd Pemberley, Short Grove Lane, Hopton, Diss, Norfolk, IP22 2RP Printers Inactive Automatically positioned to the address	A9NE (SE)	696	-	599472 278807
73	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	e Directory Entries Demeanour Customs Touch Wood, Common Road, Hopton, Diss, IP22 2QU Engineers - General Active Automatically positioned to the address	A19SE (NE)	877	-	599629 279611
74	Name: Location: Category: Class Code:	Manufacturing and Production Workings (Dis) IP22 Extractive Industries Unspecified Quarries Or Mines Positioned to an adjacent address or location	A13NW (NW)	278	7	598483 279321
75	Name: Location: Category: Class Code:	Manufacturing and Production D Sarson Farm Hillside Farm, Bury Road, Market Weston, Diss, IP22 2PB Farming Arable Farming Positioned to address or location	A8NE (SE)	560	7	599071 278592
76	Name: Location: Category: Class Code:	Manufacturing and Production Workings (Dis) IP22 Extractive Industries Unspecified Quarries Or Mines Positioned to an adjacent address or location	A12SW (W)	704	7	598064 278953
77	Name: Location: Category: Class Code:	Manufacturing and Production T L Phoenix & Sons Manor Farm, Common Road, Hopton, Diss, IP22 2QU Farming Livestock Farming Positioned to address or location	A14NE (E)	837	7	599635 279508
78	Name: Location: Category: Class Code:	Recreational and Environmental Play Area IP22 Recreational Playgrounds Positioned to an adjacent address or location	A14SW (E)	491	7	599356 279165
79	Name: Location: Category: Class Code:	Recreational and Environmental Play Area IP22 Recreational Playgrounds Positioned to an adjacent address or location	A14SW (SE)	597	7	599406 278907



#### **Sensitive Land Use**

Map ID		Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
80	Environmentally Se Name: Multiple Areas: Total Area (m2): Source:	<b>nsitive Areas</b> Breckland (decommissioned) N 945352881.45 Natural England	A13SE (SW)	0	8	598797 279182
81	Nitrate Vulnerable Z Name: Description: Source:	<b>Cones</b> Ely Ouse And Cut-Off Channel Nvz Surface Water Environment Agency, Head Office	A13SE (SW)	0	3	598797 279182
82	Nitrate Vulnerable Z Name: Description: Source:	Zones Anglian Chalk Groundwater Environment Agency, Head Office	A12NE (NW)	426	3	598398 279486
83	Designation Date: Date Type: Designation Details: Designation Date: Date Type:	Weston Fen N 497274.64 Natural England 1001985	A13SW (SW)	89	8	598700 279079
84	Sites of Special Sci Name: Multiple Areas: Total Area (m2): Source: Reference: Designation Details: Designation Date: Date Type:	entific Interest Hopton Fen N 153086.09 Natural England 1004395 Site Of Special Scientific Interest 1st February 1984 Notified	A18SE (N)	481	8	598991 279696
85	Special Areas of Co Name: Multiple Areas: Total Area (m2): Source: Reference: Status:	Moservation Waveney & Little Ouse Valley Fens Y 1937570.12 Natural England UK0012882 Designated	A13SW (SW)	89	8	598700 279079

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#### **Data Currency**

Agency & Hydrological	Version	Update Cycle
Contaminated Land Register Entries and Notices		
Mid Suffolk District Council - Environmental Health Department	January 2020	Annual Rolling Update
Environment Agency - Head Office	June 2020	Annually
St Edmundsbury Borough Council (now part of West Suffolk Council) - Environmental Health & Housing Services	March 2014	Annual Rolling Update
West Suffolk Council	March 2014	Annual Rolling Update
Breckland District Council - Environmental Health Department	October 2017	Annual Rolling Update
Discharge Consents		
Environment Agency - Anglian Region	April 2021	Quarterly
Enforcement and Prohibition Notices		
Environment Agency - Anglian Region	March 2013	Annual Rolling Update
Integrated Pollution Controls	_	
Environment Agency - Anglian Region	October 2008	Variable
Integrated Pollution Prevention And Control		
Environment Agency - Anglian Region	April 2021	Quarterly
Local Authority Integrated Pollution Prevention And Control		
Breckland District Council - Environmental Health Department	April 2014	Variable
St Edmundsbury Borough Council (now part of West Suffolk Council) - Environmental Health & Housing Services	August 2015	Variable
West Suffolk Council	August 2015	Variable
Mid Suffolk District Council - Environmental Health Department	June 2014	Variable
Local Authority Pollution Prevention and Controls		
Breckland District Council - Environmental Health Department	April 2014	Not Applicable
St Edmundsbury Borough Council (now part of West Suffolk Council) - Environmental Health & Housing Services	August 2015	Annual Rolling Update
West Suffolk Council	August 2015	Annual Rolling Update
Mid Suffolk District Council - Environmental Health Department	June 2014	Annual Rolling Update
Local Authority Pollution Prevention and Control Enforcements	A	Mariahia
Breckland District Council - Environmental Health Department St Edmundsbury Borough Council (now part of West Suffolk Council) - Environmental Health	April 2014 August 2015	Variable Variable
& Housing Services	August 2015	valiable
Mid Suffolk District Council - Environmental Health Department	June 2014	Variable
Nearest Surface Water Feature		
Ordnance Survey	January 2021	
Pollution Incidents to Controlled Waters		
Environment Agency - Anglian Region	September 1999	Not Applicable
Prosecutions Relating to Authorised Processes		
Environment Agency - Anglian Region	March 2013	Annual Rolling Update
Prosecutions Relating to Controlled Waters		
Environment Agency - Anglian Region	March 2013	Annual Rolling Update
Registered Radioactive Substances		
Environment Agency - Anglian Region	June 2016	
River Quality		
Environment Agency - Head Office	November 2001	Not Applicable
River Quality Biology Sampling Points		
Environment Agency - Head Office	July 2012	Annually
River Quality Chemistry Sampling Points		
Environment Agency - Head Office	July 2012	Annually
Substantiated Pollution Incident Register	-	
Environment Agency - Anglian Region - Central Area	April 2021	Quarterly
	April 2021	Quarterly
Environment Agency - Anglian Region - Eastern Area		
Environment Agency - Anglian Region - Eastern Area Water Abstractions		

**Data Currency** 

Agency & Hydrological	Version	Update Cycle
Water Industry Act Referrals		
Environment Agency - Anglian Region	October 2017	Quarterly
Groundwater Vulnerability Map Environment Agency - Head Office	June 2018	As notified
Groundwater Vulnerability - Soluble Rock Risk Environment Agency - Head Office	June 2018	As notified
Bedrock Aquifer Designations Environment Agency - Head Office	January 2018	Annually
Superficial Aquifer Designations Environment Agency - Head Office	January 2018	Annually
Source Protection Zones Environment Agency - Head Office	October 2019	Quarterly
Extreme Flooding from Rivers or Sea without Defences Environment Agency - Head Office	March 2021	Quarterly
Flooding from Rivers or Sea without Defences Environment Agency - Head Office	March 2021	Quarterly
Areas Benefiting from Flood Defences Environment Agency - Head Office	March 2021	Quarterly
Flood Water Storage Areas Environment Agency - Head Office	March 2021	Quarterly
Flood Defences Environment Agency - Head Office	March 2021	Quarterly
OS Water Network Lines Ordnance Survey	September 2020	Quarterly
Surface Water 1 in 30 year Flood Extent Environment Agency - Head Office	October 2013	Annually
Surface Water 1 in 100 year Flood Extent Environment Agency - Head Office	October 2013	Annually
Surface Water 1 in 1000 year Flood Extent Environment Agency - Head Office	October 2013	Annually
Surface Water Suitability Environment Agency - Head Office	October 2013	Annually
BGS Groundwater Flooding Susceptibility British Geological Survey - National Geoscience Information Service	May 2013	Annually

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#### **Data Currency**

Waste	Version	Update Cycle
BGS Recorded Landfill Sites		
British Geological Survey - National Geoscience Information Service	June 1996	Not Applicable
Historical Landfill Sites		
Environment Agency - Head Office	May 2021	Quarterly
Integrated Pollution Control Registered Waste Sites		
Environment Agency - Anglian Region	October 2008	Not Applicable
Licensed Waste Management Facilities (Landfill Boundaries)		
Environment Agency - Anglian Region - Central Area	April 2021	Quarterly
Environment Agency - Anglian Region - Eastern Area	April 2021	Quarterly
Licensed Waste Management Facilities (Locations)		
Environment Agency - Anglian Region - Central Area	April 2021	Quarterly
Environment Agency - Anglian Region - Eastern Area	April 2021	Quarterly
Local Authority Landfill Coverage		
Breckland District Council - Environmental Health Department	May 2000	Not Applicable
Mid Suffolk District Council - Environmental Health Department	May 2000	Not Applicable
Norfolk County Council - Planning & Transportation - Minerals & Waste	May 2000	Not Applicable
St Edmundsbury Borough Council (now part of West Suffolk Council) - Environmental Health & Housing Services	May 2000	Not Applicable
Suffolk County Council	May 2000	Not Applicable
West Suffolk Council	May 2000	Not Applicable
Local Authority Recorded Landfill Sites		
West Suffolk Council	April 2006	Not Applicable
Mid Suffolk District Council - Environmental Health Department	July 2003	Not Applicable
Breckland District Council - Environmental Health Department	May 2000	Not Applicable
Norfolk County Council - Planning & Transportation - Minerals & Waste	May 2000	Not Applicable
St Edmundsbury Borough Council (now part of West Suffolk Council) - Environmental Health & Housing Services	May 2000	Not Applicable
Suffolk County Council	May 2000	Not Applicable
Potentially Infilled Land (Non-Water)		
Landmark Information Group Limited	December 1999	Not Applicable
Potentially Infilled Land (Water)		
Landmark Information Group Limited	December 1999	Not Applicable
Registered Landfill Sites		
Environment Agency - Anglian Region - Central Area	March 2003	Not Applicable
Environment Agency - Anglian Region - Eastern Area	March 2003	Not Applicable
Registered Waste Transfer Sites		
Environment Agency - Anglian Region - Central Area	March 2003	Not Applicable
Environment Agency - Anglian Region - Eastern Area	March 2003	Not Applicable
Registered Waste Treatment or Disposal Sites		
Environment Agency - Anglian Region - Central Area	March 2003	Not Applicable
Environment Agency - Anglian Region - Eastern Area	March 2003	Not Applicable

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#### **Data Currency**

Hazardous Substances	Version	Update Cycle
Control of Major Accident Hazards Sites (COMAH)		
Health and Safety Executive	April 2018	Bi-Annually
Explosive Sites Health and Safety Executive	March 2017	Annually
		Annually
Notification of Installations Handling Hazardous Substances (NIHHS) Health and Safety Executive	November 2000	Not Applicable
Planning Hazardous Substance Enforcements		
Suffolk County Council - Environment and Transport	February 2006	Annual Rolling Update
Breckland District Council - Health and Housing	February 2016	Variable
Mid Suffolk District Council - Planning Department	February 2016	Variable
Norfolk County Council - Planning & Transportation - Minerals & Waste	June 2007	Annual Rolling Update
St Edmundsbury Borough Council (now part of West Suffolk Council) - Planning Department West Suffolk Council	June 2016 June 2016	Variable Variable
	Julie 2016	Vanable
Planning Hazardous Substance Consents	<b>F</b> 1 0000	
Suffolk County Council - Environment and Transport	February 2006	Annual Rolling Update
Breckland District Council - Health and Housing	February 2016	Variable Variable
Mid Suffolk District Council - Planning Department St Edmundsbury Borough Council (now part of West Suffolk Council) - Planning Department	February 2016 February 2016	Variable
West Suffolk Council	February 2016	Variable
Norfolk County Council - Planning & Transportation - Minerals & Waste	June 2007	Annual Rolling Update
Geological	Version	Update Cycle
BGS 1:625,000 Solid Geology		
British Geological Survey - National Geoscience Information Service	January 2009	Not Applicable
	bundary 2000	
BGS Estimated Soil Chemistry British Geological Survey - National Geoscience Information Service	October 2015	Annually
	October 2013	Annually
BGS Recorded Mineral Sites	May 2021	
British Geological Survey - National Geoscience Information Service	May 2021	Bi-Annually
CBSCB Compensation District Cheshire Brine Subsidence Compensation Board (CBSCB)	August 2011	Not Applicable
Coal Mining Affected Areas	3	
The Coal Authority - Property Searches	March 2014	Annual Rolling Update
Mining Instability		3 - 1 - 3 - 1
Ove Arup & Partners	October 2000	Not Applicable
Non Coal Mining Areas of Great Britain		
British Geological Survey - National Geoscience Information Service	May 2015	Not Applicable
Potential for Collapsible Ground Stability Hazards		
British Geological Survey - National Geoscience Information Service	April 2020	Annually
Potential for Compressible Ground Stability Hazards		
British Geological Survey - National Geoscience Information Service	January 2019	Annually
Potential for Ground Dissolution Stability Hazards		
British Geological Survey - National Geoscience Information Service	January 2019	Annually
Potential for Landslide Ground Stability Hazards		
British Geological Survey - National Geoscience Information Service	January 2019	Annually
	Sandary 2010	, unidally
Potential for Running Sand Ground Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	Annually
	January 2013	
Potential for Shrinking or Swelling Clay Ground Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	Annually
	canady 2010	, a modely
Radon Potential - Radon Affected Areas British Geological Survey - National Geoscience Information Service	July 2011	Annually
Radon Potential - Radon Protection Measures	,	

#### **Data Currency**

Industrial Land Use	Version	Update Cycle
Contemporary Trade Directory Entries		
Thomson Directories	April 2021	Quarterly
Fuel Station Entries		
Catalist Ltd - Experian	June 2021	Quarterly
Gas Pipelines		
National Grid	May 2021	
Points of Interest - Commercial Services		
PointX	June 2021	Quarterly
Points of Interest - Education and Health		
PointX	June 2021	Quarterly
Points of Interest - Manufacturing and Production		
PointX	June 2021	Quarterly
Points of Interest - Public Infrastructure		
PointX	June 2021	Quarterly
Points of Interest - Recreational and Environmental		
PointX	June 2021	Quarterly
Underground Electrical Cables		
National Grid	May 2021	

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Sensitive Land Use	Version	Update Cycle
Ancient Woodland		
Natural England	February 2021	Bi-Annually
Areas of Adopted Green Belt		
Breckland District Council	June 2020	As notified
Mid Suffolk District Council - Planning Department	June 2020	As notified
St Edmundsbury Borough Council (now part of West Suffolk Council)	June 2020	As notified
West Suffolk Council	June 2020	As notified
Areas of Unadopted Green Belt		
Breckland District Council	June 2020	As notified
Mid Suffolk District Council - Planning Department	June 2020	As notified
St Edmundsbury Borough Council (now part of West Suffolk Council)	June 2020	As notified
West Suffolk Council	June 2020	As notified
Areas of Outstanding Natural Beauty		
Natural England	January 2021	Bi-Annually
Environmentally Sensitive Areas		
Natural England	January 2017	
Forest Parks		
Forestry Commission	April 1997	Not Applicable
Local Nature Reserves		
Natural England	February 2021	Bi-Annually
Marine Nature Reserves		
Natural England	July 2019	Bi-Annually
National Nature Reserves		
Natural England	January 2021	Bi-Annually
National Parks		
Natural England	April 2017	Bi-Annually
Nitrate Sensitive Areas		
Natural England	April 2016	Not Applicable
Nitrate Vulnerable Zones		
Environment Agency - Head Office	December 2017	Bi-Annually
Department for Environment, Food and Rural Affairs (DEFRA - formerly FRCA)	October 2015	
Ramsar Sites		
Natural England	August 2020	Bi-Annually
Sites of Special Scientific Interest		
Natural England	February 2021	Bi-Annually
Special Areas of Conservation		
Natural England	July 2020	Bi-Annually
Special Protection Areas		
Natural England	February 2021	Bi-Annually

RSA GEOTECHINICS LIND



A selection of organisations who provide data within this report

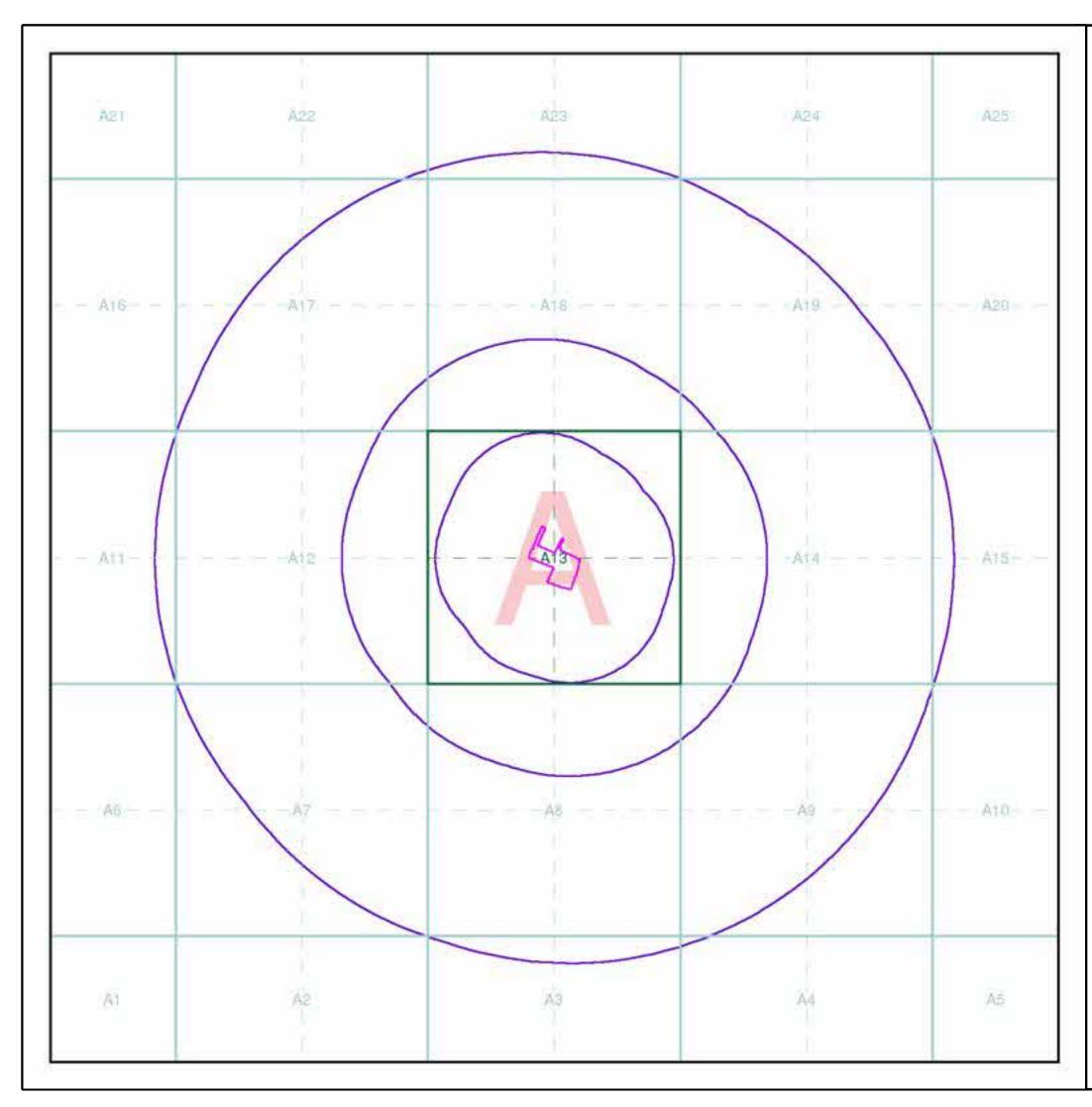
Data Supplier	Data Supplier Logo
Ordnance Survey	Map data
Environment Agency	Enviroinmedt Agency
Scottish Environment Protection Agency	SEPÃ
The Coal Authority	The Coal Authority
British Geological Survey	British Geological Survey
Centre for Ecology and Hydrology	Centre for Ecology & Hydrology
Natural Resources Wales	Cyfoeth Naturiol Naturiol Natura Natura Natura Natura
Scottish Natural Heritage	SCOTTISH NATURAL HERITAGE
Natural England	
Public Health England	Public Health England
Ove Arup	ARUP
Stantec UK Ltd	Stantec



Contact	Name and Address	Contact Details
1	British Geological Survey - Enquiry Service British Geological Survey, Environmental Science Centre, Keyworth, Nottingham, Nottinghamshire, NG12 5GG	Telephone: 0115 936 3143 Fax: 0115 936 3276 Email: enquiries@bgs.ac.uk Website: www.bgs.ac.uk
2	Environment Agency - National Customer Contact Centre (NCCC) PO Box 544, Templeborough, Rotherham, S60 1BY	Telephone: 03708 506 506 Email: enquiries@environment-agency.gov.uk
3	Environment Agency - Head Office Rio House, Waterside Drive, Aztec West, Almondsbury, Bristol, Avon, BS32 4UD	Telephone: 01454 624400 Fax: 01454 624409
4	<b>Ordnance Survey</b> Adanac Drive, Southampton, Hampshire, SO16 0AS	Telephone: 03456 05 05 05 Email: customerservices@ordnancesurvey.co.uk Website: www.ordnancesurvey.gov.uk
5	Suffolk County Council St Edmund House, County Hall, Ipswich, Suffolk, IP4 1LZ	Telephone: 01473 583000 Fax: 01473 230240 Website: www.suffolkcc.gov.uk
6	St Edmundsbury Borough Council (now part of West Suffolk Council) - Environmental Health & Housing Services West Suffolk House, Western Way, Bury St Edmunds, Suffolk, IP33 3YU	Telephone: 01284 757042 Fax: 01284 757378 Website: www.stedmundsbury.gov.uk
7	PointX 7 Abbey Court, Eagle Way, Sowton, Exeter, Devon, EX2 7HY	Website: www.pointx.co.uk
8	Natural England County Hall, Spetchley Road, Worcester, WR5 2NP	Telephone: 0300 060 3900 Email: enquiries@naturalengland.org.uk Website: www.naturalengland.org.uk
9	Forestry Commission 231 Corstorphine Road, Edinburgh, Midlothian, EH12 7AT	Telephone: 0131 334 0303 Fax: 0131 334 4473
-	Public Health England - Radon Survey, Centre for Radiation, Chemical and Environmental Hazards Chilton, Didcot, Oxfordshire, OX11 0RQ	Telephone: 01235 822622 Fax: 01235 833891 Email: radon@phe.gov.uk Website: www.ukradon.org
	Landmark Information Group Limited Imperium, Imperial Way, Reading, Berkshire, RG2 0TD	Telephone: 0844 844 9952 Fax: 0844 844 9951 Email: customerservices@landmarkinfo.co.uk Website: www.landmarkinfo.co.uk

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

RSA GEOTECHNICS LITE



## Index Map

For ease of identification, your site and buffer have been split into Slices, Segments and Quadrants. These are illustrated on the Index Map opposite and explained further below.

RSA GEOTRECHINICS LITE

### Slice

Each slice represents a 1:10,000 plot area (2.7km x 2.7km) for your site and buffer. A large site and buffer may be made up of several slices (represented by a red outline), that are referenced by letters of the alphabet, starting from the bottom left corner of the slice "grid". This grid does not relate to National Grid lines but is designed to give best fit over the site and buffer.

### Segment

A segment represents a 1:2,500 plot area. Segments that have plot files associated with them are shown in dark green, others in light blue. These are numbered from the bottom left hand corner within each slice.

### Quadrant

A quadrant is a quarter of a segment. These are labelled as NW, NE, SW, SE and are referenced in the datasheet to allow features to be quickly located on plots. Therefore a feature that has a quadrant reference of A7NW will be in Slice A, Segment 7 and the NW Quadrant.

A selection of organisations who provide data within this report:





British **Geological Survey** 



Envirocheck reports are compiled from 136 different sources of data.

### **Client Details**

Ms A Holden, RSA Geotechnics Ltd, Ashburnham House, 1 Maitland Road, Lion Barn Estate, Needham Market, Suffolk, IP6 8NZ

### **Order Details**

Order Number: 280187841\_1\_1 Customer Ref: 15874DS National Grid Reference: 598800, 279170 0.93 Site Area (Ha): Search Buffer (m): 1000

## Site Details

Orchid Meadows, Nethergate Street, Hopton, DISS, IP22 2QZ

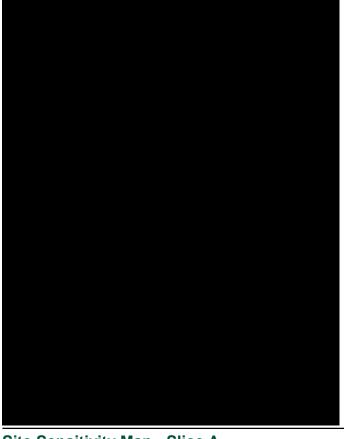
Full Terms and Conditions can be found on the following link: http://www.landmarkinfo.co.uk/Terms/Show/515



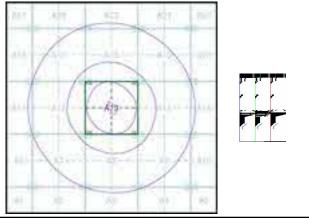
Tel: Fax: Web: 0844 844 9952 0844 844 9951 www.envirocheck.co.uk

A Landmark Information Group Service v50.0 10-Jun-2021 Page 1 of 1





## Site Sensitivity Map - Slice A



## **Order Details**

 
 Order Number:
 280187841\_1\_1

 Customer Ref:
 15874DS

 National Grid Reference:
 598800, 279180
 Slice: Site Area (Ha): Search Buffer (m):

А 0.93 1000

## Site Details

Orchid Meadows, Nethergate Street, Hopton, DISS, IP22 2QZ



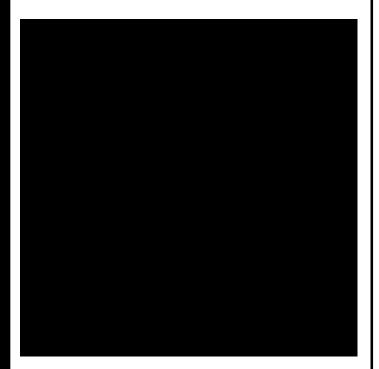
Tel: Fax: Web:

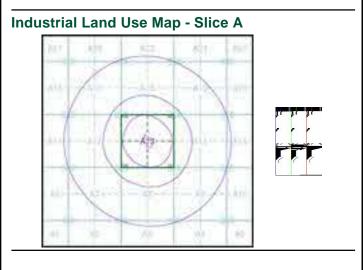
0844 844 9952 0844 844 9951 www.envirocheck.co.uk

A Landmark Information Group Service v50.0 10-Jun-2021 Page 1 of 6



## Industrial Land Use Map





## **Order Details**

 
 Order Number:
 280187841\_1\_1

 Customer Ref:
 15874DS

 National Grid Reference:
 598800, 279180
 Slice: А Site Area (Ha): Search Buffer (m): 0.93 1000

## Site Details

Orchid Meadows, Nethergate Street, Hopton, DISS, IP22 2QZ



Tel: Fax: Web:

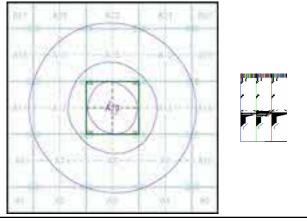
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A Landmark Information Group Service v50.0 10-Jun-2021 Page 2 of 6





## Flood Map - Slice A



### **Order Details**

 
 Order Number:
 280187841\_1\_1

 Customer Ref:
 15874DS

 National Grid Reference:
 598800, 279180
 Slice: Site Area (Ha): Search Buffer (m):

А 0.93 1000

## Site Details

Orchid Meadows, Nethergate Street, Hopton, DISS, IP22 2QZ

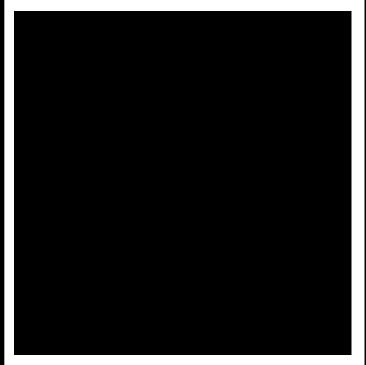


Tel: Fax: Web:

0844 844 9952 0844 844 9951 www.envirocheck.co.uk

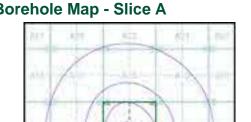
A Landmark Information Group Service v50.0 10-Jun-2021 Page 3 of 6





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

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



## **Borehole Map - Slice A**



### **Order Details**

 
 Order Number:
 280187841\_1\_1

 Customer Ref:
 15874DS

 National Grid Reference:
 598800, 279180
 Slice: Site Area (Ha): Search Buffer (m):

А 0.93 1000

## Site Details

Orchid Meadows, Nethergate Street, Hopton, DISS, IP22 2QZ

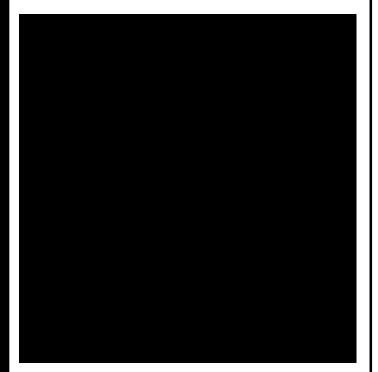


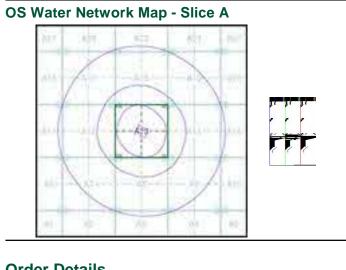
Tel: Fax: Web:

0844 844 9952 0844 844 9951 www.envirocheck.co.uk

A Landmark Information Group Service v50.0 10-Jun-2021 Page 4 of 6







## **Order Details**

 
 Order Number:
 280187841\_1\_1

 Customer Ref:
 15874DS

 National Grid Reference:
 598800, 279180
 Slice: А Site Area (Ha): Search Buffer (m): 0.93 1000

## Site Details

Orchid Meadows, Nethergate Street, Hopton, DISS, IP22 2QZ

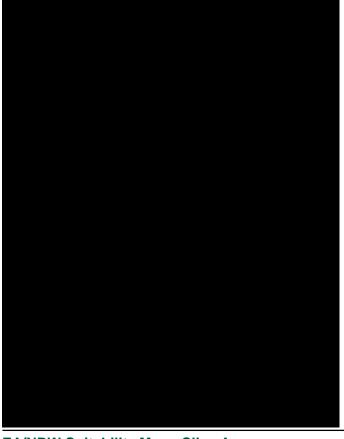


Tel: Fax: Web:

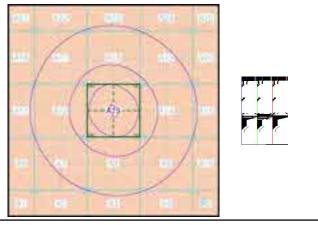
0844 844 9952 0844 844 9951 www.envirocheck.co.uk

A Landmark Information Group Service v50.0 10-Jun-2021 Page 5 of 6





EA/NRW Suitability Map - Slice A



### **Order Details**

 
 Order Number:
 280187841\_1\_1

 Customer Ref:
 15874DS

 National Grid Reference:
 598800, 279180
 Slice: Site Area (Ha): Search Buffer (m):

А 0.93 1000

## Site Details

Orchid Meadows, Nethergate Street, Hopton, DISS, IP22 2QZ

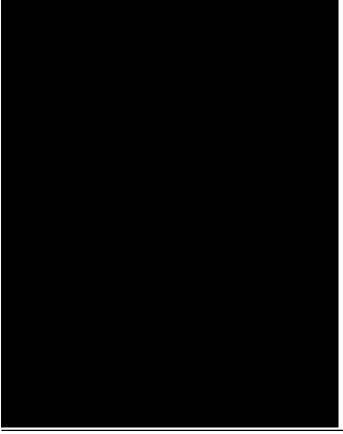


Tel: Fax: Web:

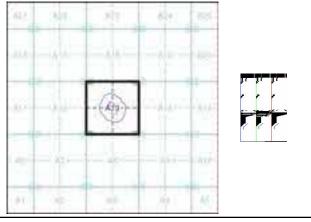
0844 844 9952 0844 844 9951 www.envirocheck.co.uk

A Landmark Information Group Service v50.0 10-Jun-2021 Page 6 of 6





## Site Sensitivity Map - Segment A13



### **Order Details**

 
 Order Number:
 280187841\_1\_1

 Customer Ref:
 15874DS

 National Grid Reference:
 598800, 279180
 Slice: Site Area (Ha): Plot Buffer (m):

А 0.93 100

## Site Details

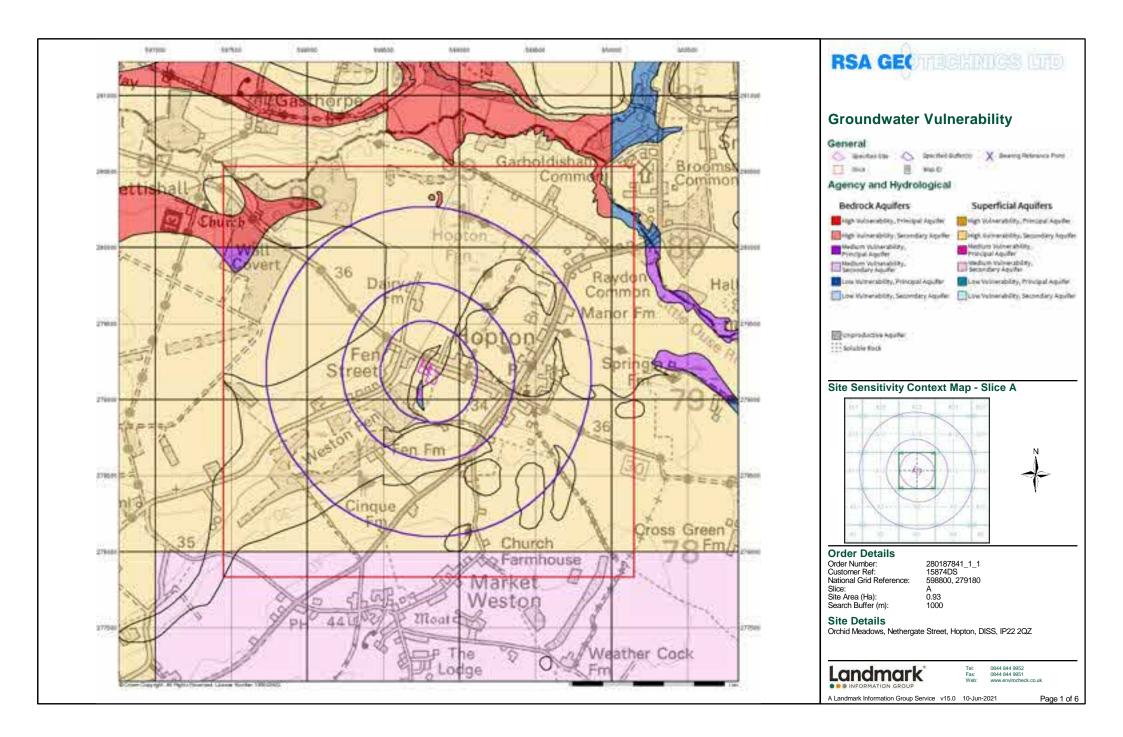
Orchid Meadows, Nethergate Street, Hopton, DISS, IP22 2QZ

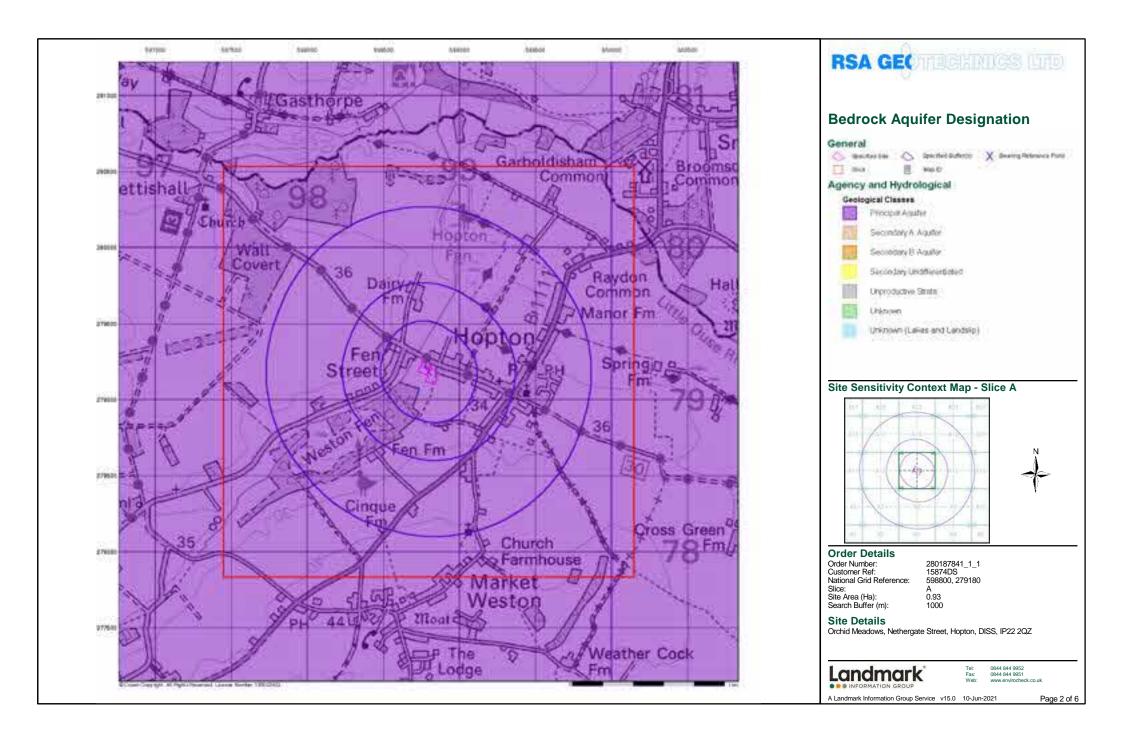


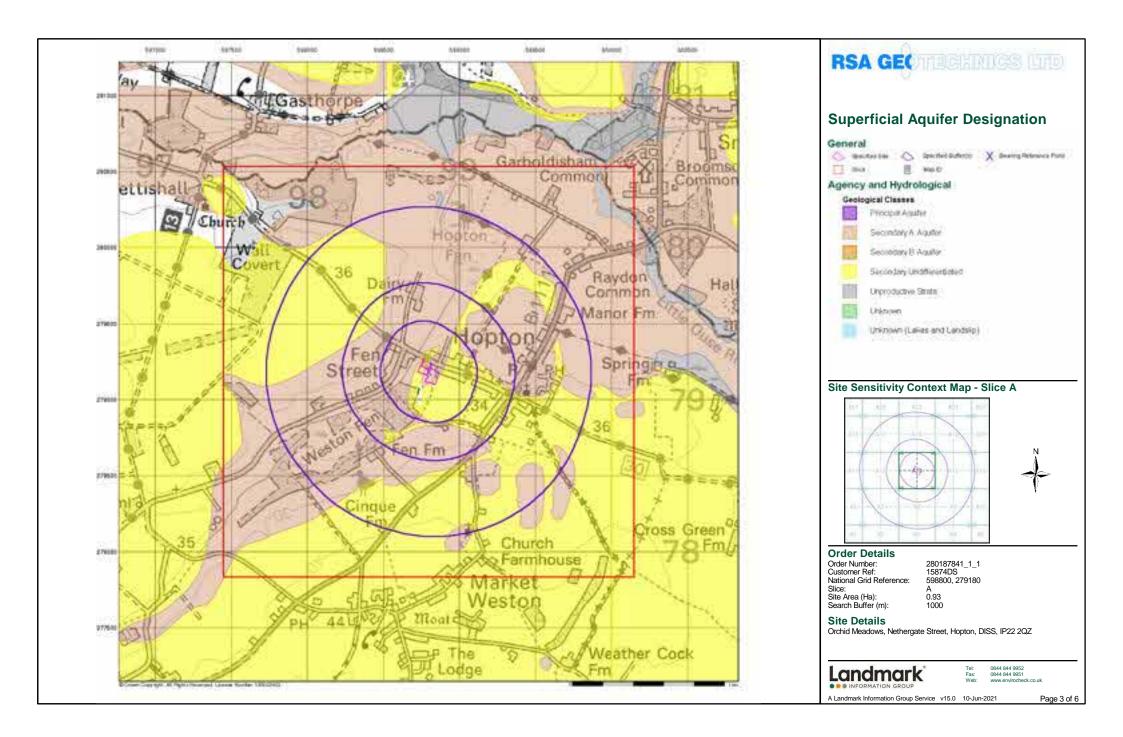
Tel: Fax: Web:

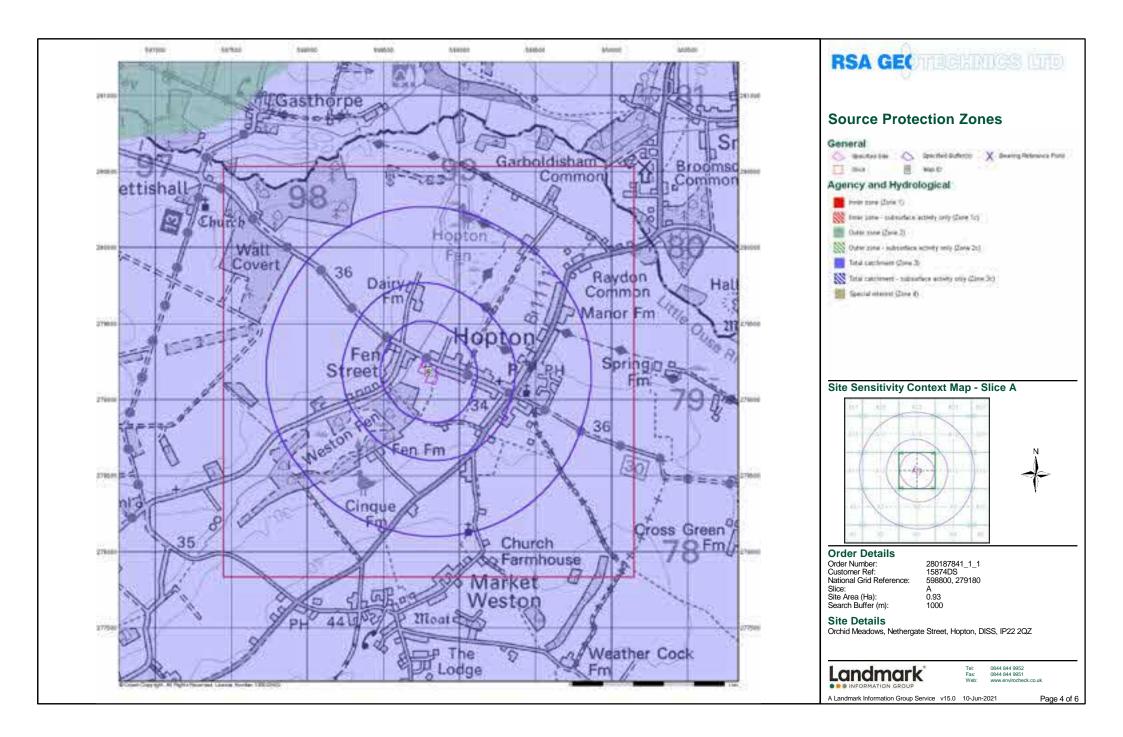
0844 844 9952 0844 844 9951 www.envirocheck.co.uk

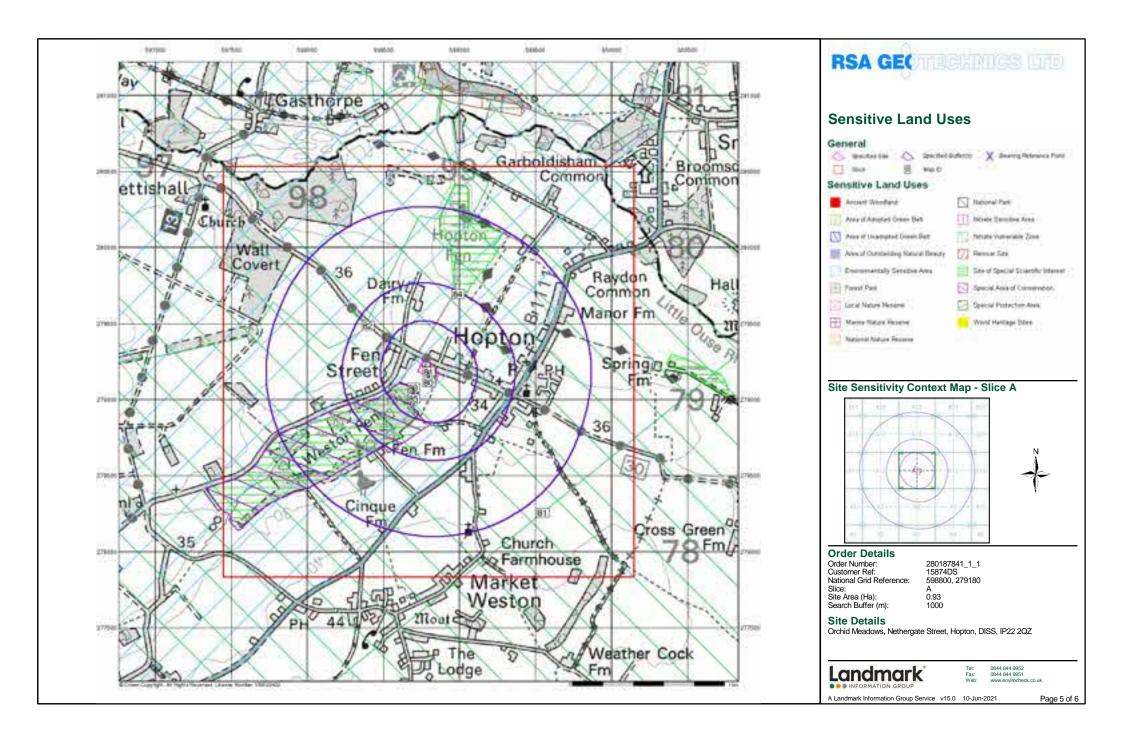
A Landmark Information Group Service v50.0 10-Jun-2021 Page 1 of 1

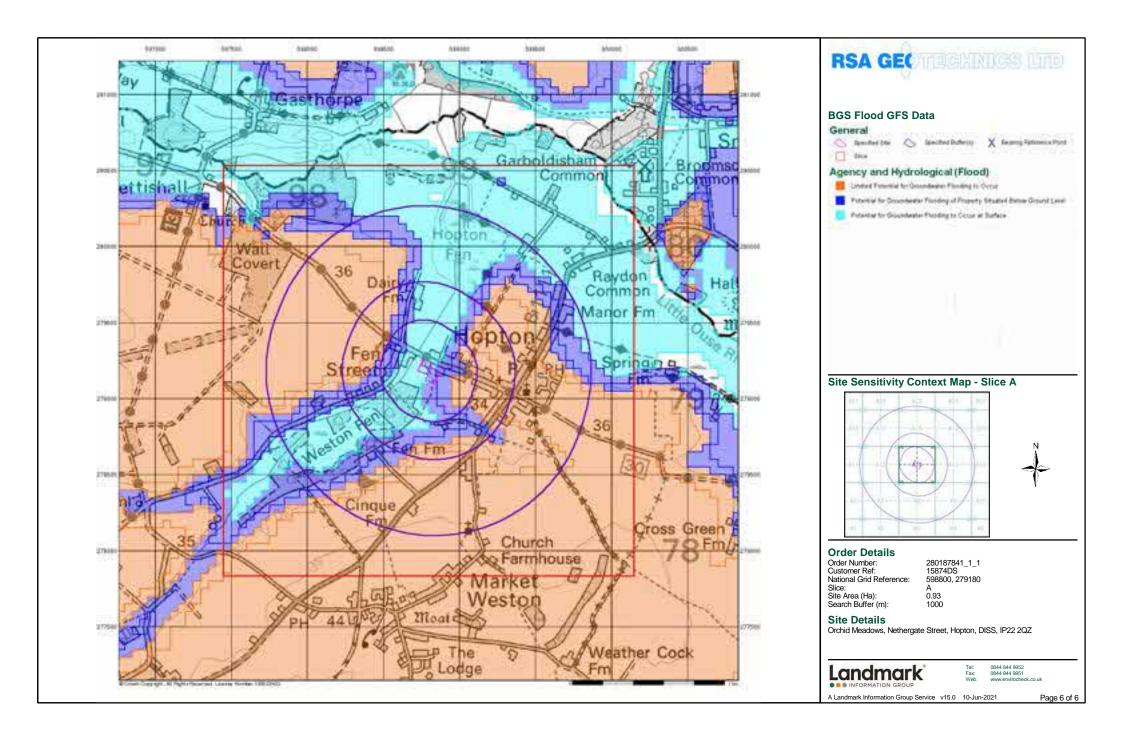




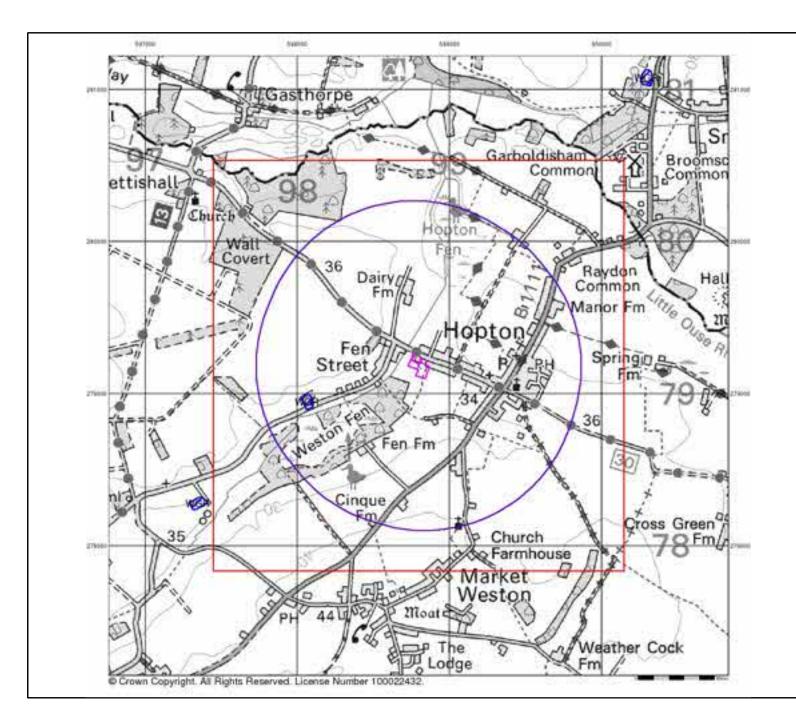








		Artificial Ground	and Landslip							
Map Colour	Lex Code	Rock Name	Rock Type	Min and Max Age	Map Colour	Lex Code	Rock Name	Rock Type	Min and Max Age	Geology 1:50,000 Maps This report contains geological map extracts taken from the BGS Digita Geological map of Great Britain at 1:50,000 scale and is designed for u
$\mathbb{Z}$	WGR	Worked Ground (Undivided)	Void	Not Supplied - Holocene		LPCK	Lewes Nodular Chalk Formation, Seaford Chalk	Chalk	Not Supplied - Turonian	carrying out preliminary site assessments who require geological maps the area around the site. This mapping may be more up to date than previously published paper maps.
		Superficial C	Geology				Formation, Newhaven Chalk Formation, Culver Chalk Formation and			The various geological layers - artificial and landslip deposits, superfici geology and solid (bedrock) geology are displayed in separate maps, I superimposed on the final 'Combined Surface Geology' map. All map
Map Colour	Lex Code	Rock Name	Rock Type	Min and Max Age			Portsdown Chalk Formation (Undifferentiated)			legends feature on this page. Not all layers have complete nationwide coverage, so availability of data for relevant map sheets is indicated by Geology 1:50,000 Maps Coverage
	ALV	Alluvium	Clay, Silt, Sand and Gravel	Not Supplied - Holocene						Map ID:         2         Map ID:         1           Map Sheet No:         174         Map Sheet No:         175           Map Name:         Thetford         Map Name:         Diss
	ALV	Alluvium	Silt and Clay	Not Supplied - Holocene						Map Date:         2010         Map Date:         1989           Bedrock Geology:         Available         Bedrock Geology:         Available           Superficial Geology:         Available         Superficial Geology:         Available           Artificial Geology:         Available         Artificial Geology:         Available
	ALV	Alluvium	Sand and Gravel	Not Supplied - Holocene						Faults:         Not Supplied         Faults:         Not Supplied           Landslip:         Not Available         Landslip:         Not Available           Rock Segments:         Not Supplied         Rock Segments:         Not Supplied
	LOFT	Lowestoft Formation	Diamicton	Not Supplied - Anglian						
	LFSC	Croxton Sand and Gravel Member Lodge Farm Silt and Clay	Sand and Gravel Clay, Silt and Sand	Not Supplied - Anglian Not Supplied -						
	ISAG	Member Ingham Sand and Gravel	Sand and Gravel	Anglian Not Supplied -						
	CNYSG	Formation Coney Weston Sand and	Sand and Gravel	Pleistocene Not Supplied -						Geology 1:50,000 Maps - Slice A
	HEAD	Gravel Member Head	Clay, Silt, Sand	Pleistocene Not Supplied -						
	RTD1	River Terrace Deposits, 1	and Gravel Sand and Gravel	Quaternary Not Supplied -						N
	PEAT	Peat	Peat	Quaternary Not Supplied -						
	RTD3	River Terrace Deposits, 3	Sand and Gravel	Quaternary Not Supplied - Quaternary						
	RTD2	River Terrace Deposits, 2	Sand and Gravel	Not Supplied - Quaternary						
	CSD	Cover Sand	Sand	Not Supplied - Quaternary						Order Details:
		Bedrock and	d Faults							Order Number: 280187841_1_1 Customer Reference: 15874DS National Grid Reference: 598800, 279180
Map Colour	Lex Code	Rock Name	Rock Type	Min and Max Age						Slice: A Site Area (Ha): 0.93 Search Buffer (m): 1000
	NCK	Newhaven Chalk Formation	Chalk	Not Supplied - Santonian						Site Details: Orchid Meadows, Nethergate Street, Hopton, DISS, IP22 2QZ
	SNCK	Seaford Chalk Formation and Newhaven Chalk	Chalk	Not Supplied - Coniacian						



## RSA GEOTECHNICS LITE

### Artificial Ground and Landslip

Artificial ground is a term used by BGS for those areas where the ground surface has been significantly modified by human activity. Information about previously developed ground is especially important, as it is often associated with potentially contaminated material, unpredictable engineering conditions and unstable ground.

### Artificial ground includes:

- Made ground man-made deposits such as embankments and spoil heaps on the natural ground surface.
   Worked around - areas where the ground has been cut away such as
- Worked ground areas where the ground has been cut away such as quarries and road cuttings.
- Infilled ground areas where the ground has been cut away then wholly or partially backfilled.

 Landscaped ground - areas where the surface has been reshaped.
 Disturbed ground - areas of ill-defined shallow or near surface mineral workings where it is impracticable to map made and worked ground separately.

Mass movement (landslip) deposits on BGS geological maps are primarily superficial deposits that have moved down slope under gravity to form landslips. These affect bedrock, other superficial deposits and artificial ground. The dataset also includes foundered strata, where the ground has collapsed due to subsidence.

### Artificial Ground and Landslip Map - Slice A



 Order Details:
 280187841\_1\_1

 Order Number:
 280187841\_1\_1

 Customer Reference:
 15874DS

 National Grid Reference:
 598800, 279180

 Slice:
 A

 Ste Area (Ha):
 0.93

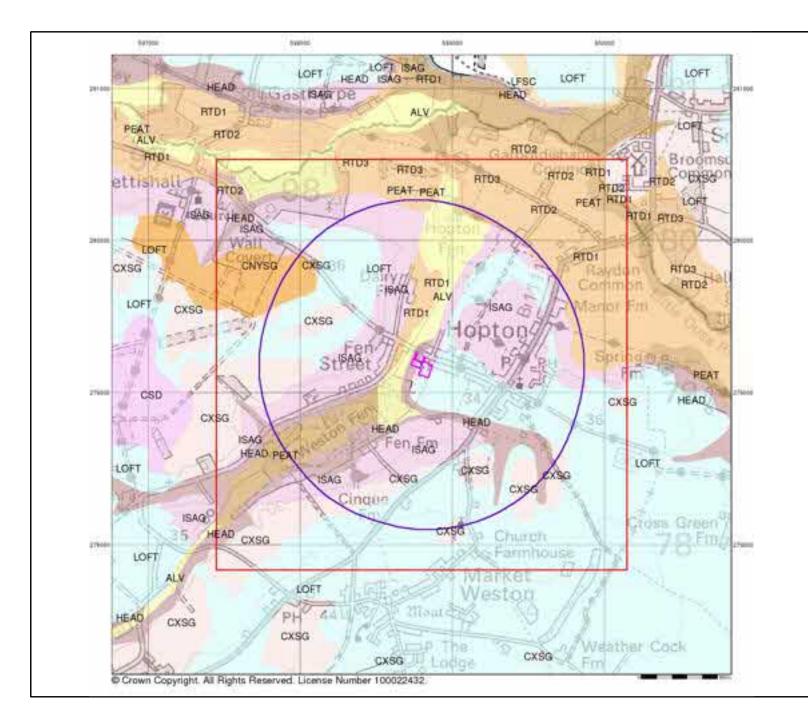
 Search Buffer (m):
 1000

### Site Details:

Orchid Meadows, Nethergate Street, Hopton, DISS, IP22 2QZ

 
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 10-Jun-2021
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 0844 844 9952 0844 844 9951 Web:

 v15.0
 10-Jun-2021
 Page 2 of 5



## RSA GECTRECHNICS LITE

### **Superficial Geology**

Superficial Deposits are the youngest geological deposits formed during the most recent period of geological time, the Quaternary, which extends back about 1.8 million years from the present.

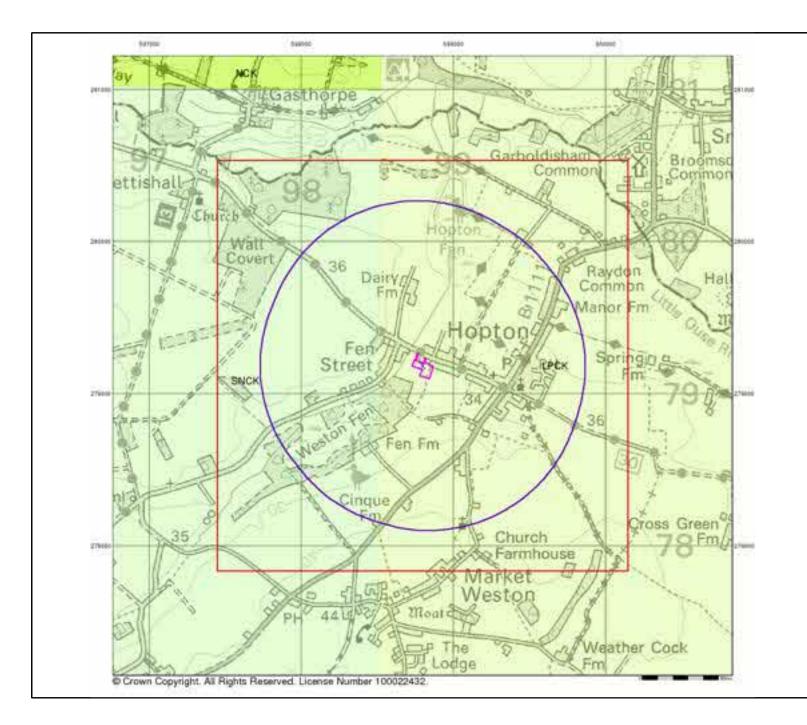
They rest on older deposits or rocks referred to as Bedrock. This dataset contains Superficial deposits that are of natural origin and 'in place'. Other superficial strata may be held in the Mass Movement dataset where they have been moved, or in the Artificial Ground dataset where they are of man-made origin.

Most of these Superficial deposits are unconsolidated sediments such as gravel, sand, silt and clay, and onshore they form relatively thin, often discontinuous patches or larger spreads.

Superficial Geology Map - Slice A



Order Deterins. Order Number: Customer Reference: National Grid Reference: Slice: Site Area (Ha): Search Buffer (m):	280187841_1_1 15874DS 598800, 279180 A 0.93 1000	
Site Details: Orchid Meadows, Netherg	ate Street. Hopton. C	DISS. IP22 2QZ
j		
Landmar	K Tel: Fax: Web:	0844 844 9952 0844 844 9951 www.envirocheck.co.uk
INFORMATION GROUP		



## RSA GEOTECHNICS LITE

### **Bedrock and Faults**

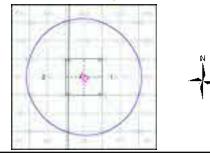
Bedrock geology is a term used for the main mass of rocks forming the Earth and are present everywhere, whether exposed at the surface in outcrops or concealed beneath superficial deposits or water.

The bedrock has formed over vast lengths of geological time ranging from ancient and highly altered rocks of the Proterozoic, some 2500 million years ago, or older, up to the relatively young Pliocene, 1.8 million years ago.

The bedrock geology includes many lithologies, often classified into three types based on origin: igneous, metamorphic and sedimentary.

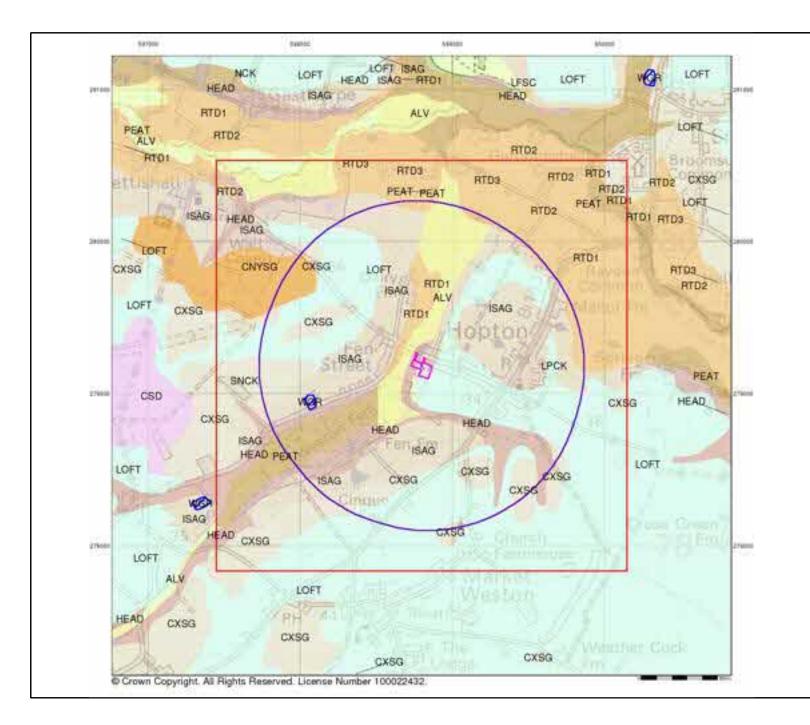
The BGS Faults and Rock Segments dataset includes geological faults (e.g. normal, thrust), and thin beds mapped as lines (e.g. coal seam, gypsum bed). Some of these are linked to other particular 1:50,000 Geology datasets, for example, coal seams are part of the bedrock sequence, most faults and mineral veins primarily affect the bedrock but cut across the strata and post date its deposition.

Bedrock and Faults Map - Slice A



**Order Details:** Order Number: Customer Reference: 280187841\_1\_1 15874DS National Grid Reference: 598800, 279180 Slice: A 0.93 Site Area (Ha): Search Buffer (m): 1000 Site Details: Orchid Meadows, Nethergate Street, Hopton, DISS, IP22 2QZ Tel: Fax: Web: 0844 844 9952 0844 844 9951 Landmark www.envirocheck.co.uk S B INFORMATION GRO

v15.0 10-Jun-2021



## RSA GEOTRECHNICS LIND

### **Combined Surface Geology**

The Combined Surface Geology map combines all the previous maps into one combined geological overview of your site.

Please consult the legends to the previous maps to interpret the Combined "Surface Geology" map.

### Additional Information

More information on 1:50,000 Geological mapping and explanations of rock dassifications can be found on the BGS website. Using the LEX Codes in this report, further descriptions of rock types can be obtained by interrogating the 'BGS Lexicon of Named Rock Units'. This database can be accessed by following the 'Information and Data' link on the BGS website.

### Contact

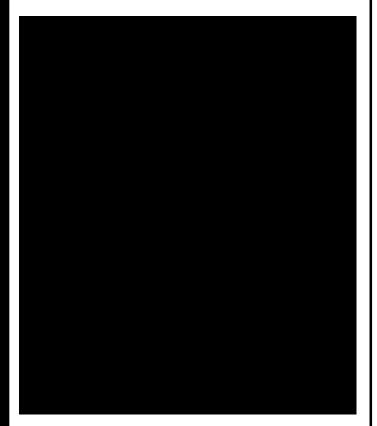
British Geological Survey Kingsley Dunham Centre Keyworth Nottingham NG12 5GG Telephone: 0115 936 3143 Fax: 0115 936 3276 email: enquiries@bgs.ac.uk website: www.bgs.ac.uk

### **Combined Geology Map - Slice A**

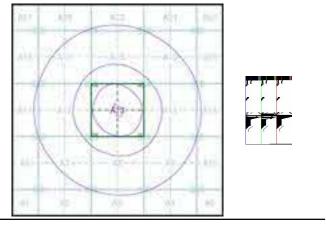


Page 5 of 5





## Estimated Soil Chemistry Arsenic - Slice A



## **Order Details**

 
 Order Details:
 280187841\_1\_1

 Customer Ref:
 15874DS

 National Grid Reference:
 598800, 279180
 Slice: А Site Area (Ha): Search Buffer (m): 0.93 1000

## Site Details

Orchid Meadows, Nethergate Street, Hopton, DISS, IP22 2QZ

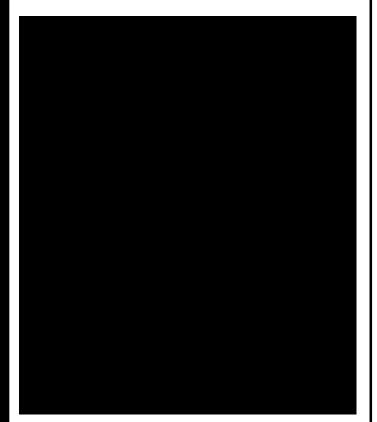


Tel: Fax: Web:

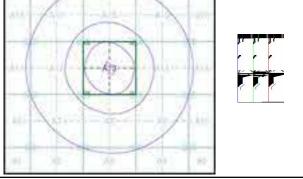
0844 844 9952 0844 844 9951 www.envirocheck.co.uk

A Landmark Information Group Service v50.0 10-Jun-2021 Page 1 of 5





# Estimated Soil Chemistry Cadmium - Slice A



## **Order Details**

 
 Order Details:
 280187841\_1\_1

 Customer Ref:
 15874DS

 National Grid Reference:
 598800, 279180
 Slice: А Site Area (Ha): Search Buffer (m): 0.93 1000

## Site Details

Orchid Meadows, Nethergate Street, Hopton, DISS, IP22 2QZ

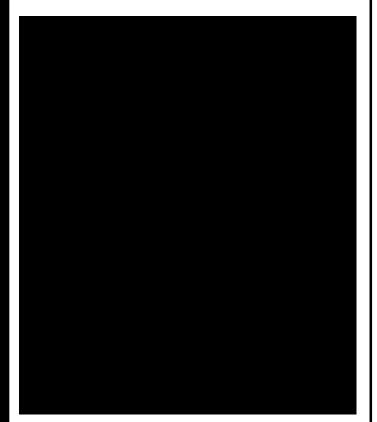


Tel: Fax: Web:

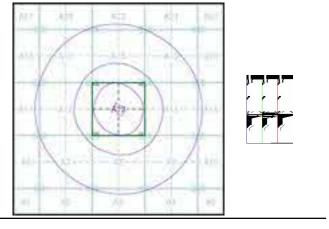
0844 844 9952 0844 844 9951 www.envirocheck.co.uk

A Landmark Information Group Service v50.0 10-Jun-2021 Page 2 of 5





## Estimated Soil Chemistry Chromium - Slice A



## **Order Details**

 
 Order Details:
 280187841\_1\_1

 Customer Ref:
 15874DS

 National Grid Reference:
 598800, 279180
 Slice: А Site Area (Ha): Search Buffer (m): 0.93 1000

## Site Details

Orchid Meadows, Nethergate Street, Hopton, DISS, IP22 2QZ

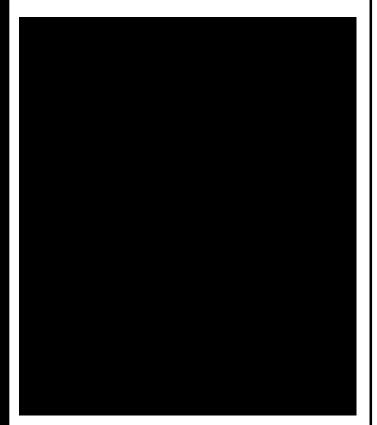


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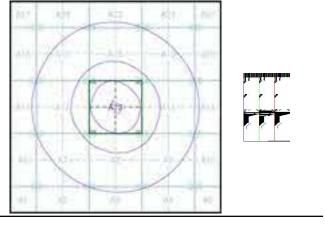
0844 844 9952 0844 844 9951 www.envirocheck.co.uk

A Landmark Information Group Service v50.0 10-Jun-2021 Page 3 of 5





## Estimated Soil Chemistry Lead - Slice A



## **Order Details**

 
 Order Details:
 280187841\_1\_1

 Customer Ref:
 15874DS

 National Grid Reference:
 598800, 279180
 Slice: А Site Area (Ha): Search Buffer (m): 0.93 1000

## Site Details

Orchid Meadows, Nethergate Street, Hopton, DISS, IP22 2QZ

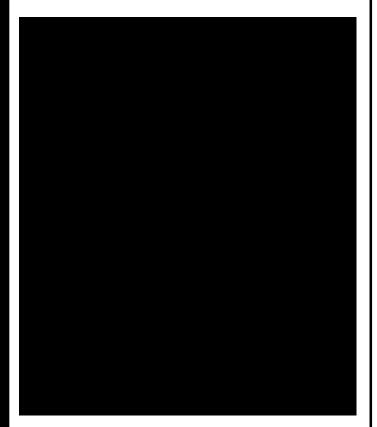


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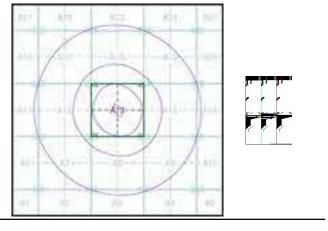
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A Landmark Information Group Service v50.0 10-Jun-2021 Page 4 of 5





## Estimated Soil Chemistry Nickel - Slice A



## **Order Details**

 
 Order Details:
 280187841\_1\_1

 Customer Ref:
 15874DS

 National Grid Reference:
 598800, 279180
 Slice: А Site Area (Ha): Search Buffer (m): 0.93 1000

## Site Details

Orchid Meadows, Nethergate Street, Hopton, DISS, IP22 2QZ



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A Landmark Information Group Service v50.0 10-Jun-2021 Page 5 of 5



## **APPENDIX 3**

Landmark ordnance survey map extracts

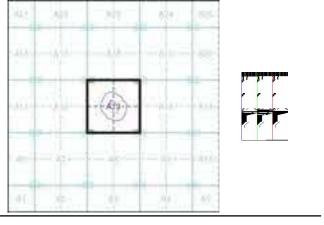
	Historical Mapping Legends	5
Ordnance Survey County Series and Ordnance Survey Plan 1:2,500	Ordnance Survey Plan, Additional SIMs and Supply of Unpublished Survey Information 1:2,500 and 1:1,250	Large-Scale National Grid Data 1:2,500 and 1:1,250

# RSA GEOTTE STUDIES LITE

## Historical Mapping & Photography included:

Mapping Type	Scale	Date	Pg
Suffolk	1:2,500	1883	2
Norfolk	1:2,500	1885	3
Norfolk	1:2,500	1905	4
Suffolk	1:2,500	1905	5
Ordnance Survey Plan	1:2,500	1976	6
Large-Scale National Grid Data	1:2,500	1995	7
Historical Aerial Photography	1:2,500	1999	8

## Historical Map - Segment A13



## **Order Details**

 
 Order Number:
 280187841\_1\_1

 Customer Ref:
 15874DS

 National Grid Reference:
 598800, 279180
 Slice: Site Area (Ha): Search Buffer (m):

А 0.93 100

## Site Details

Orchid Meadows, Nethergate Street, Hopton, DISS, IP22 2QZ



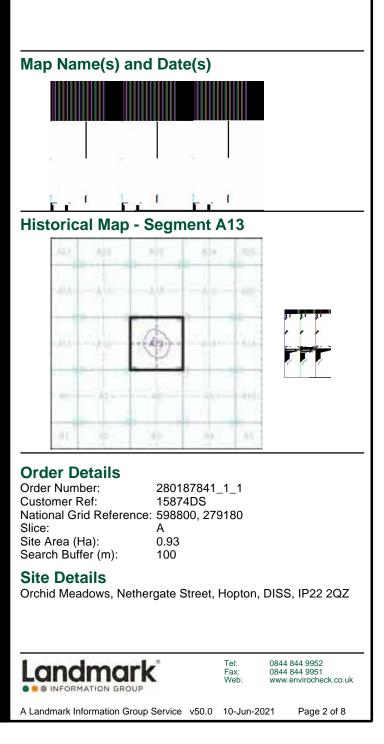
0844 844 9952 0844 844 9951 www.envirocheck.co.uk

Tel: Fax: Web:

## Suffolk Published 1883 Source map scale - 1:2,500

RSA GEC

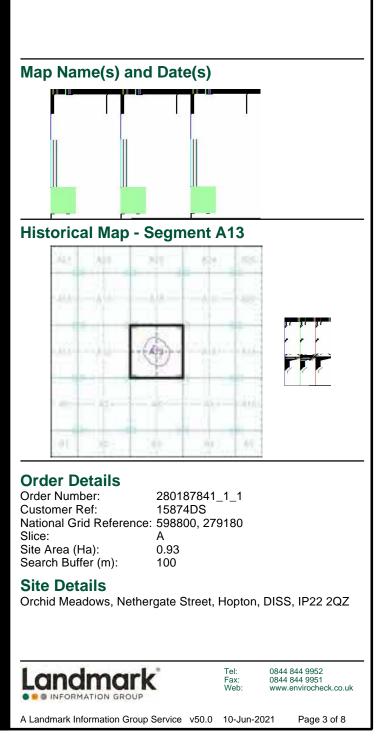
The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas and by 1896 it covered the whole of what were considered to be the cultivated parts of Great Britain.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



## Norfolk Published 1885 Source map scale - 1:2,500

RSA GE(

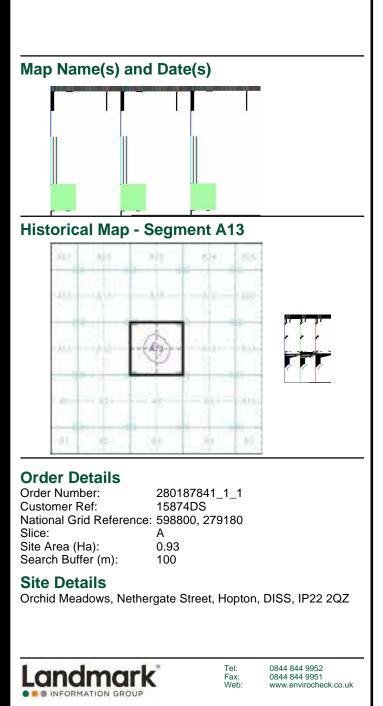
The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas and by 1896 it covered the whole of what were considered to be the cultivated parts of Great Britain.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



## Norfolk Published 1905 Source map scale - 1:2,500

RSA GEC

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



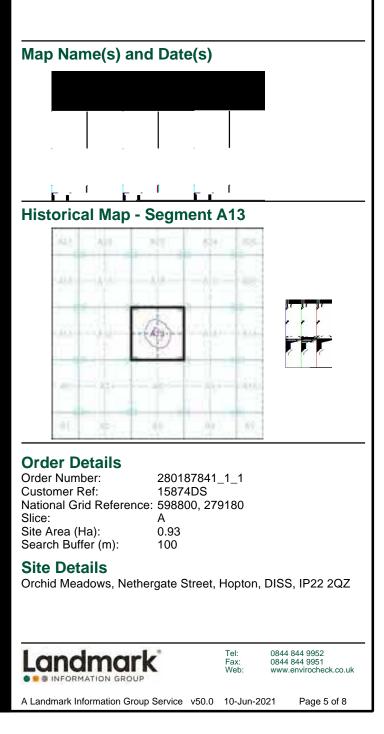
A Landmark Information Group Service v50.0 10-Jun-2021

Page 4 of 8

## Suffolk Published 1905 Source map scale - 1:2,500

RSA GEC

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



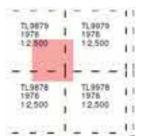
## Ordnance Survey Plan

## Published 1976 Source map scale - 1:2,500

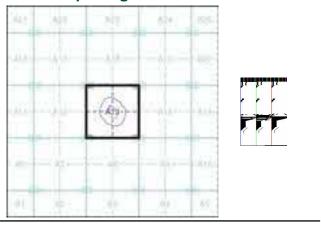
RSA GEC

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

## Map Name(s) and Date(s)



## Historical Map - Segment A13



### **Order Details**

Order Number:	280187841_1_1
Customer Ref:	15874DS
National Grid Reference:	598800, 279180
Slice:	Α
Site Area (Ha):	0.93
Search Buffer (m):	100

### Site Details

Orchid Meadows, Nethergate Street, Hopton, DISS, IP22 2QZ



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A Landmark Information Group Service v50.0 10-Jun-2021

Page 6 of 8

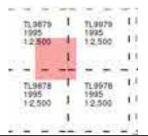
## Large-Scale National Grid Data Published 1995

RSA GEC

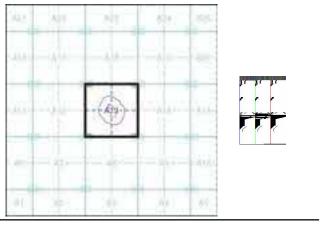
## Source map scale - 1:2,500

'Large Scale National Grid Data' superseded SIM cards (Ordnance Survey's 'Survey of Information on Microfilm') in 1992, and continued to be produced until 1999. These maps were the fore-runners of digital mapping and so provide detailed information on houses and roads, but tend to show less topographic features such as vegetation. These maps were produced at both 1:2,500 and 1:1,250 scales.

## Map Name(s) and Date(s)



## Historical Map - Segment A13



### **Order Details**

Order Number:	280187841_1_1
Customer Ref:	15874DS
National Grid Reference:	598800, 279180
Slice:	A
Site Area (Ha):	0.93
Search Buffer (m):	100

## Site Details

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A Landmark Information Group Service v50.0 10-Jun-2021

Page 7 of 8





## **Historical Aerial Photography** Published 1999

This aerial photography was produced by Getmapping, these vertical aerial photographs provide a seamless, full colour survey of the whole of Great Britain

## Historical Aerial Photography - Segment A13

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Order Details Order Number: 280187841\_1\_1 Customer Ref: 15874DS National Grid Reference: 598800, 279180 Slice: Site Area (Ha): Search Buffer (m): А 0.93 100

## Site Details

Orchid Meadows, Nethergate Street, Hopton, DISS, IP22 2QZ



Tel: Fax: Web:

0844 844 9952 0844 844 9951 www.envirocheck.co.uk

A Landmark Information Group Service v50.0 10-Jun-2021

Page 8 of 8

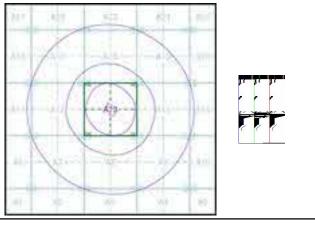
Н	istorical Mapping Legends	6
Ordnance Survey County Series 1:10,560	Ordnance Survey Plan 1:10,000	1:10,000 Raster Mapping

# RSA GECTERSTITUES LTD

## Historical Mapping & Photography included:

Mapping Type	Scale	Date	Pg
Norfolk	1:10,560	1884	2
Suffolk	1:10,560	1884 - 1885	3
Suffolk	1:10,560	1905	4
Norfolk	1:10,560	1905	5
Norfolk	1:10,560	1905	6
Norfolk	1:10,560	1952 - 1953	7
Suffolk	1:10,560	1953	8
Ordnance Survey Plan	1:10,000	1958	9
Ordnance Survey Plan	1:10,000	1978	10
Ordnance Survey Plan	1:10,000	1983 - 1985	11
10K Raster Mapping	1:10,000	2000	12
10K Raster Mapping	1:10,000	2006	13
VectorMap Local	1:10,000	2021	14

## Historical Map - Slice A



## **Order Details**

 
 Order Number:
 280187841\_1\_1

 Customer Ref:
 15874DS

 National Grid Reference:
 598800, 279180
 Slice: Site Area (Ha): Search Buffer (m):

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## Site Details

Orchid Meadows, Nethergate Street, Hopton, DISS, IP22 2QZ



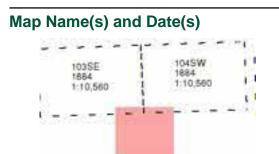
Tel: Fax: Web:

0844 844 9952 0844 844 9951 www.envirocheck.co.uk

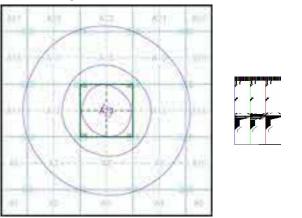
## Norfolk **Published 1884** Source map scale - 1:10,560

RSA GEC

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas. In the late 1940's, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.



## Historical Map - Slice A



### **Order Details**

Order Number: Customer Ref: National Grid Reference: 598800, 279180 Slice: Site Area (Ha): Search Buffer (m):

280187841\_1\_1 15874DS Α 0.93 1000

## Site Details

Orchid Meadows, Nethergate Street, Hopton, DISS, IP22 2QZ



Tel: Fax: Web:

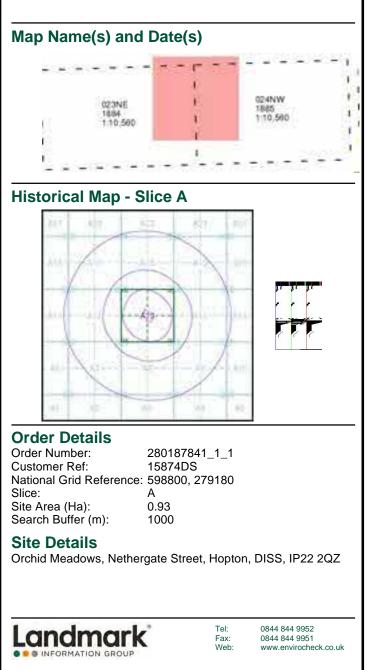
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A Landmark Information Group Service v50.0 10-Jun-2021 Page 2 of 14

## Suffolk Published 1884 - 1885 Source map scale - 1:10,560

RSA GEC

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas. In the late 1940's, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

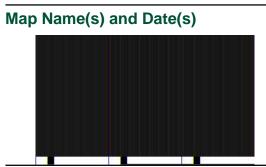


A Landmark Information Group Service v50.0 10-Jun-2021 Page 3 of 14

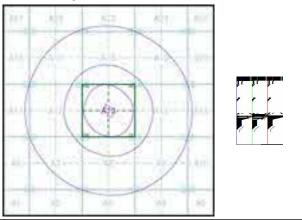
## Suffolk Published 1905 Source map scale - 1:10,560

RSA GEC

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas. In the late 1940's, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.



### Historical Map - Slice A



#### **Order Details**

Order Number: Customer Ref: National Grid Reference: 598800, 279180 Slice: Site Area (Ha): Search Buffer (m):

280187841\_1\_1 15874DS А 0.93 1000

#### Site Details

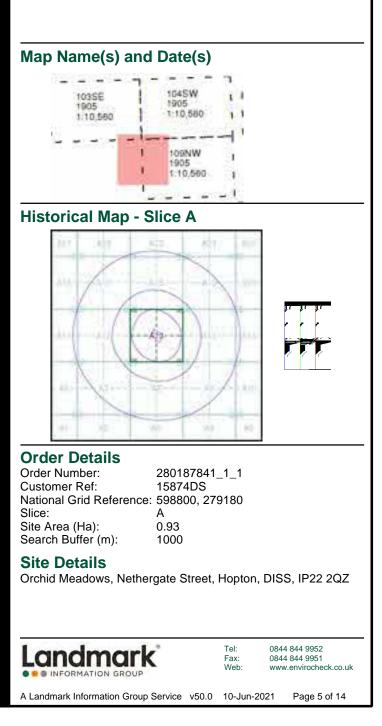
Orchid Meadows, Nethergate Street, Hopton, DISS, IP22 2QZ



## Norfolk Published 1905 Source map scale - 1:10,560

RSA GEC

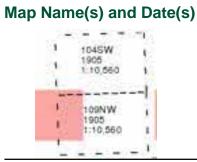
The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas. In the late 1940's, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced until recently, with new editions appearing every 10 years or so for urban areas.



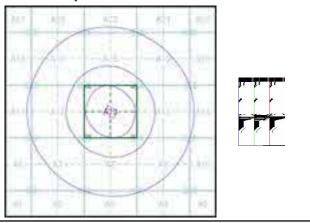
## Norfolk Published 1905 Source map scale - 1:10,560

RSA GEC

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas. In the late 1940's, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.



#### Historical Map - Slice A



#### **Order Details**

Order Number: Customer Ref: National Grid Reference: 598800, 279180 Slice: Site Area (Ha): Search Buffer (m):

280187841\_1\_1 15874DS Α 0.93 1000

#### Site Details

Orchid Meadows, Nethergate Street, Hopton, DISS, IP22 2QZ



Tel: Fax: Web:

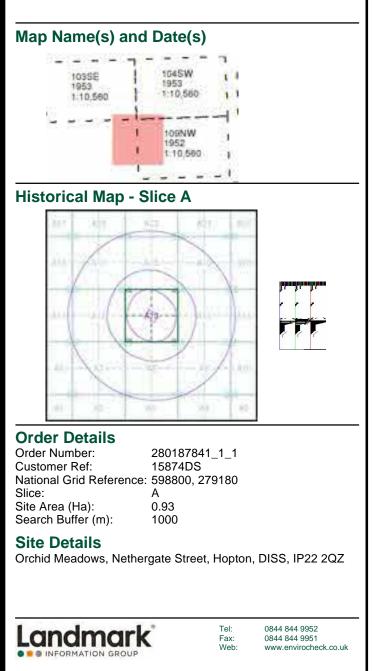
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A Landmark Information Group Service v50.0 10-Jun-2021 Page 6 of 14

## Norfolk Published 1952 - 1953 Source map scale - 1:10,560

RSA GEC

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas. In the late 1940's, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

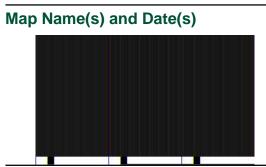


A Landmark Information Group Service v50.0 10-Jun-2021 Page 7 of 14

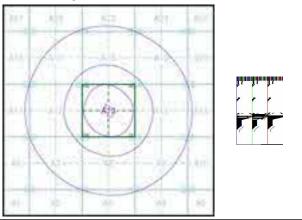
## Suffolk Published 1953 Source map scale - 1:10,560

RSA GEC

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas. In the late 1940's, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.



### Historical Map - Slice A



#### **Order Details**

Order Number: Customer Ref: National Grid Reference: 598800, 279180 Slice: Site Area (Ha): Search Buffer (m):

280187841\_1\_1 15874DS А 0.93 1000

#### Site Details

Orchid Meadows, Nethergate Street, Hopton, DISS, IP22 2QZ



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A Landmark Information Group Service v50.0 10-Jun-2021 Page 8 of 14

## **Ordnance Survey Plan** Published 1958

## Source map scale - 1:10,000

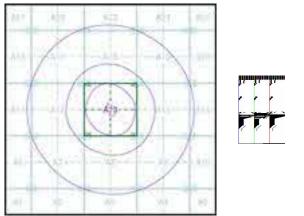
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The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas. In the late 1940's, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

### Map Name(s) and Date(s)

TL98SE 1956 1:10,560	TM06SW 1958 1:10,560	11
TL97NE 1958 1:10.560	TM07NW 1958 1:10,560	11
1.10,004	1.00,000	1.1

### Historical Map - Slice A



#### **Order Details**

Order Number: Customer Ref: National Grid Reference: 598800, 279180 Slice: Site Area (Ha): Search Buffer (m):

280187841\_1\_1 15874DS А 0.93 1000

#### Site Details

Orchid Meadows, Nethergate Street, Hopton, DISS, IP22 2QZ



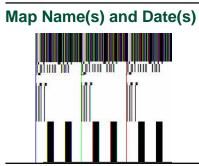
Tel: Fax: Web:

## **Ordnance Survey Plan** Published 1978

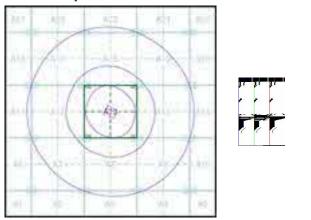
## Source map scale - 1:10,000

RSA GE(

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas. In the late 1940's, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.



#### Historical Map - Slice A



#### **Order Details**

Order Number: Customer Ref: National Grid Reference: 598800, 279180 Slice: Site Area (Ha): Search Buffer (m):

280187841\_1\_1 15874DS А 0.93 1000

#### Site Details

Orchid Meadows, Nethergate Street, Hopton, DISS, IP22 2QZ



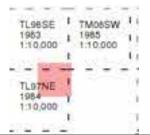


## **Ordnance Survey Plan** Published 1983 - 1985 Source map scale - 1:10,000

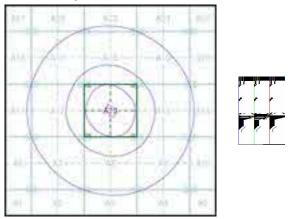
RSA GEC

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas. In the late 1940's, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

### Map Name(s) and Date(s)



#### **Historical Map - Slice A**



#### **Order Details**

Order Number: Customer Ref: National Grid Reference: 598800, 279180 Slice: Site Area (Ha): Search Buffer (m):

280187841\_1\_1 15874DS А 0.93 1000

#### Site Details

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A Landmark Information Group Service v50.0 10-Jun-2021 Page 11 of 14

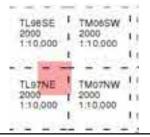
# RSA GEC

## **10k Raster Mapping** Published 2000

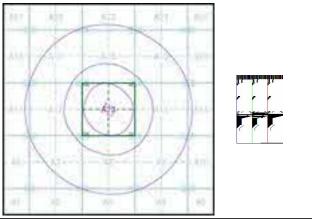
### Source map scale - 1:10,000

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

### Map Name(s) and Date(s)



#### Historical Map - Slice A



#### **Order Details**

Order Number: Customer Ref: National Grid Reference: 598800, 279180 Slice: Site Area (Ha): Search Buffer (m):

280187841\_1\_1 15874DS А 0.93 1000

#### Site Details

Orchid Meadows, Nethergate Street, Hopton, DISS, IP22 2QZ



Tel: Fax: Web:

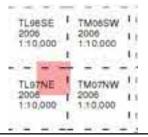
# RSA GEC

## **10k Raster Mapping** Published 2006

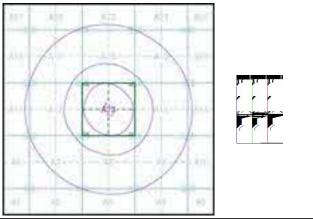
### Source map scale - 1:10,000

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

### Map Name(s) and Date(s)



#### Historical Map - Slice A



#### **Order Details**

Order Number: Customer Ref: National Grid Reference: 598800, 279180 Slice: Site Area (Ha): Search Buffer (m):

280187841\_1\_1 15874DS А 0.93 1000

#### Site Details

Orchid Meadows, Nethergate Street, Hopton, DISS, IP22 2QZ



Tel: Fax: Web:

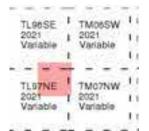
## VectorMap Local Published 2021

## Source map scale - 1:10,000

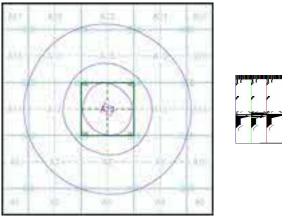
RSA GEC

VectorMap Local (Raster) is Ordnance Survey's highest detailed 'backdrop' mapping product. These maps are produced from OS's VectorMap Local, a simple vector dataset at a nominal scale of 1:10,000, covering the whole of Great Britain, that has been designed for creating graphical mapping. OS VectorMap Local is derived from large-scale information surveyed at 1:1250 scale (covering major towns and cities),1:2500 scale (smaller towns, villages and developed rural areas), and 1:10 000 scale (mountain, moorland and river estuary areas).

### Map Name(s) and Date(s)



#### **Historical Map - Slice A**



#### **Order Details**

Order Number: Customer Ref: National Grid Reference: 598800, 279180 Slice: Site Area (Ha): Search Buffer (m):

280187841\_1\_1 15874DS А 0.93 1000

#### Site Details

Orchid Meadows, Nethergate Street, Hopton, DISS, IP22 2QZ



Tel: Fax: Web:



## APPENDIX 4

Mining and ground stability datasheet



## **Envirocheck® Report:**

## Mining and Ground Stability Datasheet

#### **Order Details:**

## Order Number: 280187841\_1\_1

## Customer Reference: 15874DS

## National Grid Reference: 598800, 279180

Slice:

#### Site Area (Ha): 0.93

Search Buffer (m): 1000

### Site Details:

Orchid Meadows, Nethergate Street Hopton DISS IP22 2QZ

### **Client Details:**

Ms A Holden RSA Geotechnics Ltd Ashburnham House 1 Maitland Road Lion Barn Estate Needham Market Suffolk IP6 8NZ





Report Section and Details	Page Number			
Summary	-			
The Summary section provides an overview of the data contained within the report, detailing the or the existence of a data set in relation to the buffer selected. For ease of reference, the report is broken down into 4 sections of data; Mining and Natural Cav Use Information (1:2,500), Historical Land Use Information (1:10,000) and Ground Stability Data	rities Data, Historical Land			
Mining and Natural Cavities Data	1			
The Mining and Natural Cavities Data section features data sets related to the existence of mini hazards; and details of naturally formed cavities. Data sets within this section are not plotted, with the exception of BGS Recorded Mineral Sites which feature on the Historical Land Use Information (1:10,000) map.				
Historical Land Use Information (1:2,500)	-			
The Historical Land Use Information (1:2,500) section contains data captured from analysis carried out by Landmark of 1:1,250 and 1:2,500 scale historical Ordnance Survey mapping, identifying areas where, historically, the land uses were potentially contaminative. For the purpose of this Envirocheck module, only historical data relating to mining and ground stability has been included ar plotted on the corresponding Historical Land Use Information (1:2,500) map. This section also includes the Subterranean Features data set, which details various man-made and man-used underground spaces obtained from the Subterranea Britannica society.				
Historical Land Use Information (1:10,000)	3			
The Historical Land Use (1:10,000) section covers data captured from the systematic analysis of 1:10, 560 and 1:10,000 scale historical Ordnance Survey mapping dating back to the mid-19th of the systematic analysis of the systematic anal	arriad out by Landmark of			
contaminative past industrial land uses. For the purpose of this Envirocheck module, only data relating to mining and ground stability ha on the accompanying Historical Land Use Information (1:10,000) map.	century, identifying potentially			
contaminative past industrial land uses. For the purpose of this Envirocheck module, only data relating to mining and ground stability ha	century, identifying potentially			
contaminative past industrial land uses. For the purpose of this Envirocheck module, only data relating to mining and ground stability ha on the accompanying Historical Land Use Information (1:10,000) map.	s been included and plotted  to 250m and plotted onto 3 ich Brine Pumping and Salt			
contaminative past industrial land uses. For the purpose of this Envirocheck module, only data relating to mining and ground stability has on the accompanying Historical Land Use Information (1:10,000) map. <b>Ground Stability Data (1:50,000)</b> The Ground Stability (1:50,000) section includes the BGS Geosure data suite, reporting features separate maps. Also reported is brine subsidence, brine mining and salt mining data sets, of wh Mining Related Features are plotted, and subsidence insurance claims and insurance investigat	s been included and plotted  to 250m and plotted onto 3 ich Brine Pumping and Salt			
contaminative past industrial land uses. For the purpose of this Envirocheck module, only data relating to mining and ground stability ha on the accompanying Historical Land Use Information (1:10,000) map. <b>Ground Stability Data (1:50,000)</b> The Ground Stability (1:50,000) section includes the BGS Geosure data suite, reporting features separate maps. Also reported is brine subsidence, brine mining and salt mining data sets, of wh Mining Related Features are plotted, and subsidence insurance claims and insurance investigat plotted.	s been included and plotted  4 s to 250m and plotted onto 3 ich Brine Pumping and Salt ions data, which is not  5			
contaminative past industrial land uses. For the purpose of this Envirocheck module, only data relating to mining and ground stability ha on the accompanying Historical Land Use Information (1:10,000) map. <b>Ground Stability Data (1:50,000)</b> The Ground Stability (1:50,000) section includes the BGS Geosure data suite, reporting features separate maps. Also reported is brine subsidence, brine mining and salt mining data sets, of wh Mining Related Features are plotted, and subsidence insurance claims and insurance investigat plotted. <b>Historical Map List</b> The Historical Map List section details the historical mapping that has been analysed for your si	s been included and plotted  4 s to 250m and plotted onto 3 ich Brine Pumping and Salt ions data, which is not  5			
contaminative past industrial land uses. For the purpose of this Envirocheck module, only data relating to mining and ground stability has on the accompanying Historical Land Use Information (1:10,000) map. <b>Ground Stability Data (1:50,000)</b> The Ground Stability (1:50,000) section includes the BGS Geosure data suite, reporting features separate maps. Also reported is brine subsidence, brine mining and salt mining data sets, of wh Mining Related Features are plotted, and subsidence insurance claims and insurance investigat plotted. <b>Historical Map List</b> The Historical Map List section details the historical mapping that has been analysed for your si Land Use Information sections.	te, in relation to the Historica			

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The brine subsidence data relating to the Driotwich area as provided in this report is derived from JPB studies and physical monitoring undertaken annually over more than 35 years. For more detailed interpretation contact enquiries@jpb.co.uk. JPB retain the copyright and intellectual rights to this data and accept no liability for any loss or damage, including in direct or consequential loss, arising from the use of this data.

The Mining Instability data was obtained on licence from Ove Arup & Partners Limited (for further information, contact mining.review@arup.com). No reproduction or further use of such Data is to be made without the prior written consent of Ove Arup & Partners Limited. The supplied Mining Instability data is derived from publicly available records and other third party sources and neither Ove Arup & Partners nor Landmark warrant the accuracy or completeness of such information or data.

#### Report Version v53.0

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m
Mining and Natural Cavities Data					
BGS Recorded Mineral Sites	pg 1		2	1	7
Coal Mining Affected Areas			n/a	n/a	n/a
Man Made Mining Cavities					
Mining Instability			n/a	n/a	n/a
Natural Cavities					
Non Coal Mining Areas of Great Britain	pg 2	Yes		n/a	n/a
Potential Mining Areas					
Historical Land Use Information (1:2,500)					
Extractive Industries or Potential Excavations from 1855-1909 (100m)				n/a	n/a
Extractive Industries or Potential Excavations from 1893-1915 (100m)				n/a	n/a
Extractive Industries or Potential Excavations from 1906-1937 (100m)				n/a	n/a
Extractive Industries or Potential Excavations from 1924-1949 (100m)				n/a	n/a
Extractive Industries or Potential Excavations from 1950-1980 (100m)				n/a	n/a
Subterranean Features (100m)				n/a	n/a
Historical Land Use Information (1:10,000)					
Air Shafts					
Disturbed Ground					
General Quarrying					
Heap, unknown constituents					
Mineral Railway					
Mining & quarrying general					
Mining of coal & lignite					
Quarrying of sand & clay, operation of sand & gravel pits	pg 3		1	1	1
Former Marshes					
Potentially Infilled Land (Non-Water)	pg 3			1	
Potentially Infilled Land (Water)					
Ground Stability Data (1:50,000)					
CBSCB Compensation District			n/a	n/a	n/a
Brine Pumping Related Features					
Brine Subsidence Solution Area					
Potential for Collapsible Ground Stability Hazards	pg 4	Yes	Yes	n/a	n/a
Potential for Compressible Ground Stability Hazards	pg 4	Yes	Yes	n/a	n/a
Potential for Ground Dissolution Stability Hazards	pg 4	Yes	Yes	n/a	n/a
Potential for Landslide Ground Stability Hazards	pg 4	Yes	Yes	n/a	n/a
Potential for Running Sand Ground Stability Hazards	pg 4	Yes	Yes	n/a	n/a
Potential for Shrinking or Swelling Clay Ground Stability Hazards	pg 4	Yes	Yes	n/a	n/a
Salt Mining Related Features					

#### Order Number: 280187841\_1\_1

RSA GEOTECHNICS LITE

Date: 10-Jun-2021

rpr\_ec\_datasheet v53.0

## Summary



Report Version v53.0

## Summary



## **Mining and Natural Cavities Data**

Map ID	Details		Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Recorded Mine	eral Sites				
1	Site Name: Location: Source: Reference: Type: <b>Status:</b> Operator: Operator Location: Periodic Type: Geology: Commodity:	Hopton Pit Hopton, Bury St Edmunds, Suffolk British Geological Survey, National Geoscience Information Service 210343 Opencast Ceased Unknown Operator Not Supplied Quaternary Lowestoft Formation Common Clay and Shale Located by supplier to within 10m	A13SE (S)	193	1	598889 278915
2	BGS Recorded Mine Site Name: Location: Source: Reference: Type: Status: Operator: Operator Location: Periodic Type: Geology: Commodity: Positional Accuracy:	Provide the second state of the second state o	A13NE (E)	215	1	599080 279196
	BGS Recorded Mine	eral Sites				
3	Site Name: Location: Source: Reference: Type: <b>Status:</b> Operator: Operator Location: Periodic Type: Geology: Commodity: Positional Accuracy:	Fen Farm Gravel Pit Hopton, Bury St Edmunds, Suffolk British Geological Survey, National Geoscience Information Service 210313 Opencast <b>Ceased</b> Unknown Operator Not Supplied Quaternary Ingham Sand And Gravel Formation Sand and Gravel Located by supplier to within 10m	A8NW (S)	402	1	598753 278708
	-					
4	-	Fen Street Gravel Pit Hopton, Bury St Edmunds, Suffolk British Geological Survey, National Geoscience Information Service 210304 Opencast <b>Ceased</b> Unknown Operator Not Supplied Quaternary Ingham Sand And Gravel Formation Sand and Gravel Located by supplier to within 10m	A12SW (W)	714	1	598055 278947
	BGS Recorded Mine	eral Sites				
5	Site Name: Location: Source: Reference: Type: <b>Status:</b> Operator: Operator Location: Periodic Type: Geology: Commodity: Positional Accuracy:	Wall Covert Pit Hopton, Bury St Edmunds, Suffolk British Geological Survey, National Geoscience Information Service 210299 Opencast <b>Ceased</b> Unknown Operator Not Supplied Quaternary Lowestoft Formation Common Clay and Shale Located by supplier to within 10m	A12NW (W)	779	1	597956 279280
	BGS Recorded Mine	eral Sites				
6	Site Name: Location: Source: Reference: Type: <b>Status:</b> Operator: Operator Location: Periodic Type: Geology: Commodity: Positional Accuracy:	Dairy Farm Pit Hopton, Bury St Edmunds, Suffolk British Geological Survey, National Geoscience Information Service 210301 Opencast <b>Ceased</b> Unknown Operator Not Supplied Quaternary Lowestoft Formation Common Clay and Shale Located by supplier to within 10m	A17SE (NW)	793	1	598134 279749



## **Mining and Natural Cavities Data**

Map ID		Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Recorded Min	eral Sites				
6	Site Name: Location: Source: Reference: Type: <b>Status:</b> Operator: Operator Location: Periodic Type: Geology: Commodity: Positional Accuracy:	Dairy Farm Pit Hopton, Bury St Edmunds, Suffolk British Geological Survey, National Geoscience Information Service 210302 Opencast <b>Ceased</b> Unknown Operator Not Supplied Quaternary Lowestoft Formation Common Clay and Shale Located by supplier to within 10m	A17SE (NW)	809	1	598150 279795
	BGS Recorded Min	eral Sites				
7	Site Name: Location: Source: Reference: Type: <b>Status:</b> Operator: Operator Location: Periodic Type: Geology: Commodity: Positional Accuracy:	Dairy Farm Pit Hopton, Bury St Edmunds, Suffolk British Geological Survey, National Geoscience Information Service 210303 Opencast <b>Ceased</b> Unknown Operator Not Supplied Quaternary Lowestoft Formation Common Clay and Shale Located by supplier to within 10m	A17NE (NW)	809	1	598297 279929
	BGS Recorded Mine	eral Sites				
8	Site Name: Location: Source: Reference: Type: <b>Status:</b> Operator: Operator Location: Periodic Type: Geology: Commodity: Positional Accuracy:	Wall Covert Pit Hopton, Bury St Edmunds, Suffolk British Geological Survey, National Geoscience Information Service 210300 Opencast <b>Ceased</b> Unknown Operator Not Supplied Quaternary Croxton Sand And Gravel Member Sand and Gravel Located by supplier to within 10m	A12NW (W)	838	1	597927 279427
	BGS Recorded Min	eral Sites				
9	Site Name: Location: Source: Reference: Type: <b>Status:</b> Operator: Operator Location: Periodic Type: Geology: Commodity: Positional Accuracy:	Fen Street Pit Market Weston, Bury St Edmunds, Suffolk British Geological Survey, National Geoscience Information Service 210306 Opencast <b>Ceased</b> Unknown Operator Not Supplied Quaternary Ingham Sand And Gravel Formation Sand and Gravel Located by supplier to within 10m	A12SW (W)	958	1	597817 278890
	Coal Mining Affecte	ed Areas				
	In an area which may	y not be affected by coal mining				
	Non Coal Mining Ar Risk: Source:	reas of Great Britain Rare British Geological Survey, National Geoscience Information Service	A13SE (SW)	0	1	598797 279182



## Historical Land Use Information (1:10,000)

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
10	Quarrying of sand & clay, operation of sand & gravel pits         Use:       Not Supplied         Date of Mapping:       1984	A13NW (NW)	223	-	598553 279351
11	Quarrying of sand & clay, operation of sand & gravel pits         Use:       Not Supplied         Date of Mapping:       1905 - 1958	A8NW (S)	403	-	598764 278705
12	Quarrying of sand & clay, operation of sand & gravel pits         Use:       Not Supplied         Date of Mapping:       1887 - 1958	A12SW (W)	667	-	598104 278949
13	Potentially Infilled Land (Non-Water)         Use:       Unknown Filled Ground (Pit, quarry etc)         Date of Mapping:       1984	A8NW (S)	403	-	598764 278705



## Ground Stability Data (1:50,000)

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	CBSCB Compensation District				
	The site does not fall within the brine compensation area.				
	Brine Subsidence Solution Area				
	The site does not fall within the brine subsidence solution area.				
14	Potential for Collapsible Ground Stability Hazards           Hazard Potential:         Very Low           Source:         British Geological Survey, National Geoscience Information Service	A13SE (SW)	0	1	598797 279182
	Potential for Collapsible Ground Stability Hazards				
	Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13NW (W)	18	1	598719 279211
15	Potential for Compressible Ground Stability Hazards           Hazard Potential:         Moderate           Source:         British Geological Survey, National Geoscience Information Service	A13NW (W)	18	1	598719 279211
	Potential for Compressible Ground Stability Hazards           Hazard Potential:         No Hazard           Source:         British Geological Survey, National Geoscience Information Service	A13SE	0	1	598797 279182
16	Source:         British Geological Survey, National Geoscience Information Service           Potential for Ground Dissolution Stability Hazards           Hazard Potential:         Low           Source:         British Geological Survey, National Geoscience Information Service	(SW) A13SE (SW)	0	1	598797 279182
17	Potential for Ground Dissolution Stability Hazards           Hazard Potential:         Very Low           Source:         British Geological Survey, National Geoscience Information Service	A13NW (NW)	0	1	598772 279194
18	Potential for Ground Dissolution Stability Hazards           Hazard Potential:         Low           Source:         British Geological Survey, National Geoscience Information Service	A13NW (W)	132	1	598601 279217
19	Potential for Ground Dissolution Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A13NE (NE)	199	1	599027 279297
20	Potential for Landslide Ground Stability Hazards           Hazard Potential:         Very Low           Source:         British Geological Survey, National Geoscience Information Service	A13SE (SW)	0	1	598797 279182
	Potential for Landslide Ground Stability Hazards           Hazard Potential:         No Hazard           Source:         British Geological Survey, National Geoscience Information Service	A13SW (SW)	23	1	598754 279128
21	Potential for Running Sand Ground Stability Hazards           Hazard Potential:         Very Low           Source:         British Geological Survey, National Geoscience Information Service	A13SE (SW)	0	1	598797 279182
22	Potential for Running Sand Ground Stability Hazards           Hazard Potential:         Low           Source:         British Geological Survey, National Geoscience Information Service	A13NW (W)	18	1	598719 279211
	Potential for Running Sand Ground Stability Hazards           Hazard Potential:         No Hazard           Source:         British Geological Survey, National Geoscience Information Service	A13SW (SW)	23	1	598754 279128
23	Potential for Shrinking or Swelling Clay Ground Stability Hazards           Hazard Potential:         Low           Source:         British Geological Survey, National Geoscience Information Service	A13SE (SE)	0	1	598834 279134
24	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: Very Low	A13NW	0	1	598772
	Source: British Geological Survey, National Geoscience Information Service	(NW)			279194
	Potential for Shrinking or Swelling Clay Ground Stability Hazards           Hazard Potential:         No Hazard           Source:         British Geological Survey, National Geoscience Information Service	A13SE (SW)	0	1	598797 279182
	Potential for Shrinking or Swelling Clay Ground Stability Hazards           Hazard Potential:         No Hazard           Source:         British Geological Survey, National Geoscience Information Service	A13NW (NW)	84	1	598663 279248

## **Historical Map List**

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

RSA GEOTECHNICS LITE

1:2,500	Mapsheet	Published Date
Ordnance Survey Plan	TL9878	1976
Ordnance Survey Plan	TL9879	1976
Ordnance Survey Plan	TL9978	1976
Ordnance Survey Plan	TL9979	1976

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

1:10,560	Mapsheet	Published Date
Suffolk	023_NE	1887
Norfolk	103_SE	1887
Norfolk	104_SW	1888
Suffolk	024_NW	1891
Norfolk	109_NW	1891
Suffolk	014_SE	1905
Suffolk	015_SW	1905
Suffolk	023_NE	1905
Suffolk	024_NW	1905
Norfolk	103_SE	1905
Norfolk	104_SW	1905
Norfolk	109_NW	1905
Norfolk	109_NW	1952
Suffolk	023_NE	1953
Norfolk	103_SE	1953
Norfolk	104_SW	1953
Ordnance Survey Plan	TL97NE	1958
Ordnance Survey Plan	TL98SE	1958
Ordnance Survey Plan	TM07NW	1958
Ordnance Survey Plan	TM08SW	1958
1:10,000	Mapsheet	Published Date
Ordnance Survey Plan	TL98SE	1983
Ordnance Survey Plan	TL97NE	1984
Ordnance Survey Plan	TM07NW	1984
Ordnance Survey Plan	TM08SW	1985

## **Data Currency**

Mining and Cavities Data	Version	Update Cycle	
BGS Recorded Mineral Sites			
British Geological Survey - National Geoscience Information Service	May 2021	Bi-Annually	
Coal Mining Affected Areas The Coal Authority - Property Searches	March 2014	Annual Rolling Update	
Man Made Mining Cavities Stantec UK Ltd	May 2021	Bi-Annually	
Mining Instability			
Ove Arup & Partners	October 2000	Not Applicable	
Natural Cavities Stantec UK Ltd	May 2021	Bi-Annually	
Non Coal Mining Areas of Great Britain British Geological Survey - National Geoscience Information Service	May 2015	Not Applicable	
Historical Land Use Information (1:2,500)	Version	Update Cycle	
Subterranean Features Landmark Information Group Limited	February 2020	Bi-Annually	
Ground Stability Data (1:50,000)	Version	Update Cycle	
CBSCB Compensation District			
Cheshire Brine Subsidence Compensation Board (CBSCB)	August 2011	Not Applicable	
Potential for Collapsible Ground Stability Hazards British Geological Survey - National Geoscience Information Service	April 2020	Annually	
Potential for Compressible Ground Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	Annually	
Potential for Ground Dissolution Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	Annually	
Potential for Landslide Ground Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	Annually	
Potential for Running Sand Ground Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	Annually	
Potential for Shrinking or Swelling Clay Ground Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	Annually	
Brine Subsidence Solution Area Johnson Poole & Bloomer	December 2020	Annual Rolling Update	

RSA GEOTECHNICS LITE



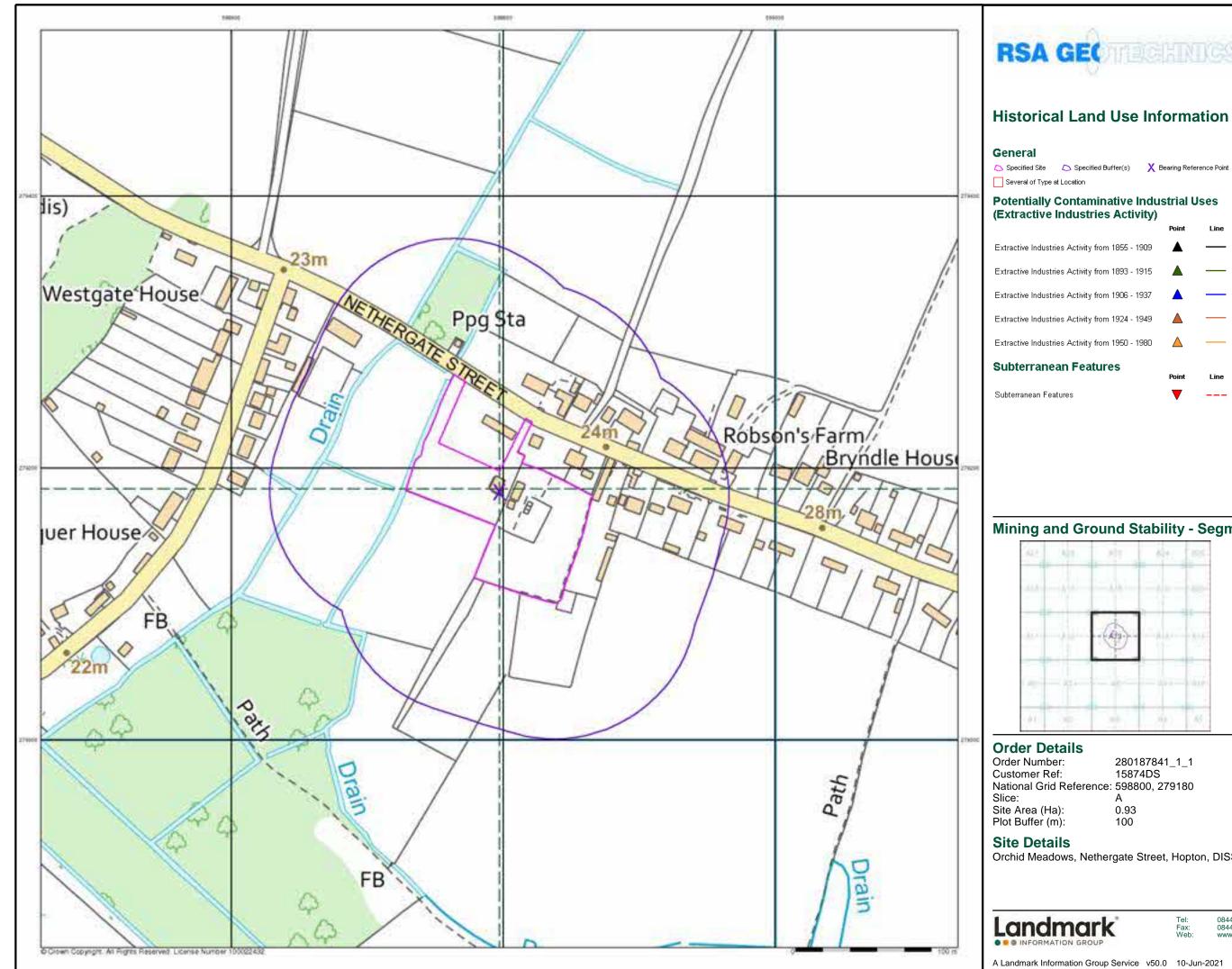
A selection of organisations who provide data within this report

Data Supplier	Data Supplier Logo
Ordnance Survey	Map dota
British Geological Survey	British Geological Survey
The Coal Authority	The Coal Authority
Ove Arup	ARUP
Stantec UK Ltd	Stantec
Wardell Armstrong	wardell
Johnson Poole & Bloomer	ЛРВ



## **Useful Contacts**

Contact	Name and Address	Contact Details
1	British Geological Survey - Enquiry Service British Geological Survey, Environmental Science Centre, Keyworth, Nottingham, Nottinghamshire, NG12 5GG	Telephone: 0115 936 3143 Fax: 0115 936 3276 Email: enquiries@bgs.ac.uk Website: www.bgs.ac.uk
-	Landmark Information Group Limited Imperium, Imperial Way, Reading, Berkshire, RG2 0TD	Telephone: 0844 844 9952 Fax: 0844 844 9951 Email: customerservices@landmarkinfo.co.uk Website: www.landmarkinfo.co.uk



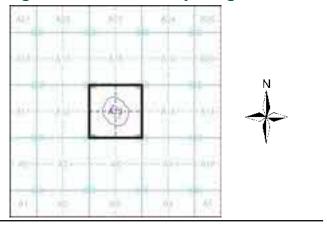
## **Historical Land Use Information (1:2,500)**

RSA GEOTIECHINICS LIND

#### General

Specified Site     Specified Buffer(s)     Several of Type at Location	X⊧	earing Ref	erence Point	8 Map ID	
Potentially Contaminative Industrial Uses (Extractive Industries Activity)					
		Point	Line	Polygon	
Extractive Industries Activity from 1855 -	1909				
Extractive Industries Activity from 1893 -	1915			$\square$	
Extractive Industries Activity from 1906 -	1937	▲			
Extractive Industries Activity from 1924 -	1949				
Extractive Industries Activity from 1950 -	1980	4			
Subterranean Features		Point	Line	Polygon	
Subterranean Features		▼			

### Mining and Ground Stability - Segment A13



#### **Order Details**

Order Number:
Customer Ref:
National Grid Reference:
Slice:
Site Area (Ha):
Plot Buffer (m):

280187841\_1\_1 15874DS 598800, 279180 А 0.93 100

#### Site Details

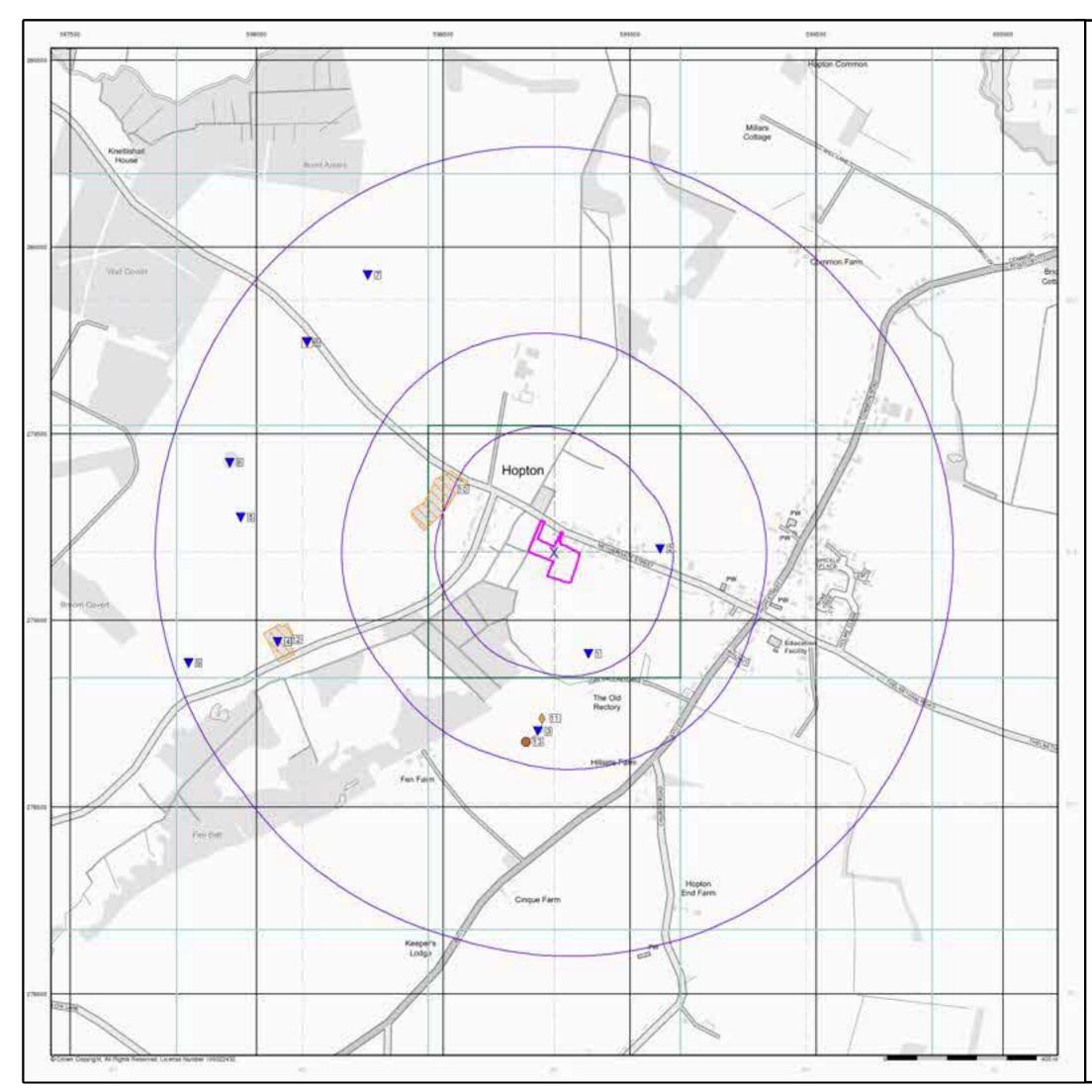
Orchid Meadows, Nethergate Street, Hopton, DISS, IP22 2QZ

Tel: Fax: Web:

0844 844 9952 0844 844 9951 www.envirocheck.co.uk

Page 1 of 1





### Historical Land Use Information (1:10,000)

RSA GEOTIEGHINICS LIND

#### General

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

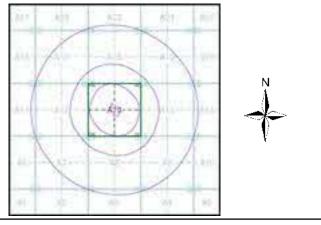
#### **Potentially Contaminative Industrial Uses (Past Land Uses - Mining)** Line Polygon Air Shafts Disturbed Ground General Quarrying (Z) Heap, unknown constituents Mineral Railway Mining and Quarrying General Mining of Coal & Lignite Quarrying of Sand and Clay, Operation of Sand and Gravel Pits **Historical Land Use** Line Polygo Potentially Infilled Land (Non-Water) Potentially Infilled Land (Water) Former Marsh 屎

#### Mining Data

Potential Mining Area

BGS Recorded Mineral Site

### Mining and Ground Stability - Slice A



#### **Order Details**

Order Number: Customer Ref: National Grid Reference: 598800, 279180 Slice: Site Area (Ha): Search Buffer (m):

280187841\_1\_1 15874DS А 0.93 1000

#### Site Details

Orchid Meadows, Nethergate Street, Hopton, DISS, IP22 2QZ



Tel: Fax: Web:

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A Landmark Information Group Service v50.0 10-Jun-2021

