

Appendix M

Mining and Ground Stability Datasheet and Maps

Envirocheck[®] Report:

Mining and Ground Stability Datasheet

Order Details:

Order Number:

157505927_1_1

Customer Reference:

8170282/GC/054/2018

National Grid Reference:

449860, 211090

Slice:

A

Site Area (Ha):

77.7

Search Buffer (m):

1000

Site Details:

Site at 450660, 211190

Client Details:

Mr K Rayner
Glanville Consultants
3 Grovelands Business Centre
Boundary Way
Hemel Hempstead
Hertfordshire
HP2 7TE

Report Section and Details	Page Number
Summary	-
<p>The Summary section provides an overview of the data contained within the report, detailing the number of data set features or the existence of a data set in relation to the buffer selected.</p> <p>For ease of reference, the report is broken down into 4 sections of data; Mining and Natural Cavities Data, Historical Land Use Information (1:2,500), Historical Land Use Information (1:10,000) and Ground Stability Data (1:50,000).</p>	
Mining and Natural Cavities Data	1
<p>The Mining and Natural Cavities Data section features data sets related to the existence of mining areas and their potential hazards; and details of naturally formed cavities.</p> <p>Data sets within this section are not plotted, with the exception of BGS Recorded Mineral Sites and Potential Mining Areas which feature on the Historical Land Use Information (1:10,000) map.</p>	
Historical Land Use Information (1:2,500)	3
<p>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.</p> <p>For the purpose of this Envirocheck module, only historical data relating to mining and ground stability has been included and 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.</p>	
Historical Land Use Information (1:10,000)	4
<p>The Historical Land Use (1:10,000) section covers data captured from the systematic analysis carried out by Landmark of 1:10, 560 and 1:10,000 scale historical Ordnance Survey mapping dating back to the mid-19th century, identifying potentially contaminative past industrial land uses.</p> <p>For the purpose of this Envirocheck module, only data relating to mining and ground stability has been included and plotted on the accompanying Historical Land Use Information (1:10,000) map.</p>	
Ground Stability Data (1:50,000)	5
<p>The Ground Stability (1:50,000) section includes the BGS Geosure data suite, reporting features to 250m and plotted onto 3 separate maps. Also reported is brine subsidence, brine mining and salt mining data sets, of which Brine Pumping and Salt Mining Related Features are plotted, and subsidence insurance claims and insurance investigations data, which is not plotted.</p>	
Motion Map Data (1:2,500)	7
<p>The Motion Map Data (1:2,500) section contains data which is plotted to indicate long-term stability trends from analysis of satellite radar data.</p>	
Historical Map List	10
<p>The Historical Map List section details the historical mapping that has been analysed for your site, in relation to the Historical Land Use Information sections.</p>	
Data Currency	11
Data Suppliers	13
Useful Contacts	14

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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.

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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		1	3	2
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				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)	pg 3	2	4	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 4				1
Former Marshes					
Potentially Infilled Land (Non-Water)	pg 4			2	
Potentially Infilled Land (Water)	pg 4		2	1	1

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m
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 5	Yes	Yes	n/a	n/a
Potential for Compressible Ground Stability Hazards	pg 5	Yes	Yes	n/a	n/a
Potential for Ground Dissolution Stability Hazards	pg 5	Yes		n/a	n/a
Potential for Landslide Ground Stability Hazards	pg 5	Yes	Yes	n/a	n/a
Potential for Running Sand Ground Stability Hazards	pg 5	Yes	Yes	n/a	n/a
Potential for Shrinking or Swelling Clay Ground Stability Hazards	pg 6	Yes		n/a	n/a
Salt Mining Related Features					
Subsidence Insurance Claims				n/a	n/a
Subsidence Investigations	pg 6		1	n/a	n/a
Motion Map Data (1:2,500)					
Motion Map (100m)	pg 7	13	32	n/a	n/a

Report Version v53.0

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
1	<p>BGS Recorded Mineral Sites</p> <p>Site Name: Banbury Road Rail Depot Location: Banbury Road, Water Eaton, Kidlington, Oxfordshire, OX2 8HA Source: British Geological Survey, National Geoscience Information Service Reference: 17333 Type: Rail Depot Status: Active Operator: Not Supplied Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Pembrokeshire Limestone Group Commodity: Crushed Rock Positional Accuracy: Located by supplier to within 10m</p>	A16SW (N)	151	1	450115 211945
2	<p>BGS Recorded Mineral Sites</p> <p>Site Name: Wolvercot Brick Works Location: Wolvercote, Oxford, Oxfordshire Source: British Geological Survey, National Geoscience Information Service Reference: 231975 Type: Opencast Status: Ceased Operator: Not Supplied Operator Location: Not Supplied Periodic Type: Jurassic Geology: Oxford Clay Formation And West Walton Formation (Undifferentiated) Commodity: Common Clay and Shale Positional Accuracy: Located by supplier to within 10m</p>	A7SE (S)	409	1	449794 210533
3	<p>BGS Recorded Mineral Sites</p> <p>Site Name: Peartree Hill Brick Works Location: Peartree Hill, Wolvercote, Oxford, Oxfordshire Source: British Geological Survey, National Geoscience Information Service Reference: 231972 Type: Opencast Status: Ceased Operator: Not Supplied Operator Location: Not Supplied Periodic Type: Jurassic Geology: Oxford Clay Formation And West Walton Formation (Undifferentiated) Commodity: Common Clay and Shale Positional Accuracy: Located by supplier to within 10m</p>	A10SE (W)	424	1	449348 211101
4	<p>BGS Recorded Mineral Sites</p> <p>Site Name: Wolvercot Brick Works Location: Wolvercote, Oxford, Oxfordshire Source: British Geological Survey, National Geoscience Information Service Reference: 231974 Type: Opencast Status: Ceased Operator: Not Supplied Operator Location: Not Supplied Periodic Type: Jurassic Geology: Oxford Clay Formation And West Walton Formation (Undifferentiated) Commodity: Common Clay and Shale Positional Accuracy: Located by supplier to within 10m</p>	A7SE (S)	454	1	449822 210474
5	<p>BGS Recorded Mineral Sites</p> <p>Site Name: Wolvercot Brick Works Location: Wolvercote, Oxford, Oxfordshire Source: British Geological Survey, National Geoscience Information Service Reference: 231973 Type: Opencast Status: Ceased Operator: Not Supplied Operator Location: Not Supplied Periodic Type: Jurassic Geology: Oxford Clay Formation And West Walton Formation (Undifferentiated) Commodity: Common Clay and Shale Positional Accuracy: Located by supplier to within 10m</p>	A7SW (S)	514	1	449753 210436
6	<p>BGS Recorded Mineral Sites</p> <p>Site Name: Summertown Gravel Pit Location: Wolvercote, Oxford, Oxfordshire Source: British Geological Survey, National Geoscience Information Service Reference: 231976 Type: Opencast Status: Ceased Operator: Not Supplied Operator Location: Not Supplied Periodic Type: Pleistocene Geology: Wolvercote Sand And Gravel Member Commodity: Sand and Gravel Positional Accuracy: Located by supplier to within 10m</p>	A4NW (SE)	664	1	450348 210164

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Coal Mining Affected Areas In an area which may not be affected by coal mining				
	Non Coal Mining Areas of Great Britain No Hazard				

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
7	Extractive Industries or Potential Excavations from 1950-1980 Use: Railway Embankment First Map Published 1957 Date: Last Map Published 1957 Date:	A11SE (W)	0	-	449776 211088
8	Extractive Industries or Potential Excavations from 1950-1980 Use: Pond First Map Published 1978 Date: Last Map Published N/A Date:	A12NW (NE)	0	-	450119 211547
9	Extractive Industries or Potential Excavations from 1950-1980 Use: Railway Cutting First Map Published 1974 Date: Last Map Published N/A Date:	A11NE (N)	3	-	449879 211477
10	Extractive Industries or Potential Excavations from 1950-1980 Use: Pond First Map Published 1978 Date: Last Map Published N/A Date:	A12SE (E)	18	-	450680 211222
11	Extractive Industries or Potential Excavations from 1950-1980 Use: Railway Cutting First Map Published 1974 Date: Last Map Published N/A Date:	A11NW (NW)	30	-	449687 211314
12	Extractive Industries or Potential Excavations from 1950-1980 Use: Railway Embankment First Map Published 1957 Date: Last Map Published 1957 Date:	A11SW (SW)	94	-	449647 210949

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
13	Quarrying of sand & clay, operation of sand & gravel pits Use: Not Supplied Date of Mapping: 1992	A6NW (W)	982	-	448798 210714
14	Potentially Infilled Land (Non-Water) Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1992	A11SW (W)	290	-	449479 211089
15	Potentially Infilled Land (Non-Water) Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1992	A7SW (S)	375	-	449733 210580
16	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1955	A16SE (NE)	45	-	450585 211654
17	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1955	A11SW (W)	141	-	449624 211028
18	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1955	A11NW (NW)	335	-	449495 211359
19	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1900	A3NE (S)	968	-	449849 209946

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.				
20	Potential for Collapsible Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A11SE (NE)	0	1	449863 211093
21	Potential for Collapsible Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A11SE (E)	0	1	450000 211093
22	Potential for Collapsible Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	(E)	147	1	451208 211057
	Potential for Collapsible Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A16SE (NE)	92	1	450629 211687
23	Potential for Compressible Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	(E)	44	1	451114 210679
24	Potential for Compressible Ground Stability Hazards Hazard Potential: Moderate Source: British Geological Survey, National Geoscience Information Service	A16SE (NE)	92	1	450629 211687
	Potential for Compressible Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A11SE (NE)	0	1	449863 211093
	Potential for Compressible Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A11SE (E)	0	1	450000 211093
	Potential for Compressible Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	(E)	147	1	451208 211057
	Potential for Ground Dissolution Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A11SE (NE)	0	1	449863 211093
	Potential for Ground Dissolution Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A11SE (E)	0	1	450000 211093
25	Potential for Landslide Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A11SE (NE)	0	1	449863 211093
26	Potential for Landslide Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A11SE (E)	0	1	450000 211093
27	Potential for Landslide Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A11NW (N)	127	1	449711 211509
28	Potential for Running Sand Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A8NW (SE)	0	1	450339 210755
29	Potential for Running Sand Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	(E)	24	1	450999 210651
30	Potential for Running Sand Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A16SE (NE)	92	1	450629 211687
	Potential for Running Sand Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A11SE (NE)	0	1	449863 211093
	Potential for Running Sand Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A11SE (E)	0	1	450000 211093

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Potential for Running Sand Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	(E)	147	1	451208 211057
31	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: Moderate Source: British Geological Survey, National Geoscience Information Service	A11SE (NE)	0	1	449863 211093
32	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: Moderate Source: British Geological Survey, National Geoscience Information Service	A11SE (E)	0	1	450000 211093
	Subsidence Investigations Site Investigation 24th March 2017 Date: Root Survey: Yes CCTV Drain Survey: No Depth of Foundation 1 Footing: Soil Classification: Clay of High Plasticity			-	

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
33	Motion Map Average Velocity -0.5 Gradient (mmyear):	A12SW (E)	0	-	450291 210996
33	Motion Map Average Velocity -0.5 Gradient (mmyear):	A12SW (E)	0	-	450287 210996
33	Motion Map Average Velocity -0.4 Gradient (mmyear):	A12SW (E)	0	-	450292 210991
33	Motion Map Average Velocity -0.3 Gradient (mmyear):	A12SW (E)	0	-	450293 211003
33	Motion Map Average Velocity -0.3 Gradient (mmyear):	A12SW (E)	0	-	450290 211004
33	Motion Map Average Velocity -0.3 Gradient (mmyear):	A12SW (E)	0	-	450291 211000
33	Motion Map Average Velocity -0.4 Gradient (mmyear):	A12SW (E)	0	-	450288 211000
34	Motion Map Average Velocity 0.1 Gradient (mmyear):	A16SW (NE)	0	-	450426 211811
34	Motion Map Average Velocity 0.2 Gradient (mmyear):	A16SW (NE)	0	-	450425 211807
35	Motion Map Average Velocity -0.4 Gradient (mmyear):	A12SW (E)	0	-	450295 211011
35	Motion Map Average Velocity -0.4 Gradient (mmyear):	A12SW (E)	0	-	450291 211012
35	Motion Map Average Velocity -0.5 Gradient (mmyear):	A12SW (E)	0	-	450296 211007
35	Motion Map Average Velocity -0.4 Gradient (mmyear):	A12SW (E)	0	-	450291 211008
36	Motion Map Average Velocity 0.1 Gradient (mmyear):	A12SE (E)	4	-	450706 211142
37	Motion Map Average Velocity -3.1 Gradient (mmyear):	A11SE (NW)	10	-	449792 211205
38	Motion Map Average Velocity -0.5 Gradient (mmyear):	A15SE (N)	11	-	449952 211683
39	Motion Map Average Velocity -1.6 Gradient (mmyear):	A15SE (N)	11	-	449945 211668
39	Motion Map Average Velocity -1.7 Gradient (mmyear):	A15SE (N)	12	-	449946 211672
40	Motion Map Average Velocity 3.9 Gradient (mmyear):	A11SE (NW)	11	-	449776 211152
40	Motion Map Average Velocity 3.6 Gradient (mmyear):	A11SE (NW)	11	-	449775 211148

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
40	Motion Map Average Velocity 3.8 Gradient (mmyear):	A11SE (NW)	14	-	449772 211149
41	Motion Map Average Velocity 3.4 Gradient (mmyear):	A11SE (NW)	11	-	449774 211144
42	Motion Map Average Velocity 3.0 Gradient (mmyear):	A11SE (NW)	12	-	449772 211133
43	Motion Map Average Velocity 0.1 Gradient (mmyear):	A12SW (E)	14	-	450289 210959
44	Motion Map Average Velocity -0.6 Gradient (mmyear):	A7NE (S)	19	-	449830 210933
45	Motion Map Average Velocity -0.2 Gradient (mmyear):	A7NE (S)	19	-	449810 210933
45	Motion Map Average Velocity 0.0 Gradient (mmyear):	A7NE (S)	20	-	449815 210932
46	Motion Map Average Velocity -0.6 Gradient (mmyear):	A7NE (S)	24	-	449858 210931
46	Motion Map Average Velocity -0.6 Gradient (mmyear):	A7NE (S)	27	-	449857 210927
47	Motion Map Average Velocity -1.7 Gradient (mmyear):	A11SE (S)	25	-	449909 210944
48	Motion Map Average Velocity 0.0 Gradient (mmyear):	A8NW (SE)	35	-	450126 210906
49	Motion Map Average Velocity -2.4 Gradient (mmyear):	A11SW (SW)	37	-	449724 210997
50	Motion Map Average Velocity -0.1 Gradient (mmyear):	A12SE (E)	39	-	450722 211264
51	Motion Map Average Velocity 0.2 Gradient (mmyear):	A8NE (SE)	56	-	450675 210677
52	Motion Map Average Velocity -0.8 Gradient (mmyear):	A7NE (S)	57	-	449920 210865
52	Motion Map Average Velocity -1.3 Gradient (mmyear):	A7NE (S)	60	-	449920 210861
53	Motion Map Average Velocity 0.0 Gradient (mmyear):	A8NW (SE)	61	-	450247 210903
53	Motion Map Average Velocity 0.0 Gradient (mmyear):	A8NW (SE)	62	-	450240 210901
53	Motion Map Average Velocity -0.4 Gradient (mmyear):	A8NW (SE)	64	-	450244 210900
54	Motion Map Average Velocity -0.1 Gradient (mmyear):	A8NW (SE)	65	-	450239 210898

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
55	Motion Map Average Velocity -0.5 Gradient (mmyear):	A7NW (SW)	72	-	449759 210883
56	Motion Map Average Velocity -0.2 Gradient (mmyear):	A7NE (S)	82	-	449801 210870
57	Motion Map Average Velocity -0.7 Gradient (mmyear):	A8NW (SE)	84	-	450312 210857
58	Motion Map Average Velocity 0.5 Gradient (mmyear):	A7NE (S)	94	-	449802 210858
59	Motion Map Average Velocity -1.7 Gradient (mmyear):	A7NE (S)	99	-	449885 210840

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

1:2,500	Mapsheets	Published Date
Ordnance Survey Plan	SP4910	1957
Ordnance Survey Plan	SP4910	1957
Ordnance Survey Plan	SP5010	1958
Ordnance Survey Plan	SP5010	1958
Ordnance Survey Plan	SP5010	1958
Ordnance Survey Plan	SP5010	1958
Ordnance Survey Plan	SP4912	1971
Ordnance Survey Plan	SP4911	1974
Ordnance Survey Plan	SP4911	1974
Ordnance Survey Plan	SP5012	1977
Ordnance Survey Plan	SP5012	1977
Ordnance Survey Plan	SP5011	1978
Ordnance Survey Plan	SP5011	1978
Ordnance Survey Plan	SP5011	1978
Ordnance Survey Plan	SP5011	1978








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

1:10,560	Mapsheets	Published Date
Oxfordshire	033_00	1887
Berkshire	002_NW	1900
Oxfordshire	033_NE	1900
Oxfordshire	033_NW	1900
Berkshire	002_NW	1914
Oxfordshire	033_NW	1914
Berkshire	002_NW	1922
Oxfordshire	033_NE	1922
Oxfordshire	033_NW	1938
Oxfordshire	033_NE	1946
Ordnance Survey Plan	SP41SE	1955
Ordnance Survey Plan	SP51SW	1955
Ordnance Survey Plan	SP40NE	1961
Ordnance Survey Plan	SP50NW	1961
1:10,000	Mapsheets	Published Date
Ordnance Survey Plan	SP40NE	1982
Ordnance Survey Plan	SP41SE	1992
Ordnance Survey Plan	SP51SW	1993
Ordnance Survey Plan	SP50NW	1994

Mining and Cavities Data	Version	Update Cycle
BGS Recorded Mineral Sites British Geological Survey - National Geoscience Information Service	November 2017	Bi-Annually
Coal Mining Affected Areas The Coal Authority - Property Searches	March 2014	As notified
Man Made Mining Cavities Peter Brett Associates	November 2017	Bi-Annually
Mining Instability Ove Arup & Partners	October 2000	Not Applicable
Natural Cavities Peter Brett Associates	November 2017	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 2018	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	June 2015	As notified
Potential for Compressible Ground Stability Hazards British Geological Survey - National Geoscience Information Service	June 2015	As notified
Potential for Ground Dissolution Stability Hazards British Geological Survey - National Geoscience Information Service	June 2015	As notified
Potential for Landslide Ground Stability Hazards British Geological Survey - National Geoscience Information Service	June 2015	As notified
Potential for Running Sand Ground Stability Hazards British Geological Survey - National Geoscience Information Service	June 2015	As notified
Potential for Shrinking or Swelling Clay Ground Stability Hazards British Geological Survey - National Geoscience Information Service	June 2015	As notified
Subsidence Insurance Claims SP Property Services	November 2017	Quarterly
Subsidence Investigations CET Structures Ltd	November 2017	Quarterly
Brine Subsidence Solution Area Johnson Poole & Bloomer	January 2015	As notified

Motion Map Data (1:2,500)	Version	Update Cycle
Motion Map		
Nigel Press Associates - Hampshire	February 2011	As notified
Nigel Press Associates - Cambridge	January 2011	As notified
Nigel Press Associates - Ipswich	January 2011	As notified
Nigel Press Associates - Norwich	January 2011	As notified
Nigel Press Associates - Peterborough	January 2011	As notified
Nigel Press Associates - Barnstaple	July 2010	As notified
Nigel Press Associates - Derbyshire	July 2010	As notified
Nigel Press Associates - Humberside	July 2010	As notified
Nigel Press Associates - Kent	July 2010	As notified
Nigel Press Associates - Lincolnshire	July 2010	As notified
Nigel Press Associates - Nottinghamshire	July 2010	As notified
Nigel Press Associates - Birmingham	May 2009	As notified
Nigel Press Associates - Bournemouth	May 2009	As notified
Nigel Press Associates - Brighton	May 2009	As notified
Nigel Press Associates - Bristol	May 2009	As notified
Nigel Press Associates - Cardiff	May 2009	As notified
Nigel Press Associates - Central London	May 2009	As notified
Nigel Press Associates - Cheltenham	May 2009	As notified
Nigel Press Associates - Coventry	May 2009	As notified
Nigel Press Associates - Crawley	May 2009	As notified
Nigel Press Associates - Edinburgh	May 2009	As notified
Nigel Press Associates - Exeter	May 2009	As notified
Nigel Press Associates - Glasgow	May 2009	As notified
Nigel Press Associates - Isle of Wight	May 2009	As notified
Nigel Press Associates - Leeds	May 2009	As notified
Nigel Press Associates - Leicester	May 2009	As notified
Nigel Press Associates - Liverpool	May 2009	As notified
Nigel Press Associates - Manchester	May 2009	As notified
Nigel Press Associates - Milton Keynes	May 2009	As notified
Nigel Press Associates - Newcastle	May 2009	As notified
Nigel Press Associates - Northwich	May 2009	As notified
Nigel Press Associates - Nottingham	May 2009	As notified
Nigel Press Associates - Oxford	May 2009	As notified
Nigel Press Associates - Plymouth	May 2009	As notified
Nigel Press Associates - Portsmouth	May 2009	As notified
Nigel Press Associates - Preston	May 2009	As notified
Nigel Press Associates - Reading	May 2009	As notified
Nigel Press Associates - Sheffield	May 2009	As notified
Nigel Press Associates - Stoke	May 2009	As notified
Nigel Press Associates - Swindon	May 2009	As notified
Nigel Press Associates - Tonbridge	May 2009	As notified
Nigel Press Associates - North London	November 2008	As notified
Nigel Press Associates - Head Office	September 2008	As notified

A selection of organisations who provide data within this report

Data Supplier	Data Supplier Logo
Ordnance Survey	
British Geological Survey	
The Coal Authority	
Ove Arup	
Peter Brett Associates	
Wardell Armstrong	
Johnson Poole & Bloomer	

Contact	Name and Address	Contact Details
1	British Geological Survey - Enquiry Service British Geological Survey, Kingsley Dunham Centre, Keyworth, Nottingham, Nottinghamshire, NG12 5GG	Telephone: 0115 936 3143 Fax: 0115 936 3276 Email: enquiries@bgs.ac.uk Website: www.bgs.ac.uk
-	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

Envirocheck[®] Report:

Mining and Ground Stability Datasheet

Order Details:

Order Number:

157505927_1_1

Customer Reference:

8170282/GC/054/2018

National Grid Reference:

451340, 210940

Slice:

B

Site Area (Ha):

77.7

Search Buffer (m):

1000

Site Details:

Site at 450660, 211190

Client Details:

Mr K Rayner
Glanville Consultants
3 Grovelands Business Centre
Boundary Way
Hemel Hempstead
Hertfordshire
HP2 7TE

Report Section and Details	Page Number
Summary	-
<p>The Summary section provides an overview of the data contained within the report, detailing the number of data set features or the existence of a data set in relation to the buffer selected.</p> <p>For ease of reference, the report is broken down into 4 sections of data; Mining and Natural Cavities Data, Historical Land Use Information (1:2,500), Historical Land Use Information (1:10,000) and Ground Stability Data (1:50,000).</p>	
Mining and Natural Cavities Data	-
<p>The Mining and Natural Cavities Data section features data sets related to the existence of mining areas and their potential hazards; and details of naturally formed cavities.</p> <p>Data sets within this section are not plotted, with the exception of BGS Recorded Mineral Sites and Potential Mining Areas which feature on the Historical Land Use Information (1:10,000) map.</p>	
Historical Land Use Information (1:2,500)	-
<p>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.</p> <p>For the purpose of this Envirocheck module, only historical data relating to mining and ground stability has been included and 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.</p>	
Historical Land Use Information (1:10,000)	1
<p>The Historical Land Use (1:10,000) section covers data captured from the systematic analysis carried out by Landmark of 1:10, 560 and 1:10,000 scale historical Ordnance Survey mapping dating back to the mid-19th century, identifying potentially contaminative past industrial land uses.</p> <p>For the purpose of this Envirocheck module, only data relating to mining and ground stability has been included and plotted on the accompanying Historical Land Use Information (1:10,000) map.</p>	
Ground Stability Data (1:50,000)	2
<p>The Ground Stability (1:50,000) section includes the BGS Geosure data suite, reporting features to 250m and plotted onto 3 separate maps. Also reported is brine subsidence, brine mining and salt mining data sets, of which Brine Pumping and Salt Mining Related Features are plotted, and subsidence insurance claims and insurance investigations data, which is not plotted.</p>	
Motion Map Data (1:2,500)	-
<p>The Motion Map Data (1:2,500) section contains data which is plotted to indicate long-term stability trends from analysis of satellite radar data.</p>	
Historical Map List	3
<p>The Historical Map List section details the historical mapping that has been analysed for your site, in relation to the Historical Land Use Information sections.</p>	
Data Currency	4
Data Suppliers	6
Useful Contacts	7

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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					
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				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					
Former Marshes					
Potentially Infilled Land (Non-Water)					
Potentially Infilled Land (Water)	pg 1		1	1	5

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m
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 2	Yes	Yes	n/a	n/a
Potential for Compressible Ground Stability Hazards	pg 2	Yes	Yes	n/a	n/a
Potential for Ground Dissolution Stability Hazards	pg 2	Yes		n/a	n/a
Potential for Landslide Ground Stability Hazards	pg 2	Yes		n/a	n/a
Potential for Running Sand Ground Stability Hazards	pg 2	Yes	Yes	n/a	n/a
Potential for Shrinking or Swelling Clay Ground Stability Hazards	pg 2	Yes		n/a	n/a
Salt Mining Related Features					
Subsidence Insurance Claims				n/a	n/a
Subsidence Investigations	pg 2		1	n/a	n/a
Motion Map Data (1:2,500)					
Motion Map (100m)				n/a	n/a

Report Version v53.0

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
1	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1955	B5SE (SW)	181	-	451173 210557
2	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1955	B6NW (SE)	422	-	451536 210840
3	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1955	B6SW (S)	515	-	451540 210427
4	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1955	B10NW (N)	547	-	451463 211371
5	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1955	B13SW (N)	564	-	451075 211855
6	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1900	B1NW (SW)	632	-	450831 210038
7	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1955	B14SW (N)	920	-	451606 211845

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.				
8	Potential for Collapsible Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	B5NE (W)	0	1	451173 210886
9	Potential for Collapsible Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	B5NE (N)	147	1	451345 210939
	Potential for Collapsible Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	B5NE (W)	92	1	451227 210904
10	Potential for Compressible Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	B5NE (SW)	44	1	451213 210728
11	Potential for Compressible Ground Stability Hazards Hazard Potential: Moderate Source: British Geological Survey, National Geoscience Information Service	B5NE (W)	92	1	451227 210904
	Potential for Compressible Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	B5NE (W)	0	1	451173 210886
	Potential for Compressible Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	B5NE (N)	147	1	451345 210939
	Potential for Ground Dissolution Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	B5NE (N)	0	1	451345 210939
12	Potential for Landslide Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	B5NE (N)	0	1	451345 210939
13	Potential for Running Sand Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	B5NW (W)	0	1	450875 210912
14	Potential for Running Sand Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	B5NE (SW)	24	1	451213 210728
15	Potential for Running Sand Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	B5NE (W)	92	1	451227 210904
	Potential for Running Sand Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	B5NE (W)	0	1	451173 210886
	Potential for Running Sand Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	B5NE (N)	147	1	451345 210939
16	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: Moderate Source: British Geological Survey, National Geoscience Information Service	B5NE (N)	0	1	451345 210939
	Subsidence Investigations Site Investigation 17th March 2017 Date: Root Survey: Yes CCTV Drain Survey: Yes Depth of Foundation 0.62 Footings: Soil Classification: Not Supplied			-	

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

1:2,500	Mapsheets	Published Date
Ordnance Survey Plan	SP5010	1958
Ordnance Survey Plan	SP5010	1958
Ordnance Survey Plan	SP5110	1959
Ordnance Survey Plan	SP5110	1959
Ordnance Survey Plan	SP5011	1978
Ordnance Survey Plan	SP5111	1978








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

1:10,560	Mapsheets	Published Date
Oxfordshire	033_00	1887
Oxfordshire	033_NE	1900
Oxfordshire	033_NE	1922
Oxfordshire	033_NE	1946
Ordnance Survey Plan	SP51SW	1955
Ordnance Survey Plan	SP50NW	1961
1:10,000	Mapsheets	Published Date
Ordnance Survey Plan	SP51SW	1993
Ordnance Survey Plan	SP50NW	1994

Mining and Cavities Data	Version	Update Cycle
BGS Recorded Mineral Sites British Geological Survey - National Geoscience Information Service	November 2017	Bi-Annually
Coal Mining Affected Areas The Coal Authority - Property Searches	March 2014	As notified
Man Made Mining Cavities Peter Brett Associates	November 2017	Bi-Annually
Mining Instability Ove Arup & Partners	October 2000	Not Applicable
Natural Cavities Peter Brett Associates	November 2017	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 2018	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	June 2015	As notified
Potential for Compressible Ground Stability Hazards British Geological Survey - National Geoscience Information Service	June 2015	As notified
Potential for Ground Dissolution Stability Hazards British Geological Survey - National Geoscience Information Service	June 2015	As notified
Potential for Landslide Ground Stability Hazards British Geological Survey - National Geoscience Information Service	June 2015	As notified
Potential for Running Sand Ground Stability Hazards British Geological Survey - National Geoscience Information Service	June 2015	As notified
Potential for Shrinking or Swelling Clay Ground Stability Hazards British Geological Survey - National Geoscience Information Service	June 2015	As notified
Subsidence Insurance Claims SP Property Services	November 2017	Quarterly
Subsidence Investigations CET Structures Ltd	November 2017	Quarterly
Brine Subsidence Solution Area Johnson Poole & Bloomer	January 2015	As notified

Motion Map Data (1:2,500)	Version	Update Cycle
Motion Map		
Nigel Press Associates - Hampshire	February 2011	As notified
Nigel Press Associates - Cambridge	January 2011	As notified
Nigel Press Associates - Ipswich	January 2011	As notified
Nigel Press Associates - Norwich	January 2011	As notified
Nigel Press Associates - Peterborough	January 2011	As notified
Nigel Press Associates - Barnstaple	July 2010	As notified
Nigel Press Associates - Derbyshire	July 2010	As notified
Nigel Press Associates - Humberside	July 2010	As notified
Nigel Press Associates - Kent	July 2010	As notified
Nigel Press Associates - Lincolnshire	July 2010	As notified
Nigel Press Associates - Nottinghamshire	July 2010	As notified
Nigel Press Associates - Birmingham	May 2009	As notified
Nigel Press Associates - Bournemouth	May 2009	As notified
Nigel Press Associates - Brighton	May 2009	As notified
Nigel Press Associates - Bristol	May 2009	As notified
Nigel Press Associates - Cardiff	May 2009	As notified
Nigel Press Associates - Central London	May 2009	As notified
Nigel Press Associates - Cheltenham	May 2009	As notified
Nigel Press Associates - Coventry	May 2009	As notified
Nigel Press Associates - Crawley	May 2009	As notified
Nigel Press Associates - Edinburgh	May 2009	As notified
Nigel Press Associates - Exeter	May 2009	As notified
Nigel Press Associates - Glasgow	May 2009	As notified
Nigel Press Associates - Isle of Wight	May 2009	As notified
Nigel Press Associates - Leeds	May 2009	As notified
Nigel Press Associates - Leicester	May 2009	As notified
Nigel Press Associates - Liverpool	May 2009	As notified
Nigel Press Associates - Manchester	May 2009	As notified
Nigel Press Associates - Milton Keynes	May 2009	As notified
Nigel Press Associates - Newcastle	May 2009	As notified
Nigel Press Associates - Northwich	May 2009	As notified
Nigel Press Associates - Nottingham	May 2009	As notified
Nigel Press Associates - Oxford	May 2009	As notified
Nigel Press Associates - Plymouth	May 2009	As notified
Nigel Press Associates - Portsmouth	May 2009	As notified
Nigel Press Associates - Preston	May 2009	As notified
Nigel Press Associates - Reading	May 2009	As notified
Nigel Press Associates - Sheffield	May 2009	As notified
Nigel Press Associates - Stoke	May 2009	As notified
Nigel Press Associates - Swindon	May 2009	As notified
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British Geological Survey	
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Peter Brett Associates	
Wardell Armstrong	
Johnson Poole & Bloomer	

Contact	Name and Address	Contact Details
1	British Geological Survey - Enquiry Service British Geological Survey, Kingsley Dunham Centre, Keyworth, Nottingham, Nottinghamshire, NG12 5GG	Telephone: 0115 936 3143 Fax: 0115 936 3276 Email: enquiries@bgs.ac.uk Website: www.bgs.ac.uk
-	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

Envirocheck[®] Report:

Mining and Ground Stability Datasheet

Order Details:

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157505927_1_1

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450090, 212550

Slice:

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Site Area (Ha):

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Search Buffer (m):

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Site Details:

Site at 450660, 211190

Client Details:

Mr K Rayner
Glanville Consultants
3 Grovelands Business Centre
Boundary Way
Hemel Hempstead
Hertfordshire
HP2 7TE

Report Section and Details	Page Number
Summary	-
<p>The Summary section provides an overview of the data contained within the report, detailing the number of data set features or the existence of a data set in relation to the buffer selected.</p> <p>For ease of reference, the report is broken down into 4 sections of data; Mining and Natural Cavities Data, Historical Land Use Information (1:2,500), Historical Land Use Information (1:10,000) and Ground Stability Data (1:50,000).</p>	
Mining and Natural Cavities Data	-
<p>The Mining and Natural Cavities Data section features data sets related to the existence of mining areas and their potential hazards; and details of naturally formed cavities.</p> <p>Data sets within this section are not plotted, with the exception of BGS Recorded Mineral Sites and Potential Mining Areas which feature on the Historical Land Use Information (1:10,000) map.</p>	
Historical Land Use Information (1:2,500)	-
<p>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.</p> <p>For the purpose of this Envirocheck module, only historical data relating to mining and ground stability has been included and 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.</p>	
Historical Land Use Information (1:10,000)	1
<p>The Historical Land Use (1:10,000) section covers data captured from the systematic analysis carried out by Landmark of 1:10, 560 and 1:10,000 scale historical Ordnance Survey mapping dating back to the mid-19th century, identifying potentially contaminative past industrial land uses.</p> <p>For the purpose of this Envirocheck module, only data relating to mining and ground stability has been included and plotted on the accompanying Historical Land Use Information (1:10,000) map.</p>	
Ground Stability Data (1:50,000)	2
<p>The Ground Stability (1:50,000) section includes the BGS Geosure data suite, reporting features to 250m and plotted onto 3 separate maps. Also reported is brine subsidence, brine mining and salt mining data sets, of which Brine Pumping and Salt Mining Related Features are plotted, and subsidence insurance claims and insurance investigations data, which is not plotted.</p>	
Motion Map Data (1:2,500)	-
<p>The Motion Map Data (1:2,500) section contains data which is plotted to indicate long-term stability trends from analysis of satellite radar data.</p>	
Historical Map List	3
<p>The Historical Map List section details the historical mapping that has been analysed for your site, in relation to the Historical Land Use Information sections.</p>	
Data Currency	4
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Useful Contacts	6

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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					
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				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					
Former Marshes					
Potentially Infilled Land (Non-Water)					
Potentially Infilled Land (Water)	pg 1				1

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m
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 2	Yes	Yes	n/a	n/a
Potential for Compressible Ground Stability Hazards	pg 2	Yes	Yes	n/a	n/a
Potential for Ground Dissolution Stability Hazards	pg 2	Yes		n/a	n/a
Potential for Landslide Ground Stability Hazards	pg 2	Yes	Yes	n/a	n/a
Potential for Running Sand Ground Stability Hazards	pg 2	Yes	Yes	n/a	n/a
Potential for Shrinking or Swelling Clay Ground Stability Hazards	pg 2	Yes		n/a	n/a
Salt Mining Related Features					
Subsidence Insurance Claims				n/a	n/a
Subsidence Investigations				n/a	n/a
Motion Map Data (1:2,500)					
Motion Map (100m)				n/a	n/a

Report Version v53.0

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
1	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1955	C4SE (E)	602	-	450689 212404

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.				
2	Potential for Collapsible Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	C3SE (W)	0	1	450000 212549
3	Potential for Collapsible Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	C3SE (NE)	0	1	450088 212549
	Potential for Collapsible Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	C4SW (E)	92	1	450428 212577
4	Potential for Compressible Ground Stability Hazards Hazard Potential: Moderate Source: British Geological Survey, National Geoscience Information Service	C4SW (E)	92	1	450428 212577
	Potential for Compressible Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	C3SE (W)	0	1	450000 212549
	Potential for Compressible Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	C3SE (NE)	0	1	450088 212549
	Potential for Ground Dissolution Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	C3SE (W)	0	1	450000 212549
	Potential for Ground Dissolution Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	C3SE (NE)	0	1	450088 212549
5	Potential for Landslide Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	C3SE (W)	0	1	450000 212549
6	Potential for Landslide Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	C3SE (NE)	0	1	450088 212549
7	Potential for Landslide Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	(S)	127	1	449813 211666
8	Potential for Running Sand Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	C4SW (E)	92	1	450428 212577
	Potential for Running Sand Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	C3SE (W)	0	1	450000 212549
	Potential for Running Sand Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	C3SE (NE)	0	1	450088 212549
9	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: Moderate Source: British Geological Survey, National Geoscience Information Service	C3SE (W)	0	1	450000 212549
10	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: Moderate Source: British Geological Survey, National Geoscience Information Service	C3SE (NE)	0	1	450088 212549








No Historical Land Use information available.

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

1:10,560	Mapsheet	Published Date
Oxfordshire	027_00	1884
Oxfordshire	033_00	1887
Berkshire	002_NW	1900
Oxfordshire	027_SE	1900
Oxfordshire	027_SW	1900
Oxfordshire	033_NE	1900
Oxfordshire	033_NW	1900
Berkshire	002_NW	1914
Oxfordshire	033_NW	1914
Berkshire	002_NW	1922
Oxfordshire	033_NE	1922
Oxfordshire	027_SE	1923
Oxfordshire	027_SW	1923
Oxfordshire	033_NW	1938
Oxfordshire	033_NE	1946
Oxfordshire	027_SW	1947
Ordnance Survey Plan	SP41SE	1955
Ordnance Survey Plan	SP51SW	1955
1:10,000	Mapsheet	Published Date
Ordnance Survey Plan	SP41SE	1992
Ordnance Survey Plan	SP51SW	1993

Mining and Cavities Data	Version	Update Cycle
BGS Recorded Mineral Sites British Geological Survey - National Geoscience Information Service	November 2017	Bi-Annually
Coal Mining Affected Areas The Coal Authority - Property Searches	March 2014	As notified
Man Made Mining Cavities Peter Brett Associates	November 2017	Bi-Annually
Mining Instability Ove Arup & Partners	October 2000	Not Applicable
Natural Cavities Peter Brett Associates	November 2017	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 2018	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	June 2015	As notified
Potential for Compressible Ground Stability Hazards British Geological Survey - National Geoscience Information Service	June 2015	As notified
Potential for Ground Dissolution Stability Hazards British Geological Survey - National Geoscience Information Service	June 2015	As notified
Potential for Landslide Ground Stability Hazards British Geological Survey - National Geoscience Information Service	June 2015	As notified
Potential for Running Sand Ground Stability Hazards British Geological Survey - National Geoscience Information Service	June 2015	As notified
Potential for Shrinking or Swelling Clay Ground Stability Hazards British Geological Survey - National Geoscience Information Service	June 2015	As notified
Subsidence Insurance Claims SP Property Services	November 2017	Quarterly
Subsidence Investigations CET Structures Ltd	November 2017	Quarterly
Brine Subsidence Solution Area Johnson Poole & Bloomer	January 2015	As notified

A selection of organisations who provide data within this report

Data Supplier	Data Supplier Logo
Ordnance Survey	
British Geological Survey	
The Coal Authority	
Ove Arup	
Peter Brett Associates	
Wardell Armstrong	
Johnson Poole & Bloomer	

Contact	Name and Address	Contact Details
1	British Geological Survey - Enquiry Service British Geological Survey, Kingsley Dunham Centre, Keyworth, Nottingham, Nottinghamshire, NG12 5GG	Telephone: 0115 936 3143 Fax: 0115 936 3276 Email: enquiries@bgs.ac.uk Website: www.bgs.ac.uk
-	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

Envirocheck[®] Report:

Mining and Ground Stability Datasheet

Order Details:

Order Number:

157505927_1_1

Customer Reference:

8170282/GC/054/2018

National Grid Reference:

450970, 212480

Slice:

D

Site Area (Ha):

77.7

Search Buffer (m):

1000

Site Details:

Site at 450660, 211190

Client Details:

Mr K Rayner
Glanville Consultants
3 Grovelands Business Centre
Boundary Way
Hemel Hempstead
Hertfordshire
HP2 7TE

Report Section and Details	Page Number
Summary	-
<p>The Summary section provides an overview of the data contained within the report, detailing the number of data set features or the existence of a data set in relation to the buffer selected.</p> <p>For ease of reference, the report is broken down into 4 sections of data; Mining and Natural Cavities Data, Historical Land Use Information (1:2,500), Historical Land Use Information (1:10,000) and Ground Stability Data (1:50,000).</p>	
Mining and Natural Cavities Data	-
<p>The Mining and Natural Cavities Data section features data sets related to the existence of mining areas and their potential hazards; and details of naturally formed cavities.</p> <p>Data sets within this section are not plotted, with the exception of BGS Recorded Mineral Sites and Potential Mining Areas which feature on the Historical Land Use Information (1:10,000) map.</p>	
Historical Land Use Information (1:2,500)	-
<p>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.</p> <p>For the purpose of this Envirocheck module, only historical data relating to mining and ground stability has been included and 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.</p>	
Historical Land Use Information (1:10,000)	-
<p>The Historical Land Use (1:10,000) section covers data captured from the systematic analysis carried out by Landmark of 1:10, 560 and 1:10,000 scale historical Ordnance Survey mapping dating back to the mid-19th century, identifying potentially contaminative past industrial land uses.</p> <p>For the purpose of this Envirocheck module, only data relating to mining and ground stability has been included and plotted on the accompanying Historical Land Use Information (1:10,000) map.</p>	
Ground Stability Data (1:50,000)	1
<p>The Ground Stability (1:50,000) section includes the BGS Geosure data suite, reporting features to 250m and plotted onto 3 separate maps. Also reported is brine subsidence, brine mining and salt mining data sets, of which Brine Pumping and Salt Mining Related Features are plotted, and subsidence insurance claims and insurance investigations data, which is not plotted.</p>	
Motion Map Data (1:2,500)	-
<p>The Motion Map Data (1:2,500) section contains data which is plotted to indicate long-term stability trends from analysis of satellite radar data.</p>	
Historical Map List	2
<p>The Historical Map List section details the historical mapping that has been analysed for your site, in relation to the Historical Land Use Information sections.</p>	
Data Currency	3
Data Suppliers	4
Useful Contacts	5

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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.

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m
Mining and Natural Cavities Data					
BGS Recorded Mineral Sites					
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				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					
Former Marshes					
Potentially Infilled Land (Non-Water)					
Potentially Infilled Land (Water)					

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m
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 1	Yes	Yes	n/a	n/a
Potential for Compressible Ground Stability Hazards	pg 1	Yes	Yes	n/a	n/a
Potential for Ground Dissolution Stability Hazards	pg 1	Yes		n/a	n/a
Potential for Landslide Ground Stability Hazards	pg 1	Yes		n/a	n/a
Potential for Running Sand Ground Stability Hazards	pg 1	Yes	Yes	n/a	n/a
Potential for Shrinking or Swelling Clay Ground Stability Hazards	pg 1	Yes		n/a	n/a
Salt Mining Related Features					
Subsidence Insurance Claims				n/a	n/a
Subsidence Investigations				n/a	n/a
Motion Map Data (1:2,500)					
Motion Map (100m)				n/a	n/a

Report Version v53.0

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.				
1	Potential for Collapsible Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	(SW)	0	1	450584 212299
	Potential for Collapsible Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	D1SW (NW)	92	1	450971 212484
2	Potential for Compressible Ground Stability Hazards Hazard Potential: Moderate Source: British Geological Survey, National Geoscience Information Service	D1SW (NW)	92	1	450971 212484
	Potential for Compressible Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	(SW)	0	1	450584 212299
	Potential for Ground Dissolution Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	D1SW (NW)	0	1	450971 212484
3	Potential for Landslide Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	D1SW (NW)	0	1	450971 212484
4	Potential for Running Sand Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	D1SW (NW)	92	1	450971 212484
	Potential for Running Sand Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	(SW)	0	1	450584 212299
5	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: Moderate Source: British Geological Survey, National Geoscience Information Service	D1SW (NW)	0	1	450971 212484








No Historical Land Use information available.

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

1:10,560	Mapsheet	Published Date
Oxfordshire	027_00	1884
Oxfordshire	033_00	1887
Oxfordshire	027_SE	1900
Oxfordshire	033_NE	1900
Oxfordshire	033_NE	1922
Oxfordshire	027_SE	1923
Oxfordshire	033_NE	1946
Ordnance Survey Plan	SP51SW	1955
1:10,000	Mapsheet	Published Date
Ordnance Survey Plan	SP51SW	1993

Mining and Cavities Data	Version	Update Cycle
BGS Recorded Mineral Sites British Geological Survey - National Geoscience Information Service	November 2017	Bi-Annually
Coal Mining Affected Areas The Coal Authority - Property Searches	March 2014	As notified
Man Made Mining Cavities Peter Brett Associates	November 2017	Bi-Annually
Mining Instability Ove Arup & Partners	October 2000	Not Applicable
Natural Cavities Peter Brett Associates	November 2017	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 2018	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	June 2015	As notified
Potential for Compressible Ground Stability Hazards British Geological Survey - National Geoscience Information Service	June 2015	As notified
Potential for Ground Dissolution Stability Hazards British Geological Survey - National Geoscience Information Service	June 2015	As notified
Potential for Landslide Ground Stability Hazards British Geological Survey - National Geoscience Information Service	June 2015	As notified
Potential for Running Sand Ground Stability Hazards British Geological Survey - National Geoscience Information Service	June 2015	As notified
Potential for Shrinking or Swelling Clay Ground Stability Hazards British Geological Survey - National Geoscience Information Service	June 2015	As notified
Subsidence Insurance Claims SP Property Services	November 2017	Quarterly
Subsidence Investigations CET Structures Ltd	November 2017	Quarterly
Brine Subsidence Solution Area Johnson Poole & Bloomer	January 2015	As notified






A selection of organisations who provide data within this report

Data Supplier	Data Supplier Logo
Ordnance Survey	
British Geological Survey	
The Coal Authority	
Ove Arup	
Peter Brett Associates	
Wardell Armstrong	
Johnson Poole & Bloomer	
















Contact	Name and Address	Contact Details
1	British Geological Survey - Enquiry Service British Geological Survey, Kingsley Dunham Centre, Keyworth, Nottingham, Nottinghamshire, NG12 5GG	Telephone: 0115 936 3143 Fax: 0115 936 3276 Email: enquiries@bgs.ac.uk Website: www.bgs.ac.uk
-	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)

General

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

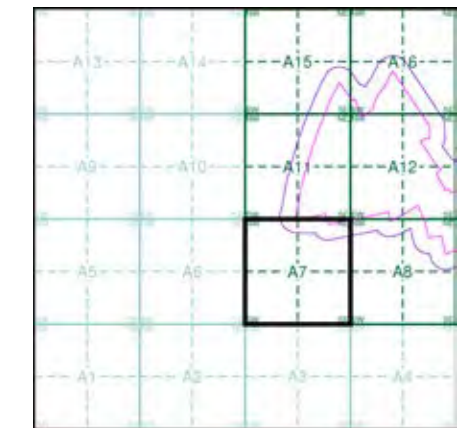
Potentially Contaminative Industrial Uses (Extractive Industries Activity)

	Point	Line	Polygon
Extractive Industries Activity from 1855 - 1909			
Extractive Industries Activity from 1893 - 1915			
Extractive Industries Activity from 1906 - 1937			
Extractive Industries Activity from 1924 - 1949			
Extractive Industries Activity from 1950 - 1980			

Subterranean Features

	Point	Line	Polygon
Subterranean Features			

Mining and Ground Stability - Segment A7

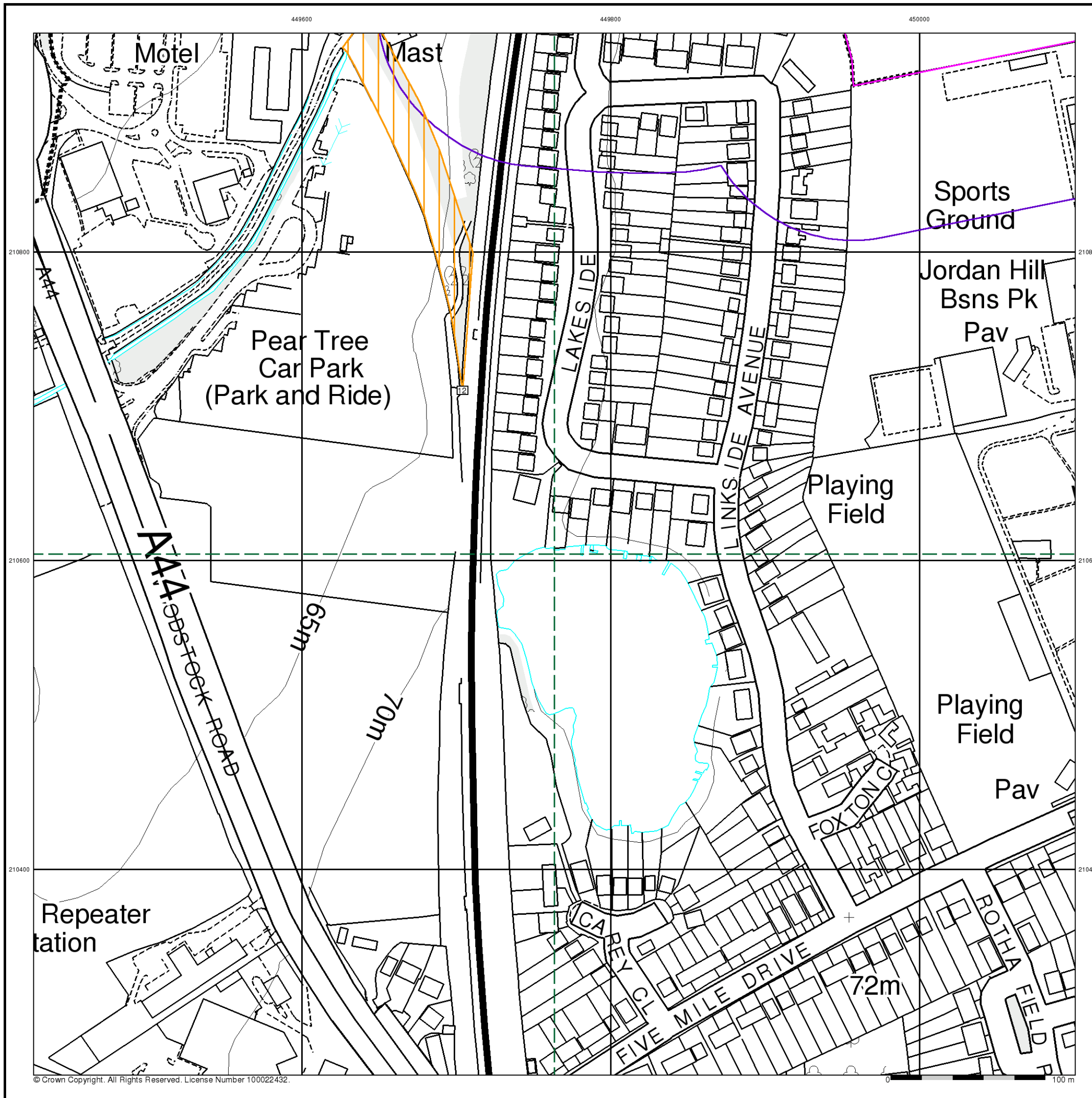


Order Details

Order Number: 157505927_1_1
 Customer Ref: 8170282/GC/054/2018
 National Grid Reference: 449860, 211090
 Slice: A
 Site Area (Ha): 77.7
 Plot Buffer (m): 100

Site Details

Site at 450660, 211190





Historical Land Use Information (1:2,500)

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

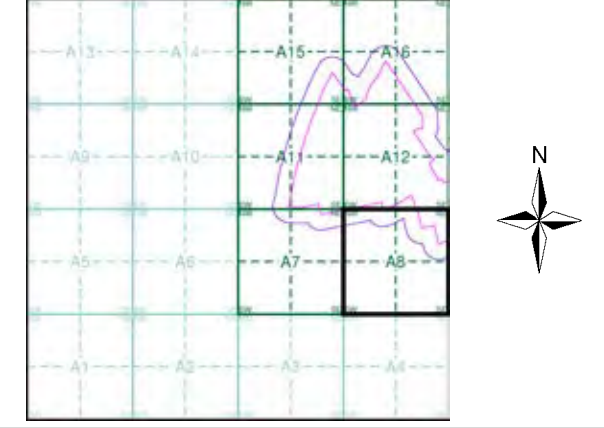
Potentially Contaminative Industrial Uses (Extractive Industries Activity)

	Point	Line	Polygon
Extractive Industries Activity from 1855 - 1909	▲	—	■
Extractive Industries Activity from 1893 - 1915	▲	—	■
Extractive Industries Activity from 1906 - 1937	▲	—	■
Extractive Industries Activity from 1924 - 1949	▲	—	■
Extractive Industries Activity from 1950 - 1980	▲	—	■

Subterranean Features
 Subterranean Features

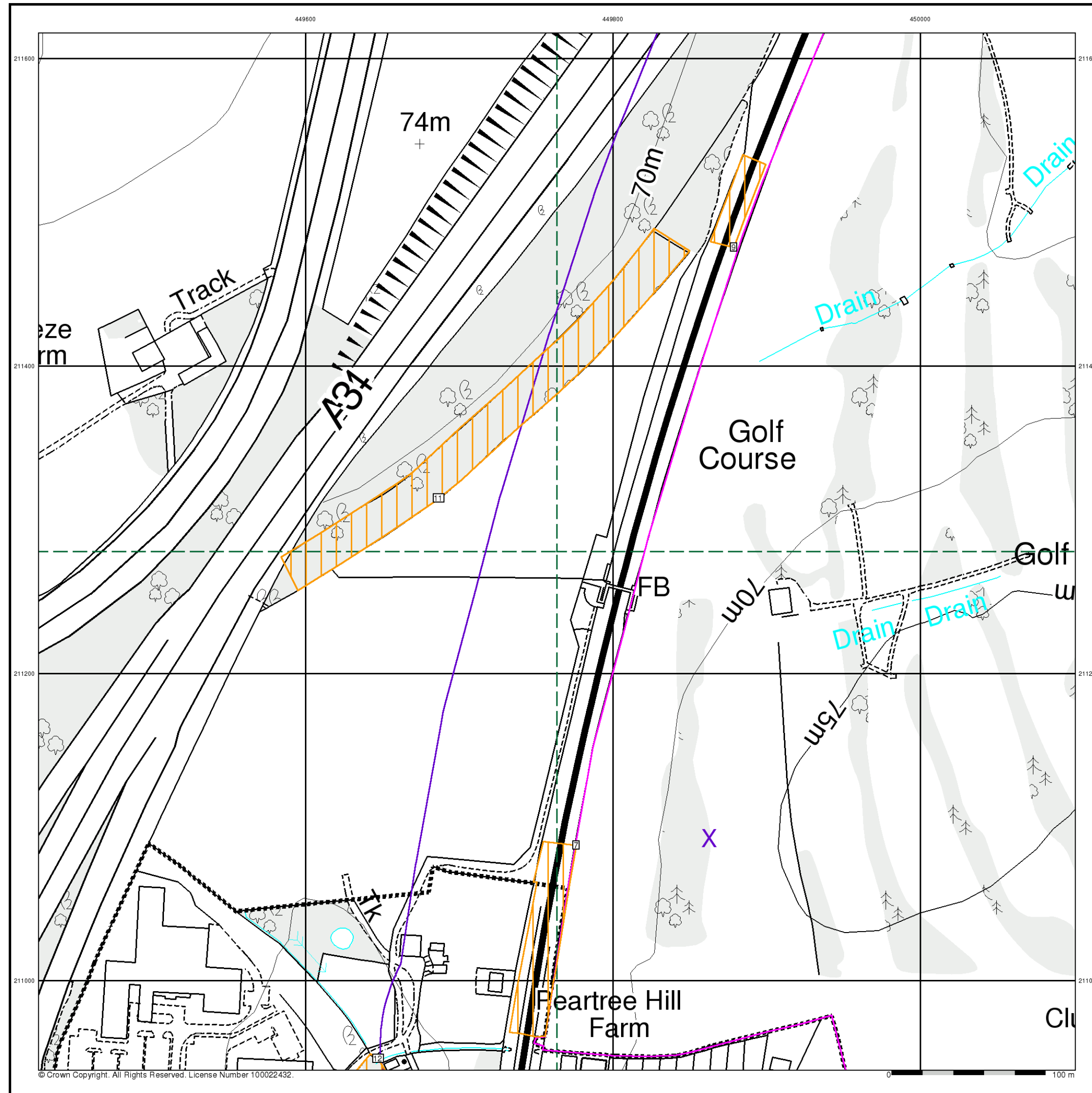
	Point	Line	Polygon
Subterranean Features	▼	---	■

Mining and Ground Stability - Segment A8



Order Details
 Order Number: 157505927_1_1
 Customer Ref: 8170282/GC/054/2018
 National Grid Reference: 449860, 211090
 Slice: A
 Site Area (Ha): 77.7
 Plot Buffer (m): 100

Site Details
 Site at 450660, 211190



Historical Land Use Information (1:2,500)

General

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

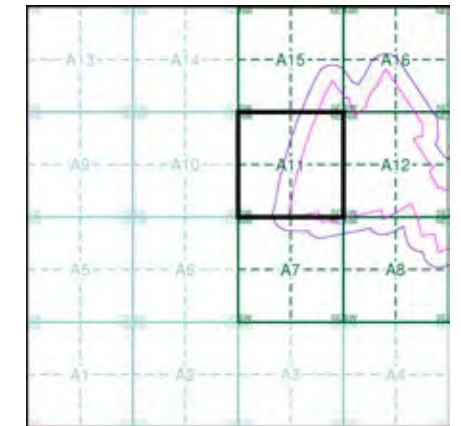
Potentially Contaminative Industrial Uses (Extractive Industries Activity)

	Point	Line	Polygon
Extractive Industries Activity from 1855 - 1909	▲	—	■
Extractive Industries Activity from 1893 - 1915	▲	—	■
Extractive Industries Activity from 1906 - 1937	▲	—	■
Extractive Industries Activity from 1924 - 1949	▲	—	■
Extractive Industries Activity from 1950 - 1980	▲	—	■

Subterranean Features

	Point	Line	Polygon
Subterranean Features	▼	---	■

Mining and Ground Stability - Segment A11

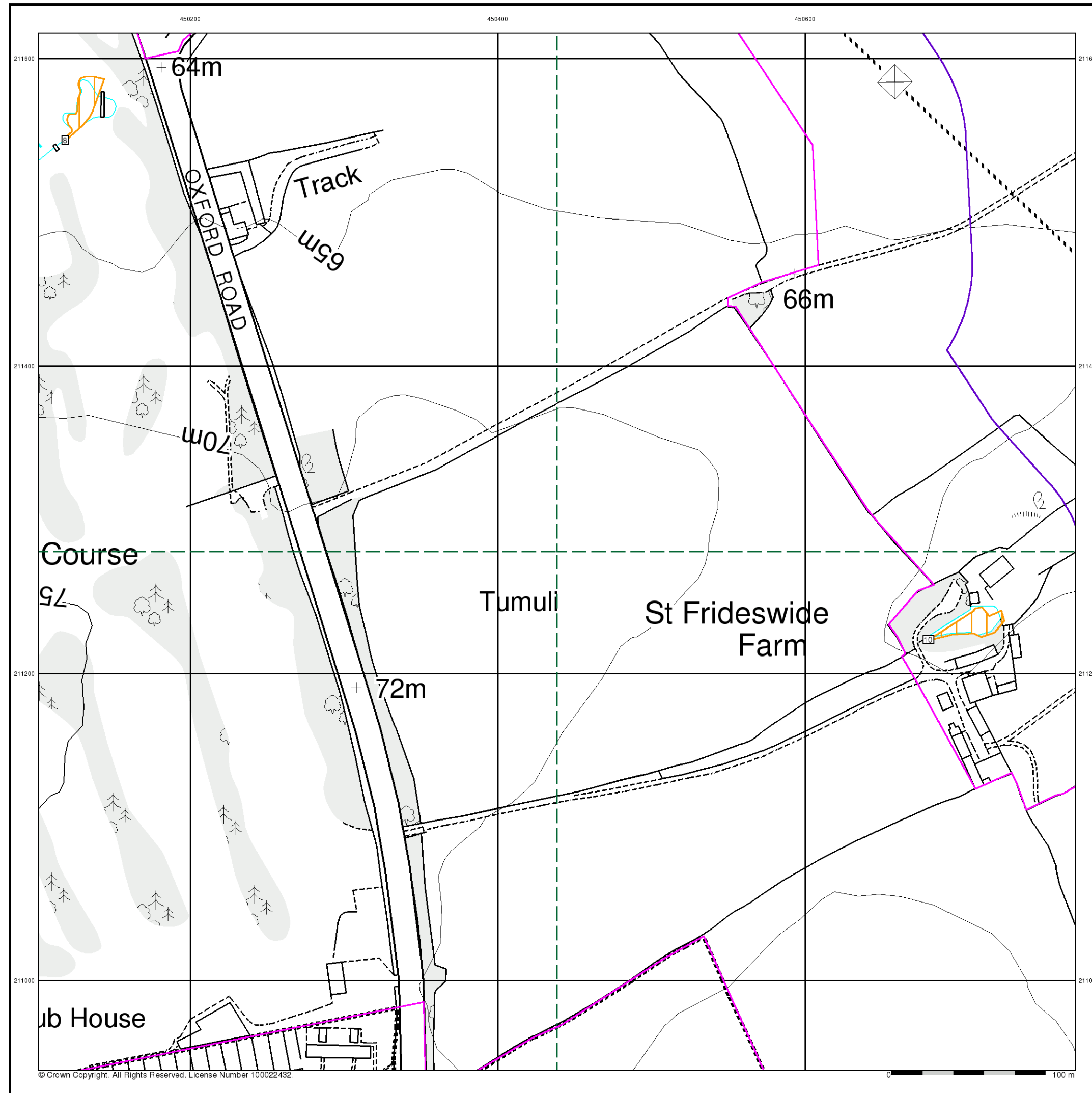


Order Details

Order Number: 157505927_1_1
 Customer Ref: 8170282/GC/054/2018
 National Grid Reference: 449860, 211090
 Slice: A
 Site Area (Ha): 77.7
 Plot Buffer (m): 100

Site Details

Site at 450660, 211190



Historical Land Use Information (1:2,500)

General

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

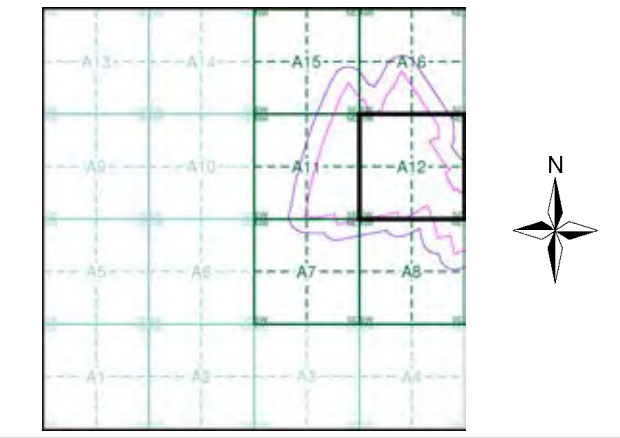
Potentially Contaminative Industrial Uses (Extractive Industries Activity)

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Extractive Industries Activity from 1893 - 1915	▲	—	■
Extractive Industries Activity from 1906 - 1937	▲	—	■
Extractive Industries Activity from 1924 - 1949	▲	—	■
Extractive Industries Activity from 1950 - 1980	▲	—	■

Subterranean Features

	Point	Line	Polygon
Subterranean Features	▼	---	■

Mining and Ground Stability - Segment A12



Order Details

Order Number: 157505927_1_1
 Customer Ref: 8170282/GC/054/2018
 National Grid Reference: 449860, 211090
 Slice: A
 Site Area (Ha): 77.7
 Plot Buffer (m): 100






Site Details

Site at 450660, 211190













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Historical Land Use Information (1:2,500)

General

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

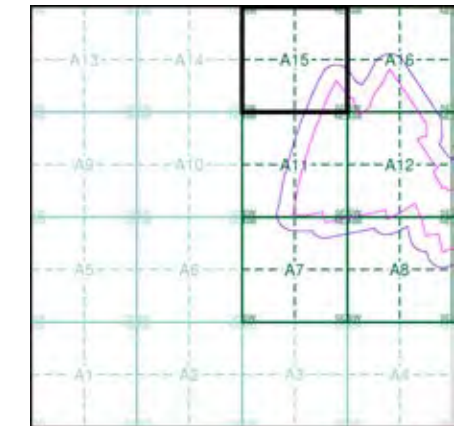
Potentially Contaminative Industrial Uses (Extractive Industries Activity)

	Point	Line	Polygon
Extractive Industries Activity from 1855 - 1909			
Extractive Industries Activity from 1893 - 1915			
Extractive Industries Activity from 1906 - 1937			
Extractive Industries Activity from 1924 - 1949			
Extractive Industries Activity from 1950 - 1980			

Subterranean Features

	Point	Line	Polygon
Subterranean Features			

Mining and Ground Stability - Segment A15

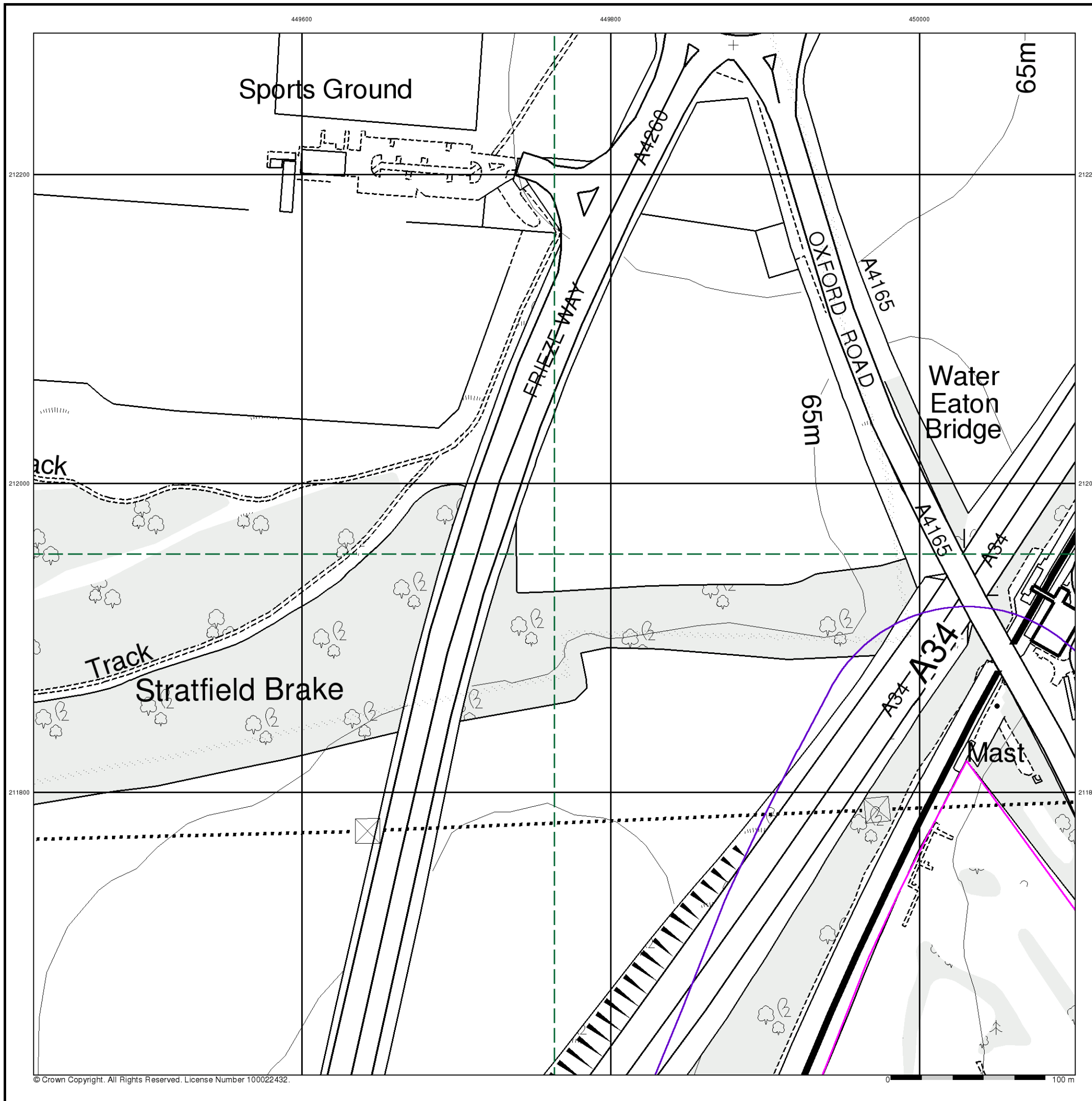


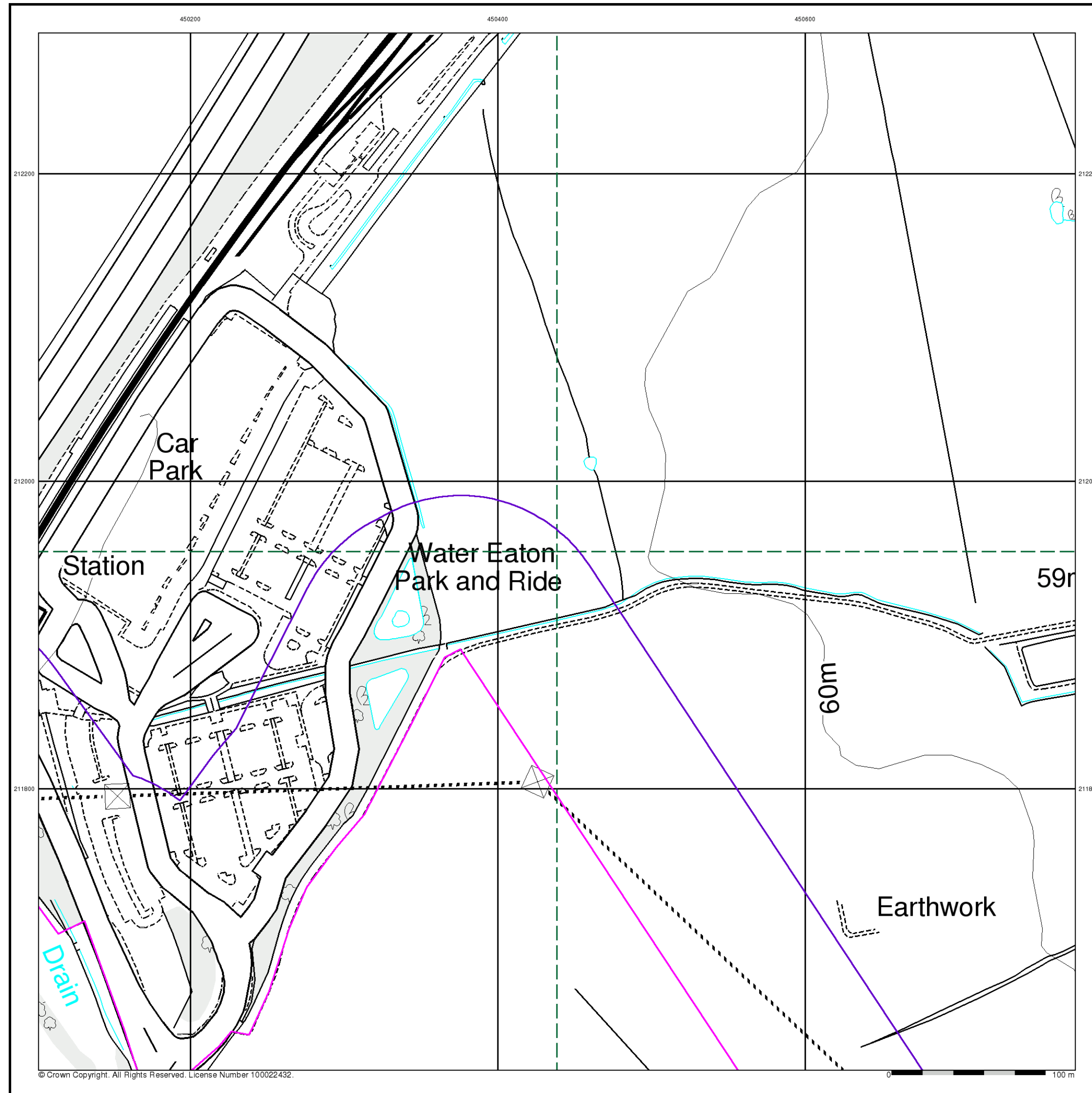
Order Details

Order Number: 157505927_1_1
 Customer Ref: 8170282/GC/054/2018
 National Grid Reference: 449860, 211090
 Slice: A
 Site Area (Ha): 77.7
 Plot Buffer (m): 100

Site Details

Site at 450660, 211190





General

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

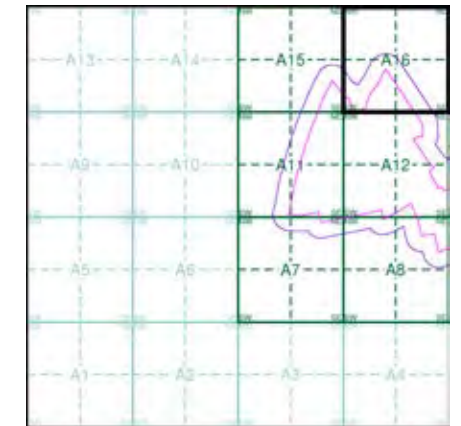
Potentially Contaminative Industrial Uses (Extractive Industries Activity)

	Point	Line	Polygon
Extractive Industries Activity from 1855 - 1909	▲	—	■
Extractive Industries Activity from 1893 - 1915	▲	—	■
Extractive Industries Activity from 1906 - 1937	▲	—	■
Extractive Industries Activity from 1924 - 1949	▲	—	■
Extractive Industries Activity from 1950 - 1980	▲	—	■

Subterranean Features

	Point	Line	Polygon
Subterranean Features	▼	- - -	■

Mining and Ground Stability - Segment A16



Order Details

Order Number: 157505927_1_1
 Customer Ref: 8170282/GC/054/2018
 National Grid Reference: 449860, 211090
 Slice: A
 Site Area (Ha): 77.7
 Plot Buffer (m): 100

Site Details

Site at 450660, 211190

Motion Map Data (1:2,500)

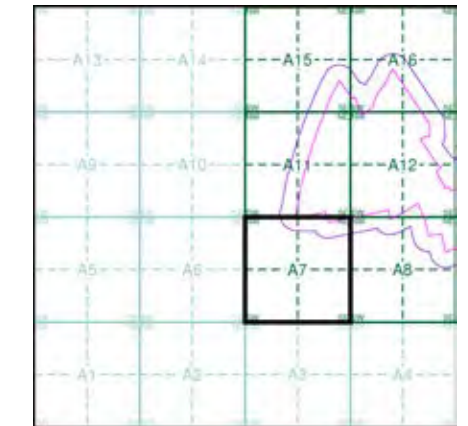
General

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

Average Velocity Gradient

- Upward Movement > 3.5mm per year ●
- Upward Movement 1.5mm to 3.5mm per year ●
- Stable 1.5mm to -1.5mm per year ●
- Downward Movement -1.5mm to -3.5mm per year ●
- Downward Movement > -3.5mm per year ●

Mining and Ground Stability - Segment A7

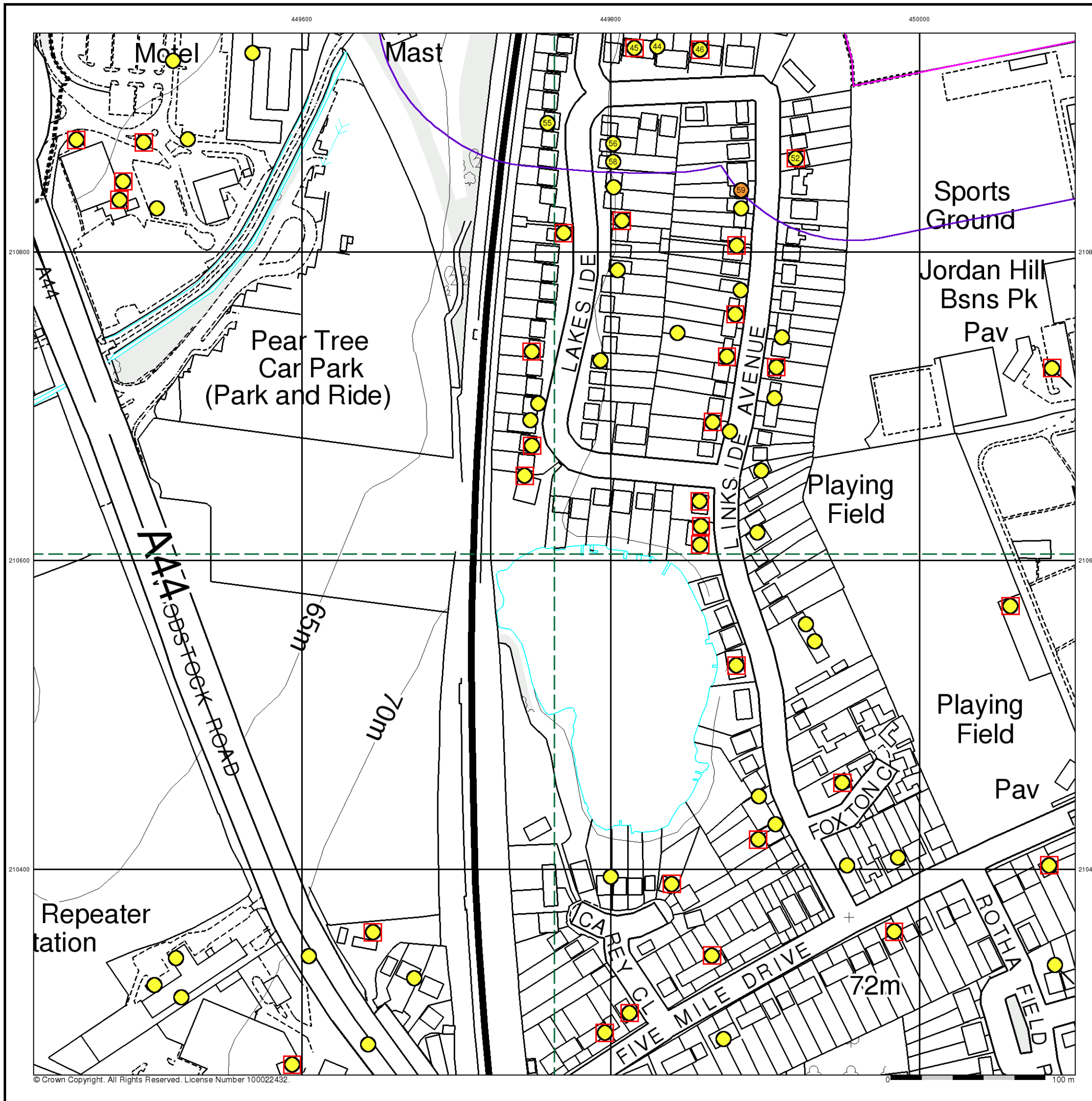


Order Details

Order Number: 157505927_1_1
 Customer Ref: 8170282/GC/054/2018
 National Grid Reference: 449860, 211090
 Slice: A
 Site Area (Ha): 77.7
 Plot Buffer (m): 100

Site Details

Site at 450660, 211190



Motion Map Data (1:2,500)

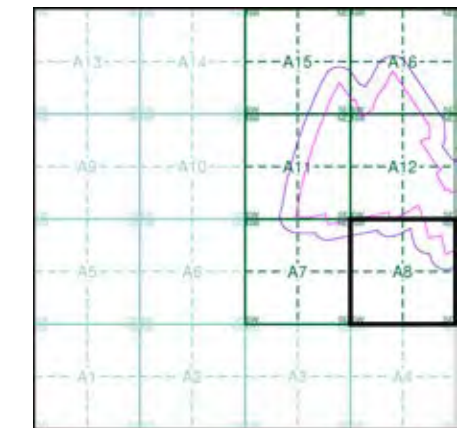
General

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

Average Velocity Gradient

- Upward Movement > 3.5mm per year ●
- Upward Movement 1.5mm to 3.5mm per year ●
- Stable 1.5mm to -1.5mm per year ●
- Downward Movement -1.5mm to -3.5mm per year ●
- Downward Movement > -3.5mm per year ●

Mining and Ground Stability - Segment A8



Order Details

Order Number: 157505927_1_1
 Customer Ref: 8170282/GC/054/2018
 National Grid Reference: 449860, 211090
 Slice: A
 Site Area (Ha): 77.7
 Plot Buffer (m): 100

Site Details

Site at 450660, 211190



Motion Map Data (1:2,500)

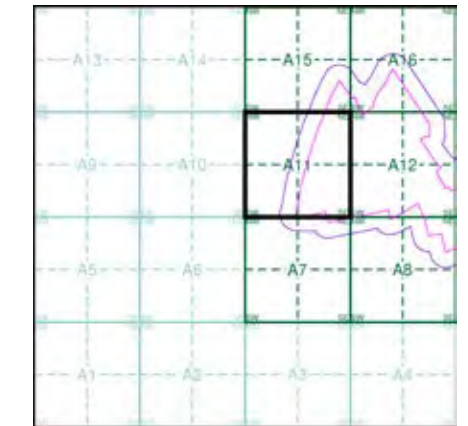
General

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

Average Velocity Gradient

- Upward Movement > 3.5mm per year ●
- Upward Movement 1.5mm to 3.5mm per year ●
- Stable 1.5mm to -1.5mm per year ●
- Downward Movement -1.5mm to -3.5mm per year ●
- Downward Movement > -3.5mm per year ●

Mining and Ground Stability - Segment A11

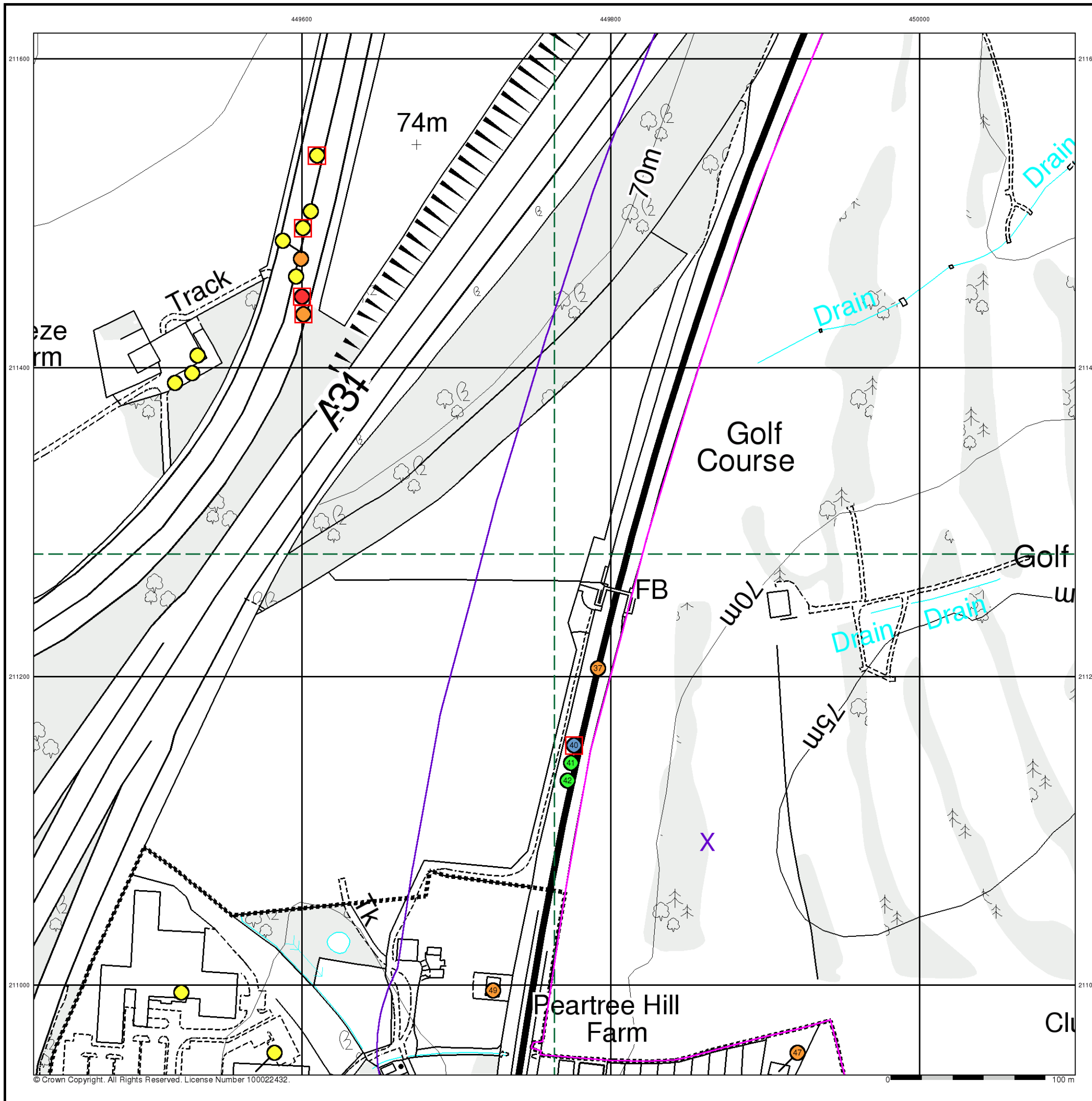


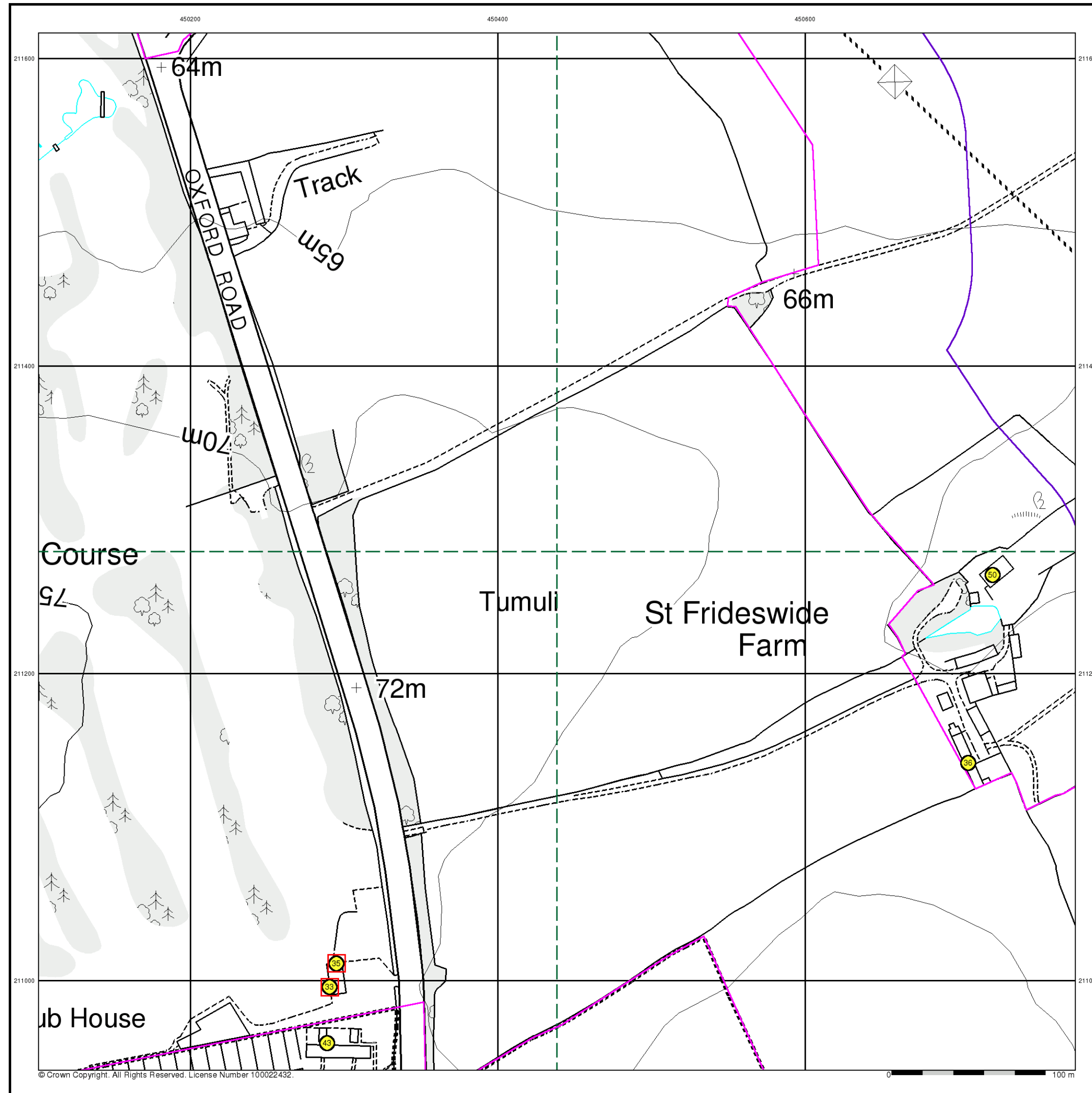
Order Details

Order Number: 157505927_1_1
 Customer Ref: 8170282/GC/054/2018
 National Grid Reference: 449860, 211090
 Slice: A
 Site Area (Ha): 77.7
 Plot Buffer (m): 100

Site Details

Site at 450660, 211190





Motion Map Data (1:2,500)

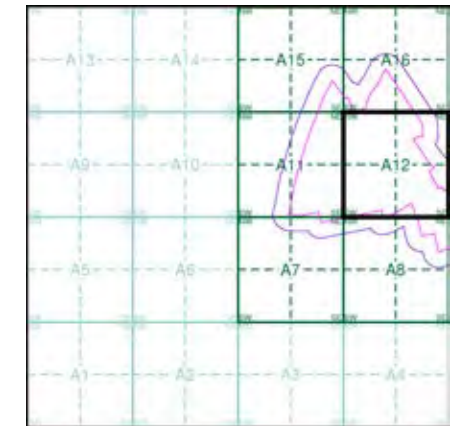
General

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

Average Velocity Gradient

- Upward Movement > 3.5mm per year ●
- Upward Movement 1.5mm to 3.5mm per year ●
- Stable 1.5mm to -1.5mm per year ●
- Downward Movement -1.5mm to -3.5mm per year ●
- Downward Movement > -3.5mm per year ●

Mining and Ground Stability - Segment A12



Order Details

Order Number: 157505927_1_1
 Customer Ref: 8170282/GC/054/2018
 National Grid Reference: 449860, 211090
 Slice: A
 Site Area (Ha): 77.7
 Plot Buffer (m): 100

Site Details

Site at 450660, 211190

Motion Map Data (1:2,500)

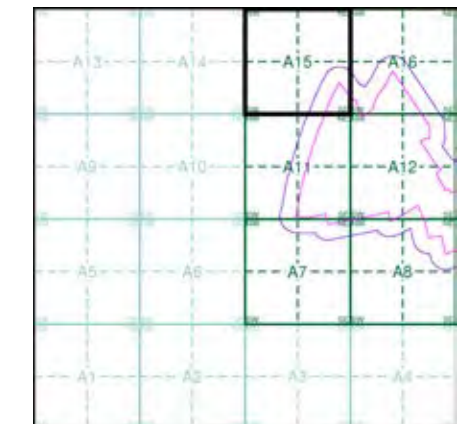
General

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

Average Velocity Gradient

- Upward Movement > 3.5mm per year ●
- Upward Movement 1.5mm to 3.5mm per year ●
- Stable 1.5mm to -1.5mm per year ●
- Downward Movement -1.5mm to -3.5mm per year ●
- Downward Movement > -3.5mm per year ●

Mining and Ground Stability - Segment A15

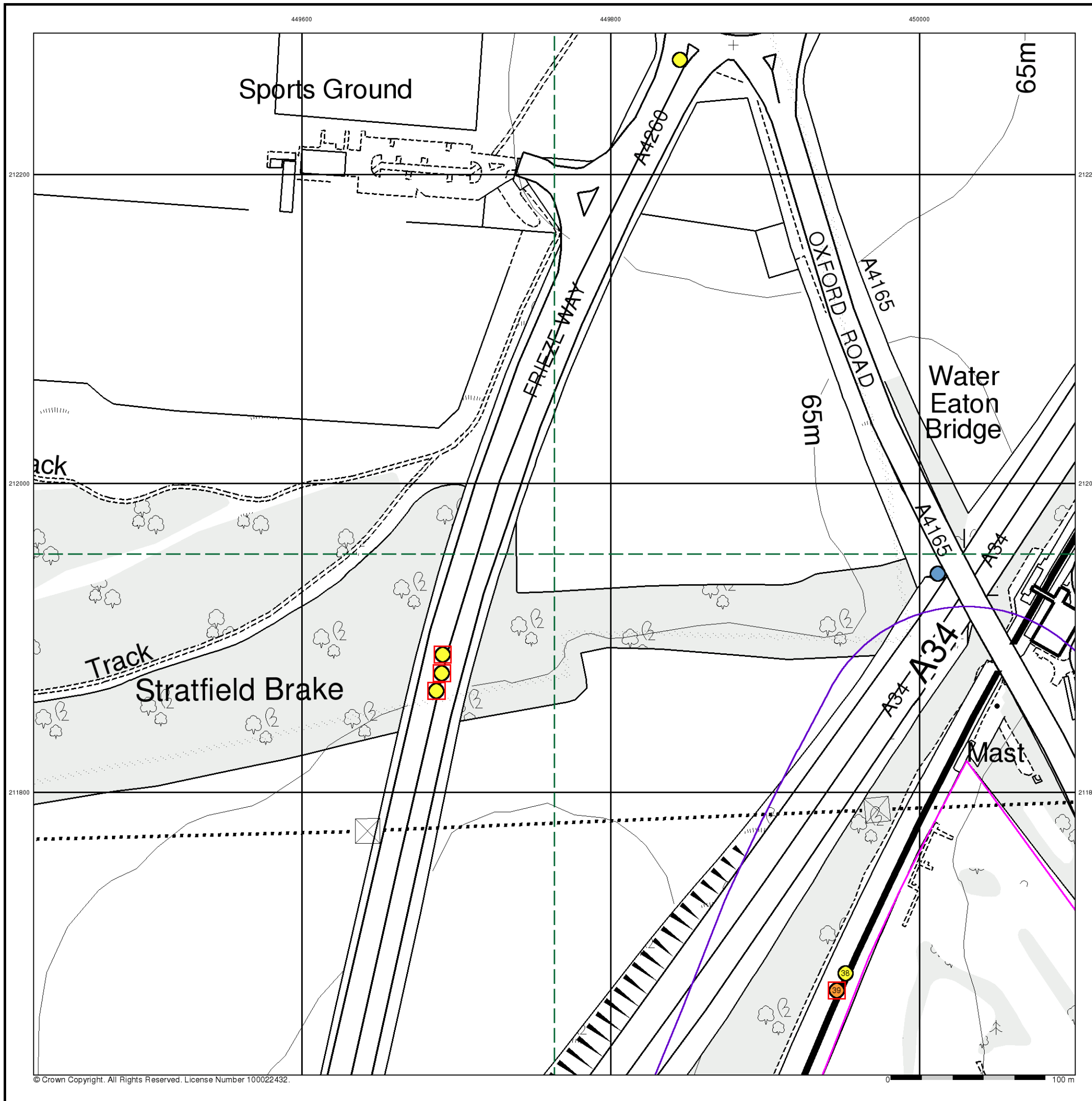


Order Details

Order Number: 157505927_1_1
 Customer Ref: 8170282/GC/054/2018
 National Grid Reference: 449860, 211090
 Slice: A
 Site Area (Ha): 77.7
 Plot Buffer (m): 100

Site Details

Site at 450660, 211190



Motion Map Data (1:2,500)

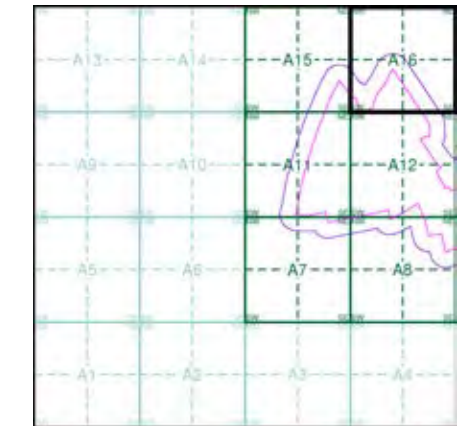
General

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

Average Velocity Gradient

- Upward Movement > 3.5mm per year ●
- Upward Movement 1.5mm to 3.5mm per year ●
- Stable 1.5mm to -1.5mm per year ●
- Downward Movement -1.5mm to -3.5mm per year ●
- Downward Movement > -3.5mm per year ●

Mining and Ground Stability - Segment A16

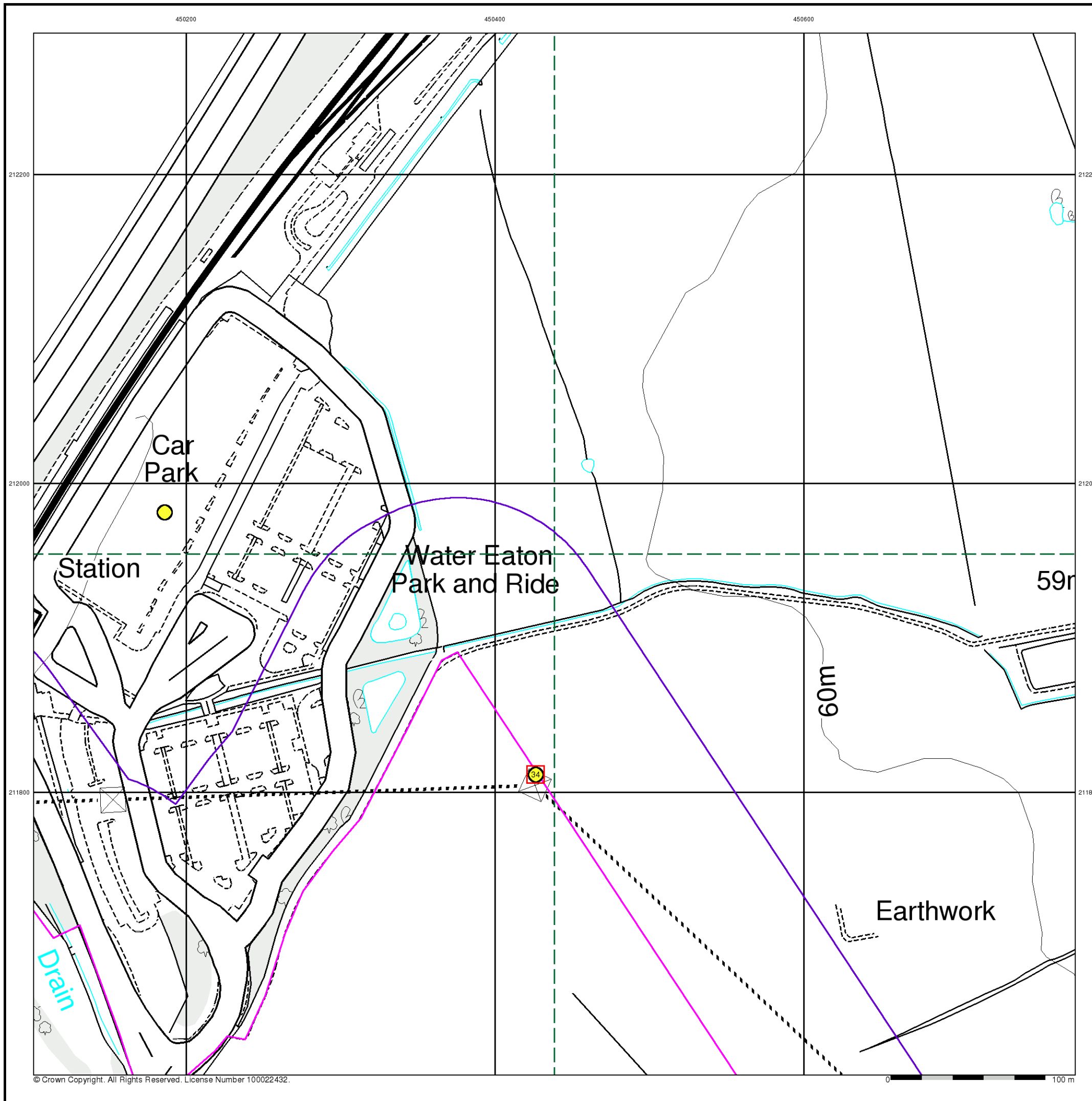


Order Details

Order Number: 157505927_1_1
 Customer Ref: 8170282/GC/054/2018
 National Grid Reference: 449860, 211090
 Slice: A
 Site Area (Ha): 77.7
 Plot Buffer (m): 100

Site Details

Site at 450660, 211190



General

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

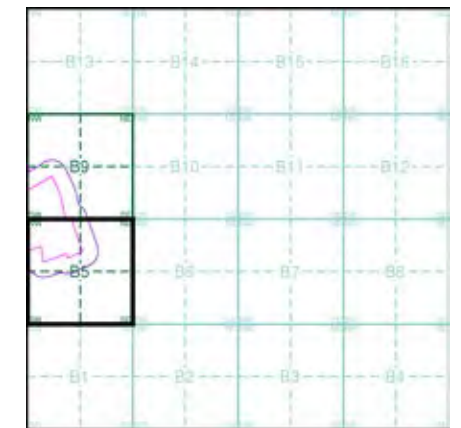
Potentially Contaminative Industrial Uses (Extractive Industries Activity)

	Point	Line	Polygon
Extractive Industries Activity from 1855 - 1909	▲	—	■
Extractive Industries Activity from 1893 - 1915	▲	—	■
Extractive Industries Activity from 1906 - 1937	▲	—	■
Extractive Industries Activity from 1924 - 1949	▲	—	■
Extractive Industries Activity from 1950 - 1980	▲	—	■

Subterranean Features

	Point	Line	Polygon
Subterranean Features	▼	- - -	■

Mining and Ground Stability - Segment B5

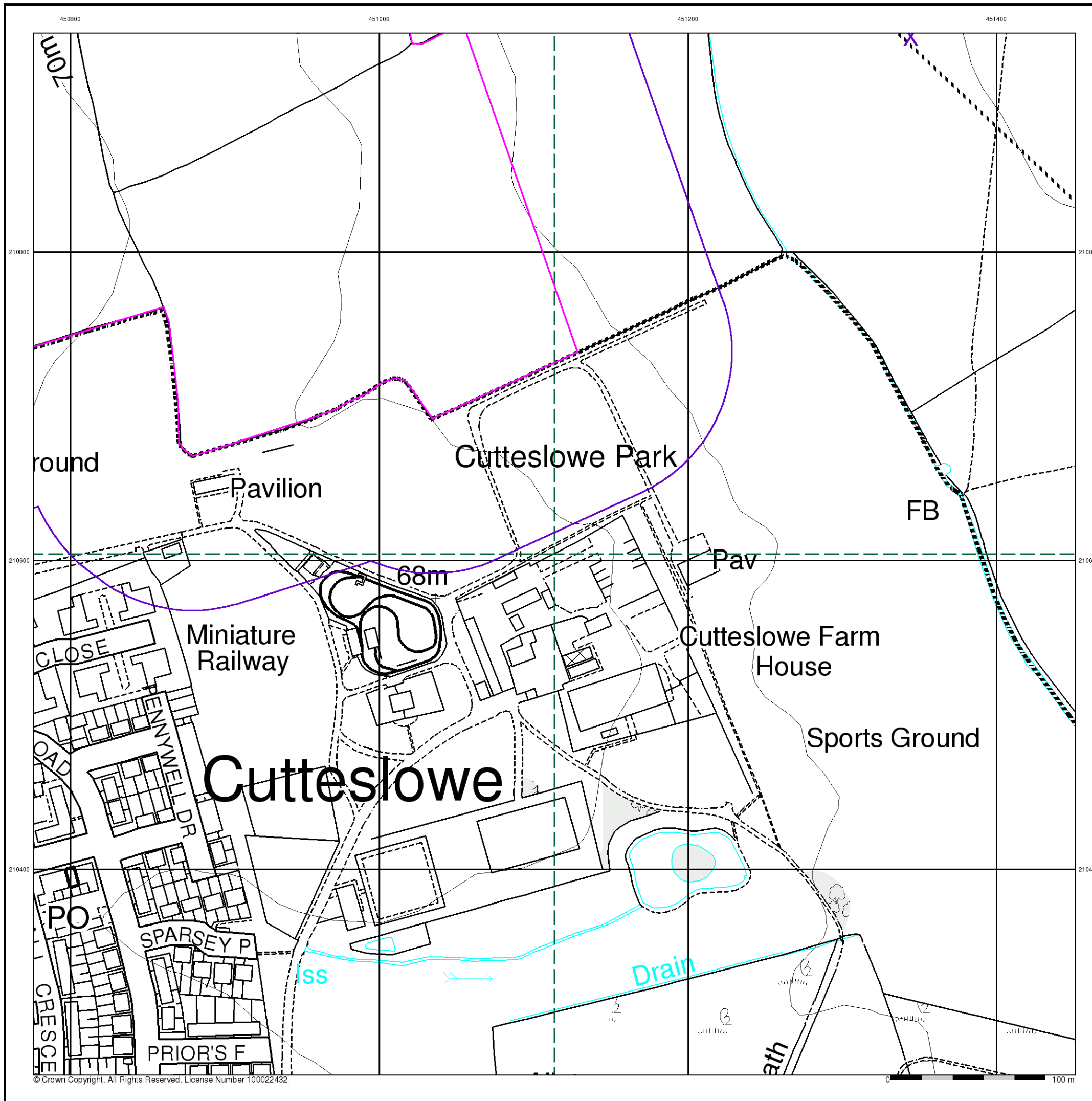


Order Details

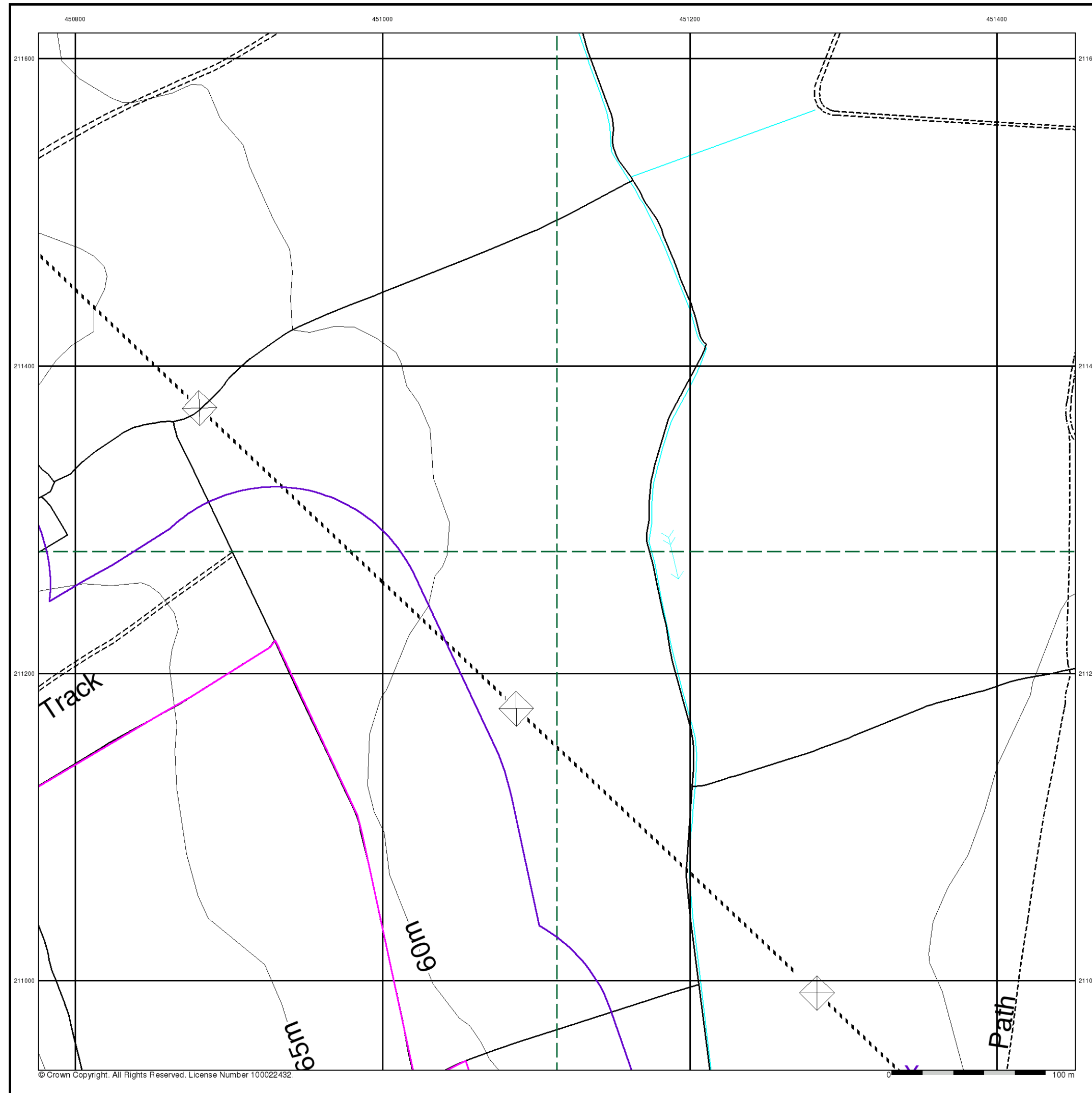
Order Number: 157505927_1_1
 Customer Ref: 8170282/GC/054/2018
 National Grid Reference: 451340, 210940
 Slice: B
 Site Area (Ha): 77.7
 Plot Buffer (m): 100

Site Details

Site at 450660, 211190



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Historical Land Use Information (1:2,500)

General

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

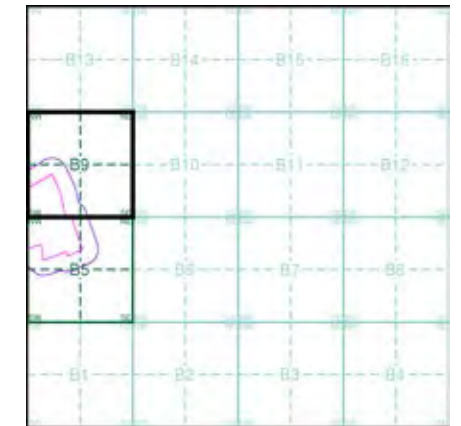
Potentially Contaminative Industrial Uses (Extractive Industries Activity)

	Point	Line	Polygon
Extractive Industries Activity from 1855 - 1909	▲	—	■
Extractive Industries Activity from 1893 - 1915	▲	—	■
Extractive Industries Activity from 1906 - 1937	▲	—	■
Extractive Industries Activity from 1924 - 1949	▲	—	■
Extractive Industries Activity from 1950 - 1980	▲	—	■

Subterranean Features

	Point	Line	Polygon
Subterranean Features	▼	- - -	■

Mining and Ground Stability - Segment B9

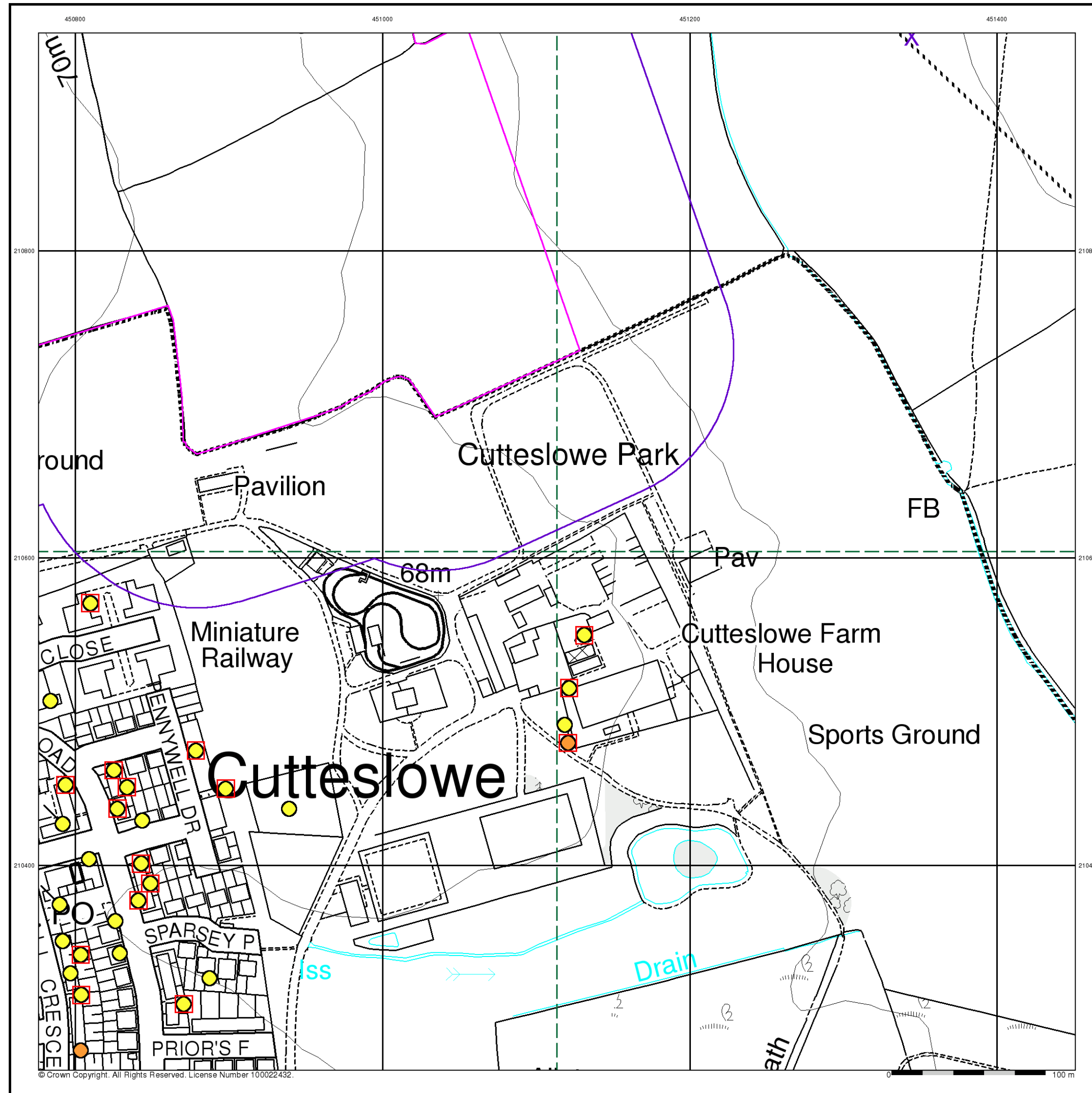


Order Details

Order Number: 157505927_1_1
 Customer Ref: 8170282/GC/054/2018
 National Grid Reference: 451340, 210940
 Slice: B
 Site Area (Ha): 77.7
 Plot Buffer (m): 100

Site Details

Site at 450660, 211190



Motion Map Data (1:2,500)

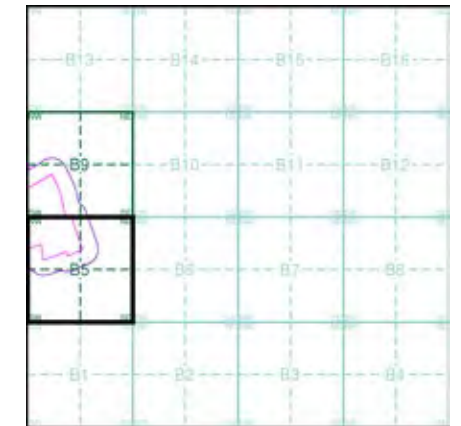
General

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

Average Velocity Gradient

- Upward Movement > 3.5mm per year ●
- Upward Movement 1.5mm to 3.5mm per year ●
- Stable 1.5mm to -1.5mm per year ●
- Downward Movement -1.5mm to -3.5mm per year ●
- Downward Movement > -3.5mm per year ●

Mining and Ground Stability - Segment B5



Order Details

Order Number: 157505927_1_1
 Customer Ref: 8170282/GC/054/2018
 National Grid Reference: 451340, 210940
 Slice: B
 Site Area (Ha): 77.7
 Plot Buffer (m): 100

Site Details

Site at 450660, 211190

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Motion Map Data (1:2,500)

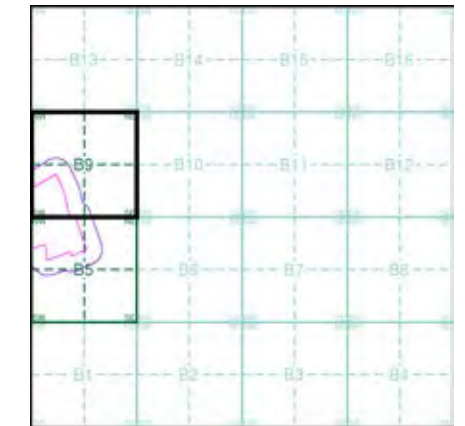
General

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

Average Velocity Gradient

- Upward Movement > 3.5mm per year ●
- Upward Movement 1.5mm to 3.5mm per year ●
- Stable 1.5mm to -1.5mm per year ●
- Downward Movement -1.5mm to -3.5mm per year ●
- Downward Movement > -3.5mm per year ●

Mining and Ground Stability - Segment B9

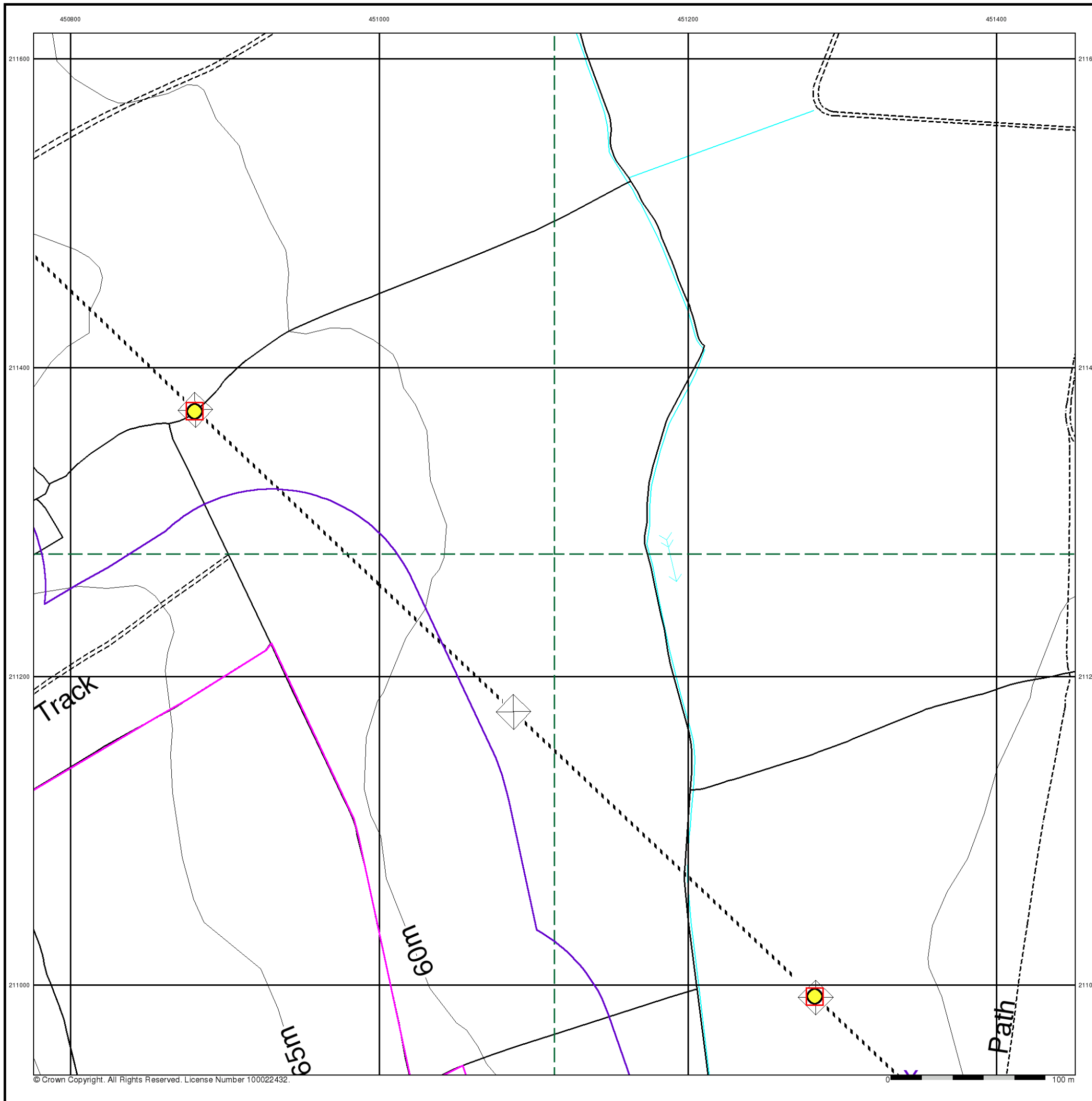


Order Details

Order Number: 157505927_1_1
 Customer Ref: 8170282/GC/054/2018
 National Grid Reference: 451340, 210940
 Slice: B
 Site Area (Ha): 77.7
 Plot Buffer (m): 100

Site Details

Site at 450660, 211190





Historical Land Use Information (1:10,000)

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

Potentially Contaminative Industrial Uses (Past Land Uses - Mining)

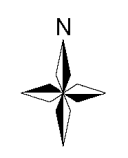
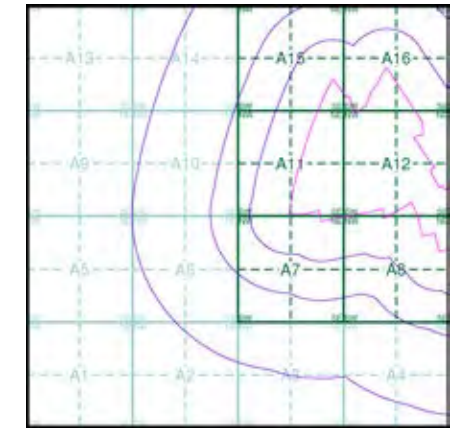
	Point	Line	Polygon
Air Shafts	◆	—	▨
Disturbed Ground	◆	—	▨
General Quarrying	◆	—	▨
Heap, unknown constituents	◆	—	▨
Mineral Railway	◆	—	▨
Mining and Quarrying General	◆	—	▨
Mining of Coal & Lignite	◆	—	▨
Quarrying of Sand and Clay, Operation of Sand and Gravel Pits	◆	—	▨

Historical Land Use

	Point	Line	Polygon
Potentially Infilled Land (Non-Water)	●	---	▨
Potentially Infilled Land (Water)	●	---	▨
Former Marsh	✕		

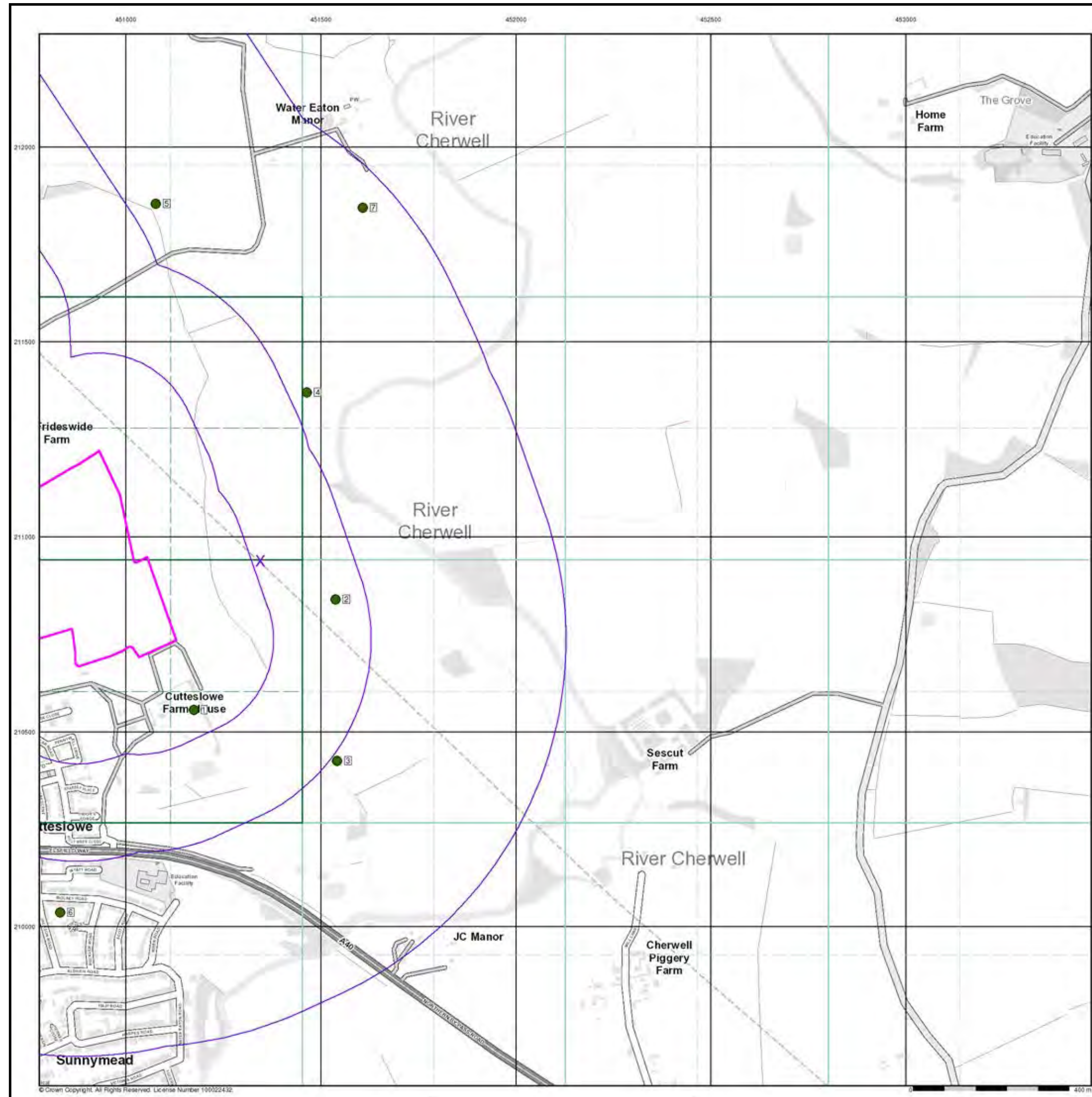
Mining Data
 Potential Mining Area
 BGS Recorded Mineral Site

Mining and Ground Stability - Slice A



Order Details
 Order Number: 157505927_1_1
 Customer Ref: 8170282/GC/054/2018
 National Grid Reference: 449860, 211090
 Slice: A
 Site Area (Ha): 77.7
 Search Buffer (m): 1000

Site Details
 Site at 450660, 211190



Historical Land Use Information (1:10,000)

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

Potentially Contaminative Industrial Uses (Past Land Uses - Mining)

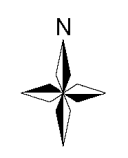
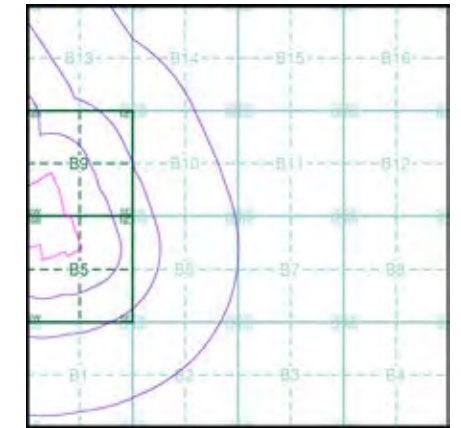
	Point	Line	Polygon
Air Shafts			
Disturbed Ground			
General Quarrying			
Heap, unknown constituents			
Mineral Railway			
Mining and Quarrying General			
Mining of Coal & Lignite			
Quarrying of Sand and Clay, Operation of Sand and Gravel Pits			

Historical Land Use

	Point	Line	Polygon
Potentially Infilled Land (Non-Water)			
Potentially Infilled Land (Water)			
Former Marsh			

- ### Mining Data
- Potential Mining Area
 - BGS Recorded Mineral Site

Mining and Ground Stability - Slice B

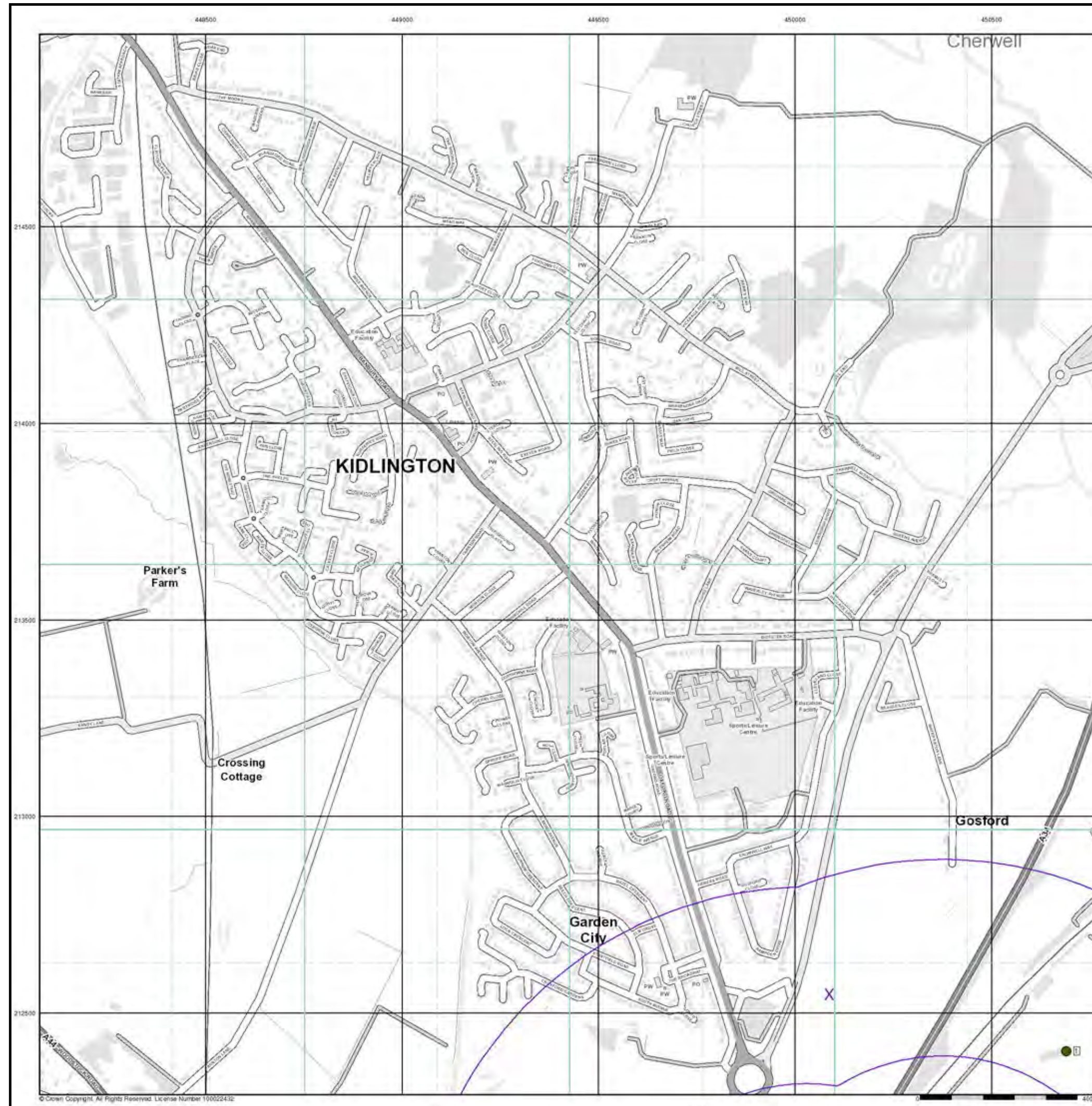


Order Details

Order Number: 157505927_1_1
 Customer Ref: 8170282/GC/054/2018
 National Grid Reference: 451340, 210940
 Slice: B
 Site Area (Ha): 77.7
 Search Buffer (m): 1000

Site Details

Site at 450660, 211190



Historical Land Use Information (1:10,000)

General

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

Potentially Contaminative Industrial Uses (Past Land Uses - Mining)

	Point	Line	Polygon
Air Shafts	◆	—	
Disturbed Ground	◆	—	
General Quarrying	◆	—	
Heap, unknown constituents	◆	—	
Mineral Railway	◆	—	
Mining and Quarrying General	◆	—	
Mining of Coal & Lignite	◆	—	
Quarrying of Sand and Clay, Operation of Sand and Gravel Pits	◆	—	

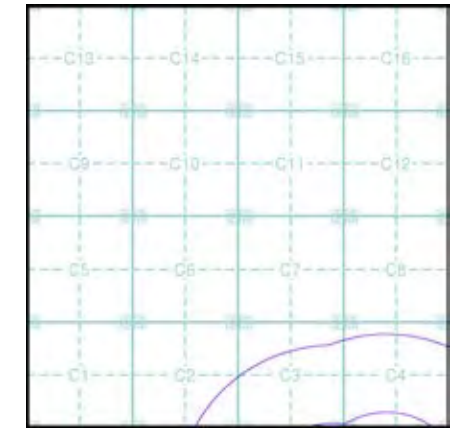
Historical Land Use

	Point	Line	Polygon
Potentially Infilled Land (Non-Water)	●	- - -	
Potentially Infilled Land (Water)	●	- - -	
Former Marsh	✱		

Mining Data

- Potential Mining Area
- ▼ BGS Recorded Mineral Site

Mining and Ground Stability - Slice C



Order Details

Order Number: 157505927_1_1
 Customer Ref: 8170282/GC/054/2018
 National Grid Reference: 450090, 212550
 Slice: C
 Site Area (Ha): 77.7
 Search Buffer (m): 1000

Site Details

Site at 450660, 211190



Historical Land Use Information (1:10,000)

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

Potentially Contaminative Industrial Uses (Past Land Uses - Mining)

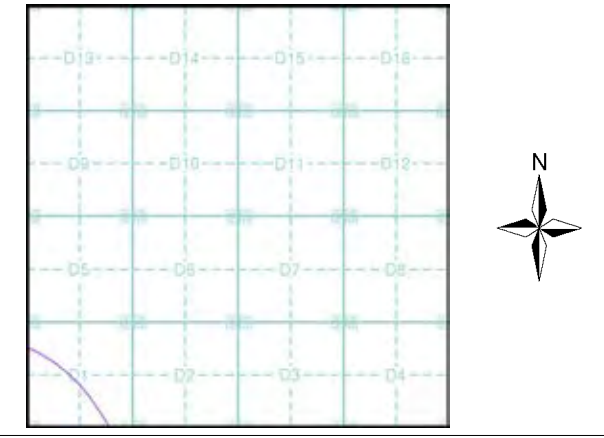
	Point	Line	Polygon
Air Shafts	Blue diamond	Blue line	Blue hatched polygon
Disturbed Ground	Purple diamond	Purple line	Purple hatched polygon
General Quarrying	Brown diamond	Brown line	Brown hatched polygon
Heap, unknown constituents	Green diamond	Green line	Green hatched polygon
Mineral Railway	Light green diamond	Light green line	Light green hatched polygon
Mining and Quarrying General	Red diamond	Red line	Red hatched polygon
Mining of Coal & Lignite	Blue diamond	Blue line	Blue hatched polygon
Quarrying of Sand and Clay, Operation of Sand and Gravel Pits	Orange diamond	Orange line	Orange hatched polygon

Historical Land Use

	Point	Line	Polygon
Potentially Infilled Land (Non-Water)	Brown circle	Red dashed line	Brown square
Potentially Infilled Land (Water)	Green circle	Green dashed line	Green square
Former Marsh	Blue cross		

- ### Mining Data
- Potential Mining Area
 - BGS Recorded Mineral Site

Mining and Ground Stability - Slice D

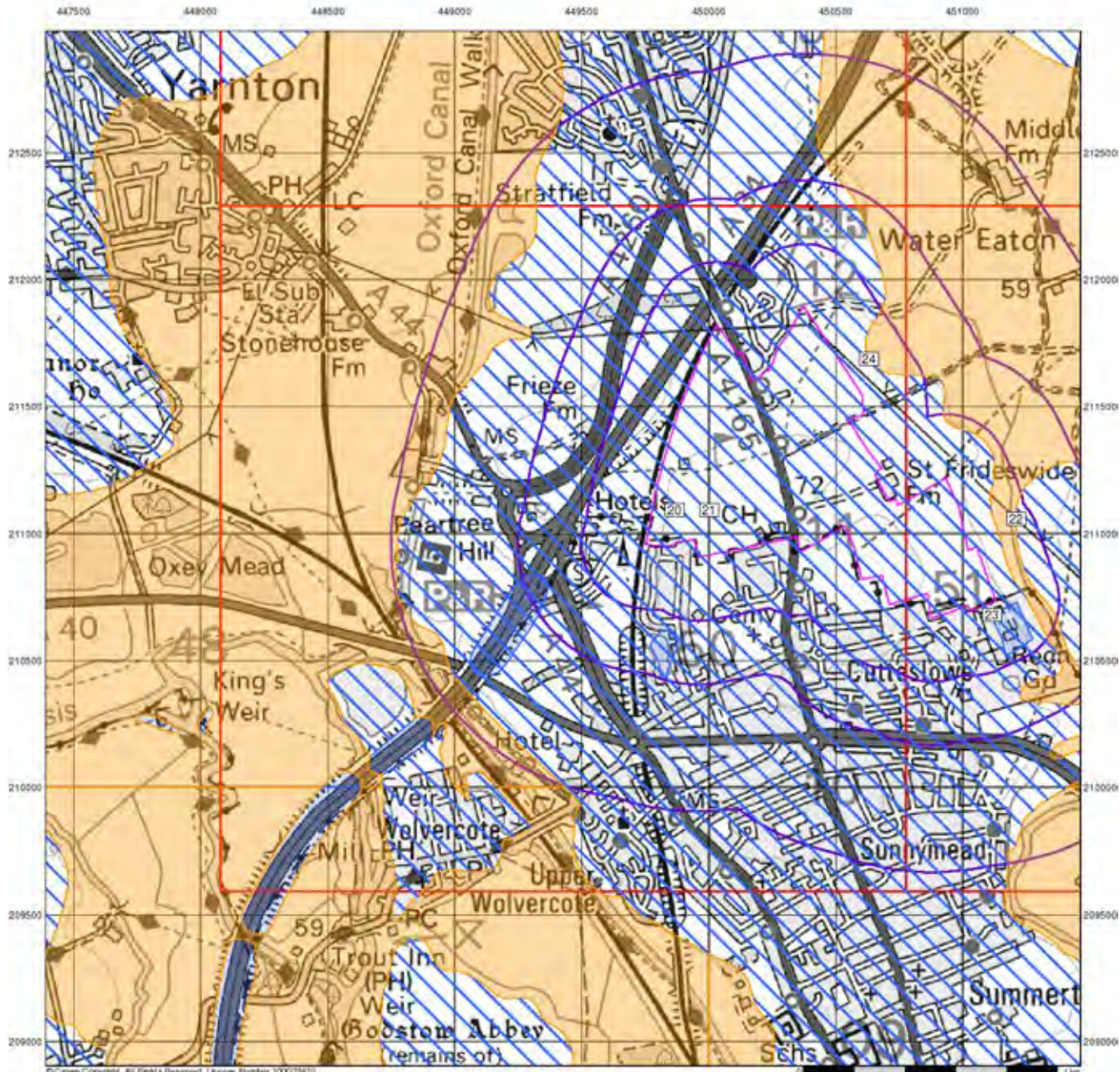


Order Details

Order Number: 157505927_1_1
 Customer Ref: 8170282/GC/054/2018
 National Grid Reference: 450970, 212480
 Slice: D
 Site Area (Ha): 77.7
 Search Buffer (m): 1000

Site Details

Site at 450660, 211190








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Ground Stability Data (1:50,000)





General

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


Potential for Compressible Ground Stability Hazards

-  High
-  Low
-  Moderate
-  Very Low

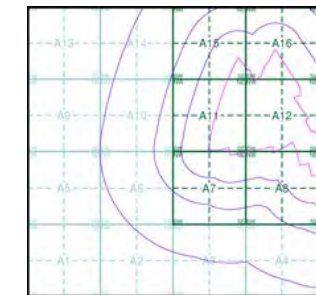
Potential for Collapsible Ground Stability Hazards

-  High
-  Low
-  Moderate
-  Very Low

Brine Pumping and Salt Mining

- | | Point | Polygon |
|-------------------------------|---|---|
| Brine Pumping Related Feature |  |  |
| Salt Mining Related Feature |  |  |

Mining and Ground Stability - Slice A



Order Details

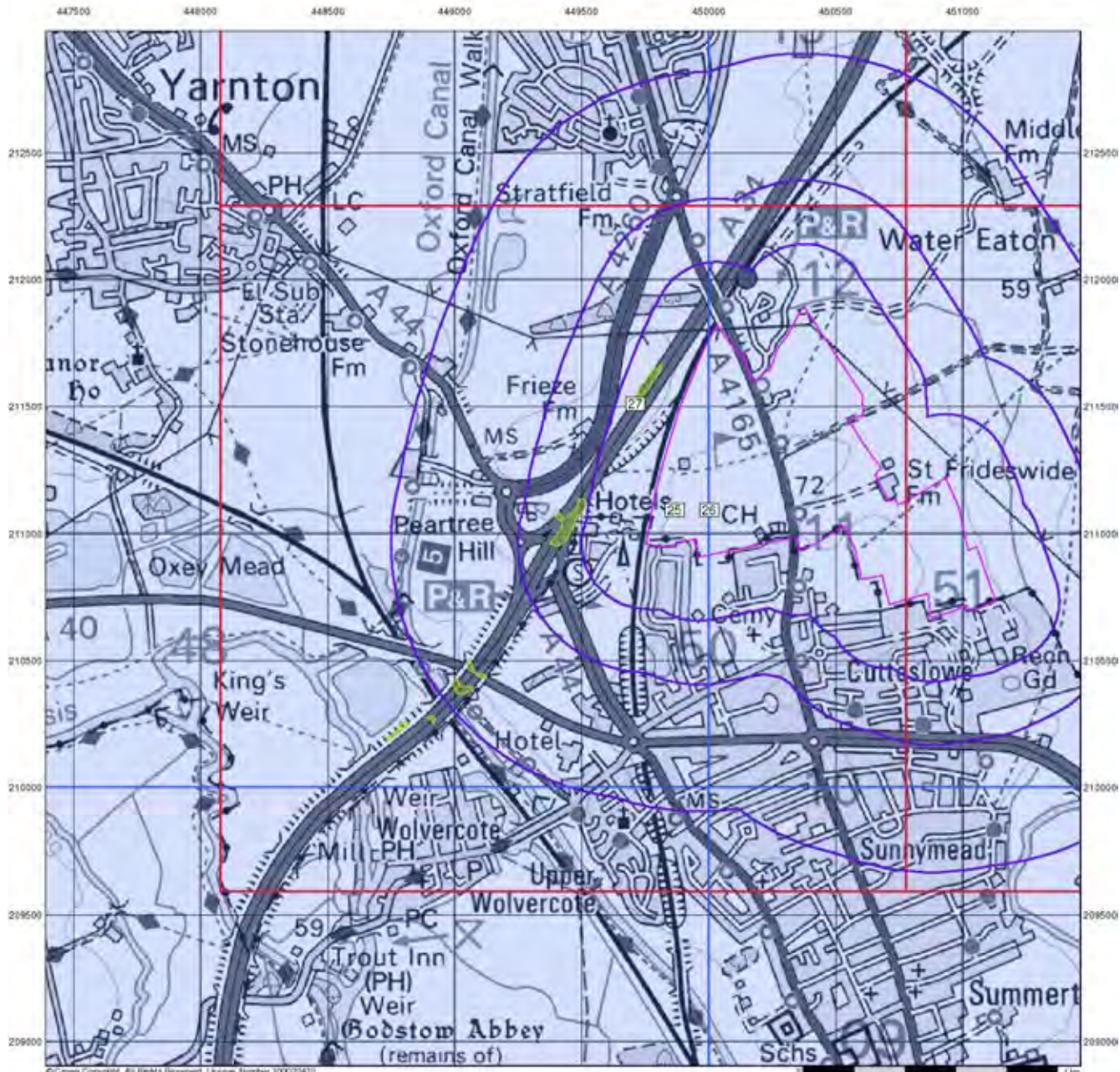
Order Number: 157505927_1_1
 Customer Ref: 8170282/GC/054/2018
 National Grid Reference: 449860, 211090
 Slice: A
 Site Area (Ha): 77.7
 Search Buffer (m): 1000

Site Details

Site at 450660, 211190

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Ground Stability Data (1:50,000)

General

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

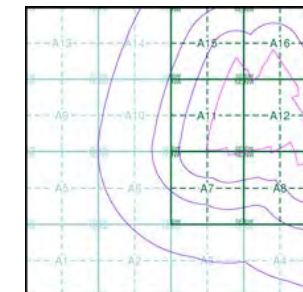
Potential for Landslide Ground Stability Hazards

- High
- Moderate
- Low
- Very Low

Potential for Ground Dissolution Stability Hazards

- High
- Moderate
- Low
- Very Low

Mining and Ground Stability - Slice A



Order Details

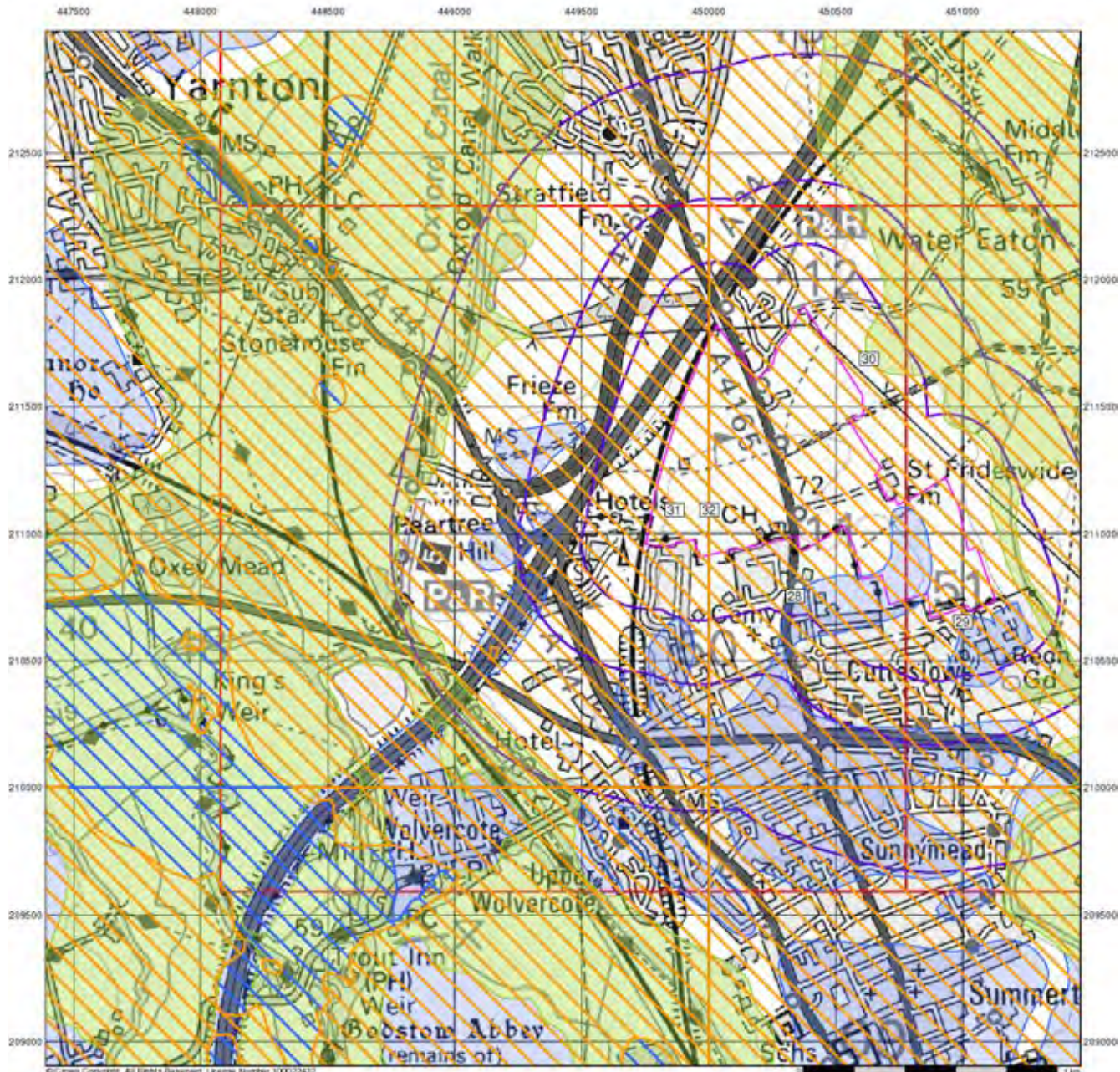
Order Number: 157505927_1_1
 Customer Ref: 8170282/GC/054/2018
 National Grid Reference: 449860, 211090
 Slice: A
 Site Area (Ha): 77.7
 Search Buffer (m): 1000

Site Details

Site at 450660, 211190

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Ground Stability Data (1:50,000)

General

- ◆ Specified Site
- Specified Buffer(s)
- X Bearing Reference Point
- Slice
- B Map ID

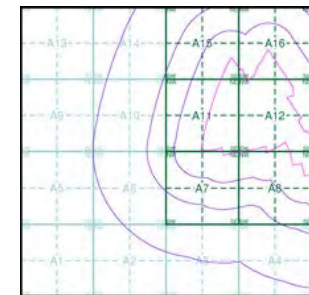
Potential for Running Sand Ground Stability Hazards

- High
- Low
- Moderate
- Very Low

Potential for Shrinking or Swelling Clay Ground Stability Hazards

- High
- Low
- Moderate
- Very Low

Mining and Ground Stability - Slice A



Order Details

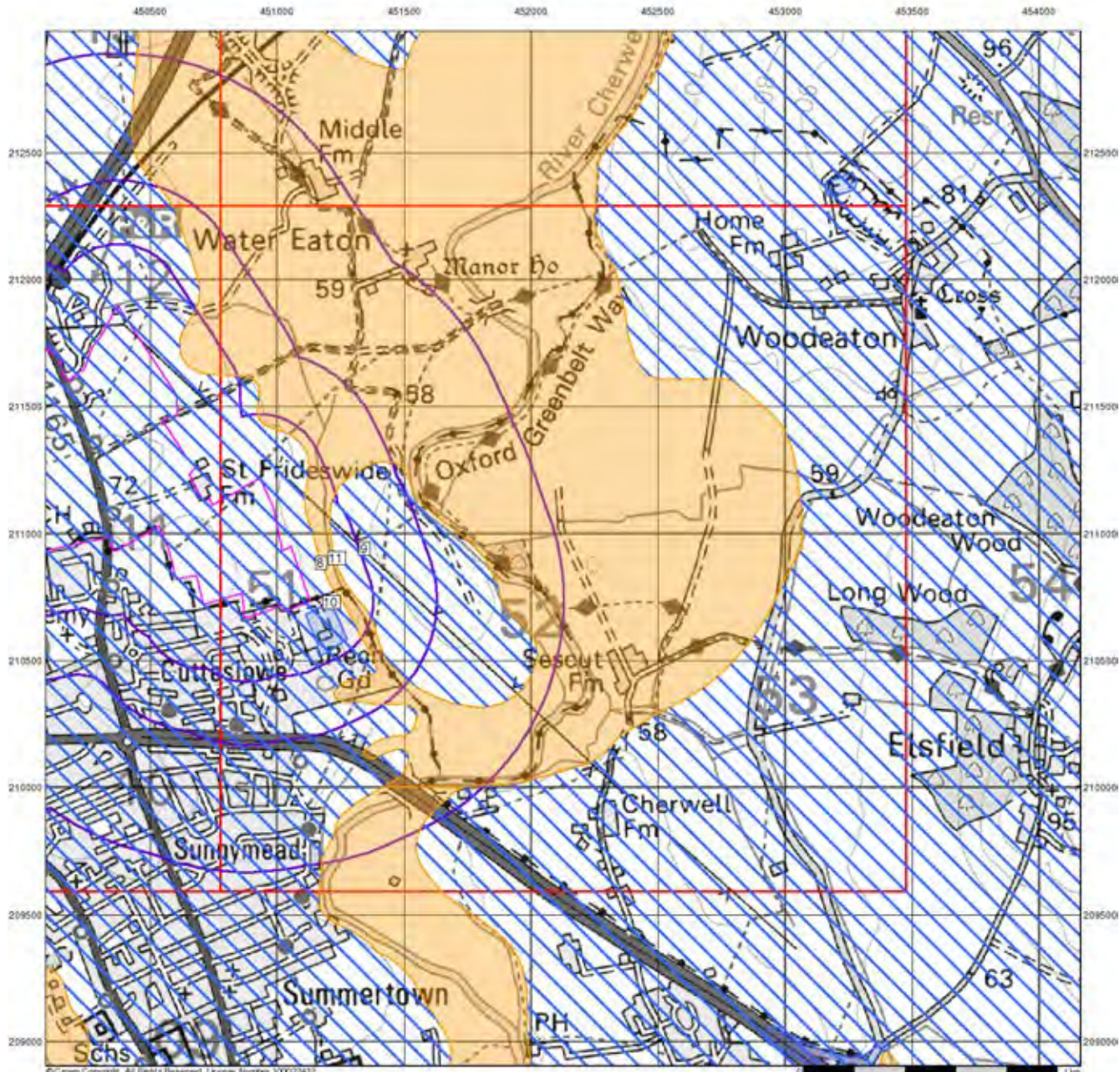
Order Number: 157505927_1_1
 Customer Ref: 8170282/GC/054/2018
 National Grid Reference: 449860, 211090
 Slice: A
 Site Area (Ha): 77.7
 Search Buffer (m): 1000

Site Details

Site at 450660, 211190

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Ground Stability Data (1:50,000)

General

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

Potential for Compressible Ground Stability Hazards

- High
- Low
- Moderate
- Very Low

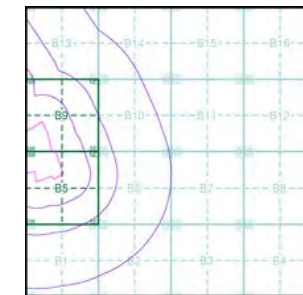
Potential for Collapsible Ground Stability Hazards

- High
- Low
- Moderate
- Very Low

Brine Pumping and Salt Mining

- | | Point | Polygon |
|-------------------------------|-------|---------|
| Brine Pumping Related Feature | | |
| Salt Mining Related Feature | | |

Mining and Ground Stability - Slice B



Order Details

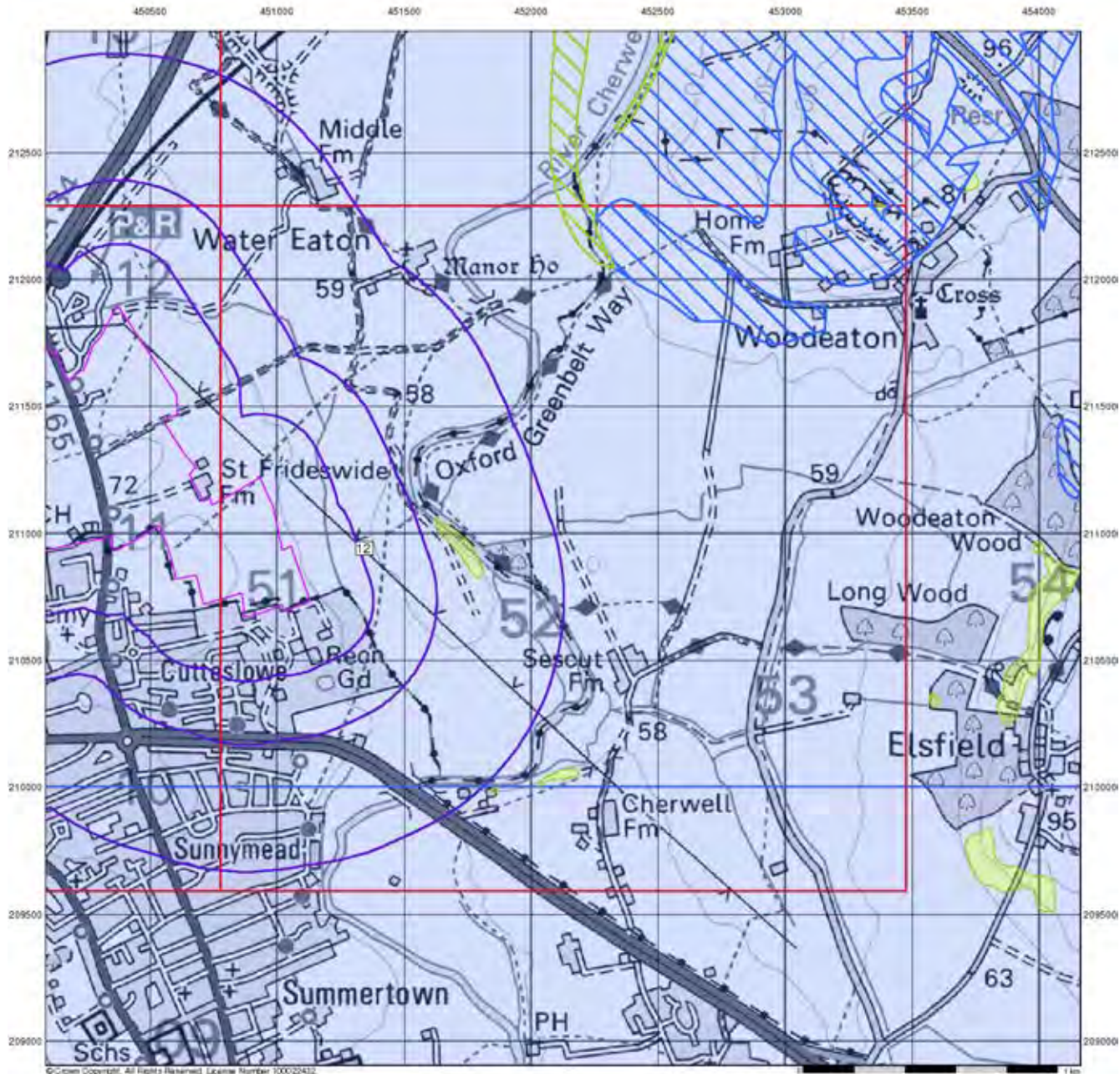
Order Number: 157505927_1_1
 Customer Ref: 8170282/GC/054/2018
 National Grid Reference: 451340, 210940
 Slice: B
 Site Area (Ha): 77.7
 Search Buffer (m): 1000

Site Details

Site at 450660, 211190

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Ground Stability Data (1:50,000)

General

- ◊ Specified Site
- Specified Buffer(s)
- X Bearing Reference Point
- Slice
- Map ID

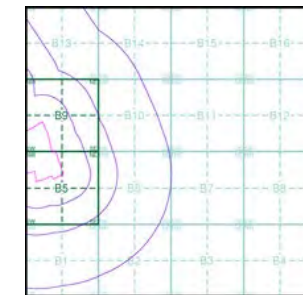
Potential for Landslide Ground Stability Hazards

- High
- Low
- Moderate
- Very Low

Potential for Ground Dissolution Stability Hazards

- High
- Low
- Moderate
- Very Low

Mining and Ground Stability - Slice B



Order Details

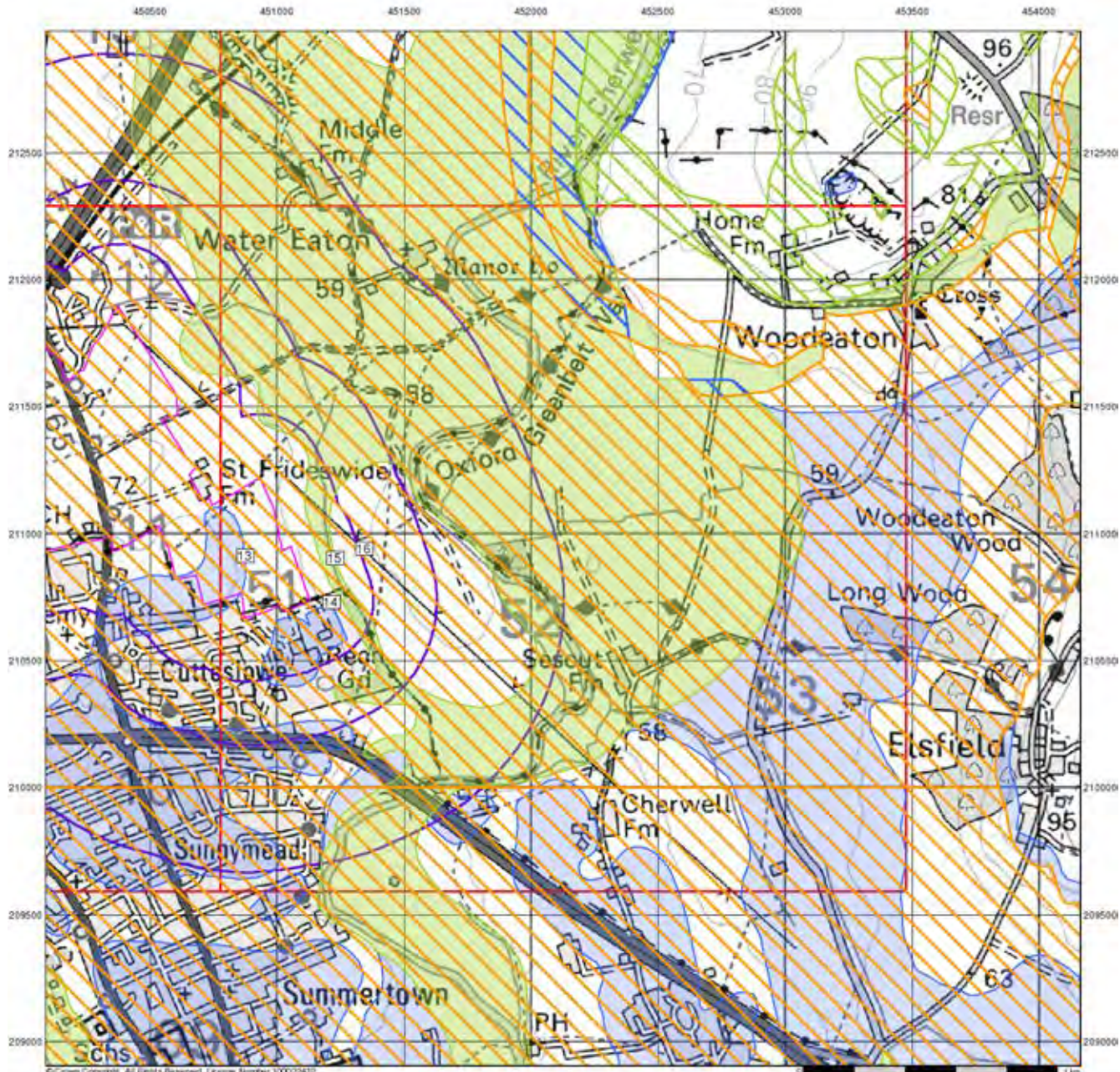
Order Number: 157505927_1_1
 Customer Ref: 8170282/GC/054/2018
 National Grid Reference: 451340, 210940
 Slice: B
 Site Area (Ha): 77.7
 Search Buffer (m): 1000

Site Details

Site at 450660, 211190

Landmark
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Ground Stability Data (1:50,000)

General

- ◇ Specified Site
- ◇ Specified Buffer(s)
- X Bearing Reference Point
- Slice
- B Map ID

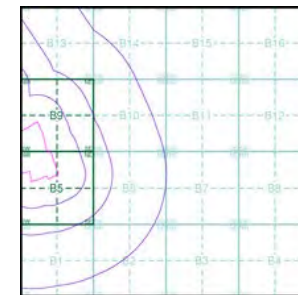
Potential for Running Sand Ground Stability Hazards

- High
- Low
- Moderate
- Very Low

Potential for Shrinking or Swelling Clay Ground Stability Hazards

- High
- Low
- Moderate
- Very Low

Mining and Ground Stability - Slice B



Order Details

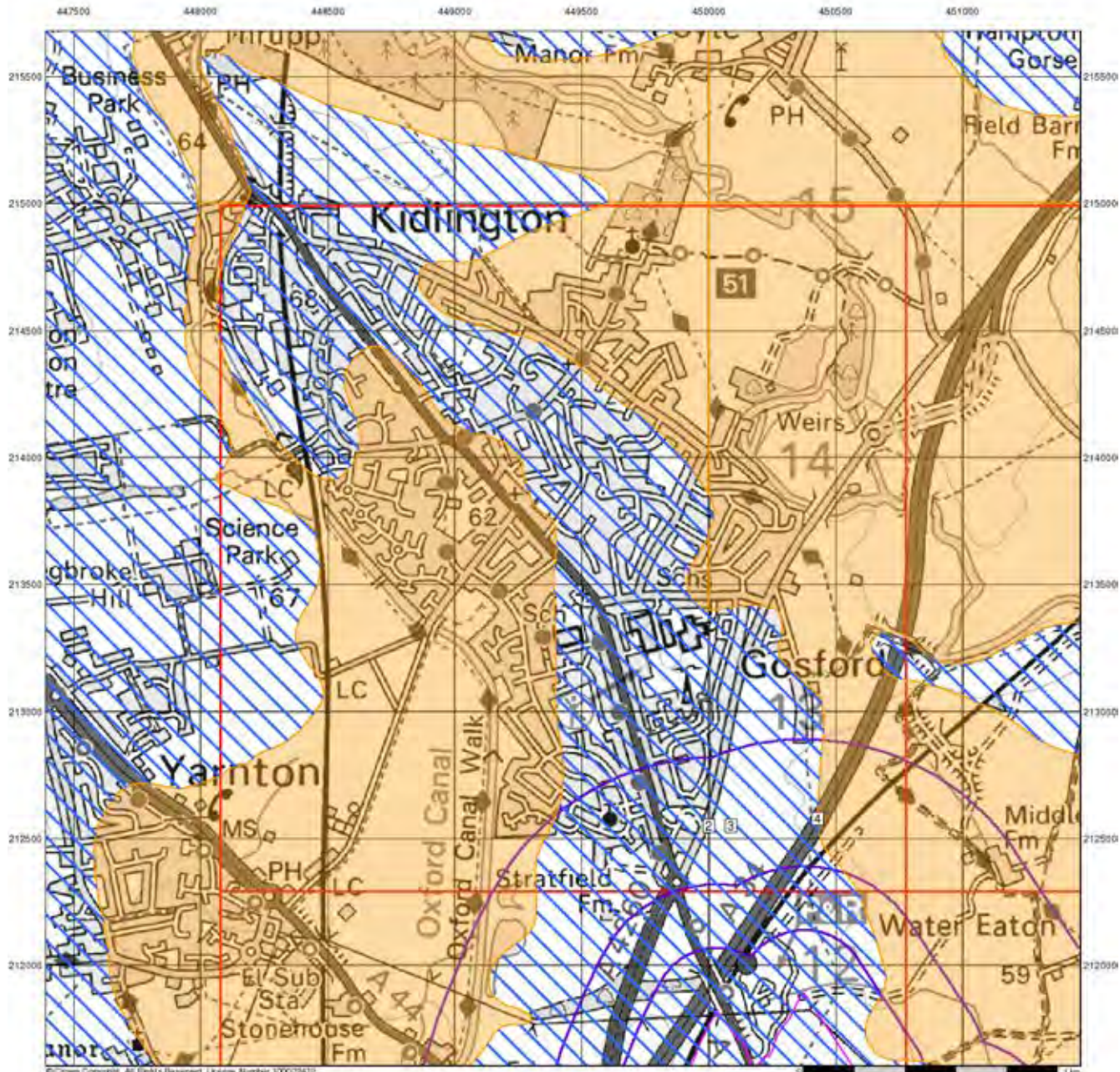
Order Number: 157505927_1_1
 Customer Ref: 8170282/GC/054/2018
 National Grid Reference: 451340, 210940
 Slice: B
 Site Area (Ha): 77.7
 Search Buffer (m): 1000

Site Details

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Ground Stability Data (1:50,000)





General

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

Potential for Compressible Ground Stability Hazards

-  High
-  Low
-  Moderate
-  Very Low

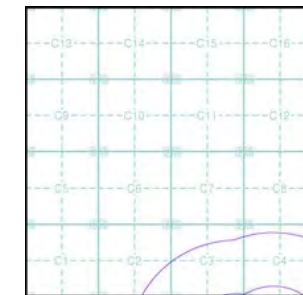
Potential for Collapsible Ground Stability Hazards

-  High
-  Low
-  Moderate
-  Very Low

Brine Pumping and Salt Mining

- | | Point | Polygon |
|-------------------------------|---|---|
| Brine Pumping Related Feature |  |  |
| Salt Mining Related Feature |  |  |

Mining and Ground Stability - Slice C



Order Details

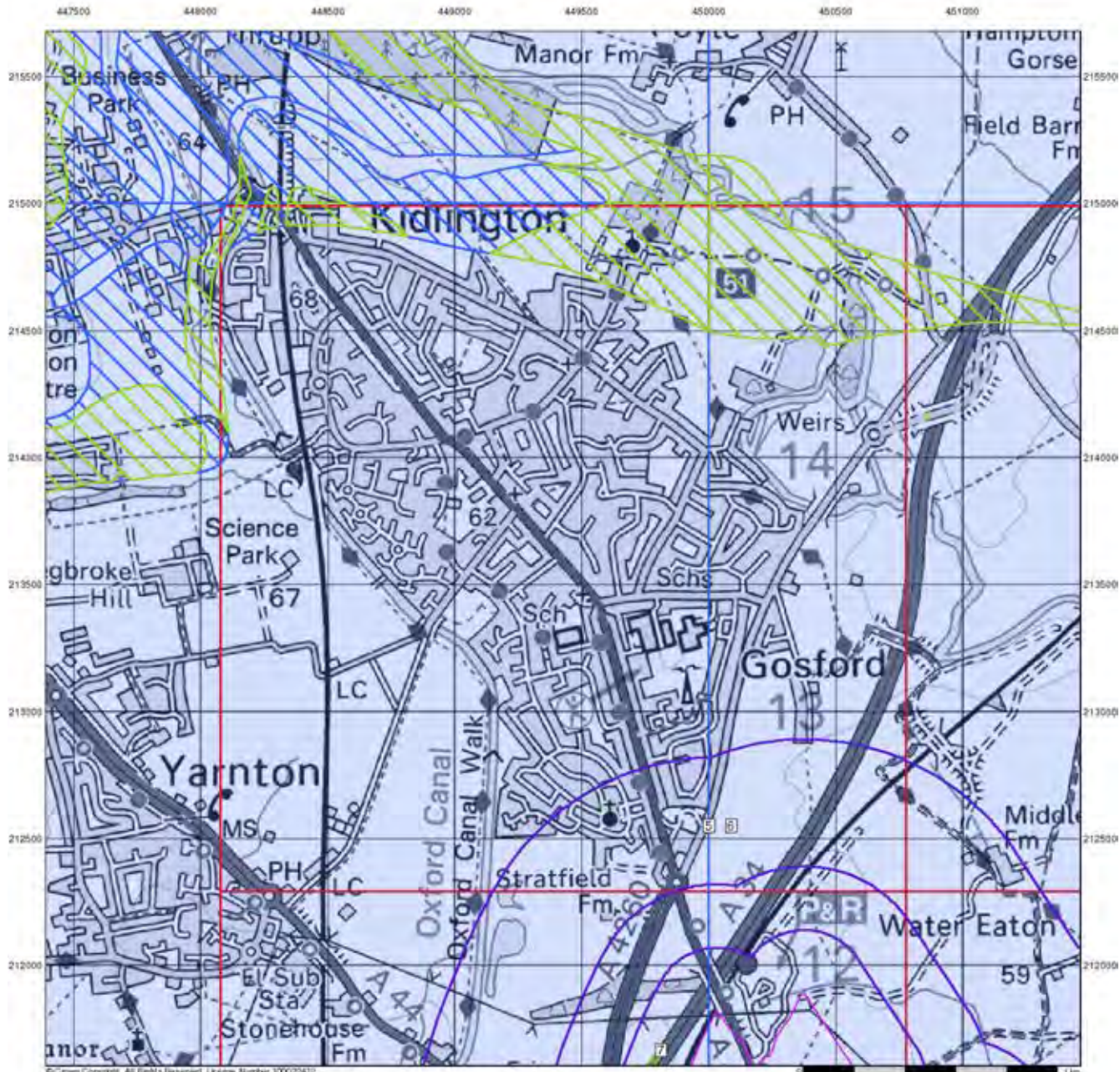
Order Number: 157505927_1_1
 Customer Ref: 8170282/GC/054/2018
 National Grid Reference: 450090, 212550
 Slice: C
 Site Area (Ha): 77.7
 Search Buffer (m): 1000

Site Details

Site at 450660, 211190

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Ground Stability Data (1:50,000)

General

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

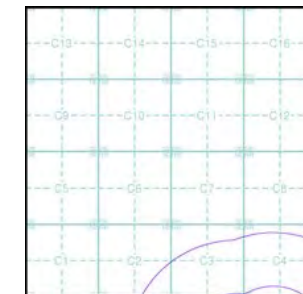
Potential for Landslide Ground Stability Hazards

- High
- Low
- Moderate
- Very Low

Potential for Ground Dissolution Stability Hazards

- High
- Low
- Moderate
- Very Low

Mining and Ground Stability - Slice C



Order Details

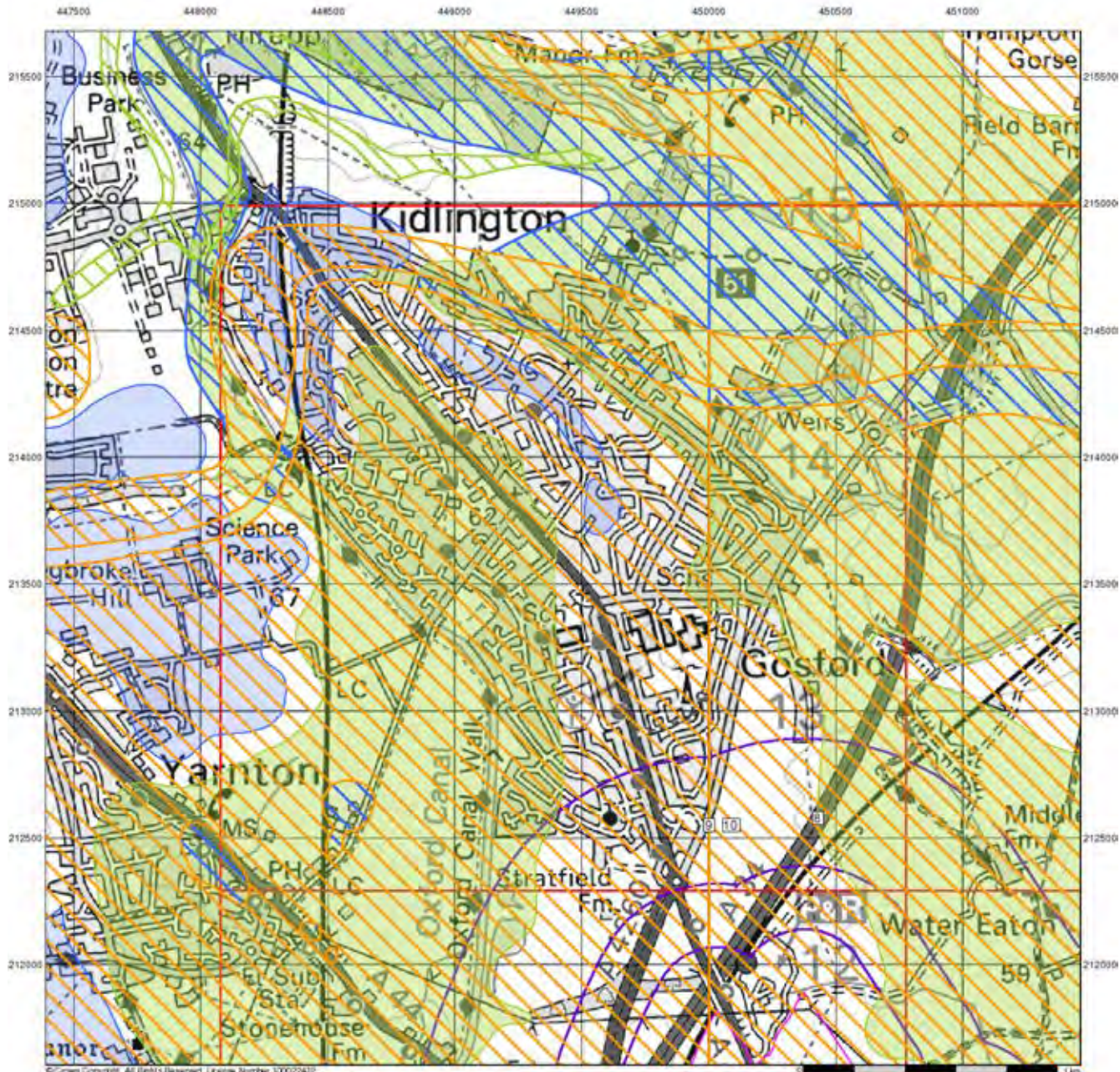
Order Number: 157505927_1_1
 Customer Ref: 8170282/GC/054/2018
 National Grid Reference: 450090, 212550
 Slice: C
 Site Area (Ha): 77.7
 Search Buffer (m): 1000

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Ground Stability Data (1:50,000)





General

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

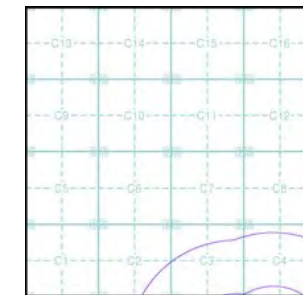
Potential for Running Sand Ground Stability Hazards

-  High
-  Low
-  Moderate
-  Very Low

Potential for Shrinking or Swelling Clay Ground Stability Hazards

-  High
-  Low
-  Moderate
-  Very Low

Mining and Ground Stability - Slice C



Order Details

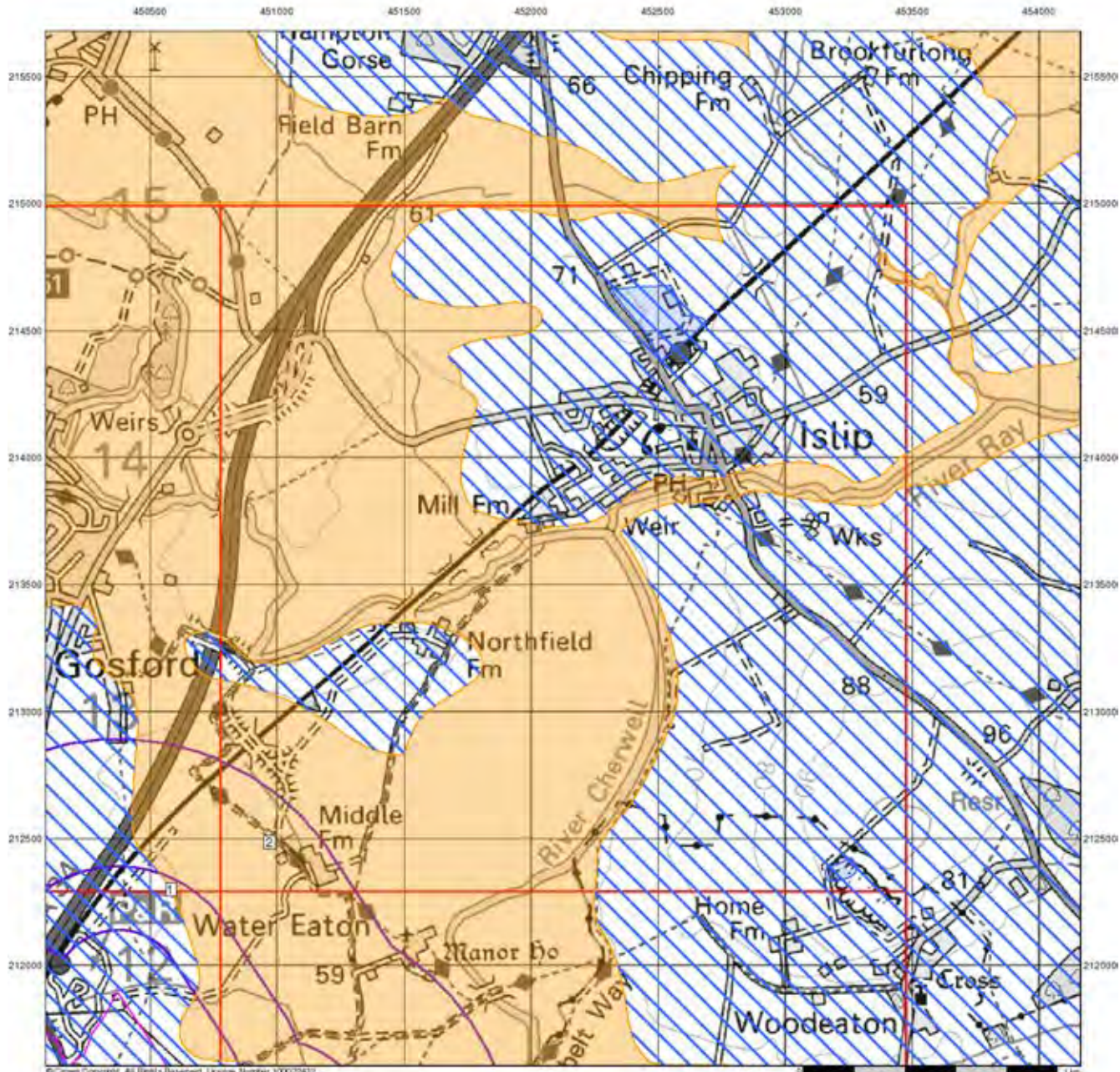
Order Number: 157505927_1_1
 Customer Ref: 8170282/GC/054/2018
 National Grid Reference: 450090, 212550
 Slice: C
 Site Area (Ha): 77.7
 Search Buffer (m): 1000

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Ground Stability Data (1:50,000)

General

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

Potential for Compressible Ground Stability Hazards

- High
- Low
- Moderate
- Very Low

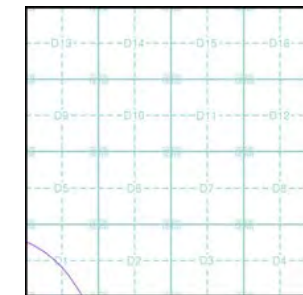
Potential for Collapsible Ground Stability Hazards

- High
- Low
- Moderate
- Very Low

Brine Pumping and Salt Mining

- | | Point | Polygon |
|-------------------------------|-------|---------|
| Brine Pumping Related Feature | | |
| Salt Mining Related Feature | | |

Mining and Ground Stability - Slice D



Order Details

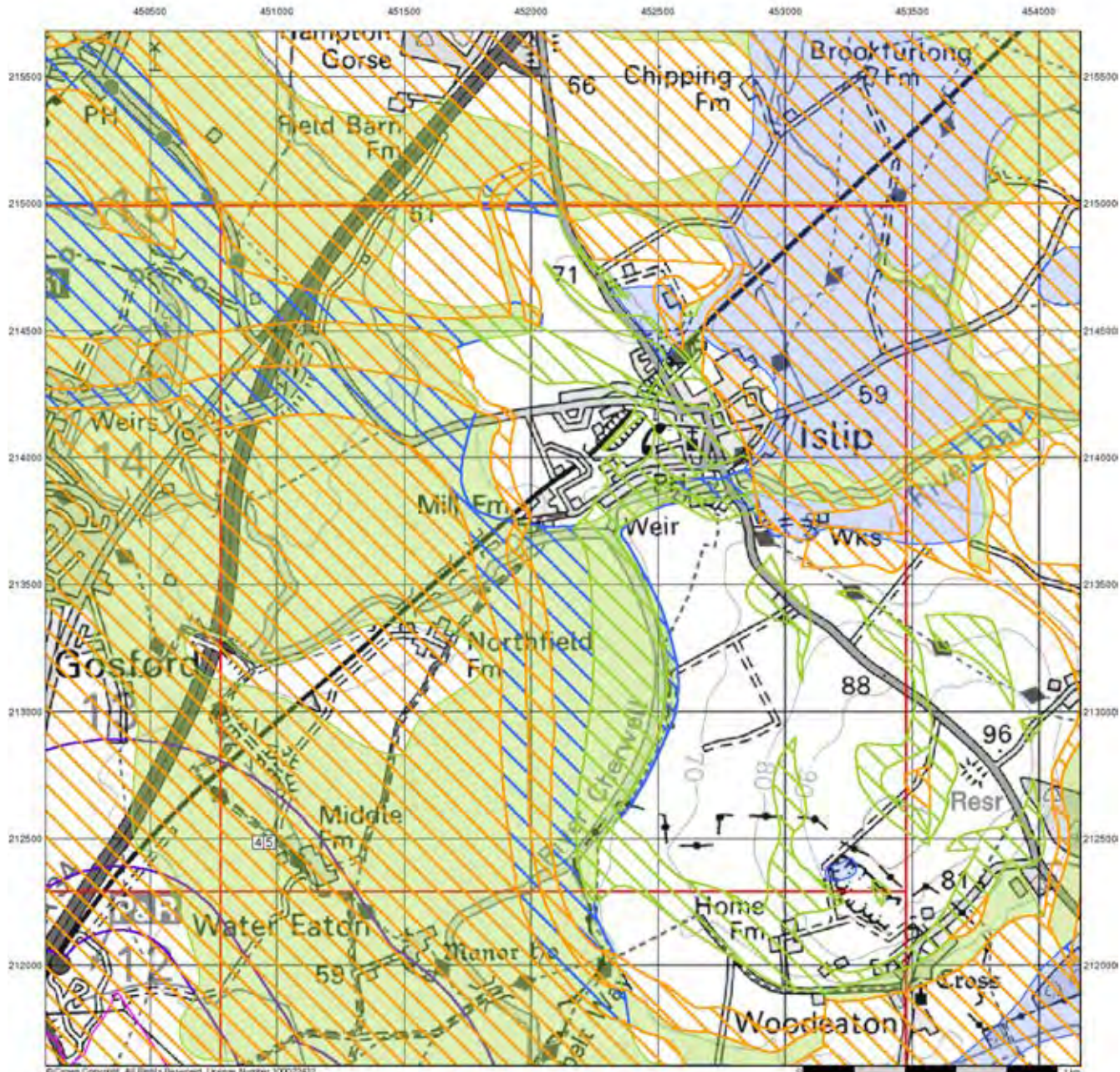
Order Number: 157505927_1_1
 Customer Ref: 8170282/GC/054/2018
 National Grid Reference: 450970, 212480
 Slice: D
 Site Area (Ha): 77.7
 Search Buffer (m): 1000

Site Details

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Ground Stability Data (1:50,000)

General

- ◆ Specified Site
- ◊ Specified Buffer(s)
- X Bearing Reference Point
- Slice
- Map ID

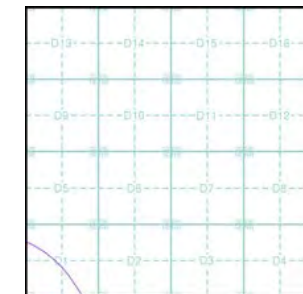
Potential for Running Sand Ground Stability Hazards

- High
- Low
- Moderate
- Very Low

Potential for Shrinking or Swelling Clay Ground Stability Hazards

- High
- Low
- Moderate
- Very Low

Mining and Ground Stability - Slice D



Order Details

Order Number: 157505927_1_1
 Customer Ref: 8170282/GC/054/2018
 National Grid Reference: 450970, 212480
 Slice: D
 Site Area (Ha): 77.7
 Search Buffer (m): 1000

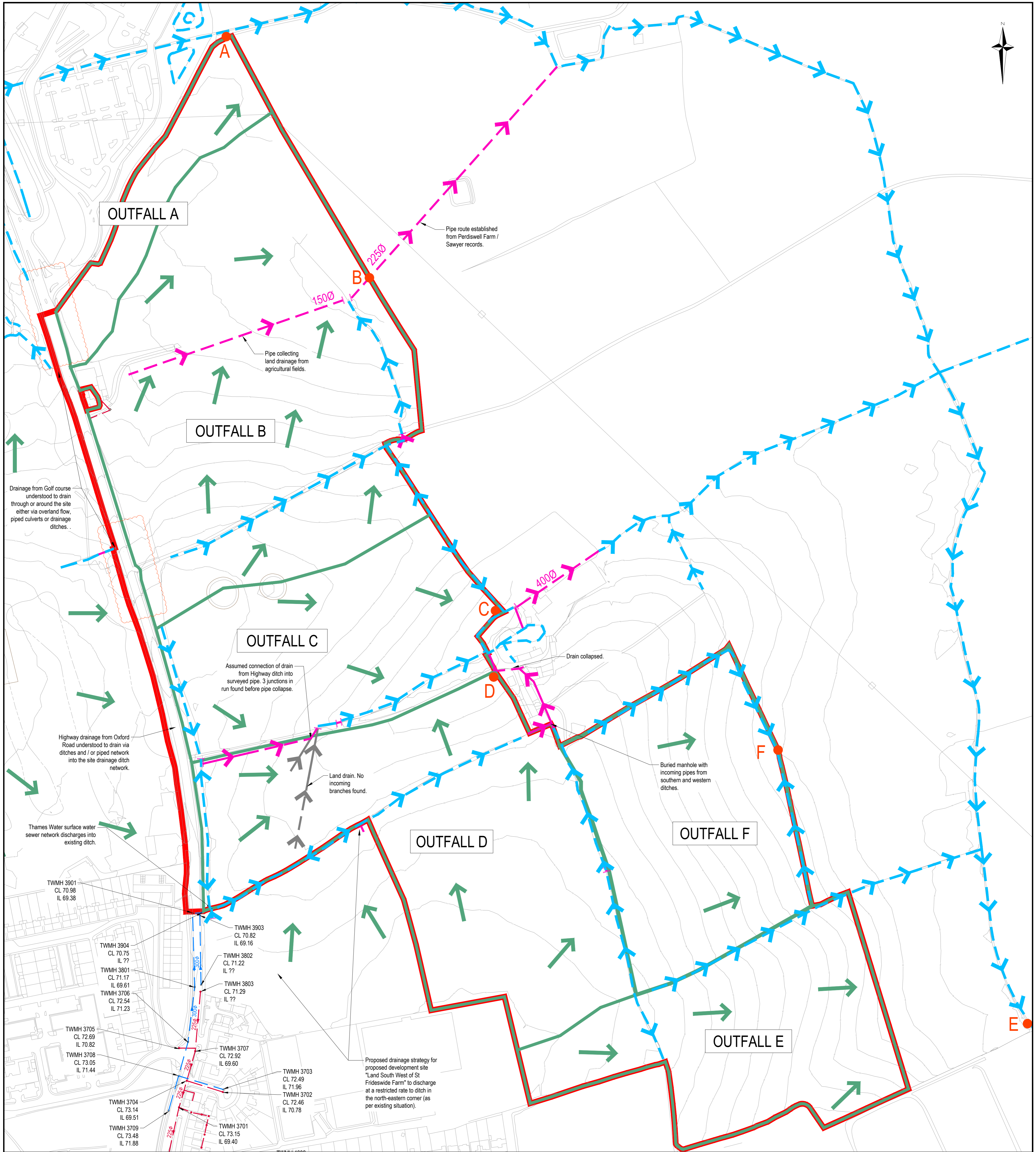
Site Details

Site at 450660, 211190

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Appendix N
Existing Drainage Plan



NOTES

- This drawing to be read in conjunction with all other drawings and specifications.
- Dimensions to be scaled for planning purposes only.
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- Topographical survey information taken from Brunel Surveys Ltd drawing number 17932-500-01 Feb 2018. Drainage information from topographical survey, Glanville site visits and investigations 2017 and 2021, Drain Technology CCTV survey 3 August 2021 (Report Ref 6143) and Sawyer drainage records.

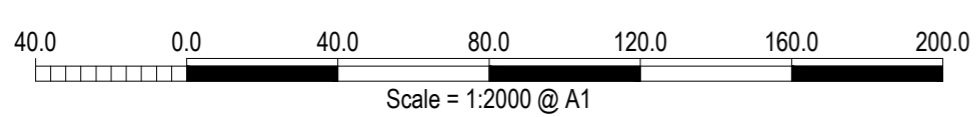
All existing formal drainage routes will be maintained through the development. All ditches carrying off-site flows will be retained as green corridors within the masterplan, and culverted only where necessary, for example under road corridors. Improvements and clearance of existing drainage routes, including ditches and culverts, will be considered where necessary, removing blockages, improving flows and improving direction of flows through the existing drainage system. Consideration will also be given to reinstating existing culverts to open ditches where possible and reasonable.

KEY

- Site boundary
- > Existing ditch and direction of flow
- > Pipe route (CCTV surveyed)
- - -> Pipe route (from records / interpolation)
- > Land drain route (CCTV surveyed)
- - -> Land drain route (from records / interpolation)
- - - Thames Water Surface Water Sewer (From Records)
- - - Thames Water Foul Water Sewer (From Records)
- | Headwall
- Catchment boundary
- > General drainage direction within catchment
- Indicative outfall point

TABLE 1: Catchment Areas

Outfall Reference	Total Area (ha)
A	2.06
B	13.59
C	6.12
D	10.44
E	6.11
F	6.29
TOTAL	44.61



PA1	Issued for Planning Approval	09/02/2023	JH
Rev	Description	Date	Chkd

Glanville
 Cornerstone House
 62 Foxhall Road, Didcot
 Oxon, OX11 7AD
 Tel: (01235) 515550 Fax: (01235) 817799
 postbox@glanvillegroup.com www.glanvillegroup.com

Client: **Bellway Homes Limited and Christ Church, Oxford**

Project: **Water Eaton (Site PR6a) Land East of Oxford Road**

Title: **Existing Drainage Plan**

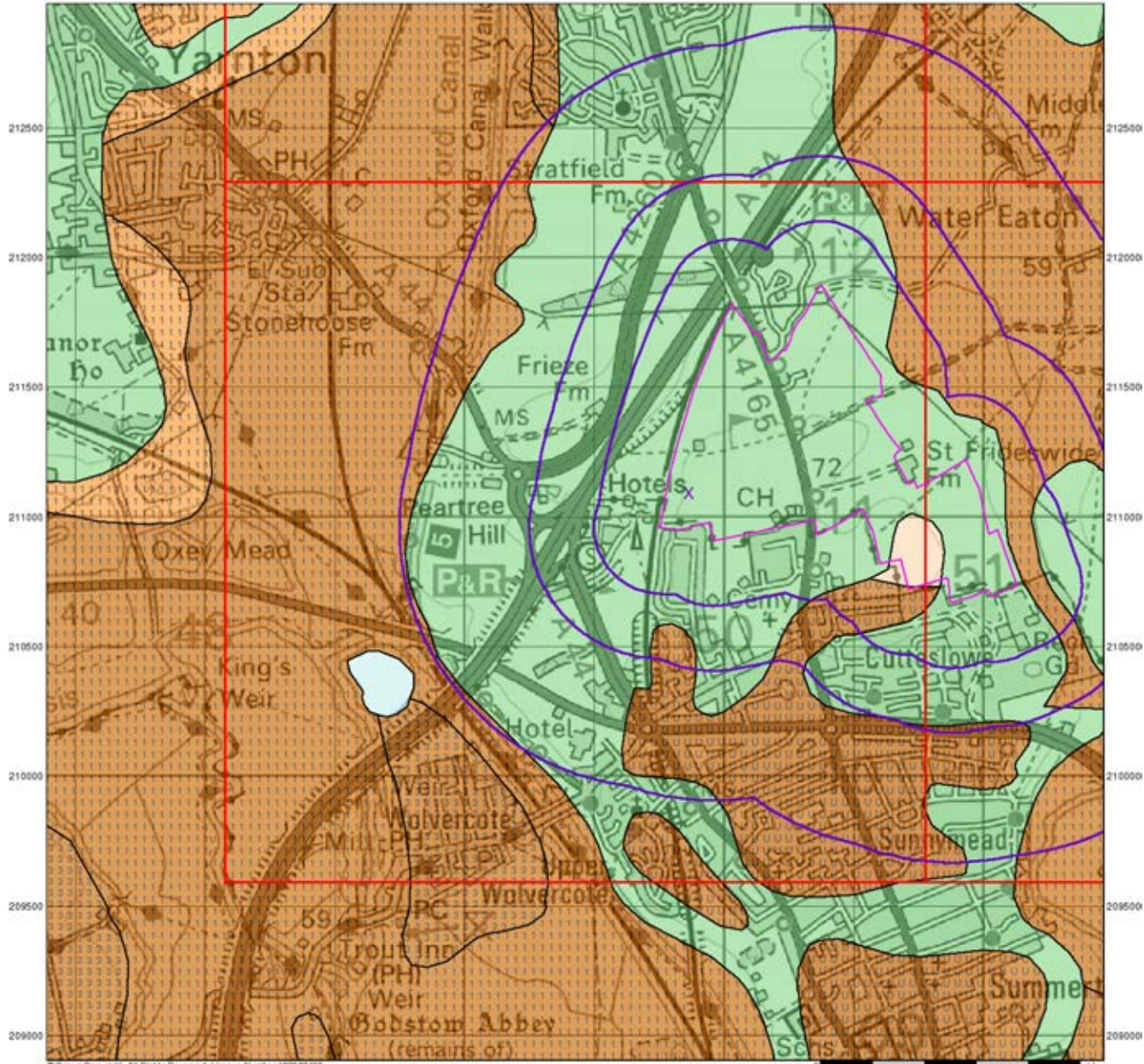
Project Engineer: C. Salt Scale: 1:2000 @A1
 Project Director: J. Hanlon Date: December 2022
 Status: **PLANNING APPROVAL**

Drawing No. 8210440-1102 Rev PA1

Appendix O

Site Sensitivity Context Maps (Groundwater etc.)

447500 448000 448500 449000 449500 450000 450500 451000



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Groundwater Vulnerability

General

- ◇ Specified Site
- Specified Buffer(s)
- X Bearing Reference Point
- Slice
- B Map ID

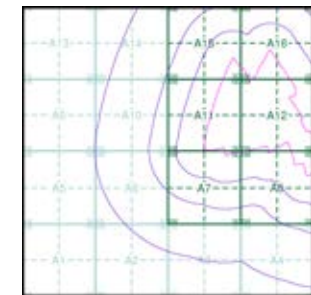
Agency and Hydrological

Geological Classes

- | | | |
|---------------------------------------|---|--|
| Major Aquifer
(Highly Permeable) | } | <ul style="list-style-type: none"> High (H) 1, 2, 3, U Intermediate (I) 1, 2 Low |
| Minor Aquifer
(Variably Permeable) | } | <ul style="list-style-type: none"> High (H) 1, 2, 3, U Intermediate (I) 1, 2 Low |
| Non Aquifer
(Negligibly Permeable) | | <ul style="list-style-type: none"> |
| Water or Sea | | <ul style="list-style-type: none"> |
| Drift Deposit | | <ul style="list-style-type: none"> |

Soil Classes

Site Sensitivity Context Map - Slice A

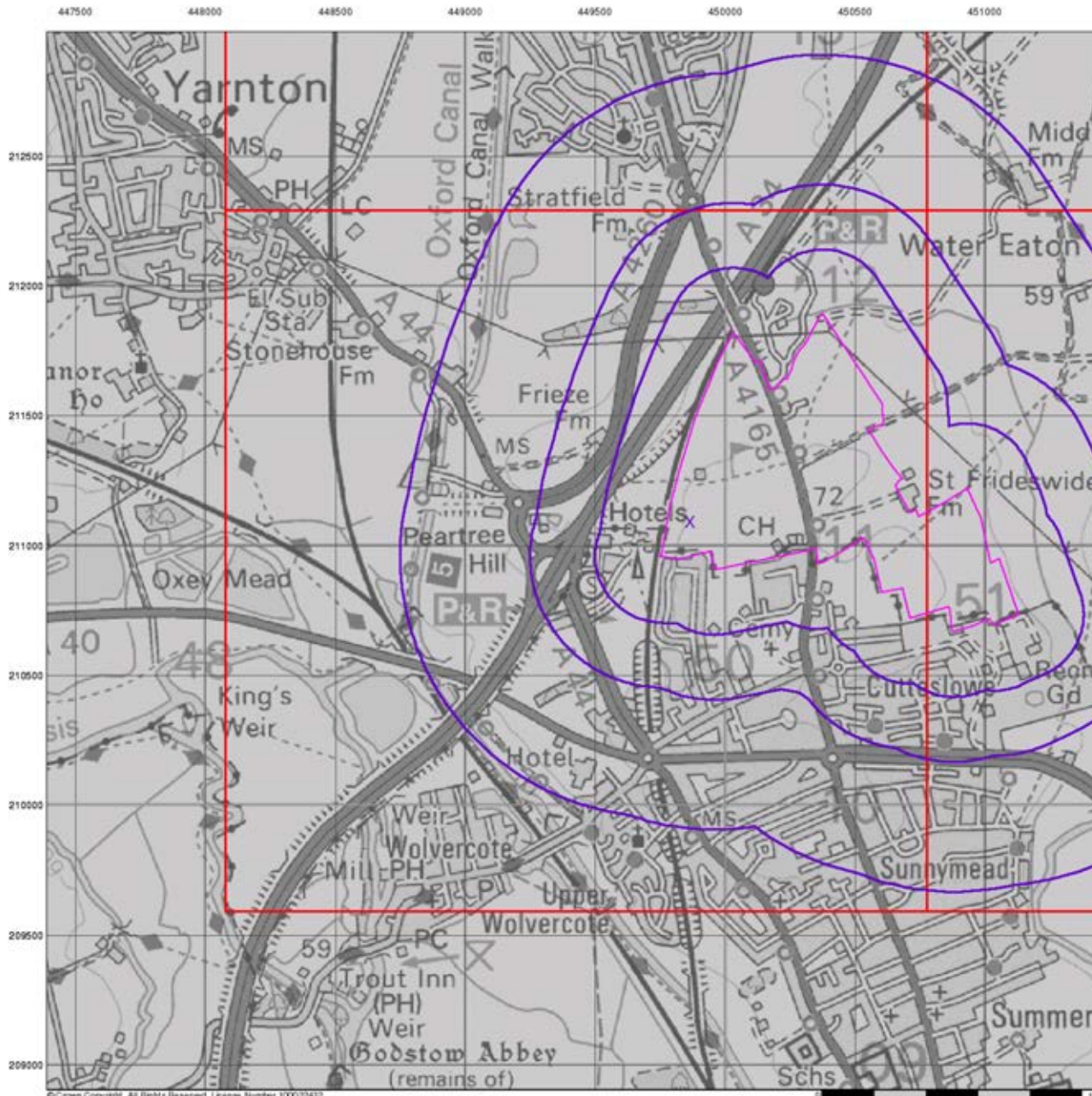


Order Details

Order Number: 157505927_1_1
 Customer Ref: 8170282/GC/054/2018
 National Grid Reference: 449860, 211090
 Slice: A
 Site Area (Ha): 77.7
 Search Buffer (m): 1000

Site Details

Site at 450660, 211190



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Bedrock Aquifer Designation

General

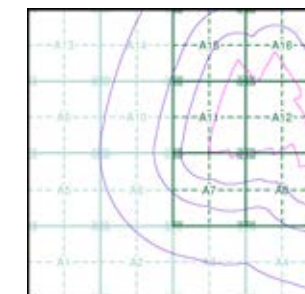
- Specified Site
- Specified Buffer(s)
- Bearing Reference Point
- Slice
- Map ID

Agency and Hydrological

Geological Classes

- Principal Aquifer
- Secondary A Aquifer
- Secondary B Aquifer
- Secondary Undifferentiated
- Unproductive Strata
- Unknown
- Unknown (Lakes and Landslip)

Site Sensitivity Context Map - Slice A



Order Details

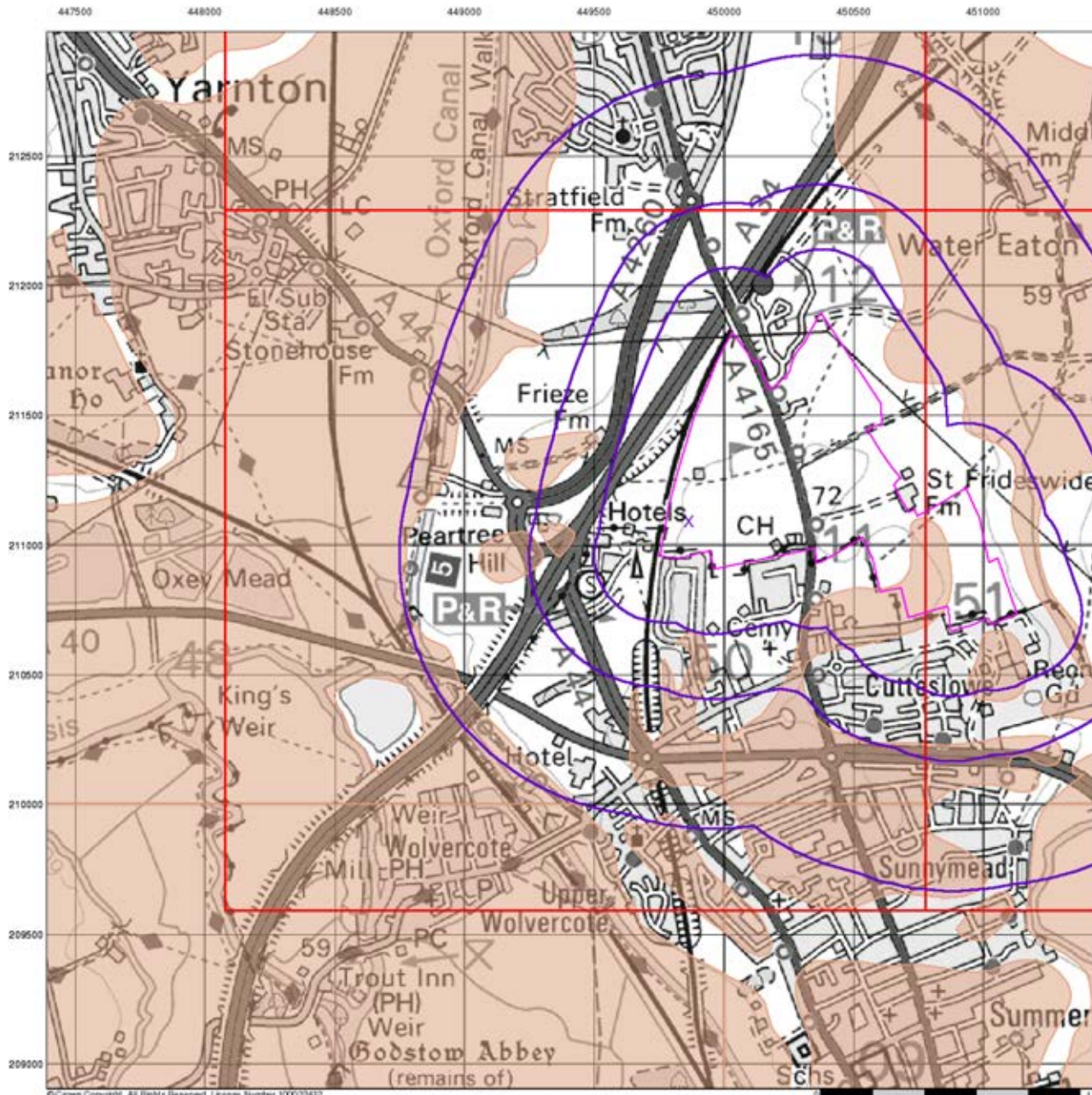
Order Number: 157505927_1_1
 Customer Ref: 8170282/GC/054/2018
 National Grid Reference: 449860, 211090
 Slice: A
 Site Area (Ha): 77.7
 Search Buffer (m): 1000

Site Details

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Superficial Aquifer Designation

General

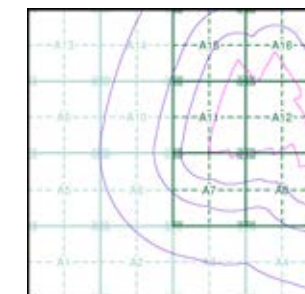
- Specified Site
- Specified Buffer(s)
- Bearing Reference Point
- Slice
- Map ID

Agency and Hydrological

Geological Classes

- Principal Aquifer
- Secondary A Aquifer
- Secondary B Aquifer
- Secondary Undifferentiated
- Unproductive Strata
- Unknown
- Unknown (Lakes and Landslip)

Site Sensitivity Context Map - Slice A



Order Details

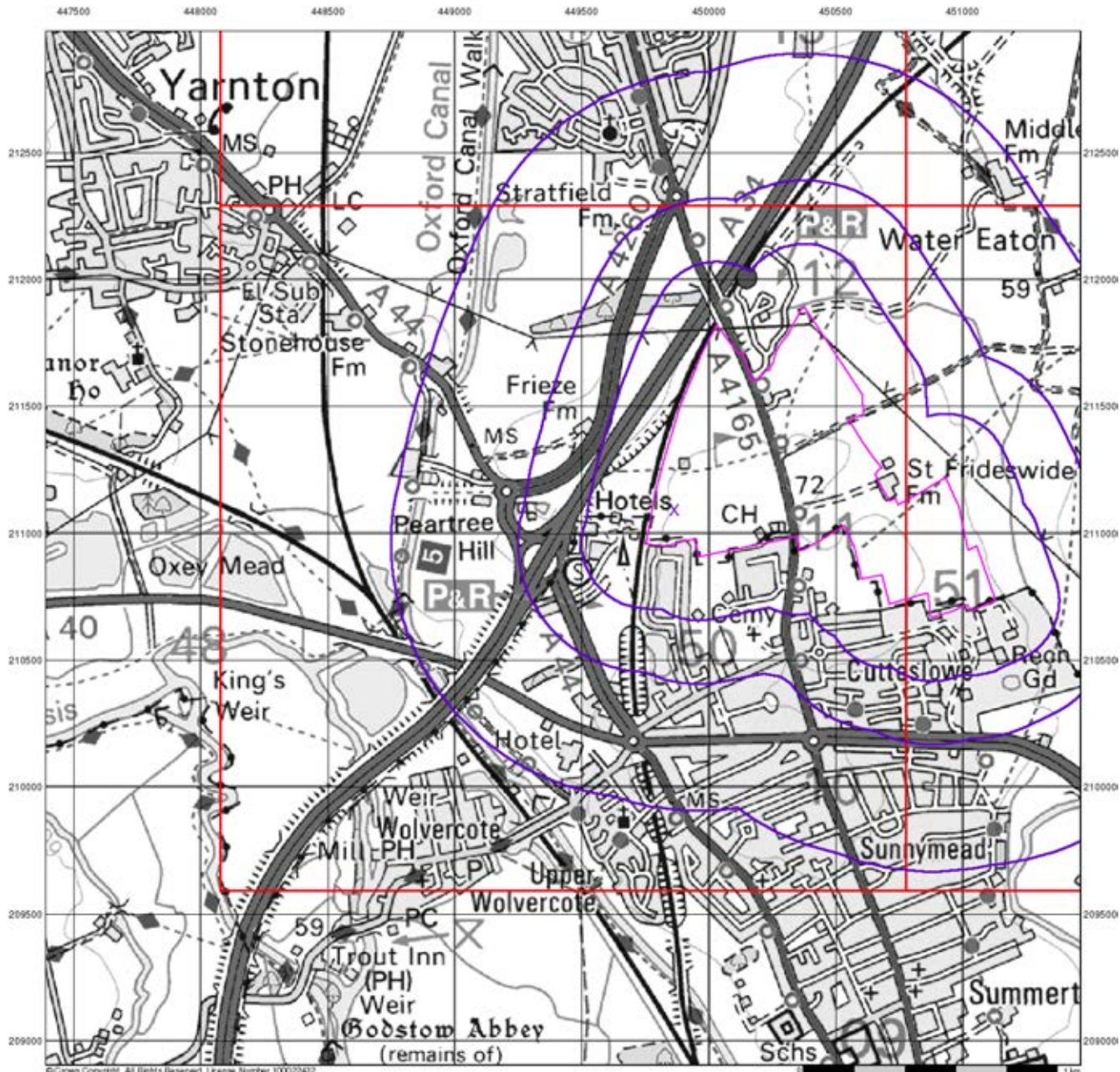
Order Number: 157505927_1_1
 Customer Ref: 8170282/GC/054/2018
 National Grid Reference: 449860, 211090
 Slice: A
 Site Area (Ha): 77.7
 Search Buffer (m): 1000

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Source Protection Zones

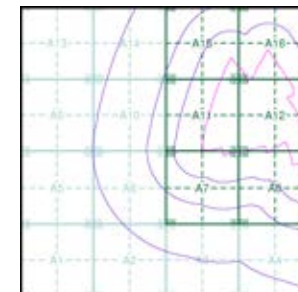
General

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

Agency and Hydrological

- Inner zone (Zone 1)
- Inner zone - subsurface activity only (Zone 1c)
- Outer zone (Zone 2)
- Outer zone - subsurface activity only (Zone 2c)
- Total catchment (Zone 3)
- Total catchment - subsurface activity only (Zone 3c)
- Special interest (Zone 4)
- Source Protection Zone Borehole

Site Sensitivity Context Map - Slice A



Order Details

Order Number: 157505927_1_1
 Customer Ref: 8170282/GC/054/2018
 National Grid Reference: 449860, 211090
 Slice: A
 Site Area (Ha): 77.7
 Search Buffer (m): 1000

Site Details

Site at 450660, 211190

447500 448000 448500 449000 449500 450000 450500 451000



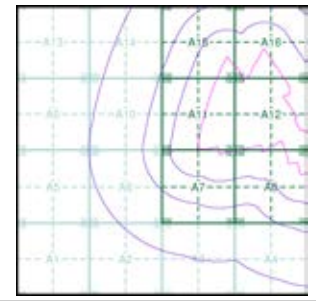
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Sensitive Land Uses

- General**
- Specified Site
 - Specified Buffer(s)
 - Bearing Reference Point
 - Slice
 - Map ID

- Sensitive Land Uses**
- Ancient Woodland
 - Area of Adopted Green Belt
 - Area of Unadopted Green Belt
 - Area of Outstanding Natural Beauty
 - Environmentally Sensitive Area
 - Forest Park
 - Local Nature Reserve
 - Marine Nature Reserve
 - National Nature Reserve
 - National Park
 - Nitrate Sensitive Area
 - Nitrate Vulnerable Zone
 - Ramsar Site
 - Site of Special Scientific Interest
 - Special Area of Conservation
 - Special Protection Area
 - World Heritage Sites

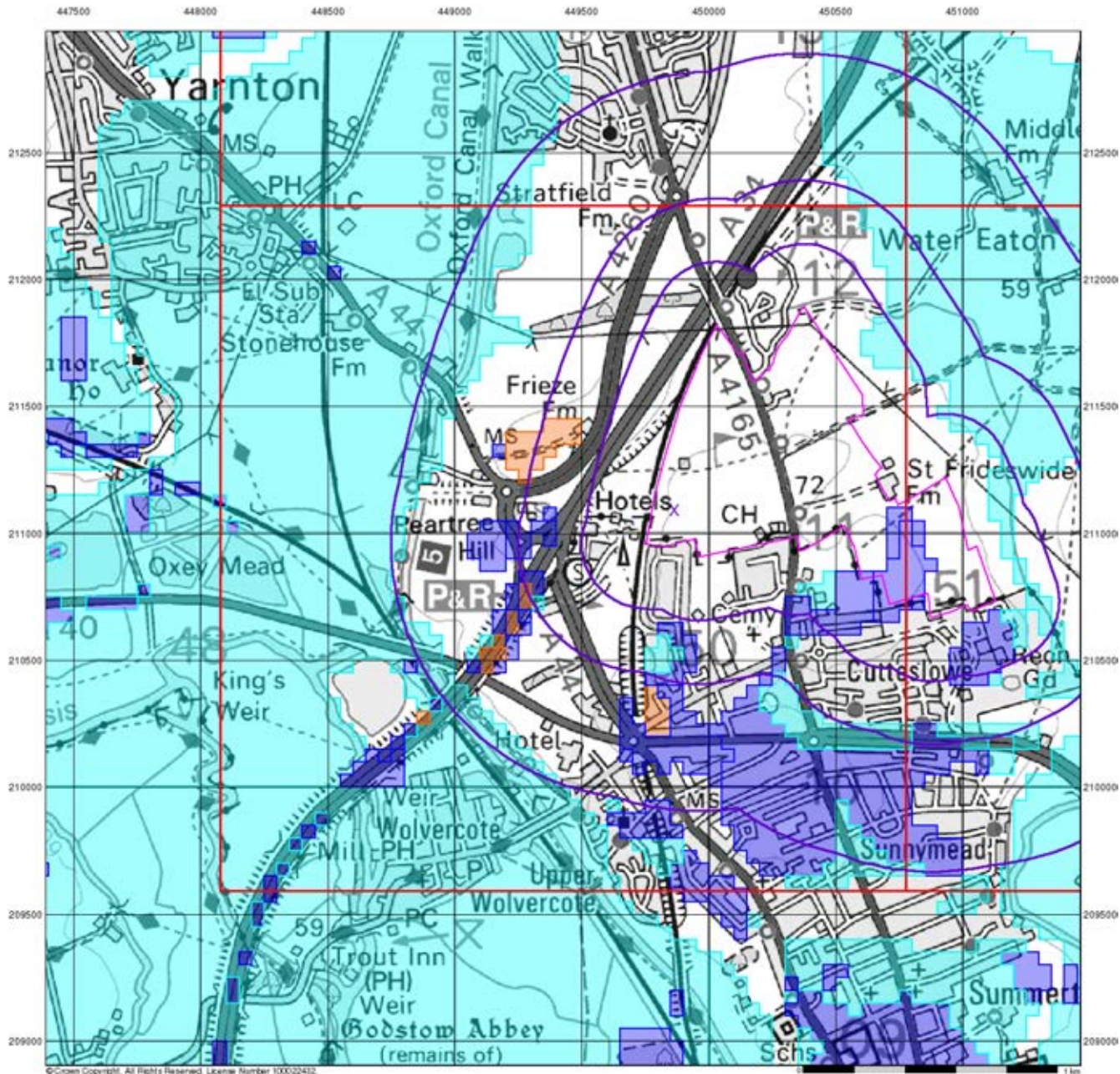
Site Sensitivity Context Map - Slice A



Order Details

Order Number: 157505927_1_1
 Customer Ref: 8170282/GC/054/2018
 National Grid Reference: 449860, 211090
 Slice: A
 Site Area (Ha): 77.7
 Search Buffer (m): 1000

Site Details
 Site at 450660, 211190



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BGS Flood GFS Data

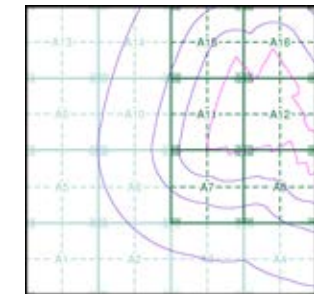
General

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

Agency and Hydrological (Flood)

- Limited Potential for Groundwater Flooding to Occur
- Potential for Groundwater Flooding of Property Situated Below Ground Level
- Potential for Groundwater Flooding to Occur at Surface

Site Sensitivity Context Map - Slice A



Order Details

Order Number: 157505927_1_1
 Customer Ref: 8170282/GC/054/2018
 National Grid Reference: 449860, 211090
 Slice: A
 Site Area (Ha): 77.7
 Search Buffer (m): 1000

Site Details

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