

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
11	Detailed River Network Lines River Type: Extended Culvert (greater than 50m) River Name: Not Supplied Hydrographic Area: D007 River Flow Type: Primary Flow Path River Surface Level: Below Surface Drain Feature: Not a Drain Flood Risk: Other Rivers Management Status: Water Course: Not Supplied Name: Water Course: Not Supplied Reference:	A11NE (E)	0	2	468860 106695
12	Detailed River Network Lines River Type: Tertiary River River Name: Not Supplied Hydrographic Area: D007 River Flow Type: Primary Flow Path River Surface Level: Surface Drain Feature: Not a Drain Flood Risk: Other Rivers Management Status: Water Course: Not Supplied Name: Water Course: Not Supplied Reference:	A12NW (E)	0	2	469117 106756
13	Detailed River Network Lines River Type: Extended Culvert (greater than 50m) River Name: Not Supplied Hydrographic Area: D007 River Flow Type: Primary Flow Path River Surface Level: Below Surface Drain Feature: Not a Drain Flood Risk: Other Rivers Management Status: Water Course: Not Supplied Name: Water Course: Not Supplied Reference:	A12NE (E)	5	2	469400 106713
14	Detailed River Network Lines River Type: Secondary River River Name: Not Supplied Hydrographic Area: D007 River Flow Type: Primary Flow Path River Surface Level: Surface Drain Feature: Not a Drain Flood Risk: Other Rivers Management Status: Water Course: Not Supplied Name: Water Course: Not Supplied Reference:	A11NE (SE)	10	2	468819 106676
15	Detailed River Network Lines River Type: Tertiary River River Name: Not Supplied Hydrographic Area: D007 River Flow Type: Primary Flow Path River Surface Level: Surface Drain Feature: Not a Drain Flood Risk: Other Rivers Management Status: Water Course: Not Supplied Name: Water Course: Not Supplied Reference:	A16SW (NE)	27	2	469254 107276
16	Detailed River Network Lines River Type: Extended Culvert (greater than 50m) River Name: Not Supplied Hydrographic Area: D007 River Flow Type: Primary Flow Path River Surface Level: Below Surface Drain Feature: Not a Drain Flood Risk: Other Rivers Management Status: Water Course: Not Supplied Name: Water Course: Not Supplied Reference:	A16SW (NE)	33	2	469274 107269

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17	Detailed River Network Lines River Type: Tertiary River River Name: Not Supplied Hydrographic Area: D007 River Flow Type: Primary Flow Path River Surface Level: Surface Drain Feature: Not a Drain Flood Risk: Other Rivers Management Status: Water Course: Not Supplied Name: Water Course: Not Supplied Reference:	A11NE (SE)	49	2	468806 106673
18	Detailed River Network Lines River Type: Tertiary River River Name: Drain Hydrographic Area: D007 River Flow Type: Primary Flow Path River Surface Level: Surface Drain Feature: Drain (ditch, Reen, Rhyne, Drain) Flood Risk: Other Rivers Management Status: Water Course: Not Supplied Name: Water Course: Not Supplied Reference:	A11NE (S)	63	2	468763 106673
19	Detailed River Network Lines River Type: Tertiary River River Name: Drain Hydrographic Area: D007 River Flow Type: Primary Flow Path River Surface Level: Surface Drain Feature: Drain (ditch, Reen, Rhyne, Drain) Flood Risk: Other Rivers Management Status: Water Course: Not Supplied Name: Water Course: Not Supplied Reference:	A11NE (NE)	63	2	468772 106733
20	Detailed River Network Lines River Type: Tertiary River River Name: Not Supplied Hydrographic Area: D007 River Flow Type: Primary Flow Path River Surface Level: Surface Drain Feature: Not a Drain Flood Risk: Other Rivers Management Status: Water Course: Not Supplied Name: Water Course: Not Supplied Reference:	A16SW (NE)	76	2	469347 107247
21	Detailed River Network Lines River Type: Primary River River Name: Not Supplied Hydrographic Area: D007 River Flow Type: Primary Flow Path River Surface Level: Surface Drain Feature: Not a Drain Flood Risk: Other Rivers Management Status: Water Course: Bedhampton Brook Name: Water Course: S535 Reference:	A12NE (E)	83	2	469477 106727
22	Detailed River Network Lines River Type: Extended Culvert (greater than 50m) River Name: Not Supplied Hydrographic Area: D007 River Flow Type: Primary Flow Path River Surface Level: Below Surface Drain Feature: Not a Drain Flood Risk: Other Rivers Management Status: Water Course: Bedhampton Brook Name: Water Course: S535 Reference:	A12NE (E)	184	2	469579 106719

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23	Detailed River Network Lines River Type: Secondary River River Name: Not Supplied Hydrographic Area: D007 River Flow Type: Primary Flow Path River Surface Level: Surface Drain Feature: Not a Drain Flood Risk: Other Rivers Management Status: Water Course: Not Supplied Name: Water Course: Not Supplied Reference:	A16SE (NE)	209	2	469484 107224
24	Detailed River Network Lines River Type: Extended Culvert (greater than 50m) River Name: Not Supplied Hydrographic Area: D007 River Flow Type: Primary Flow Path River Surface Level: Below Surface Drain Feature: Not a Drain Flood Risk: Other Rivers Management Status: Water Course: Not Supplied Name: Water Course: Not Supplied Reference:	A11NW (W)	218	2	468634 106680
25	Detailed River Network Lines River Type: Tertiary River River Name: Drain Hydrographic Area: D007 River Flow Type: Primary Flow Path River Surface Level: Surface Drain Feature: Drain (ditch, Reen, Rhyne, Drain) Flood Risk: Other Rivers Management Status: Water Course: Not Supplied Name: Water Course: Not Supplied Reference:	A11NW (W)	231	2	468544 106693
26	Detailed River Network Lines River Type: Tertiary River River Name: Not Supplied Hydrographic Area: D007 River Flow Type: Primary Flow Path River Surface Level: Surface Drain Feature: Not a Drain Flood Risk: Other Rivers Management Status: Water Course: Not Supplied Name: Water Course: Not Supplied Reference:	A16SE (NE)	254	2	469528 107215
27	Detailed River Network Lines River Type: Secondary River River Name: Not Supplied Hydrographic Area: D007 River Flow Type: Primary Flow Path River Surface Level: Surface Drain Feature: Not a Drain Flood Risk: Other Rivers Management Status: Water Course: Not Supplied Name: Water Course: Not Supplied Reference:	A11NW (W)	269	2	468461 106707
28	Detailed River Network Lines River Type: Tertiary River River Name: Drain Hydrographic Area: D007 River Flow Type: Primary Flow Path River Surface Level: Surface Drain Feature: Drain (ditch, Reen, Rhyne, Drain) Flood Risk: Other Rivers Management Status: Water Course: Not Supplied Name: Water Course: Not Supplied Reference:	A15NE (N)	274	2	469005 107618

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29	Detailed River Network Lines River Type: Tertiary River River Name: Drain Hydrographic Area: D007 River Flow Type: Primary Flow Path River Surface Level: Surface Drain Feature: Drain (ditch, Reen, Rhyne, Drain) Flood Risk: Other Rivers Management Status: Water Course: Not Supplied Name: Water Course: Not Supplied Reference:	A11NW (W)	289	2	468447 106693
30	Detailed River Network Lines River Type: Extended Culvert (greater than 50m) River Name: Not Supplied Hydrographic Area: D007 River Flow Type: Primary Flow Path River Surface Level: Below Surface Drain Feature: Not a Drain Flood Risk: Other Rivers Management Status: Water Course: Not Supplied Name: Water Course: Not Supplied Reference:	A16NW (N)	293	2	469025 107637
31	Detailed River Network Lines River Type: Extended Culvert (greater than 50m) River Name: Not Supplied Hydrographic Area: D007 River Flow Type: Primary Flow Path River Surface Level: Below Surface Drain Feature: Not a Drain Flood Risk: Other Rivers Management Status: Water Course: Not Supplied Name: Water Course: Not Supplied Reference:	A16SE (NE)	303	2	469577 107205
32	Detailed River Network Offline Drainage River Type: Tertiary River Hydrographic Area: D007	A16NE (NE)	372	2	469380 107614

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
33	Historical Landfill Sites Licence Holder: Not Supplied Location: Sandy Brow, Waterlooville, Hampshire Name: Disused Sand Pit B Operator Location: Not Supplied Boundary Accuracy: As Supplied Provider Reference: EAHL20824 First Input Date: Not Supplied Last Input Date: Not Supplied Specified Waste: Deposited Waste included Unknown Material Type: EA Waste Ref: 0 Regis Ref: Not Supplied WRC Ref: 1700/1302 BGS Ref: Not Supplied Other Ref: FHA8, HAV 2	A14SW (NW)	770	2	467939 107205
34	Historical Landfill Sites Licence Holder: Not Supplied Location: Sandy Brow, Waterlooville, Hampshire Name: Disused Sand Pit A Operator Location: Not Supplied Boundary Accuracy: As Supplied Provider Reference: EAHL20823 First Input Date: Not Supplied Last Input Date: Not Supplied Specified Waste: Deposited Waste included Unknown Material Type: EA Waste Ref: 0 Regis Ref: Not Supplied WRC Ref: 1700/1302 BGS Ref: Not Supplied Other Ref: FHA7, HAV 2	A14NW (NW)	771	2	467984 107349
35	Licensed Waste Management Facilities (Locations) Licence Number: 10226 Location: Farlington Redoubt, Portsdown Hill Road, Portsmouth, Hampshire, PO6 1BW Operator Name: L & S Waste Management Limited Operator Location: Not Supplied Authority: Environment Agency - South East Region, Solent & South Downs Area Site Category: Physical Treatment Facilities Licence Status: Modified Issued: 8th April 2002 Last Modified: 27th November 2015 Expires: Not Supplied Suspended: Not Supplied Revoked: Not Supplied Surrendered: Not Supplied IPPC Reference: Not Supplied Positional Accuracy: Located by supplier to within 10m	A11SE (S)	291	2	468700 106440
	Local Authority Landfill Coverage Name: Havant Borough Council - Has supplied landfill data		0	3	468763 106728
	Local Authority Landfill Coverage Name: Hampshire County Council - Had landfill data but passed it to the relevant environment agency		0	4	468763 106728
	Local Authority Landfill Coverage Name: Portsmouth City Unitary Council - Has not been able to supply Landfill data		272	5	468779 106370

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
36	Registered Waste Transfer Sites Licence Holder: Mc Nicholas Construction Co Ltd Licence Reference: HV 031A Site Location: Farlington Redoubt, Portsdown Hill Road, Havant, Hampshire Operator Location: Unit 8 Lismarrane Industrial Park, ELSTREE, Hertfordshire, WD6 3EA Authority: Environment Agency - Southern Region, Hampshire Area Site Category: Transfer Max Input Rate: Medium (Equal to or greater than 25,000 and less than 75,000 tonnes per year) Waste Source: No known restriction on source of waste Restrictions: Licence Status: Licence lapsed/cancelled/defunct/not applicable/surrenderedCancelled Dated: 1st December 1991 Preceded By: Not Given Licence: Superseded By: Not Given Licence: Positional Accuracy: Manually positioned to the address or location Boundary Quality: Not Supplied Authorised Waste: Arisings From Cable Trench Excav'Ns Max,Waste Permitted By Licence-Stated Sand,Chalk,Gravel Prohibited Waste: All Tar-Based Surfacing Wastes Biodegradable Waste Clinical - As In Wmp 25 Food/Vegetable Matter Hazardous Wastes Liquid/Slurry/Sludge Wastes Paper/Cardboard/Packaging Phenols/Mat'Ls Cont. Phenol Poisonous, Noxious, Polluting Wastes Rubble Ex Preme Storing Tox/Sol Chems Special Wastes Waste N.O.S.	A11SW (SW)	320	2	468640 106460

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	BGS 1:625,000 Solid Geology Description: Bracklesham Group And Barton Group (Undifferentiated)	A15SE (NE)	0	1	469011 107177
	BGS 1:625,000 Solid Geology Description: Thames Group	A11NE (N)	0	1	468758 106796
	BGS 1:625,000 Solid Geology Description: Lambeth Group	A11NE (E)	0	1	468763 106728
37	BGS Recorded Mineral Sites Site Name: Privet Wood Chalk Pit Location: , Bedhampton, Havant, Hampshire Source: British Geological Survey, National Geoscience Information Service Reference: 163079 Type: Opencast Status: Ceased Operator: Not Supplied Operator Location: Not Supplied Periodic Type: Cretaceous Geology: Portsdown Chalk Formation Commodity: Chalk Positional Accuracy: Located by supplier to within 10m	A11SE (SE)	13	1	468927 106625
38	BGS Recorded Mineral Sites Site Name: Bedhampton Chalk Pit Location: , Bedhampton, Havant, Hampshire Source: British Geological Survey, National Geoscience Information Service Reference: 163093 Type: Opencast Status: Ceased Operator: Not Supplied Operator Location: Not Supplied Periodic Type: Cretaceous Geology: Portsdown Chalk Formation Commodity: Chalk Positional Accuracy: Located by supplier to within 10m	A11SE (S)	187	1	468759 106529
39	BGS Recorded Mineral Sites Site Name: Bedhampton Chalk Pit Location: , Bedhampton, Havant, Hampshire Source: British Geological Survey, National Geoscience Information Service Reference: 163092 Type: Opencast Status: Ceased Operator: Not Supplied Operator Location: Not Supplied Periodic Type: Cretaceous Geology: Portsdown Chalk Formation Commodity: Chalk Positional Accuracy: Located by supplier to within 10m	A12SW (E)	192	1	469267 106525
40	BGS Recorded Mineral Sites Site Name: Camp Down Location: , Portsdown Hill Road, Purbrook, Portsmouth, Hampshire Source: British Geological Survey, National Geoscience Information Service Reference: 55252 Type: Opencast Status: Ceased Operator: Not Supplied Operator Location: Not Supplied Periodic Type: Cretaceous Geology: Portsdown Chalk Formation Commodity: Chalk Positional Accuracy: Located by supplier to within 10m	A11SE (SE)	284	1	469005 106351
41	BGS Recorded Mineral Sites Site Name: Farlington Redoubt Location: , Portsdown Hill Road, Purbrook, Portsmouth, Hampshire, Po6 1bw Source: British Geological Survey, National Geoscience Information Service Reference: 55253 Type: Opencast Status: Active Operator: Not Supplied Operator Location: Not Supplied Periodic Type: Not Available Geology: Aggregates For Recycling Commodity: Secondary Positional Accuracy: Located by supplier to within 10m	A11SW (SW)	327	1	468645 106445

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42	BGS Recorded Mineral Sites Site Name: Bedhampton Chalk Pit Location: , Bedhampton, Havant, Hampshire Source: British Geological Survey, National Geoscience Information Service Reference: 13718 Type: Opencast Status: Ceased Operator: Not Supplied Operator Location: Not Supplied Periodic Type: Cretaceous Geology: Portsdown Chalk Formation Commodity: Chalk Positional Accuracy: Located by supplier to within 10m	A12SE (E)	369	1	469620 106420
43	BGS Recorded Mineral Sites Site Name: Camp Down Chalk Pit Location: , Farlington, Portsmouth, Hampshire Source: British Geological Survey, National Geoscience Information Service Reference: 163080 Type: Opencast Status: Ceased Operator: Not Supplied Operator Location: Not Supplied Periodic Type: Cretaceous Geology: Spetisbury Chalk Member Commodity: Chalk Positional Accuracy: Located by supplier to within 10m	A8NW (SE)	382	1	469216 106310
44	BGS Recorded Mineral Sites Site Name: Crookhorn Lane Brick Kiln Location: , Purbrook, Waterlooville, Hampshire Source: British Geological Survey, National Geoscience Information Service Reference: 163078 Type: Opencast Status: Ceased Operator: Not Supplied Operator Location: Not Supplied Periodic Type: Palaeogene Geology: London Clay Formation Commodity: Common Clay and Shale Positional Accuracy: Located by supplier to within 10m	A10NE (W)	424	1	468227 106916
45	BGS Recorded Mineral Sites Site Name: Crookhorn Lane Gravel Pit Location: , Purbrook, Waterlooville, Hampshire Source: British Geological Survey, National Geoscience Information Service Reference: 163094 Type: Opencast Status: Ceased Operator: Not Supplied Operator Location: Not Supplied Periodic Type: Cretaceous Geology: Portsdown Chalk Formation Commodity: Sand and Gravel Positional Accuracy: Located by supplier to within 10m	A11SW (W)	424	1	468378 106573
46	BGS Recorded Mineral Sites Site Name: Purbrook Brick & Tile Works Location: , Purbrook, Waterlooville, Hampshire Source: British Geological Survey, National Geoscience Information Service Reference: 163097 Type: Opencast Status: Ceased Operator: Not Supplied Operator Location: Not Supplied Periodic Type: Palaeogene Geology: London Clay Formation Commodity: Common Clay and Shale Positional Accuracy: Located by supplier to within 10m	A14SE (NW)	590	1	468100 107111
47	BGS Recorded Mineral Sites Site Name: Purbrook Brick & Tile Works Location: , Purbrook, Waterlooville, Hampshire Source: British Geological Survey, National Geoscience Information Service Reference: 163098 Type: Opencast Status: Ceased Operator: Not Supplied Operator Location: Not Supplied Periodic Type: Palaeogene Geology: London Clay Formation Commodity: Common Clay and Shale Positional Accuracy: Located by supplier to within 10m	A14SE (NW)	675	1	468018 107135

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48	BGS Recorded Mineral Sites Site Name: Farlington Farm Chalk Pit Location: , Farlington, Portsmouth, Hampshire Source: British Geological Survey, National Geoscience Information Service Reference: 163081 Type: Opencast Status: Ceased Operator: Not Supplied Operator Location: Not Supplied Periodic Type: Cretaceous Geology: Tarrant Chalk Member Commodity: Chalk Positional Accuracy: Located by supplier to within 10m	A6NE (SW)	748	1	468254 106258
49	BGS Recorded Mineral Sites Site Name: Purbrook Park Sand Pits Location: , Purbrook, Waterlooville, Hampshire Source: British Geological Survey, National Geoscience Information Service Reference: 163099 Type: Opencast Status: Ceased Operator: Not Supplied Operator Location: Not Supplied Periodic Type: Ypresian - Lutetian Geology: Wittering Formation Commodity: Sand Positional Accuracy: Located by supplier to within 10m	A14SW (NW)	809	1	467908 107234
50	BGS Recorded Mineral Sites Site Name: Privet Coppice Chalk Pit Location: , Purbrook, Waterlooville, Hampshire Source: British Geological Survey, National Geoscience Information Service Reference: 163077 Type: Opencast Status: Ceased Operator: Not Supplied Operator Location: Not Supplied Periodic Type: Cretaceous Geology: Portsdown Chalk Formation Commodity: Chalk Positional Accuracy: Located by supplier to within 10m	A10SW (W)	890	1	467811 106602
	Coal Mining Affected Areas In an area that might not be affected by coal mining				
	Non Coal Mining Areas of Great Britain Risk: Rare Source: British Geological Survey, National Geoscience Information Service	A11NE (E)	0	1	468763 106728
	Potential for Collapsible Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A11NE (E)	0	1	468763 106728
	Potential for Compressible Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A11NE (E)	0	1	468763 106728
	Potential for Ground Dissolution Stability Hazards Hazard Potential: Moderate Source: British Geological Survey, National Geoscience Information Service	A11NE (S)	0	1	468761 106671
	Potential for Ground Dissolution Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A11NE (E)	0	1	468763 106728
	Potential for Ground Dissolution Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A11NE (S)	0	1	468763 106697
	Potential for Ground Dissolution Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A11SE (S)	26	1	468739 106626
	Potential for Ground Dissolution Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A11SE (SE)	26	1	468947 106607
	Potential for Ground Dissolution Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A11SE (S)	27	1	468752 106632

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	Potential for Ground Dissolution Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A12SW (SE)	92	1	469090 106586
	Potential for Ground Dissolution Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A11SE (S)	150	1	468787 106495
	Potential for Ground Dissolution Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A11SE (S)	188	1	468740 106522
	Potential for Ground Dissolution Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A11SW (SW)	208	1	468665 106639
	Potential for Ground Dissolution Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A11SE (S)	214	1	468699 106549
	Potential for Ground Dissolution Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A12SE (E)	234	1	469573 106561
	Potential for Landslide Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A11NE (E)	0	1	468763 106728
	Potential for Landslide Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A11NE (N)	0	1	468793 106914
	Potential for Landslide Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A15SE (NE)	0	1	468915 107012
	Potential for Landslide Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A11SE (S)	0	1	468764 106649
	Potential for Landslide Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A11SE (S)	25	1	468739 106626
	Potential for Landslide Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A12NE (E)	31	1	469422 106738
	Potential for Landslide Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A12SW (E)	101	1	469178 106578
	Potential for Landslide Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A11NW (W)	110	1	468663 106724
	Potential for Landslide Ground Stability Hazards Hazard Potential: Moderate Source: British Geological Survey, National Geoscience Information Service	A12SE (E)	153	1	469425 106548
	Potential for Landslide Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A12SE (E)	229	1	469572 106560
	Potential for Running Sand Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A11NE (N)	0	1	468763 106882
	Potential for Running Sand Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A11NE (NE)	0	1	468977 106959
	Potential for Running Sand Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A11NE (E)	0	1	468763 106728
	Potential for Running Sand Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A12NW (E)	0	1	469152 106879
	Potential for Running Sand Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A11NE (N)	0	1	468763 106759

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	Potential for Running Sand Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A11NE (N)	0	1	468752 106911
	Potential for Running Sand Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A11SE (S)	25	1	468739 106626
	Potential for Running Sand Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A16SW (NE)	72	1	469357 107180
	Potential for Running Sand Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A16SE (NE)	180	1	469456 107214
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A11NE (S)	0	1	468761 106671
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A11NE (NE)	0	1	468897 106915
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A11NE (N)	0	1	468763 106882
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A11NE (NE)	0	1	468977 106959
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A11NE (N)	0	1	468752 106911
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A11NE (N)	0	1	468763 106759
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: Moderate Source: British Geological Survey, National Geoscience Information Service	A15SE (NE)	0	1	469003 107191
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: Moderate Source: British Geological Survey, National Geoscience Information Service	A11NE (E)	0	1	468763 106728
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A11SE (S)	25	1	468739 106626
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: Moderate Source: British Geological Survey, National Geoscience Information Service	A16SW (NE)	72	1	469357 107180
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A16NW (NE)	143	1	469178 107483
	Radon Potential - Radon Affected Areas Affected Area: The property is in a lower probability radon area, as less than 1% of homes are above the action level Source: British Geological Survey, National Geoscience Information Service	A11NE (E)	0	1	468763 106728
	Radon Potential - Radon Protection Measures Protection Measure: No radon protective measures are necessary in the construction of new dwellings or extensions Source: British Geological Survey, National Geoscience Information Service	A11NE (E)	0	1	468763 106728

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51	Contemporary Trade Directory Entries Name: R J P Services Location: 95, Delphi Way, Waterlooville, Hampshire, PO7 8AY Classification: Waste Disposal Services Status: Inactive Positional Accuracy: Automatically positioned to the address	A15SW (NW)	63	-	468623 107019
52	Contemporary Trade Directory Entries Name: Amark Catering Equipment Ltd Location: 32, Apollo Drive, Waterlooville, Hampshire, PO7 8AD Classification: Catering Equipment Status: Inactive Positional Accuracy: Automatically positioned to the address	A15SE (N)	143	-	468773 107305
52	Contemporary Trade Directory Entries Name: Haymark Catering Equipment Ltd Location: 32, Apollo Drive, Waterlooville, Hampshire, PO7 8AD Classification: Catering Equipment Status: Inactive Positional Accuracy: Automatically positioned to the address	A15SE (N)	143	-	468773 107305
53	Contemporary Trade Directory Entries Name: Done & Dusted Location: 24, Hector Close, Waterlooville, Hampshire, PO7 8AU Classification: Cleaning Services - Domestic Status: Inactive Positional Accuracy: Automatically positioned to the address	A11NW (NW)	193	-	468457 106887
54	Contemporary Trade Directory Entries Name: M J Rose Location: 65, Hillmead Gardens, Havant, Hampshire, PO9 3NN Classification: Power Flushing Status: Inactive Positional Accuracy: Automatically positioned to the address	A12NE (E)	215	-	469564 106955
55	Contemporary Trade Directory Entries Name: Headline Printers Ltd Location: The Villa, Littlepark House, Oakwood Avenue, Havant, Hampshire, PO9 3RB Classification: Printers Status: Active Positional Accuracy: Manually positioned to the address or location	A16SE (NE)	245	-	469506 107305
55	Contemporary Trade Directory Entries Name: John Inkster Littlepark Ltd Location: Littlepark House, Oakwood Avenue, Havant, Hampshire, PO9 3RB Classification: Builders' Merchants Status: Inactive Positional Accuracy: Automatically positioned to the address	A16SE (NE)	246	-	469507 107305
56	Contemporary Trade Directory Entries Name: L & S Waste Management Ltd Location: Farlington Redoubt, Portsdown Hill Road, Portsmouth, PO6 1BW Classification: Waste Disposal Services Status: Inactive Positional Accuracy: Automatically positioned to the address	A11SW (S)	351	-	468661 106394
57	Contemporary Trade Directory Entries Name: Worth A Clean Location: 4, Zeus Lane, Waterlooville, Hampshire, PO7 8AG Classification: Carpet, Curtain & Upholstery Cleaners Status: Inactive Positional Accuracy: Automatically positioned to the address	A15NW (N)	369	-	468539 107422
57	Contemporary Trade Directory Entries Name: Worth A Clean Ltd Location: 4, Zeus Lane, Waterlooville, Hampshire, PO7 8AG Classification: Carpet, Curtain & Upholstery Cleaners Status: Inactive Positional Accuracy: Automatically positioned to the address	A15NW (N)	369	-	468539 107422
58	Contemporary Trade Directory Entries Name: The Hampshire Joinery Company Location: 8, Hazelwood Avenue, Havant, Hampshire, PO9 3RE Classification: Homefurnishings - Manufacturers Status: Active Positional Accuracy: Automatically positioned to the address	A16SE (NE)	378	-	469659 107165
59	Contemporary Trade Directory Entries Name: Kinetic Automation Location: 7, Ha'penny Dell, Waterlooville, PO7 5RQ Classification: Gate Manufacturers - Automated Status: Active Positional Accuracy: Automatically positioned to the address	A15NW (NW)	416	-	468448 107408

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
60	Contemporary Trade Directory Entries Name: H B Cleaning Ltd Location: 30, Fortunes Way, Havant, Hampshire, PO9 3LZ Classification: Carpet, Curtain & Upholstery Cleaners Status: Active Positional Accuracy: Automatically positioned to the address	A7NE (S)	598	-	468934 106035
61	Contemporary Trade Directory Entries Name: E S M Recovery Location: 373, Havant Road, Farlington, Portsmouth, PO6 1AA Classification: Car Breakers & Dismantlers Status: Active Positional Accuracy: Automatically positioned to the address	A7SE (S)	791	-	468787 105860
62	Contemporary Trade Directory Entries Name: Southern Drives Location: 37, Old Rectory Road, Portsmouth, PO6 1AH Classification: Asphalt & Coated Macadam Laying Contractors Status: Inactive Positional Accuracy: Automatically positioned to the address	A7SW (S)	797	-	468559 105926
62	Contemporary Trade Directory Entries Name: Southern Drives Location: 37, Old Rectory Road, Portsmouth, PO6 1AH Classification: Asphalt & Coated Macadam Laying Contractors Status: Inactive Positional Accuracy: Automatically positioned to the address	A7SW (S)	797	-	468559 105926
63	Contemporary Trade Directory Entries Name: Kingston Plumbing & Heating Ltd Location: 11, St. Johns Avenue, Waterlooville, Hampshire, PO7 5PJ Classification: Boilers - Servicing, Replacements & Repairs Status: Inactive Positional Accuracy: Automatically positioned to the address	A14NE (NW)	846	-	468084 107648
64	Contemporary Trade Directory Entries Name: Advance Scaffolding Ltd Location: 2, The Thicket, Widley, Waterlooville, Hampshire, PO7 5JL Classification: Scaffolding & Work Platforms Status: Active Positional Accuracy: Automatically positioned to the address	A10NW (W)	852	-	467800 106952
65	Contemporary Trade Directory Entries Name: Jag Services (UK) Ltd Location: 466, Havant Road, Farlington, Portsmouth, PO6 1AB Classification: Ventilators & Ventilation Systems Status: Inactive Positional Accuracy: Automatically positioned to the address	A7SW (S)	934	-	468553 105778

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
66	Ancient Woodland Name: Not Supplied Reference: 1487521 Area(m²): 49712.64 Type: Ancient and Semi-Natural Woodland	A16SW (NE)	6	6	469158 107311
67	Ancient Woodland Name: Not Supplied Reference: 1488333 Area(m²): 15356.02 Type: Ancient and Semi-Natural Woodland	A16SE (NE)	72	6	469399 107122
68	Ancient Woodland Name: Not Supplied Reference: 1489282 Area(m²): 32441.88 Type: Plantation on Ancient Woodland	A16SE (NE)	110	6	469405 107035
69	Ancient Woodland Name: Not Supplied Reference: 1487374 Area(m²): 20019.65 Type: Plantation on Ancient Woodland	A15NE (N)	182	6	468946 107506
70	Ancient Woodland Name: Not Supplied Reference: 1489389 Area(m²): 11336.1 Type: Ancient and Semi-Natural Woodland	A16SE (NE)	241	6	469515 107220
71	Ancient Woodland Name: Not Supplied Reference: 1487795 Area(m²): 11747.05 Type: Ancient and Semi-Natural Woodland	A15NE (N)	254	6	468912 107515
72	Ancient Woodland Name: Not Supplied Reference: 1489383 Area(m²): 68501.86 Type: Ancient and Semi-Natural Woodland	(N)	334	6	468862 107673
73	Ancient Woodland Name: Not Supplied Reference: 1488854 Area(m²): 4580.05 Type: Plantation on Ancient Woodland	(N)	581	6	469053 107936
74	Ancient Woodland Name: Purbrock Park Wood Reference: 1489538 Area(m²): 4849 Type: Ancient and Semi-Natural Woodland	A10NW (W)	711	6	467943 106825
75	Ancient Woodland Name: Purbrock Park Wood Reference: 1489537 Area(m²): 2475.04 Type: Ancient and Semi-Natural Woodland	A10NW (W)	762	6	467889 106871
76	Ancient Woodland Name: Purbrock Park Wood Reference: 1489536 Area(m²): 1759.78 Type: Ancient and Semi-Natural Woodland	A10NW (W)	780	6	467885 106744
77	Ancient Woodland Name: Not Supplied Reference: 1489661 Area(m²): 4918.42 Type: Plantation on Ancient Woodland	(NE)	911	6	469538 108161
78	Ancient Woodland Name: Not Supplied Reference: 1488487 Area(m²): 6374.51 Type: Ancient and Semi-Natural Woodland	(NE)	988	6	469598 108216
79	Nitrate Vulnerable Zones Name: Not Supplied Description: Eutrophic Water Source: Department for Environment, Food and Rural Affairs (DEFRA - formerly FRCA)	A11NE (E)	0	7	468763 106728

Agency & Hydrological	Version	Update Cycle
Contaminated Land Register Entries and Notices Havant Borough Council - Environmental Health Department Portsmouth City Council - Health and Trading Standards Winchester City Council - Environmental Health Department	January 2015 October 2014 September 2014	Annual Rolling Update Annual Rolling Update Annual Rolling Update
Discharge Consents Environment Agency - Southern Region	April 2016	Quarterly
Enforcement and Prohibition Notices Environment Agency - Southern Region	March 2013	As notified
Integrated Pollution Controls Environment Agency - Southern Region	October 2008	Not Applicable
Integrated Pollution Prevention And Control Environment Agency - Southern Region	April 2016	Quarterly
Local Authority Integrated Pollution Prevention And Control Portsmouth City Council - Environmental Health Department Winchester City Council - Environmental Health Department Havant Borough Council - Environmental Health Department	August 2014 December 2014 December 2015	Annual Rolling Update Annual Rolling Update Annual Rolling Update
Local Authority Pollution Prevention and Controls Portsmouth City Council - Environmental Health Department Winchester City Council - Environmental Health Department Havant Borough Council - Environmental Health Department	August 2014 December 2014 December 2015	Annual Rolling Update Annual Rolling Update Annual Rolling Update
Local Authority Pollution Prevention and Control Enforcements Portsmouth City Council - Environmental Health Department Winchester City Council - Environmental Health Department Havant Borough Council - Environmental Health Department	August 2014 December 2014 December 2015	Annual Rolling Update Annual Rolling Update Annual Rolling Update
Nearest Surface Water Feature Ordnance Survey	July 2012	Quarterly
Pollution Incidents to Controlled Waters Environment Agency - Southern Region	December 1999	Not Applicable
Prosecutions Relating to Authorised Processes Environment Agency - Southern Region	March 2013	As notified
Prosecutions Relating to Controlled Waters Environment Agency - Southern Region	March 2013	As notified
River Quality Environment Agency - Head Office	November 2001	Not Applicable
River Quality Biology Sampling Points Environment Agency - Head Office	July 2012	Annually
River Quality Chemistry Sampling Points Environment Agency - Head Office	July 2012	Annually
Substantiated Pollution Incident Register Environment Agency - Southern Region - Hampshire and Isle of Wight Area Office Environment Agency - Southern Region - Solent and South Downs	April 2016 April 2016	Quarterly Quarterly
Water Abstractions Environment Agency - Southern Region	April 2016	Quarterly
Water Industry Act Referrals Environment Agency - Southern Region	April 2016	Quarterly
Groundwater Vulnerability Environment Agency - Head Office	April 2015	Not Applicable
Drift Deposits Environment Agency - Head Office	January 1999	Not Applicable
Bedrock Aquifer Designations British Geological Survey - National Geoscience Information Service	August 2015	As notified

Agency & Hydrological	Version	Update Cycle
Superficial Aquifer Designations British Geological Survey - National Geoscience Information Service	August 2015	As notified
Source Protection Zones Environment Agency - Head Office	April 2016	Quarterly
Extreme Flooding from Rivers or Sea without Defences Environment Agency - Head Office	February 2016	Quarterly
Flooding from Rivers or Sea without Defences Environment Agency - Head Office	February 2016	Quarterly
Areas Benefiting from Flood Defences Environment Agency - Head Office	February 2016	Quarterly
Flood Water Storage Areas Environment Agency - Head Office	February 2016	Quarterly
Flood Defences Environment Agency - Head Office	February 2016	Quarterly
Detailed River Network Lines Environment Agency - Head Office	March 2012	Annually
Detailed River Network Offline Drainage Environment Agency - Head Office	March 2012	Annually
BGS Groundwater Flooding Susceptibility British Geological Survey - National Geoscience Information Service	May 2013	Annually
Waste	Version	Update Cycle
BGS Recorded Landfill Sites British Geological Survey - National Geoscience Information Service	June 1996	Not Applicable
Historical Landfill Sites Environment Agency - Head Office	May 2016	Quarterly
Integrated Pollution Control Registered Waste Sites Environment Agency - Southern Region	October 2008	Not Applicable
Licensed Waste Management Facilities (Landfill Boundaries) Environment Agency - Southern Region - Hampshire and Isle of Wight Area Office Environment Agency - Southern Region - Solent and South Downs	May 2016 May 2016	Quarterly Quarterly
Licensed Waste Management Facilities (Locations) Environment Agency - South East Region - Solent & South Downs Area Environment Agency - Southern Region - Hampshire and Isle of Wight Area Office Environment Agency - Southern Region - Solent and South Downs	April 2016 April 2016 April 2016	Quarterly Quarterly Quarterly
Local Authority Landfill Coverage Hampshire County Council - Minerals and Waste Planning Havant Borough Council - Environmental Health Department Portsmouth City Council - Environmental Health Department Winchester City Council - Environmental Health Department	May 2000 May 2000 May 2000 May 2000	Not Applicable Not Applicable Not Applicable Not Applicable
Local Authority Recorded Landfill Sites Hampshire County Council - Minerals and Waste Planning Havant Borough Council - Environmental Health Department Portsmouth City Council - Environmental Health Department Winchester City Council - Environmental Health Department	May 2000 May 2000 May 2000 May 2000	Not Applicable Not Applicable Not Applicable Not Applicable
Registered Landfill Sites Environment Agency - Southern Region - Hampshire Area	March 2003	Not Applicable
Registered Waste Transfer Sites Environment Agency - Southern Region - Hampshire Area	March 2003	Not Applicable
Registered Waste Treatment or Disposal Sites Environment Agency - Southern Region - Hampshire Area	March 2003	Not Applicable

Hazardous Substances	Version	Update Cycle
Control of Major Accident Hazards Sites (COMAH) Health and Safety Executive	February 2016	Bi-Annually
Explosive Sites Health and Safety Executive	February 2016	Bi-Annually
Notification of Installations Handling Hazardous Substances (NIHHS) Health and Safety Executive	November 2000	Not Applicable
Planning Hazardous Substance Enforcements Hampshire County Council - Minerals and Waste Planning Havant Borough Council - Commercial Team Portsmouth City Council - Planning Office Winchester City Council - Planning Department	February 2016 February 2016 February 2016 October 2015	Annual Rolling Update Annual Rolling Update Annual Rolling Update Annual Rolling Update
Planning Hazardous Substance Consents Hampshire County Council - Minerals and Waste Planning Havant Borough Council - Commercial Team Portsmouth City Council - Planning Office Winchester City Council - Planning Department	February 2016 February 2016 February 2016 October 2015	Annual Rolling Update Annual Rolling Update Annual Rolling Update Annual Rolling Update
Geological	Version	Update Cycle
BGS 1:625,000 Solid Geology British Geological Survey - National Geoscience Information Service	January 2009	Not Applicable
BGS Recorded Mineral Sites British Geological Survey - National Geoscience Information Service	May 2016	Bi-Annually
Brine Compensation Area Cheshire Brine Subsidence Compensation Board	August 2011	Not Applicable
Coal Mining Affected Areas The Coal Authority - Property Searches	March 2014	As notified
Mining Instability Ove Arup & Partners	October 2000	Not Applicable
Non Coal Mining Areas of Great Britain British Geological Survey - National Geoscience Information Service	May 2015	Not Applicable
Potential for Collapsible Ground Stability Hazards British Geological Survey - National Geoscience Information Service	June 2015	Annually
Potential for Compressible Ground Stability Hazards British Geological Survey - National Geoscience Information Service	June 2015	Annually
Potential for Ground Dissolution Stability Hazards British Geological Survey - National Geoscience Information Service	June 2015	Annually
Potential for Landslide Ground Stability Hazards British Geological Survey - National Geoscience Information Service	June 2015	Annually
Potential for Running Sand Ground Stability Hazards British Geological Survey - National Geoscience Information Service	June 2015	Annually
Potential for Shrinking or Swelling Clay Ground Stability Hazards British Geological Survey - National Geoscience Information Service	June 2015	Annually
Radon Potential - Radon Affected Areas British Geological Survey - National Geoscience Information Service	July 2011	As notified
Radon Potential - Radon Protection Measures British Geological Survey - National Geoscience Information Service	July 2011	As notified

Industrial Land Use	Version	Update Cycle
Contemporary Trade Directory Entries Thomson Directories	June 2016	Quarterly
Fuel Station Entries Catalist Ltd - Experian	July 2016	Quarterly
Gas Pipelines National Grid	July 2014	Quarterly
Underground Electrical Cables National Grid	January 2016	Bi-Annually
Sensitive Land Use	Version	Update Cycle
Ancient Woodland Natural England	June 2015	Bi-Annually
Areas of Outstanding Natural Beauty Natural England	April 2016	Bi-Annually
Environmentally Sensitive Areas Natural England	April 2016	Annually
Forest Parks Forestry Commission	April 1997	Not Applicable
Local Nature Reserves Natural England	April 2016	Bi-Annually
Marine Nature Reserves Natural England	April 2016	Bi-Annually
National Nature Reserves Natural England	April 2016	Bi-Annually
National Parks Natural England	March 2016	Bi-Annually
Nitrate Sensitive Areas Department for Environment, Food and Rural Affairs (DEFRA - formerly FRCA)	April 2016	Not Applicable
Nitrate Vulnerable Zones Department for Environment, Food and Rural Affairs (DEFRA - formerly FRCA)	October 2015	Annually
Ramsar Sites Natural England	April 2016	Bi-Annually
Sites of Special Scientific Interest Natural England	April 2016	Bi-Annually
Special Areas of Conservation Natural England	April 2016	Bi-Annually
Special Protection Areas Natural England	April 2016	Bi-Annually
World Heritage Sites English Heritage - National Monument Record Centre	September 2015	Bi-Annually

A selection of organisations who provide data within this report

Data Supplier	Data Supplier Logo
Ordnance Survey	
Environment Agency	
Scottish Environment Protection Agency	
The Coal Authority	
British Geological Survey	 British Geological Survey NATURAL ENVIRONMENT RESEARCH COUNCIL
Centre for Ecology and Hydrology	 Centre for Ecology & Hydrology NATURAL ENVIRONMENT RESEARCH COUNCIL
Natural Resources Wales	
Scottish Natural Heritage	
Natural England	
Public Health England	
Ove Arup	
Peter Brett Associates	

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
2	Environment Agency - National Customer Contact Centre (NCCC) PO Box 544, Templeborough, Rotherham, S60 1BY	Telephone: 03708 506 506 Email: enquiries@environment-agency.gov.uk
3	Havant Borough Council - Environmental Health Department Public Service PLaza, Civic Centre Road, Havant, Hampshire, PO9 2AX	Telephone: 023 9244 6677 Email: env.services@havant.gov.uk Website: www.havant.gov.uk
4	Hampshire County Council - Minerals and Waste Planning Room 130, Ashburton Court West, The Castle, Winchester, Hampshire, SO23 8UD	Telephone: 01962 841841 Fax: 01962 847055 Website: www.hants.gov.uk
5	Portsmouth City Council - Environmental Health Department Civic Offices, Guildhall Square, Portsmouth, Hampshire, PO1 2AZ	Telephone: 023 92822251 Fax: 01705 834519 Website: www.portsmouth.gov.uk
6	Natural England County Hall, Spetchley Road, Worcester, WR5 2NP	Telephone: 0300 060 3900 Email: enquiries@naturalengland.org.uk Website: www.naturalengland.org.uk
7	Department for Environment, Food and Rural Affairs (DEFRA - formerly FRCA) Government Buildings, Otley Road, Lawnswood, Leeds, West Yorkshire, LS16 5QT	Telephone: 0113 2613333 Fax: 0113 230 0879
-	Public Health England - Radon Survey, Centre for Radiation, Chemical and Environmental Hazards Chilton, Didcot, Oxfordshire, OX11 0RQ	Telephone: 01235 822622 Fax: 01235 833891 Email: radon@phe.gov.uk Website: www.ukradon.org
-	Landmark Information Group Limited Imperium, Imperial Way, Reading, Berkshire, RG2 0TD	Telephone: 0844 844 9952 Fax: 0844 844 9951 Email: customerservices@landmarkinfo.co.uk Website: www.landmarkinfo.co.uk

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

Groundwater Vulnerability

General
 Specified Buffers (X) Shading Influence Point
 Map ID

Agency and Hydrological

Geological Classes

Major Aquifer (Highly Permeable)

Minor Aquifer (Variable Permeable)

Non Aquifer (Marginally Permeable)

Water or Sea

Earth Draynall

Soil Classes

High (H) 1, 2, 3, U

Intermediate (I) 1, 2

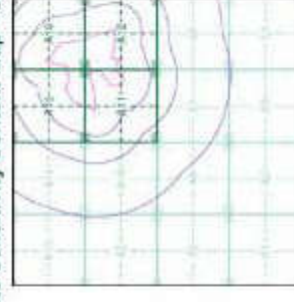
Low

High (H) 1, 2, 3, U

Intermediate (I) 1, 2

Low

Site Sensitivity Context Map - Slice A



Order Details

Order Number: 92122754_1_1
 Customer Ref: 26720
 National Grid Reference: 468760, 100730
 Slice: A
 Site Area (Ha): 26.37
 Search Buffer (m): 1000

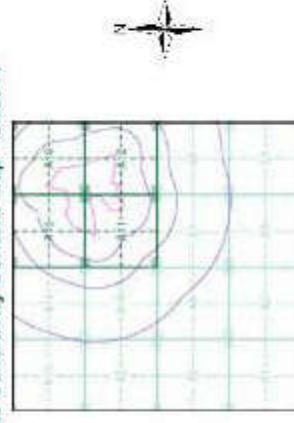
Site Details

Land off College Road, Putbrook, WATERLOOVILLE, Hampshire, PO7
 BMA

Bedrock Aquifer Designation



Site Sensitivity Context Map - Slice A

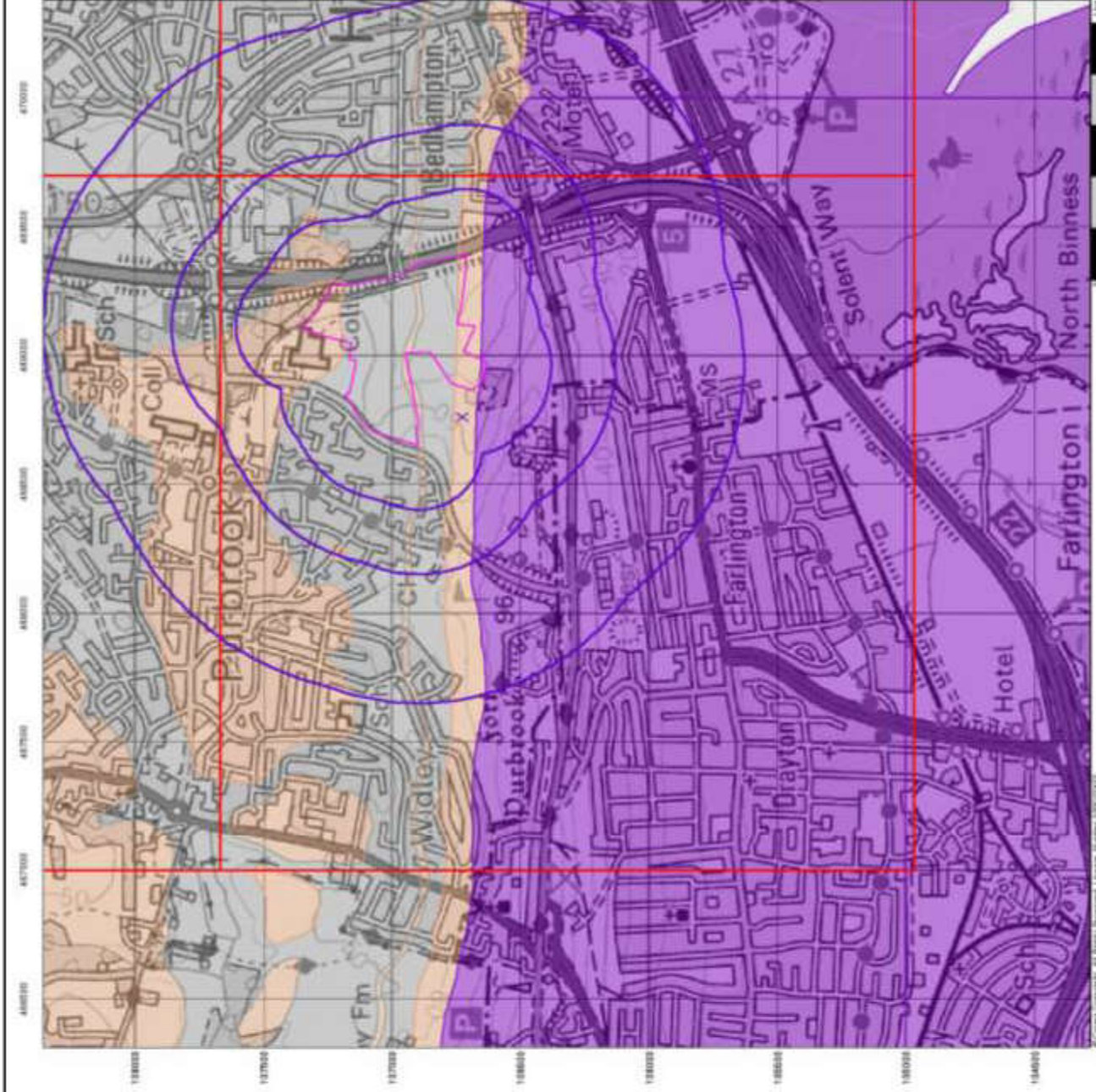


Order Details

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 Customer Ref: 26/20
 National Grid Reference: 468760, 100730
 Slice: A
 Site Area (Ha): 26.37
 Search Buffer (m): 1000

Site Details

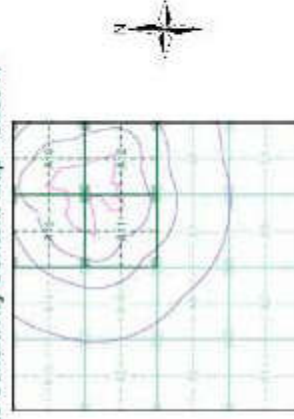
Land off College Road, Putbrook, WATERLOOVILLE, Hampshire, PO7
 BMA



Superficial Aquifer Designation



Site Sensitivity Context Map - Slice A

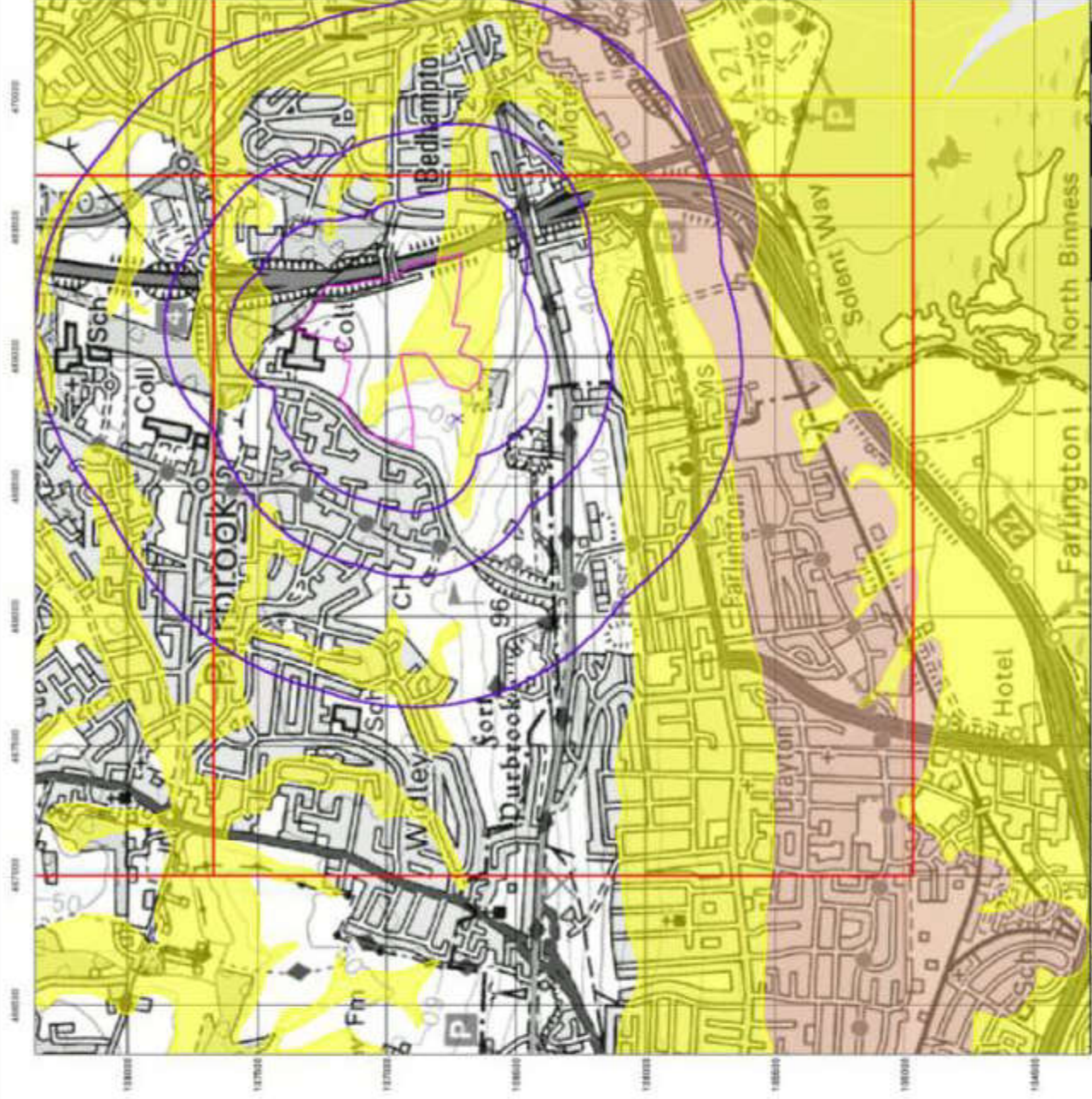


Order Details

Order Number: 92122794_1_1
 Customer Ref: 28/20
 National Grid Reference: 468760, 100730
 Slice: A
 Site Area (Ha): 25.37
 Search Buffer (m): 1000

Site Details

Land off College Road, Putbrook, WATERLOOVILLE, Hampshire, PO7
 BMA



Source Protection Zones

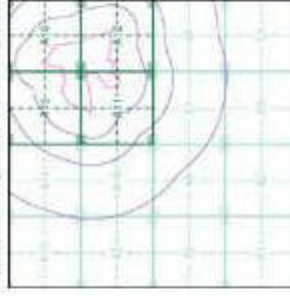
General

- Best First Site
- Specified Buffers
- Drinking Water Point
- 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 Boundary

Site Sensitivity Context Map - Slice A

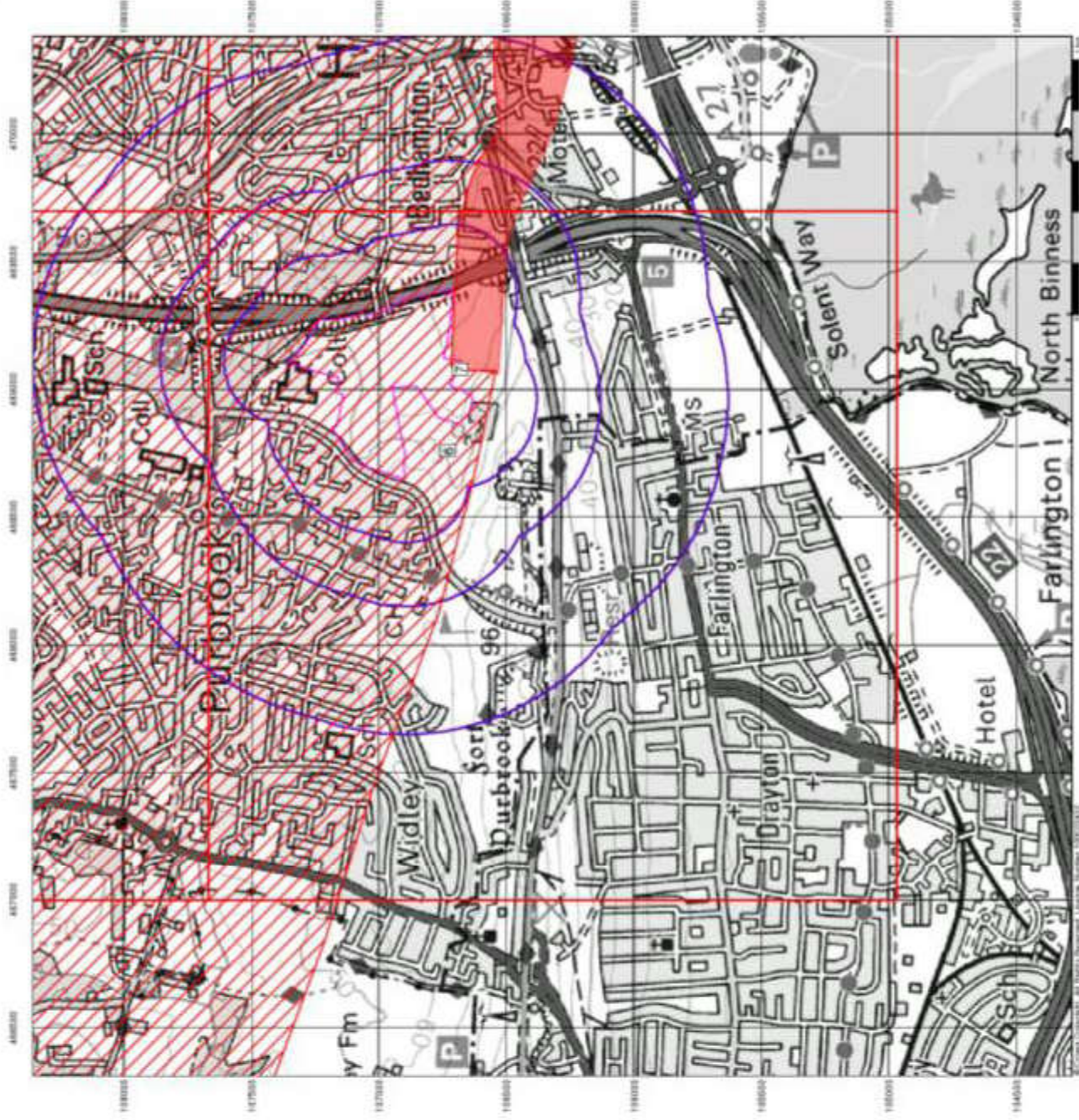


Order Details

Order Number: 92122754_1_1
 Customer Ref: 26720
 National Grid Reference: 468760, 106730
 Slice: A
 Site Area (Ha): 26.37
 Search Buffer (m): 1000

Site Details

Land off College Road, Putbrook, WATERLOOVILLE, Hampshire, PO7
 BMA



Sensitive Land Uses



Site Sensitivity Context Map - Slice A



Order Details

Order Number: 52122754_1_1
 Customer Ref: 26/20
 National Grid Reference: 468760, 100730
 Slice: A
 Site Area (Ha): 26.37
 Search Buffer (m): 1000

Site Details

Land off College Road, Putbrook, WATERLOOVILLE, Hampshire, PO7
 BMA

BGS Flood GFS Data

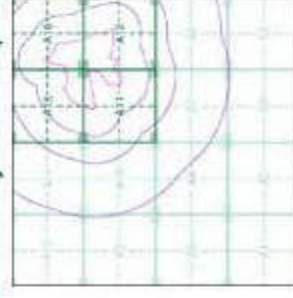
General

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

Agency and Hydrological (Flood)

- Unlimited Potential for Groundwater Flooding to Occur
- Potential for Groundwater Flooding at Property Shaded Below Ground Level
- Potential for Groundwater Flooding to Occur at Surface

Site Sensitivity Context Map - Slice A

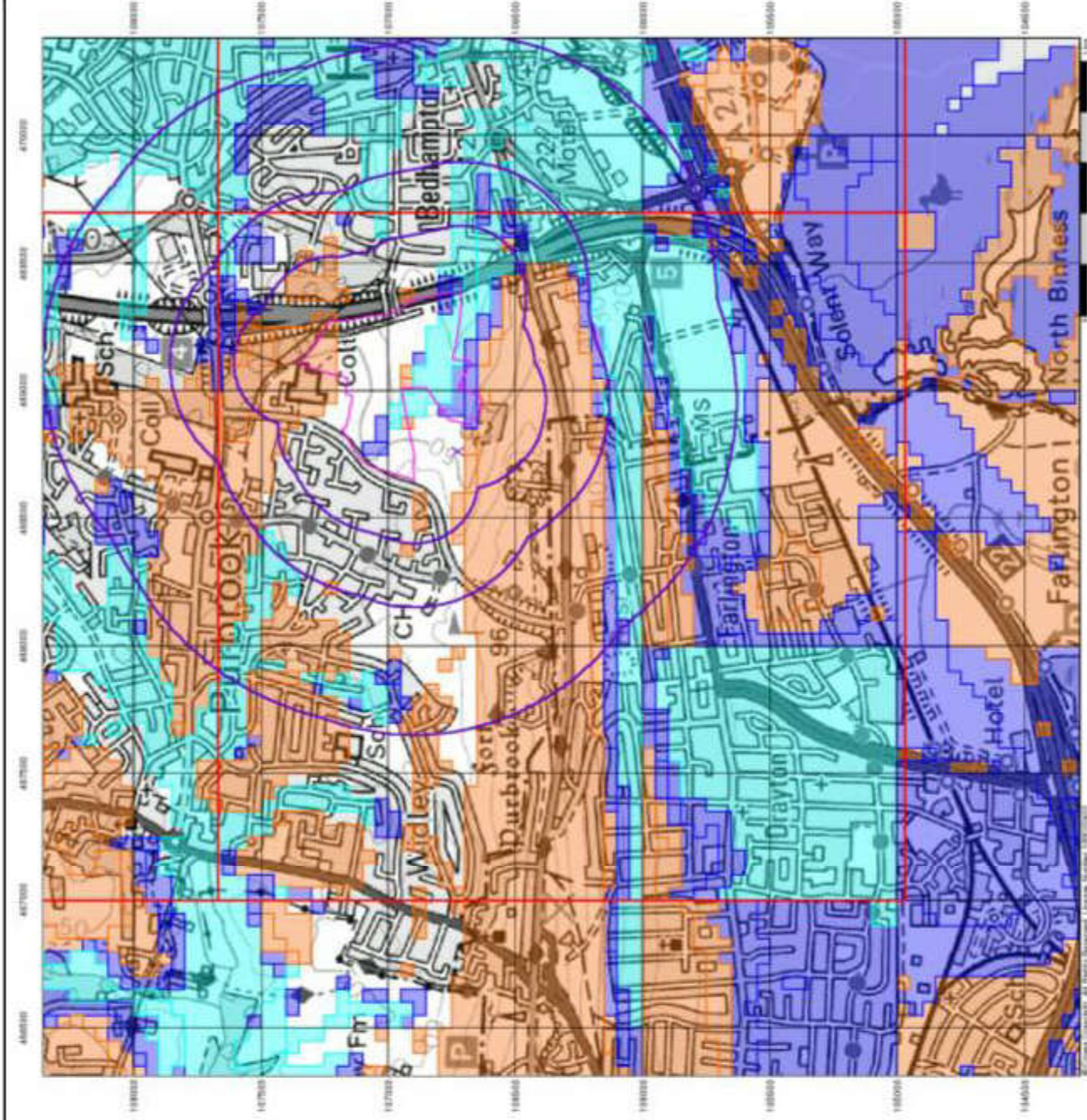


Order Details

Order Number: 92122754_1_1
 Customer Ref: 26720
 National Grid Reference: 468760, 106730
 Slice: A
 Site Area (Ha): 26.37
 Search Buffer (m): 1000

Site Details

Land off College Road, Putbrook, WATERLOOVILLE, Hampshire, PO7
 BMA



Geology 1:10,000 Maps Legends

Artificial Ground and Landslip

Map Colour	Lex Code	Rock Name	Rock Type	Min and Max Age
	MGR	Made Ground (Undivided)	Artificial Deposit	Holocene - Holocene

Superficial Geology

Map Colour	Lex Code	Rock Name	Rock Type	Min and Max Age
	SUPNM	Superficial Theme Not Mapped (For Digital Map Use Only)	Unknown/Unclassified Entry	Not Supplied - Not Supplied
	HEAD	Head	Clay, Silt, Sand and Gravel	Quaternary - Ryazanian
	RTDU	River Terrace Deposits (Undifferentiated)	Sand, Silt and Clay	Quaternary - Ryazanian
	RMD	Raised Marine Deposits	Clay, Silty (Unlithified Deposits Coding Scheme)	Quaternary - Ryazanian
	RMD	Raised Marine Deposits	Clay, Silt and Sand	Quaternary - Ryazanian
	BTFU	Beach and Tidal Flat Deposits (Undifferentiated)	Clay, Silt, Sand and Gravel	Quaternary - Ryazanian

Bedrock and Faults

Map Colour	Lex Code	Rock Name	Rock Type	Min and Max Age
	WTT	Wittering Formation	Sand, Silt and Clay	Lutetian - Ypresian
	BOSA	Bognor Sand Member	Sand	Eocene - Eocene
	LC	London Clay Formation	Clay, Silt and Sand	Eocene - Eocene
	LMBE	Lambeth Group	Clay	Paleocene - Paleocene
	PCK	Portsmouth Chalk Formation	Chalk	Campanian - Campanian
	SPCH	Spitisbury Chalk Member	Chalk	Campanian - Campanian
	TACH	Tarrant Chalk Member	Chalk	Campanian - Campanian
	NCK	Newhaven Chalk Formation	Chalk	Campanian - Santonian
	LPCK	Lewes Nodular Chalk Formation, Seaford Chalk Formation, Newhaven Chalk Formation, Culver Chalk Formation and Portsmouth Chalk Formation (Undifferentiated)	Chalk	Campanian - Turonian

Geology 1:10,000 Maps

This report contains geological map extracts taken from the BGS Digital Geological map of Great Britain at 1:10,000 scale and is designed for users carrying out preliminary site assessments who require geological maps for the area around a site. This mapping may be more up to date than previously published paper maps.

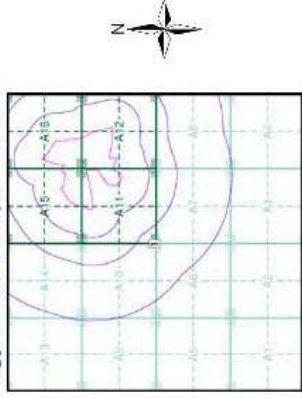
The various geological layers - artificial and landslip deposits, superficial geology and solid (bedrock) geology are displayed in separate maps, but superimposed on the final 'Combined Surface Geology' map. All map legends feature on this page.

Please Note: Not all of the layers have complete nationwide coverage, so availability of data for relevant map sheets is indicated below.

Geology 1:10,000 Maps Coverage

Map ID:	Map Name:	Map ID:	Map Name:
SURUSE	Available	SURUNE	Available
Map Date:	1984	Map Date:	1984
Bedrock Geology:	Available	Bedrock Geology:	Available
Superficial Geology:	Available	Superficial Geology:	Available
Artificial Geology:	Available	Artificial Geology:	Available
Faults:	Not Supplied	Faults:	Not Supplied
Landslip:	Not Available	Landslip:	Not Available
Rock Segments:	Not Supplied	Rock Segments:	Not Supplied

Geology 1:10,000 Maps - Slice A



Order Details

Order Number: 92122794_1_1
Customer Ref: 28720
National Grid Reference: 468760, 106730
Slice: A
Site Area (Ha): 26.37
Search Buffer (m): 1000

Site Details

Land off College Road, Purbrook, WATERLOOVILLE,
Hampshire, PO7 8AA

Artificial Ground and Landslip

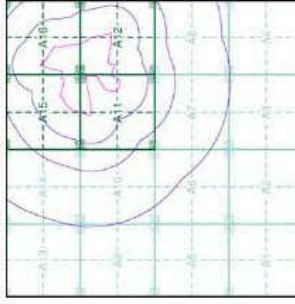
Artificial ground is a term used by BGS for those areas where the ground surface has been significantly modified by human activity. Information about previously developed ground is especially important, as it is often associated with potentially contaminated material, unpredictable engineering conditions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

Artificial ground includes:

- Made ground - man-made deposits such as embankments and spoil heaps on the natural ground surface.
- Worked ground - areas where the ground has been cut away such as quarries and road cuttings.
- In-filled ground - areas where the ground has been cut away then wholly or partially backfilled.
- Landscaped ground - areas where the surface has been reshaped.
- Disturbed ground - areas of ill-defined shallow or near surface mineral workings where it is impracticable to map made and worked ground separately.

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

Artificial Ground and Landslip Map - Slice A



Order Details

Order Number: 92122794_1_1
Customer Ref: 28720
National Grid Reference: 468760, 106730
Slice: A
Site Area (Ha): 26.37
Search Buffer (m): 1000

Site Details

Land off College Road, Purbrook, WATERLOOVILLE,
Hampshire, PO7 8AA



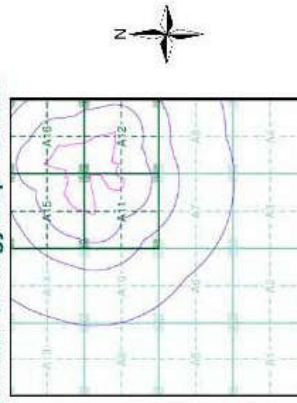
Superficial Geology

BGS 1:10,000 Superficial Deposits are the youngest geological deposits formed during the most recent period of geological time, which extends back about 1.8 million years from the present.

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

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

Superficial Geology Map - Slice A

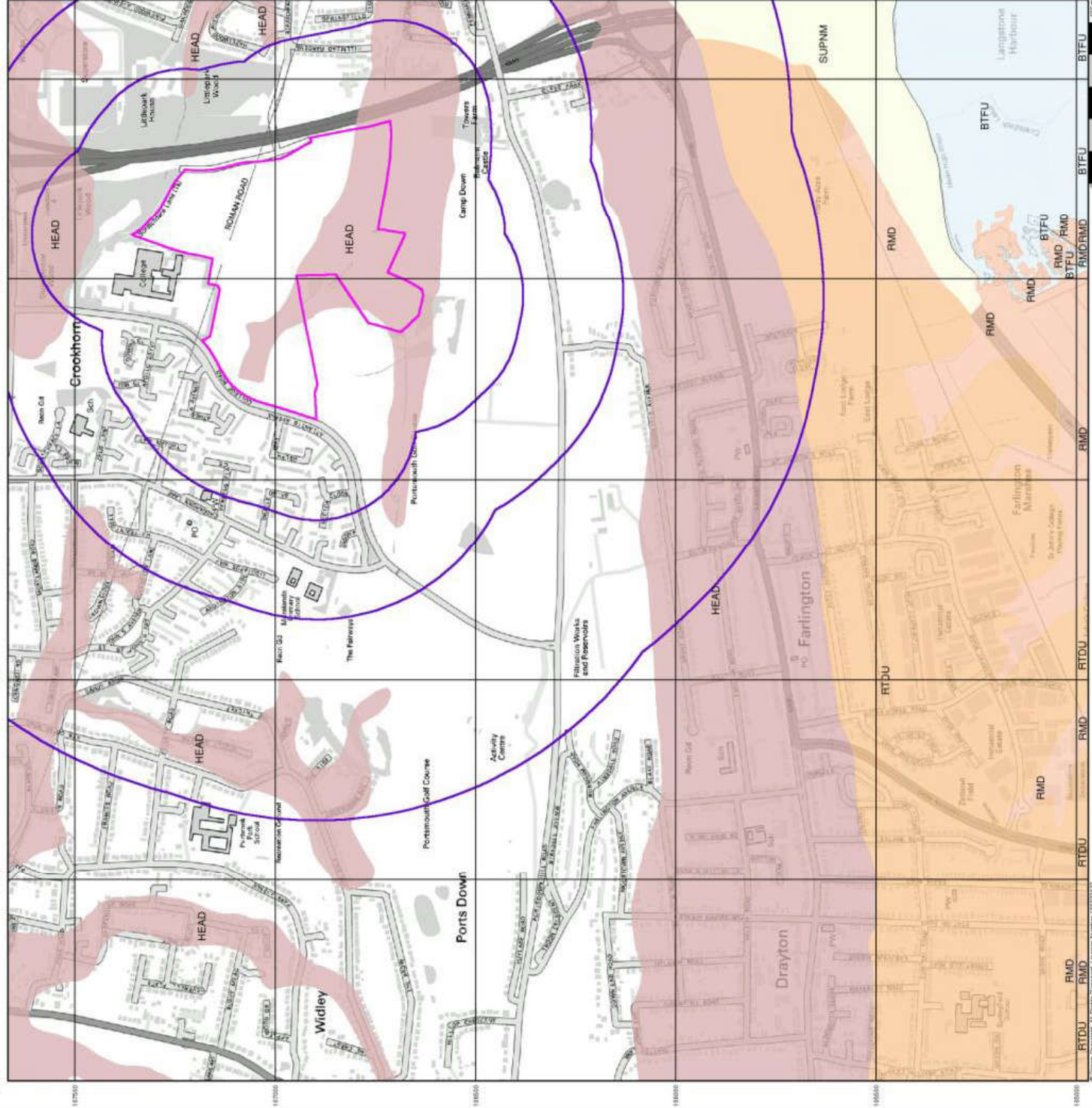


Order Details

Order Number: 92122794_1_1
 Customer Ref: 28720
 National Grid Reference: 468760, 106730
 Slice: A
 Site Area (Ha): 26.37
 Search Buffer (m): 1000

Site Details

Land off College Road, Purbrook, WATERLOOVILLE,
 Hampshire, PO7 8AA



Bedrock and Faults

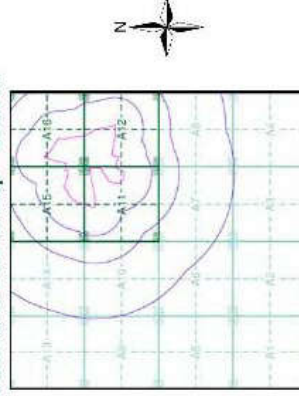
Bedrock geology is a term used for the main mass of rocks forming the Earth and are present everywhere, whether exposed at the surface in outcrops or concealed beneath superficial deposits or water.

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

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

The BGS Faults and Rock Segments dataset includes geological faults and thin beds mapped as lines such as coal seams and mineral veins. These are not restricted by age and could relate to features of any of the 1:10,000 geology datasets.

Bedrock and Faults Map - Slice A

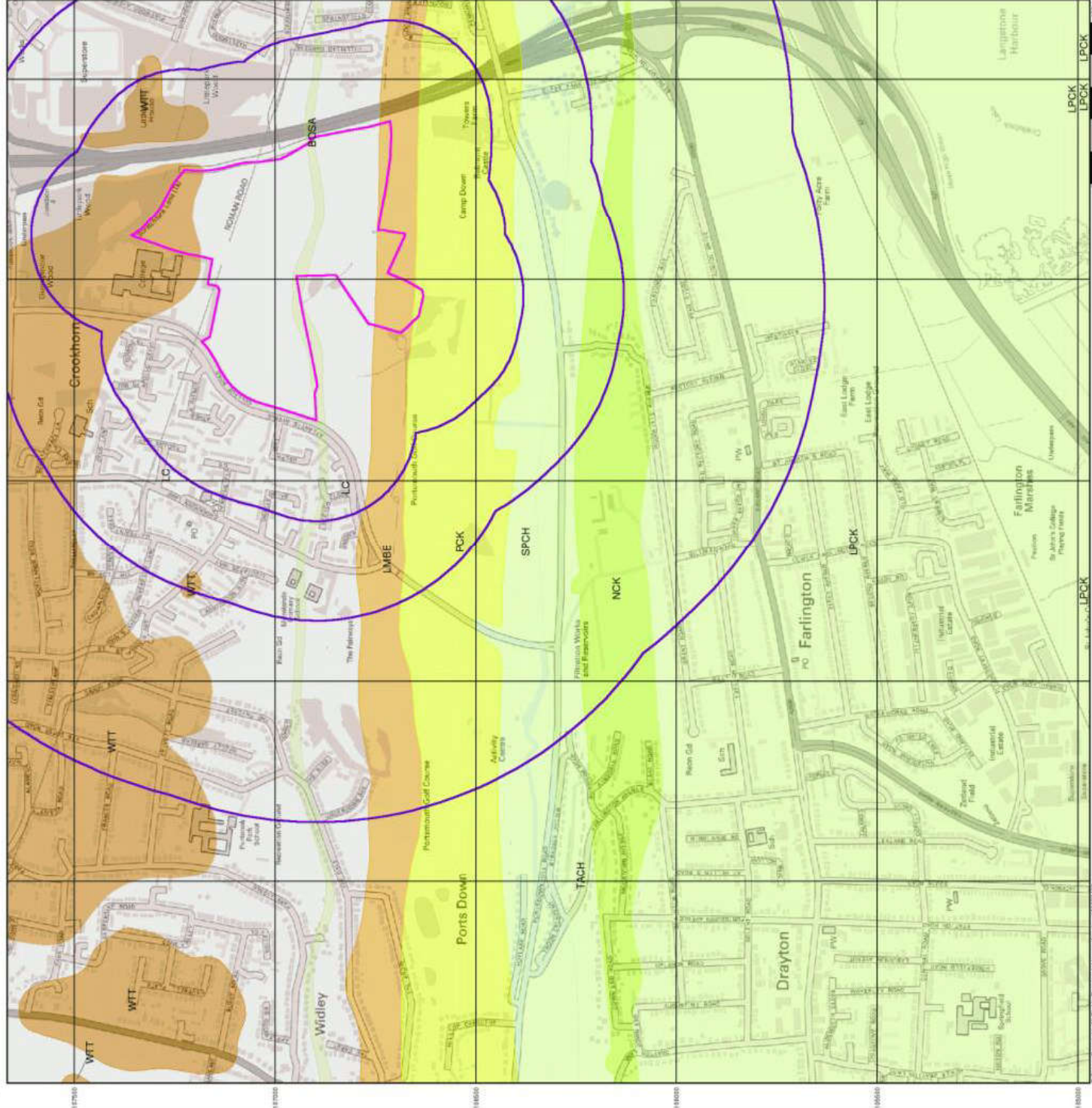


Order Details

Order Number: 92122794_1_1
 Customer Ref: 28720
 National Grid Reference: 468760, 106730
 Slice: A
 Site Area (Ha): 26.37
 Search Buffer (m): 1000

Site Details

Land off College Road, Purbrook, WATERLOOVILLE,
 Hampshire, PO7 8AA



Combined Surface Geology

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

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

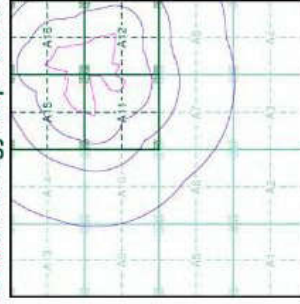
Additional Information

More information on 1:10,000 Geological mapping and explanations of rock classifications can be found on the BGS website. Using the LEX Codes in this report, further descriptions of rock types can be obtained by interrogating the 'BGS Lexicon of Named Rock Units'. This database can be accessed by following the 'Information and Data' link on the BGS website.

Contact

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

Combined Geology Map - Slice A

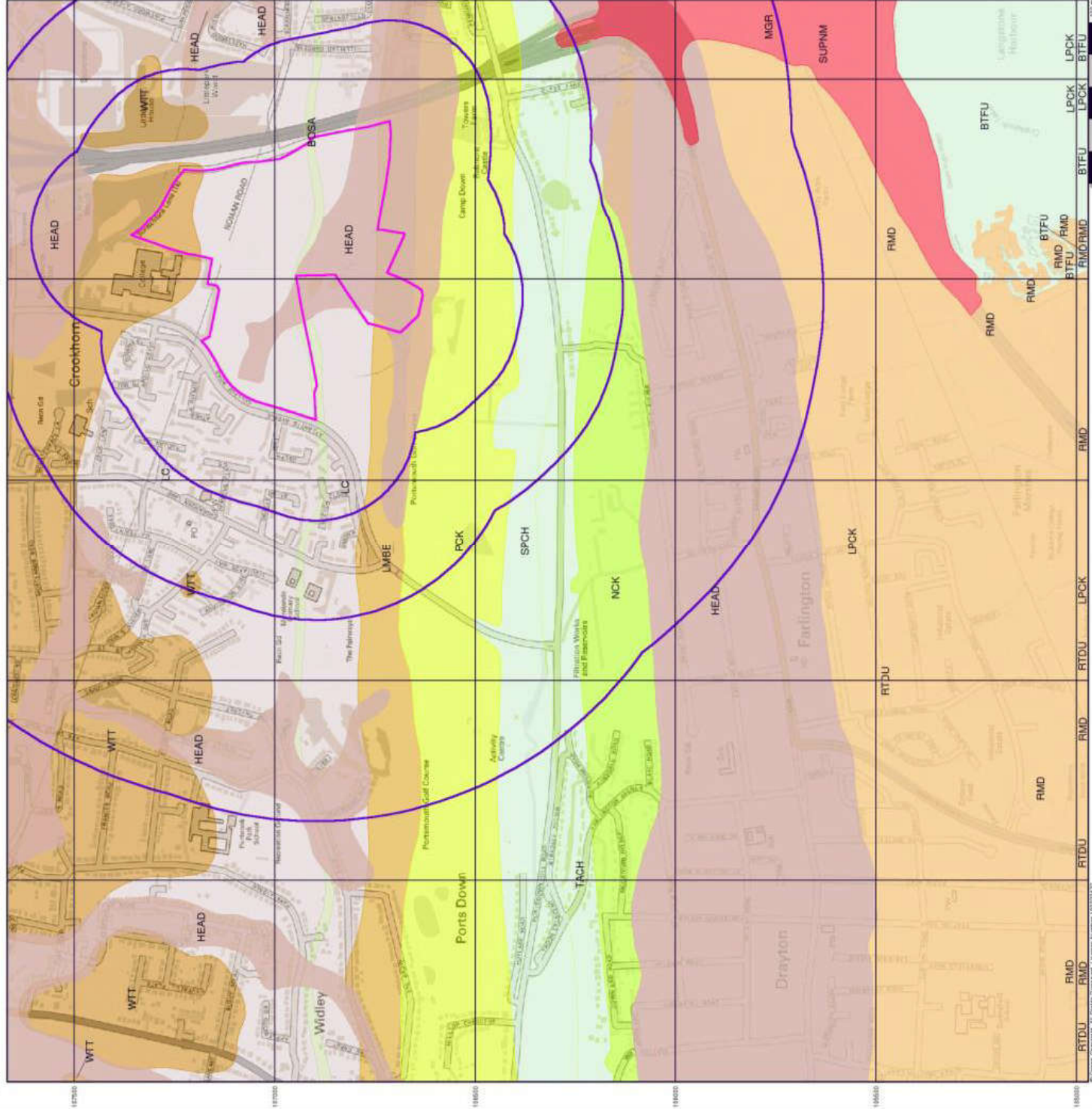


Order Details

Order Number: 92122794_1_1
Customer Ref: 28720
National Grid Reference: 468760, 106730
Slice: A
Site Area (Ha): 26.37
Search Buffer (m): 1000

Site Details

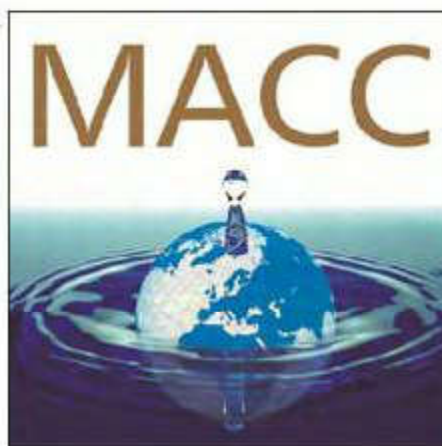
Land off College Road, Purbrook, WATERLOOVILLE,
Hampshire, PO7 8AA



APPENDIX M

PRELIMINARY UNEXPLODED ORDNANCE

RISK ASSESSMENT



PRELIMINARY UNEXPLODED ORDNANCE RISK ASSESSMENT

Waterlooville PO7 8AA

Prepared for: RSK Environment Ltd

Project Number: 4453

Version: 1.0

Dated: 01/08/2016

MACC International Limited
Camilla Court
Nacton Ipswich
IP10 0EU

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Registered in England Company Registration Number 3014471

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REFERENCES

Publications

Sources of information used in the compilation of this assessment included:

German Air Raids on Britain 1914-18. Morris 1925
Unexploded Ordnance (UXO) – A guide for the Construction Industry. CIRIA C681
Dangerous Energy. Cocroft 2000
The Blitz Then and Now Volumes 1 to 3. Ramsey 1987
Advanced German Weapons WW2. Ford 2000
Dealing with Munitions in Marine Aggregates. UMA 2008
United Nations International Mine Action Standards (IMAS). UN 2010
Military Engineering Volume XII. War Office 1956
German Bomb Fuzes. USN 1945
Fields of Deception & Anti Aircraft Command. Dobinson 1988
Target Reconnaissance Photography. Luftwaffe 1939-44

Internet Information

Additional information was provided through the following credible internet sites, their assistance is credited where appropriate:

Army EOD Incidents
RAF EOD Incidents & Air Situation Reports 1939-45
Luftwaffe Strategy & Tactics
Luftwaffe Bomber Specifications
WO Defence Arrangements 1939-45
News Reports Witness Accounts 1939-45
Latest News Reports

Project Information

Site and project information was provided by RSK Environment Ltd

TERMS AND DEFINITIONS

Anti Aircraft Ammunition (AAA)

High Explosive shells ranging from 30mm to 155mm used by air defence batteries to attack or deter enemy air attack.

Air Dropped Munition

A bomb or container dropped from an aircraft which is designed to detonate at a pre determined altitude, on impact or using a delay mechanism; after impact.

Air Dropped Sub-Munitions (Bomblet)

Small sub-munitions dispensed from a larger carrier which may be fixed to the aircraft or dropped as a single container munition which was designed to open above the target spreading its contents over a large area. Some designs are extremely dangerous and fitted with anti-handling devices.

Area Clearance

This is the term used for the systematic clearance of explosive ordnance from land, including military property, firing and bombing ranges, airfields and training areas. When the land is a former wartime battle ground, the term used is Battle Area Clearance (BAC)

Blast Zone

This term refers to the area around an explosive detonation where the explosive overpressure (Blast) can cause damage, injury or death.

Explosive Ordnance (EO)

All manufactured or improvised items designed to contain explosive, propellant, pyrotechnic and fissionable material or biological or chemical agents or pre-cursors which when coupled with an initiation or dispersal system are designed to cause damage, injury or death.

Explosive Ordnance Disposal (EOD)

A series of recognised procedures and protocols which are used by specialists in the detection, identification, evaluation, risk assessment, render safe, recovery and disposal of any item of explosive ordnance or improvised explosive device.

Fragmentation Zone

This is the term which refers to the danger area in which a piece of an item of explosive ordnance will travel on detonation. This zone is normally greater than the blast zone.

Geophysical Survey

The use of magnetometers, ground penetrating radar or other geophysical data gathering systems, which is then used for evaluation, risk assessment and to quantify further mitigation requirements.

High Explosive (HE)

High explosives react/detonate at a rate of around 9,000 metres per second, to all intents and purposes, instantaneously.

Incendiary Bomb (IB)

Incendiary bombs ranged from 1kg in size to 500kg the larger sizes were designated as Oil Bombs. Fills range from Thermite mixtures, Phosphorus, Kerosene or other pyrotechnic mixtures.

Intrusive Search

This term refers to the process of introducing a specialist magnetometer by pushing or drilling the sensor in to the ground to a pre determined depth, thus allowing construction activities such as: piling, soil testing and deep intrusive ground works to be conducted safely.

Land Service Ammunition (LSA)

LSA is a term that refers to all items containing explosives, pyrotechnic or noxious compounds which are placed, thrown or projected during land battles.

Oil Bomb (OB)

Large airdropped bomb or modified ordnance container containing flammable material and accelerant, these weapons normally range in weight from 250 – 500kg.

Parachute Mine (PM)

Air-dropped mine designed to detonate at a pre set altitude above the ground. Essentially a large blast bomb with an explosive content of 1600 kg commonly fitted with anti-handling or anti-removal fuzes.

Unexploded Bomb (UXB)

Any air dropped bomb that has failed to function as designed.

Unexploded Ordnance (UXO)

Explosive ordnance that has been primed, fused, armed or otherwise prepared for use or used. It may have been fired, dropped, launched or projected yet remains unexploded either through malfunction or design or for any other cause.

War Office (WO)

This was the United Kingdom Government department responsible for defence of the realm, forerunner of the Ministry of Defence (MoD).

White Phosphorus (WP)

Munitions filled with WP are designed for signalling, screening and incendiary purposes. They achieve their effect by dispersing WP, which burns on contact with the air.

1 INTRODUCTION

1.1 Instruction & Scope

MACC International Ltd was commissioned by RSK Environment Ltd to conduct a Preliminary Unexploded Ordnance (UXO) Risk Assessment for a plot of land in Waterlooville PO7 8AA (See Annex 'A'). The scope of the assessment is to determine the likelihood of an uncontrolled encounter with UXO within the context of the execution of geo-environmental investigations and subsequent ground works.

1.2 Methodology & Purpose

The methodology used in the assessment complies with the United Nations (IMAS) standards, the CIRIA C681 "Unexploded Ordnance (UXO) – A guide for the Construction Industry" and the recognised best practice advocated by the Health and Safety Executive (HSE). The quality and environmental aspects of the assessment comply with UKAS Accredited ISO 9001:2008 and ISO 14001:2004 standards. The purpose of the assessment is that of evaluation and to provide an aid in decision making by our client.

2 DETERMINING THE LIKELIHOOD OF ENCOUNTER

2.1 Aim, Research Restrictions & Indemnity

This assessment has drawn upon archive records which are within the public domain; however these are acknowledged to be incomplete. Consequently, some incidents may have occurred where the records no longer exist or could not be located. The Secretary of State of the United Kingdom and MACC International Ltd does not accept responsibility for the accuracy or completeness of the information contained within the records. Some records regarding the UXO situation on some sites may not yet be within the public domain. Consequently such information was not available for evaluation by MACC International Ltd.

2.2 Relevant Publications & Credible Internet Information

Published sources of information used in the compilation of this assessment are listed within the reference section of this assessment including those provided by the client. Additional information was provided through credible internet sites, their assistance is credited where appropriate and details are listed within the reference section of this assessment.

3 FUTURE DEVELOPMENT

The future intention for the land was not disclosed. It is however understood that Geoenviromental investigations will be undertaken prior to any subsequent ground works.

4 HISTORICAL INFORMATION

4.1 British Archives

Prior to 1942 the United Kingdom did not operate a national recording system for EO/UXO incidents or military use of land. The records compiled during 1939-1942 were conducted under local arrangements and were only as detailed and accurate as the availability of time, personnel and the ease of access to information would allow. In April 1942 the Ministry of Home Security instigated a training programme for all personnel maintaining bomb census records, these standardised national records and greatly improved the accuracy of the information.

4.2 Manned Air Raids & Unmanned Rocket Attack Reports

Although records were not found to confirm a strike within the site footprint, the Waterlooville area suffered heavy bombing during WWII with many HE bombs falling near to the site. There are also reports of items of UXO being recovered from the local area. Given the history of the immediate area and limited post war development, this source of UXO contamination must be considered credible.

5 DETERMINING THE NATURE OF RISK

5.1 General

While HE bombs are very unlikely to detonate if left undisturbed it remains inherently dangerous and may function if subjected to suitable stimuli. The most common of these stimuli is shock, friction or heat which may cause the fuze to function or unstable explosive materials (Picrate Acid) to explode. However, in the case of incendiary bombs containing White Phosphorus (WP) exposure of the WP to the air will result in its violent ignition and combustion.

5.2 Bomb Trajectory & Ground Penetration

During WWII the Ministry of Home Security undertook a major assessment on bomb penetration depths using 1,328 actual bomb impact events to provide statistical analysis of penetration potential. As a result they determined the expected behaviour of a range of bomb weights through different geological strata around the Capital. Their findings remain the only empirical gained figures to have been gathered to date for England. A number of factors will influence the behaviour of a bomb on impact with the target and its trajectory through the ground. Relevant factors include: Height and speed of release of the bomb, aerodynamic qualities of the bomb, the angle of flight and impact and the nature of impact surface and sub soil. In determining the potential bomb penetration depths into the ground, historic geotechnical information and typical bomb characteristics were used. The maximum bomb penetration depth is estimated at 8.5 metres from the 1941 ground levels. The expected offset from impact point is estimated to be 3.0 metres.

6 ENVIRONMENTAL IMPACT FROM UXO

6.1 Ground Contamination & Health Risk vectors

While it is acknowledged that there is a potential risk of ground contamination arising from explosive fillings which may leach from a damaged bomb casing into the surrounding soil. The amount of explosive material within the most common bombs is not considered sufficient to pose a significant environmental risk. Nevertheless it should be noted that the following components are commonly used in the manufacture of a high explosive bomb and may pose a localised contamination risk to health: metals including; Lead, Zinc, Brass, Copper, Steel, Mercury, Silver Fulminate and Aluminium. Other chemical Compounds including; Trinitrophenol, Trinitrotolulene, Trimethylene Trinitramine, Ammonium, Sodium Nitrate, Nitro-glycerine and White Phosphorus. It is recommended that specialist medical advice be sought to identify specific risks to health posed by these chemical compounds.

7 RISK ASSESSMENT

7.1 Risk Source

The surrounding area suffered extensive bombing, however records were not found to confirm a strike within the site footprint. Records are acknowledged to be incomplete and may include omissions and errors. The possibility that a bomb struck, failed to explode and was never reported or that UXO was imported onto the site from neighbouring bomb sites is considered credible.

7.2 Risk Pathway

The risk pathway is considered to be ground intruding investigations and other earth works.

7.3 Consequence

The consequences of a UXB detonation on site during construction works are considered to be a factor of the size of the blast and the proximity of assets and individuals to the point of detonation. These will include potential to kill or seriously injure personnel destroy or damage high value site assets, nearby public and private property and infrastructure.

7.4 Risk Rating

Table 1 Risk Level

PRELIMINARY UXO RISK RATING			
Activity	Likelihood (H x W = L)	Consequence (S x P = C)	Risk Rating (L x C = R)
Hand Dug Excavations	3 x 1 = 3	1 x 5 = 5	3 x 5 = 15
Mechanical Trenching and General Excavations	3 x 2 = 6	2 x 5 = 10	6 x 10 = 60
Bulk Excavations, Sampling, Drilling or Piling	3 x 3 = 9	3 x 5 = 15	9 x 15 = 135
1= Minimal 5=significant LOW 0-100 MEDIUM 100-200 HIGH 200+			

8 ASSESSMENT FINDINGS

8.1 Risk Levels

The assessment has determined the UXO risk within the plot. The UXO risk is considered to be lowest in post war worked ground increasing for some processes in post war un-worked ground. When viewed from likelihood versus consequence standpoint; it is considered prudent to recommend a suitable degree of UXO mitigation to permit the work to proceed in the safest "acceptable" manner in compliance with current legislation and best practices.

9 RECOMMENDATIONS FOR RISK MITIGATION

9.1 Overview

The following Risk Mitigation Strategy has been designed to reduce the level of UXO risk to an acceptable level (ALARP) in the most efficient and cost effective manner. The Risk Mitigation Strategy will be required to be considered at all levels within the project planning to ensure it has minimum impact to the project's critical path. Advice should be sought from MACC International Ltd to measure and scope individual mitigation requirements.

9.2 General Mitigation Requirements

It is recommended detailed UXO Desk Top study is conducted to confirm the UXO risk levels. Alternatively the risk levels are accepted and the following mitigation measures are carried out to ensure the work can be carried out safely.

- Risk Communication & Safety Planning: Stakeholders should be made aware that the risk of encounter is considered to be significant and the possible impact it may have on the project. Additionally a UXO site safety and emergency procedures plan should be produced.
- Safety Training: UXO Safety Induction Training should be provided to everyone working or visiting the site. The training should be commensurate with the individual's responsibilities and duties on site. The training should be provided by a competent individual and delivered as separate module of the Site Safety Induction Course.

Additional Mitigation Requirements for medium risk activities:

- Excavations, Drilling or Sampling: UXO Safety supervision and monitoring; this should be conducted by a qualified EOD Engineer using a specialist magnetometer to clear the ground/borehole ahead of the excavator bucket/drill bit.
- Piling: Pile positions should be pre-checked using a CPT/Magcone or similar technology employing a safe "look ahead" capability.

10 **POST MITIGATION RISK**

10.1 **Overview**

Prudent execution of the recommended risk mitigation strategy will reduce the risk, however it is emphasised that zero risk is not achievable given the possible variables.

The assessment has confirmed a low/medium UXO risk on the site footprint and recommended suitable mitigation. An effective risk mitigation strategy will require detailed scoping to achieve its desired results in providing an acceptable level of risk. For further information concerning any part of this assessment please contact MACC International Ltd.

10.2 **Intent & Use**

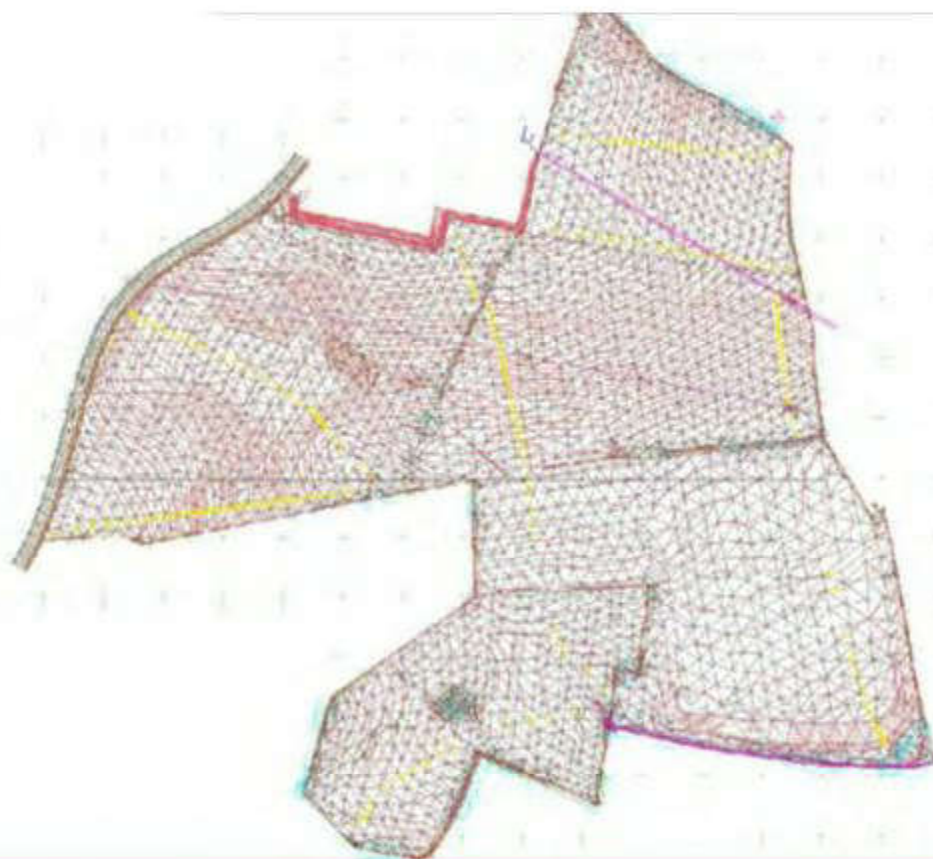
This document has been produced in the United Kingdom by MACC International Limited and meets the requirements of CIRIA C681 "Unexploded Ordnance (UXO) – A guide for the Construction Industry" It has been provided solely for the purpose of assessment and evaluation. It is not intended to be used by any person for any purpose other than that specified. Any liability arising out of use by a third party of this document for purposes not wholly connected with the above shall be the responsibility of that party, who shall indemnify MACC International Limited against all claims, costs, damages and losses arising out of such use.



SITE MAPPING

Annex A

Site Footprint



APPENDIX N

BOREHOLE SOAKAGE TEST RESULTS

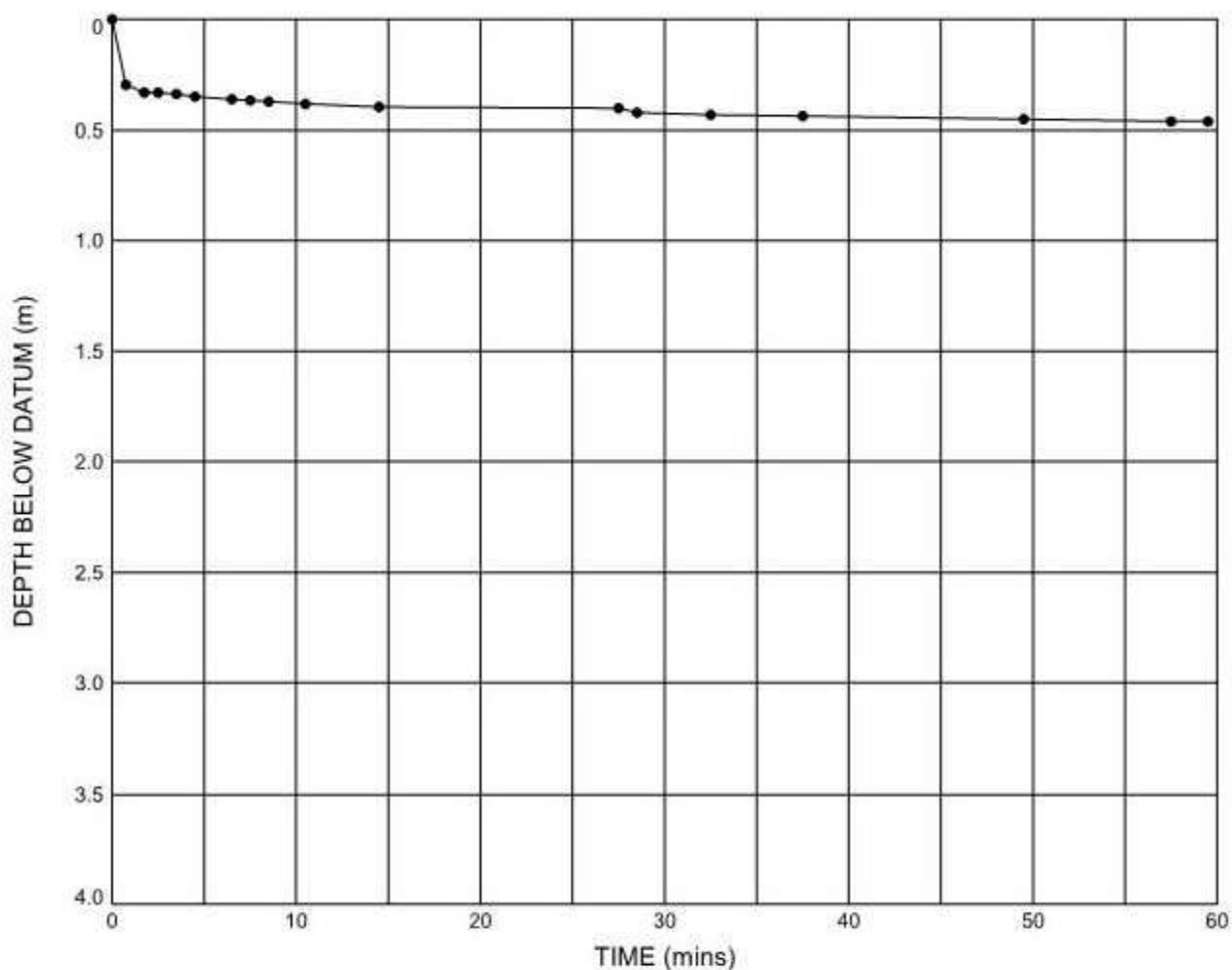
BOREHOLE SOAKAWAY TEST

Test position: BH1

Ground Level: ---

Co-ordinates: ---

PLOT OF DEPTH OF WATER BELOW DATUM AGAINST TIME



Effective depth, D_e = 3.45 m

Effective storage volume, V_{p75-25} = 0.003387 m³

Surface area, a_{p50} = 0.272926 m²

Time, t_{p75-25} = 75272 secs

Infiltration coefficient, f = 1.65×10^{-7} m/s

Test hole details:

Measurement datum was **GL**
Hole depth at start of test: **3.45mBGL**
Borehole diameter: **50mm**

Legend:

● Test 1 (02/09/2016)

RSK Environment Ltd
18 Frogmore Road
Hemel Hempstead
Hertfordshire
HP3 9RT



Compiled By

Date

Checked By

Date

09/09/16

09/09/16

Contract

Campdown

Contract Ref:

28720

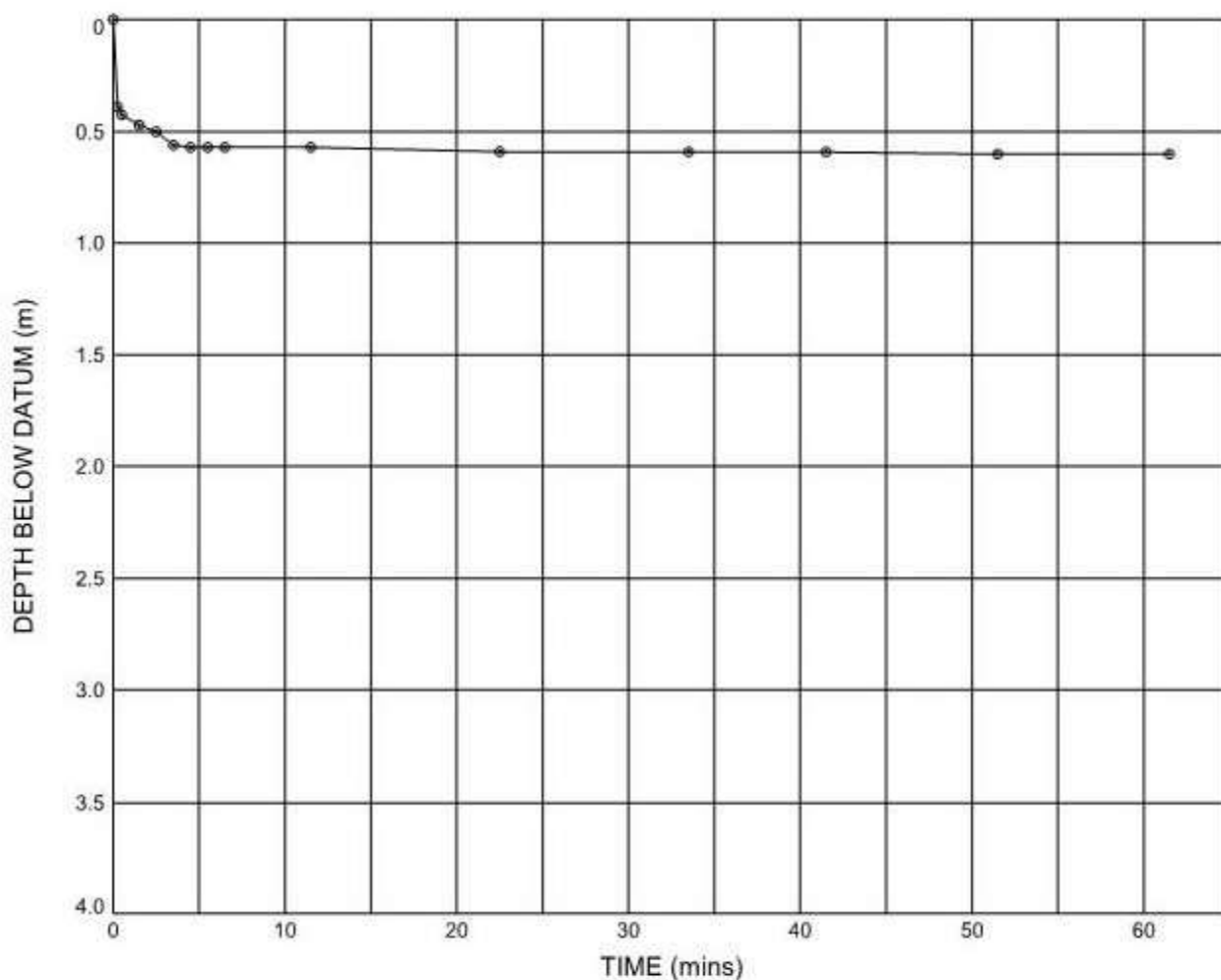
BOREHOLE SOAKAWAY TEST

Test position: BH5

Ground Level: ---

Co-ordinates: ---

PLOT OF DEPTH OF WATER BELOW DATUM AGAINST TIME



Effective depth, D_e = 3.45 m

Effective storage volume, V_{p75-25} = 0.003387 m³

Surface area, a_{p50} = 0.272926 m²

Time, t_{p75-25} = 103500 secs

Infiltration coefficient, f = 1.20×10^{-7} m/s

Test hole details:

Measurement datum was **GL**
Hole depth at start of test: **3.45mBGL**
Borehole diameter: **50mm**

Legend:

⊙ Test 1 (02/09/2016)

RSK RSK Environment Ltd 18 Frogmore Road Hemel Hempstead Hertfordshire HP3 9RT	Compiled By	Date	Checked By	Date
	[REDACTED]	09/09/16		09/09/16
	Contract Campdown		Contract Ref: 28720	

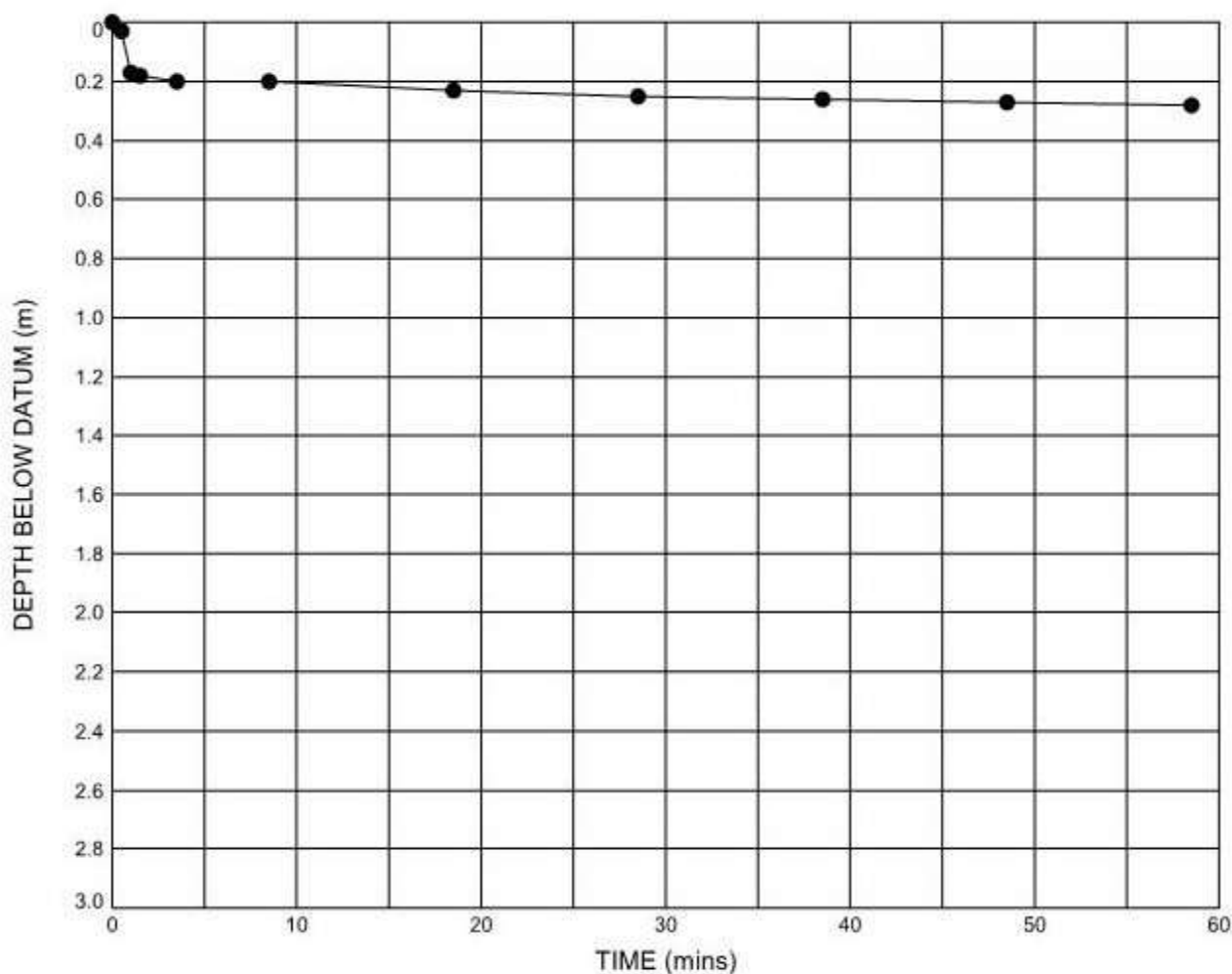
BOREHOLE SOAKAWAY TEST

Test position: BH7

Ground Level: ---

Co-ordinates: ---

PLOT OF DEPTH OF WATER BELOW DATUM AGAINST TIME



Effective depth, D_e = 3 m
 Effective storage volume, V_{p75-25} = 0.002945 m³
 Surface area, a_{p50} = 0.237583 m²
 Time, t_{p75-25} = 90000 secs
 Infiltration coefficient, f = 1.38×10^{-7} m/s

Test hole details:

Measurement datum was **GL**
 Hole depth at start of test: **3.00m**BGL
 Borehole diameter: **50mm**

Legend:

● Test 1 (02/09/2016)

 RSK Environment Ltd 18 Frogmore Road Hemel Hempstead Hertfordshire HP3 9RT	Compiled By	Date	Checked By	Date
	<i>MDStrawger</i>	09/09/16		09/09/16
	Contract Campdown		Contract Ref: 28720	

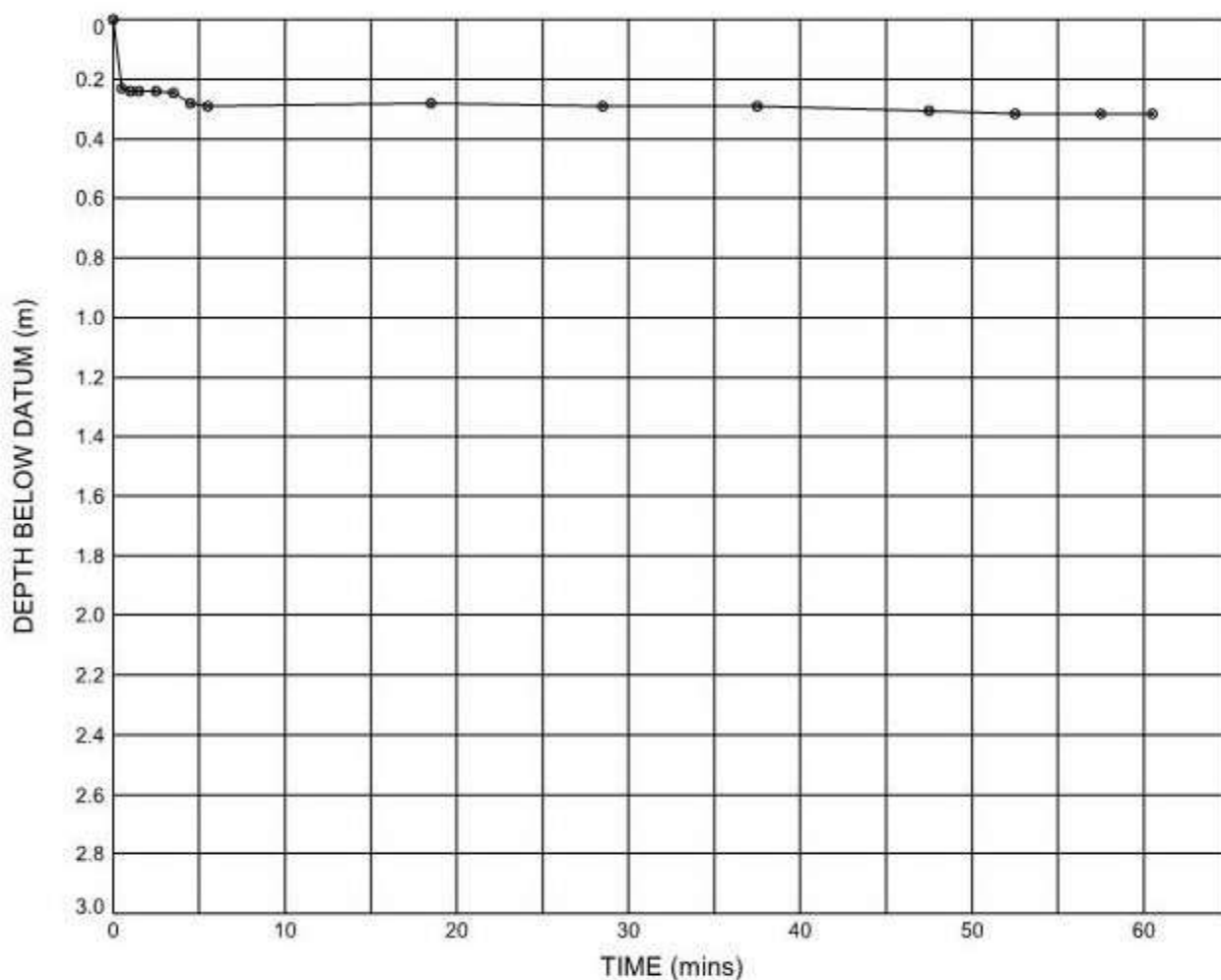
BOREHOLE SOAKAWAY TEST

Test position: BH9

Ground Level: ---

Co-ordinates: ---

PLOT OF DEPTH OF WATER BELOW DATUM AGAINST TIME



Effective depth, D_e = 2.93 m

Effective storage volume, V_{p75-25} = 0.002872 m³

Surface area, a_{p50} = 0.231692 m²

Time, t_{p75-25} = 43875 secs

Infiltration coefficient, f = 2.82×10^{-7} m/s

Test hole details:

Measurement datum was **GL**
Hole depth at start of test: **2.93mBGL**
Borehole diameter: **50mm**

Legend:

⊗ Test 1 (02/09/2016)

RSK RSK Environment Ltd 18 Frogmore Road Hemel Hempstead Hertfordshire HP3 9RT	Compiled By	Date	Checked By	Date
	[REDACTED]	09/09/16		09/09/16
	Contract Campdown		Contract Ref: 28720	

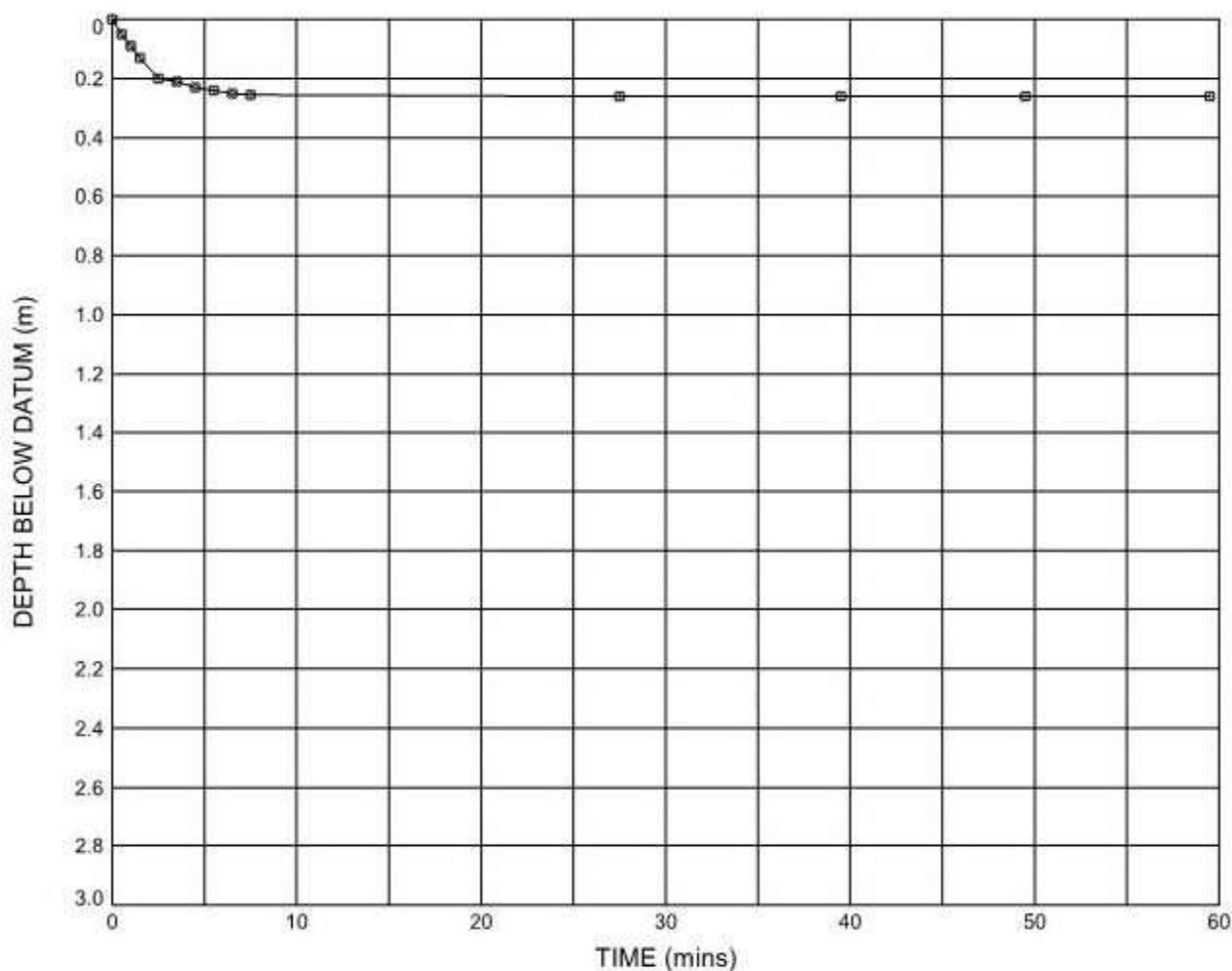
BOREHOLE SOAKAWAY TEST

Test position: BH15

Ground Level: ---

Co-ordinates: ---

PLOT OF DEPTH OF WATER BELOW DATUM AGAINST TIME



Effective depth, D_e = 2.55 m
 Effective storage volume, V_{p75-25} = 0.002503 m³
 Surface area, a_{p50} = 0.202240 m²
 Time, t_{p75-25} = 306000 secs
 Infiltration coefficient, f = 4.05×10^{-8} m/s

Test hole details:

Measurement datum was **GL**
 Hole depth at start of test: **2.55mBGL**
 Borehole diameter: **50mm**

Legend:

③ Test 1 (02/09/2016)

 RSK Environment Ltd 18 Frogmore Road Hemel Hempstead Hertfordshire HP3 9RT	Compiled By	Date	Checked By	Date
	[REDACTED]	09/09/16		09/09/16
	Contract Campdown		Contract Ref: 28720	

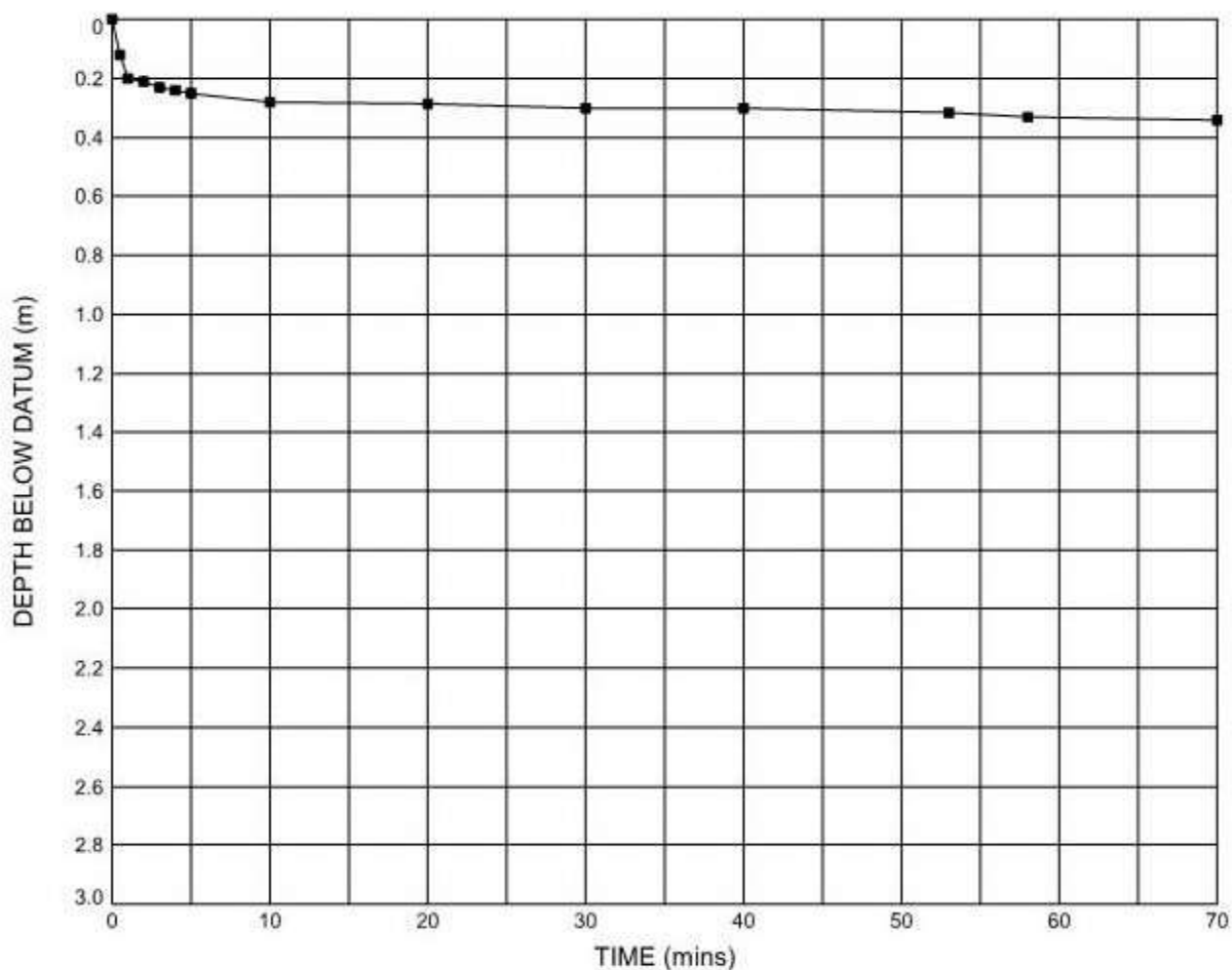
BOREHOLE SOAKAWAY TEST

Test position: BH16

Ground Level: ---

Co-ordinates: ---

PLOT OF DEPTH OF WATER BELOW DATUM AGAINST TIME



Effective depth, D_e = 2.78 m
 Effective storage volume, V_{p75-25} = 0.002729 m³
 Surface area, a_{p50} = 0.220304 m²
 Time, t_{p75-25} = 100080 secs
 Infiltration coefficient, f = 1.24×10^{-7} m/s

Test hole details:

Measurement datum was **GL**
 Hole depth at start of test: **2.78mBGL**
 Borehole diameter: **50mm**

Legend:

■ Test 1 (02/09/2016)

RSK RSK Environment Ltd 18 Frogmore Road Hemel Hempstead Hertfordshire HP3 9RT	Compiled By	Date	Checked By	Date
	[REDACTED]	09/09/16		09/09/16
	Contract	Campdown	Contract Ref:	28720

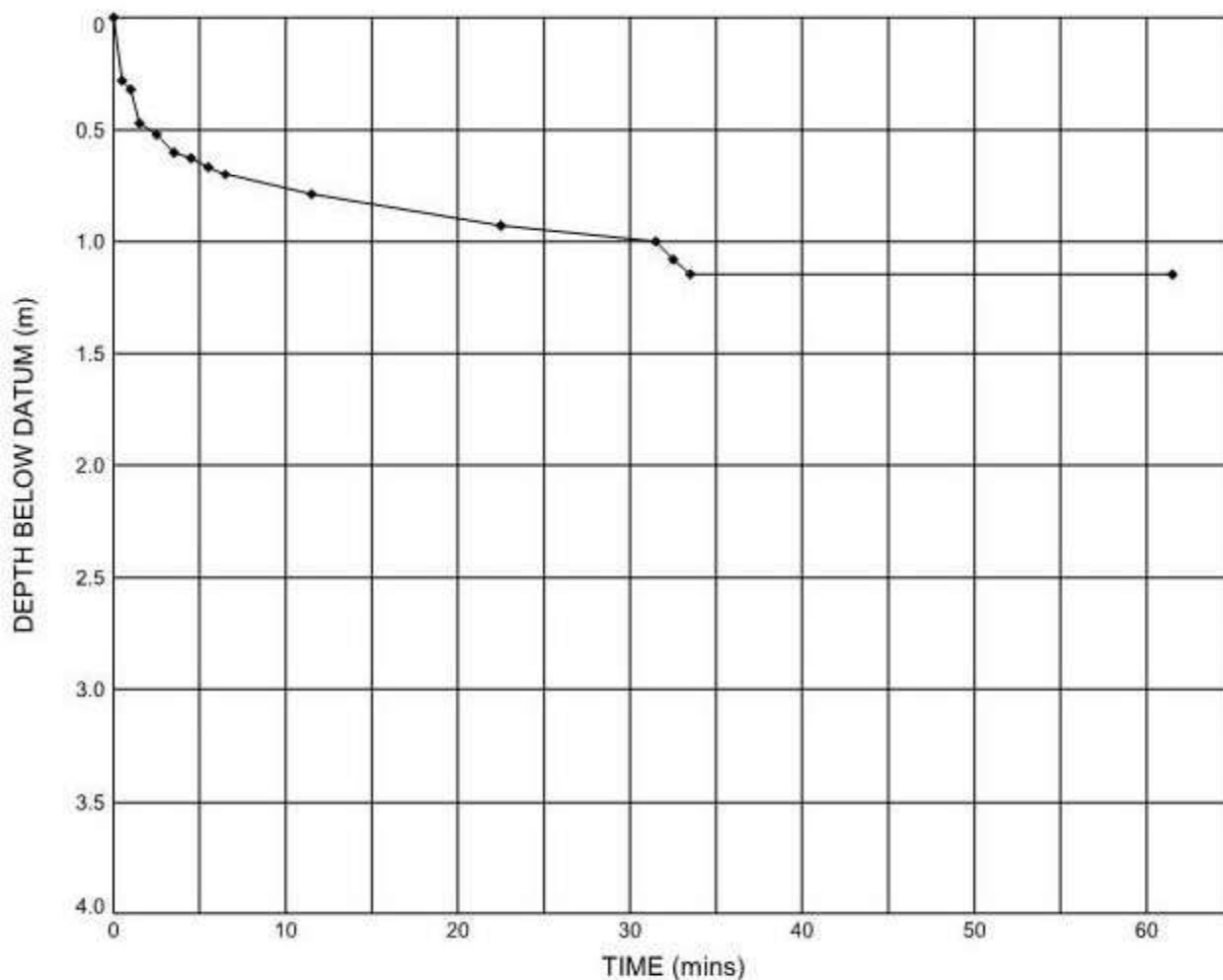
BOREHOLE SOAKAWAY TEST

Test position: BH17a

Ground Level: ---

Co-ordinates: ---

PLOT OF DEPTH OF WATER BELOW DATUM AGAINST TIME



Effective depth, D_e = 3.45 m
 Effective storage volume, V_{p75-25} = 0.003387 m³
 Surface area, a_{p50} = 0.272926 m²
 Time, t_{p75-25} = 2310 secs
 Infiltration coefficient, f = 5.37×10^{-6} m/s

Test hole details:

Measurement datum was **GL**
 Hole depth at start of test: **3.45mBGL**
 Borehole diameter: **50mm**

Legend:

◆ Test 1 (02/09/2016)

RSK RSK Environment Ltd 18 Frogmore Road Hemel Hempstead Hertfordshire HP3 9RT	Compiled By	Date	Checked By	Date
	[REDACTED]	09/09/16		09/09/16
	Contract: Campdown		Contract Ref: 28720	

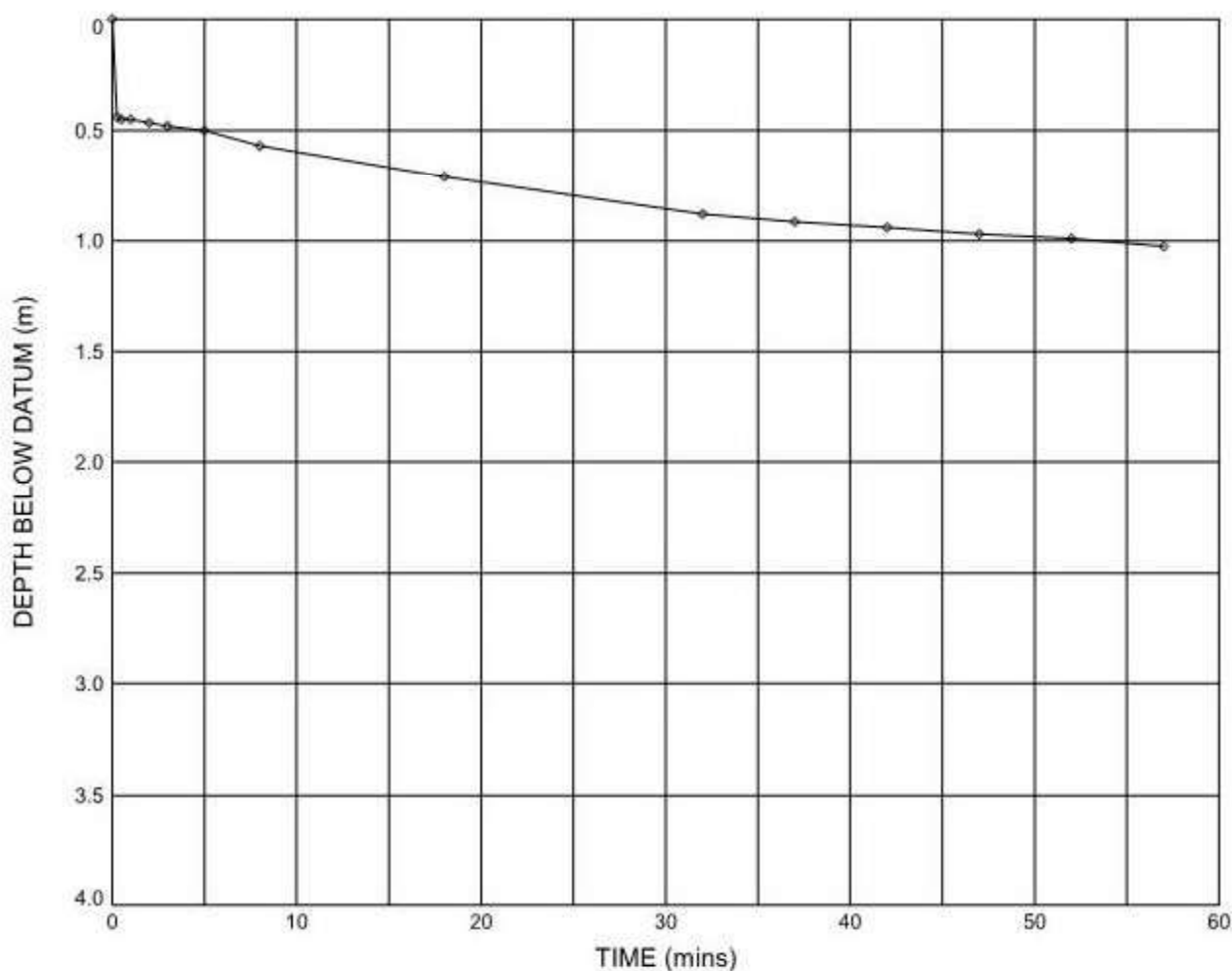
BOREHOLE SOAKAWAY TEST

Test position: BH17b

Ground Level: ---

Co-ordinates: ---

PLOT OF DEPTH OF WATER BELOW DATUM AGAINST TIME



Effective depth, D_e = 3.45 m
 Effective storage volume, V_{p75-25} = 0.003387 m³
 Surface area, a_{p50} = 0.272926 m²
 Time, t_{p75-25} = 14979 secs
 Infiltration coefficient, f = 8.28×10^{-7} m/s

Test hole details:

Measurement datum was **GL**
 Hole depth at start of test: **3.45mBGL**
 Borehole diameter: **50mm**

Legend:

◇ Test 1 (02/09/2016)

RSK RSK Environment Ltd 18 Frogmore Road Hemel Hempstead Hertfordshire HP3 9RT	Compiled By	Date	Checked By	Date
	[REDACTED]	09/16		09/09/16
	Contract Campdown		Contract Ref: 28720	

APPENDIX O

HASWASTE

[illegible]

Further comments and notices to Hisamasa, please contact Dr. David