

Our Ref: 890815/L02/GXA

20th November 2025

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Dear Planning Officer

RE: DISC/25/0263 – New Place Nurseries, London Road, Pulborough, West Sussex, RH20 1AT

Please find attached the information for the Discharge of Condition 6 and 9.

Condition 6

No development shall commence until a Drainage Strategy detailing the proposed means of foul water disposal and a detailed surface water drainage scheme (including finalised surface water drainage designs and calculations) has been submitted to and approved in writing by the Local Planning Authority. The submitted details should include a Surface Water Drainage Statement (based on sustainable drainage principles and an assessment of the hydrological and hydrogeological context of the development). The drainage designs shall show full coordination with a detailed landscape scheme and should demonstrate that the surface water runoff generated up to and including the 100 year, plus climate change, critical storm will not exceed the run-off from the current site following the corresponding rainfall event. The drainage scheme shall subsequently be implemented prior to first occupation in accordance with the approved details and thereafter retained as such.

We have concerns that the submitted information does not meet with NPPF, PPG or the local planning policies and the proposal will either increase the risk of flooding elsewhere or to the proposed development. We provide the following technical review for your consideration.

Current Drovers Lane Connection

Drovers Lane is a private road which serves 15 residential properties and has impermeable catchment area of 3,750m². Surface water and foul drainage are located within the private highway. A drainage channel collects and prevents any rainfall runoff entering the West Sussex County Council Adoptable highway in Glebelands to the south. These drainage elements will be retained throughout the development works.

Proposed Drovers Lane Connection

The Drovers Lane / Glebelands Junction and road extension into site will follow the existing road alignment and will continue to use the existing private drainage within the Drovers Lane curtilage. The road width has been slightly widened by 1m and there is a small section of new road into the development which cannot discharge into the residential road development and into the adjacent ditch under gravity (depicted with green hatch in Appendix A). The additional catchment area is 120m². No other drainage from the New Place Farm development will discharge off-site via Drovers Lane. The residential development drainage north of the site entrance will now discharge into Basin 1A via a gravity sewer network.

The only additional flows into the downstream drainage in Drover's land is the 120m² additional catchment area.

RSK have proposed a soakaway as a secondary system to support and discharge the run-off from this additional area in Drovers Lane, to mitigate against creating further potential flooding to the downstream highway network.

It is now proposed to use a soakaway to drain the highway access to the site, however no infiltration testing in line with BRE365 or winter groundwater monitoring has been provided to demonstrate the use of a soakaway is viable in this location.

Infiltration Testing

The P7298 2021.06 GRM Pulborough Soakaway Testing Report infiltration and soakaway results are shown in Appendix B.

The nearest location to Drovers Lane is WS104 which recorded no groundwater strike to a depth of 1.5m and an infiltration rate of 2.77E-07. Although the rate is not ideal, this is considered a viable secondary drainage system to the support the existing Drovers Lane drainage pipework.



Soakaway reference	Soakaway geology	Calculated infiltration rates (m/s)		
		Test 1	Test 2	Test 3
SA101	Head Deposits	1.01E-05	1.62E-05	1.71E-05
SA102	Head Deposits	8.49E-06	5.75E-06	5.20E-06
SA103	Head Deposits and Hythe Formation	1.53E-04	1.64E-04	1.53E-04
SA104	Head Deposits and Hythe Formation	1.36E-05	1.09E-05	6.96E-06
SA105	Head Deposits	1.57E-05	1.30E-05	8.29E-06
SA106	Head Deposits and Hythe Formation	2.09E-05	1.54E-05	1.21E-05
SA107	Head Deposits	6.68E-06	4.22E-06	4.26E-06
SA108*	Head Deposits and Hythe Formation	-	-	-
WS103	Head Deposits and Hythe Formation	3.00E-06	2.12E-06	1.72E-06
WS104*	Head Deposits	2.77E-07	-	-
WS105	Head Deposits	3.53E-06	5.25E-06	4.32E-06
WS106	Head Deposits	2.62E-06	1.94E-06	1.39E-06
WS108**	Head Deposits and Hythe Formation	9.73E-05	9.73E-05	9.73E-05
WS109	Head Deposits and Hythe Formation	3.40E-06	2.40E-06	2.55E-06
WS111*	Head Deposits	1.62E-07	-	-
WS112*	Head Deposits	5.6E-08	-	-
WS112a	Head Deposits and Hythe Formation	3.48E-06	2.18E-06	1.93E-06
WS113	Head Deposits and Hythe Formation	2.87E-06	2.49E-06	1.62E-06
WS114	Head Deposits and Hythe Formation	3.48E-06	1.93E-06	1.74E-06
WS115	Head Deposits and Hythe Formation	3.25E-06	2.48E-06	3.10E-06
WS118	Head Deposits and Hythe Formation	3.22E-07	2.85E-07	2.85E-07

As this is a DoC application, the drawings should be for construction, not for tender.

Noted – Drawing 300246 shows the detailed levels and drainage for the entrance works and has been updated to Construction subject to Planning Approval and included in Appendix A

We'd like to take this opportunity to remind the applicant that alterations to existing watercourses may require ordinary watercourse consent prior to construction. This is separate to the planning process and as an authority we have two months to determine applications. Further details can be found here: [Ordinary watercourse land drainage consent - West Sussex County Council](#)

Noted – Ordinary Watercourse consent has been submitted for the proposed ditch alterations throughout the site.

Yours sincerely,

G Ashworth

Gran Ashworth
Senior Infrastructure Engineer

APPENDIX A

H9376_RSK_ZZ_XX_DR_CE_325033_C05 Drover Lane Levels and Drainage

APPENDIX B

P7298 2021.06 GRM Pulborough Soakaway Testing Report_Final



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Our Ref: P7298 SA.2

Date: 6th April 2021

Steve O'Grady
Catesby Estates plc.
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5b Tournament Court
Edgehill Drive
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By email only

Dear Steve,

Re: Land to the North East of Glebelands, Pulborough; Soakaway Testing Letter Report

GRM Development Solutions Ltd were commissioned by Catesby Estates (Client) to undertake soakaway testing at the above site in accordance with the methodology outlined within BRE 365 and BS5930:1999.

GRM Standard Limitations of Reporting are provided in Appendix A of this report. A Site Location and Boundary Plan is provided in Appendix B.

This letter report should be read in conjunction with the following documents, which provide further information on the background information and wider site setting:

- GRM Phase I Site Appraisal (Desk Study), Land to the North East of Glebelands, Pulborough, ref: GRM/P7298/DS.1_RevA, dated January 2016.
- GRM Soakaway Letter Report, Land to the North East of Glebelands, Pulborough, ref: GRM/P7298/SA.1, dated March 2016.
- GRM Phase II Site Appraisal Report, Land to the North East of Glebelands, Pulborough, ref: GRM/P7298/F.1, dated April 2016.
- GRM Gas Addendum Letter, Land to the North East of Glebelands, Pulborough, ref: GRM/P7298/GAL.1, dated July 2016.

Introduction

The phase II ground investigation and initial soakaway testing in 2016 on the southern half of the site revealed that the natural granular deposits underlying the site are potentially suitable for soakaway drainage. The previous GRM soakaway investigation undertook soakaway testing within



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the southern fields in an area where a proposed surface water attenuation basin was to be situated. Since the completion of the 2016 work, the site area has been increased from approximately 4.7ha to 16.3ha, therefore further work has been undertaken to determine if soakaway drainage solutions are suitable for the new wider site area.

At the time of the recent fieldwork the site was an active nursery, therefore a combination of soakaway pits and soakaway boreholes (where access was restricted) have been used to assess the wider area. In addition to this, additional boreholes were placed next to some of the soakaway pits to attempt to find a correlating factor between the two different types of soakaway test.

Scope of Works

GRM attended site between the 22nd February to 26th February 2021 to advanced 19 windowless sample locations (WS101 to WS118; including WS112a) and eight trial pit soakaway locations (SA101 to WS108) to depths of between 1.0m below existing ground level (begl) to 3.0m begl. The test pits were filled with gravel and soakaway testing was then conducted during the following two weeks; between the 1st March to 10th March 2021.

Soakaway testing was undertaken within all exploratory hole locations with the exception of boreholes SH04, SH09, SH12, SH15, SH16, SH18, SH19, as these wells were selected for long term groundwater monitoring, which was to encompass six weekly visits lasting from 18th March to 29th March 2021.

Where exploratory holes were selected for soakaway testing, the depth of the borehole was advanced to 1.5m begl or refusal, whichever was shallower. Trial pits were filled with a gravel backfill and groundwater levels were recorded with both hand measurement and data loggers. Borehole soakaway rates were recorded only by hand measurement.

The exploratory hole location plan and exploratory hole logs are presented in Appendix C and Appendix D respectively.

Ground Conditions

The locations of the exploratory holes were positioned to provide a general coverage across the site. However, consideration has been given to the current usage of the site as an active nursery, in which extensive local water and gas utilities were known, and disturbance by the investigation had to be limited.

The following ground conditions were encountered during the most recent site investigation:

- Re-worked Topsoil
- Made Ground
- Head Deposits
- Hythe Formation

Re-worked Topsoil

Re-worked topsoil was encountered within the majority of exploratory holes (WS101, WS104, WS106, WS107, WS110 to WS113, WS115, WS116, WS118, SA101 to SA103 and SA108) to depths ranging between 0.1m and 0.4m below existing ground level (begl) with a general thickness of 0.1m with occasional holes recording deeper topsoil.

The re-worked topsoil was typically recorded as a gravelly sandy silt or silty sand and had likely been reworked due to the historical land use as a nursery.

Made Ground

The Made Ground was encountered where re-worked topsoil was not present in WS102, WS103, WS105, WS108, WS109, WS112a, WS114, WS117 and SA104 to SA107, and was found to depths ranging between 0.05m and 0.8m begl, with a general thickness of 0.3m.

Made ground was encountered as a brown sandy silt, silty sand, sand clay or a gravel of roadstone, and it is assumed that the made ground was also generated due to the historical land use as a nursery.

Head Deposits

The Head Deposits were recorded in all holes with the exception of WS107 and WS114 and were recorded as a very loose to loose silty sand, very soft to firm sandy silt or very soft to firm sandy clay.

Standard Penetration Test N-values generally ranged from 1 to 16 at 1m depth, 4 to 5 at 2m depth, and 4 at 3m depth, indicating a very low to medium strength at 1.0m begl and a low strength at 2m and 3m begl.

Hythe Formation

The Hythe Formation was identified typically below the head deposits in WS103, WS107 to WS110, WS112a to WS115, WS117, WS118, SA103, SA104, SA106 and SA108 and was recorded as a medium dense gravel or gravelly sand to an extremely weak to very weak sandstone. None of the exploratory holes fully penetrated this strata.

Standard Penetration Test N-values generally ranged from 17 to 50 (refusal) at 1m depth, 38 to 50 (refusal) at 2m depth, and 50 (refusal) at 3m depth. indicating a medium dense to very weak rock at 1m, very dense to weak rock at 2m and very weak rock at 3m.

Groundwater

Groundwater seepage was not observed in any of the exploratory holes, with the exception of SA108 which recorded slightly damp strata at 1.5m begl. The exploratory techniques used were rapid and may have masked small water seepages.

One groundwater monitoring visit have been conducted and the results of the monitoring are reported in Appendix E. In summary, standing water was recorded within WS110 at depths of 2.23m begl, all other locations did not record any groundwater.

It is considered that the groundwater observed during the site works in SA108 and recorded during the monitoring in WS110 are likely to be small pockets of water perched on impermeable lenses.

Long term monitoring of groundwater levels has not been conducted as part of this investigation and interpreted levels are approximate and may be dependent on seasonal variations.

Due to the lack of groundwater data for the site it has not been possible to accurately determine the groundwater flow direction beneath the site. However, the groundwater flow is considered to be to the south following the local topography.

Soakaway Testing

The soakaway tests were carried out in the Head deposits and Hythe Formation, across the site at twenty-one locations. A plan showing the approximate locations of the tests and the trial pit logs are presented in Appendix C.

In accordance with BRE Digest 265 three tests have been undertaken at each location where possible. Where insufficient permeability has been recorded, infiltration rates cannot be calculated. The infiltration rates have been calculated for the entire soil section tested, rather than for specific more permeable sections. In general, the Head Deposits were cohesive and the Hythe Formation was sand or sandstone at the base of the exploratory hole.

Soakaway reference	Soakaway geology	Calculated Infiltration rates (m/s)		
		Test 1	Test 2	Test 3
SA101	Head Deposits	1.01E-05	1.62E-05	1.71E-05
SA102	Head Deposits	8.49E-06	5.75E-06	5.20E-06
SA103	Head Deposits and Hythe Formation	1.53E-04	1.64E-04	1.53E-04
SA104	Head Deposits and Hythe Formation	1.36E-05	1.09E-05	6.96E-06
SA105	Head Deposits	1.57E-05	1.30E-05	8.29E-06
SA106	Head Deposits and Hythe Formation	2.09E-05	1.54E-05	1.21E-05
SA107	Head Deposits	6.68E-06	4.22E-06	4.26E-06
SA108*	Head Deposits and Hythe Formation	-	-	-
WS103	Head Deposits and Hythe Formation	3.00E-06	2.12E-06	1.72E-06
WS104*	Head Deposits	2.77E-07	-	-
WS105	Head Deposits	3.53E-06	5.25E-06	4.32E-06
WS106	Head Deposits	2.62E-06	1.94E-06	1.39E-06
WS108**	Head Deposits and Hythe Formation	9.73E-05	9.73E-05	9.73E-05
WS109	Head Deposits and Hythe Formation	3.40E-06	2.40E-06	2.55E-06
WS111*	Head Deposits	1.62E-07	-	-
WS112*	Head Deposits	5.6E-08	-	-
WS112a	Head Deposits and Hythe Formation	3.48E-06	2.18E-06	1.93E-06
WS113	Head Deposits and Hythe Formation	2.87E-06	2.49E-06	1.62E-06
WS114	Head Deposits and Hythe Formation	3.48E-06	1.93E-06	1.74E-06
WS115	Head Deposits and Hythe Formation	3.25E-06	2.48E-06	3.10E-06
WS118	Head Deposits and Hythe Formation	3.22E-07	2.85E-07	2.85E-07

*Insufficient infiltration in 24hrs to obtain reliable infiltration rate.

** Very fast and consistent infiltration across all three tests; potential fractured rock.

The results show great variability across the site with four locations (SA108, WS104, WS111 and WS112) not recording sufficient infiltration within 24 hours to calculate a reliable infiltration rate. Other test locations such as SA03 and WS108 recorded very good infiltration rates.

It is considered that the variability is due to the geology of the site, specifically the variable nature of the head deposits, with cohesive clays and silts being recorded, compared to the underlying Hythe Formation. Three of the four locations (WS104, WS111 and WS112) where an infiltration rate

could not be calculated, did not fully penetrate the head deposits, and were therefore soaking into cohesive silt.

SA08 also did not record sufficient infiltration to calculate an infiltration rate, this is likely to be due to SA08 recording groundwater at the base of the pit, anticipated to be because it is the lowest point on the site. It should however be noted that SA08 did record approximately 50% water loss over the 24 hour period.

It should also be noted, that four of the soakaway pits (SA01, SA02, SA05 and SA07) did not fully penetrate the Head Deposits and were therefore recorded to be soaking into the cohesive geology. However, these locations were able to complete three tests, all within 24hrs: potentially due to the larger surface area finding more suitable strata within the variable Head Deposits.

Comparable Results: Soakaway Pits and Borehole Infiltration Testing

Across four locations soakaway testing was undertaken in both trial pits and window sample boreholes, to attempt to determine the difference between the two different types of infiltration assessment.

The locations where the comparison testing was undertaken was:

- SA01 and WS104
- SA02 and WS106
- SA04 and WS108
- SA07 and WS113

SA01 and WS104

Whilst the logs are similar with head deposits of silt being recorded from 0.1m begl to 1.5m, the soakaway testing did vary significantly with the soakaway pit SA01 recording three tests; each within 24hours and WS104 taking greater than two days to complete a test. It is considered that this is potentially due to the variability of the head deposits, and the soakaway pits having a much larger surface area and therefore being more likely to encounter areas within the head deposits where infiltration is possible.

SA02 and WS106

The geology for SA02 and WS106 was similar to SA01 and WS104 with head deposits recording silt to 1.5m (WS106) and 1.55m (SA102). Both locations recorded three tests, with the soakaway pit SA02 generally recording a faster rate by an approximate factor of three. This is likely due to similar reasons as explained above; a larger surface area is more likely to find areas within the variable head deposits which have a greater permeability. The rates are displayed below for reference.

	m/s		Difference (WS106/SA02)
	SA02	WS106	
Test 1	8.49E-06	2.62E-06	0.31
Test 2	5.75E-06	1.94E-06	0.34
Test 3	5.20E-06	1.38E-06	0.27

SA04 and WS108

The logs at SA04 and WS108 both recorded Head Deposits as silt overlying very weak sandstone of the Hythe Formation from between 1.1m and 1.3m begl. However, while the logs were similar the

infiltration rates recorded differed considerably; both recorded three tests, but the rates recorded in WS108 were approximately ten times faster. It was noted by the technician undertaking the soakaway in WS108 that the water from surface to approximately 1.3m infiltrated in less than 5 minutes, then slowed after this point; this was repeated three times. This could be attributed to a weathered or fractured horizon of the sandstone being present in WS108 at approximately 1.3m begl and not within SA04; which would explain why the infiltration slowed after 1.3m begl. The results of the comparison are displayed below for reference.

	m/s		Difference (SA04/WS108)
	WS108	SA04	
Test 1	9.73E-05	1.36E-05	0.14
Test 2	9.73E-05	1.09E-05	0.11
Test 3	9.73E-05	6.96E-06	0.07

SA07 and WS113

The geology between the two holes was similar, however, as WS113 is also going to be used as a groundwater monitoring point, it was progressed to a depth of 2.0m where it refused on the sandstone horizon of the Hythe Formation. SA07 was progressed to 1.5m and was terminated in the head deposits.

Both locations recorded three tests with SA07 recording faster rates. This is likely to be attributed to a larger surface area within the pits finding soils within the head deposits with a greater permeability. The difference between the two rates is less than was recorded in SA02 and WS106, however this is potentially attributed to WS113 being deeper than SA07 and having encountered the Hythe Formation Sandstone; albeit only in a thickness of 0.1m.

	m/s		Difference (WS113/SA07)
	SA07	WS113	
Test 1	6.68E-06	2.87E-06	0.43
Test 2	4.22E-06	2.49E-06	0.59
Test 3	4.26E-06	1.62E-06	0.38

Conclusions

Soakaway Feasibility

The results are considered to indicate potentially but variably good performance in the Hythe Formation and a generally poor and variable performance in the Head Deposits. However, it should be noted that the soakaway pits situated within the Head Deposits did achieve three tests, albeit at rates that at times might not be feasible for the use of soakaways.

Due to the variation in performance of the shallow clays and silts of the Head Deposits, it is recommended that the deeper weathered or un-weathered sandstone rock be used if soakaway drainage is pursued, except for at SA08 where shallow groundwater will inhibit its use. It should also be noted that deeper soakaways may require breaking equipment and may encounter unobserved groundwater, so excessive penetration is not recommended.

Additionally, the site is situated on a slope which falls to the south, consideration will be required to ensure the use of soakaways does not lead to flooding of new or existing properties located downslope.

The results of the testing should be provided to the projects drainage engineer for design of the sites surface water drainage system. Large and linked infiltration systems are considered beneficial to reduce variability in infiltration performance.

The results of the groundwater monitoring will need to be considered in the drainage design. The monitoring data will be forwarded when complete.

Comparative testing

The variable head deposits made it difficult to make direct comparisons between the two types of infiltration testing. If it is assumed that the geology in the comparable testing is similar and consistent, and looking at the two locations where infiltration rates could be calculated (SA02/WS106 and SA07/WS113) the soakaway pits have shown to be two to three times faster.

However, as we know the Head Deposits are variable in nature, it is likely that a larger surface area has on these occasions encountered more favourable permeable strata, and similar results are not guaranteed if and when replicated within any drainage systems installed on site. As such relying on betterment on the falling head testing results though carrying out further BRE365 testing should not be relied upon in initial designs

We trust this is suitable for your current requirements, should you require any further information or need clarification of any of the points raised please do not hesitate to contact us.

Yours sincerely,
for GRM Development Solutions Ltd



George Salloway BSc (Hons) MSc, MEnvSc
Senior Geoenvironmental Engineer



Geoff Beckett BSc (Hons), CGeol FGS
Director

Appendices:

- Appendix A – GRM Standard Limitations of Reporting
- Appendix B – Site Location and Boundary Plan
- Appendix C – Exploratory Hole Location Plan
- Appendix D – Exploratory Hole Logs
- Appendix E – Groundwater Monitoring Results



A P P E N D I X A

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GENERAL APPRAISAL COMMENTS

i INFORMATION SOURCES

Where available the following sources have been used for the identification and assessment of potential ground hazards:

- Relevant British Standards
- British Geological Survey (BGS) Geology Map Scale 1:10,000 for local area
- British Geological Survey (BGS) Geology Map Scale 1:50,000/1:63,320
- BGS Memoir
- BGS Borehole Records
- BGS online viewer: <http://www.bgs.ac.uk/data/mapViewers/home.html>
- Environment Agency Groundwater Vulnerability Maps
- Historical Ordnance Survey (OS) Maps
- Environmental Data Report
- Environment Agency Website: <http://www.environment-agency.gov.uk/>
- Guidance for the Selection of Water Supply Pipes to be used in Brownfield Sites, UKWIR, 2010.
- Coal Authority Records / Coal Mining Report
- DEFRA/Environment Agency Contaminated Land publications and DoE Industry Profiles
- BRE Guide BR211 (2015), 'Radon: Guidance on protective measures for new buildings'
- HPA-RPD-033 (2007), 'Indicative Atlas of Radon in England and Wales'
- PHE-CRCE-032 (PHE, 2017), Radon in Homes in England: 2016 Data Report
- CIRIA C665 'Assessing risks posed by hazardous ground gases to buildings'
- BS8485:2015, 'Code of Practice for the design of protective measures for methane and carbon dioxide ground gases for new buildings'
- Other technical references used throughout this document are detailed in the text.

ii CONTAMINANTS OF CONCERN

The DoE Industry Profiles are normally used to assess likely contaminants from past land use and potential nearby industrial sources. For land uses where no profile is available, likely contaminants of concern are selected by GRM based on past experience of similar sites, a general screening suite of contaminants covered by CLEA and common contaminants from the Industry Profiles.

- | | | |
|------------|-------------------|--|
| • Arsenic | • Copper | • Water soluble sulphate |
| • Cadmium | • Nickel | • PAH (polycyclic aromatic hydrocarbons) |
| • Chromium | • Zinc | |
| • Lead | • Phenols | |
| • Mercury | • cyanide (total) | |
| • Selenium | • pH | |

Asbestos and PCBs are listed in the vast majority of profiles. PCBs are listed as the profiles expect electricity substations and switch boxes on all industrial sites. There is the potential for asbestos containing material to be mixed up with made ground, following any demolition works.

iii CONCEPTUAL MODEL METHODOLOGY

The consideration of contamination is based upon the principles of risk assessment, using the 'source-pathway-receptor' model in order to establish the presence, or potential presence, of a pollutant linkage.

To create a risk, contamination must have the potential to cause harm to susceptible targets or receptors such as humans, the water environment or the built environment. The potential for harm to occur requires three conditions to be satisfied to form a pollutant linkage:

- The presence of substances that may cause harm (SOURCE).
- The presence of a target which may be harmed (RECEPTOR).
- The existence of a plausible migration route between the source and the receptor (PATHWAY).

In the absence of a plausible pollutant linkage there is no risk. Where a potential linkage is identified in order for it not to pose a risk to the identified receptor it must be broken.

iv INTRUSIVE INVESTIGATION SAMPLING METHODOLOGY

The ground investigation (including fieldwork, sampling, monitoring and laboratory analyses) has been designed to identify and assess potential ground related problems and to allow cost effective solutions to be advised. It has been planned on the basis of the desk study, site inspection and the proposed development layout (where available). All fieldwork and soil descriptions were carried out in general accordance with relevant British Standards.

The exploratory holes have been positioned and advanced to depths to determine the general ground/groundwater/gas conditions below the site. A general grid pattern has been adopted, where possible, to provide sufficient information based on the current proposed layout scheme. Some holes have been targeted at particular hazards identified in the Phase I assessment. The resultant exploratory hole density is considered to be commensurate with the complexity of the site conditions and detail of information required for this phase of the investigation.

v GROUND GAS RISK ASSESSMENT METHODOLOGY

Gas monitoring programmes undertaken by GRM are designed to broadly comply with the recommendations outlined in CIRIA Report C665 'Assessing risks posed by hazardous ground gas to buildings' (2007) and BS8576 'Guidance on Investigations for ground gas – Permanent gases and Volatile Organic Compounds (VOCs) (2013).

To assess the risks posed by ground gases such as radon, carbon dioxide and methane, the relevant current guidance has been used. For radon the site has been assessed following the guidelines in 'Radon: guidance on protective measures for new dwellings (BR211: 2015)'. For methane and carbon dioxide the primary guidance document used to determine if protection measures are required is *BS8485:2015 Code of practice for the design of protective measures from methane and carbon dioxide ground gases for new buildings*. This uses hazardous gas flow rates (Q_{hg}), which are gas concentrations multiplied by borehole flow rates, to derive a Gas Flow Rate (GSV) for the site. The gas regime is then determined based on the GSV and other limiting factors such as gas concentrations.

Where flow is not recorded during the monitoring a default flow rate of 0.1l/hr will be used in the assessment to produce a positive result.

vi HUMAN HEALTH RISK ASSESSMENT METHODOLOGY

Guidance contained in the Environment Agency's CLEA Reports has been used to assess the risks posed to human health.

For residential developments that include domestic gardens the default Tier 1 Assessment Criteria (TAC) for 'residential land with plant uptake' are used, i.e. a female with a start age class of one and an end age class of six. All pathways are considered including the consumption of home-grown vegetables.

For residential developments that do not include domestic gardens the default Tier 1 Assessment Criteria (TAC) for 'residential land without plant uptake' are used, i.e. a female with a start age class of one and an end age class of six. All pathways are considered except the consumption of home-grown vegetables. For commercial/industrial developments the default Tier 1 Assessment Criteria (TAC) for 'commercial/industrial' are used, i.e. a female with a start age class of sixteen and an end age class of eighteen. All pathways are considered except the consumption of home-grown vegetables.

The TAC used by GRM include Category 4 Screening Levels (C4SLs) published by DEFRA, values calculated by GRM using the CLEA v1.071 risk assessment, and values and Suitable for Use Levels (S4UL) developed by LQM/CIEH. The TAC used in the assessment are selected based on the lowest site specific SOM values returned as part of the chemical analysis.

Where soil chemical analysis results are found to exceed the TAC, Site-Specific Risk Assessments may be undertaken using the CLEA v1.071 risk assessment software using the age classes and pathways described above.

vii **RISK TO SITE WORKERS – GENERAL COMMENTS**

The risks to site workers are similar to those posed to site end users, although likely to be less severe due to the site workers' shorter exposure to the identified contamination. However, site workers (particularly groundworkers) are more likely to come into direct contact with contaminated soils due to the nature of their work. On this basis ground and construction workers should be provided with basic Personal Protective Equipment based on the site's general health and safety risk assessment, but including as a minimum safety footwear, gloves and overalls.

A site specific risk assessment should be carried out for all hazards identified within the ground investigation in accordance with current health and safety legislation. This assessment should identify any measures required to further reduce risks i.e. providing further Personal Protective Equipment, welfare facilities and if necessary preventing access to certain areas.

Demolition and dismantling of existing structures on the site must be carried out to a safe and acceptable standard, in accordance with current UK guidance and best practice. Whilst not ground related, asbestos and hazardous substances surveys should be conducted prior to any demolition.

Any unusual colours, odours and suspicious ground should be reported immediately to site management and then GRM.

Whilst this appraisal has considered the long-term effects of contamination, GRM can also help during the formulation of Health and Safety documentation, if required.

viii **CONTROLLED WATERS RISK ASSESSMENT METHODOLOGY**

Where the desk study and fieldwork do not reveal a potential source of contamination no leachate or groundwater testing will be performed. Where a potential source is identified the testing will comprise leachate testing on the material considered most likely to pose a risk, groundwater testing will be undertaken if water is present at shallow depth.

The UK Drinking Water Standards (UKDWS) or Environmental Quality Standards (EQS) are usually adopted for comparison with the leachate/groundwater test results. When the most sensitive receptor is considered to be the aquifer (groundwater) UKDWS will be adopted as the Initial Tier 1 screening values. Where the most sensitive receptor is a surface water feature the EQS values will be used as Initial Tier 1 Screening values.

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ix CONSTRUCTION MATERIALS RISK ASSESSMENT METHODOLOGY

The 'screening levels' adopted for the assessment of risk to construction materials are taken from the following documents:

- UK Water Industry Research (UKWIR) Contamination thresholds for sub-surface water pipes, for the protection of buried pipes.
- Building Research Establishment (BRE) Special Digest SD1 (2005), 'Concrete in Aggressive Ground', for the protection of buried concrete.

x WASTE DISPOSAL, SITE WASTE MANAGEMENT PLANS AND MATERIAL MANAGEMENT PLANS

Under current Waste Management Regulations, waste soil materials produced from the site will require characterisation to enable it to be disposed of correctly.

The chemical analysis results included in this report should be provided to the relevant landfill operators to establish the characterisation of the waste, confirm its suitability for landfill disposal and provide estimated costings. If material is classified as hazardous, then the site will need to be registered with the Environment Agency prior to the movement of the waste. Depending on the receiving landfill's current permit, further chemical analysis, incorporating Waste Acceptance Criteria (WAC) leachate analysis, may be required.

All materials removed from the site will be classified as 'waste' and therefore must be removed by a suitably licensed carrier of waste. This applies whether or not the waste is contaminated. All waste removed to landfill will attract Landfill Tax.

The developer/builder is likely to be classed as the waste producer and therefore, has a duty of care to ensure that all waste is disposed of appropriately. This includes ensuring the waste carrier is licensed and disposes of the waste to a suitably licensed landfill site. They are also required to keep a paper trail from 'cradle to grave' including copies of the waste disposal tickets.

Efficient materials management on site is recommended as it can lead to significant cost savings when compared to the traditional side casting or single stockpile of arisings. GRM can assist in the production of Material Management Plans under the CL:AIRE Definition of Waste: Code of Practice. The DoWCoP enables:

- The direct transfer and re-use of clean naturally occurring soil materials between sites, and
- The re-use of both contaminated and uncontaminated materials on their site of origin and between sites within defined Cluster projects.

GRM can also undertake the role of Qualified Person and submit the DoW CoP project Declaration.

Likewise making the site as volume neutral as possible will reduce the costs of development. Whilst not a statutory requirement, Site Waste Management Plans allow better waste management practices, help to reduce the amount of waste produced and identify best environmental disposal options. Implementing a Site Waste Management Plan (SWMP) can reduce costs (increasing business profits) and maximise resource efficiency.

xi GEOTECHNICAL ASSESSMENT GENERAL COMMENTS

Where finished floor levels of proposed structures have not been provided by the Client, then for the purposes of initial assessment, GRM will assume that finished levels will not vary appreciably from the existing ground levels. If the depths of any underground engineering works (i.e. sewers, pumping stations

etc.) are unknown they will not be taken in to account in the assessment and it will be assumed that any such works will not compromise foundation or ground stability.

Should the development proposals or finished levels be different from these assumptions then the comments/recommendations in the Geotechnical Assessment may require revising.

It should be noted that the results of window sampling and/or cable percussive boreholes may not give a true indication of a soils actual engineering properties (i.e. stability, mass structure etc). GRM consider that that prior to development trial pitting should be undertaken to confirm the recommendations in the Geotechnical Assessment.

xii GEOTECHNICAL ASSESSMENT – ENGINEERING GROUND TREATMENT

Near surface soils have the potential to be disturbed by weathering and site traffic. Precautions should always be taken to avoid this, as excessive disturbance may leads to more onerous floor slab designs, road cap thickness and increased amounts of off-site disposal etc.

Near surface soils may need treatment or reinforcing to allow safe movement of construction plant and labour. An assessment by the contractor should be undertaken once the type of machinery/plant needed to complete the development is known.

xiii GEOTECHNICAL ASSESSMENT – EXCAVATIONS

Excavation instability (over-break) can result in damage to existing services or structures (e.g. foundations, roads or boundary walls/fences) both on and off-site, as well as increased foundation concrete costs. In order to minimise this, all excavations deeper than 1.2m deep (or any excavation within 1.5m of any existing structure or service) should be supported. Full support should be provided to the full depth of all near vertically sided excavations in made ground, soft and very soft clays and granular soils. A reduction to intermediate support should be acceptable within firm and stiffer natural clays.

Wherever possible, man entry into excavations should be prevented; however, where this is not possible, entry to, and time spent in, excavations should be kept to a minimum.

The build program should be tailored to reflect the impact that deep excavations through potentially unstable strata can have on adjacent properties, so that they are not undermined.

All excavations on site should be in accordance with HSE guidelines and stability should be practically maintained at all times. Reference should be made to HSE construction information sheet No. 8 (Revision 1) 'Safety in Excavations'.

Care should be taken to ensure that falls from excavation faces do not adversely affect the integrity of foundation concrete.

If contaminated water enters excavations it should be removed and transported to an appropriate treatment facility by a suitably licensed carrier before construction begins.

xiv GEOTECHNICAL ASSESSMENT – SUBSTRUCTURES

Where practicable, existing buried construction should be fully removed; however, if this is not practicable all new foundations should be carried down to fully penetrate it and it should be broken well away from all new structures.

There may be existing structures and/or infrastructure in close proximity to the proposed development. New build foundations may be constructed next to pavements with existing underground services beneath them, or excavations may be required near existing footings associated with adjacent properties. These potential hazards need to be taken into consideration when designing foundations and the groundworker needs to be made aware of their potential impact during the redevelopment works. Foundations close to existing underground services or buildings may require alternative foundation techniques (such as piling) to protect the integrity of these structures.

The contractor for the works should carry them out in such a fashion so as to not cause excessive overbreak, concrete usage or undermine existing buildings/roads/ services that are to be retained.

xv **GEOTECHNICAL ASSESSMENT – SOAKAWAYS**

Soakaway testing in trial pits by GRM is broadly carried out in accordance with BRE DG 365 (2016). The testing comprises the excavation of a test pit to a suitable depth, and the placement of water into the pit. The level of water present is then monitored over time. For borehole installations, the permeability testing (falling head/rising head) is undertaken in accordance with BS5930.

If it is decided to proceed with the use of soakaway drainage, then the following general points should be noted:

- Soakaways should not be placed so that water can be discharged through potentially contaminated made ground.
- The Environment Agency may require soakaways to be sealed systems such that only roof run off falls to soakaway.
- Interceptors are likely to be required for soakaways for highway drainage. The adopting authority for the highways should be consulted at the earliest opportunity regarding the use of soakaways for highways drainage.
- Consideration of site levels and slopes should be taken into account during the design.
- The construction of all soakaways should be in accordance with the current building regulations.
- Soakaways should not be placed within 5m of a proposed building.
- Placement of soakaways needs to be considered so as to avoid ponding of water down slope.
- The base of a soakaway should not be below the highest recorded water level.
- The Environment Agency prefer 1m of dry soil to be present between the base of a soakaway and the water table to provide attenuation for contamination.

xvi **GEOTECHNICAL ASSESSMENT – FOUNDATIONS**

If soft or hard spots are encountered during foundation excavation then they should be replaced with suitably compacted material or the footings deepened to suitable strata, to avoid differential settlement.

If strata of differing bearing character (e.g. sand and clay) are encountered at foundation levels within the excavations for a single plot then the excavation depths should be altered as appropriate to ensure the foundations rest on a single stratum, or strata that will not induce differential settlement. Where this is impractical then GRM should be contacted to assess a reinforced concrete detail or an alternative foundation solution (e.g. piles or vibro-replacement).

NOTES ON LIMITATIONS

General

GRM Development Solutions Limited has prepared this report solely for the use of the Client and those parties with whom a warranty agreement had been executed, or with whom an assignment had been agreed. Should any third party wish to use or rely upon the contents of the report, written approval must be sought from GRM Development Solutions Limited; a charge may be levied against such approval.

GRM Development Solutions Limited accepts no responsibility or liability for:

- a) the consequences of this document being used for any purpose or project other than for which it was commissioned, and
- b) the consequences of this document being used by any third party with whom an agreement has not been executed.

Phase I Environmental Audits/ Desk Studies

The work undertaken to provide the basis of this report comprised a study of available documented information from a variety of sources (including the Client), together with (where appropriate) a brief walk over inspection of the site and meetings and discussions with relevant authorities and other interested parties. The opinions given in this report have been dictated by the finite data on which they are based and are relevant only to the purpose for which the report was commissioned. The information reviewed should not be considered exhaustive and has been accepted in good faith as providing true and representative data pertaining to site conditions. Should additional information become available which may affect the opinions expressed in this report, GRM Development Solutions Limited reserves the right to review such information and as considered necessary and appropriate to modify the opinions accordingly. It should be noted that any risks identified in a Phase 1 report are perceived risks based on the information reviewed; actual risks can only be assessed following a physical investigation of the site.

Phase II Environmental Audits (Contamination Investigations)

The investigation of the site has been carried out to provide sufficient information concerning the type and degree of contamination, ground and groundwater conditions to allow a reasonable risk assessment to be made. The objectives of the investigation have been limited to establishing the risks associated with potential human targets, building materials, and controlled waters.

The amount of exploratory work and chemical testing undertaken has necessarily been restricted by the short timescale available, and the locations of exploratory holes have been restricted to the areas unoccupied by the building(s) on the site and by buried services. A more comprehensive investigation may be required if the site is to be redeveloped as, in addition to risk assessment, a number of important engineering and environmental issues need to be resolved.

For these reasons if costs have been included in relation to site remediation these must be considered as provisional only and must, in any event, be confirmed by a commercial adviser.

The exploratory holes undertaken, which investigate only a small volume of the ground in relation to the size of the site, can only provide a general indication of site conditions. Whilst exploratory testing is intended to gain an accurate representation of the site, the very nature of sampling and testing is such that it cannot ensure that all localised conditions are detected.

The risk assessment and opinions provided take in to consideration, inter alia, currently available guidance relating to acceptable contamination concentrations; no liability can be accepted for the retrospective effects of any future changes or amendments to these values.

Phase II Geo-environmental Investigations (Combined Geotechnical and Contamination Investigations)

The investigation of the site has been carried out to provide sufficient information concerning the type and degree of contamination, geotechnical characteristics, and ground and groundwater conditions to provide a reasonable assessment of the environment risks together with engineering and development implications. If costs have been included in relation to site development a commercial adviser must confirm these.

The exploratory holes undertaken, which investigate only a small volume of the ground in relation to the size of the site, can only provide a general indication of site conditions. The opinions provided and recommendations given in this report are based on the ground conditions apparent at the site for each of the exploratory holes. There may be exceptional ground conditions elsewhere on the site which have not been disclosed by this investigation and which have therefore not been taken into account in this report.

The comments made on groundwater conditions are based on observations made at the time the site work was conducted. It should be noted that groundwater levels will vary owing to seasonal, tidal and weather related effects. The scope of the investigation was selected on the basis of the specific development proposed by the Client and may be inappropriate to another form of development or scheme.



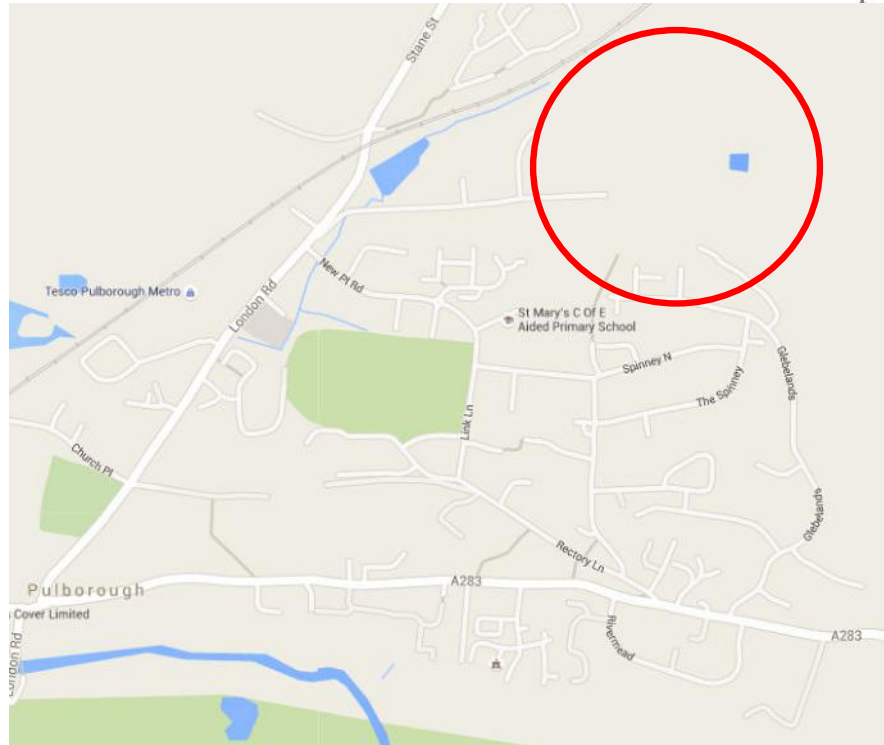
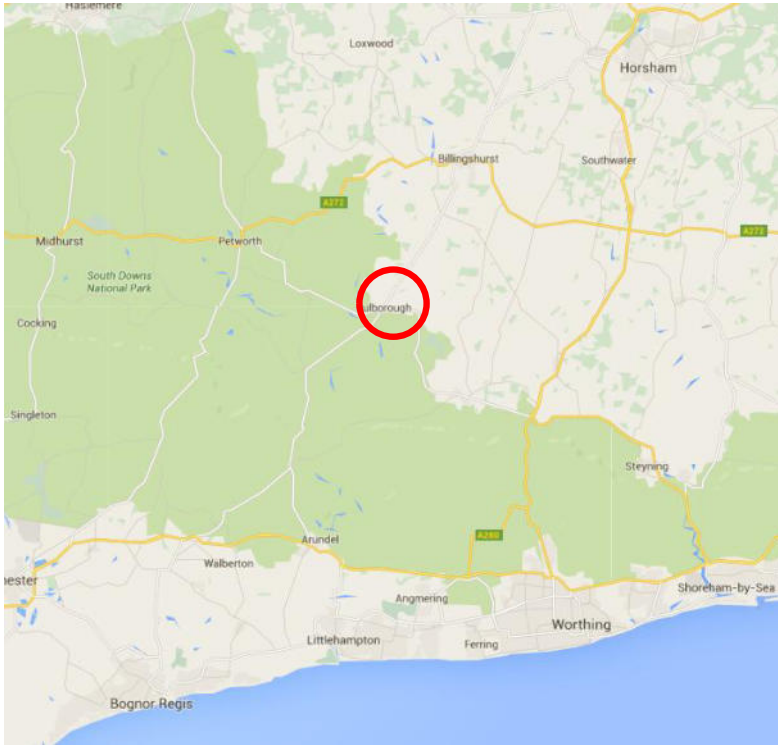
The risk assessment and opinions provided take in to consideration, inter alia, currently available guidance relating to acceptable contamination concentrations; no liability can be accepted for the retrospective effects of any future changes or amendments to these values.



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DO NOT SCALE

NOTES:



Approximate Site Boundary



Approximate Site Location



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Burton-on-Trent, Staffordshire
Tel: 01283 551 249 68

info@grm-uk.com www.grm-uk.com

CLIENT:

Catesby Estates Ltd

PROJECT:

Drovers Lane, Pulborough

TITLE:

**Site Location and Boundary
Plan**

SCALE@SIZE:

NTS

ISSUE:

Final

DESIGN/DRAWN:

GS

DATE:

March 2021

PROJECT No:

P7298

DRAWING No:

1

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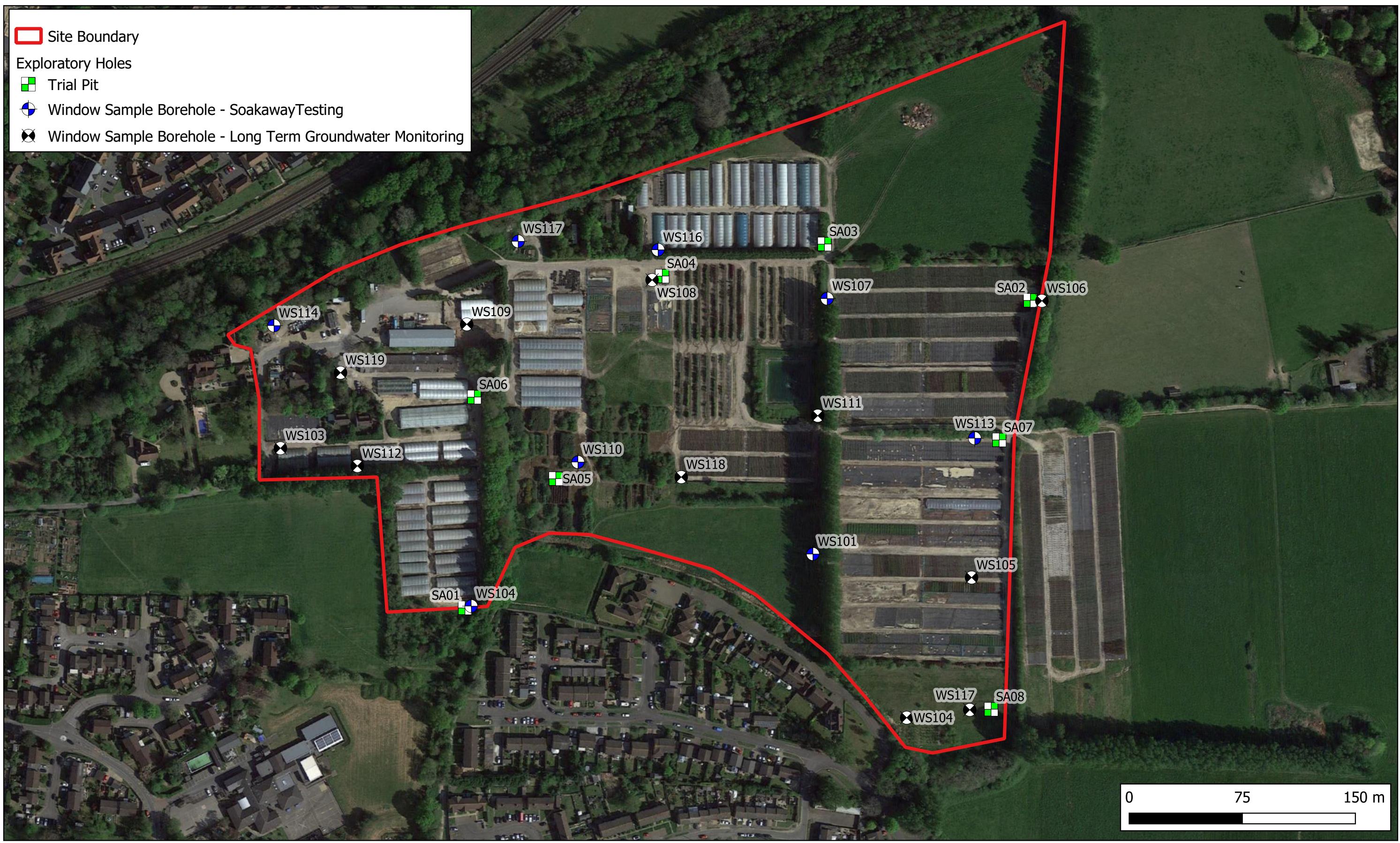
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NOTES: NOTES	CLIENT: CATESBY ESTATES LTD	PROJECT No: P7298	DATE: MAR 2021	DESIGN/DRAWN: AL	 GRM Development Solutions Ltd Tel: 01283 551 249 mail@grm-uk.com www.grm-uk.com
	PROJECT: LAND OFF DROVERS LANE, PULBOROUGH	DRAWING NUMBER: 		ISSUE: FINAL	
	TITLE: EXPLORATORY HOLE LOCATION PLAN	© GRM Development Solutions Ltd © Crown Copyright. AL 100014100			

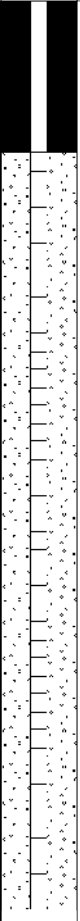
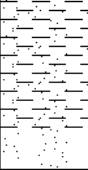
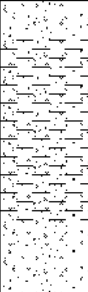


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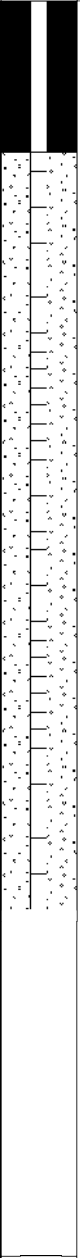
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		GRM Development Solutions Ltd Laurus House, First Avenue, Centrum 100, Burton-on-Trent, DE14 2WH Tel (HQ): 01283 551249 Email: info@grm-uk.com		Windowless Sample Borehole			Borehole No WS101 Sheet 1 of 1		
Site Name: Land to the north east of Glebelands, Pulborough							Ground Level (mAOD)		
Client: Catesby Estates plc					GRM Project Ref: P7298			Coordinates 505751 E 119190 N	

Installation/ Backfill	Water Strike	Samples/Tests			Dynamic Probing (Blows per 100mm)	Depth (m)	Level (m)	Legend	Stratum Description	
		Depth	Type	Result						
		0.20						 Dark brown slightly silty slightly gravelly fine to coarse SAND. Gravel is medium to coarse and angular of mudstone and sandstone. Rootlets present.  TOPSOIL  Soft to firm, approximately low to medium strength, dark yellowish brown sandy CLAY. Sand is fine to medium.  Very soft to soft, very low to low strength, light yellowish brown and occasionally light grey mottled slightly sandy slightly gravelly CLAY. Sand is fine to coarse. Gravel is medium to coarse and angular of sandstone.		
		0.50	D							
		1.00		N=1 (0,0/0,0,1,0)		1.00				1
		2.00		N=5 (1,1/1,1,1,2)						2
		3.00		N=4 (1,0/1,1,1,1)		3.00		 becoming very gravelly from 2.80m depth. End of Borehole at 3.000m	3	
									4	

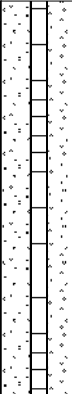
Crew: RGI Ltd	Logger: AT	Weather: Overcast and rain.
Equipment: Premier Tracker 110		
Reason for termination of borehole: Borehole terminated on SPT 'N' value refusal at 3.00m depth.		
Groundwater Remarks: No groundwater encountered during drilling.		
General Remarks: Borehole completed as a groundwater level monitoring well, and as a soakaway testing hole.		
Hole Started: 22/02/2021	Hole Complete: 22/02/2021	Version: FINAL
		Scale: 1:25

		GRM Development Solutions Ltd Laurus House, First Avenue, Centrum 100, Burton-on-Trent, DE14 2WH Tel (HQ): 01283 551249 Email: info@grm-uk.com		Windowless Sample Borehole			Borehole No WS102 Sheet 1 of 1		
Site Name: Land to the north east of Glebelands, Pulborough							Ground Level (mAOD)		
Client: Catesby Estates plc					GRM Project Ref: P7298			Coordinates 505524 E 119156 N	

Installation/ Backfill	Water Strike	Samples/Tests			Dynamic Probing (Blows per 100mm)	Depth (m)	Level (m)	Legend	Stratum Description	
		Depth	Type	Result						
		0.20						Dark brown slightly gravelly silty fine to coarse sandy CLAY. Gravel is medium to coarse and angular of mixed lithology including sandstone and clinker. MADE GROUND Very soft, very low strength, dark yellowish brown slightly gravelly sandy silty CLAY. Sand is fine to coarse. Gravel is fine to coarse and angular of sandstone. HEAD		
		0.50	D							
		1.00		N=3 (1,1/1,0,1,1)				<i>becoming very gravelly between 1.10m and 1.20m depth.</i>	1	
		2.00		N=4 (0,1/1,1,1,1)				<i>with a pocket of fine to medium silty sand encountered between 1.80m and 1.90m depth.</i>	2	
		3.00		50 (25 for 100mm/50 for 115mm)		3.00		<i>becoming very stiff from 2.90m depth.</i> End of Borehole at 3.000m	3	
									4	

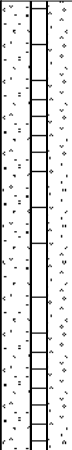
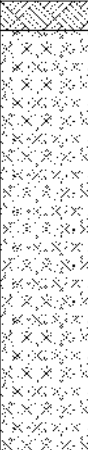
Crew: RGI Ltd		Logger: AT		Weather: Overcast and rain.	
Equipment: Premier Tracker 110					
Reason for termination of borehole:		Borehole terminated at target depth of 3.00m begl.			
Groundwater Remarks: No groundwater encountered during drilling.					
General Remarks: Borehole completed as a groundwater level monitoring well, and as a soakaway testing hole. Hythe Formation anticipated below 3.0m begl.					
Hole Started:	22/02/2021	Hole Complete:	22/02/2021	Version:	FINAL
				Scale:	1:25

		GRM Development Solutions Ltd Laurus House, First Avenue, Centrum 100, Burton-on-Trent, DE14 2WH Tel (HQ): 01283 551249 Email: info@grm-uk.com		Windowless Sample Borehole			Borehole No WS103 Sheet 1 of 1		
Site Name: Land to the north east of Glebelands, Pulborough							Ground Level (mAOD)		
Client: Catesby Estates plc					GRM Project Ref: P7298			Coordinates 505397 E 119261 N	

Installation/ Backfill	Water Strike	Samples/Tests			Dynamic Probing (Blows per 100mm)	Depth (m)	Level (m)	Legend	Stratum Description	
		Depth	Type	Result						
		0.50 - 0.60	D			0.10			Soft, orange brown, slightly sandy, slightly gravelly SILT. Sand is fine to coarse. Gravel is fine to coarse, sub-angular to rounded of quartzite and roadstone. MADE GROUND Firm, approximately medium strength, orange brown, slightly gravelly, sandy SILT. Sand is fine to coarse. Gravel is fine to coarse, sub-angular of sandstone. HEAD	
		1.00	SPTLS	N=50 (5,12/50 for 235mm)	1.10		Very weak, yellow brown, fine to coarse grained SANDSTONE. Recovered as a sandy gravel. HYTHE FORMATION			
		1.00	S		1.30		End of Borehole at 1.300m			

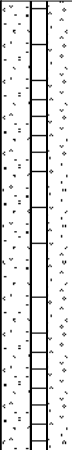
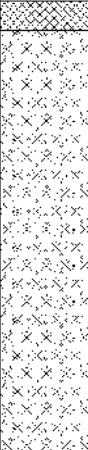
Crew: RGI Drilling.			Logger: AL.			Weather: Clear, dry		
Equipment: Premier Compact 110.								
Reason for termination of borehole: Refusal at 1.3m begl on sandstone.								
Groundwater Remarks: No groundwater encountered.								
General Remarks:								
Hole Started: 26/02/2021		Hole Complete: 26/02/2021		Version: FINAL		Scale: 1:25		

		GRM Development Solutions Ltd Laurus House, First Avenue, Centrum 100, Burton-on-Trent, DE14 2WH Tel (HQ): 01283 551249 Email: info@grm-uk.com		Windowless Sample Borehole			Borehole No WS104 Sheet 1 of 1		
Site Name: Land to the north east of Glebelands, Pulborough							Ground Level (mAOD)		
Client: Catesby Estates plc					GRM Project Ref: P7298			Coordinates 505814 E 119083 N	

Installation/ Backfill	Water Strike	Samples/Tests			Dynamic Probing (Blows per 100mm)	Depth (m)	Level (m)	Legend	Stratum Description	
		Depth	Type	Result						
					0.10			Grass over soft, dark brown, clayey fine to medium silty SAND. Rootlets present. TOPSOIL		
		0.60 - 0.70	D		0.60			Soft, approximately low strength, orange brown mottled grey, slightly gravelly, sandy SILT. Sand is fine to coarse. Gravel is fine to coarse, sub-angular of sandstone. HEAD		
		1.00	S	N=13 (1,2/4,3,3,3)				Firm, medium strength, orange brown mottled grey, slightly gravelly, sandy SILT. Sand is fine to coarse. Gravel is fine to coarse, sub-angular of sandstone. HEAD	1	
		1.30 - 1.40	D		1.50			End of Borehole at 1.500m	2	
									3	
									4	

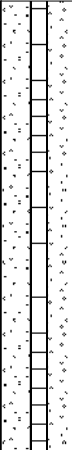
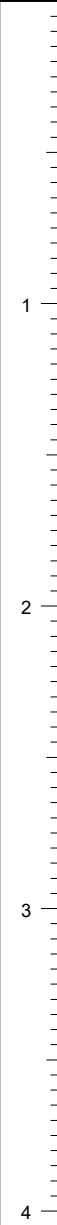
Crew: RGI Drilling.		Logger: AL.		Weather: Clear, dry	
Equipment: Premier Compact 110.					
Reason for termination of borehole:		Target depth achieved.			
Groundwater Remarks: No groundwater encountered.					
General Remarks:					
Hole Started: 26/02/2021		Hole Complete: 26/02/2021		Version: FINAL	
				Scale: 1:25	

		GRM Development Solutions Ltd Laurus House, First Avenue, Centrum 100, Burton-on-Trent, DE14 2WH Tel (HQ): 01283 551249 Email: info@grm-uk.com		Windowless Sample Borehole			Borehole No WS105 Sheet 1 of 1		
Site Name: Land to the north east of Glebelands, Pulborough							Ground Level (mAOD)		
Client: Catesby Estates plc					GRM Project Ref: P7298			Coordinates 505856 E 119175 N	

Installation/ Backfill	Water Strike	Samples/Tests			Dynamic Probing (Blows per 100mm)	Depth (m)	Level (m)	Legend	Stratum Description	
		Depth	Type	Result						
						0.10			Soft, dark brown, slightly gravelly, sandy SILT. Sand is fine to coarse. Gravel is fine to coarse of sub-angular roadstone. MADE GROUND Soft, low strength, orange brown, sandy SILT with rare gravel. Sand is fine to coarse. Gravel is fine to medium of sub-angular sandstone. HEAD	
		0.60 - 0.70	D							
		1.00	S	N=5 (1,1/1,2,1,1)						1
		1.30 - 1.40	D			1.50			End of Borehole at 1.500m	2
										3
										4

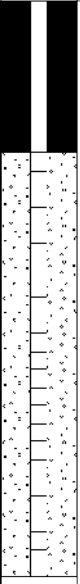
Crew: RGI Drilling Ltd.		Logger: AL.		Weather: Clear, dry	
Equipment: Premier Compact 110.					
Reason for termination of borehole:		Target depth achieved.			
Groundwater Remarks: No groundwater encountered.					
General Remarks:					
Hole Started: 26/02/2021		Hole Complete: 26/02/2021		Version: FINAL	
				Scale: 1:25	

		GRM Development Solutions Ltd Laurus House, First Avenue, Centrum 100, Burton-on-Trent, DE14 2WH Tel (HQ): 01283 551249 Email: info@grm-uk.com		Windowless Sample Borehole			Borehole No WS106 Sheet 1 of 1		
Site Name: Land to the north east of Glebelands, Pulborough							Ground Level (mAOD)		
Client: Catesby Estates plc					GRM Project Ref: P7298			Coordinates 505902 E 119359 N	

Installation/ Backfill	Water Strike	Samples/Tests			Dynamic Probing (Blows per 100mm)	Depth (m)	Level (m)	Legend	Stratum Description	
		Depth	Type	Result						
						0.10			Grass over dark brown, slightly gravelly, sandy SILT. Sand is fine to coarse. Gravel is fine to medium of sandstone, roadstone and quartzite. Rootlets present. TOPSOIL	
		0.60 - 0.70	D						Firm, medium strength, orange brown, slightly gravelly, sandy SILT. Sand is fine to coarse. Gravel is fine to coarse, sub-angular of sandstone. HEAD	
		1.00	S	N=13 (2,2/2,3,4,4)		1.20			Firm, medium strength, slightly sandy, gravelly SILT. Sand is fine to coarse. Gravel is fine to coarse, sub-angular of sandstone. HEAD	
		1.30 - 1.40	D			1.50			End of Borehole at 1.500m	

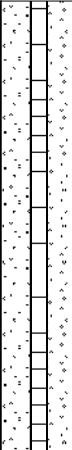
Crew: RGI Drilling Ltd.		Logger: AL.		Weather: Clear, dry	
Equipment: Premier Compact 110.					
Reason for termination of borehole:		Target depth achieved.			
Groundwater Remarks: No groundwater encountered.					
General Remarks:					
Hole Started: 26/02/2021		Hole Complete: 26/02/2021		Version: FINAL	
				Scale: 1:25	

		GRM Development Solutions Ltd Laurus House, First Avenue, Centrum 100, Burton-on-Trent, DE14 2WH Tel (HQ): 01283 551249 Email: info@grm-uk.com		Windowless Sample Borehole			Borehole No WS107 Sheet 1 of 1	
Site Name: Land to the north east of Glebelands, Pulborough							Ground Level (mAOD)	
Client: Catesby Estates plc				GRM Project Ref: P7298			Coordinates 505760 E 119360 N	

Installation/ Backfill	Water Strike	Samples/Tests			Dynamic Probing (Blows per 100mm)	Depth (m)	Level (m)	Legend	Stratum Description	
		Depth	Type	Result						
						0.25			Dark brown slightly gravelly silty fine to coarse SAND. Gravel is medium to coarse and angular of sandstone. TOPSOIL	
		1.00			N=14 (2,2/2,2,3,7)				Medium dense light yellowish brown slightly gravelly silty fine to medium SAND. Gravel is fine to medium and angular of sandstone. HYTHE FORMATION <i>with rare 0.01m to 0.03m clay pockets encountered between 0.50m and 1.50m depth.</i>	1
		1.60	D						<i>with an angular sandstone cobble encountered at 0.95m depth.</i>	
		1.90			50 (25 for 35mm/50 for 10mm)		1.80 1.90		Extremely weak SANDSTONE recovered as a light yellowish brown and grey slightly sandy fine to coarse and angular gravel of weak platy sandstone. HYTHE FORMATION End of Borehole at 1.900m	2
										3
										4

Crew: RGI Ltd		Logger: AT		Weather: Overcast and rain.	
Equipment: Premier Tracker 110					
Reason for termination of borehole:		Borehole terminated on SPT 'N' value refusal at 1.90m depth.			
Groundwater Remarks: No groundwater encountered during drilling.					
General Remarks: Borehole completed as a groundwater level monitoring well, and as a soakaway testing hole.					
Hole Started: 22/02/2021		Hole Complete: 22/02/2021		Version: FINAL	
				Scale: 1:25	

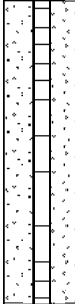
		GRM Development Solutions Ltd Laurus House, First Avenue, Centrum 100, Burton-on-Trent, DE14 2WH Tel (HQ): 01283 551249 Email: info@grm-uk.com		Windowless Sample Borehole			Borehole No WS108 Sheet 1 of 1		
Site Name: Land to the north east of Glebelands, Pulborough							Ground Level (mAOD)		
Client: Catesby Estates plc					GRM Project Ref: P7298			Coordinates 505643 E 119373 N	

Installation/ Backfill	Water Strike	Samples/Tests			Dynamic Probing (Blows per 100mm)	Depth (m)	Level (m)	Legend	Stratum Description	
		Depth	Type	Result						
		0.40 - 0.50	D			0.10			Covering of fine to coarse GRAVEL of angular roadstone. MADE GROUND Soft, approximately low strength, orange brown, slightly gravelly, sandy SILT. Sand is fine to coarse. Gravel is fine to coarse, sub-angular to angular sandstone. HEAD	1
		1.00	S	N=6 (3,2/1,1,2,2)						
		1.20 - 1.30	D			1.30			Very weak, yellow brown, fine to coarse grained SANDSTONE. Recovered as a silty, sandy GRAVEL. HYTHE FORMATION End of Borehole at 1.500m	2
						1.50				
										3
										4

Crew: RGI Drilling Ltd.		Logger: AL.		Weather: Clear, dry.	
Equipment: Premier Compact 110.					
Reason for termination of borehole:		Target depth achieved.			
Groundwater Remarks: No groundwater encountered.					
General Remarks:					

Hole Started:	26/02/2021	Hole Complete:	26/02/2021	Version:	FINAL	Scale:	1:25
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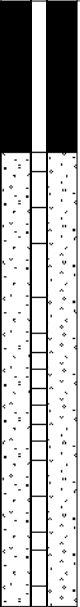
		GRM Development Solutions Ltd Laurus House, First Avenue, Centrum 100, Burton-on-Trent, DE14 2WH Tel (HQ): 01283 551249 Email: info@grm-uk.com		Windowless Sample Borehole			Borehole No WS109 Sheet 1 of 1		
Site Name: Land to the north east of Glebelands, Pulborough							Ground Level (mAOD)		
Client: Catesby Estates plc					GRM Project Ref: P7298			Coordinates 505520 E 119344 N	

Installation/ Backfill	Water Strike	Samples/Tests			Dynamic Probing (Blows per 100mm)	Depth (m)	Level (m)	Legend	Stratum Description	
		Depth	Type	Result						
						0.10			Soft, dark brown, slightly clayey, sandy SILT. Sand is fine to medium. MADE GROUND	
		0.50 - 0.60	D			0.80			Firm, approximately medium strength, orange brown, slightly gravelly sandy SILT. Sand is fine to coarse. Gravel fine to coarse, sub-angular of sandstone. HEAD	
		0.90 - 1.00 1.00	D S	50 (2,5/50 for 195mm)	1.00			Very weak, orange to yellow brown, fine to coarse grained SANDSTONE. Recovered as a silty sandy GRAVEL. HYTHE FORMATION End of Borehole at 1.000m	1	
										2
										3
										4

Crew: RGI Drilling Ltd.		Logger: AL.		Weather: Clear, dry	
Equipment: Premier Compact 110.					
Reason for termination of borehole:		Refusal at 1.0m begl on sandstone.			
Groundwater Remarks: No groundwater encountered.					
General Remarks:					

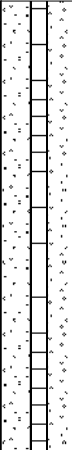
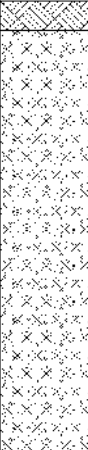
Hole Started:	26/02/2021	Hole Complete:	26/02/2021	Version:	FINAL	Scale:	1:25
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		GRM Development Solutions Ltd Laurus House, First Avenue, Centrum 100, Burton-on-Trent, DE14 2WH Tel (HQ): 01283 551249 Email: info@grm-uk.com		Windowless Sample Borehole			Borehole No WS110 Sheet 1 of 1		
Site Name: Land to the north east of Glebelands, Pulborough							Ground Level (mAOD)		
Client: Catesby Estates plc					GRM Project Ref: P7298			Coordinates 505595 E 119252 N	

Installation/ Backfill	Water Strike	Samples/Tests			Dynamic Probing (Blows per 100mm)	Depth (m)	Level (m)	Legend	Stratum Description	
		Depth	Type	Result						
						0.20			Dark brown slightly silty slightly gravelly fine to coarse SAND. Gravel is medium to coarse and angular of flint and quartzite. TOPSOIL	
		0.60	D						Soft, low strength, light yellowish brown with occasional light grey mottling slightly gravelly sandy CLAY. Sand is fine to coarse. Gravel is medium to coarse and angular of sandstone. HEAD	
		1.00		N=5 (1,1/2,1,1,1)					<i>becoming soft and slightly damp between 1.10m and 1.40m depth.</i>	1
		2.00	D	50 (7,11/50 for 160mm)		1.80			Very dense light yellowish brown slightly silty slightly gravelly fine to medium SAND. Gravel is medium to coarse and angular of sandstone. HYTHE FORMATION End of Borehole at 2.000m	2
		2.00								3
										4

Crew: RGI Ltd		Logger: AT		Weather: Overcast and rain.	
Equipment: Premier Tracker 110					
Reason for termination of borehole:		Borehole terminated on SPT 'N' value refusal at 2.00m depth.			
Groundwater Remarks: No groundwater encountered during drilling.					
General Remarks: Borehole completed as a groundwater level monitoring well, and as a soakaway testing hole.					
Hole Started: 22/02/2021		Hole Complete: 22/02/2021		Version: FINAL	
				Scale: 1:25	

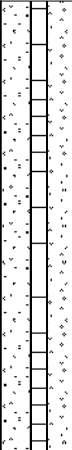
		GRM Development Solutions Ltd Laurus House, First Avenue, Centrum 100, Burton-on-Trent, DE14 2WH Tel (HQ): 01283 551249 Email: info@grm-uk.com		Windowless Sample Borehole			Borehole No WS111 Sheet 1 of 1		
Site Name: Land to the north east of Glebelands, Pulborough							Ground Level (mAOD)		
Client: Catesby Estates plc					GRM Project Ref: P7298			Coordinates 505753 E 119281 N	

Installation/ Backfill	Water Strike	Samples/Tests			Dynamic Probing (Blows per 100mm)	Depth (m)	Level (m)	Legend	Stratum Description	
		Depth	Type	Result						
		0.50 - 0.60	D		N=14 (1,2/3,4,3,4)	0.10		Grass over dark brown, slightly clayey, silty fine to medium SAND. Rootlets present. MADE GROUND Firm, medium strength, orange brown, slightly gravelly, sandy SILT. Sand is fine to coarse. Gravel is fine to medium of angular to sub-angular sandstone. HEAD	1	
		1.00	S					<i>... becoming gravelly below 1.0m begl with sub-angular sandstone.</i>		
		1.30 - 1.40	D							
						1.50			End of Borehole at 1.500m	2
										3
										4

Crew: RGI Drilling Ltd.		Logger: AL.		Weather: Clear, dry	
Equipment: Premier Compact 110.					
Reason for termination of borehole:		Target depth achieved.			
Groundwater Remarks: No groundwater encountered.					
General Remarks:					

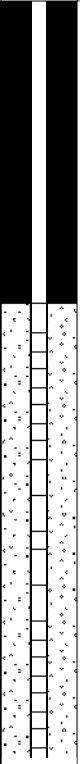
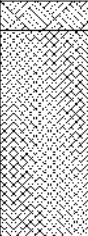
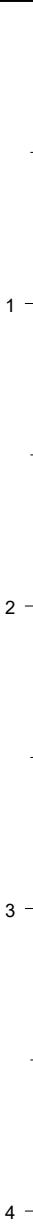
Hole Started:	26/02/2021	Hole Complete:	26/02/2021	Version:	FINAL	Scale:	1:25
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		GRM Development Solutions Ltd Laurus House, First Avenue, Centrum 100, Burton-on-Trent, DE14 2WH Tel (HQ): 01283 551249 Email: info@grm-uk.com		Windowless Sample Borehole			Borehole No WS112 Sheet 1 of 1		
Site Name: Land to the north east of Glebelands, Pulborough							Ground Level (mAOD)		
Client: Catesby Estates plc					GRM Project Ref: P7298			Coordinates 505447 E 119250 N	

Installation/ Backfill	Water Strike	Samples/Tests			Dynamic Probing (Blows per 100mm)	Depth (m)	Level (m)	Legend	Stratum Description	
		Depth	Type	Result						
						0.10			Grass over soft, low strength, dark brown, slightly clayey, silty fine to medium SAND. Rootlets present. TOPSOIL	
		0.50 - 0.60	D						Soft, low strength, orange brown, slightly gravelly, sandy SILT. Sand is fine to coarse. Gravel is fine to medium, sub-angular of sandstone. HEAD	1
		1.00	S	N=7 (2,1/1,1,2,3)		1.10			Soft, low strength, orange brown, slightly sandy, gravelly SILT. Sand is fine to coarse. Gravel is fine to coarse, angular to sub-angular of sandstone HEAD	
		1.40 - 1.50	D			1.50			End of Borehole at 1.500m	2
										3
										4

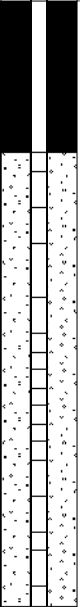
Crew: RGI Drilling Ltd.		Logger: AL.		Weather: Clear, dry.	
Equipment: Premier Compact 110.					
Reason for termination of borehole: Target depth achieved.					
Groundwater Remarks: No groundwater encountered.					
General Remarks:					
Hole Started: 26/02/2021		Hole Complete: 26/02/2021		Version: FINAL	
				Scale: 1:25	

		GRM Development Solutions Ltd Laurus House, First Avenue, Centrum 100, Burton-on-Trent, DE14 2WH Tel (HQ): 01283 551249 Email: info@grm-uk.com		Windowless Sample Borehole			Borehole No WS112a Sheet 1 of 1		
Site Name: Land to the north east of Glebelands, Pulborough							Ground Level (mAOD)		
Client: Catesby Estates plc					GRM Project Ref: P7298			Coordinates 505438 E 119310 N	

Installation/ Backfill	Water Strike	Samples/Tests			Dynamic Probing (Blows per 100mm)	Depth (m)	Level (m)	Legend	Stratum Description	
		Depth	Type	Result						
						0.10			Grass over dark brown, slightly clayey, silty fine to medium SAND. Rootlets present. TOPSOIL	
						0.80			Soft, dark brown, slightly sandy, gravelly clayey SILT. Sand is fine to coarse. Gravel is fine to coarse, sub-angular to sub-rounded brick, sandstone and quartzite. Occasional black carbonaceous material present. MADE GROUND	
		1.00	S	N=7 (1,1/1,1,2,3)					Soft, low strength, orange brown, slightly gravelly, sandy SILT. Sand is fine to coarse. Gravel is fine to medium of sub-angular sandstone. HEAD	
		1.50 - 1.60	D							
		2.00	SPTLS	N=38					Stiff, high strength, orange brown, slightly sandy, gravelly SILT with rare cobbles. Sand is fine to coarse. Gravel is fine to coarse, angular to sub-angular of sandstone. HYTHE FORMATION	
		2.00	S	(2,2/6,7,9,16)		2.50			End of Borehole at 2.500m	

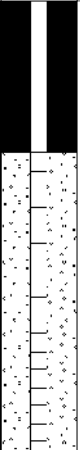
Crew: RGI Drilling Ltd.		Logger: AL.		Weather: Clear, dry.	
Equipment: Premier Compact 110.					
Reason for termination of borehole: Target depth achieved.					
Groundwater Remarks: No groundwater encountered.					
General Remarks:					
Hole Started: 26/02/2021		Hole Complete: 26/02/2021		Version: FINAL	
				Scale: 1:25	

		GRM Development Solutions Ltd Laurus House, First Avenue, Centrum 100, Burton-on-Trent, DE14 2WH Tel (HQ): 01283 551249 Email: info@grm-uk.com		Windowless Sample Borehole			Borehole No WS113 Sheet 1 of 1		
Site Name: Land to the north east of Glebelands, Pulborough							Ground Level (mAOD)		
Client: Catesby Estates plc					GRM Project Ref: P7298			Coordinates 505858 E 119268 N	

Installation/ Backfill	Water Strike	Samples/Tests			Dynamic Probing (Blows per 100mm)	Depth (m)	Level (m)	Legend	Stratum Description	
		Depth	Type	Result						
		0.30						Dark brown slightly silty very gravelly fine to coarse SAND. Gravel is medium to coarse and angular to subangular of mudstone and sandstone. TOPSOIL		
		1.00			N=6 (1,0/1,0,1,4)			Soft, low strength, light yellowish brown and occasionally light grey mottled slightly gravelly sandy CLAY. Sand is medium to coarse. Gravel is medium to coarse and angular of weak sandstone. HEAD <i>with rare orangish brown mottling noted from 0.80m depth.</i> <i>becoming soft from 1.10m depth.</i> <i>becoming very gravelly from 1.50m depth.</i>	1	
		2.00			50 (25 for 75mm/50 for 10mm)	1.90 2.00		Very dense light yellowish brown slightly silty gravelly fine to coarse SAND. Gravel is medium to coarse and angular of sandstone. HYTHE FORMATION End of Borehole at 2.000m	2	
									3	
									4	

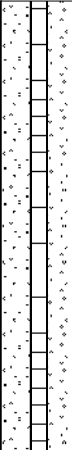
Crew: RGI Ltd		Logger: AT		Weather: Overcast and rain.	
Equipment: Premier Tracker 110					
Reason for termination of borehole:		Borehole terminated on SPT 'N' value refusal at 2.00m depth.			
Groundwater Remarks: No groundwater encountered during drilling.					
General Remarks: Borehole completed as a groundwater level monitoring well, and as a soakaway testing hole.					
Hole Started: 22/02/2021		Hole Complete: 22/02/2021		Version: FINAL	
				Scale: 1:25	

		GRM Development Solutions Ltd Laurus House, First Avenue, Centrum 100, Burton-on-Trent, DE14 2WH Tel (HQ): 01283 551249 Email: info@grm-uk.com		Windowless Sample Borehole			Borehole No WS114 Sheet 1 of 1		
Site Name: Land to the north east of Glebelands, Pulborough							Ground Level (mAOD)		
Client: Catesby Estates plc					GRM Project Ref: P7298			Coordinates 505393 E 119342 N	

Installation/ Backfill	Water Strike	Samples/Tests			Dynamic Probing (Blows per 100mm)	Depth (m)	Level (m)	Legend	Stratum Description	
		Depth	Type	Result						
										
		0.30								
		0.40								
		0.80 - 0.90	D							
		1.00	D	N=50 (2,7/50 for 265mm)						
		1.00								
		1.50		50 (25 for 95mm/50 for 95mm)		1.50				
becoming very gravelly from 1.35m depth.										
End of Borehole at 1.500m										

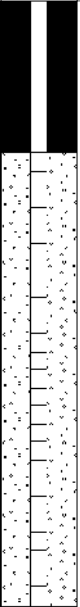
Crew: RGI Ltd		Logger: AT		Weather: Overcast and rain.	
Equipment: Preier Tracker 110					
Reason for termination of borehole:		Borehole terminated on SPT 'N' value refusal at 1.50m depth.			
Groundwater Remarks: No groundwater encountered during drilling.					
General Remarks: Borehole completed as a groundwater level monitoring well, and as a soakaway testing hole.					
Hole Started: 22/02/2021		Hole Complete: 22/02/2021		Version: FINAL	
				Scale: 1:25	

		GRM Development Solutions Ltd Laurus House, First Avenue, Centrum 100, Burton-on-Trent, DE14 2WH Tel (HQ): 01283 551249 Email: info@grm-uk.com		Windowless Sample Borehole			Borehole No WS115 Sheet 1 of 1		
Site Name: Land to the north east of Glebelands, Pulborough							Ground Level (mAOD)		
Client: Catesby Estates plc					GRM Project Ref: P7298			Coordinates 505855 E 119089 N	

Installation/ Backfill	Water Strike	Samples/Tests			Dynamic Probing (Blows per 100mm)	Depth (m)	Level (m)	Legend	Stratum Description	
		Depth	Type	Result						
		0.30 - 0.40	D			0.10		 Grass over dark brown, clayey fine to medium SAND. Rootlets present. TOPSOIL	 Medium dense, orange brown, slightly gravelly, fine to coarse SAND. Gravel is fine to coarse of sub-rounded quartzite. HEAD  Firm, medium strength, orange brown mottled grey, slightly gravelly, sandy SILT. Sand is fine to coarse. Gravel is fine to coarse, sub-angular of sandstone lithorelicts. HEAD  Very weak, highly weathered yellow brown, fine to coarse grained SANDSTONE. Recovered as a silty sandy GRAVEL. HYTHE FORMATION End of Borehole at 1.500m	1
		0.50								2
		1.00	S	N=16 (2,2/4,3,5,4)						3
		1.20 - 1.30	D							4

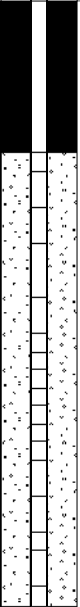
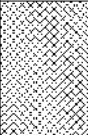
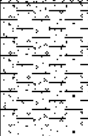
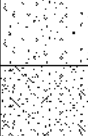
Crew: RGI Drilling.		Logger: AL.		Weather: Clear, dry	
Equipment: Premier Compact 110.					
Reason for termination of borehole:		Target depth achieved.			
Groundwater Remarks: No groundwater encountered.					
General Remarks:					
Hole Started:	26/02/2021	Hole Complete:	26/02/2021	Version:	FINAL
				Scale:	1:25

		GRM Development Solutions Ltd Laurus House, First Avenue, Centrum 100, Burton-on-Trent, DE14 2WH Tel (HQ): 01283 551249 Email: info@grm-uk.com		Windowless Sample Borehole			Borehole No WS116 Sheet 1 of 1		
Site Name: Land to the north east of Glebelands, Pulborough							Ground Level (mAOD)		
Client: Catesby Estates plc					GRM Project Ref: P7298			Coordinates 505648 E 119393 N	

Installation/ Backfill	Water Strike	Samples/Tests			Dynamic Probing (Blows per 100mm)	Depth (m)	Level (m)	Legend	Stratum Description	
		Depth	Type	Result						
		0.10	D					 Dark brown slightly silty slightly gravelly fine to medium SAND. Gravel is medium to coarse and angular of sandstone.		
						0.30		 TOPSOIL		
						0.90		 Loose light yellowish brown and occasionally light grey mottled slightly gravelly silty fine to medium SAND. Gravel is medium to coarse and angular of sandstone.		
								 Loose light yellowish brown and occasionally light grey mottled slightly silty very sandy fine to coarse and angular GRAVEL of weak platy sandstone.	1	
		1.50	D					 Loose light yellowish brown and occasionally light grey mottled slightly silty very sandy fine to coarse and angular GRAVEL of weak platy sandstone.		
		2.00		50 (6,12/50 for 135mm)		2.00		 becoming orangish brown from 1.80m depth.  becoming very dense from 1.90m depth.	2	
								End of Borehole at 2.000m		
									3	
									4	

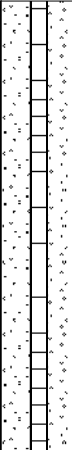
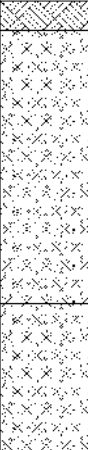
Crew: RGI Ltd		Logger: AT		Weather: Overcast and rain.	
Equipment: Premier Tracker 110					
Reason for termination of borehole:		Borehole terminated on SPT 'N' value refusal at 2.00m depth.			
Groundwater Remarks: No groundwater encountered during drilling.					
General Remarks: Borehole completed as a groundwater level monitoring well, and as a soakaway testing hole. Hythe Formation anticipated below 2.0m begl.					
Hole Started: 22/02/2021		Hole Complete: 22/02/2021		Version: FINAL	
				Scale: 1:25	

		GRM Development Solutions Ltd Laurus House, First Avenue, Centrum 100, Burton-on-Trent, DE14 2WH Tel (HQ): 01283 551249 Email: info@grm-uk.com		Windowless Sample Borehole			Borehole No WS117 Sheet 1 of 1		
Site Name: Land to the north east of Glebelands, Pulborough							Ground Level (mAOD)		
Client: Catesby Estates plc					GRM Project Ref: P7298			Coordinates 505554 E 119397 N	

Installation/ Backfill	Water Strike	Samples/Tests			Dynamic Probing (Blows per 100mm)	Depth (m)	Level (m)	Legend	Stratum Description	
		Depth	Type	Result						
		1.00		N=1 (2,1/0,0,0,1)		0.45		Dark brown slightly gravelly sandy CLAY. Gravel is fine to coarse and angular of mudstone and sandstone with brick fragments. MADE GROUND	1	
										Soft to firm, low to medium strength, light yellowish brown slightly gravelly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse and angular of sandstone. HEAD <i>becoming orangish brown from 0.95m depth.</i>
							1.10		Very loose light yellowish brown slightly silty gravelly fine to coarse SAND. Gravel is fine to coarse and angular of sandstone. HEAD	
		2.00		50 (25 for 130mm/50 for 150mm)		2.00			Extremely weak SANDSTONE recovered as a light yellowish brown and grey slightly sandy fine to coarse and angular gravel of weak platy sandstone. HYTHE FORMATION End of Borehole at 2.000m	2
									3	
									4	

Crew: RGI Ltd		Logger: AT		Weather: Overcast with rain.	
Equipment: Premier Tracker 110					
Reason for termination of borehole:		Borehole terminated on SPT 'N' value refusal at 2.00m depth.			
Groundwater Remarks: No groundwater encountered during drilling.					
General Remarks: Borehole completed as a groundwater level monitoring well, and as a soakaway testing hole.					
Hole Started: 22/02/2021		Hole Complete: 22/02/2021		Version: FINAL	
				Scale: 1:25	

		GRM Development Solutions Ltd Laurus House, First Avenue, Centrum 100, Burton-on-Trent, DE14 2WH Tel (HQ): 01283 551249 Email: info@grm-uk.com		Windowless Sample Borehole			Borehole No WS118 Sheet 1 of 1		
Site Name: Land to the north east of Glebelands, Pulborough							Ground Level (mAOD)		
Client: Catesby Estates plc					GRM Project Ref: P7298			Coordinates 505663 E 119242 N	

Installation/ Backfill	Water Strike	Samples/Tests			Dynamic Probing (Blows per 100mm)	Depth (m)	Level (m)	Legend	Stratum Description	
		Depth	Type	Result						
						0.10			Soft, dark brown, slightly clayey, sandy SILT. Sand is fine to medium. Rootlets present. TOPSOIL	
		0.50 - 0.60	D						Firm, approximately medium strength, orange brown, slightly gravelly, sandy SILT. Sand is fine to coarse. Gravel is fine to coarse, angular to sub-angular of sandstone. HEAD	
		1.00	S	N=17 (2,1/3,3,5,6)	1.00		Stiff, high strength, orange brown to yellow brown, slightly sandy, gravelly SILT with rare cobbles. Sand is fine to coarse. Gravel is fine to coarse, angular to sub-angular of sandstone. HYTHE FORMATION		1	
		1.20 - 1.30	D							
						1.50			End of Borehole at 1.500m	2
										3
										4

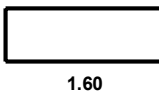
Crew: RGI Drilling Ltd.		Logger: AL.		Weather: Clear, dry	
Equipment: Premier Compact 110.					
Reason for termination of borehole:		Target depth achieved.			
Groundwater Remarks: No groundwater encountered.					
General Remarks:					
Hole Started: 26/02/2021		Hole Complete: 26/02/2021		Version: FINAL	
				Scale: 1:25	

		GRM Development Solutions Ltd Laurus House, First Avenue, Centrum 100, Burton-on-Trent, DE14 2WH Tel (HQ): 01283 551249 Email: info@grm-uk.com		Trial Pit Log		Trial Pit No SA01 Sheet 1 of 1	
Site Name: Land to the north east of Glebelands, Pulborough						Ground Level (mAOD)	
Client: Catesby Estates plc				GRM Project Ref: P7298		Coordinates 505520 E 119155 N	

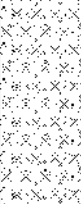
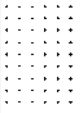
Water Strike	Samples & In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
	Depth	Type	Results					
				0.10			Grass over dark brown, silty, fine to medium SAND. Rootlets present. TOPSOIL	
	0.40 - 0.50	D					Soft, approximately low strength, slightly gravelly, sandy SILT. Sand is fine to coarse. Gravel is fine to coarse, sub-angular of sandstone. HEAD	1
	1.10 - 1.20	D						
				1.50			End of Pit at 1.50m	2
								3
								4

Date Excavated: 25/02/2021		Groundwater Observations:	
Date Backfilled: 25/02/2021		No groundwater encountered.	
Shoring: None.			
Stability: Stable at full depth.			
Plant Used: 6t Mini Excavator.		Reason for termination of Trial Pit:	
Logged by: AL.		Target depth achieved.	
General Remarks: Trial hole backfilled with gravel for undertaking soakaway testing. Slotted pipe installed to 1.5m begl.			

Relative density is approximate and determined by observation only.	Version: FINAL	Scale: 1:25
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		GRM Development Solutions Ltd Laurus House, First Avenue, Centrum 100, Burton-on-Trent, DE14 2WH Tel (HQ): 01283 551249 Email: info@grm-uk.com		Trial Pit Log		Trial Pit No SA02 Sheet 1 of 1	
Site Name: Land to the north east of Glebelands, Pulborough						Ground Level (mAOD)	
Client: Catesby Estates plc				GRM Project Ref: P7298		Coordinates 505894 E 119359 N	
Water Strike	Samples & In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
	Depth	Type	Results				
				0.10		 Soft, dark brown, sandy SILT with patches of pea gravel. Sand is fine to coarse. Gravel is fine to coarse, sub-rounded of quartzite. MADE GROUND	 Soft, approximately low strength, orange brown, sandy SILT with rare gravel. Sand is fine to coarse. Gravel is fine to coarse, sub-angular of sandstone. HEAD
	0.40 - 0.50	D					
				1.10		 Soft, approximately low strength, orange brown slightly sandy, gravelly SILT with occasional cobbles. Sand is fine to coarse. Gravel is fine to coarse. Gravel and cobbles are sub-angular of sandstone lithorelicts. HEAD	 End of Pit at 1.55m
	1.20 - 1.30	D					
				1.55			
Date Excavated: 24/02/2021 Date Backfilled: 24/02/2021 Shoring: None. Stability: Stable at full depth. Plant Used: 6t Mini Excavator. Logged by: AL.				Groundwater Observations: No groundwater encountered.			
				Trial Pit Dimensions (m): 0.45  1.60		Reason for termination of Trial Pit: Target depth achieved.	
General Remarks: Trial hole backfilled with gravel for undertaking soakaway testing. Slotted pipe installed to 1.55m begl.							
Relative density is approximate and determined by observation only.				Version: FINAL		Scale: 1:25	

		GRM Development Solutions Ltd Laurus House, First Avenue, Centrum 100, Burton-on-Trent, DE14 2WH Tel (HQ): 01283 551249 Email: info@grm-uk.com		Trial Pit Log		Trial Pit No SA03 Sheet 1 of 1	
Site Name: Land to the north east of Glebelands, Pulborough						Ground Level (mAOD)	
Client: Catesby Estates plc				GRM Project Ref: P7298		Coordinates 505758 E 119396 N	

Water Strike	Samples & In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
	Depth	Type	Results					
	0.50 - 0.60	D		0.40			Grass over dark brown, slightly gravelly, sandy SILT. Sand is fine to coarse. Gravel is fine to medium of sandstone and quartzite. Roolets present. TOPSOIL	
				1.10			Soft, approximately low strength, orange brown, sandy SILT with rare gravel. Sand is fine to coarse. Gravel is fine to coarse, sub-angular of sandstone. HEAD	1
	1.30 - 1.40	D		1.50			Very weak, yellow brown, fine to coarse grained SANDSTONE. Recovered as a silty sandy GRAVEL and COBBLES. HYTHE FORMATION	
							End of Pit at 1.50m	2
								3
								4

Date Excavated: 24/02/2021 Date Backfilled: 24/02/2021 Shoring: None. Stability: Stable at full depth. Plant Used: 6t Mini Excavator. Logged by: AL.	Groundwater Observations: No groundwater encountered.
Trial Pit Dimensions (m): 0.45  1.70	Reason for termination of Trial Pit: Target depth achieved.

General Remarks: Trial hole backfilled with gravel for undertaking soakaway testing. Slotted pipe installed to 1.5m begl.

Relative density is approximate and determined by observation only.	Version: FINAL	Scale: 1:25
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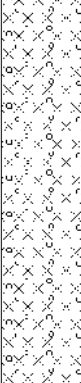
		GRM Development Solutions Ltd Laurus House, First Avenue, Centrum 100, Burton-on-Trent, DE14 2WH Tel (HQ): 01283 551249 Email: info@grm-uk.com		Trial Pit Log		Trial Pit No SA04 Sheet 1 of 1	
Site Name: Land to the north east of Glebelands, Pulborough						Ground Level (mAOD)	
Client: Catesby Estates plc				GRM Project Ref: P7298		Coordinates 505649 E 119375 N	

Water Strike	Samples & In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
	Depth	Type	Results					
	0.50 - 0.60	D		0.10		 Covering of fine to coarse GRAVEL of angular roadstone. MADE GROUND Soft, approximately low strength, orange brown, slightly gravelly, sandy SILT. Sand is fine to coarse. Gravel is fine to coarse, sub-angular to angular sandstone. HEAD <i>... becoming very gravelly with occasional cobbles below 0.8m begl</i>	1	
	1.20 - 1.30	D		1.10		 Very weak, yellow brown, fine to coarse grained SANDSTONE. Recovered as a silty, sandy GRAVEL with numerous cobbles. HYTHE FORMATION		
				1.40		End of Pit at 1.40m	2	
							3	
							4	

Date Excavated: 25/02/2021 Date Backfilled: 25/02/2021 Shoring: None. Stability: Stable at full depth. Plant Used: 6t Mini Excavator. Logged by: AL.	Groundwater Observations: No groundwater encountered.
Trial Pit Dimensions (m): 0.45  1.60	Reason for termination of Trial Pit: Refused on sandstone at 1.4m begl.

General Remarks: Trial hole backfilled with gravel for undertaking soakaway testing. Slotted pipe installed to 1.4m begl.

Relative density is approximate and determined by observation only.	Version: FINAL	Scale: 1:25
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		GRM Development Solutions Ltd Laurus House, First Avenue, Centrum 100, Burton-on-Trent, DE14 2WH Tel (HQ): 01283 551249 Email: info@grm-uk.com		Trial Pit Log			Trial Pit No SA05 Sheet 1 of 1	
Site Name: Land to the north east of Glebelands, Pulborough							Ground Level (mAOD)	
Client: Catesby Estates plc					GRM Project Ref: P7298		Coordinates 505579 E 119241 N	
Water Strike	Samples & In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
	Depth	Type	Results					
	1.00 - 1.10	D		0.20		 Soft, dark brown, slightly sandy, gravelly SILT. Sand is fine to coarse. Gravel is fine to coarse of angular roadstone.	1	
				1.50		 MADE GROUND Soft, approximately low strength, slightly gravelly, sandy SILT. Sand is fine to coarse. Gravel is fine to coarse, sub-angular of sandstone.		
						End of Pit at 1.50m		2
								3
								4
Date Excavated: 25/02/2021 Date Backfilled: 25/02/2021 Shoring: None. Stability: Stable at full depth. Plant Used: 6t Mini Excavator. Logged by: AL.				Groundwater Observations: No groundwater encountered.				
				Trial Pit Dimensions (m): 0.45  1.55		Reason for termination of Trial Pit: Target depth achieved.		
General Remarks: Trial hole backfilled with gravel for undertaking soakaway testing. Slotted pipe installed to 1.5m begl.								
Relative density is approximate and determined by observation only.				Version: FINAL			Scale: 1:25	

		GRM Development Solutions Ltd Laurus House, First Avenue, Centrum 100, Burton-on-Trent, DE14 2WH Tel (HQ): 01283 551249 Email: info@grm-uk.com		Trial Pit Log		Trial Pit No SA06 Sheet 1 of 1	
Site Name: Land to the north east of Glebelands, Pulborough						Ground Level (mAOD)	
Client: Catesby Estates plc				GRM Project Ref: P7298		Coordinates 505526 E 119294 N	

Water Strike	Samples & In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
	Depth	Type	Results					
	0.50 - 0.60	D		0.10		 Medium dense, grey, silty gravelly fine to coarse SAND. Gravel is fine to coarse, angular of roadstone. MADE GROUND Soft, approximately low strength, orange brown, sandy SILT with rare gravel. Sand is fine to coarse. Gravel is fine to coarse, sub-angular of sandstone. HEAD	1	
	1.30 - 1.40	D		1.10	 Medium dense, yellow brown, silty gravelly fine to coarse SAND with occasional cobbles. Gravel is fine to coarse. Gravel and cobbles are sub-angular of sandstone. HYTHE FORMATION			
				1.50		End of Pit at 1.50m		2
								3
								4

Date Excavated: 25/02/2021 Date Backfilled: 25/02/2021 Shoring: None. Stability: Stable at full depth. Plant Used: 6t Mini Excavator. Logged by: AL.	Groundwater Observations: No groundwater encountered.
Trial Pit Dimensions (m): 0.45  1.80	Reason for termination of Trial Pit: Target depth achieved.

General Remarks: Trial hole backfilled with gravel for undertaking soakaway testing. Slotted pipe installed to 1.5m begl.

Relative density is approximate and determined by observation only.	Version: FINAL	Scale: 1:25
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		GRM Development Solutions Ltd Laurus House, First Avenue, Centrum 100, Burton-on-Trent, DE14 2WH Tel (HQ): 01283 551249 Email: info@grm-uk.com		Trial Pit Log			Trial Pit No SA07 Sheet 1 of 1	
Site Name: Land to the north east of Glebelands, Pulborough							Ground Level (mAOD)	
Client: Catesby Estates plc					GRM Project Ref: P7298		Coordinates 505874 E 119267 N	

Water Strike	Samples & In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
	Depth	Type	Results					
				0.05			Loose, dark brown, silty, gravelly SAND with pea gravel patched. Sand is fine to coarse. Gravel is fine to coarse, sub-rounded to rounded of quartzite. MADE GROUND	
	0.50 - 0.60	D					Soft, approximately low strength, orange brown, sandy SILT with rare gravel. Sand is fine to coarse. Gravel is fine to coarse, sub-angular of sandstone. HEAD	1
	1.30 - 1.40	D		1.20			Soft, approximately low strength, orange brown, slightly gravelly sandy SILT with occasional cobbles. Sand is fine to coarse. Gravel is fine to coarse. Gravel and cobbles are sub-angular of sandstone. HEAD	
				1.50			End of Pit at 1.50m	2
								3
								4

Date Excavated: 24/02/2021		Groundwater Observations:	
Date Backfilled: 24/02/2021		No groundwater encountered.	
Shoring: None.			
Stability: Stable at full depth.			
Plant Used: 6t Mini Excavator.		Reason for termination of Trial Pit:	
Logged by: AL.		Target depth achieved.	

Trial Pit Dimensions (m):
 0.45  1.80

General Remarks: Trial hole backfilled with gravel for undertaking soakaway testing. Slotted pipe installed to 1.5m begl.

Relative density is approximate and determined by observation only.	Version: FINAL	Scale: 1:25
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		GRM Development Solutions Ltd Laurus House, First Avenue, Centrum 100, Burton-on-Trent, DE14 2WH Tel (HQ): 01283 551249 Email: info@grm-uk.com		Trial Pit Log			Trial Pit No SA08 Sheet 1 of 1	
Site Name: Land to the north east of Glebelands, Pulborough							Ground Level (mAOD)	
Client: Catesby Estates plc					GRM Project Ref: P7298		Coordinates 505860 E 119088 N	

Water Strike	Samples & In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
	Depth	Type	Results					
▼	0.20 - 0.30	D		0.10			Grass over soft dark brown, clayey, silty fine to medium SAND. Rootlets present.	1
							TOPSOIL	
	0.60 - 0.70	D		0.50			Medium dense, orange brown, slightly gravelly, fine to coarse SAND. Gravel is fine to coarse of sub-rounded quartzite.	
							HEAD	
	1.20 - 1.30	D		1.20			Soft, approximately low strength, orange brown mottled grey, slightly gravelly, sandy SILT. Sand is fine to coarse. Gravel is fine to coarse, sub-angular of sandstone	2
				1.50			Very weak, highly weathered, yellow brown, fine to coarse grained SANDSTONE. Recovered as a silty sandy GRAVEL of sandstone.	
							HYTHE FORMATION	3
							End of Pit at 1.50m	
								4

Date Excavated: 24/02/2021		Groundwater Observations:	
Date Backfilled: 24/02/2021		Slight groundwater collecting at bottom of hole after completion.	
Shoring: None.			
Stability: Stable at full depth.			
Plant Used: 6t Mini Excavator.		Reason for termination of Trial Pit:	
Logged by: AL.		Target depth achieved.	

General Remarks: Trial hole backfilled with gravel for undertaking soakaway testing. Slotted pipe installed to 1.5m begl.	
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Relative density is approximate and determined by observation only.	Version: FINAL	Scale: 1:25
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A P P E N D I X E

Land Appraisal | Environmental | Geotechnical | Design | Mining | Inspections

GRM Development Solutions Limited, Laurus House, First Avenue, Centrum 100, Burton upon Trent, Staffs DE14 2WH
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In-Situ Gas Monitoring Results

Project Name	Land Off Drovers Lane Pulborough
Project Number	7298
Client	Catesby Property Group
Date	18/03/2021
Weather	Cloudy
Atmospheric Pressure (mb)	1000
Pressure Trend	Steady
Equipment	Gas Data LMSXi
Operator	Bryan Burgh

Ground Gas													
Well ID	Response Zone			Methane		CO2		Oxygen		Gas Flow		PID Reading	
	mbegl			%v/v		%v/v		%v/v		l/h		ppm	
ID	Top	Base	Strata	Peak	Steady	Peak	Steady	Low	Steady	Peak	Steady	Peak	Steady
WS101	0.50	3.00	NS	0.00	0.00	3.50	3.50	16.80	16.80	0.00	0.00	Not Recorded	
WS102	0.50	3.00	NS	0.00	0.00	7.30	7.30	10.10	10.10	-1.00	0.00	Not Recorded	
WS107	0.50	1.90	NS	0.00	0.00	3.70	3.70	17.80	17.80	-0.40	-0.10	Not Recorded	
WS110	0.50	2.25	NS	0.10	0.00	1.90	1.90	16.50	16.50	-0.10	0.00	Not Recorded	
WS113	0.50	2.35	NS	0.00	0.00	3.50	3.50	18.00	18.00	0.00	0.00	Not Recorded	
WS114	0.50	1.50	NS	0.00	0.00	1.30	1.30	18.30	18.30	0.00	0.00	Not Recorded	
WS116	0.50	2.00	NS	0.00	0.00	3.00	3.00	17.70	17.70	0.00	0.00	Not Recorded	
WS117	0.50	2.00	NS	0.00	0.00	4.70	4.70	15.50	15.50	0.30	0.00	Not Recorded	

Groundwater	
Depth to Groundwater	Total Well Depth
mbegl	mbegl
Not Detected	3.00
Not Detected	3.00
Not Detected	1.94
2.23	2.35
Not Detected	2.18
Not Detected	1.52
Not Detected	2.34
Not Detected	2.30

Notes

L.E.L.	Lower Explosive Limit (100% L.E.L. = 5% Flammable Gas)
N.D.	Not Detected
N.R.	Not Recorded
PID	Photo-Ionising Detector
%	By volume
a	Methane => 1% v/v
b	Carbon Dioxide => 5% v/v
MG	Made Ground
NS	Natural Strata

Ground Material Key

NS Natural Strata

Key

Threshold gas concentration exceeded