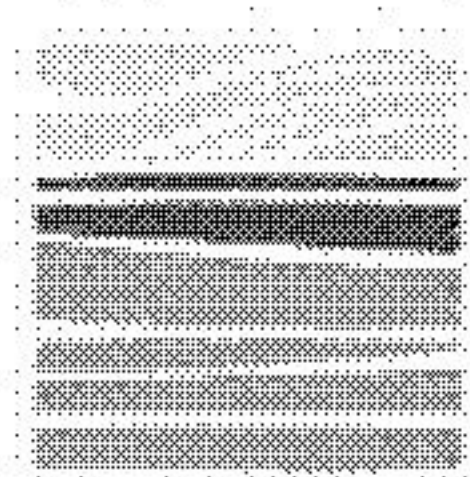




Infiltration Test Report

Project Name: Wickenden Farm, Chilling Street

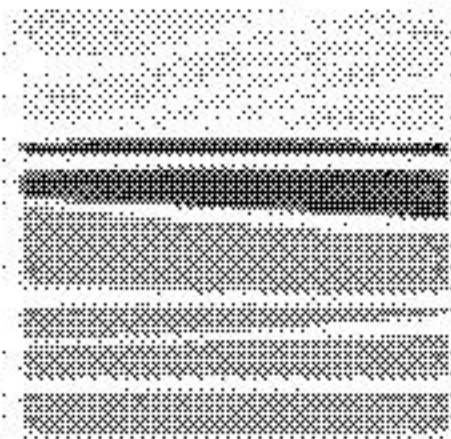
Location: Sharpthorne, West Sussex, RH19 4JD

Client: North Star Centre Ltd.

Project ID: J16090

Report Date: 13 November 2025

Report Issue: 1



Author	J R Leach MEng (Hons) IEng MICE	
Check / Review	J N Race BSc MSc CGeol FGS	

For and on behalf of Southern Testing Laboratories Limited

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1	13/11/25	First issue	JRL	JNR

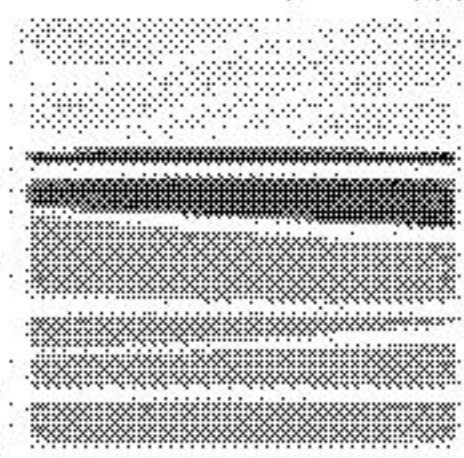


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Site Plans and Exploratory Hole Logs

APPENDIX B

In-Situ Test Methods and Results

A INTRODUCTION

1 Authority

Our authority for carrying out this work is contained in a completed Project Order Form, sent on-behalf of the Client, from Mr H. Askari of Herrington Consulting Ltd. on 9th September 2025, in relation to our quotation ref.: Q250116-3.

2 Location

The site is located 2.35 km south-west of St. Margaret's Church in West Hoathly, West Sussex. The approximate National Grid Reference of the site is TQ 38458 31494. The site location is indicated on Figure 1 within Appendix A.

3 Investigation Brief

In accordance with the Client's instructions, the following was included in our investigation brief:

2 No. soakage tests were carried out in trial pits at a depth of 2m (bgl), using the BRE 365 test method.

It is understood that soakaways are required to drain areas of the site re-development, including a car park and converted agricultural buildings.

4 Scope

This factual report presents our exploratory hole logs and test results only. As with any site there may be differences in soil conditions between exploratory hole positions.

A UXO risk assessment was not requested within our brief for the investigation.

This factual report is not an engineering design and the figures and calculations contained in the report should be used by the Engineer, taking note that variations will apply, according to variations in design loading, in techniques used, and in site conditions. Our figures therefore should not supersede the Engineer's design.

The findings and opinions conveyed via this investigation report are based on information obtained from a variety of sources as detailed within this report, and which Southern Testing Laboratories Ltd. believes are reliable. Nevertheless, Southern Testing Laboratories Ltd. cannot and does not guarantee the authenticity or reliability of the information it has obtained from others.

The investigation was conducted and this report has been prepared for the sole internal use and reliance of North Star Centre Ltd. and their appointed Engineers. This report shall not be relied upon or transferred to any other parties without the express written authorisation of Southern Testing Laboratories Ltd. If an unauthorised third party comes into possession of this report they rely on it at their peril and the authors owe them no duty of care and skill.

The recommendations contained in this report are made in respect of the particular context of the investigation as described in the report and may not be appropriate to alternative development schemes. This report should be considered in its entirety and Southern Testing Laboratories Ltd. accepts no responsibility for and excludes liability in respect of any omission or alteration made by others, and any use of the report for any purpose other than that for which it was produced.

B SITE SETTING

5 Geological Records

No formal Desk Study has been carried out, but reference has been made to both online and published geological maps to put the site into context.

5.1 Geology

The British Geological Survey mapping indicates that the site geology consists of the Ashdown Formation. In addition, Made Ground may be present, associated with previous site development.

5.1.1 Made Ground and Fill

General

"Fill" and "made ground" are terms, which are used interchangeably to describe material that has been placed by man. It may have been placed in a controlled or uncontrolled manner and if the latter term applies then very great variations in material type, depth and density are likely to occur. Old refuse filling often contains sulphate rich materials, heavy metals and other dangerous chemicals, and may produce methane gas.

Many fills are subject to high and variable amounts of settlement when loaded. Apart from the direct effect on foundations and floor slabs this would cause down drag on piled foundations.

The inherent variability means that areas of noxious materials may be found, although careful sampling procedures may have failed to locate them during prior investigations. It is important that a watchful eye is kept during all site works, so that any unusual materials can be spotted and removed from site or analyzed as appropriate.

It is emphasised that there can be great variability in fill depth, sometimes with a vertical interface between fill and natural ground, and this can play havoc with job costings. To safeguard the integrity of a structure it is prudent to probe all foundation excavations with a suitable tool prior to placing foundation concrete. The Perth Penetrometer is a suitable tool but there are many others.

Where excavation is carried out in fill material an allowance should be made for overbreak and for shuttering for subsurface concrete structures where appropriate.

Finally BS8004:2015 warns that all made ground should be treated as suspect because of the likelihood of extreme variability. In this respect it is often useful to carry out trial pitting in addition to borings, as the larger exposed section gives a better indication of soil variability.

Fill and Made Ground Properties

- It is unsuitable as a foundation bearing material.
- It is unstable in open excavations.
- It is subject to settlement particularly under the influence of water.

5.1.2 Ashdown Formation

The Ashdown Formation comprises siltstones and silty fine-grained sandstones with subordinate amounts of finely-bedded mudstone, and mudstone arranged in rhythmic units commonly divided by thin pebble beds.

In southeast Sussex, around Hastings, the finer grained sequences are well-developed and a series of clay seams (Fairlight Clays). Northwards from Hastings, the Fairlight Clays become increasingly thin such that in the area of Ashdown Forest they are represented only by pebble beds overlain by thin siltstones within sandstone sequences.

C FIELDWORK

6 Strategy and Method

As specified by the Clients' Engineer, the strategy adopted for the soakage testing comprised the following:

Activity	Purpose	Depth (mbgl)	Installations / Notes
Trial Pits (TP1-2)	Trial pit to investigate the shallow ground conditions and allow for assessment of soakage potential using the BRE365 method.	2.0 - 2.1m	Trial pits were gravel filled for BRE365 Soakage testing.

Exploratory hole locations were agreed on-site with Client's Main Contractor, based on the Indicative Drainage Layout (produced by the Client's Engineer). We were instructed by the Client's Main Contractor to re-position the test pits, away from the wildflower meadow (on the east side). The test pit locations are shown in Figure 2 in Appendix A.

In-situ test method descriptions employed are given in Appendix B together with the test results.

7 General Site Description

The site was located within Wickenden Farm, with access via a private road off Chilling Street to the north. The test pits were located along the edge of an unfenced meadow field that has a number of isolated trees, on the east side of agricultural barns/stables, to the south-east of Wickenden Farm Cottage. The cottages and Wickenden Farm House were predominantly 2-storey dwellings. A pond was noted on the north side of Wickenden Farm House, to the south-west of the test pits. The farmyard had areas of hardstanding/surfaced accesses and areas laid to grass.

The site was located at the top of a hill, with a gentle slope down to the east where the test pits were located, with the meadow field having a steeper slope down into the valley.

8 Weather Conditions

The fieldwork was carried out between 10th and 11th of November, at which time the weather was generally wet with heavy rain showers on the first day and drier on the second day.

9 Soils as Found

The soils encountered are described in detail in the attached exploratory hole logs (in Appendix A), but in general comprised a covering of Made Ground over Ashdown Formation. A summary is given below.

Depth (m)	Thickness (m)	Soil Type	Description
G.L. – 0.3/0.5	0.3m to 0.5m	Made Ground (sandy gravelly clay)	Generally, sandy CLAY, with occasional gravel and locally cobbles (MADE GROUND). Gravel is fine to coarse brick, flint, hardstone, bituminous material, concrete tile, slate, rare metal wire. Locally, cobbles comprising brick (including whole bricks) and concrete.
0.3/0.5 – 2.0+/2.1+	1.5m to 1.8m	Clayey slightly gravelly Silt	Generally yellowish orange/buff and pale grey mottled, slightly clayey to clayey SILT, locally silty CLAY, with occasional gravel becoming slightly gravelly. Locally interlaminated with thickly laminated to very thinly bedded iron-stained Siltstone and Sandstone. Gravel is fine to coarse sub-angular iron-stained Siltstone and Sandstone.

The soils encountered are generally in accordance with those anticipated.

10 Groundwater Observations

Groundwater not was encountered in any of the trial pits, when the pits were excavated.

It should be noted that groundwater levels can vary considerably from season to season and year to year, often rising in wet or winter weather, and falling in periods of drought. Long-term monitoring from boreholes or standpipes is required to assess the ground water regime and this did not form part of the brief for this site investigation.

D TEST RESULTS

11 Soakage Test Results

The BRE paper DG365, Ref [22] describes a method for site testing to determine soil infiltration rates at the proposed site of a soakaway. The in-situ test method is described in Appendix B.

A total of five soakage tests were carried out, in two trial pits (TP1 and TP2), at the locations shown on the attached site plan Figure 2 (in Appendix A). The full results of the soakage tests are presented within Appendix B.

The DG365 Ref [22], states that each pit should be allowed to drain three times to near empty, with filling on the same or consecutive days. However, due to the slower infiltration at TP1, only two soakage tests were completed.

The infiltration rate from each trial hole is summarised in the table below. The soakage rate in this report is expressed as $\text{l/m}^2/\text{minute}$, which is a convenient rate to use. The BRE use a unit of m/sec , which is the value in $\text{l/m}^2/\text{minute}$ divided by 60,000.

Test ID	Test Depth (mbgl)	Design Infiltration Rate		Notes
		$\text{l/m}^2/\text{minute}$	m/sec	
TP1 (Initial filling)	2.1	0.294	4.90×10^{-6}	Pit was nearly emptied at finish of test.
TP1 (Repeat filling, Test No. 2)	2.1	0.347	5.78×10^{-6}	Pit was emptied at finish of test.
TP2 (Initial filling)	2.0	2.02	3.37×10^{-5}	Pit was nearly emptied at finish of test.
TP2 (Repeat filling, Test No. 2)	2.0	1.90	3.17×10^{-5}	Pit was nearly emptied at finish of test.
TP2 (Repeat filling, Test No. 3)	2.0	2.09	3.48×10^{-5}	Pit was emptied at finish of test.

Note: The Design Infiltration Rate is the lowest of the three tests. Where three fillings have not been carried out, a reduction factor should be applied to the result to provide a design infiltration rate.

Fair infiltration rates were obtained within southern trial pit (TP2). Whereas poor soakage rates were obtained within the northern trial pit (TP1). These results were not unexpected given clayey/silty nature of the soils encountered.

A Drainage Engineer should review the test results, as part of the soakaway design. Careful consideration should be given the siting and design of the proposed soakaway, to ensure that water is discharged at depth, to prevent potential seepage outflows and/or any potential instability of the down slope areas.

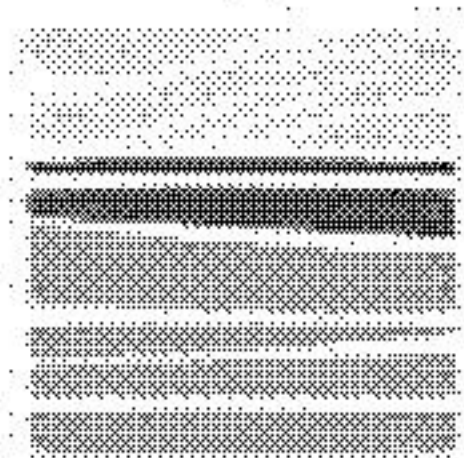
11.1 General Guidance on Design of Soakaways

Any soakaway scheme may require the approval of the Environment Agency, Building Control and, where applicable, the adopting Highways Authority.

Soakaways are used to store the immediate surface water run-off from hard surfaced areas, such as roof or carparks, and allow for efficient infiltration into the adjacent soil. They should be designed to discharge their stored water sufficiently quickly to provide the necessary capacity to receive run-off from a subsequent storm. The time taken for discharge depends upon the soakaway shape and size, and the surrounding soil's infiltration characteristics.

Groundwater levels can vary considerably, as noted in Section 10. As such, a high groundwater table may affect the storage capacity of soakaways. In addition, it should be noted that an unsaturated zone may be required between the base of soakaways and the groundwater table, by the Environment Agency. Longer term monitoring may be required to establish actual groundwater levels as part of the planning approval process.

The design of soakaways can be square, circular (conventional) or trench excavations, and may be rubble filled, perforated precast concrete ring units, plastic cells or any similar structure that collects rainwater and run-off and allow discharge directly into the ground. Depending on the geological conditions, and depth at which suitable infiltration is achieved, soakaways can also be deep bored.



Long-term maintenance and inspection must be considered during the design and construction process. Maintenance of silt traps, gully pots and interceptors will improve the long-term performance of soakaways. The use of wet well chambers within the soakaway system can further assist in pollutant trapping and extending the operating life of soakaways.

Risk of pollution to the quality of groundwater must be considered as part of the design.

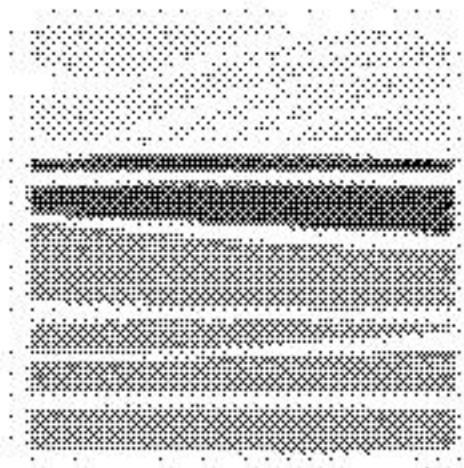
Generally, roof and surface run-off should not significantly impact on groundwater quality and subject to appropriate approvals from the Environment Agency could be discharged directly to soakaways. However, although again subject to approvals from the Environment Agency, paved surface run-off for larger trafficked areas should generally be passed through a suitable form of oil interception device prior to discharge to the soakaway.

Care must be taken to ensure that the discharge of large volumes of surface run-off into the soil does not disrupt the existing sub-surface drainage patterns. Similarly in areas of sloping topography, consideration should be given to the siting of soakaways to avoid potential discharge and or flooding of down slope areas.

Soakaways should not normally be constructed closer than 5m to existing/proposed buildings and structures.

REFERENCES

- [1] Building Research Establishment (BRE), “DG365 Soakaway Design,” 2016.
- [2] BSI Standards, “BS 5930:2015+A1:2020 Code of practice for ground investigations,” 2020.
- [3] BSI Standards, “BS 3882:2015 Specification for Topsoil,” 2015.
- [4] CIRIA, “C574 Engineering in Chalk,” 2002.
- [5] R. N. Mortimore, Logging the Chalk, 2014.
- [6] NHBC, “NHBC Standards Plus,” [Online]. Available:
<http://www.nhbc.co.uk/Builders/ProductsandServices/TechZone/nhbcstandards/>.

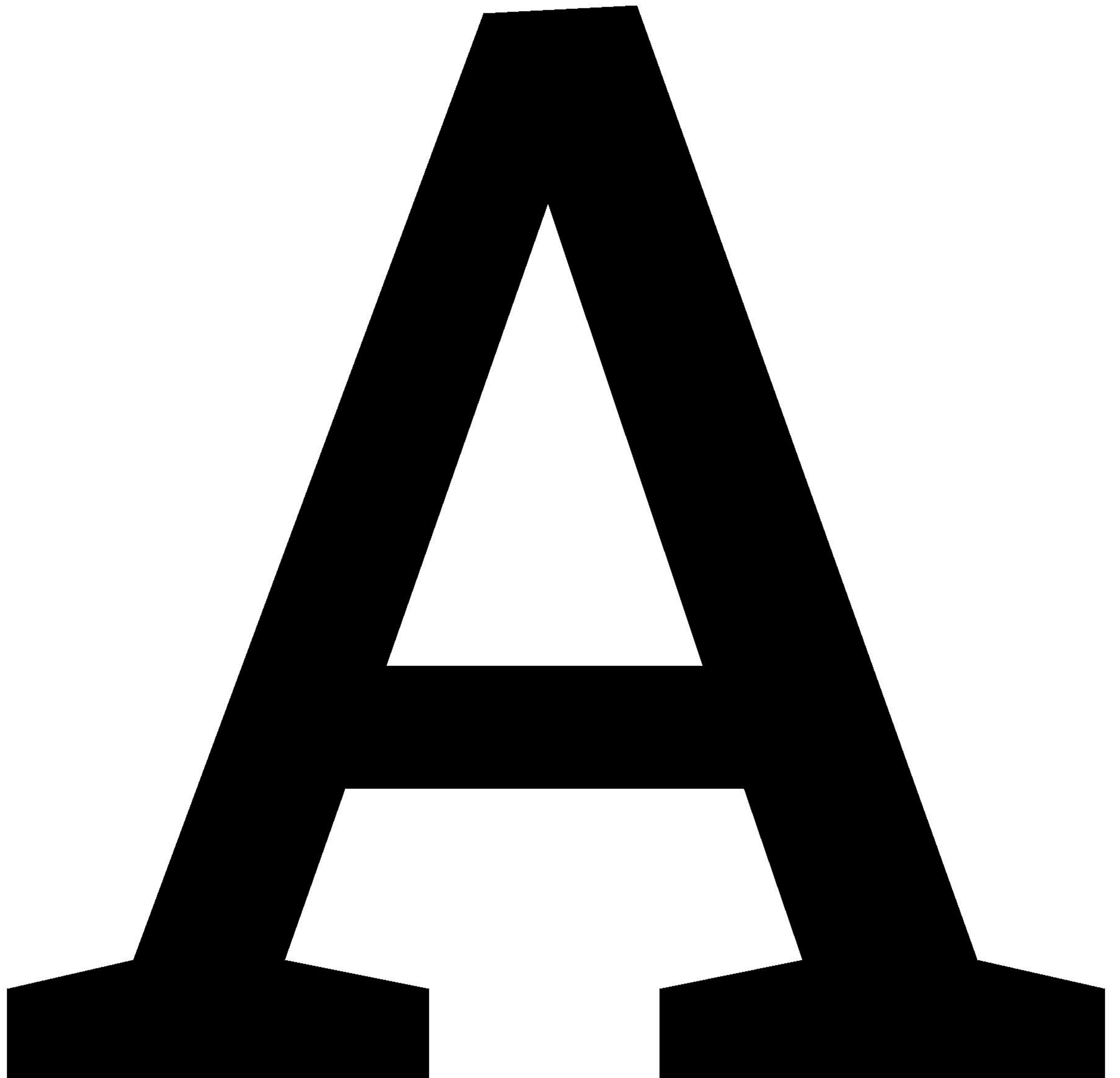


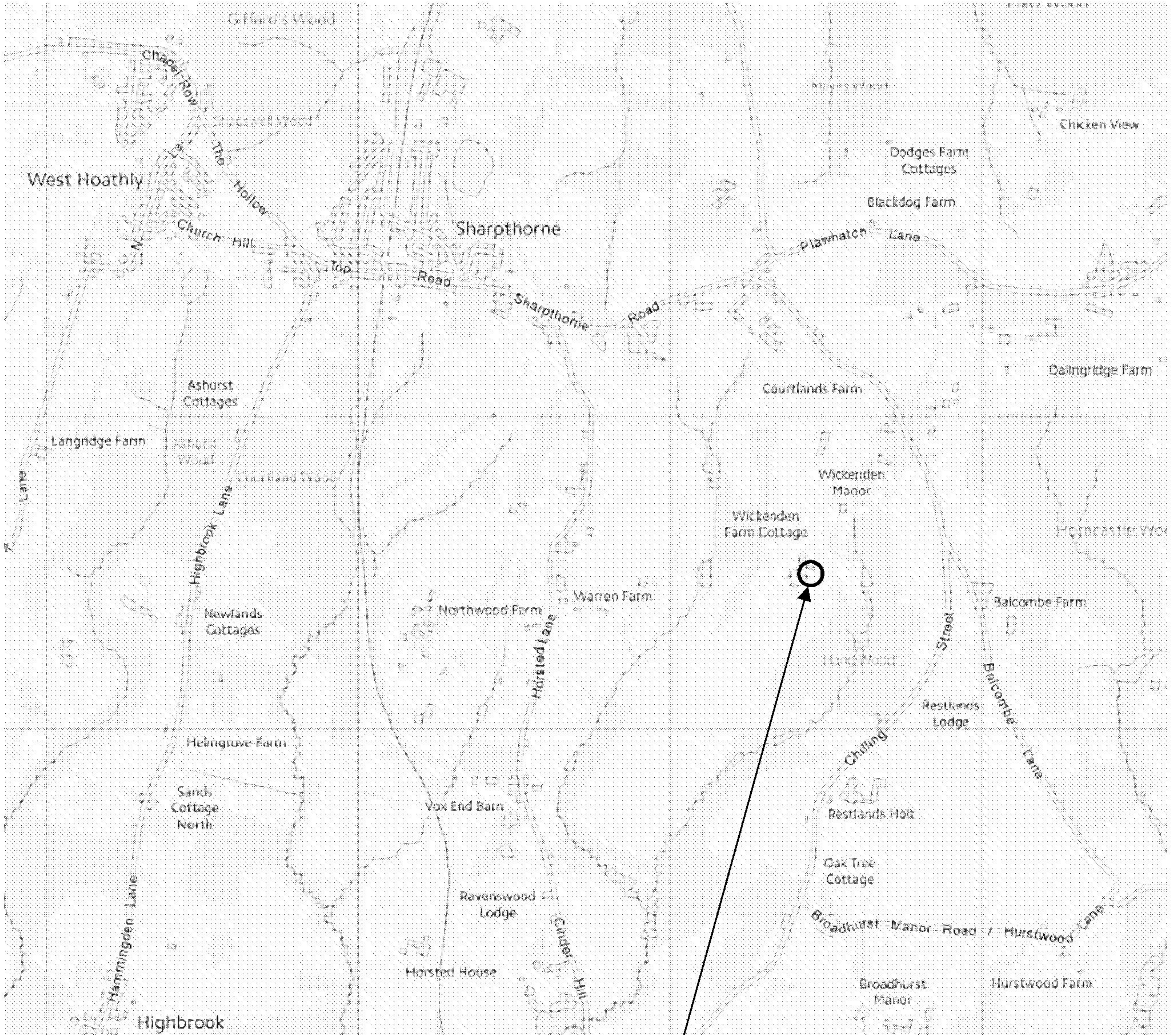
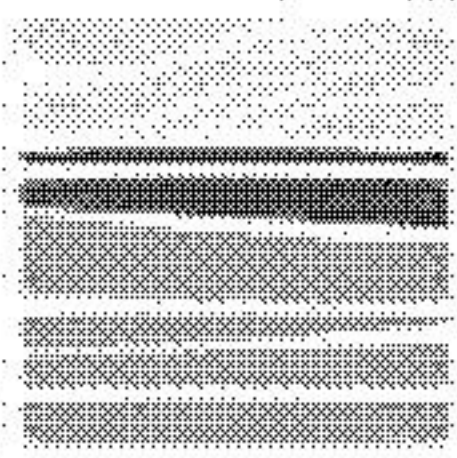
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APPENDIX A

Site Plans and Exploratory Hole Logs





The Site
(approximate
test area)

Contains Ordnance Survey Data © Crown Copyright and Database Right 2025

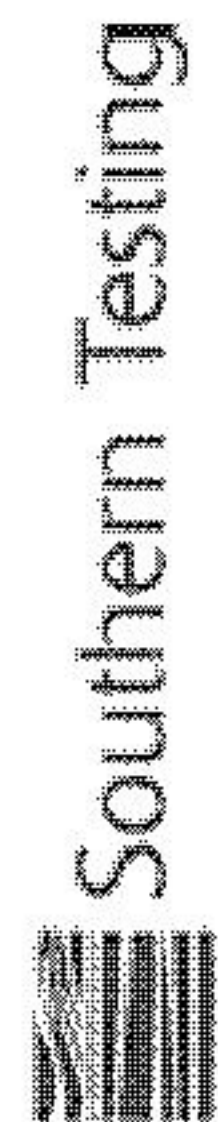
Site:	Wickenden Farm, Chilling St, Sharpthorne, RH19 4JD	Project ID	J16090
Figure 1	Site Location Plan	Date:	11/11/2025



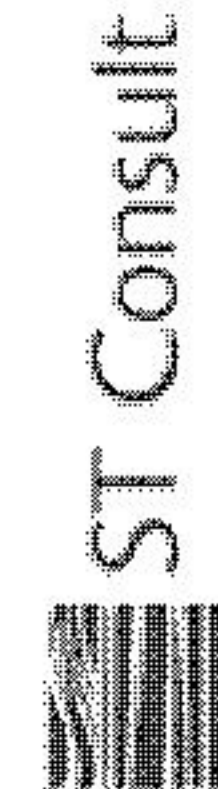
NB: Positions of Trial Pits are only indicative unless dimensioned

Site: Wickenden Farm, Chilling Street, Sharpthorne, RH19 4JD

Date: 11 November 2025



Southern Testing: Keeble House, Stuart Way, East Grinstead, West Sussex RH19 4OA
ST Consult: Twigden Barns, Brixworth Road, Creaton, Northampton NN6 8NN

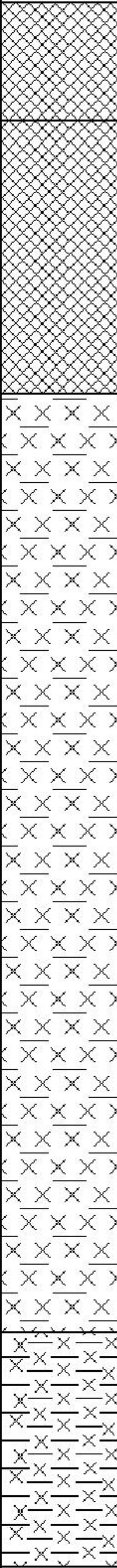


STL: J16090

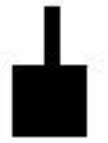
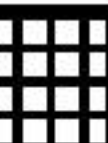
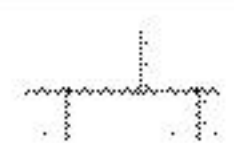
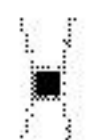
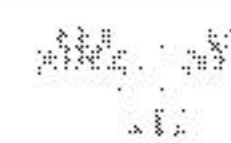
Fig No: 2

Exploratory Hole Location Plan

Southern Testing ST Consult				Start - End Date:		Project ID:	Hole Type:	TP1			
				10/11/2025		J16090	TP	Sheet 1 of 1			
Client:		North Star Centre Ltd.				Co-ordinates:		Level (m AOD)	Logger:		
									JL		
Project Name:		Wickenden Farm				Location:	Chilling Street, Sharpthorne, RH19 4JD				
Samples and Insitu Testing			Level	Thickness	Legend	Depth	Stratum Description				
Depth (m bgl)	Type	Results	(m AOD)	(m)		(m bgl)					
				(0.30)		0.30	Brown sandy CLAY, with occasional gravel (MADE GROUND). Gravel comprises fine to medium sub-angular brick, flint and hardstone.				
				(0.90)		1.20	Yellowish buff with patches of pale orange and pale grey mottled clayey SILT, recovered with occasional gravel becoming slightly gravelly. Gravel comprises fine to coarse sub-angular iron-stained Siltstone and Sandstone.			1	
				(0.90)		2.10	Yellowish buff to pale orange and pale grey mottling, slightly gravelly clayey SILT / silty CLAY. Becoming slightly interlaminated with thickly laminated to very thinly bedded iron-stained Siltstone and Sandstone. Gravel comprises fine to coarse sub-angular iron-stained Siltstone and Sandstone. <i>At 1.4m (bgl), a band of weak thinly bedded Siltstone.</i>			2	
							Pit terminated at 2.10m			3	
Pit Dimension (m)		Pit Stability:		Pit sides stable.			Water Strikes				
		Weather:		Heavy rain showers.			Depth (m)	Date/Time	Remarks		
Width:	0.50	Remarks:							Pits side dry upon excavation.		
Length:	2.10	Note the dimensions given relate to the top of the pit.									
Depth:	2.10	Pit sides dry upon excavation.									
Status:		FINAL		Log Print Date and Time:		13/11/2025 09:51		Log Approved By:		JNR	

Southern Testing ST Consult				Start - End Date:		Project ID:	Hole Type:	TP2					
				10/11/2025		J16090	TP	Sheet 1 of 1					
Client:		North Star Centre Ltd.				Co-ordinates:		Level (m AOD)	Logger:				
Project Name:		Wickenden Farm				Location:		Chilling Street, Sharpthorne, RH19 4JD					
Samples and Insitu Testing			Level (m AOD)	Thickness (m)	Legend	Depth (m bgl)	Stratum Description						
Depth (m bgl)	Type	Results											
				(0.15)		0.15	Greyish brown very sandy slightly gravelly CLAY (MADE GROUND). Gravel comprises fine to coarse sub-angular to sub-rounded brick, bituminous material, concrete, tile, slate, flint and hardstone and rare metal wire. Occasional cobbles sized brick (inc. whole brick) and rare concrete cobbles. At 0.15m (bgl) depth, separation fabric/membrane. Firm dark grey silty CLAY, with occasional gravel (MADE GROUND). Gravel comprises fine to medium sub-angular to sub-rounded brick and flint. Yellowish orange to buff and pale grey mottled, slightly clayey SILT, recovered with occasional gravel becoming slightly gravelly. Gravel comprises fine to coarse sub-angular iron-stained Siltstone and Sandstone. At 0.8m (bgl), becoming interbedded with very weak thickly laminated to very thinly bedded iron-stained Siltstone and Sandstone. At 1.55m (bgl), becoming a more clayey SILT / silty CLAY. Pale grey with some orange mottling, slightly clayey SILT, with occasional gravel. Gravel comprises fine to medium sub-angular iron-stained Siltstone. Pit terminated at 2.00m						
				(0.35)		0.50							
				(1.20)		1.70							
				(0.30)		2.00							
Pit Dimension (m)		Pit Stability:		Pit sides stable (below the Made Ground).		Water Strikes							
		Weather:		Heavy rain showers.		Depth (m)	Date/Time	Remarks					
Width:	0.50	Remarks:						Pits side dry upon excavation.					
Length:	1.70	Note the dimensions given relate to the top of the pit.											
Depth:	2.00	Pit sides dry upon excavation.											
Status:		FINAL		Log Print Date and Time:		13/11/2025 09:49	Log Approved By:	JNR					

Key to Exploratory Hole Logs, Plans and Sections

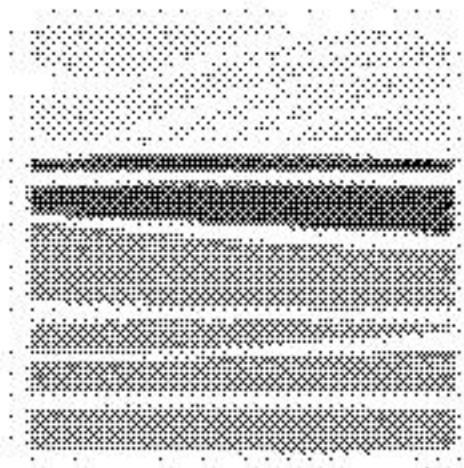
Backfill Symbols		Pipe Symbols		Principal Soil Types		Principal Rock Types		Drilling Records	
Arisings		Plain Pipe		Topsoil		Mudstone		Water Strike	
Concrete		Slotted Pipe		Made Ground		Claystone		Depth Water Rose	
Blacktop		Piezometer		Clay		Siltstone		Total Core Recovery (%) [TCR]	
Bentonite		Piezometer Tip		Silt		Sandstone		Solid Core Recovery (%) [SCR]	
Gravel Filter		Filter Tip		Sand		Limestone		Rock Quality Index (%) RQD]	
Sand Filter		Extensometer		Gravel		Chalk		Fracture Index (fractures / m) [FI]	
		Inclinometers		Peat					

All soil and rock descriptions are in general accordance with BS5930 2015, BS EN ISO 14688-1:2002+A1:2013 and BS EN ISO 14689-1:2003. Chalk descriptions are also based on CIRIA C574 and "Logging the Chalk – R.N. Mortimer 2015". The Geology Code is only provided where a positive identification of the sample strata has been made.

Location / Method Identifiers		In-situ Test Location / Method	
BH	Borehole (undefined)	DP	Dynamic Probe
CP	Cable Percussive	CPT	Cone Penetration Test
RC	Rotary Core	CBR	In-situ CBR Test
RO	Rotary Open Hole	DCP	CBR using Dynamic Cone Penetrometer
ODC	Rotary Odex/Symmetrix drilling cased	CBRT	CBR using TRL Probe
CP+RC	Cable Percussive to Rotary Core	PB	Plate Bearing Test
SNC	Sonic	SPT (S)	Standard Penetration Test (Split Barrel Sampler)
CFA	Continuous Flight Auger	SPT (C)	Standard Penetration Test (Solid Cone)
FA	Flight Auger	N	SPT Result
VC	Vibro Core	-/-	Blows/Penetration (mm) after seating drive
WLS+RC	Windowless (Dynamic) Sampler to Rotary Core	-*/-	Total Blows / Penetration (mm)
WLS	Windowless Sampler	()	Extrapolated Value
WS	Window Sampler	PPT	Perth Penetration (In-House Method - Equivalent N Value)
HA	Hand Auger	HP / UCS	Strength from Hand Penetrometer (kN/m ²)
C	Road / Pavement Core	IVN	Strength from Hand Vane ((kN/m ²) P = peak, R = residual
IP	Inspection Pit (Hand Excavation)	PID	Photo Ionisation Detector (ppm)
TP	Trial Pit (Machine Excavated)	MEXE	Mexi-Cone CBR (%)
OP	Observation Pit (Supported Excavation Hand or Machine)		

Samples / Test Type	
B	Bulk Sample
BLK	Block Sample
C	Core Sample
CBRS	CBR Mould Sample
D	Small Disturbed Sample
ES	Environmental Sample (Soil)
EW	Environmental Sample (Water)
GS	Environmental Sample (Gas)

Samples / Test Type	
SPTLS	Standard Penetration Test Split Barrel Sample
TW	Thin Wall Push In Sample (e.g. Shelby Sampler)
U	Undisturbed Open Drive Sample (blows to take)
UT	Thin Wall Undisturbed Open Drive Sample (blows to take)
W	Water Sample (Geotechnical)
SP	Sample from Stockpile
P	Piston Sample
AMAL	Amalgamated Sample



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APPENDIX B

In-Situ Test Methods and Results

B

Soil and Rock Descriptions

All soil and rock descriptions are in general accordance with BS5930 Ref [4].

Anthropogenic soils ('made ground' or 'fill') describe materials which have been placed by man and can be divided into those composed of reworked natural soils and those composed of or containing man-made materials. 'Fill' is used to describe material placed in a controlled manner and 'made ground' is used to describe materials placed without strict engineering control.

The classification of materials such as topsoil is based on visual description only and should not be interpreted to mean that the material complies with criteria used in BS 3882 Ref [33].

Chalk descriptions are based on CIRIA C574 Ref [34] and Mortimore Ref [35].

The geology code is only provided on logs where a positive identification of the sample strata has been made.

Soakage Tests (after BRE DG365 2016)

The BRE DG365 Ref [22] paper on soakaway design allows for the design of trench soakaways as well as traditional square and circular soakaways.

The test to measure the soil infiltration rate is carried out in pits which are excavated to the full depth of the proposed soakaway. The trial pits are filled and allowed to drain to empty or near empty, three times, on the same day or on consecutive days. Water levels are recorded against time. Where the sides are unstable the pit should be filled with granular material to provide stability during the test.

Calculated soakage rates are expressed as $\text{l/m}^2/\text{minute}$, which is a convenient rate to use. The BRE use a unit of m/sec , which is the value in $\text{l/m}^2/\text{minute}$ divided by 60,000.

Soakage Test (after NHBC Standards Chapter 5.3)

The above test Ref [21] refers to small-scale soakage tests that can be performed in areas with restricted access e.g. occupied houses, or where disturbance is to be kept to a minimum. The aim is to measure the time it takes for a set quantity of water to drain from a standard sized excavation. The results from which are used to design a soakaway chamber. However, if the test results prove inconclusive, it may be advisable to retest the soils using the larger scale BRE DG365 test method Ref [22].

The procedure involves drilling a 150 mm diameter hole to a depth of 1.5m or more. Perforated casing is installed in the hole with a sand filter surround. Water is added to a depth of 300 mm, and a record kept of the falling water level.

The test result is expressed as the time in minutes for the water level to drop the full 300 mm, and required soakaway sizes and depths are obtained from graphs in NHBC 5.3. If the water does not completely soak away in the time available then a graphical plot of water level versus logarithm of time is prepared. The test time is then obtained by extrapolation.

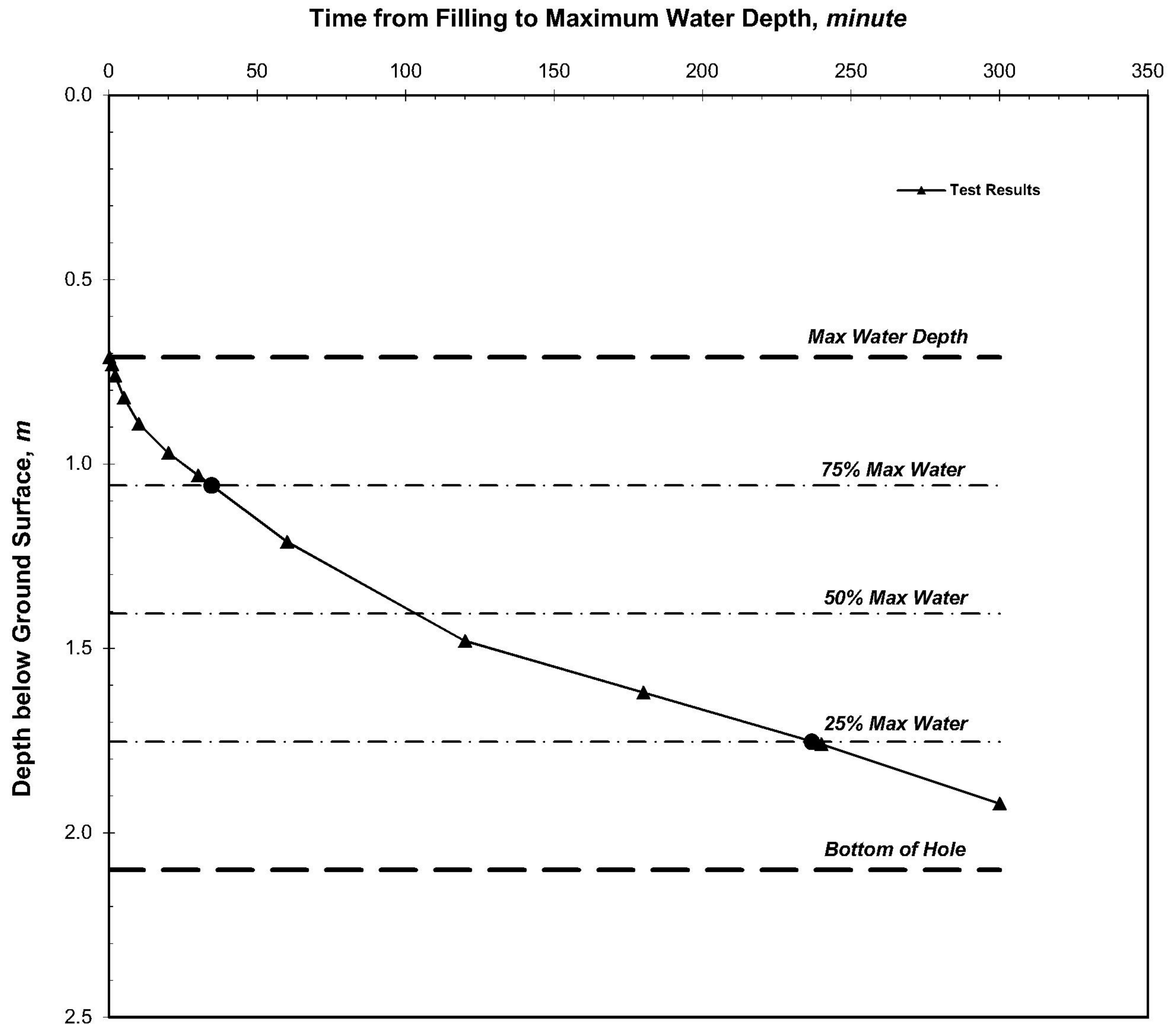
Percolation Tests (EA PPG4 & Building Regulations Part H2)

The above test refers to small-scale soakage tests that can be performed in areas with restricted access e.g. occupied houses, or where disturbance is to be kept to a minimum. The aim is to measure the time it takes for a set quantity of water to drain from a standard sized excavation.

The procedure is essentially for design of septic tank discharge to subsurface irrigation systems and involves digging at least two holes 300mm square to a depth of at least 300mm below the proposed invert level of the infiltration pipe. The test holes should be pre-soaked overnight. The following day the holes are filled to a depth of at least 300mm and the time for the water to seep away from 75% full to 25% full is recorded. The time in seconds divided by 150 gives the percolation value, V_p . The test should be carried out at least three times and the average value taken.

BRE Digest DG365 Soakage Test

Test Hole No: TP1
Test No: Test No 1 (Initial)



Pit Length, m	1.550	Depth to Water at Start of Test, m	0.710
Pit Width, m	0.500	Max Water Dropdown during Test, m	1.210
Depth to Pit Base, m	2.100	Total Soakage Test Time, min	300.0
Depth to Top of Permeable Soils, m		Mean Internal Discharge Area, m ²	3.625
Depth to Groundwater Surface, m		Discharge Rate, litre/min	1.066
Depth to Top of Granular Fill, m	0.700	Soakage Rate, litre/m ² /min	0.294
Voids Assumed for Granular Fill, %	40%	BRE Soil Infiltration Rate, m/sec	4.90E-06

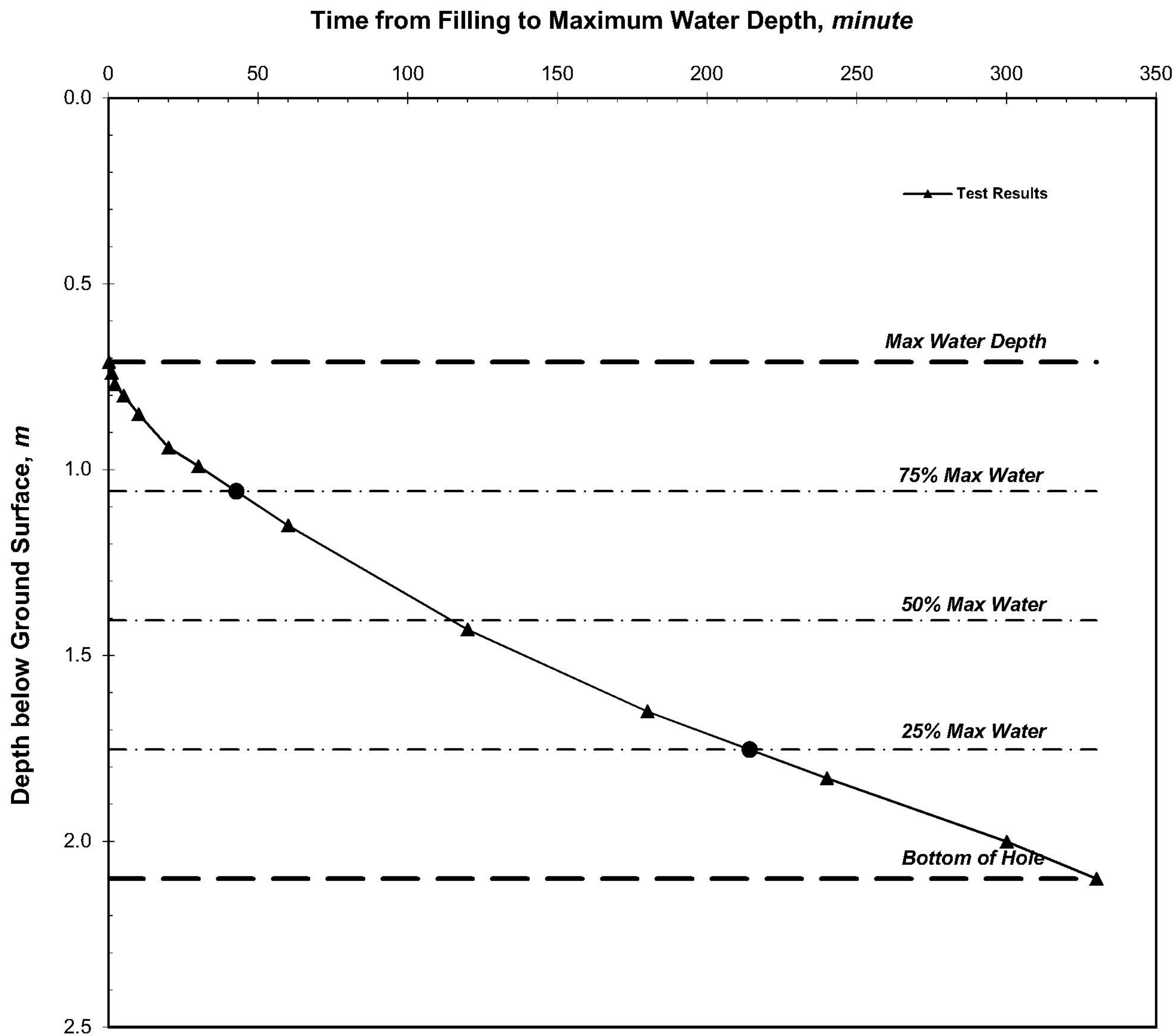
Comments:

Pit was nearly emptied at finish of test.

Client: North Star Centre Ltd.	Job No: J16090	Test Date: 10/Nov/2025	
Site: Wickenden Farm, Chilling Street, Sharpthor	Tested By: JS	Engineer: JL	Fig. S1

BRE Digest DG365 Soakage Test

Test Hole No: TP1
Test No: Test No 2 (Repeated)



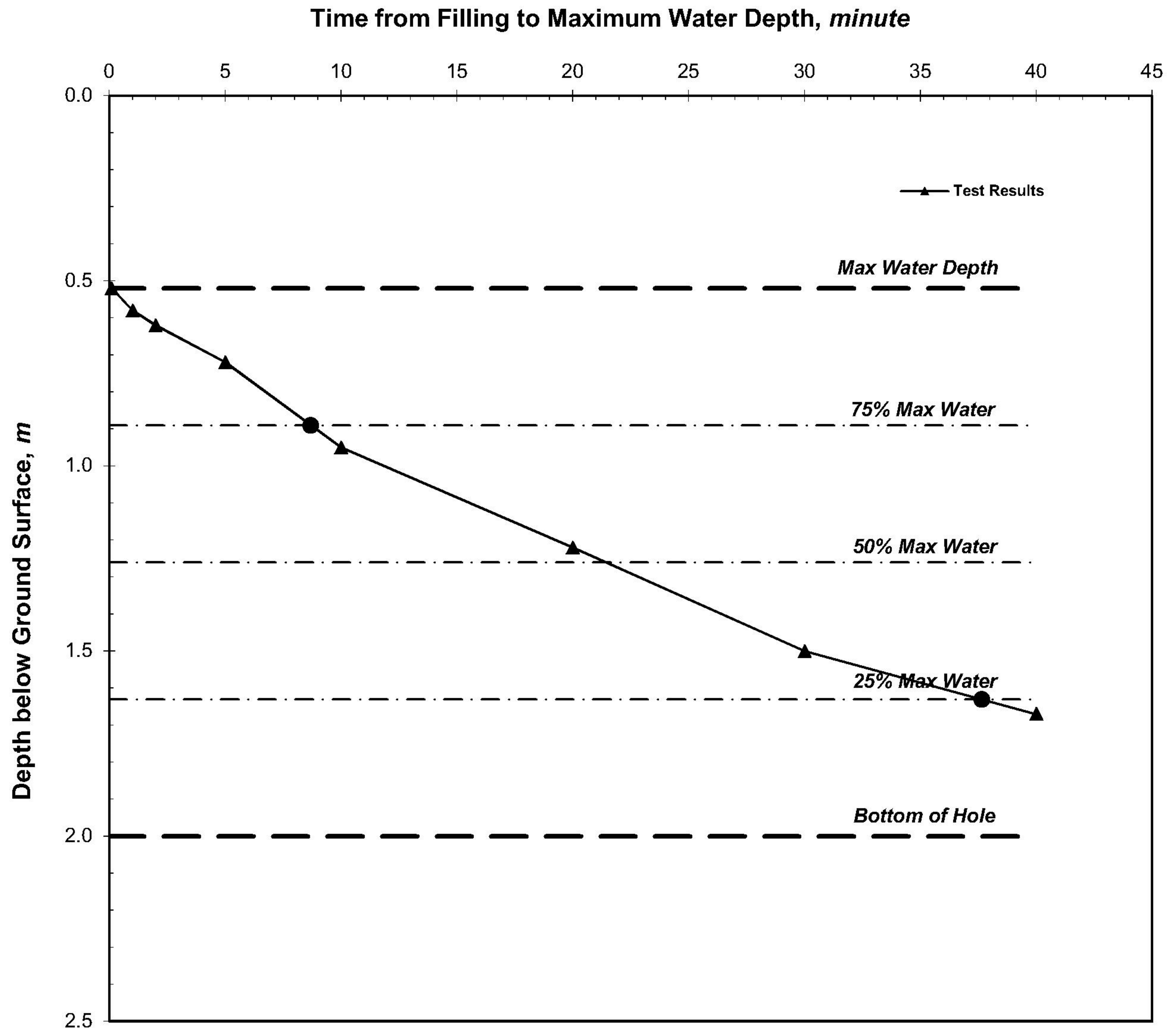
Pit Length, m	1.550	Depth to Water at Start of Test, m	0.710
Pit Width, m	0.500	Max Water Dropdown during Test, m	1.390
Depth to Pit Base, m	2.100	Total Soakage Test Time, min	330.0
Depth to Top of Permeable Soils, m		Mean Internal Discharge Area, m ²	3.625
Depth to Groundwater Surface, m		Discharge Rate, litre/min	1.256
Depth to Top of Granular Fill, m	0.700	Soakage Rate, litre/m ² /min	0.347
Voids Assumed for Granular Fill, %	40%	BRE Soil Infiltration Rate, m/sec	5.78E-06

Comments:
Pit was emptied at finish of test.

Client: North Star Centre Ltd.	Job No: J16090	Test Date: 11/Nov/2025
Site: Wickenden Farm, Chilling Street, Sharpthor	Tested By: JS	Engineer: JL
		Fig. S2

BRE Digest DG365 Soakage Test

Test Hole No: TP2
Test No: Test No 1 (Initial)



Pit Length, <i>m</i>	1.350	Depth to Water at Start of Test, <i>m</i>	0.520
Pit Width, <i>m</i>	0.500	Max Water Dropdown during Test, <i>m</i>	1.150
Depth to Pit Base, <i>m</i>	2.000	Total Soakage Test Time, <i>min</i>	40.0
Depth to Top of Permeable Soils, <i>m</i>		Mean Internal Discharge Area, <i>m</i> ²	3.413
Depth to Groundwater Surface, <i>m</i>		Discharge Rate, <i>litre/min</i>	6.901
Depth to Top of Granular Fill, <i>m</i>	0.250	Soakage Rate, <i>litre/m</i> ² / <i>min</i>	2.02
Voids Assumed for Granular Fill, %	40%	BRE Soil Infiltration Rate, <i>m/sec</i>	3.37E-05

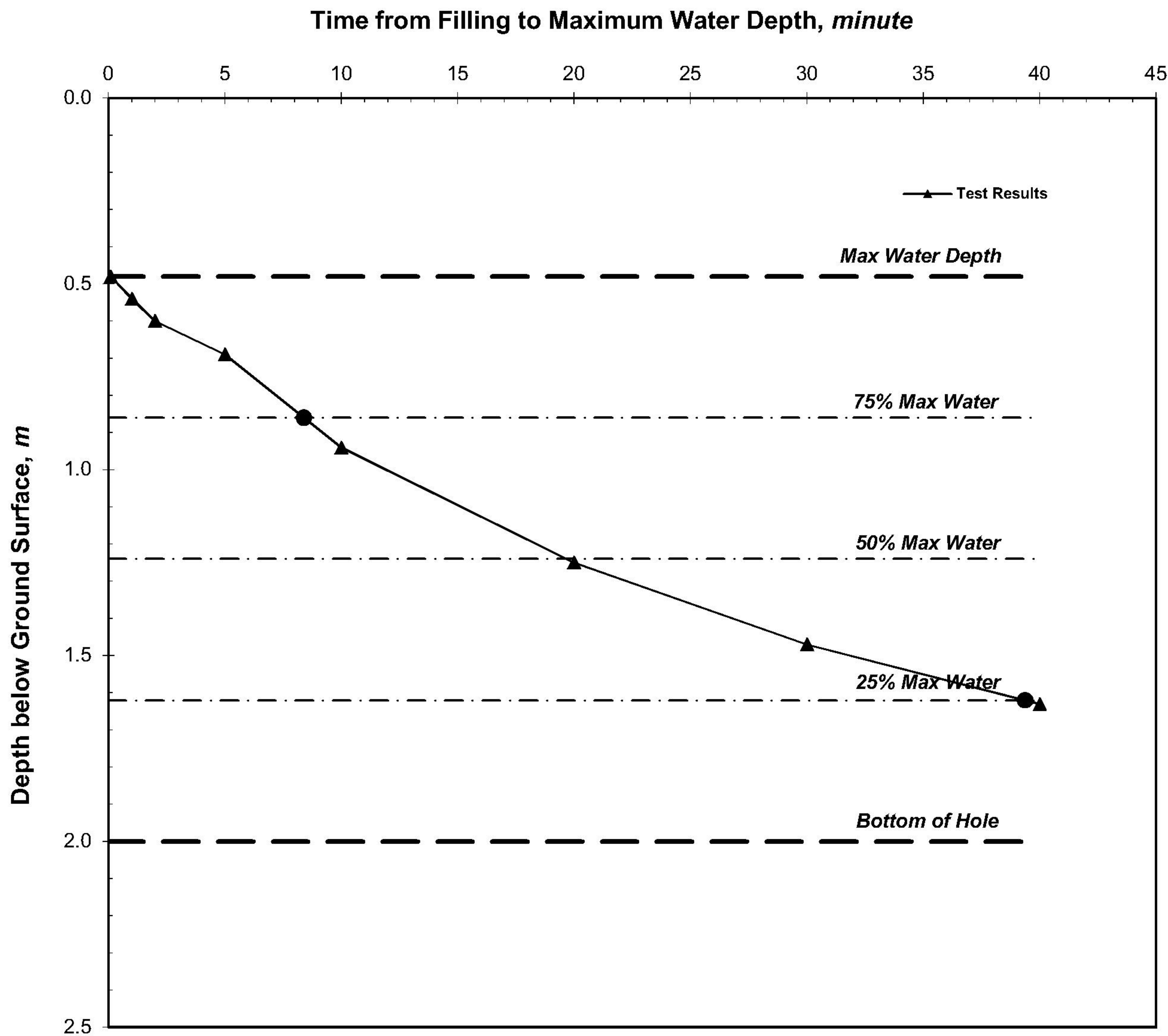
Comments:

Pit was nearly emptied at finish of test.

Client: North Star Centre Ltd.	Job No: J16090	Test Date: 10/Nov/2025
Site: Wickenden Farm, Chilling Street, Sharpthorpe	Tested By: JS	Engineer: JL
		Fig. S3

BRE Digest DG365 Soakage Test

Test Hole No: TP2
Test No: Test No 2 (Repeated)



Pit Length, m	1.350	Depth to Water at Start of Test, m	0.480
Pit Width, m	0.500	Max Water Dropdown during Test, m	1.150
Depth to Pit Base, m	2.000	Total Soakage Test Time, min	40.0
Depth to Top of Permeable Soils, m		Mean Internal Discharge Area, m ²	3.487
Depth to Groundwater Surface, m		Discharge Rate, litre/min	6.625
Depth to Top of Granular Fill, m	0.250	Soakage Rate, litre/m ² /min	1.90
Voids Assumed for Granular Fill, %	40%	BRE Soil Infiltration Rate, m/sec	3.17E-05

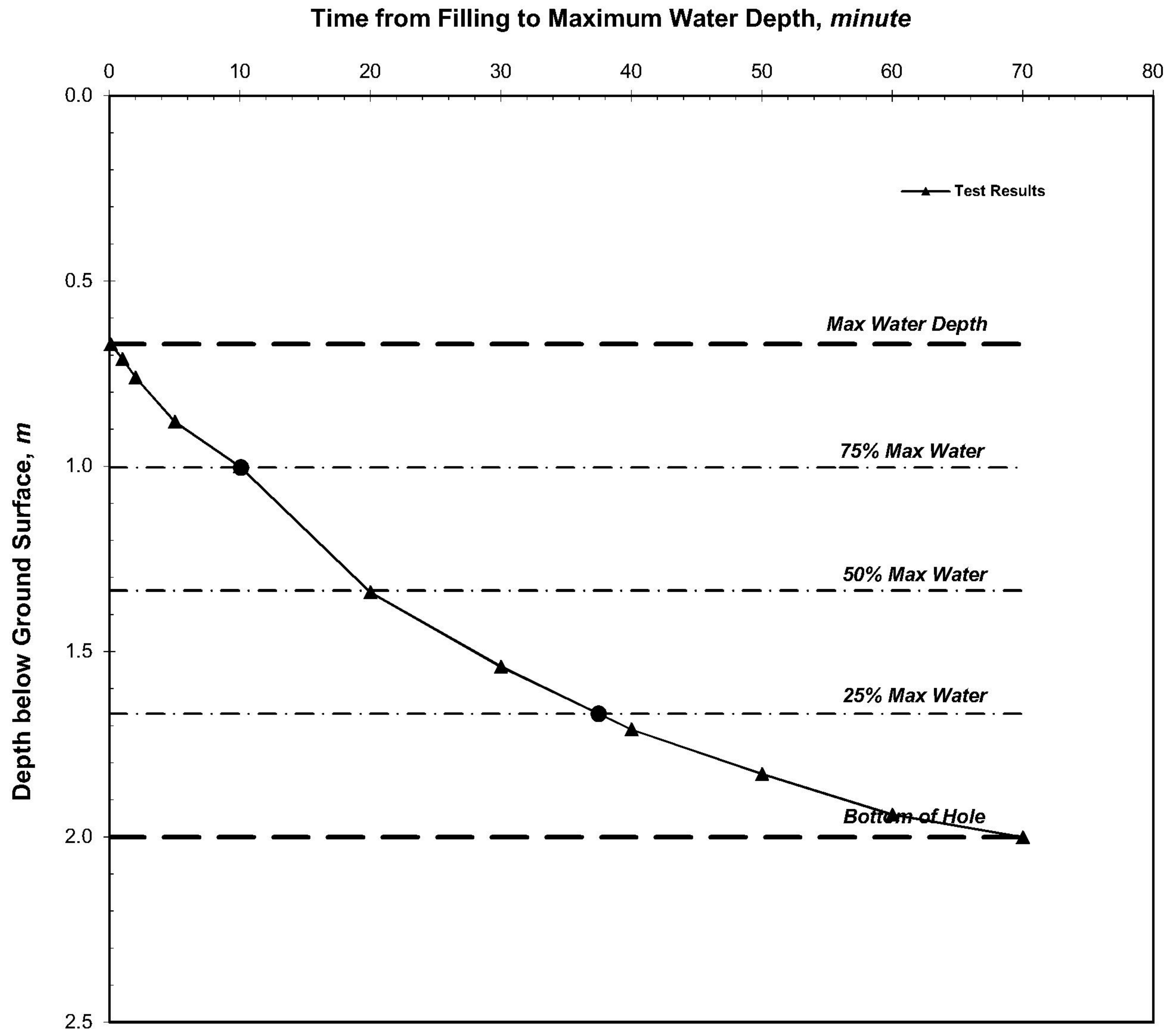
Comments:
Pit was nearly emptied at finish of test.

Client: North Star Centre Ltd.	Job No: J16090	Test Date: 10/Nov/2025
Site: Wickenden Farm, Chilling Street, Sharpthor	Tested By: JS	Engineer: JL
		Fig. S4

BRE Digest DG365 Soakage Test

Test Hole No: TP2

Test No: Test No 3 (Repeated)



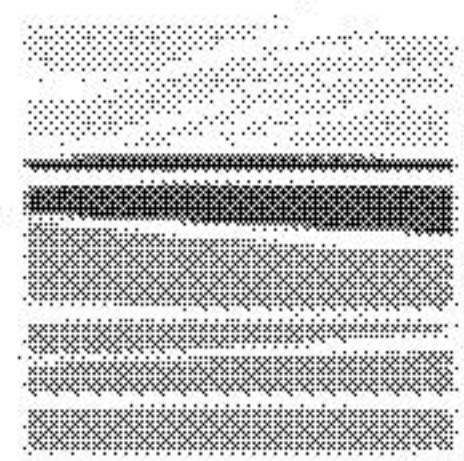
Pit Length, m	1.350	Depth to Water at Start of Test, m	0.670
Pit Width, m	0.500	Max Water Dropdown during Test, m	1.330
Depth to Pit Base, m	2.000	Total Soakage Test Time, min	70.0
Depth to Top of Permeable Soils, m		Mean Internal Discharge Area, m ²	3.136
Depth to Groundwater Surface, m		Discharge Rate, litre/min	6.547
Depth to Top of Granular Fill, m	0.250	Soakage Rate, litre/m ² /min	2.09
Voids Assumed for Granular Fill, %	40%	BRE Soil Infiltration Rate, m/sec	3.48E-05

Comments:

Pit was emptied at finish of test.

Client: North Star Centre Ltd.	Job No: J16090	Test Date: 11/Nov/2025
Site: Wickenden Farm, Chilling Street, Sharpthor	Tested By: JS	Engineer: JL
		Fig. S5

Summary Sheet							
Results of BRE Digest DG365 Soakage Tests							
Site : Wickenden Farm, Chilling Street, Sharpthorne					Job No : J16090		
Client : North Star Centre Ltd.					O S Reference :		
Tested By : JS				Engineer: JL		Test Date : 10/Nov/2025	
Hole No	Test No	Hole Depth <i>m</i>	Soakage Rate for Each Test <i>litre/m²/min</i>	Soakage Rate for Each Hole <i>litre/m²/min m/sec</i>		Water Level at Finish of Test	Remarks
TP1	No 1	2.10	0.294	0.294	4.90E-6	Nearly empty pit.	
TP1	No 2	2.10	0.347			Empty pit.	
TP2	No 1	2.00	2.02	1.90	3.17E-5	Nearly empty pit.	
TP2	No 2	2.00	1.90			Nearly empty pit.	
TP2	No 3	2.00	2.09			Empty pit.	
Mean Value of All Calculated Soakage Rates :				1.10 <i>litre/m²/min</i>	1.83E-5 <i>m/sec</i>		



Southern Testing

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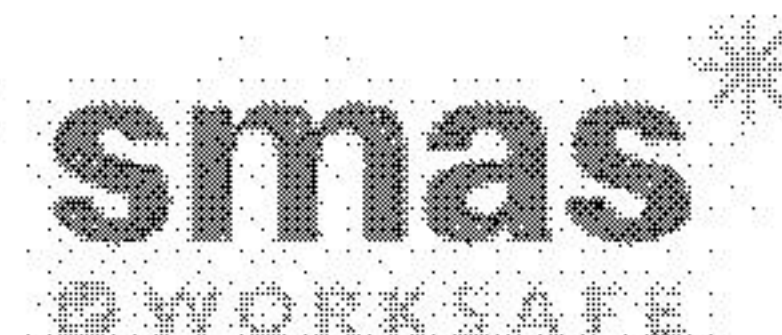
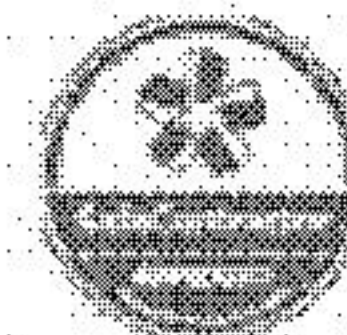
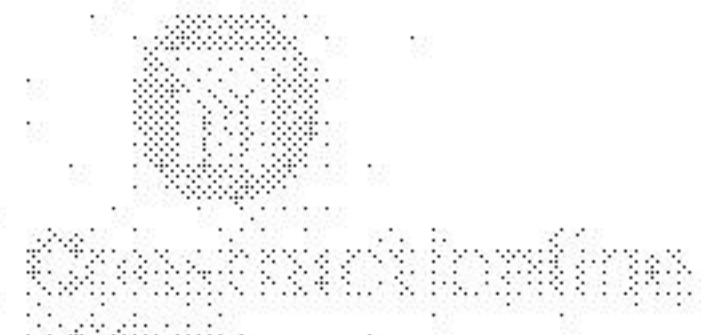
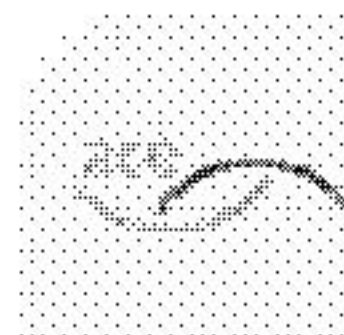


Head Office
East Grinstead
Tel: 01342 333100
enquiries@southerntesting.co.uk

ST Consult Midlands
Northampton
Tel: 01604 500020
creaton@stconsult.co.uk

ST Consult Thames Valley
Hannington
Tel: 01635 800 950
hannington@stconsult.co.uk

ST Consult North West
Warrington
Tel: 01925 661 735
warrington@stconsult.co.uk



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