



20/07/2026

Our ref: ICE0646/LD01/260720

Mr. Paul Batten

Dear Paul,

RE: Land South of Floran Farm, Hophurst Hill, Crawley, West Sussex, RH10 4LP– BRE 365 Soakage Testing

We are pleased to present the results of the soakage testing undertaken at the above site. The soakage tests were undertaken in general accordance with BRE Digest 365 'Soakaway Design' BRE, 2016.

The intrusive investigation was undertaken between 14th and 15th July 2026, with the works supervised by a Senior IBEX Engineer as well as two graduates.

Background

Published geological records indicate that the ground conditions are likely to comprise the Upper Tunbridge Wells Sand. A thickness of Topsoil or Made Ground is also anticipated over the natural deposits.

Scope of Site Works

Four machine excavated trial pits, and one hand dug trial pit were excavated to a maximum depth of 1.50m bgl and seven soakage tests in general accordance with BRE Digest 365 were undertaken within the trial pits (SA01 to SA04 and HP01).

Ground Conditions

The ground conditions encountered were broadly consistent with those anticipated, namely a thickness of Topsoil overlying the Upper Tunbridge Wells Sand.

For further details of the ground conditions, reference should be made to the exploratory hole logs presented in Appendix A.

Groundwater

Groundwater was not encountered during the investigation.

Soakaways

Table 1 summarises the soakage rates, which were calculated and extrapolated based on the results of the soakage testing:

Reference	Geology	Calculated Infiltration Rates (m/s)		
		1 st Cycle	2 nd Cycle	3 rd Cycle
SA01	Upper Tunbridge Wells Sand	N/D	N/D	N/D
SA02	Upper Tunbridge Wells Sand	N/D	N/D	N/D
SA03	Upper Tunbridge Wells Sand	N/D	N/D	N/D

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Geotechnical and Environmental Specialists | Site Investigations

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Reference	Geology	Calculated Infiltration Rates (m/s)		
		1 st Cycle	2 nd Cycle	3 rd Cycle
SA04	Upper Tunbridge Wells Sand	N/D	N/D	N/D
HP01*	Upper Tunbridge Wells Sand	N/D	N/D	N/D
SA01A**	Upper Tunbridge Wells Sand	N/D	N/D	N/D
SA03A**	Upper Tunbridge Wells Sand	N/D	N/D	N/D
* Due to slow infiltration, an alternative pit was excavated and tested to assess the permeability of the natural deposits **Due to slow infiltration and ceased water drain at depth, these pits were refilled with water on the second to assess the potential infiltration within the upper layers of the geology. N/D=Not Determined due to insufficient fall in head over two-day period.				

Table 1 Summary of Soakage Test Results

Closure

We trust that we have interpreted your instructions correctly; please do not hesitate to contact us should you have any queries.

Yours sincerely

For and on Behalf of IBEX Consulting Engineers Limited



Levent Dogan BSc, MSc, PGDip, CEng MCIHT, AMICE, AMIEnvSc
Director

levent.dogan@ibexconsultant.com

Enc. Figure 1 Site Location Plan
 Figure 2 Exploratory Hole Logs Location Plan
 Appendix A Exploratory Hole Logs
 Appendix B BRE 365 Soakage Testing Results

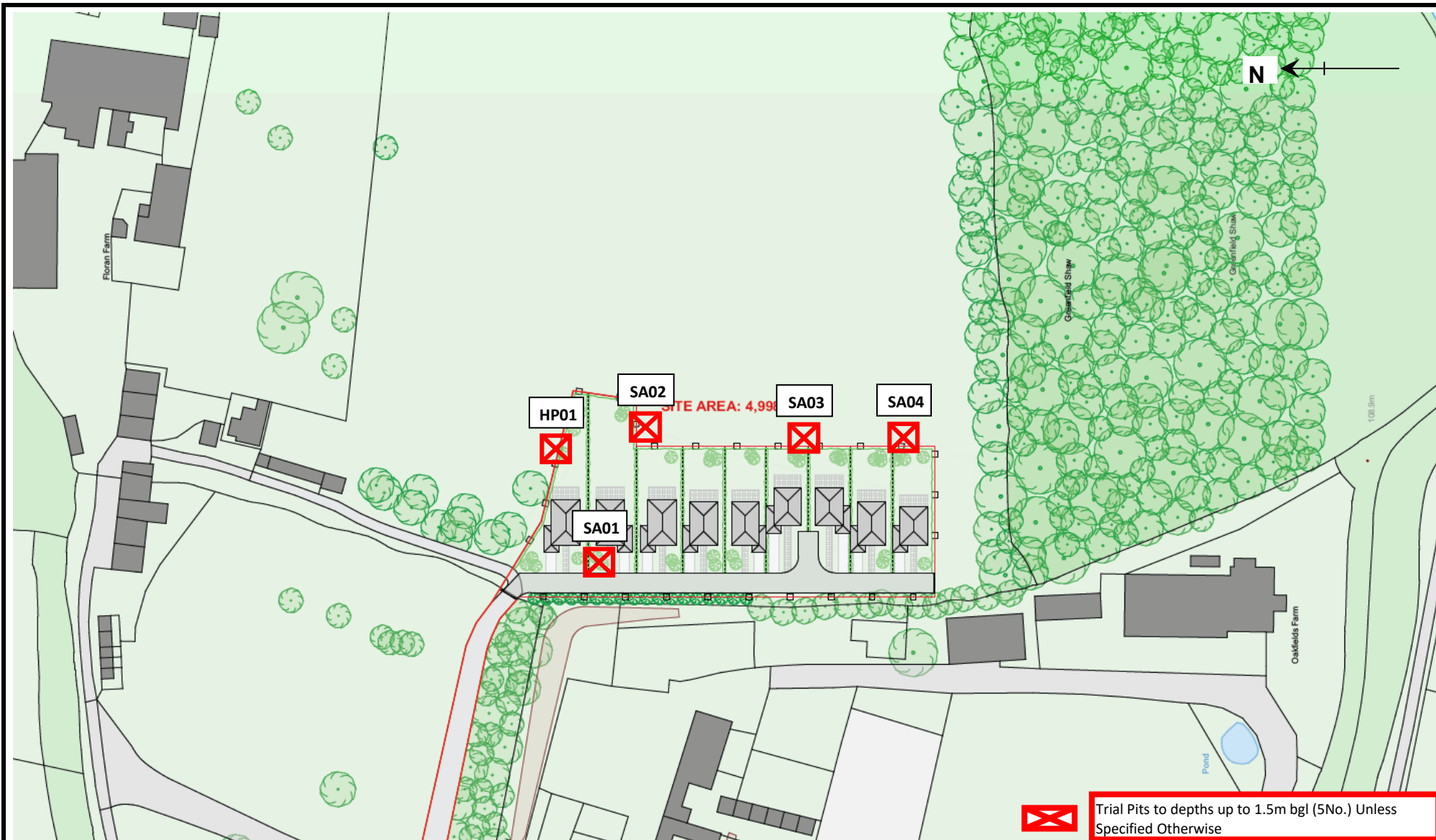


Figures





Project:		Land South of Floran Farm, Hophurst Hill, Crawley, West Sussex, RH10 4LP		Title	Site Location Plan	
Client:		Mr. Paul Batten		IBEX Consulting Engineers Limited Abbey House, 25 Clarendon Road Redhill, Surrey. RH1 1QZ +44(0)1737 452622 www.ibexconsultant.com		
Ref No:	ICE0646	Revision:	0			
Drawn:	LD	Date:	20/07/2026			
Figure:	1	Scale:	Not To Scale			



Project:	Land South of Floran Farm, Hophurst Hill, Crawley, West Sussex, RH10 4LP			Title	Exploratory Hole Logs Location Plan	
Client:	Mr. Paul Batten			IBEX Consulting Engineers Limited Abbey House, 25 Clarendon Road Redhill, Surrey. RH1 1QZ +44(0)1737 452622 www.ibexconsultant.com		 IBEX CONSULTING ENGINEERS
Ref No:	ICE0646	Revision:	0			
Drawn:	LD	Date:	20/07/2026			
Figure:	2	Scale:	Not To Scale			

Appendix A

Exploratory Hole Logs



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Key to exploratory hole symbols and abbreviations

SAMPLE TYPES

ACM - Asbestos sample	AMAL - Amalgamated sample	B - Bulk disturbed sample
BLK - Block sample	C - Core sample	CBR - CBR test sample
D - Disturbed sample	ES - Environmental sample	EW - Environmental water sample
G - Gas sample	J - Jar sample	L - Liner sample
TW - Pushed thin wall sample	U - Undisturbed sample	UT - Undisturbed thin wall sample
W - Water sample		

IN-SITU TESTS

HV - Hand shear vane	HV(r) - Hand shear vane residual	PID - Photo ionisation detector
PP - Hand penetrometer	SPT - Standard penetration test	SPT(C) - SPT using cone

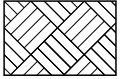
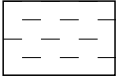
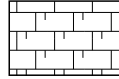
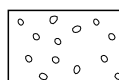
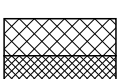
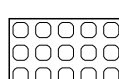
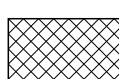
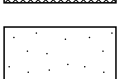
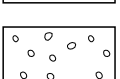
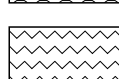
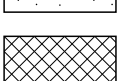
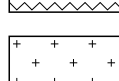
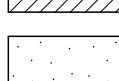
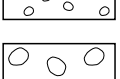
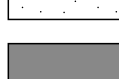
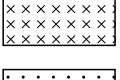
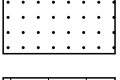
GROUNDWATER

 Groundwater strike	 Groundwater rest level
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ROTARY CORE DETAILS

TCR - Total core recovery (%)	SCR - Solid core recovery (%)	RQD - Rock quality designation (%)
FI - Fracture index	NI - Non-intact core	AZCL - Assumed zone of core loss

LEGEND

 Topsoil	 Clay	 Chalk	 Sand backfill
 Peat	 Silt	 Breccia	 Gravel backfill
 Made ground [cohesive]	 Sand	 Conglomerate	 Arisings
 Concrete	 Gravel	 Metamorphic	 Bentonite
 Wood	 Cobbles	 Igneous	 Concrete
 Brick	 Boulders		 Grout
 Bituminous material	 Mudstone		 Plain pipe
 Gypsum	 Siltstone		
 Coal	 Sandstone		 Slotted pipe
 Void	 Limestone		



Trial Pit

SA01

Sheet 1 of 1

Hole Type TP	Easting	Northing	Ground Level (m)	Scale 1:25
Project Name Land South of Floran Farm, Crawley	Project No. ICE0646	Start Date 2026-07-14	End Date 2026-07-15	

Client Mr. Paul Batten	Consultant KOD	Contractor
---------------------------	-------------------	------------

Inst/ Backfill	Water Levels	Samples and Tests			Level (m)	Depth (m)	Strata		
		Depth (m)	Type/ Ref	Results			Legend	Description	
						(0.40)		Brambles overlying light brown sandy gravelly SILT with abundant rootlets and roots 1-50mm. Sand is fine. Gravel is fine to coarse sub-angular sandstone. [Topsoil]	0.5
						0.40		Orangish brown slightly sandy gravelly very silty CLAY with some rootlets and roots 1-5mm. Sand is fine. Gravel is fine to coarse sub-angular tabular sandstone. [Upper Tunbridge Wells Sand]	
						(0.40)			1.0
						0.80		End of Trial Pit at 0.80m	
									1.5
									2.0
									2.5
									3.0
									3.5
									4.0
									4.5
									5.0

Remarks 1. Soakage test undertaken. 2. Pit remained dry and backfilled with arisings.	Method, Plant, Stability, Dimensions 0.00 - 0.80m TP 9T tracked excavator Stable L = 1.20m W = 0.30m	Logger
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Trial Pit

SA02

Sheet 1 of 1

Hole Type TP	Easting	Northing	Ground Level (m)	Scale 1:25
Project Name Land South of Floran Farm, Crawley	Project No. ICE0646	Start Date 2026-07-14	End Date 2026-07-15	

Client Mr. Paul Batten	Consultant KOD	Contractor
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Inst/ Backfill	Water Levels	Samples and Tests			Level (m)	Depth (m) (thickness)	Strata		
		Depth (m)	Type/ Ref	Results			Legend	Description	
						(0.35)		Grass overlying light brown sandy gravelly SILT with rootlets and roots 1-2mm. Sand is fine. Gravel is fine to coarse sub-angular sandstone. [Topsoil]	
						0.35		Light brown and light orangish brown silty slightly sandy very gravelly CLAY. Sand is fine. Gravel is fine to coarse sub-angular sandstone and tabular sandstone. (Recovered dry, not consolidated) [Upper Tunbridge Wells Sand]	0.5
						(1.15)			1.0
						1.50			1.5
								End of Trial Pit at 1.50m	
									2.0
									2.5
									3.0
									3.5
									4.0
									4.5
									5.0

Remarks	Method, Plant, Stability, Dimensions	Logger
1. Soakage test undertaken.	0.00 - 1.50m TP 9T tracked excavator	
2. Pit remained dry and backfilled with arisings.	Stable	

L = 1.50m

W = 0.30m



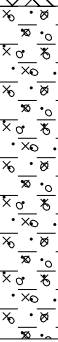
Trial Pit

SA03

Sheet 1 of 1

Hole Type TP	Easting	Northing	Ground Level (m)	Scale 1:25
Project Name Land South of Floran Farm, Crawley	Project No. ICE0646	Start Date 2026-07-14	End Date 2026-07-15	

Client Mr. Paul Batten	Consultant KOD	Contractor
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Inst/ Backfill	Water Levels	Samples and Tests			Level (m)	Depth (thickness) (m)	Strata		
		Depth (m)	Type/ Ref	Results			Legend	Description	
						(0.40)		Grass overlying light brown sandy gravelly SILT with some rootlets and roots 1-3mm. Sand is fine. Gravel is fine to coarse sub-angular sandstone. [Topsoil]	
						0.40		Light orange and light orangish brown silty sandy slightly gravelly CLAY. Sand is fine. Gravel is fine to coarse sub-angular sandstone and some tabular sandstone. (Recovered dry, not consolidated) [Upper Tunbridge Wells Sand]	0.5
						(1.10)			1.0
						1.50		End of Trial Pit at 1.50m	1.5
									2.0
									2.5
									3.0
									3.5
									4.0
									4.5
									5.0

Remarks 1. Soakage test undertaken. 2. Pit remained dry and backfilled with arisings.	Method, Plant, Stability, Dimensions 0.00 - 1.50m TP 9T tracked excavator Stable L = 1.50m W = 0.30m	Logger
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Remarks	Method, Plant, Stability, Dimensions	Logger
1. Soakage test undertaken. 2. Pit remained dry and backfilled with arisings.	0.00 - 1.50m TP 1.5T tracked digger Stable $L = 1.30m$  $W = 0.30m$	



Trial Pit

HP01

Sheet 1 of 1

Hole Type TP	Easting	Northing	Ground Level (m)	Scale 1:25
Project Name Land South of Floran Farm, Crawley	Project No. ICE0646	Start Date 2026-07-14	End Date 2026-07-15	

Client Mr. Paul Batten	Consultant KOD	Contractor
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Inst/ Backfill	Water Levels	Samples and Tests			Level (m)	Depth (m) (thickness)	Strata		
		Depth (m)	Type/ Ref	Results			Legend	Description	
						(0.20)		Sparse weeds overlying brown silty slightly sandy slightly gravelly CLAY with frequent rootlets. Sand is fine. Gravel is fine sub-angular sandstone. [Topsoil]	
						0.20			
						(0.43)		Firm orangish brown and some light grey silty slightly sandy slightly gravelly CLAY. Sand is fine. Gravel is fine to medium sub-angular sandstone. [Upper Tunbridge Wells Sand]	0.5
						0.63		End of Trial Pit at 0.63m	
									1.0
									1.5
									2.0
									2.5
									3.0
									3.5
									4.0
									4.5
									5.0

Remarks 1. Soakage test undertaken. 2. Pit remained dry and backfilled with arisings.	Method, Plant, Stability, Dimensions 0.00 - 0.63m TP Hand excavated Stable L = 0.30m W = 0.30m	Logger
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Appendix B

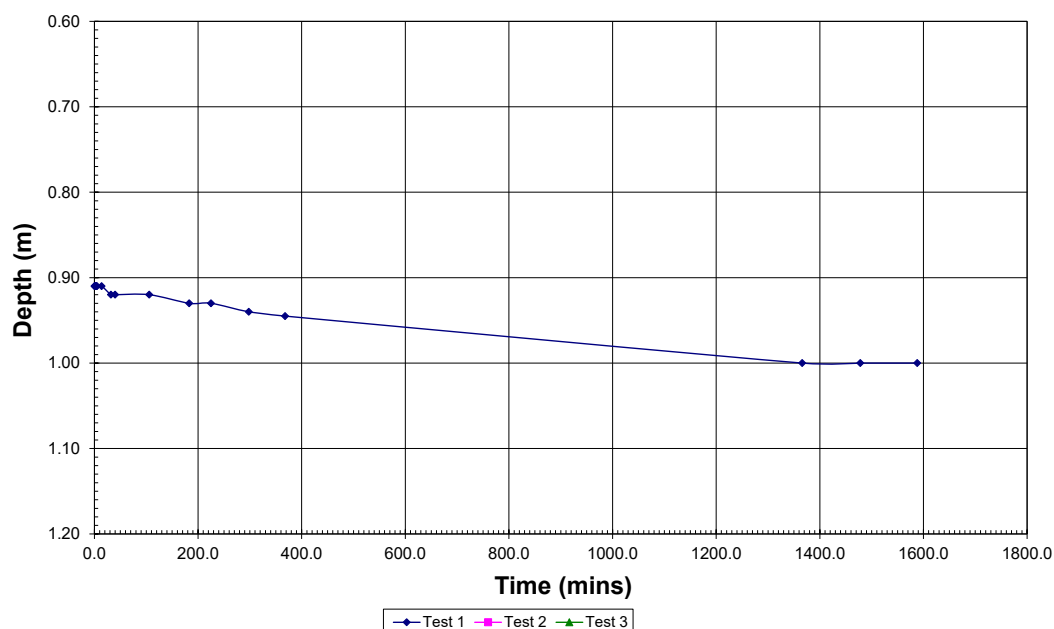
BRE 365 Soakage Testing Results



Project Name :	Land South of Floran Farm, Crawley, West Sussex, RH10 4LP
Client :	Mr. Paul Batten

Job No. :	ICE0646
Date :	20/07/2026

Pit reference	SA03
Pit depth (m)	1.50
Pit width (m)	0.30
Pit length (m)	1.50
Depth to standing water (m)	

[illegible][illegible][illegible]

Max. depth (m)	1.50	1.50	1.50
Effective depth (m)	0.59	1.50	1.50
75% effective depth (m)	1.06	0.38	0.38
50% effective depth (m)	1.21	0.75	0.75
25% effective depth (m)	1.35	1.13	1.13
t75 (min)			
t50 (min)			
t25 (min)			
Vp 75-25	0.13	0.34	0.34
ap 50	1.512	3.15	3.15
tp 75-25	0.00	0.00	0.00

Soil infiltration rate (m/s)	#DIV/0!	#DIV/0!	#DIV/0!
Soil infiltration rate (mm/hr)	#DIV/0!	#DIV/0!	#DIV/0!

Notes:

- 1 Orange cells require input data
2 Infiltration calculated to method in 'BRE Digest 365 (1991) - Soakaway Design'
3 First line of table must be depth at time = 0



Soakaway Test Results (after BRE Digest 365)

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Project Name :	Land South of Floran Farm, Crawley, West Sussex, RH10 4LP	Job No. :	ICE0646
Client :	Mr. Paul Batten	Date :	20/07/2026

Pit reference	SA04
Pit depth (m)	1.50
Pit width (m)	0.30
Pit length (m)	1.30
Depth to standing water (m)	

Test 1

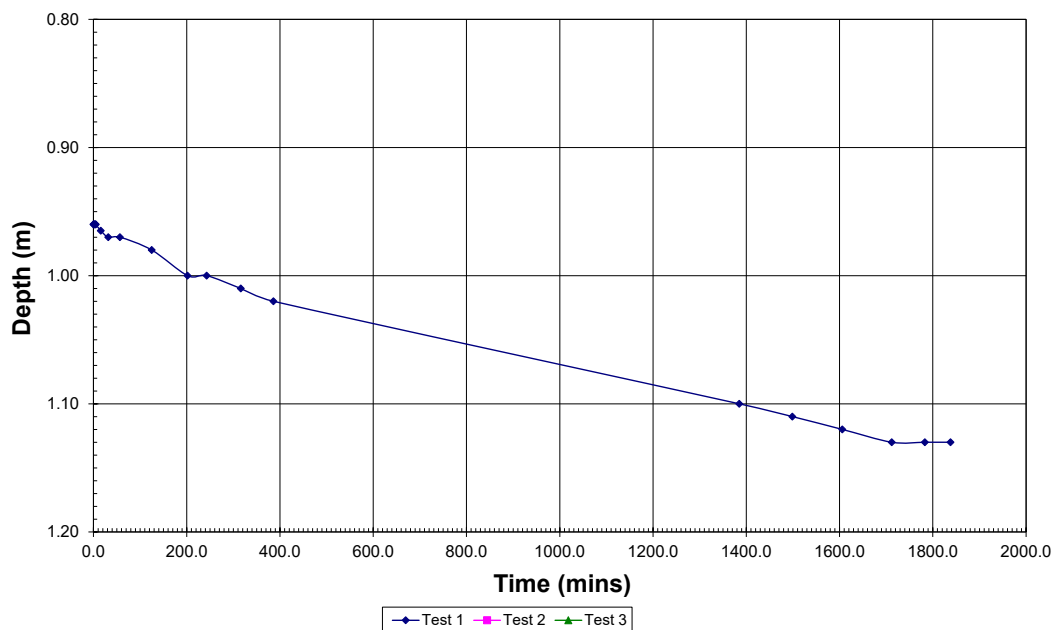
Time (min)	Depth (m)
0.0	0.96
1.0	0.96
2.0	0.96
3.0	0.96
4.0	0.96
5.0	0.96
16.0	0.97
32.0	0.97
57.0	0.97
125.0	0.98
202.0	1.00
243.0	1.00
316.0	1.01
386.0	1.02
1385.0	1.10
1499.0	1.11
1606.0	1.12
1712.0	1.13
1783.0	1.13
1838.0	1.13

Test 2

Time (min)	Depth (m)

Test 3

Time (min)	Depth (m)



Max. depth (m)	1.50	1.50	1.50
Effective depth (m)	0.54	1.50	1.50
75% effective depth (m)	1.10	0.38	0.38
50% effective depth (m)	1.23	0.75	0.75
25% effective depth (m)	1.37	1.13	1.13
t75 (min)			
t50 (min)			
t25 (min)			
Vp 75-25	0.11	0.29	0.29
ap 50	1.254	2.79	2.79
tp 75-25	0.00	0.00	0.00

Soil infiltration rate (m/s)	#DIV/0!	#DIV/0!	#DIV/0!
Soil infiltration rate (mm/hr)	#DIV/0!	#DIV/0!	#DIV/0!

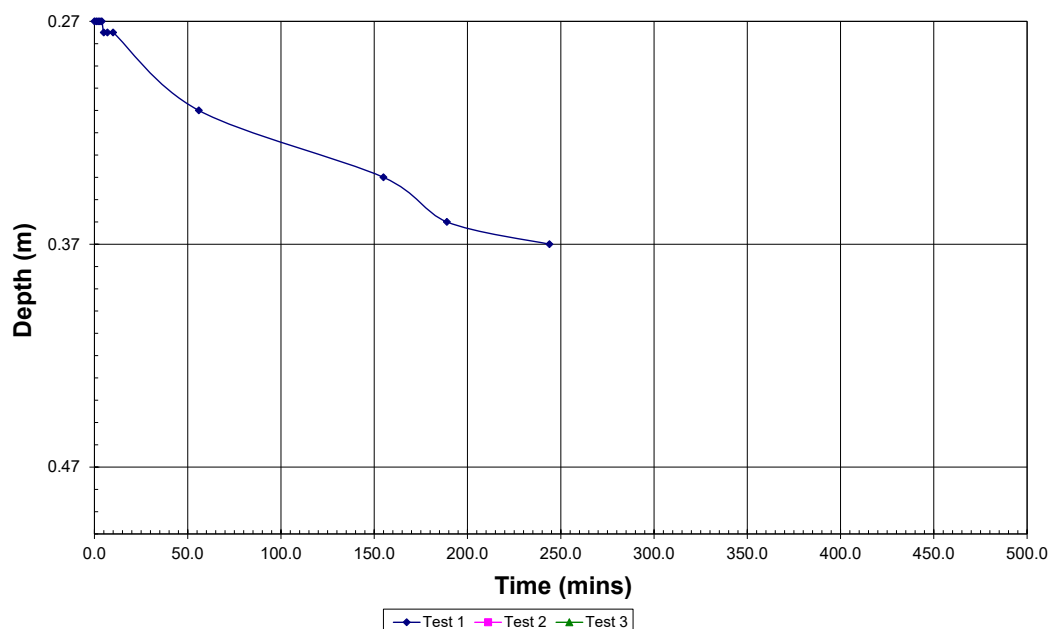
Notes:

- Orange cells require input data
- Infiltration calculated to method in 'BRE Digest 365 (1991) - Soakaway Design'
- First line of table must be depth at time = 0

Project Name :	Land South of Floran Farm, Crawley, West Sussex, RH10 4LP
Client :	Mr. Paul Batten

Job No. :	ICE0646
Date :	20/07/2026

Pit reference	SA01A
Pit depth (m)	0.80
Pit width (m)	0.30
Pit length (m)	1.20
Depth to standing water (m)	0.50

[illegible][illegible][illegible]

Max. depth (m)	0.50	0.50	0.50
Effective depth (m)	0.23	0.50	0.50
75% effective depth (m)	0.33	0.13	0.13
50% effective depth (m)	0.39	0.25	0.25
25% effective depth (m)	0.44	0.38	0.38
t75 (min)			
t50 (min)			
t25 (min)			
Vp 75-25	0.04	0.09	0.09
ap 50	0.705	1.11	1.11
tp 75-25	0.00	0.00	0.00

Soil infiltration rate (m/s)	#DIV/0!	#DIV/0!	#DIV/0!
Soil infiltration rate (mm/hr)	#DIV/0!	#DIV/0!	#DIV/0!

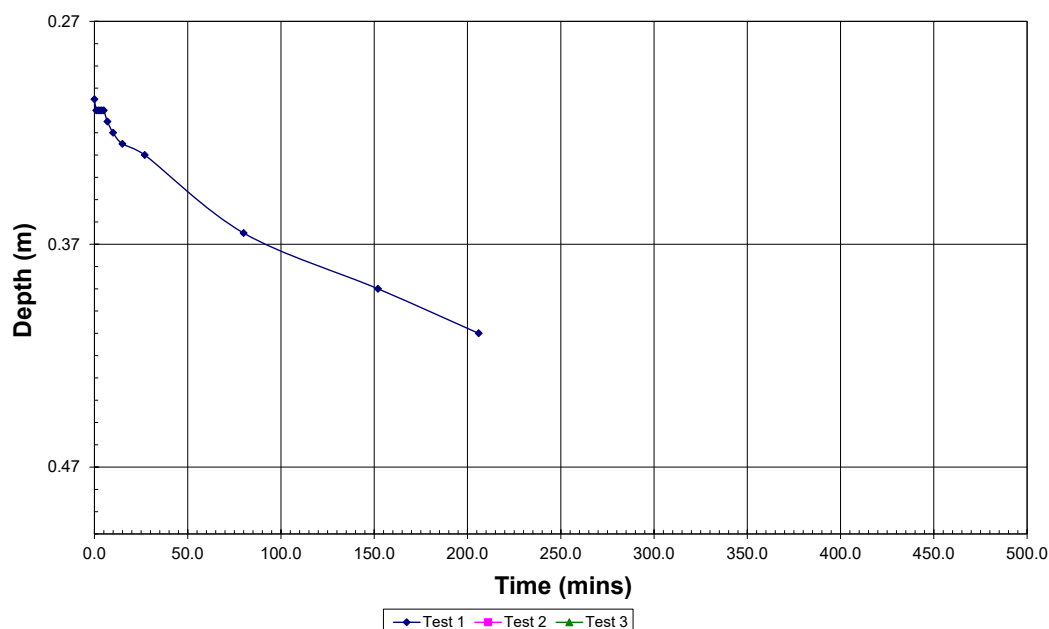
Notes:

- 1 Orange cells require input data
2 Infiltration calculated to method in 'BRE Digest 365 (1991) - Soakaway Design'
3 First line of table must be depth at time = 0

Project Name :	Land South of Floran Farm, Crawley, West Sussex, RH10 4LP
Client :	Mr. Paul Batten

Job No. :	ICE0646
Date :	20/07/2026

Pit reference	SA03A
Pit depth (m)	1.40
Pit width (m)	0.30
Pit length (m)	1.50
Depth to standing water (m)	1.00

[illegible][illegible][illegible]

Max. depth (m)	1.00	1.00	1.00
Effective depth (m)	0.70	1.00	1.00
75% effective depth (m)	0.48	0.25	0.25
50% effective depth (m)	0.65	0.50	0.50
25% effective depth (m)	0.83	0.75	0.75
t75 (min)			
t50 (min)			
t25 (min)			
Vp 75-25	0.16	0.23	0.23
ap 50	1.701	2.25	2.25
tp 75-25	0.00	0.00	0.00

Soil infiltration rate (m/s)	#DIV/0!	#DIV/0!	#DIV/0!
Soil infiltration rate (mm/hr)	#DIV/0!	#DIV/0!	#DIV/0!

Notes:

- 1 Orange cells require input data
2 Infiltration calculated to method in 'BRE Digest 365 (1991) - Soakaway Design'
3 First line of table must be depth at time = 0