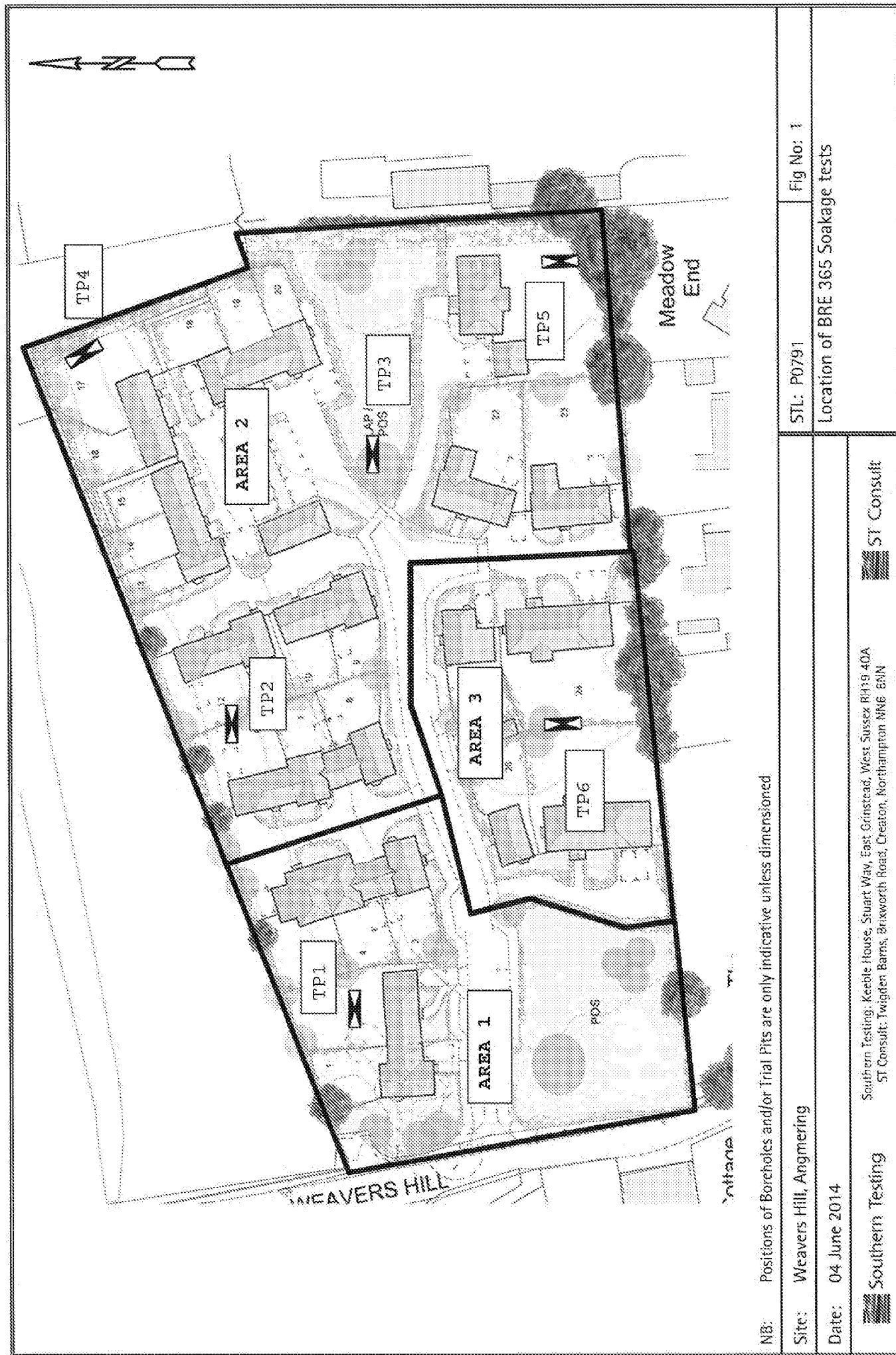




NB: Positions of Boreholes and/or Trial Pits are only indicative unless dimensioned

Site: Weavers Hill, Angmering

Date: 04 June 2014

Southern Testing: Keeble House, Stuart Way, East Grinstead, West Sussex RH19 4DA
ST Consult: Twickenham, Brixworth Road, Cretton, Northampton NN6 8NN

ST Consult

STL: P0791

Fig No: 1

Location of BRE 365 Soakage tests

Tel: 01342 333100				Project No. P0791	Machine Type JCB 3CX	Trialpit No. TP2 Sheet 1 of 1
Project Name: Weavers Hill (Angmering)				NGR: - Level: -		Date: 29/04/2014
Location: Angmering				Dimensions: Depth 2.80m		Logged By
Client: Rydon Homes Limited						

Samples & In Situ Testing			Level (m AOD)	Thickness	Legend	Depth (m)	Stratum Description
Depth (m)	Type	Results					
				0.30			Dark brown, clayey TOPSOIL.
				0.30			dark brown, gravelly topsoily CLAY. gravel is fine to coarse sub angular flint.
				0.50			
				0.80			Medium dense, orange-brown, silty clayey GRAVEL. Gravel is fine to coarse sub angular fine to coarse flint.
				2.00			
				2.80			Trial Pit Complete at 2.80 m

Remarks:

Pit Stability: Poor - collapsing

Groundwater: Dry Hole

PPT = Perch Penetration Test 'N' Value, UCS = Unconfined Compressive Strength (kN/m²) by Hand Penetrometer, HV= Hand Vane Result (kPa)

Southern Testing ST Consult Tel: 01342 333100				Project No: P0791	Machine Type: JCB 3CX	Trialpit No: TP4 Sheet 1 of 1
Project Name: Weavers Hill (Angmering)				NGR: - Level: -		Date: 29/04/2014
Location: Angmering				Dimensions: Depth 3.00m		
Client: Rydon Homes Limited						Logged By

Samples & In Situ Testing			Level (m AOD)	Thickness	Legend	Depth (m)	Stratum Description
Depth (m)	Type	Results					
				0.55			Soft, mid brown fine sandy clayey TOPSOIL with abundant fine rootlets.
				0.55			Coarse, sub angular to sub-rounded flint GRAVEL in firm dark brown plastic silty clay.
				1.65			
				2.20			Loose, fine rounded chalk and coarse flint gravel in a matrix of weathered clay and putty chalk.
				0.80			
				3.00			Trial Pit Complete at 3.00 m

Remarks:	
Pit Stability: Poor - collapsing	
Groundwater: Dry Hole	
PPT = Perth Penetration Test 'N' Value , UCS = Unconfined Compressive Strength (kN/m2) by Hand Penetrometer, HV= Hand Vane Result (kPa)	

Tel: 01342 333100				Project No. P0791	Machine Type JCB 3CX	Trialpit No TP6 Sheet 1 of 1
Project Name: Weavers Hill (Angmering)				NGR: - Level: -		Date: 29/04/2014
Location: Angmering				Dimensions: Depth 3.00m		Logged By
Client: Rydon Homes Limited						

Samples & In Situ Testing			Level (m AOD)	Thickness	Legend	Depth (m)	Stratum Description
Depth (m)	Type	Results					
				0.30		0.30	Soft, dark grey-brown silty clayey TOPSOIL
				0.40		0.30	Firm, dark brown friable silty CLAY.
				0.70			
				0.20		0.70	Firm, mid brown fine sandy/coarse silty CLAY with abundant fine to coarse flint gravel.
				0.90		0.90	Medium dense, off white fine rounded chalk and flint GRAVEL.
				2.10			
						3.00	Trial Pit Complete at 3.00 m

Remarks:	
Pit Stability: Poor - collapsing	
Groundwater: Dry Hole	
PPT = Perth Penetration Test 'N' Value UCS = Unconfined Compressive Strength (kN/m ²) by Hand Penetrometer, Hv = Hand Vane Result (kPa)	

Summary Sheet

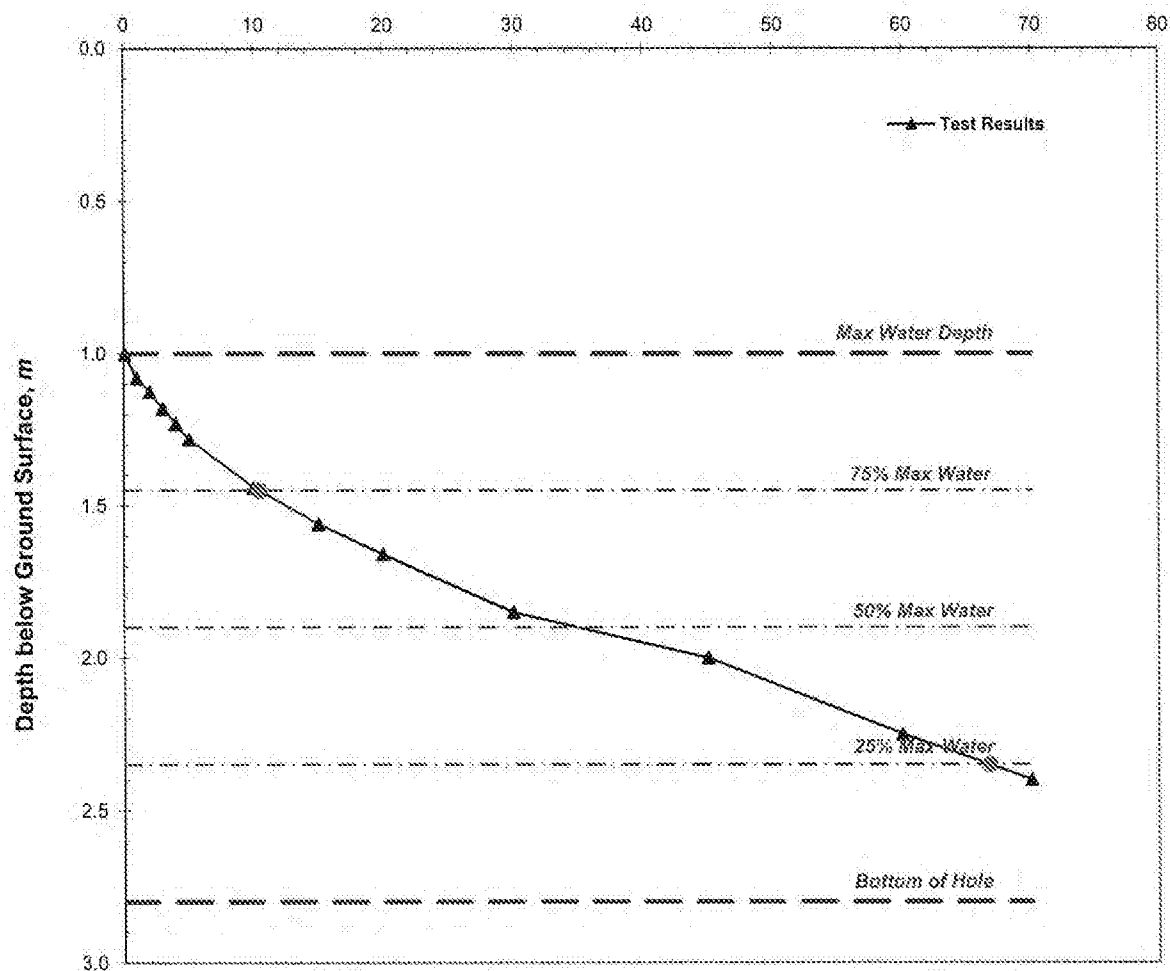
Results of BRE Digest 365 Soakage Tests

Site : Weavers Hill, Angmering					Job No : P0791		
Client : Rydon Homes Limited					O S Reference : TQ 073 045		
Tested By : TJ/SB				Engineer: SFP		Test Date : 13/May/2014	
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
TP2	No 1	2.80	75.75	61.99	1.03E-3	Nearly empty pit.	2000ltrs of water
TP2	No 2	2.80	61.99			Empty pit.	2000ltrs of water
TP2	No 3	2.80	69.41			Nearly empty pit.	2000ltrs of water
TP3	No 1	2.90	24.39	16.58	2.76E-4	Nearly empty pit.	2000ltrs of water
TP3	No 2	2.90	16.58			Nearly empty pit.	1600ltrs of water
TP3	No 3	2.90	18.27			Nearly empty pit.	1500ltrs of water
TP4	No 1	3.00	38.37	33.49	5.58E-4	Nearly empty pit.	2000ltrs of water
TP4	No 2	3.00	34.61			Nearly empty pit.	2000ltrs of water
TP4	No 3	3.00	33.49			Nearly empty pit.	2000ltrs of water
TP5	No 1	3.00	13.22	9.39	1.57E-4	Nearly empty pit.	2000ltrs of water
TP5	No 2	3.00	11.86			Nearly empty pit.	2000ltrs of water
TP5	No 3	3.00	9.39			Nearly empty pit.	2000ltrs of water

BRE Digest 365 Soakage Test

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

Time from Filling to Maximum Water Depth, minute



Pit Length, m	1.500	Depth to Water at Start of Test, m	1.000
Pit Width, m	0.450	Max Water Dropdown during Test, m	1.400
Depth to Pit Base, m	2.800	Total Soakage Test Time, min	70.0
Depth to Top of Permeable Soils, m		Mean Internal Discharge Area, m ²	4.185
Depth to Groundwater Surface, m		Discharge Rate, litre/min	10.800
Depth to Top of Granular Fill, m		Soakage Rate, litre/m ² /min	2.58
voids Assumed for Granular Fill, %	100%	BRE Soil Infiltration Rate, m/sec	4.30E-05

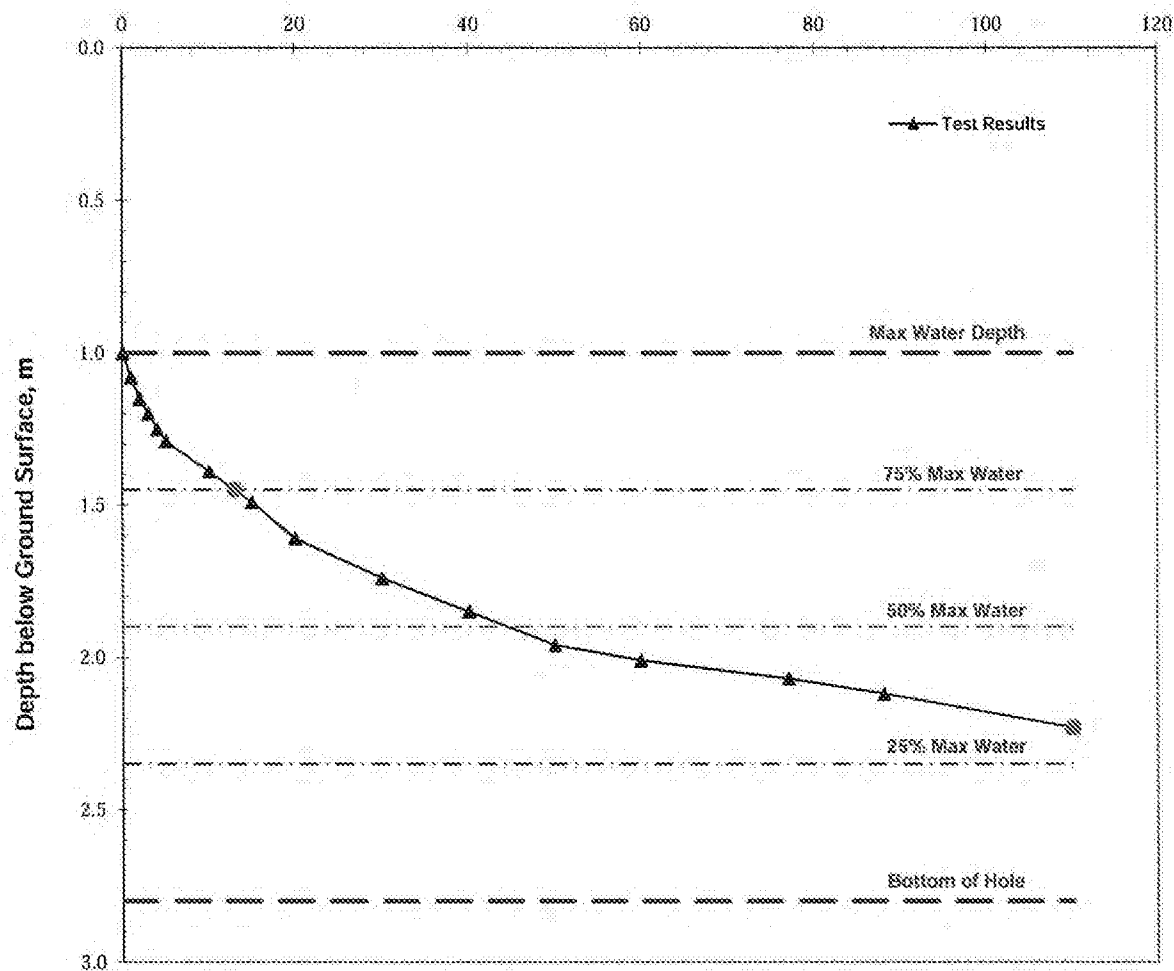
Comments: Not shingle filled
Pit was nearly emptied at finish of test.

Client: Rydon Homes Limited	Job No: P0791	Test Date: 29/Apr/2014
Site: Weavers Hill, Angmering	Tested By: TJ/SB	Engineer: SFP Fig S1a

BRE Digest 365 Soakage Test

Test Hole No: TP1
Test No: Test No 3 (Repeated)

Time from Filling to Maximum Water Depth, minute



Pit Length, m	1.500	Depth to Water at Start of Test, m	1.000
Pit Width, m	0.450	Max Water Dropdown during Test, m	1.230
Depth to Pit Base, m	2.800	Total Soakage Test Time, min	110.0
Depth to Top of Permeable Soils, m		Mean Internal Discharge Area, m ²	4.419
Depth to Groundwater Surface, m		Discharge Rate, litre/min	5.428
Depth to Top of Granular Fill, m		Soakage Rate, litre/m ² /min	1.23
Void Assumed for Granular Fill, %	100%	BRE Soil Infiltration Rate, m/sec	2.05E-05

Comments: Not shingle filled
Water level fell to 50% -- 25% max water depth, calculations were based on actual fall of water level achieved.
Result not compliant with BRE365 requirement since water did not fall to 25% max water depth.

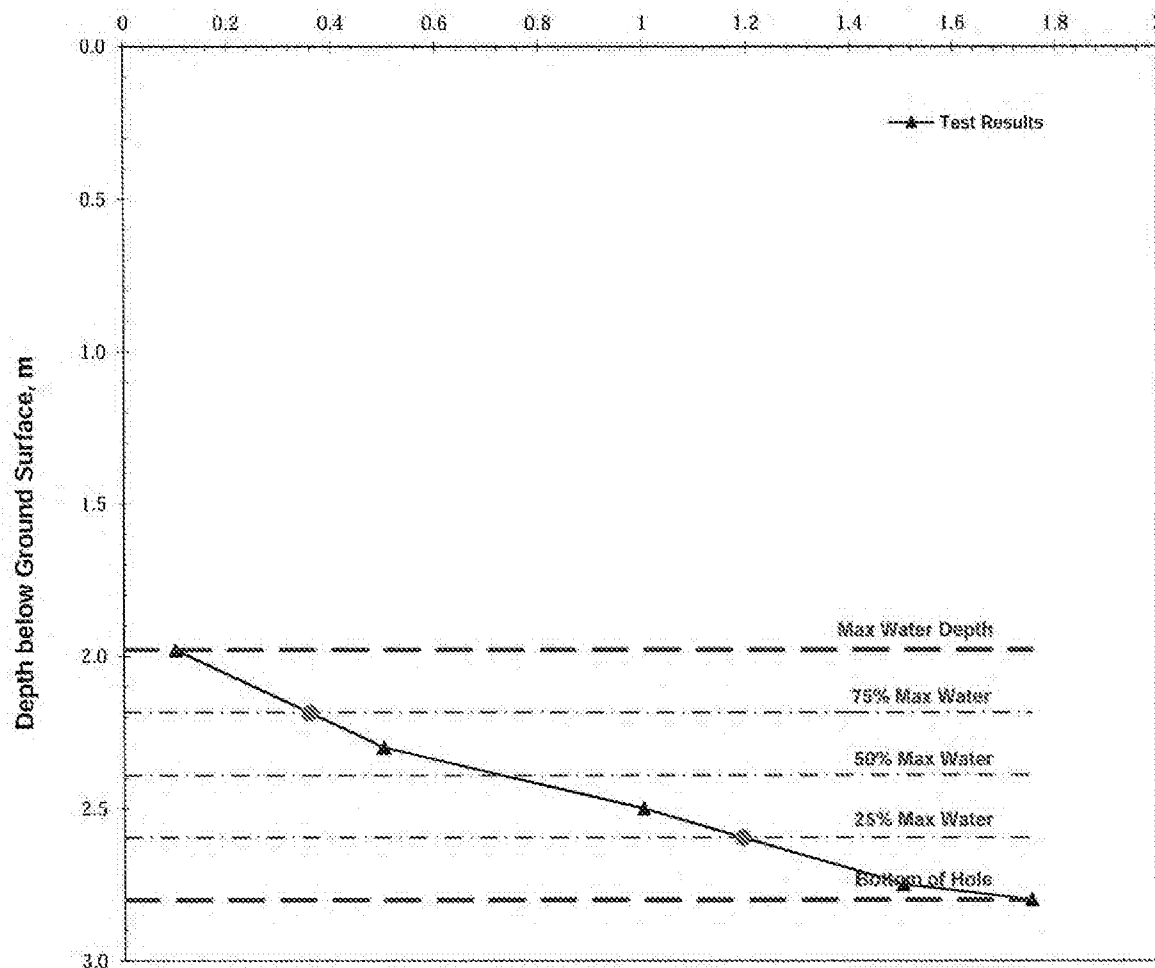
Client: Rydon Homes Limited	Job No: P0791	Test Date: 29/Apr/2014
Site: Weavers Hill, Angmering	Tested By: TJ/SB	Engineer: SFP Fig S1c

BRE Digest 365 Soakage Test

Test Hole No: TP2

Test No: Test No 2 (Repeated)

Time from Filling to Maximum Water Depth, minute



Pit Length, m	2.000	Depth to Water at Start of Test, m	1.980
Pit Width, m	0.600	Max Water Dropdown during Test, m	0.820
Depth to Pit Base, m	2.800	Total Soakage Test Time, min	1.8
Depth to Top of Permeable Soils, m		Mean Internal Discharge Area, m ²	3.332
Depth to Groundwater Surface, m		Discharge Rate, litre/min	206.537
Depth to Top of Granular Fill, m	0.600	Soakage Rate, litre/m ² /min	61.99
Void Assumed for Granular Fill, %	35%	BRE Soil Infiltration Rate, m/sec	1.03E-03

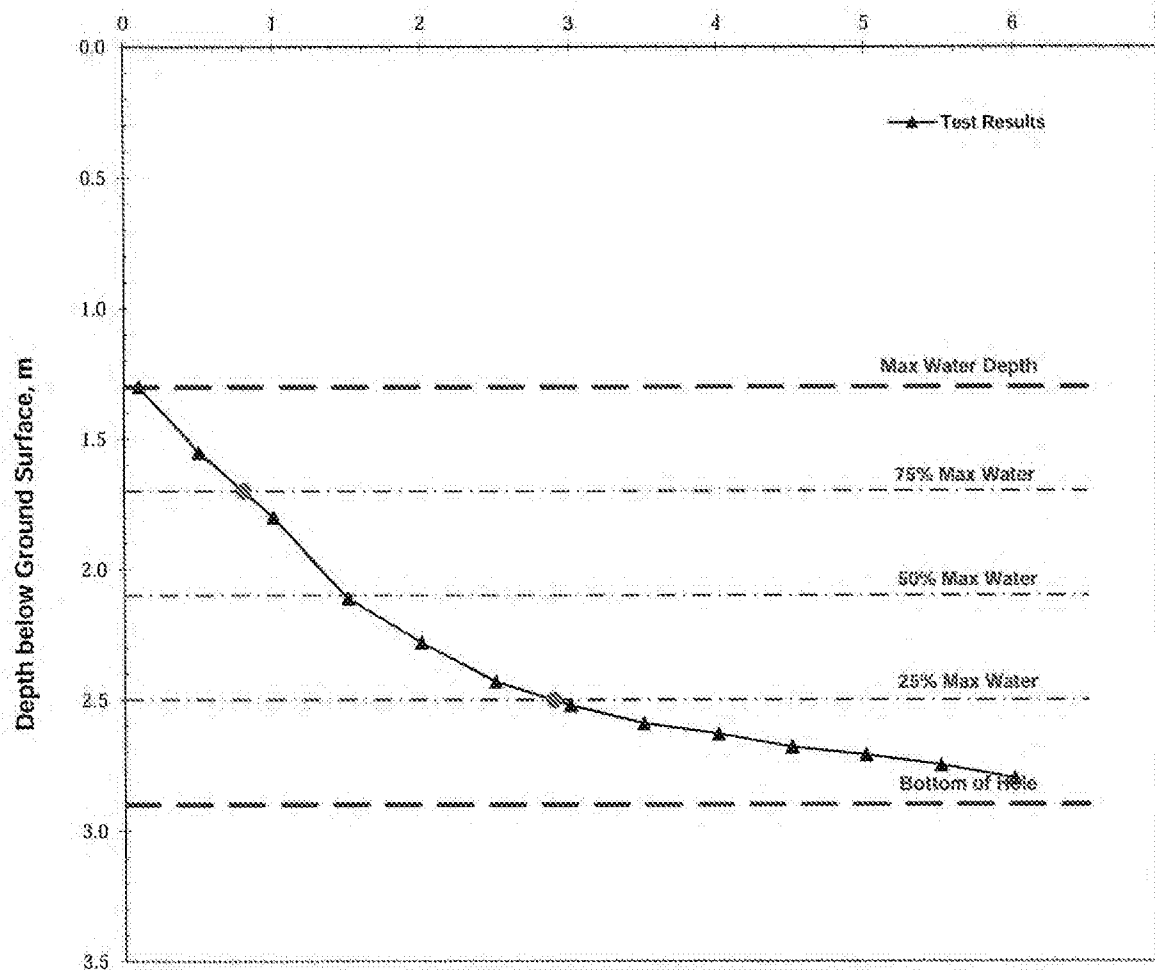
Comments: 2000lrs of water
Pit was emptied at finish of test.

Client: Rydon Homes Limited	Job No: P0791	Test Date: 13/May/2014
Site: Weavers Hill, Angmering	Tested By: TJ/SB	Engineer: SFP Fig S2b

BRE Digest 365 Soakage Test

Test Hole No: TP3
Test No: Test No 1 (Initial)

Time from Filling to Maximum Water Depth, minute



Pit Length, m	1.700	Depth to Water at Start of Test, m	1.300
Pit Width, m	0.450	Max Water Dropdown during Test, m	1.500
Depth to Pit Base, m	2.900	Total Soakage Test Time, min	6.5
Depth to Top of Permeable Soils, m		Mean Internal Discharge Area, m ²	4.205
Depth to Groundwater Surface, m		Discharge Rate, litre/min	102.543
Depth to Top of Granular Fill, m	0.900	Soakage Rate, litre/m ² /min	24.39
Void Assumed for Granular Fill, %	35%	BRE Soil Infiltration Rate, m/sec	4.06E-04

Comments: 2000lrs of water
Pit was nearly emptied at finish of test.

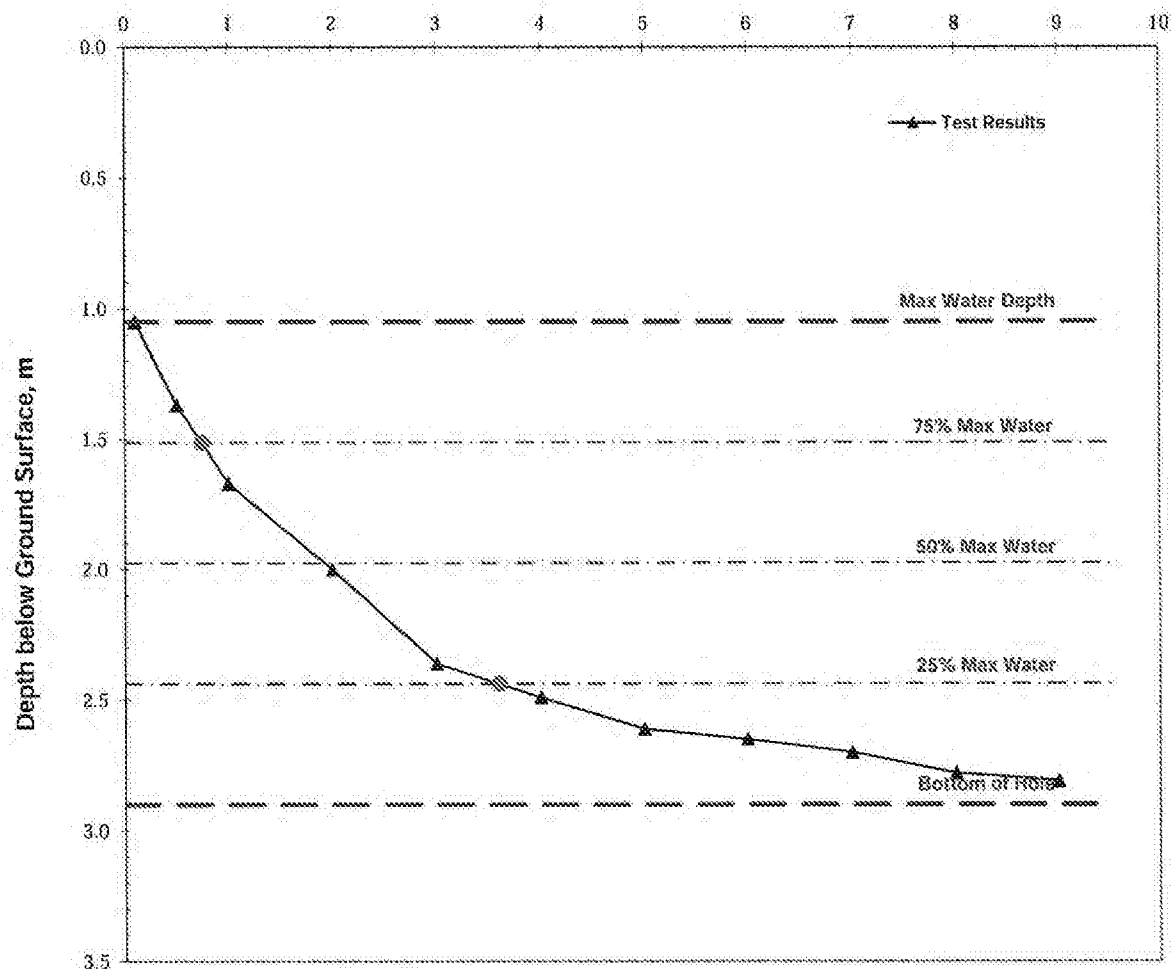
Client: Rydon Homes Limited	Job No: P0791	Test Date: 14/May/2014
Site: Weavers Hill, Angmering	Tested By: TJ/SB	Engineer: SFP Fig S3a

BRE Digest 365 Soakage Test

Test Hole No: TP3

Test No: Test No 3 (Repeated)

Time from Filling to Maximum Water Depth, minute



Pit Length, m 1.700
Pit Width, m 0.450
Depth to Pit Base, m 2.900
Depth to Top of Permeable Soils, m
Depth to Groundwater Surface, m
Depth to Top of Granular Fill, m 0.900
Voids Assumed for Granular Fill, % 35%

Depth to Water at Start of Test, m 1.050
Max Water Dropdown during Test, m 1.760
Total Soakage Test Time, min 9.5
Mean Internal Discharge Area, m² 4.743
Discharge Rate, litre/min 86.638
Soakage Rate, litre/m²/min 18.27
BRE Soil Infiltration Rate, m/sec 3.04E-04

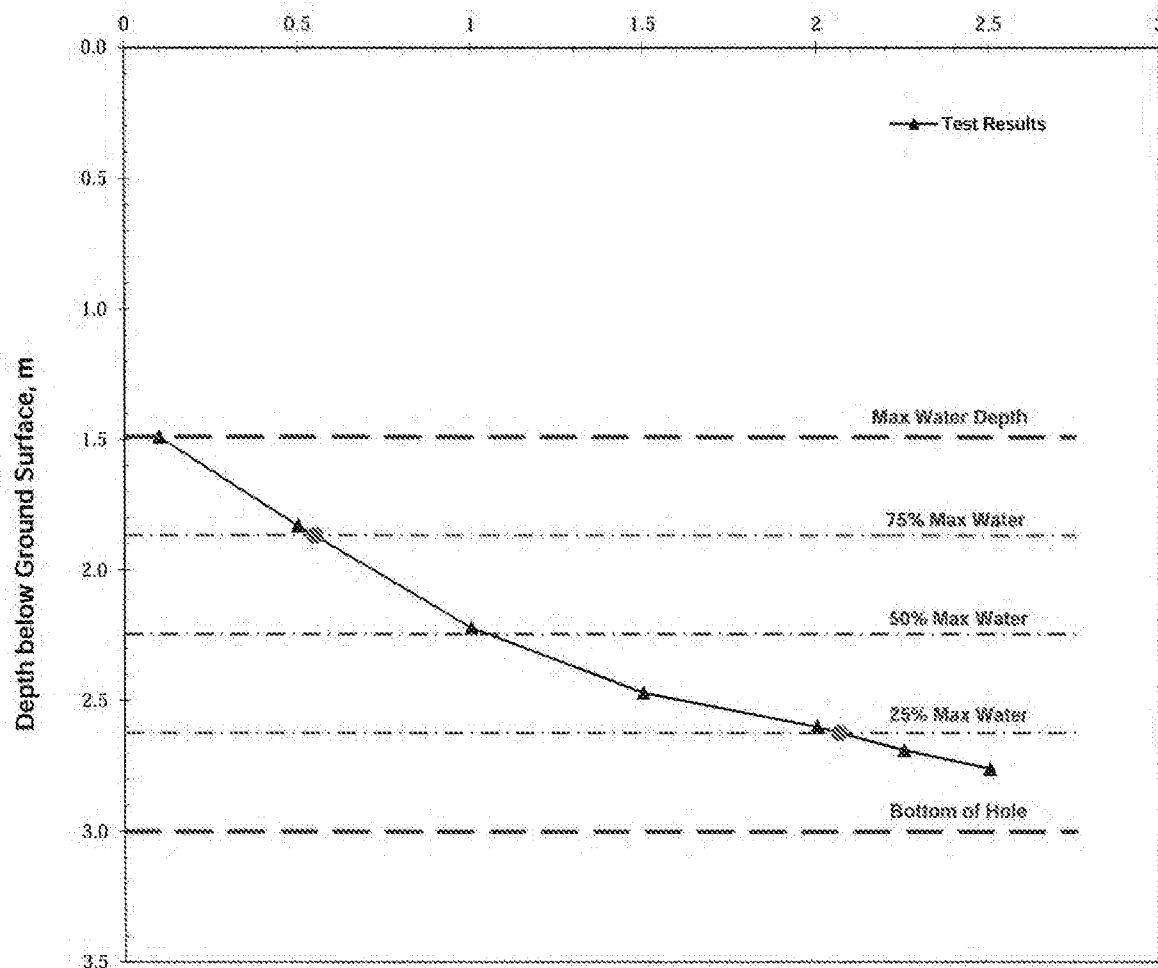
Comments: 1500lrs of water
Pit was nearly emptied at finish of test.

Client: Rydon Homes Limited	Job No: P0791	Test Date: 14/May/2014
Site: Weavers Hill, Angmering	Tested By: TJ/SB	Engineer: SFP Fig S3c

BRE Digest 365 Soakage Test

Test Hole No: TP4
Test No: Test No 2 (Repeated)

Time from Filling to Maximum Water Depth, minute



Pit Length, m	2.200	Depth to Water at Start of Test, m	1.490
Pit Width, m	0.450	Max Water Dropdown during Test, m	1.270
Depth to Pit Base, m	3.000	Total Soakage Test Time, min	2.8
Depth to Top of Permeable Soils, m		Mean Internal Discharge Area, m ²	4.992
Depth to Groundwater Surface, m		Discharge Rate, litre/min	172.744
Depth to Top of Granular Fill, m	1.000	Soakage Rate, litre/m ² /min	34.61
Voids Assumed for Granular Fill, %	35%	BRE Soil Infiltration Rate, m/sec	5.77E-04

Comments: 2000lrs of water
Pit was nearly emptied at finish of test.

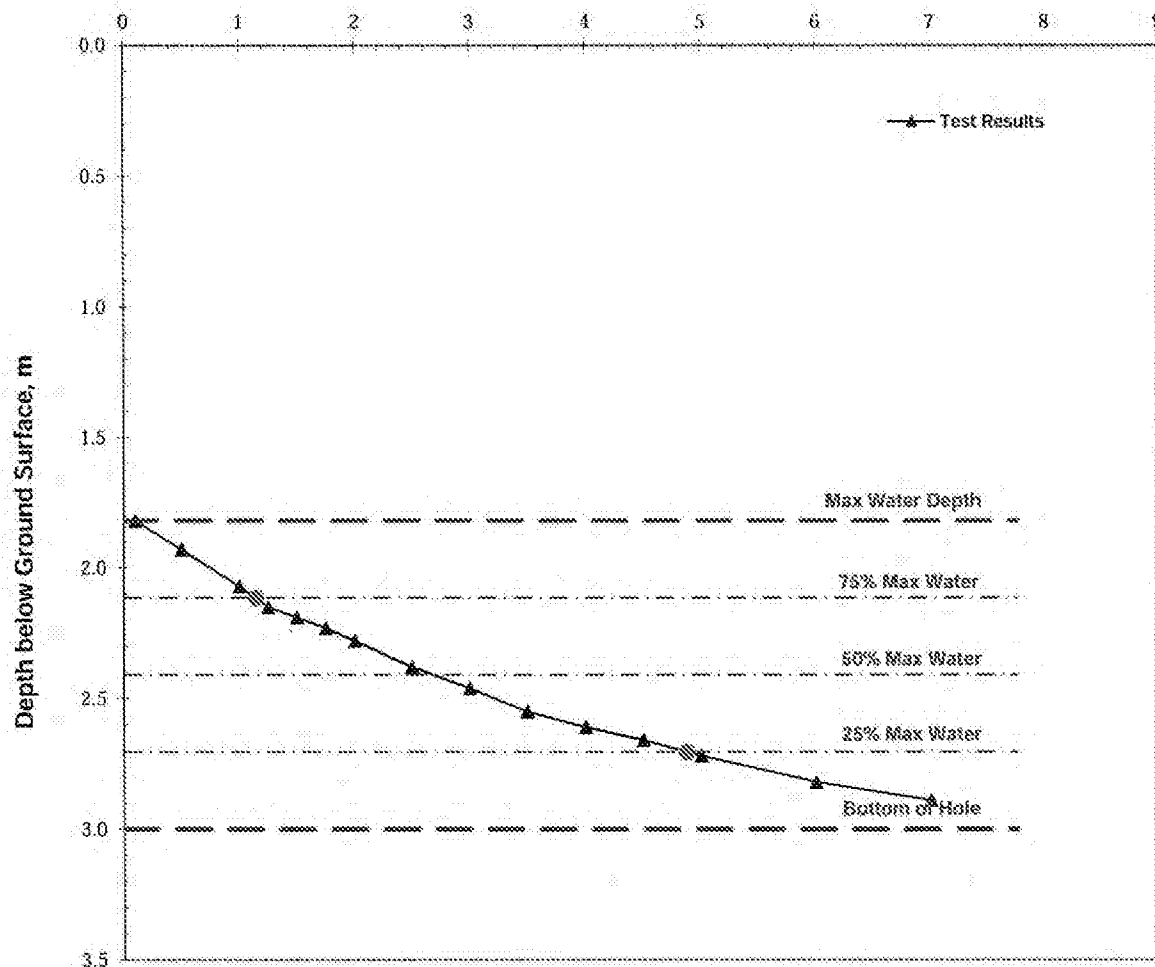
Client: Rydon Homes Limited	Job No: P0791	Test Date: 13/May/2014
Site: Weavers Hill, Angmering	Tested By: TJ/SB	Engineer: SFP Fig S4b

BRE Digest 365 Soakage Test

Test Hole No: TP5

Test No: Test No 1 (Initial)

Time from Filling to Maximum Water Depth, minute



Pit Length, m	2.100	Depth to Water at Start of Test, m	1.820
Pit Width, m	0.450	Max Water Dropdown during Test, m	1.070
Depth to Pit Base, m	3.000	Total Soakage Test Time, min	7.8
Depth to Top of Permeable Soils, m		Mean Internal Discharge Area, m ²	3.954
Depth to Groundwater Surface, m		Discharge Rate, litre/min	52.256
Depth to Top of Granular Fill, m	1.100	Soakage Rate, litre/m ² /min	13.22
Void Assumed for Granular Fill, %	35%	BRE Soil Infiltration Rate, m/sec	2.20E-04

Comments: 2000litrs of water
Pit was nearly emptied at finish of test.

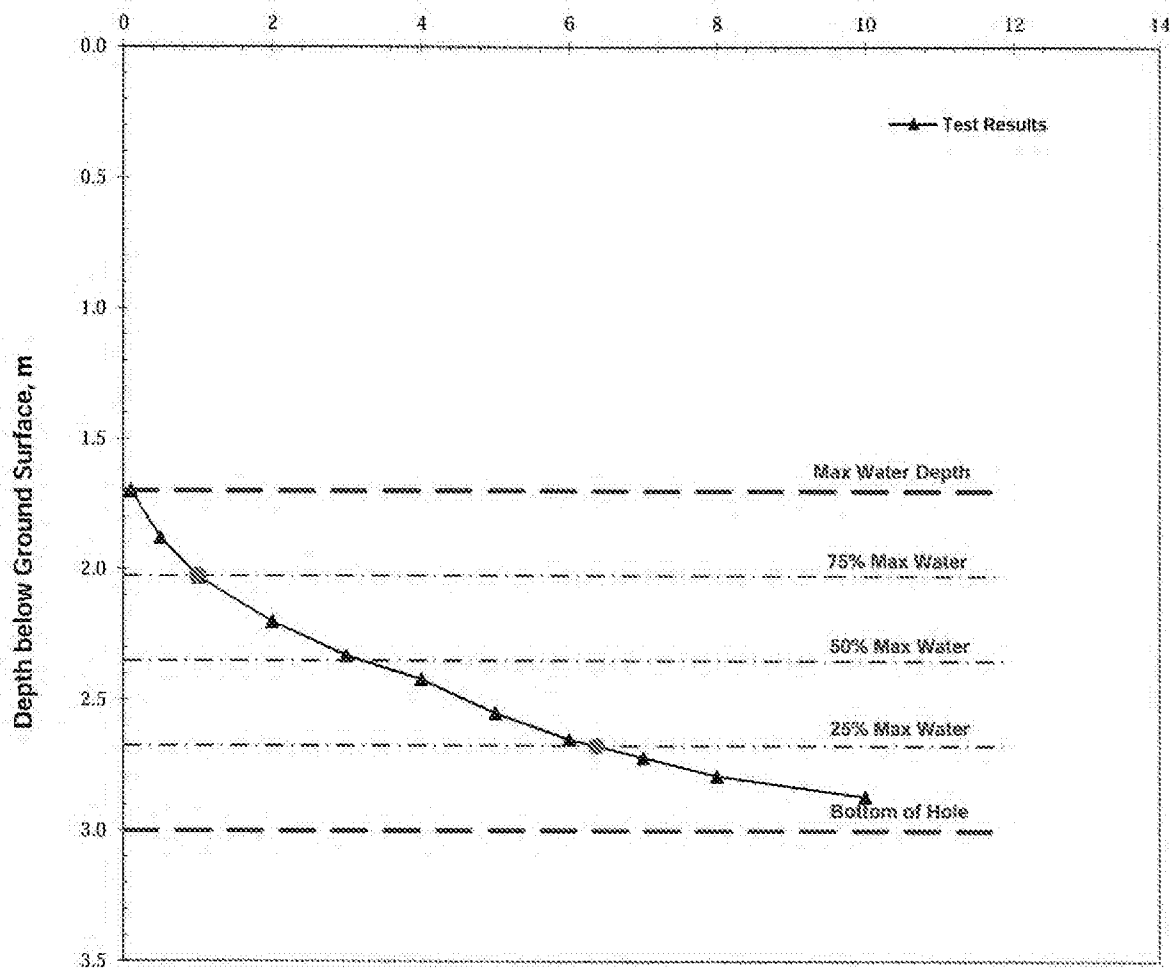
Client: Rydon Homes Limited	Job No: P0791	Test Date: 13/May/2014
Site: Weavers Hill, Angmering	Tested By: TJ/SB	Engineer: SFP Fig S5a

BRE Digest 365 Soakage Test

Test Hole No: TP5

Test No: Test No 3 (Repeated)

Time from Filling to Maximum Water Depth, minute



Pit Length, m	2.100	Depth to Water at Start of Test, m	1.700
Pit Width, m	0.450	Max Water Dropdown during Test, m	1.170
Depth to Pit Base, m	3.000	Total Soakage Test Time, min	11.9
Depth to Top of Permeable Soils, m		Mean Internal Discharge Area, m ²	4.260
Depth to Groundwater Surface, m		Discharge Rate, litre/min	40.007
Depth to Top of Granular Fill, m	1.100	Soakage Rate, litre/m ² /min	9.39
Voids Assumed for Granular Fill, %	35%	BRE Soil Infiltration Rate, m/sec	1.57E-04

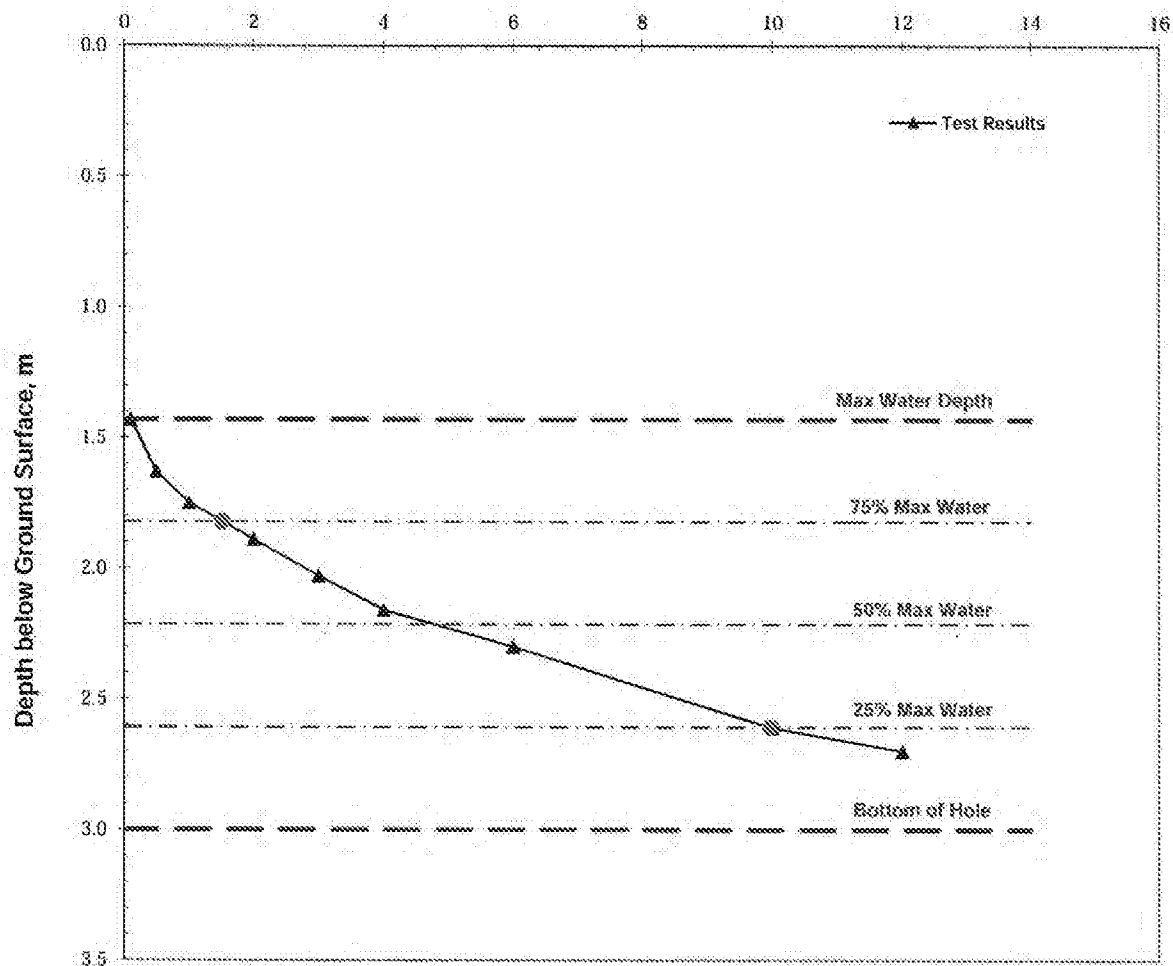
Comments: 2000lrs of water
Pit was nearly emptied at finish of test.

Client: Rydon Homes Limited	Job No: P0791	Test Date: 14/May/2014
Site: Weavers Hill, Angmering	Tested By: TJ/SB	Engineer: SFP Fig S5c

BRE Digest 365 Soakage Test

Test Hole No: TP6
Test No: Test No 2 (Repeated)

Time from Filling to Maximum Water Depth, minute



Pit Length, m	2.100	Depth to Water at Start of Test, m	1.430
Pit Width, m	0.600	Max Water Dropdown during Test, m	1.270
Depth to Pit Base, m	3.000	Total Soakage Test Time, min	14.0
Depth to Top of Permeable Soils, m		Mean Internal Discharge Area, m ²	5.499
Depth to Groundwater Surface, m		Discharge Rate, litre/min	40.969
Depth to Top of Granular Fill, m	1.000	Soakage Rate, litre/m ² /min	7.45
Voids Assumed for Granular Fill, %	35%	BRE Soil Infiltration Rate, m/sec	1.24E-04

Comments: 1200lrs of water
Pit was nearly emptied at finish of test.

Client: Rydon Homes Limited	Job No: P0791	Test Date: 14/May/2014
Site: Weavers Hill, Angmering	Tested By: TJ/SB	Engineer: SFP Fig S6b



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