

2 October 2018

Your ref:
Planning ref:
Our ref: J17038dbc06b

Chris Gardiner
Crest Nicholson Regeneration
Crest House
Pycroft Road
Chertsey
Surrey
KT16 9GN

Dear Mr Gardiner,

**RE: ELMSBROOK DEVELOPMENT BICESTER PHASES 3 & 4
ADDITIONAL SOAKAGE TESTING REPORT**

Further to your instruction we have carried out additional soakage testing in locations across this site that have been selected by the Civil Engineers. Soakage testing has been carried out in accordance with BRE365 where infiltration rates have been such that the test has been completed within a day. Where the first fill of the test has not emptied within a site working day, the testing has ceased and the results of a single test presented.

This letter report is provided in accordance with our standard terms, conditions and limitations.

Selected Photographic Records of the Works



The table overleaf provides a summary of the results of testing at each of the locations indicated on the site plan that was provided by the Civil Engineers and set out on site by the Ground Workers.

Where necessary within hard strata the trial pits were excavated using a mechanical excavator with breaker and ripper that was provided by the Ground Workers.

Shallow Test Locations indicated as being within areas of adoptable roads

Test Location Reference	Test result (m/s)
TP 1	1.1e-4m/s in fragmented Cornbrash to 1.00 m
TP 2	>5e-4m/s in fragmented Cornbrash to 1.00 m
TP 3	1.9e-4m/s in fragmented Cornbrash to 1.50 m
TP 4	>5e-4m/s in fragmented Cornbrash to 1.00 m
TP 5	>5e-4m/s in fragmented Cornbrash to 1.00 m
TP 6	5.7e-5m/s in fragmented Cornbrash and sand to 1.40 m
TP 7	>5e-4m/s in fragmented Cornbrash to 1.20 m
TP 8	2.2e-5m/s in fragmented Cornbrash to 1.00 m

Deeper Level Test Locations indicated as being within areas of garden and parking

Test Location Reference	Test result (m/s)
TP 1	4.1e-6m/s in limestone and silty clay
TP 2	Not enough information for shallow rate calculation to 0.80 m Any infiltration masked by groundwater seepage during test
TP 3	>5e-4m/s in fragmented Cornbrash to 0.80 m.
TP 4	4.7e-5m/s at 0.60 m in fragmented Cornbrash
TP 5	3.9e-5/s in fragmented Cornbrash to 0.50 m.
TP 6	3.0e-4m/s in fragmented Cornbrash to 1.50 m. 8.6e-6m/s in limestone with clay
TP 7	2.6e-5m/s in fragmented Cornbrash to 0.80 m
TP 8	1.7e-5m/s in limestone below 1.20 m
TP 9	2.3e-5m/s in fragmented Cornbrash to 1.00 m
TP 10	1.9e-4m/s in fragmented Cornbrash to 0.80 m 8.7e-7m/s in clay and limestone below
TP 11	>5e-4m/s in fragmented Cornbrash to 1.05 m
TP 12	1.7e-5m/s in fragmented Cornbrash to 1.00 m
TP 13	2.6e-5m/s in fragmented Cornbrash to 1.10 m
TP 14	1.9e-5m/s in fragmented Cornbrash to 0.80 m
TP 15	3.1e-5m/s in fragmented Cornbrash to 0.60 m
TP 16	2.8e-5m/s in fragmented Cornbrash to 0.80 m

We trust that this letter and enclosures provide sufficient information although please do not hesitate to contact me should you have any queries or questions.

Yours sincerely
 Wilson Bailey Partnership

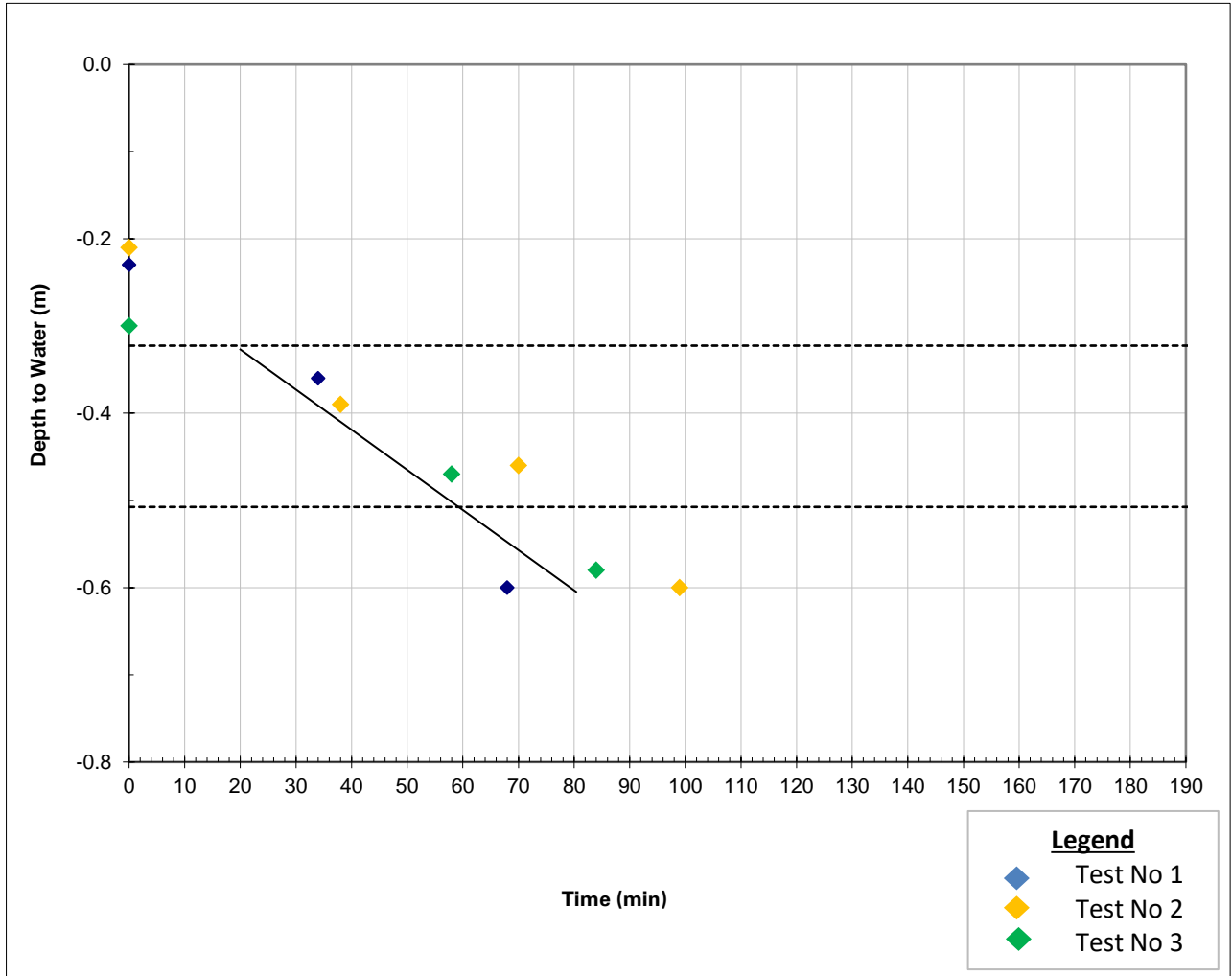
Dominic Brightman
 BSc MSc DIC FGS CGeol ARSM

Encs

Site Elmsbrook Development Phase 3 & 4

Client Crest Nicholson Regeneration

Trial Pit No.	4	Pit Length (m)	1.4
		Pit Width (m)	0.6
		Pit Depth (m)	0.6



Design Soakage Rate 4.7E-05 m/s (based on linear portion of graph as shown)
 4.03 m/day

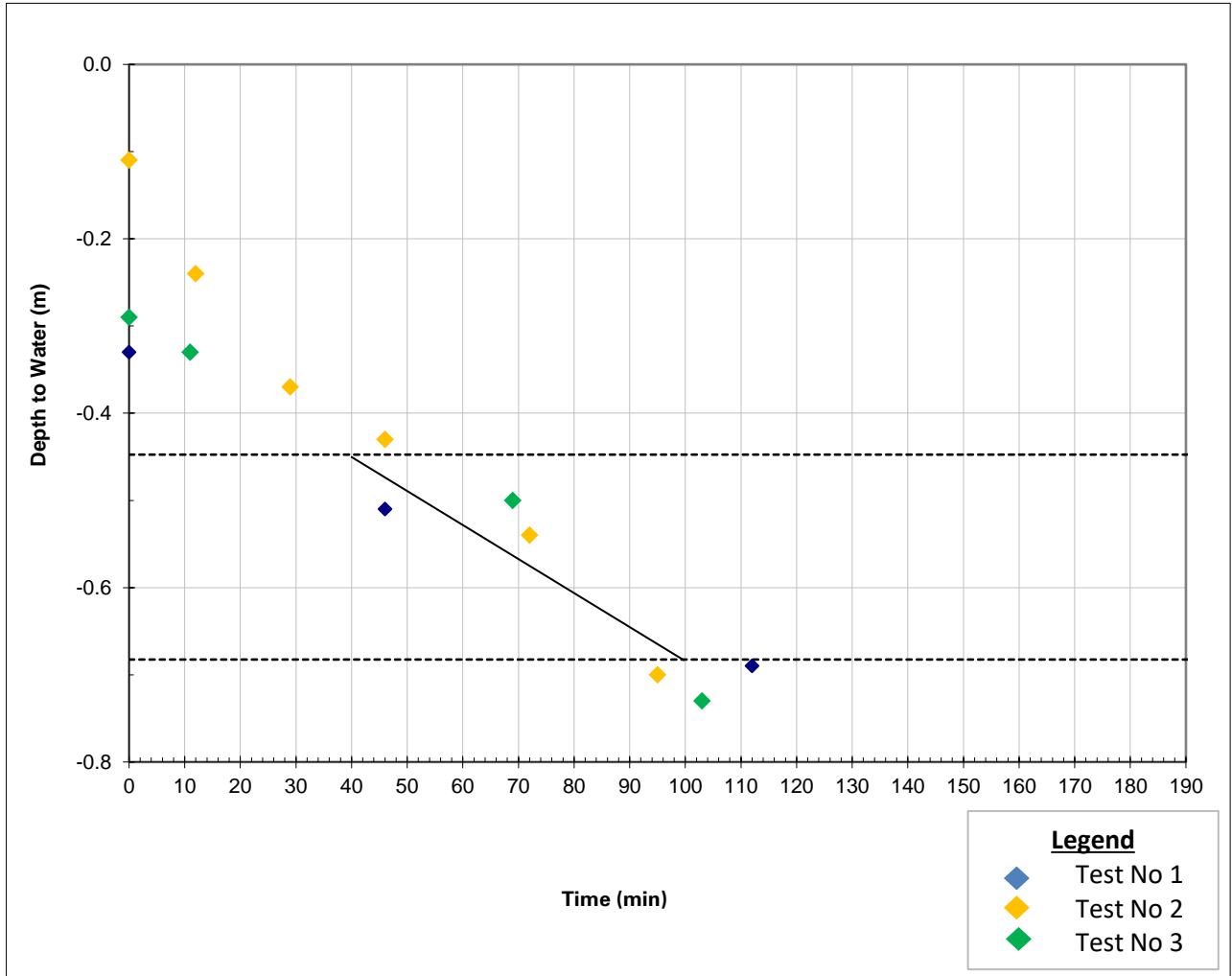
Notes

Trial pit log presented separately
 Soakage test carried out in accordance with requirements of BRE365 with three completed fills

Site Elmsbrook Development Phase 3 & 4

Client Crest Nicholson Regeneration

Trial Pit No.	7	Pit Length (m)	1.4
		Pit Width (m)	0.6
		Pit Depth (m)	0.8



Design Soakage Rate 2.6E-05 m/s (based on linear portion of graph as shown)
 2.23 m/day

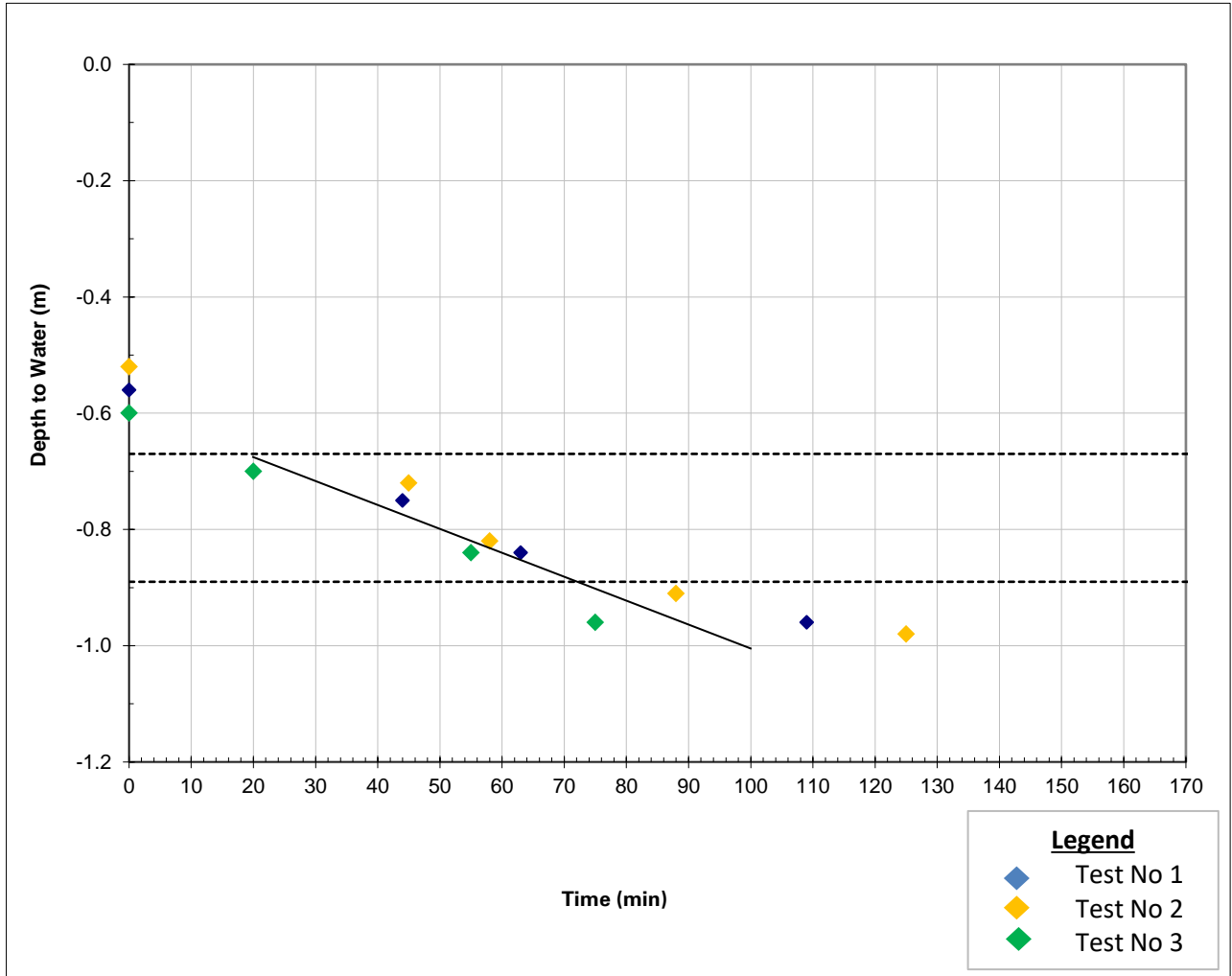
Notes

Trial pit log presented separately
 Soakage test carried out in accordance with requirements of BRE365 with three completed fills

Site Whitchurch Development Site

Client Crest Nicholson Regeneration

Trial Pit No.	8	Pit Length (m)	1.4
		Pit Width (m)	0.6
		Pit Depth (m)	1.0



Design Soakage Rate 2.2E-05 m/s (based on linear portion of graph as shown)
 1.93 m/day

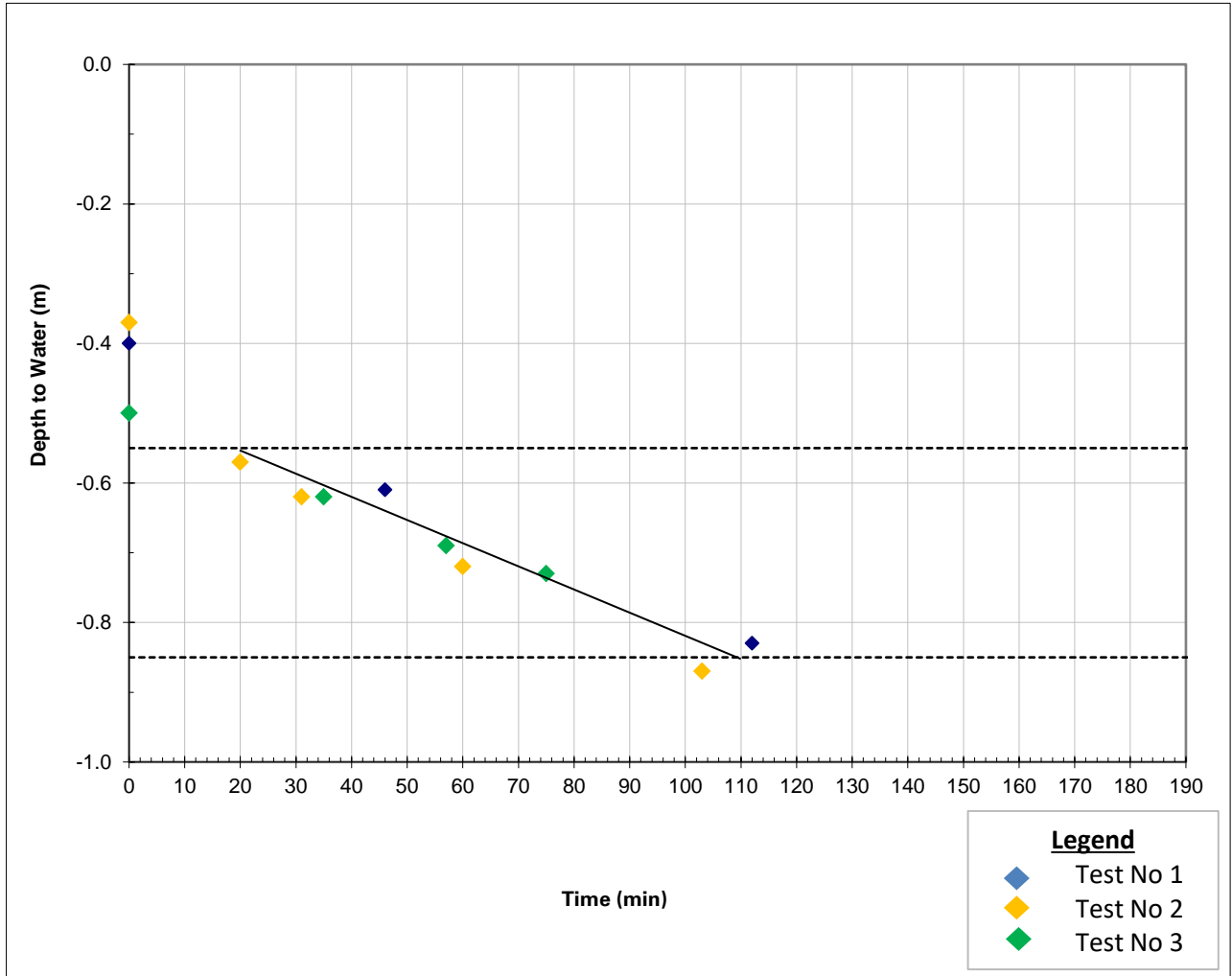
Notes

Trial pit log presented separately
 Soakage test carried out in accordance with requirements of BRE365 with three completed fills

Site Elmsbrook Development Phase 3 & 4

Client Crest Nicholson Regeneration

Trial Pit No.	9	Pit Length (m)	1.4
		Pit Width (m)	0.6
		Pit Depth (m)	1.0



Design Soakage Rate 2.3E-05 m/s (based on linear portion of graph as shown)
 1.98 m/day

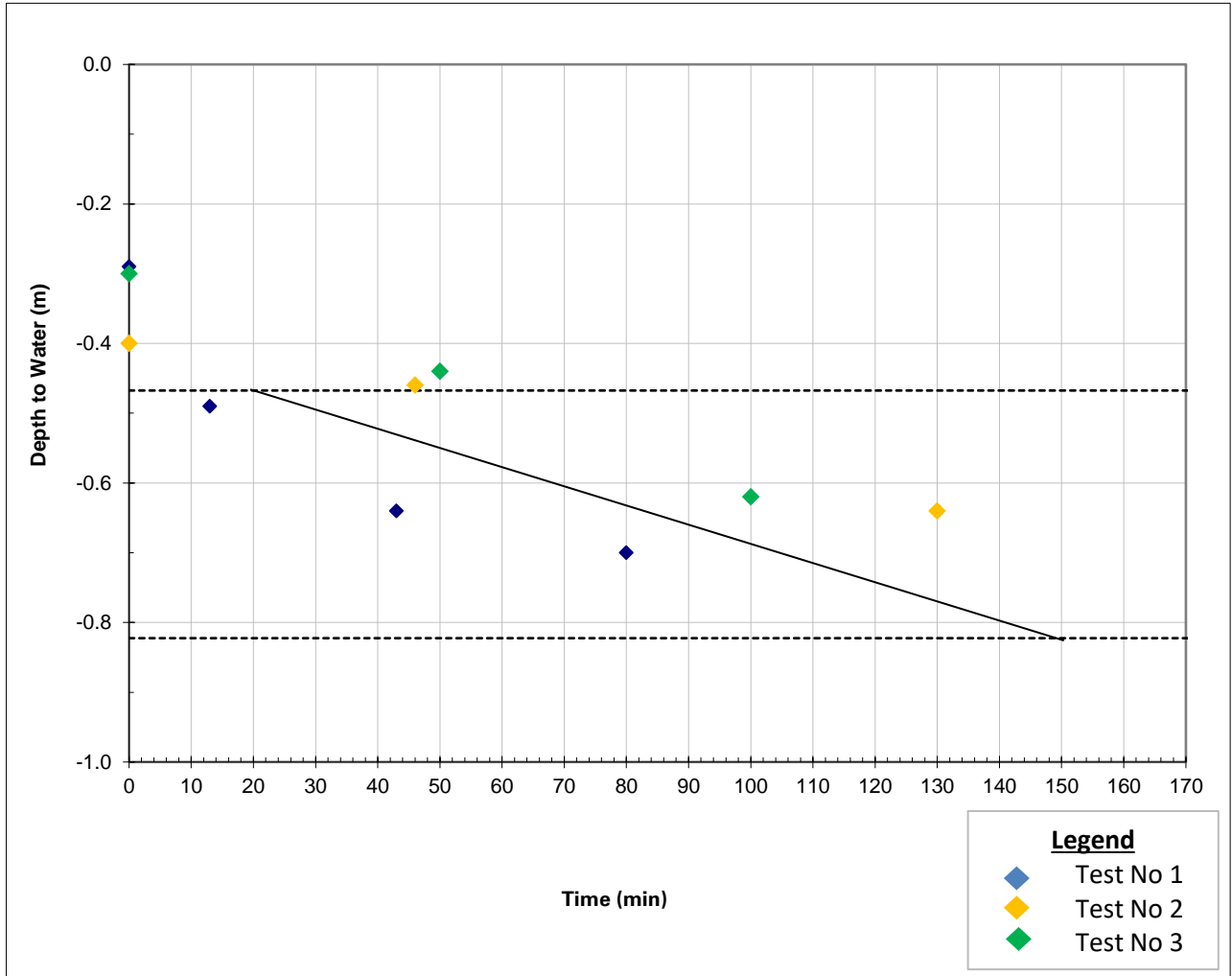
Notes

Trial pit log presented separately
 Soakage test carried out in accordance with requirements of BRE365 with three completed fills

Site Elmsbrook Development Phase 3 & 4

Client Crest Nicholson Regeneration

Trial Pit No.	12	Pit Length (m)	1.4
		Pit Width (m)	0.6
		Pit Depth (m)	1.0



Design Soakage Rate 1.7E-05 m/s (based on linear portion of graph as shown)
 1.44 m/day

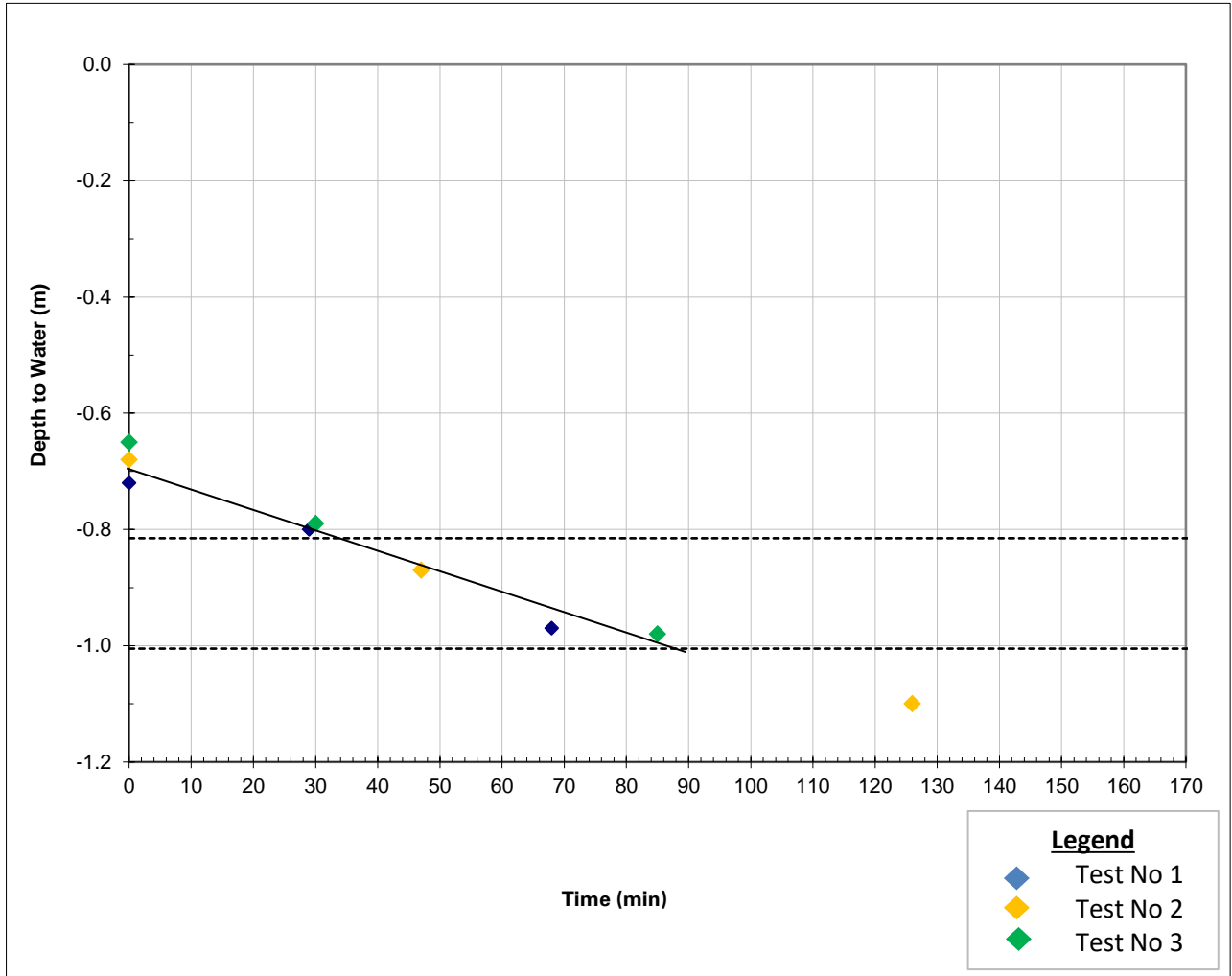
Notes

Trial pit log presented separately
 Soakage test carried out in accordance with requirements of BRE365 with three completed fills

Site Elmsbrook Development Phase 3 & 4

Client Crest Nicholson Regeneration

Trial Pit No.	13	Pit Length (m)	1.4
		Pit Width (m)	0.6
		Pit Depth (m)	1.1



Design Soakage Rate 2.6E-05 m/s (based on linear portion of graph as shown)
 2.24 m/day

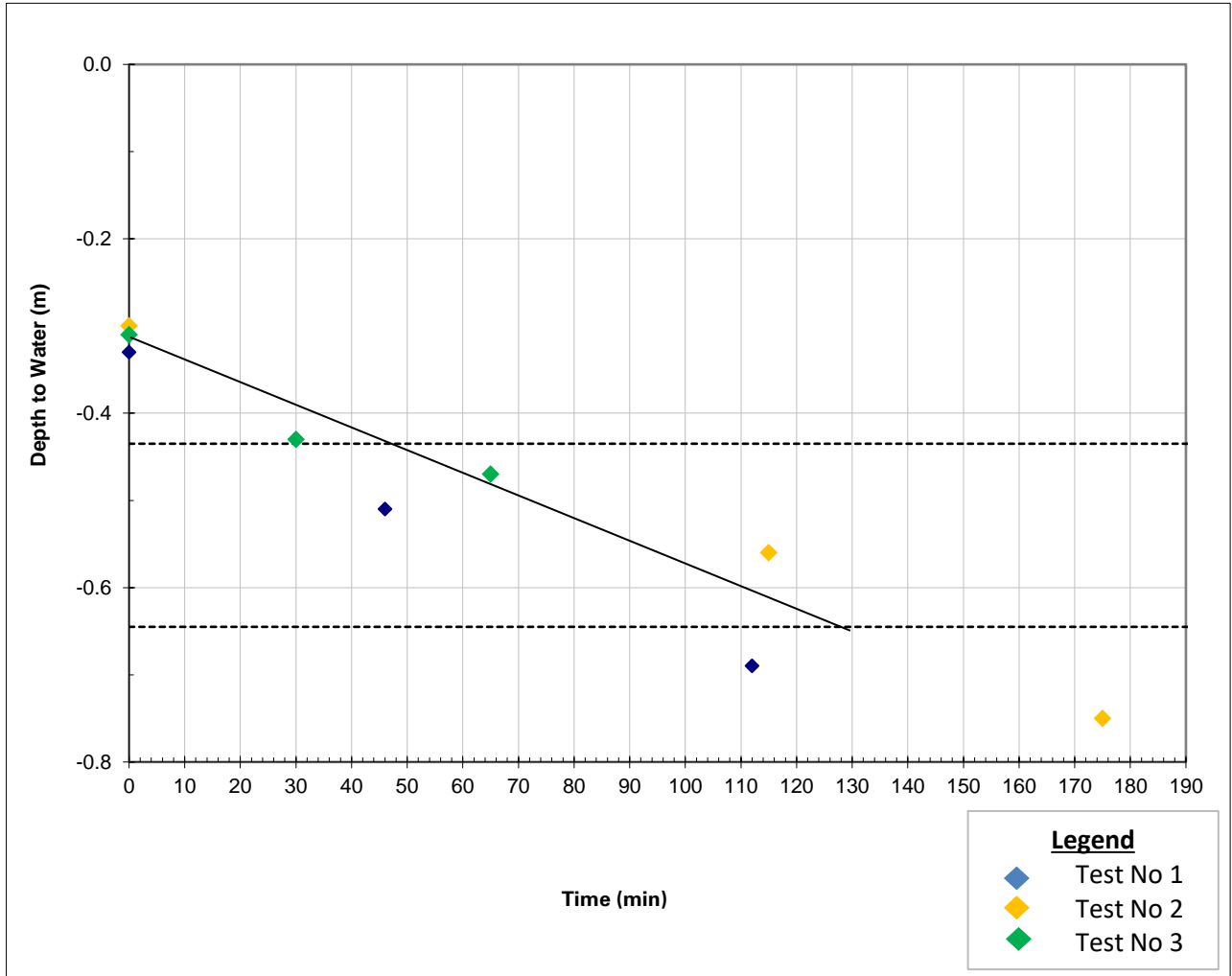
Notes

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Site Elmsbrook Development Phase 3 & 4

Client Crest Nicholson Regeneration

Trial Pit No.	14	Pit Length (m)	1.4
		Pit Width (m)	0.6
		Pit Depth (m)	0.8



Design Soakage Rate 1.9E-05 m/s (based on linear portion of graph as shown)
 1.68 m/day

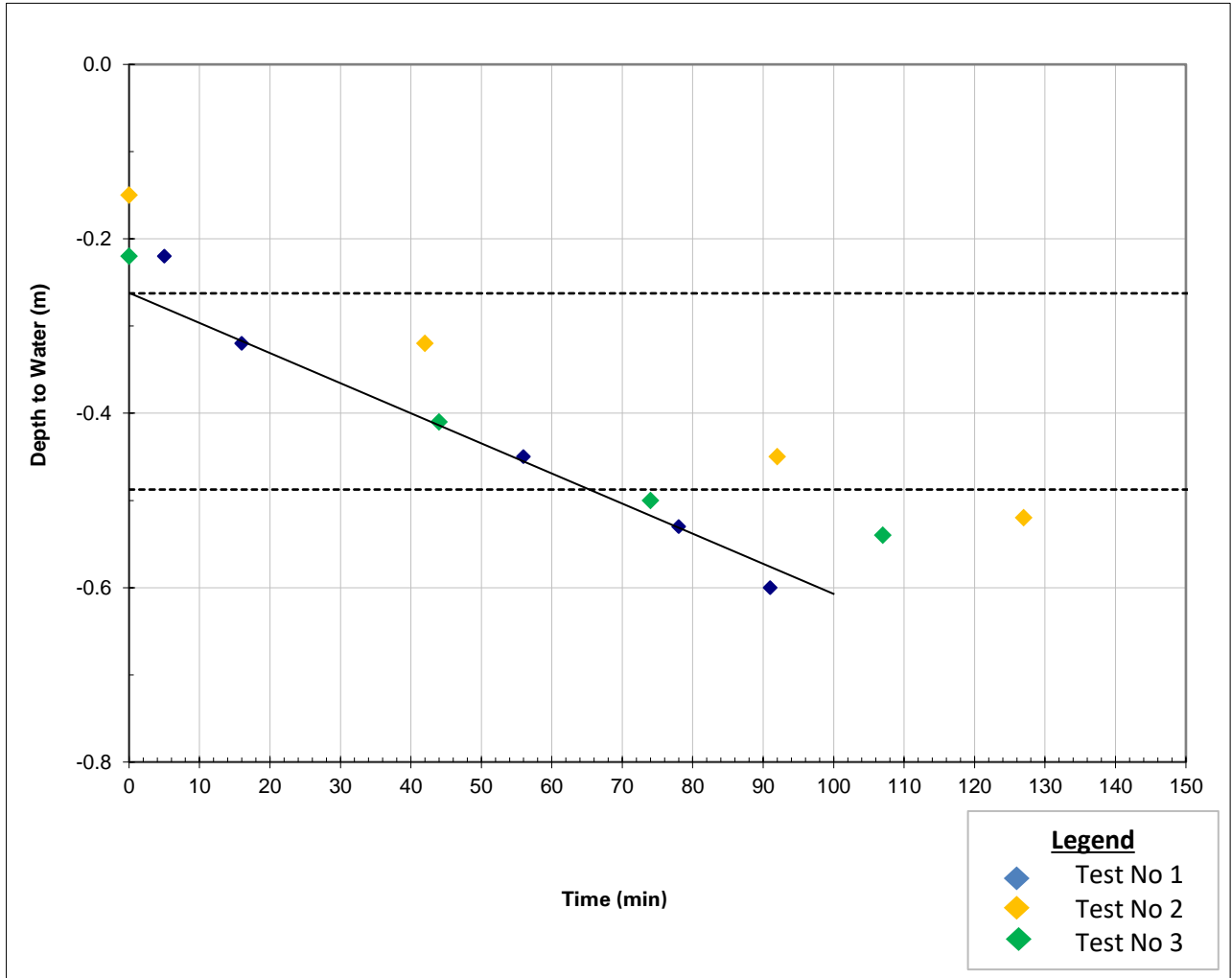
Notes

Trial pit log presented separately
 Soakage test carried out in accordance with requirements of BRE365 with three completed fills

Site Whitchurch Development Site

Client Crest Nicholson Regeneration

Trial Pit No.	15	Pit Length (m)	1.4
		Pit Width (m)	0.6
		Pit Depth (m)	0.6



Design Soakage Rate 3.1E-05 m/s (based on linear portion of graph as shown)
 2.66 m/day

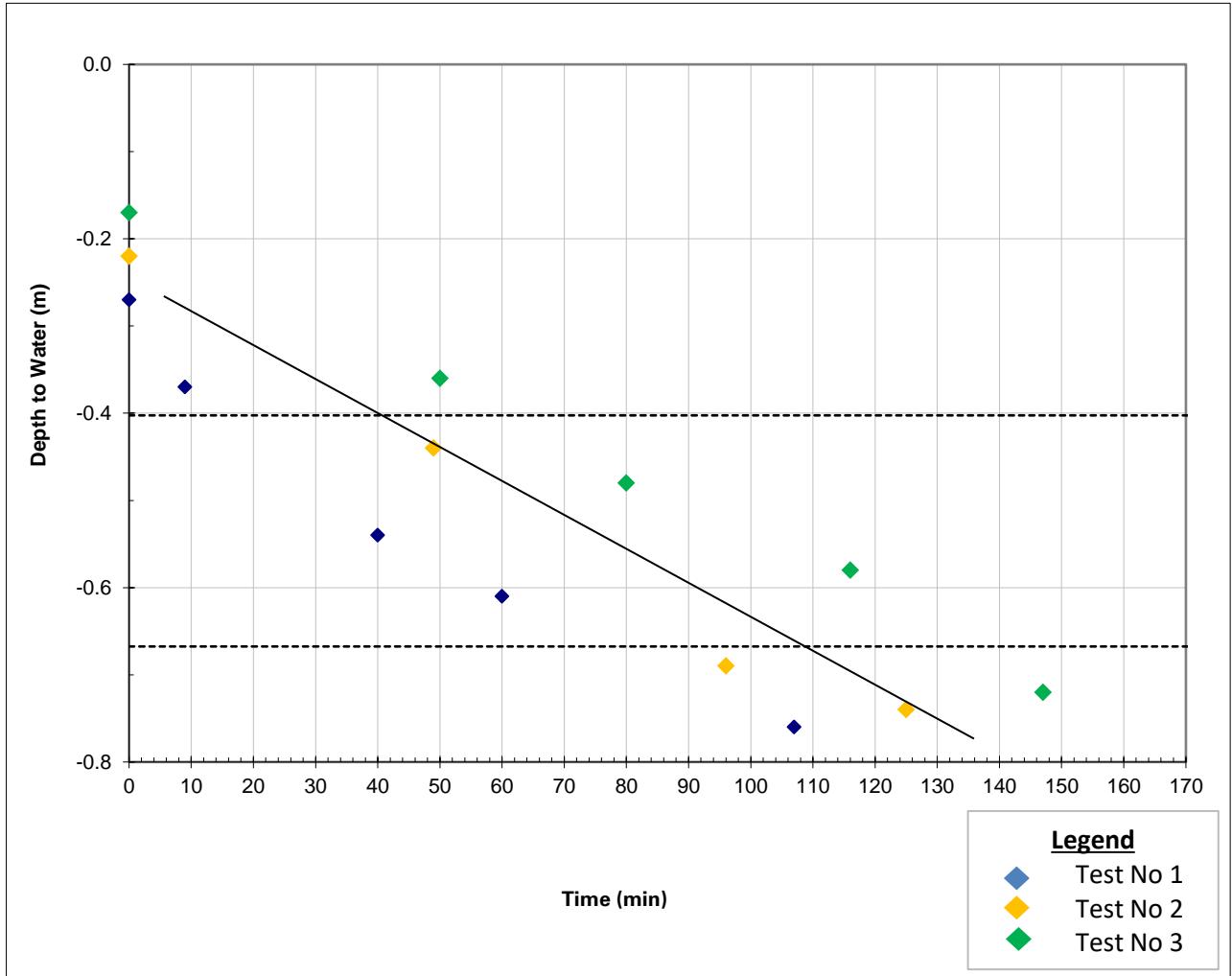
Notes

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Soakage test carried out in accordance with requirements of BRE365 with three completed fills

Site Whitchurch Development Site

Client Crest Nicholson Regeneration

Trial Pit No.	16	Pit Length (m)	1.4
		Pit Width (m)	0.6
		Pit Depth (m)	0.8



Design Soakage Rate	2.8E-05	m/s	(based on linear portion of graph as shown)
	2.46	m/day	

Notes

Trial pit log presented separately
Soakage test carried out in accordance with requirements of BRE365 with three completed fills