

Date

29 September 2022

Revision

A

Clarendon Homes N S W Pty Ltd
P O Box 7105
BAULKHAM HILLS BC NSW 2153

Our Ref AWT 69082
Your Ref 29915732

Soil Permeability as per AS1547-2012

Lot 3 No 3 Hoover Place Cromer NEW SOUTH WALES

Soil category & Structure : Sandy Loams over Clay

Indicative Permeability : $K_{sat} = 0.5$ to 1.5 m/d

Observed Permeability : $K_{sat} = 1.2$ m/d

Please find attached the results of the Soil Permeability test, log sections and site sketch, undertaken at the above address.

Providing the system is designed by a suitably qualified person for the recommended design K_{sat} , above, and the system is located a minimum setback distance of 1.5m from any adjacent property boundary and infrastructure, we do not see any reason why this proposal should not proceed to construction.

Although no water table was encountered during our testing, a perched water table or water seepage can occur during or after wet periods, generally where a porous layer overlies less porous strata.

The presence of shallow bedrock may result in an onsite disposal system at this location that is not feasible for the noted parameters and restrictions.

If you have any queries please do not hesitate to contact the writer.

Yours faithfully

AW Geotechnics



Jason Bau
MIE Aus, NER, RPEQ

BORELOG

Depth (mm)	Description Soil Type-Colour-Consistency	FILL
100 200 300 400 500 600	SILTY SAND (brn) Moist	
700 800 900 1000	SANDY CLAY (or/brn) Moist	

NOMENCLATURE:

UTP=Unable to Penetrate XW ROCK=Extremely Weathered Rock P/A = Power Auger

Refer Tables 7.3.2 & 7.3.3. AS1726-2017 gy=grey or=orange yell=yellow rd=red wh=white brn=brown
bk=black bl=blue gr=green

Refer AS1726-2017 Clause A2.4 for classifying soils.

Notes:

- Hand Auger (H/A) is a portable auger and where utilised is used because of lack of access or trafficability, it is essential that the results of a hand auger are confirmed once access is provided, further testing using a 4WD mounted drill rig is carried out, or stakeholders shall accept the associated risk of results which may not represent the subject site conditions.**

SITE SKETCH (Not to Scale)



SITE PHOTOGRAPHS



PERCOLATION TEST RESULTS

Soil Permeability Constant Head Test (Refer AS1547-2012)

Depth(cm) of auger hole(D):	60
Depth(cm) of water in hole(H):	30
Average radius(cm) of hole(r):	5
Depth(cm) to any impermeable layer(s):	See Logs.
Pretest Hole Saturation Duration (mins):	30

Apparatus Specifications:

Diameter of reservoir(cm):	3.65
Diameter of Air Inlet(cm):	1.2
Effective Surface Area(cm ²)	37.3

Field Measurements	Start(min)	Level(cm)	Drop(cm)	cm/min	cm ³ /min	Litres/sec	Ksat
Test 1	0.00	50.8					
	5.00	22	28.8	5.76	214.8	0.0036	0.0918
Test 2	0.00	53.8					
	5.00	24.8	29	5.80	216.3	0.0036	0.0924
Test 3	0.00	54.4					
	5.00	29	25.4	5.08	189.5	0.0032	0.0809
Test 4	0.00	51.7					
	5.00	22.4	29.3	5.86	218.6	0.0036	0.0933
Test 5	0.00	52.8					
	5.00	23.2	29.6	5.92	220.8	0.0037	0.0943

Range of results Ksat of 0.0809 to 0.0924 cm/min

Observed Permeability Min K_{sat}= **0.0809 cm/min** AS1547-2012 Eq G6
Rate = 1.1652 m/d