

soakaway test

as per BRE Digest 365

client 1 Level Ltd
project Aspinall St, Heywood.
date 21.07.2023

provide a clean vertical sided pit or trench

pit length	1.5	m
pit width	0.9	m
pit depth b GL	1.5	m
pit equiv dia	0.4	m
pit base area	1.35	sqm

TEST

INFILTRATION RATE

Hole 1
Design infiltration rate m/s **2.5E-05**

Hole 2
Design infiltration rate m/s **3.3E-05**

Overall worse case infiltration
m/s **2.5E-05**
m/hr **9.1E-02**

Local Rainfall Data:

SAAR (mm) ⓘ

1081

M5-60 rainfall depth (mm) ⓘ

20 ▾

'r' ratio M5-60 / M5-2day ⓘ

0.3 ▾

FEH/FSR conversion factor ⓘ

1.1

Hydrological region ⓘ

10

SOAKAWAY TRIAL HOLE 1
test 1 21.01.2019

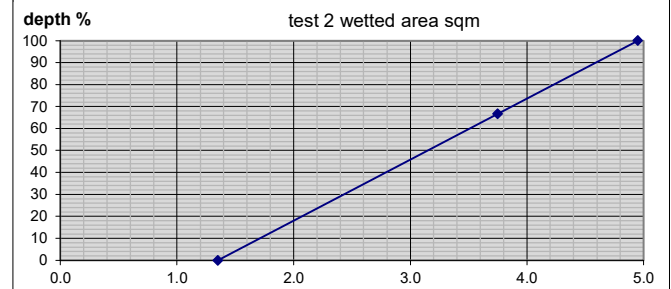
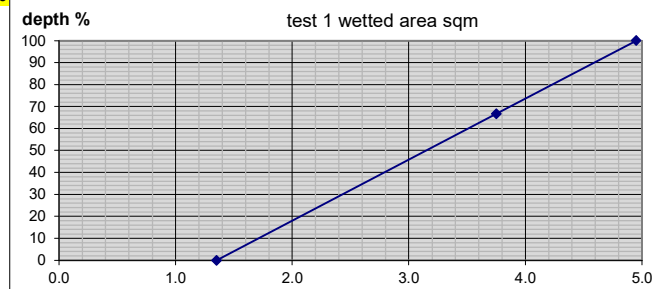
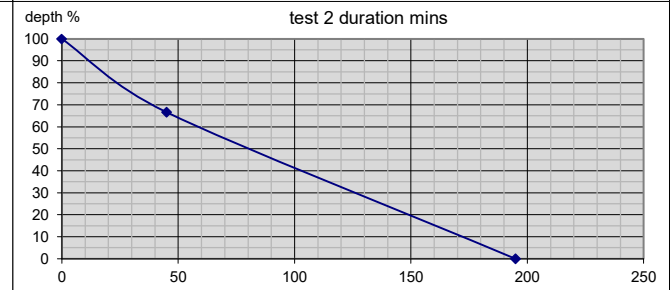
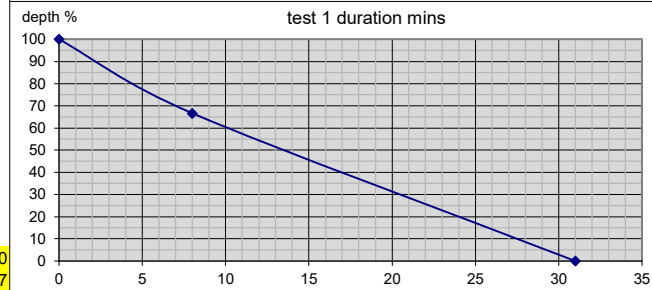
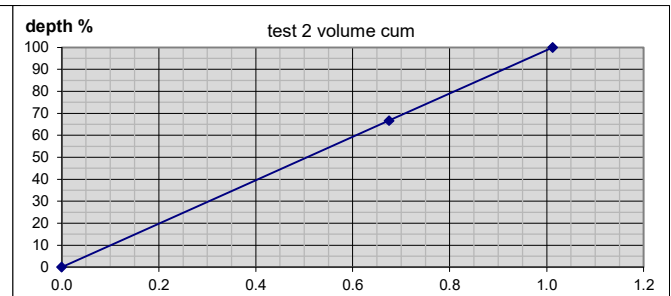
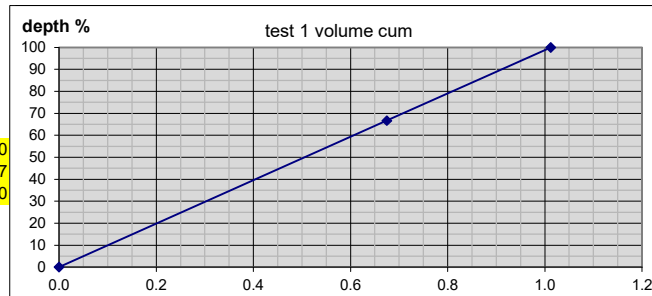
hr	time min	duration mins	depth from GL m	depth from base m	depth from wt m	% depth	wetted area sqm	volume cum
14	33	0	0.5	1	0.75	100	5.0	1.0
14	41	8	0.75	0.75	0.5	67	3.8	0.7
15	4	31	1.25	0.25	0	0	1.4	0.0

from charts
 volume @ 75% depth V75 0.75 cu m
 volume @ 25% depth V25 0.25 cu m
 time @ 75% depth t75 6.25 mins
 time @ 25% depth t25 21.25 mins
 pit surface area @ 50% depth Ap50 3.15 sq m
 infiltration rate f 1.8E-04 m/s

test 2 29.01.2019

hr	time min	duration mins	depth from GL m	depth from base m	depth from wt m	% depth	wetted area sqm	volume cum
11	43	0	0.5	1	0.75	100	5.0	1.0
12	28	45	0.75	0.75	0.5	67	3.8	0.7
14	58	195	1.25	0.25	0	0	1.4	0.0

from charts
 volume @ 75% depth V75 0.75 cu m
 volume @ 25% depth V25 0.25 cu m
 time @ 75% depth t75 30 mins
 time @ 25% depth t25 135 mins
 pit surface area @ 50% depth Ap50 3.15 sq m
 infiltration rate f 2.5E-05 m/s
 worse case infiltration rate f 2.5E-05 m/s



SOAKAWAY TRIAL HOLE 2

test 1 21.01.2019

hr	time min	duration mins	depth from GL m	depth from base m	depth from wt m	% depth	wetted area sqm	volume cum
15	30	0	0.5	1	0.75	100	5.0	1.0
15	57	27	0.75	0.75	0.5	67	3.8	0.7
16	59	89	1.25	0.25	0	0	1.4	0.0

volume @ 75% depth	V75	0.75	cu m
volume @ 25% depth	V25	0.25	cu m
time @ 75% depth	t75	20	mins
time @ 25% depth	t25	65	mins
pit surface area @ 50% depth	Ap50	3.15	sq m

infiltration rate f 5.9E-05 m/s

test 2 29.01.2019

hr	time min	duration mins	depth from GL m	depth from base m	depth from wt m	% depth	wetted area sqm	volume cum
15	10	0	0.5	1	0.7	100	4.7	0.9
15	58	48	0.75	0.75	0.45	64	3.5	0.6
17	39	149	1.2	0.3	0	0	1.4	0.0

volume @ 75% depth	V75	0.71	cu m
volume @ 25% depth	V25	0.225	cu m
time @ 75% depth	t75	32	mins
time @ 25% depth	t25	109	mins
pit surface area @ 50% depth	Ap50	3.15	sq m

infiltration rate f 3.3E-05 m/s

worse case infiltration rate f 3.3E-05 m/s

