



PERMEABILITY TEST - VARIABLE HEAD

BS EN ISO 22282-2:2012

CLIENT Keltbray Remediation
SITE Mary Nuenar Road, Wood Green

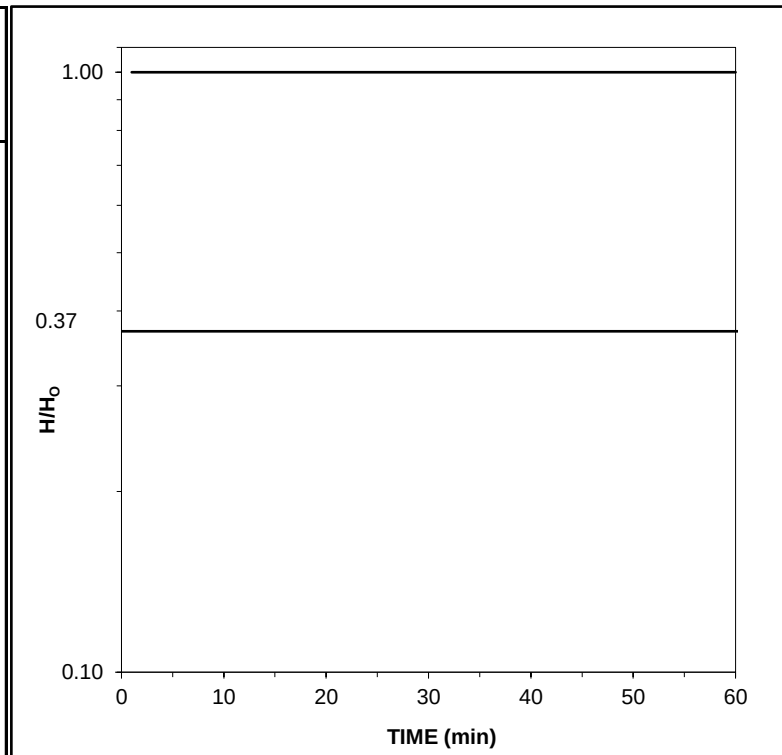
BOREHOLE WS01

DEPTH RECORD

DEPTH OF BOREHOLE	1.00 m	BOREHOLE DIAMETER IN TEST SECTION	0.13 m
DEPTH TO BASE OF CASING	0.00 m	INTERNAL DIAMETER OF CASING	0.13 m
TEST INTERVAL	1.00 m		
HEIGHT OF DATUM ABOVE GROUND LEVEL	0.00 m	TYPE OF TEST	FALLING
DEPTH TO STANDING WATER BELOW DATUM	m	DATE	03/08/2020

TEST RECORD

ELAPSED TIME (min)	DEPTH TO WATER BELOW DATUM (m)	HEAD (m) H	$\frac{H}{H_0}$
1.00	0.20	0.20	1.00
2.00	0.20	0.20	1.00
3.00	0.20	0.20	1.00
4.00	0.20	0.20	1.00
5.00	0.20	0.20	1.00
6.00	0.20	0.20	1.00
8.00	0.20	0.20	1.00
10.00	0.20	0.20	1.00
12.00	0.20	0.20	1.00
14.00	0.20	0.20	1.00
16.00	0.20	0.20	1.00
18.00	0.20	0.20	1.00
20.00	0.20	0.20	1.00
25.00	0.20	0.20	1.00
30.00	0.20	0.20	1.00
35.00	0.20	0.20	1.00
40.00	0.20	0.20	1.00
45.00	0.20	0.20	1.00
50.00	0.20	0.20	1.00
55.00	0.20	0.20	1.00
60.00	0.20	0.20	1.00



Hvorslev method

$$k = \frac{A}{FT}$$

Velocity graph method

$$k = \frac{A}{F(t_2 - t_1)} \log_e \frac{H_1}{H_2}$$

Intake factor based on case* D

RESULTS

Hvorslev method		Velocity graph method	
Cross sectional area of casing, A	0.0133 m ²	Cross sectional area of casing, A	0.0133 m ²
Intake factor*, F	2.295 m	Intake factor*, F	2.295 m
Time lag, T	0 s	Variable head, H ₁	0.00 m at time, t ₁
		Variable head, H ₂	0.00 m at time, t ₂
Permeability, k	-- ms ⁻¹	Permeability, k	-- ms ⁻¹

REMARKS

Test Operator: JH

Insufficient Infiltration to calculate permeability

CONTRACT

C6842

CHECKED

EW

* See intake factors key sheet



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 SITE Mary Nuenar Road, Wood Green

BOREHOLE WS02

DEPTH RECORD

DEPTH OF BOREHOLE	1.00 m	BOREHOLE DIAMETER IN TEST SECTION	0.13 m
DEPTH TO BASE OF CASING	0.00 m	INTERNAL DIAMETER OF CASING	0.13 m
TEST INTERVAL	1.00 m		
HEIGHT OF DATUM ABOVE GROUND LEVEL	0.00 m	TYPE OF TEST	FALLING
DEPTH TO STANDING WATER BELOW DATUM	m	DATE	03/08/2020

TEST RECORD

ELAPSED TIME (min)	DEPTH TO WATER BELOW DATUM (m)	HEAD (m) H	$\frac{H}{H_0}$	
1.00	0.305	0.305	1.00	
2.00	0.305	0.305	1.00	
3.00	0.305	0.305	1.00	
4.00	0.305	0.305	1.00	
5.00	0.305	0.305	1.00	
6.00	0.305	0.305	1.00	
8.00	0.305	0.305	1.00	
10.00	0.305	0.305	1.00	
12.00	0.305	0.305	1.00	
14.00	0.305	0.305	1.00	
16.00	0.305	0.305	1.00	
18.00	0.305	0.305	1.00	
20.00	0.305	0.305	1.00	
25.00	0.305	0.305	1.00	
30.00	0.305	0.305	1.00	
35.00	0.305	0.305	1.00	
40.00	0.305	0.305	1.00	
45.00	0.305	0.305	1.00	
50.00	0.305	0.305	1.00	
55.00	0.305	0.305	1.00	
60.00	0.305	0.305	1.00	

Hvorslev method $k = \frac{A}{FT}$

Velocity graph method $k = \frac{A}{F(t_2 - t_1)} \log_e \frac{H_1}{H_2}$

Intake factor based on case* D

RESULTS

Hvorslev method		Velocity graph method	
Cross sectional area of casing, A	0.0133 m ²	Cross sectional area of casing, A	0.0133 m ²
Intake factor*, F	2.295 m	Intake factor*, F	2.295 m
Time lag, T	0 s	Variable head, H ₁	0.00 m at time, t ₁
		Variable head, H ₂	0.00 m at time, t ₂
Permeability, k	-- ms ⁻¹	Permeability, k	-- ms ⁻¹

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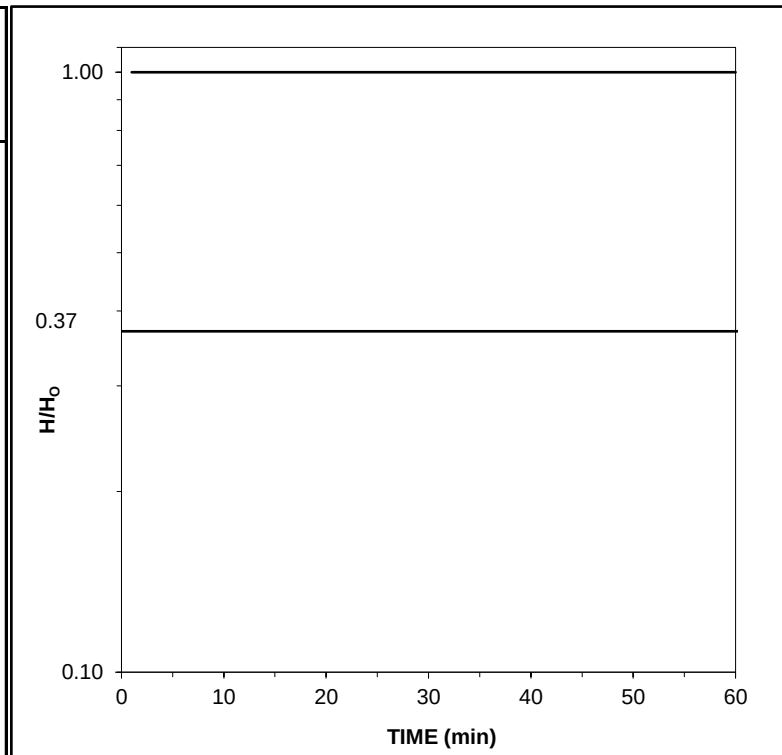
BOREHOLE WS03

DEPTH RECORD

DEPTH OF BOREHOLE	1.00 m	BOREHOLE DIAMETER IN TEST SECTION	0.13 m
DEPTH TO BASE OF CASING	0.00 m	INTERNAL DIAMETER OF CASING	0.13 m
TEST INTERVAL	1.00 m		
HEIGHT OF DATUM ABOVE GROUND LEVEL	0.00 m	TYPE OF TEST	FALLING
DEPTH TO STANDING WATER BELOW DATUM	m	DATE	03/08/2020

TEST RECORD

ELAPSED TIME (min)	DEPTH TO WATER BELOW DATUM (m)	HEAD (m) H	$\frac{H}{H_0}$
1.00	0.260	0.260	1.00
2.00	0.260	0.260	1.00
3.00	0.260	0.260	1.00
4.00	0.260	0.260	1.00
5.00	0.260	0.260	1.00
6.00	0.260	0.260	1.00
8.00	0.260	0.260	1.00
10.00	0.260	0.260	1.00
12.00	0.260	0.260	1.00
14.00	0.260	0.260	1.00
16.00	0.260	0.260	1.00
18.00	0.260	0.260	1.00
20.00	0.260	0.260	1.00
25.00	0.260	0.260	1.00
30.00	0.260	0.260	1.00
35.00	0.260	0.260	1.00
40.00	0.260	0.260	1.00
45.00	0.260	0.260	1.00
50.00	0.260	0.260	1.00
55.00	0.260	0.260	1.00
60.00	0.260	0.260	1.00



Hvorslev method

$$k = \frac{A}{FT}$$

Velocity graph method

$$k = \frac{A}{F(t_2 - t_1)} \log_e \frac{H_1}{H_2}$$

Intake factor based on case* D

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Hvorslev method		Velocity graph method	
Cross sectional area of casing, A	0.0133 m ²	Cross sectional area of casing, A	0.0133 m ²
Intake factor*, F	2.295 m	Intake factor*, F	2.295 m
Time lag, T	0 s	Variable head, H ₁	0.00 m at time, t ₁
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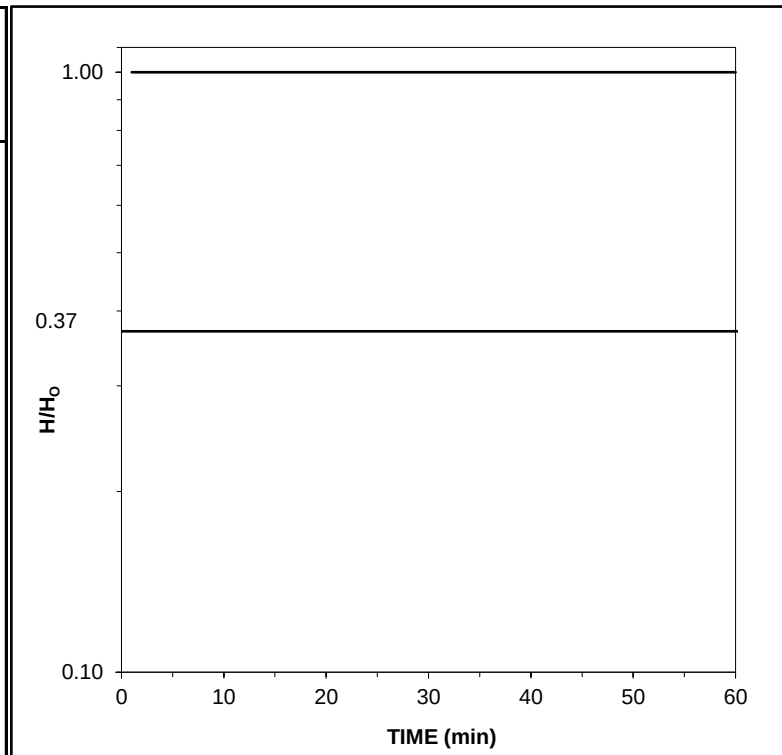
BOREHOLE WS04

DEPTH RECORD

DEPTH OF BOREHOLE	1.00 m	BOREHOLE DIAMETER IN TEST SECTION	0.13 m
DEPTH TO BASE OF CASING	0.00 m	INTERNAL DIAMETER OF CASING	0.13 m
TEST INTERVAL	1.00 m		
HEIGHT OF DATUM ABOVE GROUND LEVEL	0.00 m	TYPE OF TEST	FALLING
DEPTH TO STANDING WATER BELOW DATUM	m	DATE	04/08/2020

TEST RECORD

ELAPSED TIME (min)	DEPTH TO WATER BELOW DATUM (m)	HEAD (m) H	$\frac{H}{H_0}$
1.00	0.220	0.220	1.00
2.00	0.220	0.220	1.00
3.00	0.220	0.220	1.00
4.00	0.220	0.220	1.00
5.00	0.220	0.220	1.00
6.00	0.220	0.220	1.00
8.00	0.220	0.220	1.00
10.00	0.220	0.220	1.00
12.00	0.220	0.220	1.00
14.00	0.220	0.220	1.00
16.00	0.220	0.220	1.00
18.00	0.220	0.220	1.00
20.00	0.220	0.220	1.00
25.00	0.220	0.220	1.00
30.00	0.220	0.220	1.00
35.00	0.220	0.220	1.00
40.00	0.220	0.220	1.00
45.00	0.220	0.220	1.00
50.00	0.220	0.220	1.00
55.00	0.220	0.220	1.00
60.00	0.220	0.220	1.00



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