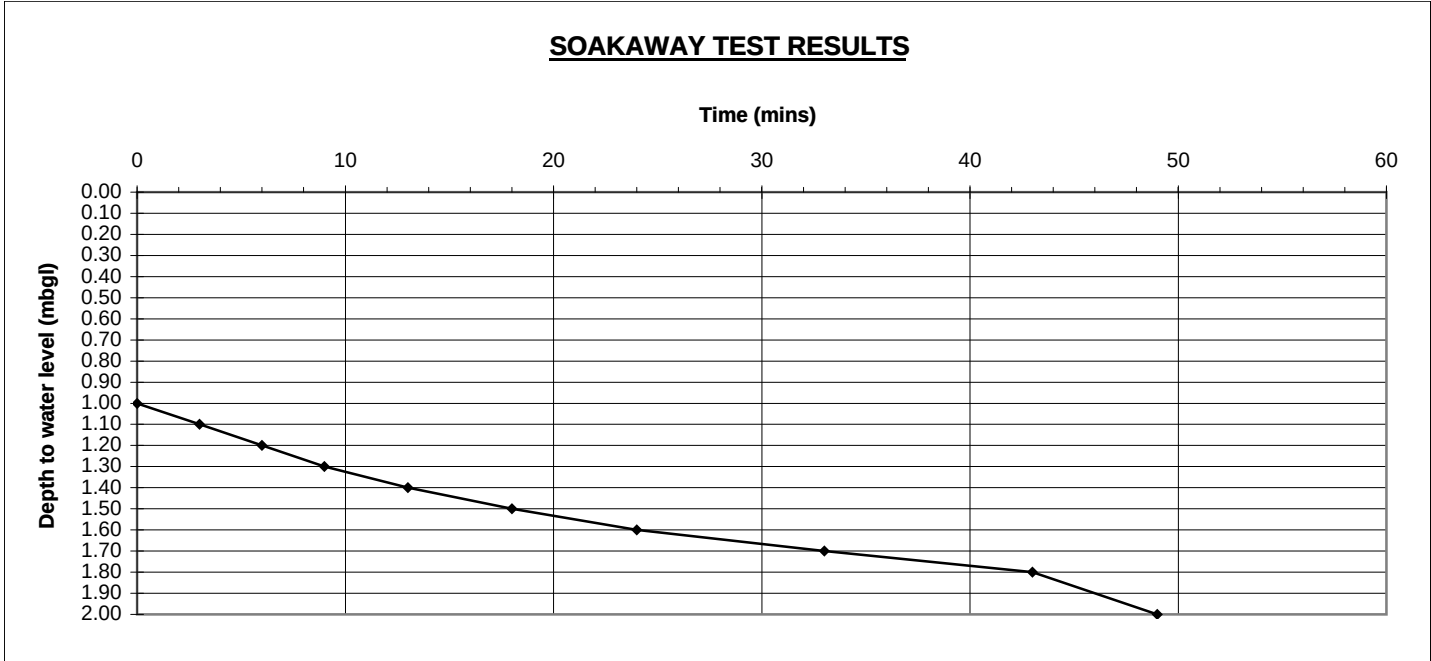


Calculation of Infiltration Rate in Broad Accordance with BRE Digest 365

Contract: Cornmill, New Mills
Contract No : 41673

Trial Pit Dimensions (m) Width Length Depth to Base
 0.70 1.20 2.00

Soakaway No. Trial Pit/Test-1



From above graph;

0.5 m	= Depth drop between 75% and 25% of maximum depth to final depth
31 mins	= Time for outflow between 75% and 25% of maximum depth to final depth

Calculation of Soil Infiltration Rate (f):

where		using	
f =	$\frac{VP75-25}{ap50 \times tp75-25}$	VP75-25 =	Volume outflowing between 75% and 25% of effective depth.
		ap50 =	Mean surface area through which the outflow occurs.
		tp75-25 =	Time for the outflow between 75% and 25% of the effective depth.
VP75-25 =	0.42 m3		
ap50 =	2.74 m2		
tp75-25 =	31.0 mins		
Gravel Backfill	1.0	Effective porosity (=1 if no backfill)	

General Geological Profile :	
0	0
0	0
0	0
Notes :	
	0

Soil Infiltration Rate (f) = 8.2E-05 m/s			Permeability Guideline (m/s)		
			Good	Poor	Practically Impervious
			10 ⁻³ - 10 ⁻⁵	10 ⁻⁶ - 10 ⁻⁷	10 ⁻⁸ - 10 ⁻¹⁰

Calculation of Infiltration rate in broad accordance with BRE Digest 365.

Job name	Cornmill, New Mills	Job no.	41673	Soakaway No.	Trial Pit/Test-1
				Test Start Date	05/07/2021

Trial Pit Dimensions		
Width (m)	Length (m)	Depth to Base (m)
0.70	1.20	2.00
Gravel Backfill Porosity		1.00

Water levels		
Start Water Level (m)	End Water Level (m)	Effective Depth (m)
1.000	2.000	1.000

[illegible][illegible]

From soakaway graph;

1.000	m t0	= water level at Start
1.25	m t25	= 25% depth
1.75	m t75	= 75% depth
2.00	m t100	= water level at End

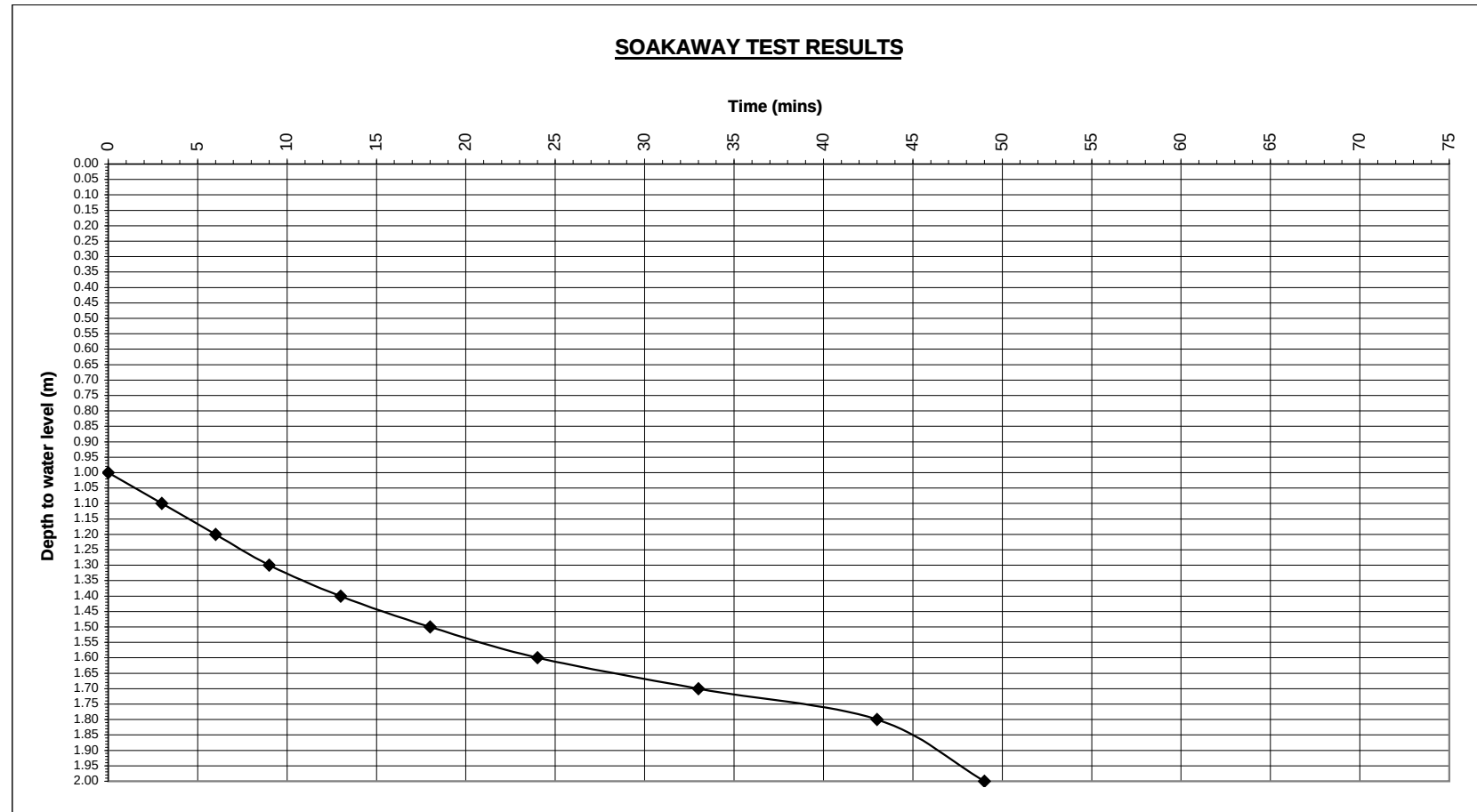
0.50 m	= Depth drop between 75% and 25%
31.0 mins	= Time for outflow between 75% and 25%

Calculation of soil infiltration:

VP75-25	0.42 m3
ap50	2.74 m2
tp75-25	1860 secs
Porosity	1.00 trial pit backfill (=1 if none used)

Soil infiltration, $f =$	8.24E-05 m/s
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SOAKAWAY NO. Trial Pit/Test-1

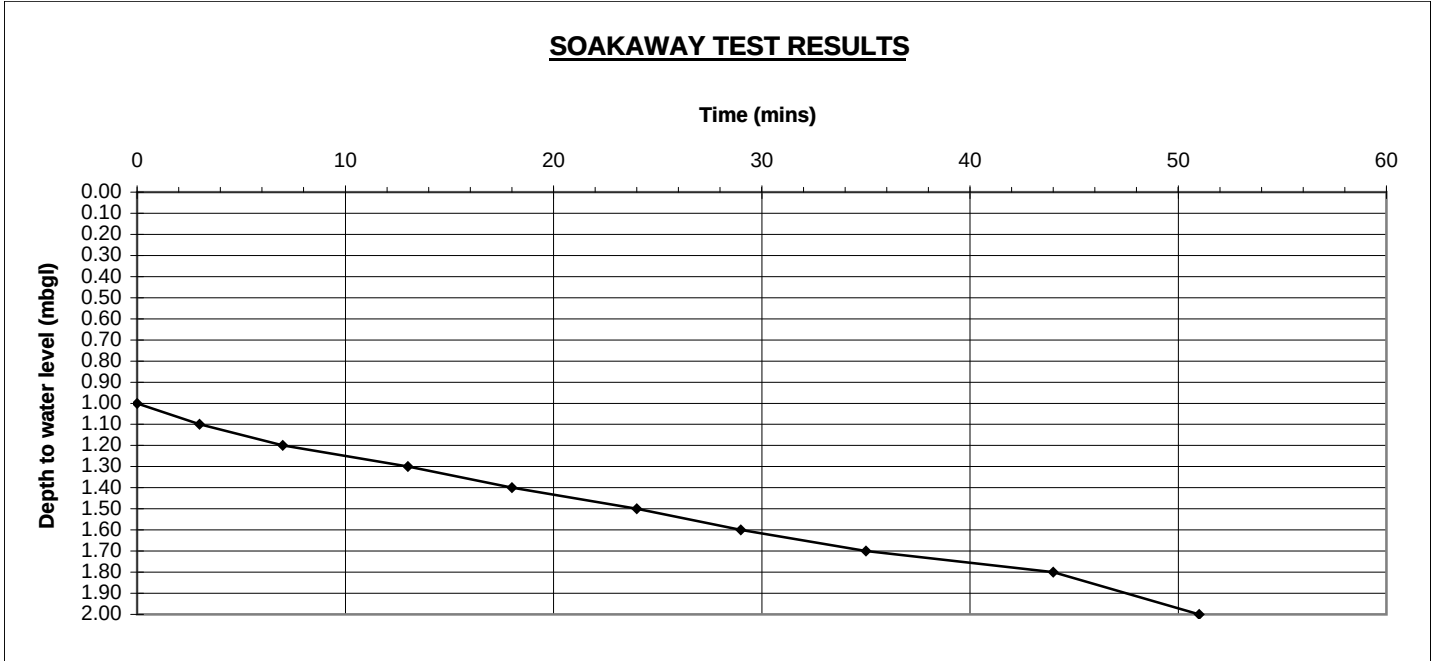


t0 = 1.000 m
t25 = 1.250 m
t75 = 1.750 m
t100 = 2.000 m
t25 = 8 mins
t75 = 39 mins
t75 - t25 = 31 mins

Calculation of Infiltration Rate in Broad Accordance with BRE Digest 365

Contract: Cornmill, New Mills
Contract No : 41673

Trial Pit Dimensions (m)	Width	Length	Depth to Base	Soakaway No.
	0.70	1.20	2.00	Trial Pit/Test-2



From above graph;

0.5 m	= Depth drop between 75% and 25% of maximum depth to final depth
30 mins	= Time for outflow between 75% and 25% of maximum depth to final depth

Calculation of Soil Infiltration Rate (f):

where	using
$f = \frac{VP_{75-25}}{ap_{50} \times tp_{75-25}}$	VP_{75-25} = Volume outflowing between 75% and 25% of effective depth.
	ap_{50} = Mean surface area through which the outflow occurs.
	tp_{75-25} = Time for the outflow between 75% and 25% of the effective depth.
$VP_{75-25} = 0.42 \text{ m}^3$	
$ap_{50} = 2.74 \text{ m}^2$	
$tp_{75-25} = 30.0 \text{ mins}$	
Gravel Backfill 1.0	Effective porosity (=1 if no backfill)

General Geological Profile :

0	0
0	0
0	0

Notes :

0

Soil Infiltration Rate (f) = 8.5E-05 m/s	Permeability Guideline (m/s)		
	Good	Poor	Practically Impervious
	$10^{-3} - 10^{-5}$	$10^{-6} - 10^{-7}$	$10^{-8} - 10^{-10}$

Calculation of Infiltration rate in broad accordance with BRE Digest 365.

Job name	Cornmill, New Mills	Job no.	41673	Soakaway No.	Trial Pit/Test-2
				Test Start Date	05/07/2021

Trial Pit Dimensions		
Width (m)	Length (m)	Depth to Base (m)
0.70	1.20	2.00
Gravel Backfill Porosity		1.00

Water levels		
Start Water Level (m)	End Water Level (m)	Effective Depth (m)
1.000	2.000	1.000

[illegible]

TP LOG					

From soakaway graph;

1.000	m t0	= water level at Start
1.25	m t25	= 25% depth
1.75	m t75	= 75% depth
2.00	m t100	= water level at End

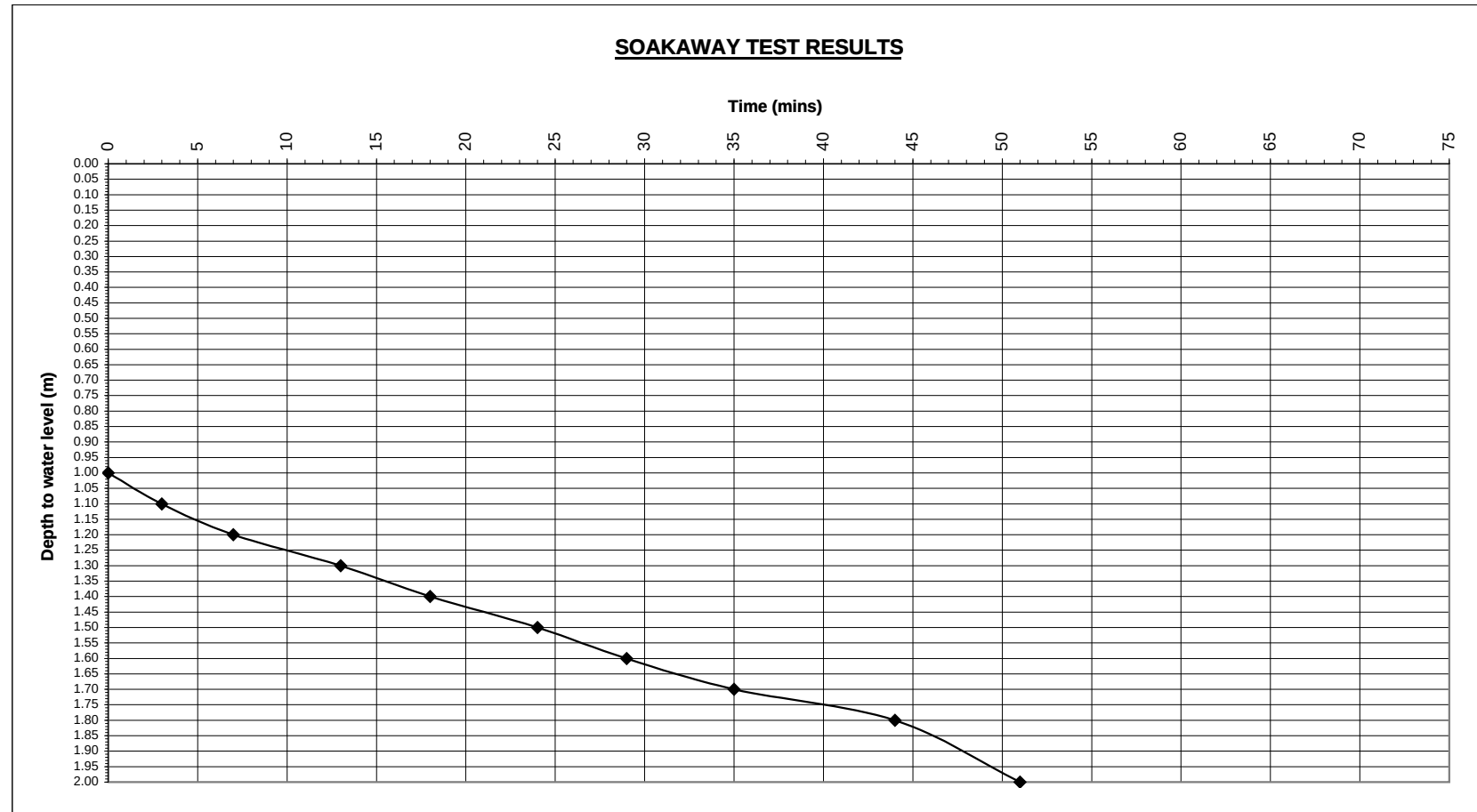
0.50 m	= Depth drop between 75% and 25%
30.0 mins	= Time for outflow between 75% and 25%

Calculation of soil infiltration:

VP75-25	0.42 m3
ap50	2.74 m2
tp75-25	1800 secs
Porosity	1.00 trial pit backfill (=1 if none used)

Soil infiltration, $f =$	8.52E-05 m/s
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SOAKAWAY NO. Trial Pit/Test-2

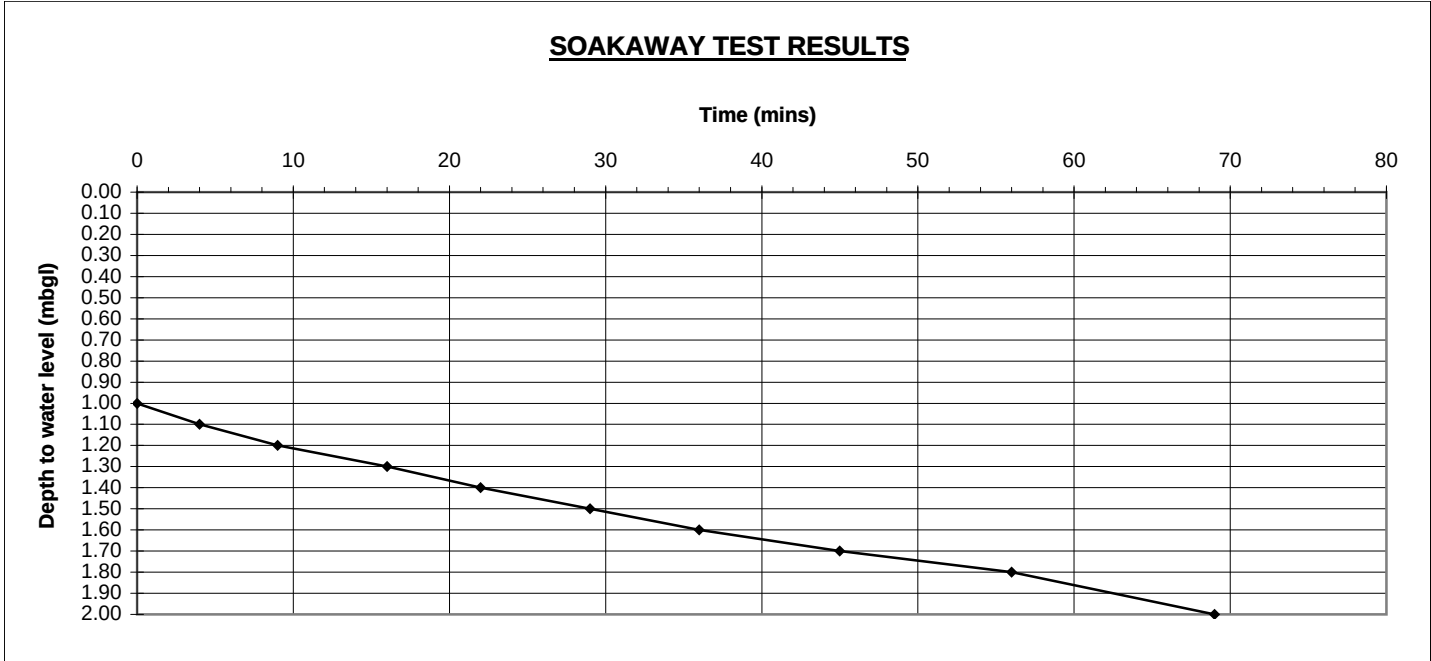


t0 = 1.000 m
t25 = 1.250 m
t75 = 1.750 m
t100 = 2.000 m
t25 = 10 mins
t75 = 40 mins
t75 - t25 = 30 mins

Calculation of Infiltration Rate in Broad Accordance with BRE Digest 365

Contract: Cornmill, New Mills
Contract No : 41673

Trial Pit Dimensions (m)	Width	Length	Depth to Base	Soakaway No.
	0.70	1.20	2.00	Trial Pit/Test-3



From above graph;

0.5 m	= Depth drop between 75% and 25% of maximum depth to final depth
39 mins	= Time for outflow between 75% and 25% of maximum depth to final depth

Calculation of Soil Infiltration Rate (f):		
where		using
f =	$\frac{VP_{75-25}}{ap_{50} \times tp_{75-25}}$	VP75-25 = Volume outflowing between 75% and 25% of effective depth.
		ap50 = Mean surface area through which the outflow occurs.
		tp75-25 = Time for the outflow between 75% and 25% of the effective depth.
VP75-25 =	0.42 m3	
ap50 =	2.74 m2	
tp75-25 =	39.0 mins	
Gravel Backfill	1.0	Effective porosity (=1 if no backfill)

General Geological Profile :	
0	0
0	0
0	0
Notes :	
	0

Soil Infiltration Rate (f) = 6.6E-05 m/s	Permeability Guideline (m/s)		
	Good	Poor	Practically Impervious
	10 ⁻³ - 10 ⁻⁵	10 ⁻⁶ - 10 ⁻⁷	10 ⁻⁸ - 10 ⁻¹⁰

Job name	Cornmill, New Mills	Job no.	41673	Soakaway No.	Trial Pit/Test-3
				Test Start Date	05/07/2021

Water levels		
Start Water Level (m)	End Water Level (m)	Effective Depth (m)
1.000	2.000	1.000

TP LOG	

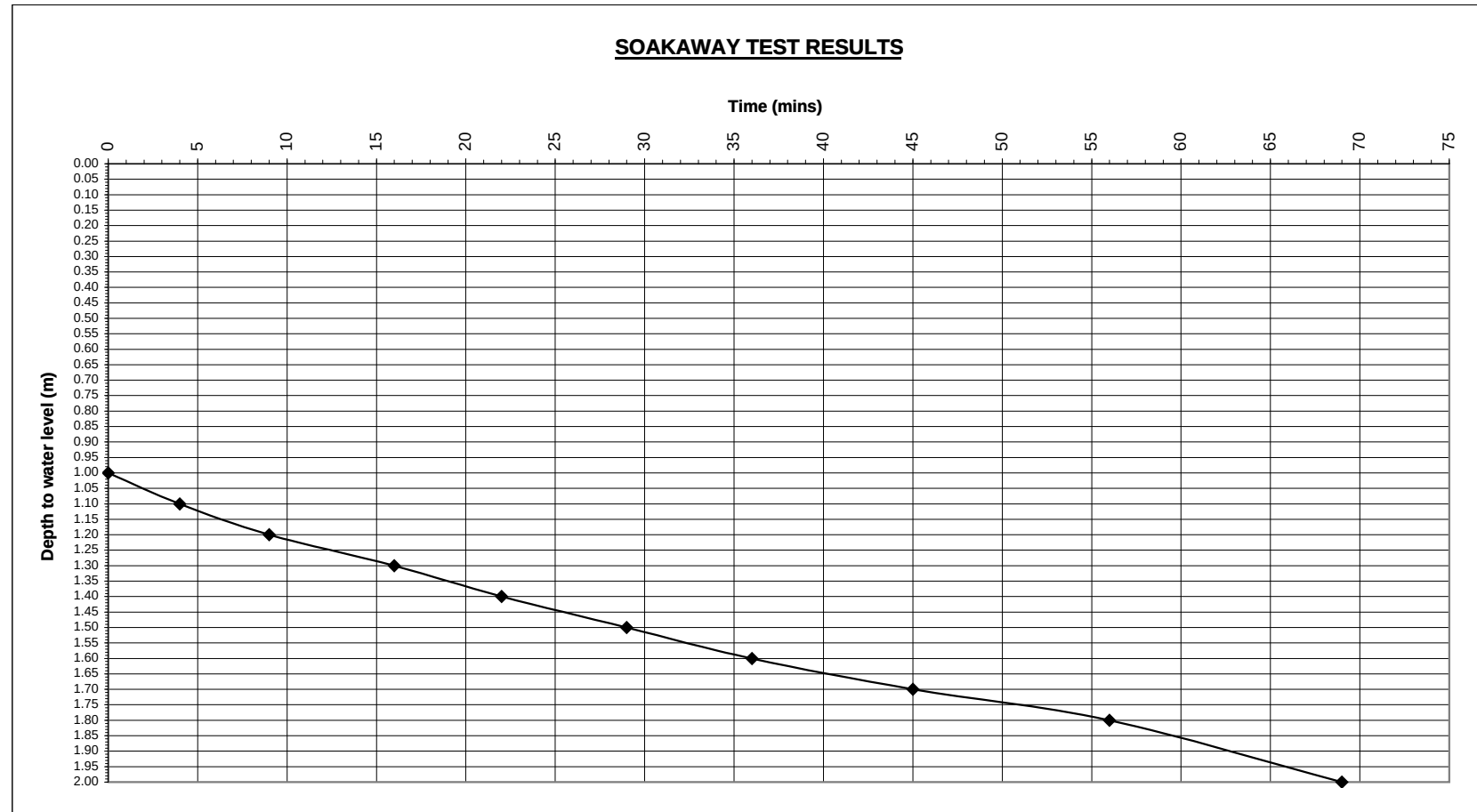
1.000	m t0	= water level at Start
1.25	m t25	= 25% depth
1.75	m t75	= 75% depth
2.00	m t100	= water level at End

0.50 m	= Depth drop between 75% and 25%
39.0 mins	= Time for outflow between 75% and 25%

VP75-25	0.42 m3
ap50	2.74 m2
tp75-25	2340 secs
Porosity	1.00 trial pit backfill (=1 if none used)

Page 2 - Data Input

SOAKAWAY NO. Trial Pit/Test-3



t0 = 1.000 m
t25 = 1.250 m
t75 = 1.750 m
t100 = 2.000 m
t25 = 13 mins
t75 = 52 mins
t75 - t25 = 39 mins