

Site
Investigations
♣
Geologists
♣
Environmental
& Geotechnical
Engineers



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FAO Nick Browne

Contract Ref: S190417

Meedhurst Project Management Ltd
Sterling House
35 High Street
Ascot
AL5 7HG

12th April 2019

Dear Nick,

Permeability Testing at Aston Hall, Aston-on-Trent.

Solmek visited the above site at the instruction of Meedhurst Project Management Ltd on Thursday 11th April 2019 to excavate four trial pits (TP1 to TP4) which were used to undertake shallow percolation testing.

Please find attached a plan showing the position of the test location and the details of the percolation tests along with the trial pit logs. The testing was carried out in accordance with BRE Digest 365: Soakaway Design.

The trial pits were excavated to depths of 2.50mbgl using a JCB 3CX with a 1.00m-wide bucket, the strata were logged, and water was poured into the pit. After a 3-hour monitoring period, water was emptied and then re-added, and measurements were repeated.

Below gives a summary of the related infiltration rates for all four trial pits:

Test Number	Test 1 Infiltration Rate (x10 ⁻⁵ m/s)	Test 2 Infiltration Rate (x10 ⁻⁵ m/s)	Test 3 Infiltration Rate (x10 ⁻⁵ m/s)	Average Infiltration Rate (x10 ⁻⁵ m/s)	Description of Base stratum
TP1	5.29	3.04	3.60	3.98	Slightly clayey SAND and GRAVEL
TP2	3.07	2.62	2.58	2.76	Slightly clayey SAND and GRAVEL
TP3	1.87	1.91	1.36	1.71	Clayey SAND and GRAVEL
TP4	1.77	1.74	1.68	1.73	Clayey SAND and GRAVEL

We would like to take this opportunity to thank you for using Solmek.

Yours sincerely
For and on behalf of Solmek Ltd

J Currie
Engineering Geologist



12-16 Yarm Road, Stockton on Tees, TS18 3NA
Tel: 01642 607083 Email: info@solmek.com

Figure Title

Location Plan

Project Number

S190417

Project Name

Aston Hall, Aston-on-Trent

Client

Date

April 2019

DRG Number

Figure #

Scale

1:2500 @ A4 [DO NOT SCALE]

Legend Key

○ Locations By Type - Empty

■ Locations By Type - TP



**SOLMEK**

Solmek Ltd
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Trial Pit Log

TrialPit No

TP1

Sheet 1 of 1

Project Name: Aston Hall, Aston-on-Trent

Project No.
S190417

Co-ords: 441354E - 328925N
Level:

Date
11/04/2019

Plant Used: JCB 3CX

Dimensions (m): 3.00

Scale
1:26

Client: Meedhurst Project Management Ltd

Depth
2.50

1.00

Logged
JC

Water Strike	Samples & In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
	Depth	Type	Results					
				0.10			MADE GROUND: loose grey gravelly sand TOPSOIL. Sand fine to coarse. Gravel of subangular brick fragments and subrounded to rounded mudstone, sandstone and limestone.	
				0.50			MADE GROUND: soft reddish brown sandy slightly gravelly CLAY fill. Sand fine to coarse. Gravel fine to coarse of subangular brick and concrete fragments, and rounded mudstone, sandstone and limestone. Low cobble content of the same. Low boulder content of occasional fragmented concrete slabs.	
							Loose reddish brown slightly clayey SAND and GRAVEL. Sand fine to coarse. Gravel fine to coarse of subrounded to rounded mudstone, sandstone and limestone. Low cobble content of the same.	
				2.50			End of Pit at 2.500m	

1

2

3

4

5

Remarks: No groundwater encountered

Stability:

 SOLMEK Solmek Ltd 12-16 Yarm Road Stockton on Tees TS18 3NA Tel: 01642 607083 Email: info@solmek.com		Trial Pit Log			Trial Pit No TP2 Sheet 1 of 1	
Project Name: Aston Hall, Aston-on-Trent		Project No. S190417		Co-ords: 441375E - 328932N Level:		Date 11/04/2019
Plant Used: JCB 3CX		Dimensions (m): Depth 2.50 1.00 3.00		Scale 1:26		Logged JC
Client: Meedhurst Project Management Ltd						

Water Strike	Samples & In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
	Depth	Type	Results				
				0.10		 MADE GROUND: loose grey gravelly sand TOPSOIL. Sand fine to coarse. Gravel of subangular brick fragments and subrounded to rounded mudstone, sandstone and limestone. Low cobble content of the same.  MADE GROUND: soft reddish brown sandy slightly gravelly CLAY fill. Sand fine to coarse. Gravel fine to coarse of subangular brick and concrete fragments, and rounded mudstone, sandstone and limestone. Low cobble content of the same.  Loose reddish brown slightly clayey SAND and GRAVEL. Sand fine to coarse. Gravel fine to coarse of subrounded to rounded mudstone, sandstone and limestone. Low cobble content of the same.	
				0.60			
				2.50			
							End of Pit at 2.500m

Remarks: No groundwater encountered

Stability:

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Stockton on Tees
TS18 3NA
Tel: 01642 607083
Email: info@solmek.com

Trial Pit Log

Trial Pit No
TP3
Sheet 1 of 1

Project Name: Aston Hall, Aston-on-Trent

Project No.
S190417

Co-ords: 441351E - 328879N
Level:

Date
11/04/2019

Plant Used: JCB 3CX

Dimensions (m):
Depth 2.50

3.00

Scale
1:26

Client: Meedhurst Project Management Ltd

Logged
JC

Water Strike	Samples & In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
	Depth	Type	Results				
				0.10			MADE GROUND: loose grey gravelly sand TOPSOIL. Sand fine to coarse. Gravel of subangular brick fragments and subrounded to rounded mudstone, sandstone and limestone.
				0.50			MADE GROUND: soft reddish brown sandy slightly gravelly CLAY fill. Sand fine to coarse. Gravel fine to coarse of subangular brick and concrete fragments, and rounded mudstone, sandstone and limestone. Low cobble content of rounded mudstone, sandstone and limestone. Loose reddish brown slightly clayey SAND and GRAVEL. Sand fine to coarse. Gravel fine to coarse of subrounded to rounded mudstone, sandstone and limestone. Low cobble content of the same.
				1.30			Loose reddish grey clayey SAND and GRAVEL. Sand fine to coarse. Gravel fine to coarse of subrounded to rounded mudstone, sandstone and limestone. Low cobble content of the same.
				2.50			End of Pit at 2.500m

Remarks: No groundwater encountered

Stability:

 SOLMEK Solmek Ltd 12-16 Yarm Road Stockton on Tees TS18 3NA Tel: 01642 607083 Email: info@solmek.com		Trial Pit Log			TrialPit No TP4 Sheet 1 of 1	
Project Name: Aston Hall, Aston-on-Trent		Project No. S190417		Co-ords: 441382E - 328877N Level:		Date 11/04/2019
Plant Used: JCB 3CX		Dimensions (m): 3.00 1.00		Scale 1:26		
Client: Meedhurst Project Management Ltd		Depth 2.50		Logged JC		

Water Strike	Samples & In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
	Depth	Type	Results					
				0.10		 MADE GROUND: loose grey gravelly sand TOPSOIL. Sand fine to coarse. Gravel of subangular brick fragments and subrounded to rounded mudstone, sandstone and limestone.	1	
			0.40		 MADE GROUND: soft reddish brown sandy slightly gravelly CLAY fill. Sand fine to coarse. Gravel fine to coarse of subangular brick and concrete fragments, and rounded mudstone, sandstone and limestone. Low cobble content of rounded mudstone, sandstone and limestone. Loose reddish brown slightly clayey SAND and GRAVEL. sand fine to coarse. Gravel fine to coarse of subrounded to rounded mudstone, sandstone and limestone. Low cobble content of the same.			
			1.20					 Loose reddish grey clayey SAND and GRAVEL. Sand fine to coarse. Gravel fine to coarse of subrounded to rounded mudstone, sandstone and limestone. Low cobble content of the same.
				2.50		End of Pit at 2.500m		3
								4
								5

Remarks: No groundwater encountered

Stability:

SOAKAWAY DESIGN IN ACCORDANCE WITH BRE DIGEST 365: 1991
BRE Digest 365, Figure 2, Page 5
Client: Meedhurst Project Management

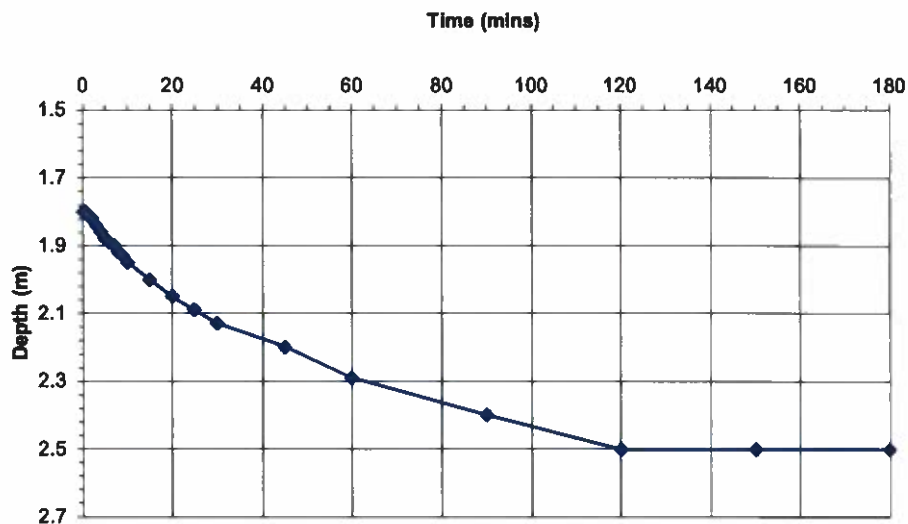
Site: Aston Hall, Aston-on-Trent

Job No: S190417

Pit No: TP1

Test No:
1
CALCULATION OF SOIL INFILTRATION RATE

Time (min)	Depth (m)	Pit Dimensions	Length (m) =	3.00
0	1.8		Width (m) =	1.00
0.5	1.8		Depth (m) =	2.50
1	1.81			
2	1.82	Depth at start of test (m) = 1.800		
3	1.84	Depth at end of test (m)= 2.500		
4	1.86	75% level (m)= 1.975		
5	1.88	50% Effective Depth 0.350		
6	1.89	25% level (m)= 2.325		
7	1.9			
8	1.92	Base area of pit (m ²) = 3.000		
9	1.93	V _{p75-25} (m ³) = 1.050		
10	1.95	a _{n50} (m ²) = 5.800		
15	2			
20	2.05	From the graph:		
25	2.09	tp 75 (min) = 12.50		
30	2.13	tp 25 (min) = 69.55		
45	2.2			
60	2.29	Soil infiltration rate, f, (m/s) =		5.29E-05 normal test
90	2.4			
120	2.5			
150	2.5	Input by:	JC	Date: 12/04/2019
180	2.5	Checked by:	LC	Date: 12/04/2019



SOAKAWAY DESIGN IN ACCORDANCE WITH BRE DIGEST 365: 1991
BRE Digest 365, Figure 2, Page 5
Client: Meedhurst Project Management

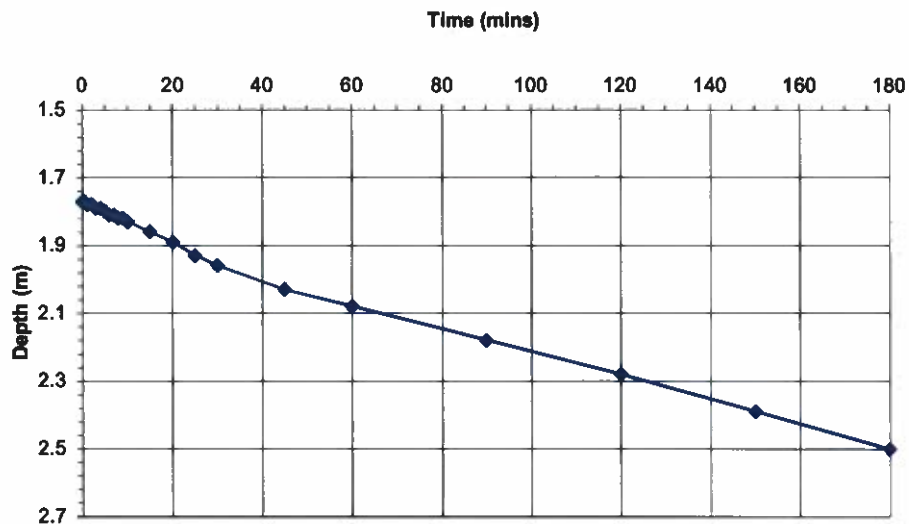
Site: Aston Hall, Aston-on-Trent

Job No: S190417

Pit No: TP1

Test No:
2
CALCULATION OF SOIL INFILTRATION RATE

Time (min)	Depth (m)	Pit Dimensions	Length (m) =	3.00
0	1.77		Width (m) =	1.00
0.5	1.77		Depth (m) =	2.50
1	1.78			
2	1.78	Depth at start of test (m) = 1.770		
3	1.79	Depth at end of test (m)= 2.500		
4	1.79	75% level (m)= 1.953		
5	1.8	50% Effective Depth 0.365		
6	1.81	25% level (m)= 2.318		
7	1.81			
8	1.82	Base area of pit (m ⁴) = 3.000		
9	1.82	V _{p75-25} (m ³) = 1.095		
10	1.83	a _{n50} (m ⁴) = 5.920		
15	1.86			
20	1.89		From the graph:	
25	1.93		tp 75 (min) =	28.75
30	1.96		tp 25 (min) =	130.23
45	2.03			
60	2.08	Soil infiltration rate, f, (m/s) =		3.04E-05 normal test
90	2.18			
120	2.28			
150	2.39	Input by:	JC	Date: 12/04/2019
180	2.5	Checked by:	LC	Date: 12/04/2019



SOAKAWAY DESIGN IN ACCORDANCE WITH BRE DIGEST 365: 1991
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Client: Meedhurst Project Management

Site: Aston Hall, Aston-on-Trent

Job No: S190417

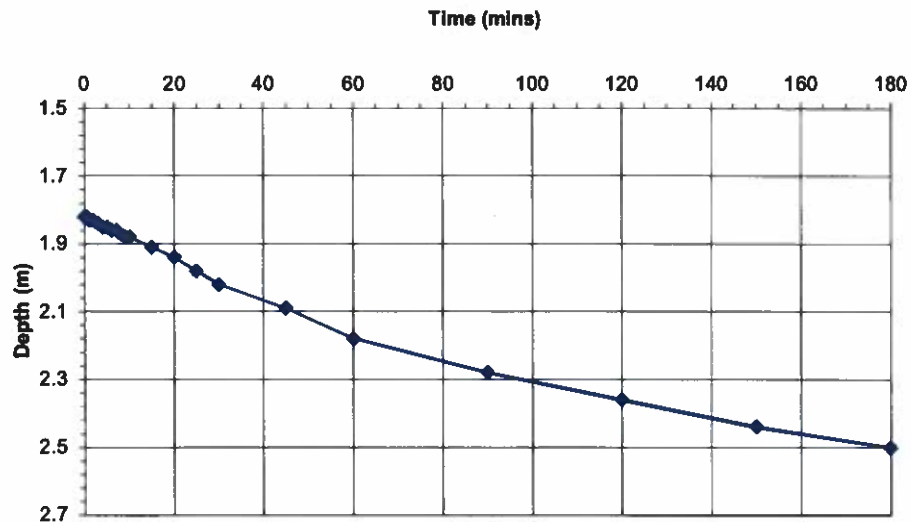
Pit No: TP1

Test No:

3

CALCULATION OF SOIL INFILTRATION RATE

Time (min)	Depth (m)	Pit Dimensions	Length (m) =	3.00
0	1.82		Width (m) =	1.00
0.5	1.82		Depth (m) =	2.50
1	1.83			
2	1.83	Depth at start of test (m) = 1.820		
3	1.84	Depth at end of test (m) = 2.500		
4	1.85	75% level (m) = 1.990		
5	1.85	50% Effective Depth 0.340		
6	1.86	25% level (m) = 2.330		
7	1.86			
8	1.87	Base area of pit (m ²) = 3.000		
9	1.88	V _{p75-25} (m ³) = 1.020		
10	1.88	a _{0.50} (m ²) = 5.720		
15	1.91			
20	1.94	From the graph:		
25	1.98	tp 75 (min) = 26.25		
30	2.02	tp 25 (min) = 108.75		
45	2.09			
60	2.18	Soil infiltration rate, f, (m/s) =		3.60E-05 normal test
90	2.28			
120	2.36			
150	2.44	Input by:	JC	Date: 12/04/2019
180	2.5	Checked by:	LC	Date: 12/04/2019



SOAKAWAY DESIGN IN ACCORDANCE WITH BRE DIGEST 365: 1991
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Client: Meedhurst Project Management

Site: Aston Hall, Aston-on-Trent

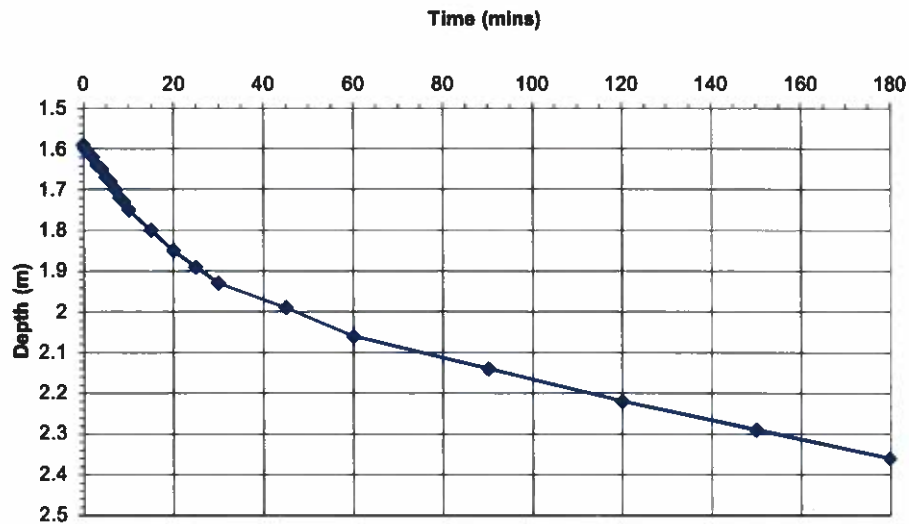
Job No: S190417

Pit No: TP2

Test No: 1

CALCULATION OF SOIL INFILTRATION RATE

Time (min)	Depth (m)	Pit Dimensions	Length (m) =	3.00
0	1.59		Width (m) =	1.00
0.5	1.6		Depth (m) =	2.50
1	1.61			
2	1.62	Depth at start of test (m) = 1.590		
3	1.64	Depth at end of test (m)= 2.360		
4	1.65	75% level (m)= 1.783		
5	1.67	50% Effective Depth 0.525		
6	1.68	25% level (m)= 2.168		
7	1.7			
8	1.72	Base area of pit (m ²) = 3.000		
9	1.73	V _{p75-25} (m ³) = 1.155		
10	1.75	a _{0.50} (m ⁴) = 7.200		
15	1.8			
20	1.85		From the graph:	
25	1.89		tp 75 (min) =	13.25
30	1.93		tp 25 (min) =	100.31
45	1.99			
60	2.06	Soil infiltration rate, f, (m/s) =		3.07E-05 normal test
90	2.14			
120	2.22			
150	2.29	Input by:	JC	Date: 12/04/2019
180	2.36	Checked by:	LC	Date: 12/04/2019



SOAKAWAY DESIGN IN ACCORDANCE WITH BRE DIGEST 365: 1991
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Client: Meedhurst Project Management

Site: Aston Hall, Aston-on-Trent

Job No: S190417

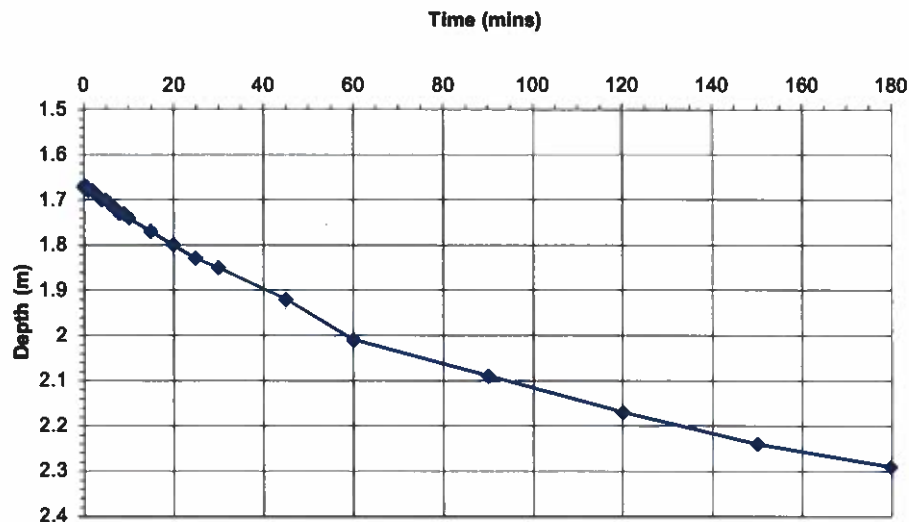
Pit No: TP2

Test No:

2

CALCULATION OF SOIL INFILTRATION RATE

Time (min)	Depth (m)	Pit Dimensions	Length (m) =	3.00
0	1.67		Width (m) =	1.00
0.5	1.67		Depth (m) =	2.50
1	1.68			
2	1.68	Depth at start of test (m) = 1.670		
3	1.69	Depth at end of test (m)= 2.290		
4	1.7	75% level (m)= 1.825		
5	1.7	50% Effective Depth 0.520		
6	1.71	25% level (m)= 2.135		
7	1.72			
8	1.73	Base area of pit (m ²) = 3.000		
9	1.73	V _{p75-25} (m ³) = 0.930		
10	1.74	a _{0.50} (m ²) = 7.160		
15	1.77			
20	1.8		From the graph:	
25	1.83		tp 75 (min) =	24.17
30	1.85		tp 25 (min) =	106.88
45	1.92			
60	2.01	Soil infiltration rate, f, (m/s) =		2.62E-05 normal test
90	2.09			
120	2.17			
150	2.24	Input by:	JC	Date: 12/04/2019
180	2.29	Checked by:	LC	Date: 12/04/2019



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Client: Meedhurst Project Management

Site: Aston Hall, Aston-on-Trent

Job No: S190417

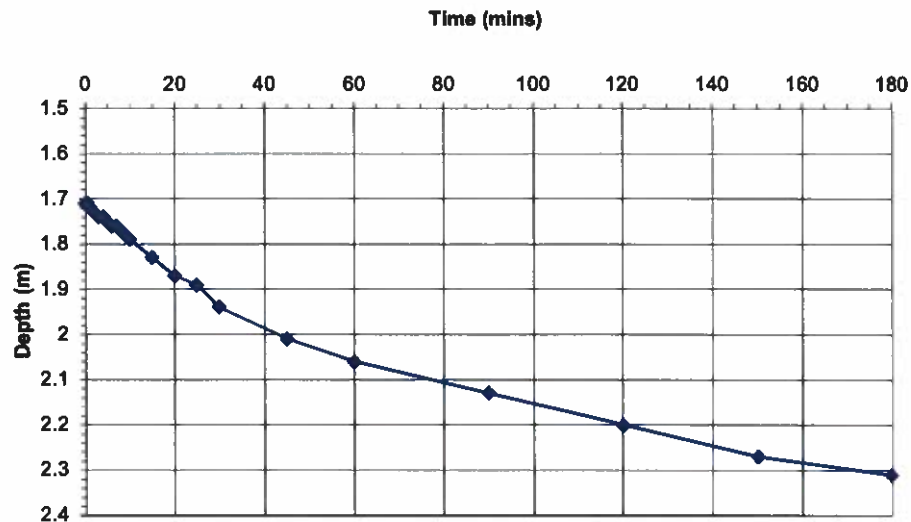
Pit No: TP2

Test No:

3

CALCULATION OF SOIL INFILTRATION RATE

Time (min)	Depth (m)	Pit Dimensions		Length (m) =	3.00
0	1.71			Width (m) =	1.00
0.5	1.71			Depth (m) =	2.50
1	1.72				
2	1.73	Depth at start of test (m) = 1.710			
3	1.74	Depth at end of test (m) = 2.310			
4	1.74	75% level (m) = 1.860			
5	1.75	50% Effective Depth = 0.490			
6	1.76	25% level (m) = 2.160			
7	1.76				
8	1.77	Base area of pit (m ²) = 3.000			
9	1.78	V _{p75-25} (m ³) = 0.900			
10	1.79	a _{0.50} (m ²) = 6.920			
15	1.83				
20	1.87	From the graph:			
25	1.89	tp 75 (min) = 18.75			
30	1.94	tp 25 (min) = 102.86			
45	2.01				
60	2.06	Soil infiltration rate, f, (m/s) =		2.58E-05	normal test
90	2.13				
120	2.2				
150	2.27	Input by:	JC	Date:	12/04/2019
180	2.31	Checked by:	LC	Date:	12/04/2019



SOAKAWAY DESIGN IN ACCORDANCE WITH BRE DIGEST 365: 1991
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Client: Meedhurst Project Management

Site: Aston Hall, Aston-on-Trent

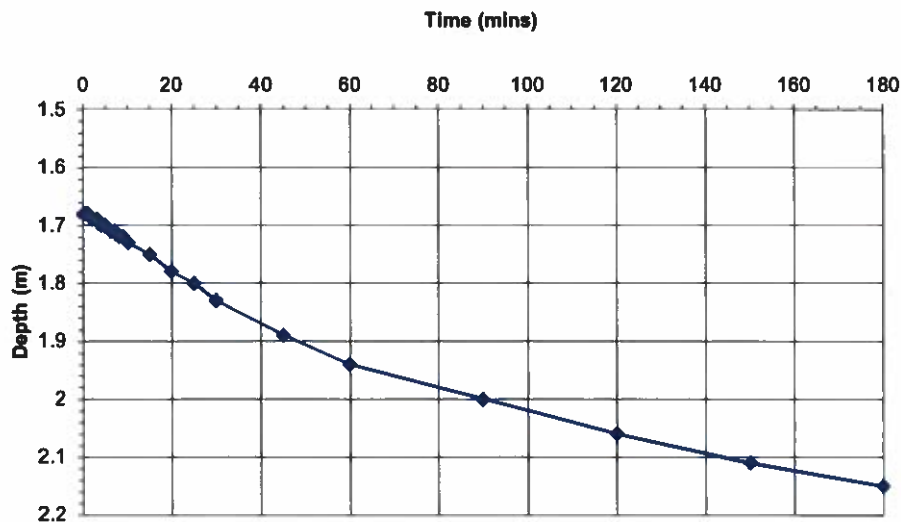
Job No: S190417

Pit No: TP3

Test No: 1

CALCULATION OF SOIL INFILTRATION RATE

Time (min)	Depth (m)	Pit Dimensions	Length (m) =	3.00
0	1.68		Width (m) =	1.00
0.5	1.68		Depth (m) =	2.50
1	1.68			
2	1.69	Depth at start of test (m) = 1.680		
3	1.69	Depth at end of test (m)= 2.150		
4	1.7	75% level (m)= 1.798		
5	1.7	50% Effective Depth 0.585		
6	1.71	25% level (m)= 2.033		
7	1.71			
8	1.72	Base area of pit (m ²) = 3.000		
9	1.72	V _{p75-25} (m ³) = 0.705		
10	1.73	a _{0.50} (m ⁴) = 7.680		
15	1.75			
20	1.78		From the graph:	
25	1.8		tp 75 (min) =	24.37
30	1.83		tp 25 (min) =	106.25
45	1.89			
60	1.94	Soil infiltration rate, f, (m/s) =		1.87E-05 normal test
90	2			
120	2.06			
150	2.11	Input by:	JC	Date: 12/04/2019
180	2.15	Checked by:	LC	Date: 12/04/2019



SOAKAWAY DESIGN IN ACCORDANCE WITH BRE DIGEST 365: 1991
BRE Digest 365, Figure 2, Page 5

Client: Meedhurst Project Management

Site: Aston Hall, Aston-on-Trent

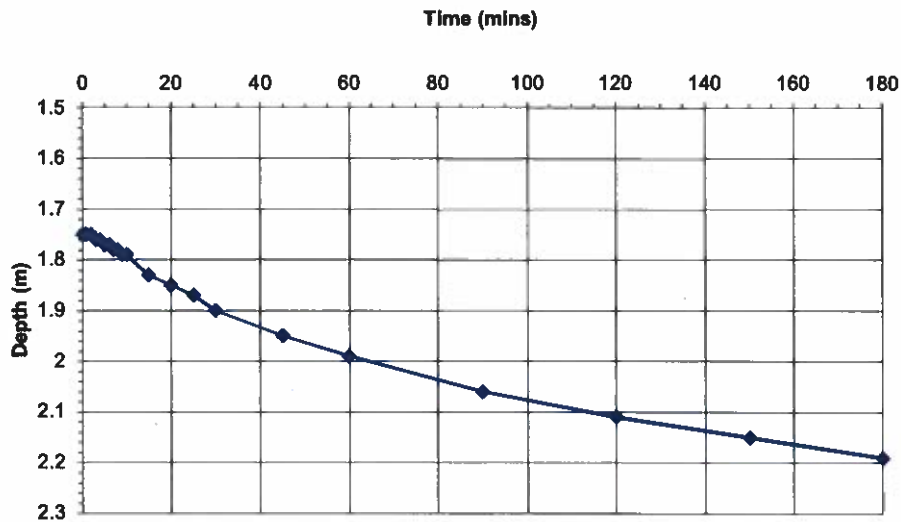
Job No: S190417

Pit No: TP3

Test No: 2

CALCULATION OF SOIL INFILTRATION RATE

Time (min)	Depth (m)	Pit Dimensions	Length (m) =	3.00
0	1.75		Width (m) =	1.00
0.5	1.75		Depth (m) =	2.50
1	1.75			
2	1.75	Depth at start of test (m) = 1.750		
3	1.76	Depth at end of test (m)= 2.190		
4	1.76	75% level (m)= 1.860		
5	1.77	50% Effective Depth 0.530		
6	1.77	25% level (m)= 2.080		
7	1.78			
8	1.78	Base area of pit (m ²) = 3.000		
9	1.79	V _{p75-25} (m ³) = 0.660		
10	1.79	a _{0.50} (m ²) = 7.240		
15	1.83			
20	1.85		From the graph:	
25	1.87		tp 75 (min) = 22.50	
30	1.9		tp 25 (min) = 102.00	
45	1.95			
60	1.99	Soil infiltration rate, f, (m/s) =		1.91E-05
90	2.06			
120	2.11			
150	2.15	Input by:	JC	Date: 12/04/2019
180	2.19	Checked by:	LC	Date: 12/04/2019



SOAKAWAY DESIGN IN ACCORDANCE WITH BRE DIGEST 365: 1991

BRE Digest 365, Figure 2, Page 5

Client: Meedhurst Project Management

Site: Aston Hall, Aston-on-Trent

Job No: S190417

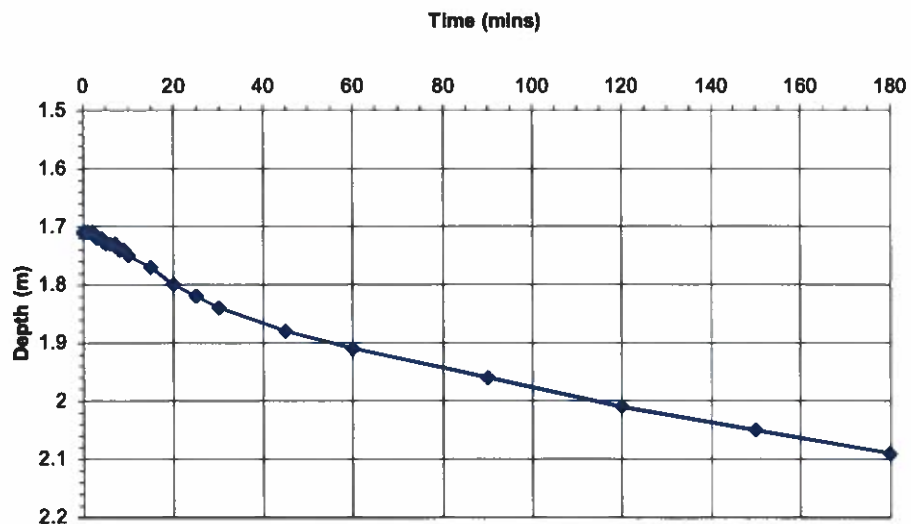
Plt No: TP3

Test No:

3

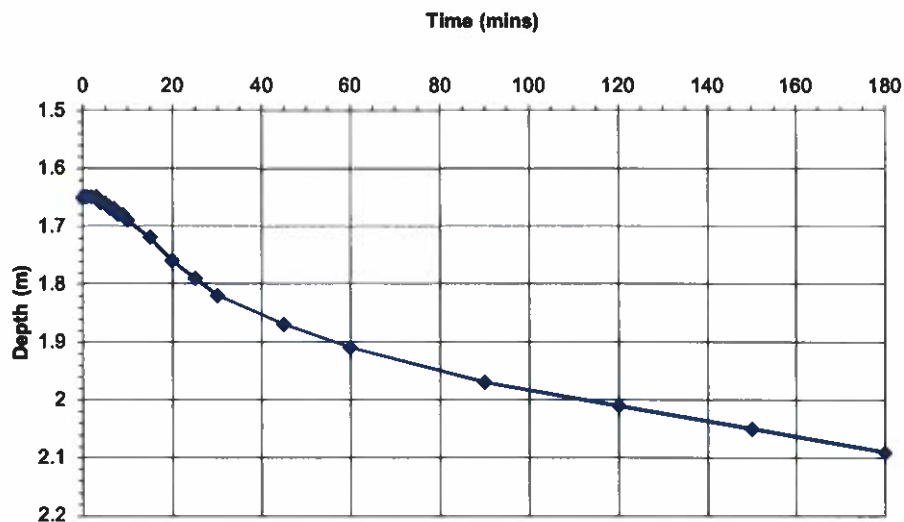
CALCULATION OF SOIL INFILTRATION RATE

Time (min)	Depth (m)	Pit Dimensions	Length (m) =	3.00
0	1.71		Width (m) =	1.00
0.5	1.71		Depth (m) =	2.50
1	1.71			
2	1.71	Depth at start of test (m) = 1.710		
3	1.72	Depth at end of test (m)= 2.090		
4	1.72	75% level (m)= 1.805		
5	1.73	50% Effective Depth 0.600		
6	1.73	25% level (m)= 1.995		
7	1.73			
8	1.74	Base area of plt (m ²) = 3.000		
9	1.74	V _{p75-25} (m ³) = 0.570		
10	1.75	a _{0.50} (m ²) = 7.800		
15	1.77			
20	1.8			
25	1.82	From the graph:		
30	1.84	tp 75 (min) = 21.25		
45	1.88	tp 25 (min) = 111.00		
60	1.91			
90	1.96	Soil infiltration rate, f, (m/s) =		1.36E-05 normal test
120	2.01			
150	2.05			
180	2.09	Input by:	JC	Date: 12/04/2019
		Checked by:	LC	Date: 12/04/2019



SOAKAWAY DESIGN IN ACCORDANCE WITH BRE DIGEST 365: 1991
BRE Digest 365, Figure 2, Page 5
Client: Meedhurst Project Management
Site: Aston Hall, Aston-on-Trent
Job No: S190417
Pit No: TP4
Test No:
1
CALCULATION OF SOIL INFILTRATION RATE

Time (min)	Depth (m)	Pit Dimensions	Length (m) =	3.00
0	1.65		Width (m) =	1.00
0.5	1.65		Depth (m) =	2.50
1	1.65			
2	1.65	Depth at start of test (m) = 1.650		
3	1.65	Depth at end of test (m) = 2.090		
4	1.66	75% level (m) = 1.760		
5	1.66	50% Effective Depth 0.630		
6	1.67	25% level (m) = 1.980		
7	1.67			
8	1.68	Base area of pit (m ²) = 3.000		
9	1.68	V _{p75-25} (m ³) = 0.660		
10	1.69	a _{0.50} (m ²) = 8.040		
15	1.72			
20	1.76	From the graph:		
25	1.79	tp 75 (min) = 20.00		
30	1.82	tp 25 (min) = 97.50		
45	1.87			
60	1.91	Soil Infiltration rate, f, (m/s) = 1.77E-05 normal test		
90	1.97			
120	2.01			
150	2.05	Input by:	JC	Date: 12/04/2019
180	2.09	Checked by:	LC	Date: 12/04/2019



SOAKAWAY DESIGN IN ACCORDANCE WITH BRE DIGEST 365: 1991
BRE Digest 365, Figure 2, Page 5

Client: Meedhurst Project Management

Site: Aston Hall, Aston-on-Trent

Job No: S190417

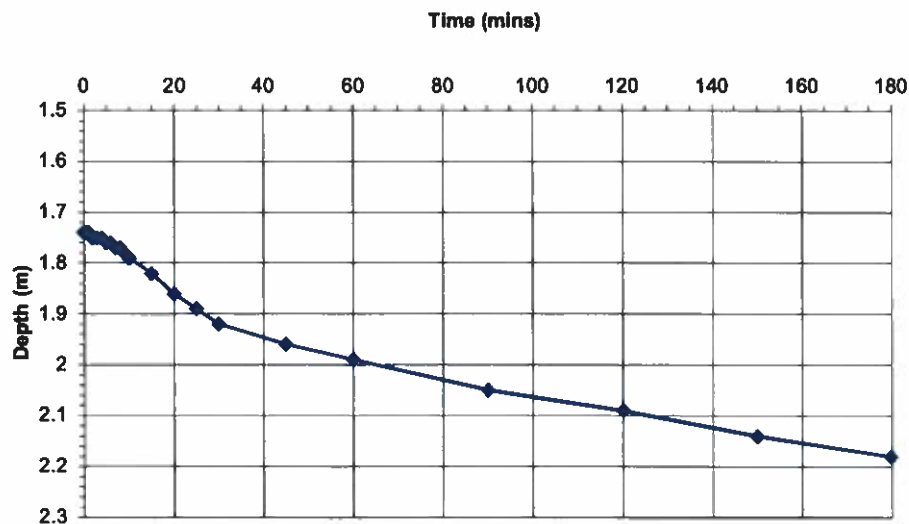
Pit No: TP4

Test No:

2

CALCULATION OF SOIL INFILTRATION RATE

Time (min)	Depth (m)	Pit Dimensions	Length (m) =	3.00
0	1.74		Width (m) =	1.00
0.5	1.74		Depth (m) =	2.50
1	1.74			
2	1.75	Depth at start of test (m) = 1.740		
3	1.75	Depth at end of test (m)= 2.180		
4	1.75	75% level (m)= 1.850		
5	1.76	50% Effective Depth 0.540		
6	1.76	25% level (m)= 2.070		
7	1.77			
8	1.77	Base area of pit (m ²) = 3.000		
9	1.78	V _{p75-25} (m ³) = 0.660		
10	1.79	a _{0.50} (m ⁴) = 7.320		
15	1.82			
20	1.86		From the graph:	
25	1.89		tp 75 (min) =	18.75
30	1.92		tp 25 (min) =	105.00
45	1.96			
60	1.99	Soil infiltration rate, f, (m/s) =		1.74E-05 normal test
90	2.05			
120	2.09			
150	2.14	Input by:	JC	Date: 12/04/2019
180	2.18	Checked by:	LC	Date: 12/04/2019



SOAKAWAY DESIGN IN ACCORDANCE WITH BRE DIGEST 365: 1991

BRE Digest 365, Figure 2, Page 5

Client: Meedhurst Project Management

Site: Aston Hall, Aston-on-Trent

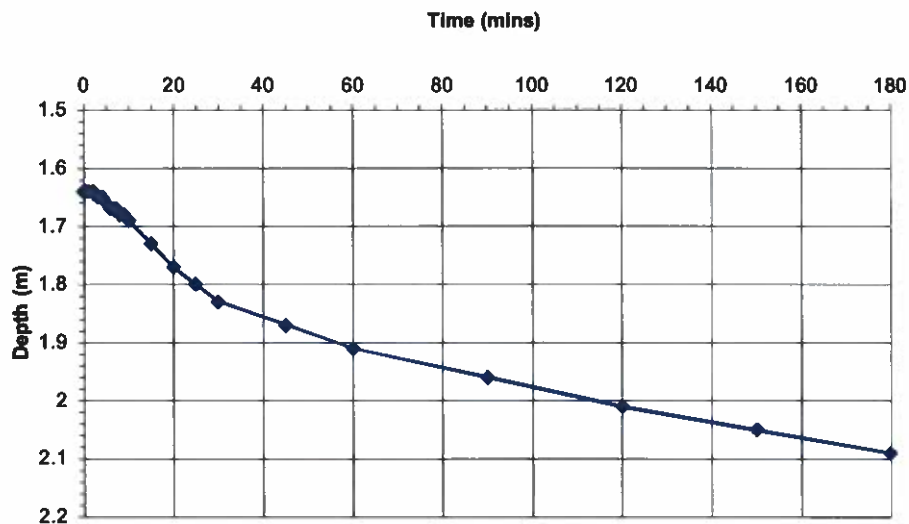
Job No: S190417

Pit No: TP4

Test No: 3

CALCULATION OF SOIL INFILTRATION RATE

Time (min)	Depth (m)	Pit Dimensions	Length (m) =	3.00
0	1.64		Width (m) =	1.00
0.5	1.64		Depth (m) =	2.50
1	1.64			
2	1.64	Depth at start of test (m) = 1.640		
3	1.65	Depth at end of test (m) = 2.090		
4	1.65	75% level (m) = 1.753		
5	1.66	50% Effective Depth = 0.635		
6	1.67	25% level (m) = 1.978		
7	1.67			
8	1.68	Base area of pit (m ²) = 3.000		
9	1.68	V _{p75-25} (m ³) = 0.675		
10	1.69	a _{0.50} (m ²) = 8.080		
15	1.73			
20	1.77	From the graph:		
25	1.8	tp 75 (min) = 17.81		
30	1.83	tp 25 (min) = 100.50		
45	1.87			
60	1.91	Soil infiltration rate, f, (m/s) =		1.68E-05 normal test
90	1.96			
120	2.01			
150	2.05	Input by:	JC	Date: 12/04/2019
180	2.09	Checked by:	LC	Date: 12/04/2019



4Solmek conditions of offer. notes on limitations & basis for contract (ref: version1/2018)

These conditions accompany our tender and supercede any previous conditions issued. Solmek will prepare a report solely for the use of the Client (the party invoiced) and its agent(s). No reliance should be placed on the contents of this report, in whole or in part by 3rd parties. The report, its content and format and associated data are copyright, and the property of Solmek. Photocopying of part or all of the contents, transfer or reproduction of any kind is forbidden without written permission from Solmek. A charge may be levied against such approval, the same to be made at the discretion of Solmek. Solmek was a trading name of Hymas Geoenvironmental Ltd.

Solmek cannot be held liable and do not warrant, or otherwise guarantee the validity of information provided by third parties and subsequently used in our reports. Solmek are not responsible for the action negligent of otherwise of subcontractors or third parties.

Site investigation is a process of sampling. The scope and size of an investigation may be considered proportional to levels of confidence regarding the ground and groundwater conditions. The exploratory holes undertaken investigate only a small volume of the ground in relation to the overall size of the site, and can only provide a general indication of site conditions. The opinions provided and recommendations given in this report are based on the ground conditions as encountered within each of the exploratory holes. There may be different ground conditions elsewhere on the site which have not been identified by this investigation and which therefore have not been taken into account in this report. Reports are generally subject to the comments of the local authority and Environment Agency. The comments made on groundwater conditions are based on observations made at the time that site work was carried out. It should be noted that mobile contamination, ground gas levels and groundwater levels may vary owing to seasonal, tidal and/or weather related effects. Solmek cannot be held liable for any unrecorded or unforeseen obstructions between exploratory boreholes and trial pits. This includes instances where previous structures on the site (buried man made structures) or the presence of boulder clay (cobbles and/or boulder obstructions) have been anticipated. All types of piling operations should make allowance for obstructions within the construction budget to accommodate this. Unrecorded ancient mining may occur anywhere where seams that have been worked and influence the rock and soil above. Dissolution cavities can occur where gypsum or chalk is present. Rotary drilling is the recommended technique to prove the integrity of the rock.

Where the scope of the investigation is limited via access to information, time constraints, equipment limitations, testing, interpretation or by the client or his agents budgetary constraints, elements not set out in the proposal and excluded from the report are deemed to be omitted from the scope of the investigation.

Desk studies are generally prepared in accordance with RICS guidelines. Environmental site investigations are generally undertaken as 'exploratory investigations' in accordance with the definitions provided in paragraph 5.4 of BS 10175:2001 in order to confirm the conceptual assumptions. You are advised to familiarize yourself with the typical scope of such an investigation. No pumping of water will be undertaken unless a licence or facilities/equipment have been arranged by others.

Where the type, number or/and depth of exploratory hole is specified by others, Solmek cannot and will not be responsible for any subsequent shortfall or inadequacy in data, and any consequent shortfall in interpretation of environmental and geotechnical aspects which may be required at a later date in order to facilitate the design of permanent or temporary works.

All information acquired by Solmek in the course of investigation is the property of Solmek, and, only also becomes the joint property of the Client only on the complete settlement of all invoices relating to the project. Solmek reserve the right to use the information in commercial tendering and marketing, unless the Client expressly wishes otherwise in writing. The quoted rates do not include VAT, and payment terms are 30 days from dispatch of invoice from our offices. Quotes are subject to a site visit.

We have allowed for 1 mobilisation and normal working hours unless otherwise stated. The scope of the investigation may be reviewed following the desk study and/or fieldwork. The presence or otherwise of Japanese Knotweed or other invasive plants can be difficult to identify especially during winter months. If Japanese Knotweed or other invasive species are suspect, it should be confirmed by an ecologist. We have not allowed for acquiring services information, and cannot be responsible for damage to underground services or pipes not shown to us or not clearly shown on plans. Costs incurred will be passed on to you, and in commissioning Solmek you understand and accept that you/your agent have a contractual relationship with Solmek & you accept this. Our rates assume unobstructed, reasonably level and firm access to the exploratory positions and adequate clear working areas and headroom. We have priced on the basis that you or your client have the necessary permissions, wayleaves and approvals to access land. All boreholes and pits are backfilled with arisings except where gas monitoring pipes are installed with stopcock covers. Solmek are not responsible for any uneven surfaces as a result of siteworks and rutting and backfilled excavations may require re-levelling and/or making good by others after fieldwork is complete, and Solmek has not allowed for this. No price has been provided or requested for a return visit to remove pipework and covers. Hourly rates apply to consultancy only and do not include expenses unless otherwise shown. If warranties are required, legal costs incurred will be passed on to you assuming Solmek agree to complete such warranties, modified or otherwise and you understand and agree to pay all costs.

We reserve the right to pursue full payment of the invoice prior to release of any information including reports. We advise you/your client that we may elect to pursue our statutory rights under late payment legislation, and will apply 8% to the base rate for unreasonably late payments. Solmek are exempt from the CIS Scheme. Solmek offer to undertake work only in strict accordance with conditions covered by our current insurances, which are available for inspection. Solmek are not responsible for acts, negligent or otherwise of subcontractors and as a matter of policy cannot indemnify any other parties. Professional indemnity insurance is limited to ten times the invoice net total except where stated otherwise by Solmek. Solmek give notice that consequential loss as a direct or indirect result of Solmek's activities or omission of the same are excluded.