C.J. ASSOCIATES GEOTECHNICAL LTD.

SOIL INFILTRATION RATE TEST

See B.R.E. Digest 365, 1991, Soakaway Design.

Site..... **Bodicote**
Job Number..... **Y0204**
Date of Test..... 23/03/2010

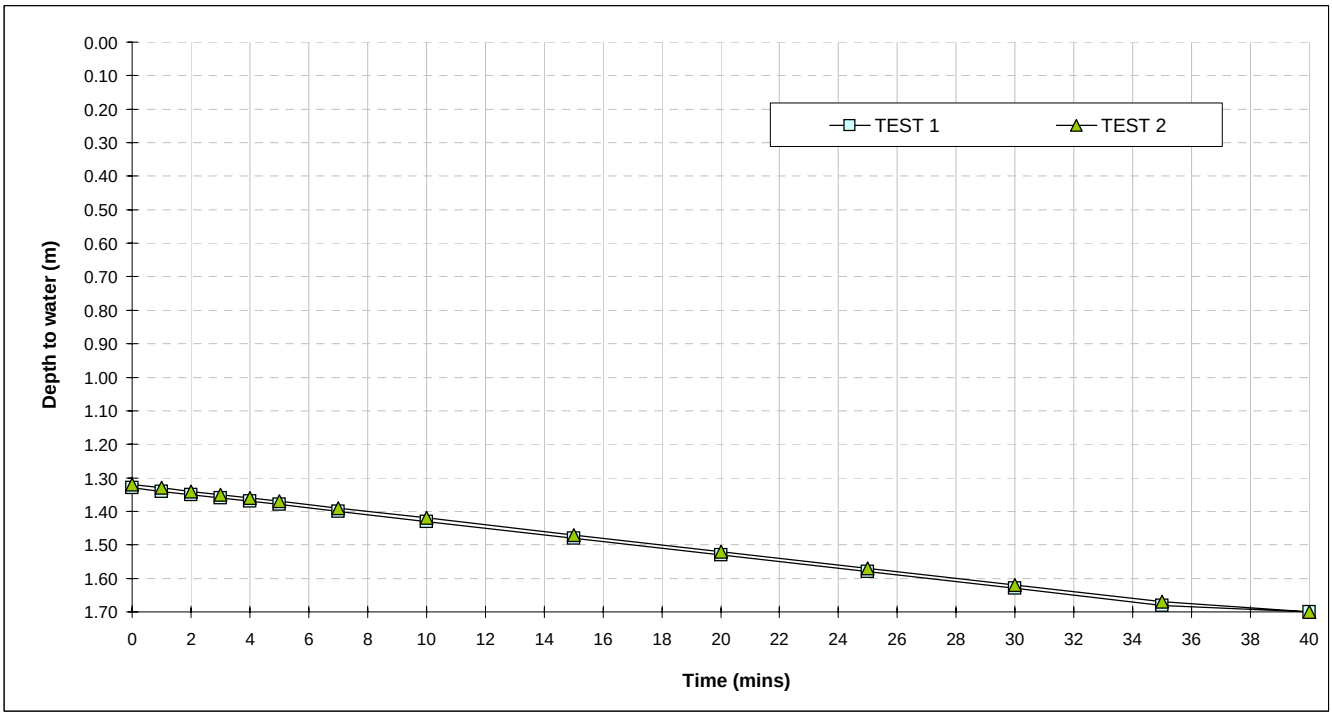
Trial Pit Number..... 4
Length..... 2.00 m
Width..... 0.70 m
Depth..... 1.70 m
Groundwater Level..... Dry

Remarks -

TEST 1		TEST 2		TEST 3	
Time(min)	Depth to Water (m)	Time(min)	Depth to Water (m)	Time(min)	Depth to Water (m)
0.0	1.33	0.0	1.32		
1.0	1.34	1.0	1.33		
2.0	1.35	2.0	1.34		
3.0	1.36	3.0	1.35		
4.0	1.37	4.0	1.36		
5.0	1.38	5.0	1.37		
7.0	1.40	7.0	1.39		
10.0	1.43	10.0	1.42		
15	1.48	15	1.47		
20	1.53	20	1.52		
25	1.58	25	1.57		
30	1.63	30	1.62		
35	1.68	35	1.67		
40	1.70	40	1.70		

Effective Storage Depth	m	0.37	0.38	
75% Effective Storage Depth	m	0.28	0.29	
(i.e. depth below GL)	m	1.42	1.42	
25% Effective Storage Depth	m	0.09	0.10	
(i.e. depth below GL)	m	1.61	1.61	
Effective Storage Depth 75%-25%	m	0.19	0.19	
Time to fall to 75% effective depth	mins	9.00	10.00	
Time to fall to 25% effective depth	mins	26.00	29.00	
V (75%-25%)	m3	0.26	0.27	
a (50%)	m2	2.40	2.43	
t (75%-25%)	mins	17.00	19.00	
SOIL INFILTRATION RATE	m/s	**1.06E-04**	**9.62E-05**	

DESIGN SOIL INFILTRATION RATE, f **9.62E-05**



Trial Pit Log Sheet

TP No **5**

Site: **Bodicote**

Job Number: **Y0204**

Sheet 1 of 1

Client: RPS

Date: 23/03/2010

Machine Type: JCB 3CX

Vertical Scale 1:25

C J Associates

Depth (m)	Sample Ref.	Test / Sample Depth (m)	Test Results	Depth (m)	Thickness (m)	Legend	Description of Strata	Reduced Level (m. O.D.)
0.00					(0.30)		TOPSOIL: Soft light brown CLAY, with occasional roots.	
	B1	0.30-1.00		0.30			Light brown clayey gravelly angular to subangular COBBLES of siltstone and sandstone.	
0.50					(0.70)			
1.00	B2	1.00-1.20		1.00				
					(0.20)		Firm to stiff light blue-grey CLAY	
				1.20			END OF TRIAL PIT	
1.50								
2.00								
2.50								
3.00								
3.50								
4.00								

Sample Types: D = Small disturbed sample; B = Bulk disturbed sample; J = Small disturbed sample (glass jar); T = Small disturbed sample (plastic tub); W = Water sample.

Co-ordinates:	Trial Pit Width (m) 0.70	Trial Pit Length (m) 2.50
Trial Pit Side Stability : All Sides Stable	Logged By : IC	Checked By :
Groundwater Observations: Dry	Direction of Face A (degrees from N): -	Excavator D A B C
General Remarks : TP terminated as clay strata encountered in A, C and D-sides, but still cobbles in B-side of pit at 1.2m.		

Trial Pit Log Sheet

TP No **4**

Site: **Bodicote**

Job Number: **Y0204**

Sheet 1 of 1

Client: RPS

Date: 23/03/2010

Machine Type: JCB 3CX

Vertical Scale 1:25

C J Associates

Depth (m)	Sample Ref.	Test / Sample Depth (m)	Test Results	Depth (m)	Thickness (m)	Legend	Description of Strata	Reduced Level (m. O.D.)
0.00					(0.30)		TOPSOIL: Soft light brown CLAY, with occasional roots.	
	B1	0.30-0.50		0.30	(0.20)		Firm brown slightly gravelly CLAY. Gravel is subangular to subrounded fine to coarse of siltstone and sandstone.	
0.50	B2	0.50-1.70		0.50			Light brown clayey gravelly angular to subangular COBBLES of siltstone and sandstone.	
1.00					(1.20)			
1.50								
				1.70			END OF TRIAL PIT	
2.00								
2.50								
3.00								
3.50								
4.00								

Sample Types: D = Small disturbed sample; B = Bulk disturbed sample; J = Small disturbed sample (glass jar); T = Small disturbed sample (plastic tub); W = Water sample.

Co-ordinates:	Trial Pit Width (m) 0.70	Trial Pit Length (m) 2.50
Trial Pit Side Stability : All Sides Stable	Logged By : IC	Checked By :
Groundwater Observations: Dry	Direction of Face A (degrees from N): -	Excavator D A B C
General Remarks :		

Trial Pit Log Sheet

TP No **3**

Site: **Bodicote**

Job Number: **Y0204**

Sheet 1 of 1

Client: RPS

Date: 23/03/2010

Machine Type: JCB 3CX

Vertical Scale 1:25

C J Associates

Depth (m)	Sample Ref.	Test / Sample Depth (m)	Test Results	Depth (m)	Thickness (m)	Legend	Description of Strata	Reduced Level (m. O.D.)
0.00					(0.30)		TOPSOIL: Soft light brown CLAY, with occasional roots.	
	B1	0.30-0.70		0.30			Soft to firm light yellow-grey SILT.	
0.50					(0.40)			
	B2	0.70-2.20		0.70			Firm to stiff light grey and light orange SILT/CLAY.	
1.00								
1.50					(1.50)			
2.00								
	B3	2.20-2.50		2.20			Firm to stiff orange-brown very gravelly CLAY, with occasional subangular cobbles of siltstone and sandstone. Gravel is subangular to subrounded fine to coarse of siltstone.	
2.50				2.50	(0.30)		END OF TRIAL PIT	
3.00								
3.50								
4.00								

Sample Types: D = Small disturbed sample; B = Bulk disturbed sample; J = Small disturbed sample (glass jar); T = Small disturbed sample (plastic tub); W = Water sample.

Co-ordinates:	Trial Pit Width (m) 0.70	Trial Pit Length (m) 2.50
Trial Pit Side Stability : All Sides Stable	Logged By : IC	Checked By :
Groundwater Observations: Dry	Direction of Face A (degrees from N): -	Excavator D A B C
General Remarks :		

Trial Pit Log Sheet

TP No **2A**

Site: **Bodicote**

Job Number: **Y0204**

Sheet 1 of 1

Client: RPS

Date: 23/03/2010

Machine Type: JCB 3CX

Vertical Scale 1:25

C J Associates

Depth (m)	Sample Ref.	Test / Sample Depth (m)	Test Results	Depth (m)	Thickness (m)	Legend	Description of Strata	Reduced Level (m. O.D.)
0.00								
					(0.40)		MADE GROUND: Soft light brown slightly gravelly CLAY, with occasional roots and occasional glass fragments. Gravel is subangular to subrounded fine to coarse of brick, siltstone and sandstone.	
	B1	0.40-1.60		0.40				
0.50							Soft to firm light brown gravelly SILT/CLAY.	
1.00					(1.20)			
1.50								
	B2	1.60-2.40		1.60			Firm to stiff light grey and light orange slightly gravelly SILT/CLAY. Gravel is subangular to subrounded fine to coarse of siltstone and sandstone.	
2.00					(0.80)			
				2.40			END OF TRIAL PIT	
2.50								
3.00								
3.50								
4.00								

Sample Types: D = Small disturbed sample; B = Bulk disturbed sample; J = Small disturbed sample (glass jar); T = Small disturbed sample (plastic tub); W = Water sample.

Co-ordinates:	Trial Pit Width (m) 0.70	Trial Pit Length (m) 2.50
Trial Pit Side Stability : All Sides Stable	Logged By : IC	Checked By :
Groundwater Observations: Dry	Direction of Face A (degrees from N): -	Excavator D A B C
General Remarks :		

Trial Pit Log Sheet

TP No **2**

Site: **Bodicote**

Job Number: **Y0204**

Sheet 1 of 1

Client: RPS

Date: 23/03/2010

Machine Type: JCB 3CX

Vertical Scale 1:25

C J Associates

Depth (m)	Sample Ref.	Test / Sample Depth (m)	Test Results	Depth (m)	Thickness (m)	Legend	Description of Strata	Reduced Level (m. O.D.)
0.00								
	B1	0.30-2.00			(0.40)		TOPSOIL: Soft light brown CLAY, with occasional roots.	
				0.40				
0.50							Firm to stiff light yellow-grey SILT/CLAY.	
1.00					(1.20)			
1.50				1.60			Stiff to very stiff light grey and light orange SILT/CLAY.	
	B2	2.00-2.20			(0.60)			
2.00				2.20			END OF TRIAL PIT	
2.50								
3.00								
3.50								
4.00								

Sample Types: D = Small disturbed sample; B = Bulk disturbed sample; J = Small disturbed sample (glass jar); T = Small disturbed sample (plastic tub); W = Water sample.

Co-ordinates:	Trial Pit Width (m) 0.70	Trial Pit Length (m) 2.50
Trial Pit Side Stability : All Sides Stable	Logged By : IC	Checked By :
Groundwater Observations: Dry	Direction of Face A (degrees from N): -	Excavator D A B C
General Remarks :		

Trial Pit Log Sheet

TP No **1**

Site: **Bodicote**

Job Number: **Y0204**

Sheet 1 of 1

Client: RPS

Date: 23/03/2010

Machine Type: JCB 3CX

Vertical Scale 1:25

C J Associates

Depth (m)	Sample Ref.	Test / Sample Depth (m)	Test Results	Depth (m)	Thickness (m)	Legend	Description of Strata	Reduced Level (m. O.D.)
0.00	B1	0.00-0.30			(0.30)		TOPSOIL: Soft light brown CLAY, with occasional roots.	
	B2	0.30-0.70		0.30			Firm light orange-brown SILT/CLAY.	
0.50					(0.40)			
	B3	0.70-2.20		0.70			Firm light grey and light orange SILT/CLAY.	
1.00								
1.50					(1.50)			
2.00								
	B4	2.20-2.50		2.20			Firm to stiff orange-brown very gravelly CLAY, with occasional subangular cobbles of siltstone and sandstone. Gravel is subangular to subrounded fine to coarse of siltstone and sandstone.	
2.50				2.50	(0.30)		END OF TRIAL PIT	
3.00								
3.50								
4.00								

Sample Types: D = Small disturbed sample; B = Bulk disturbed sample; J = Small disturbed sample (glass jar); T = Small disturbed sample (plastic tub); W = Water sample.

Co-ordinates:	Trial Pit Width (m) 0.70	Trial Pit Length (m) 2.50
Trial Pit Side Stability : All Sides Stable	Logged By : IC	Checked By :
Groundwater Observations: Slight to moderate seepage at 2.2m, water rose to 1.7m after 5.5hrs.	Direction of Face A (degrees from N): -	Excavator D A B C
General Remarks :		

C.J. ASSOCIATES GEOTECHNICAL LTD.

SOIL INFILTRATION RATE TEST
See B.R.E. Digest 365, 1991, Soakaway Design.

Site..... **Bodicote**
Job Number..... **Y0204**
Date of Test..... 23/03/2010

Trial Pit Number..... 5
Length..... 2.00 m
Width..... 0.70 m
Depth..... 1.20 m
Groundwater Level..... Dry

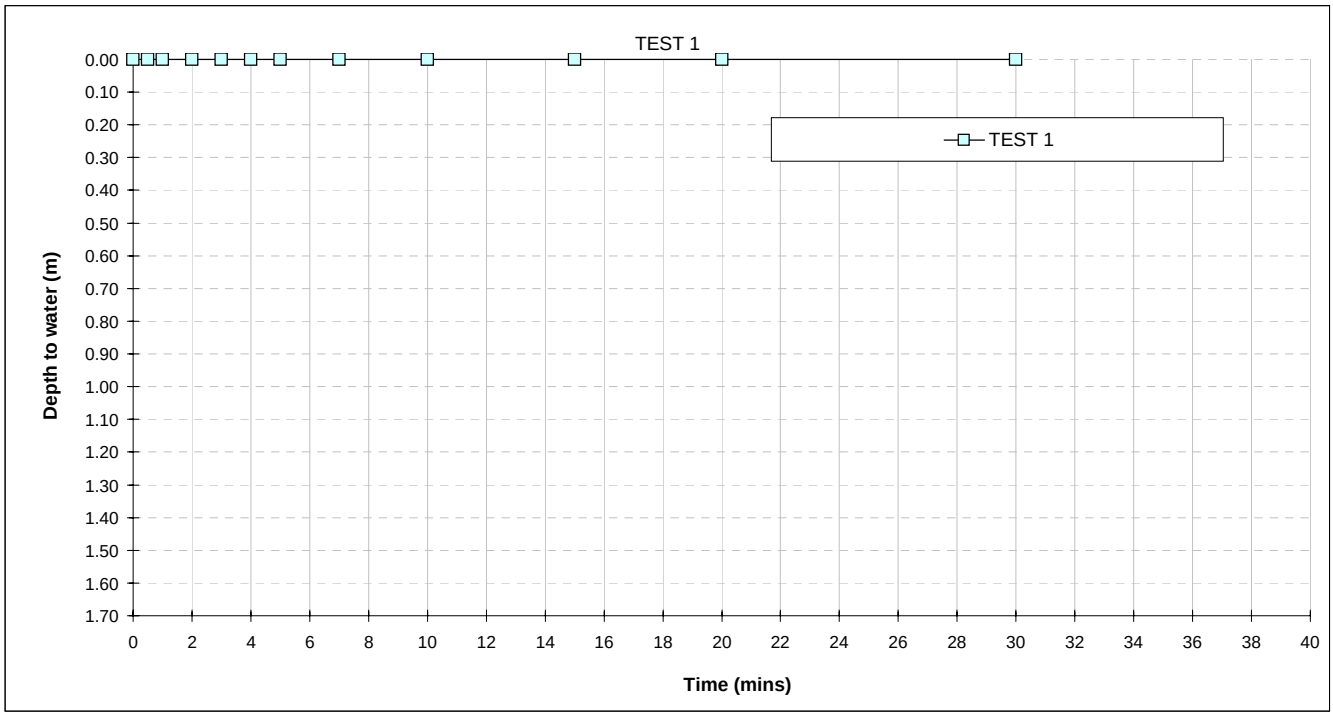
Remarks:-

Emptied 250 Gallon bowser into pit.

Strata was highly permeable and water was soaking away quicker than it could be filled.

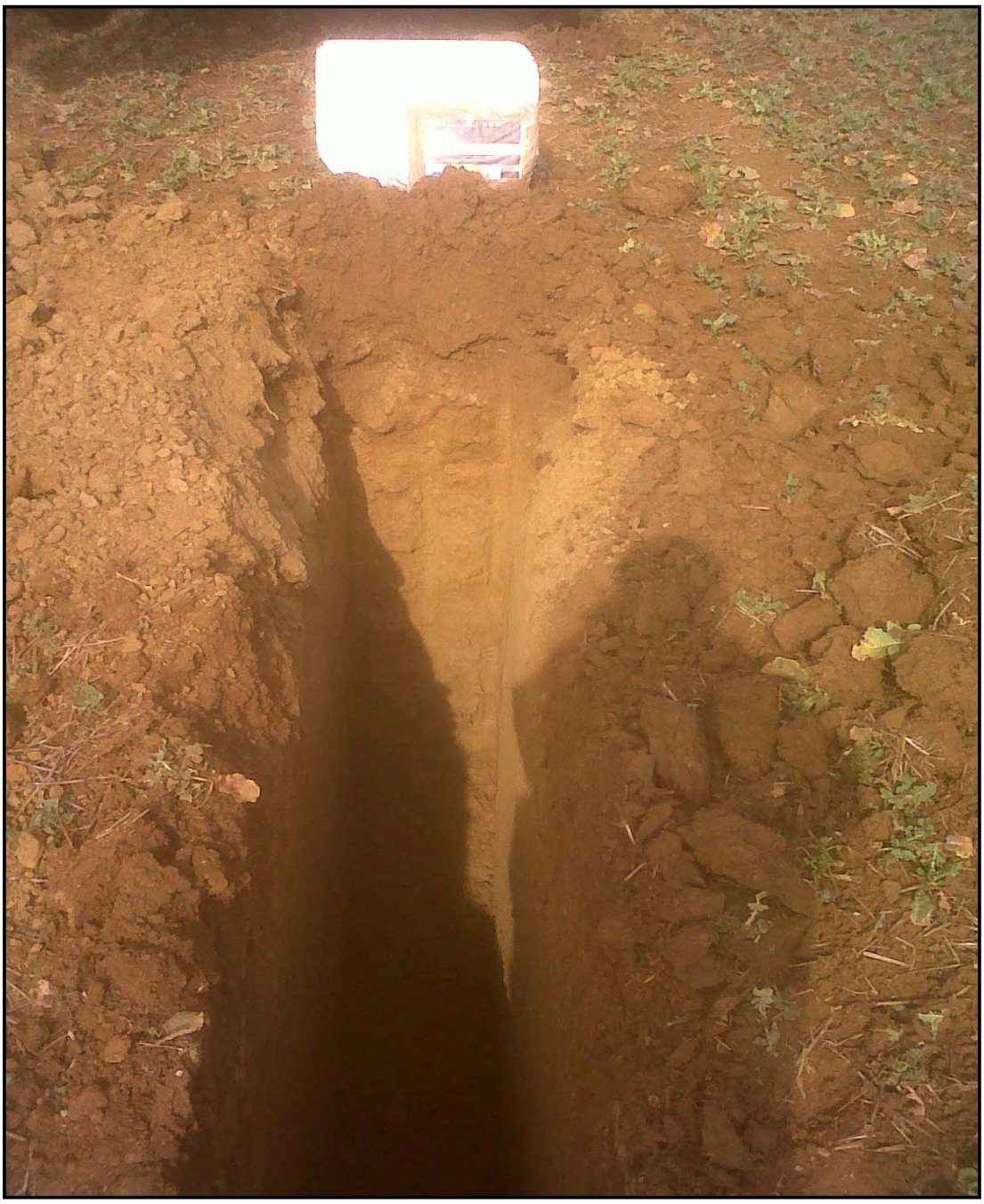
	TEST 1		TEST 2		TEST 3	
	Time(min)	Depth to Water (m)	Time(min)	Depth to Water (m)	Time(min)	Depth to Water (m)
	0.0					
	0.5					
	1.0					
	2.0					
	3.0					
	4.0					
	5.0					
	7.0					
	10.0					
	15					
	20					
	30					
	45					
	60					
	90					
	120					
	180					
Effective Storage Depth m						
75% Effective Storage Depth m						
(i.e. depth below GL) m						
25% Effective Storage Depth m						
(i.e. depth below GL) m						
Effective Storage Depth 75%-25% m						
Time to fall to 75% effective depth mins						
Time to fall to 25% effective depth mins						
V (75%-25%) m3						
a (50%) m2						
t (75%-25%) mins						
SOIL INFILTRATION RATE m/s		**Highly Permeable**				

DESIGN SOIL INFILTRATION RATE, f **Highly Permeable**



cjassociates	Project Bodicote	Drawing Title Trial Pit Photographs	
	RPS	Project No. Y0204	TP1

cjassociates	Project Bodicote	Drawing Title Trial Pit Photographs	
	RPS	Project No. Y0204	TP1

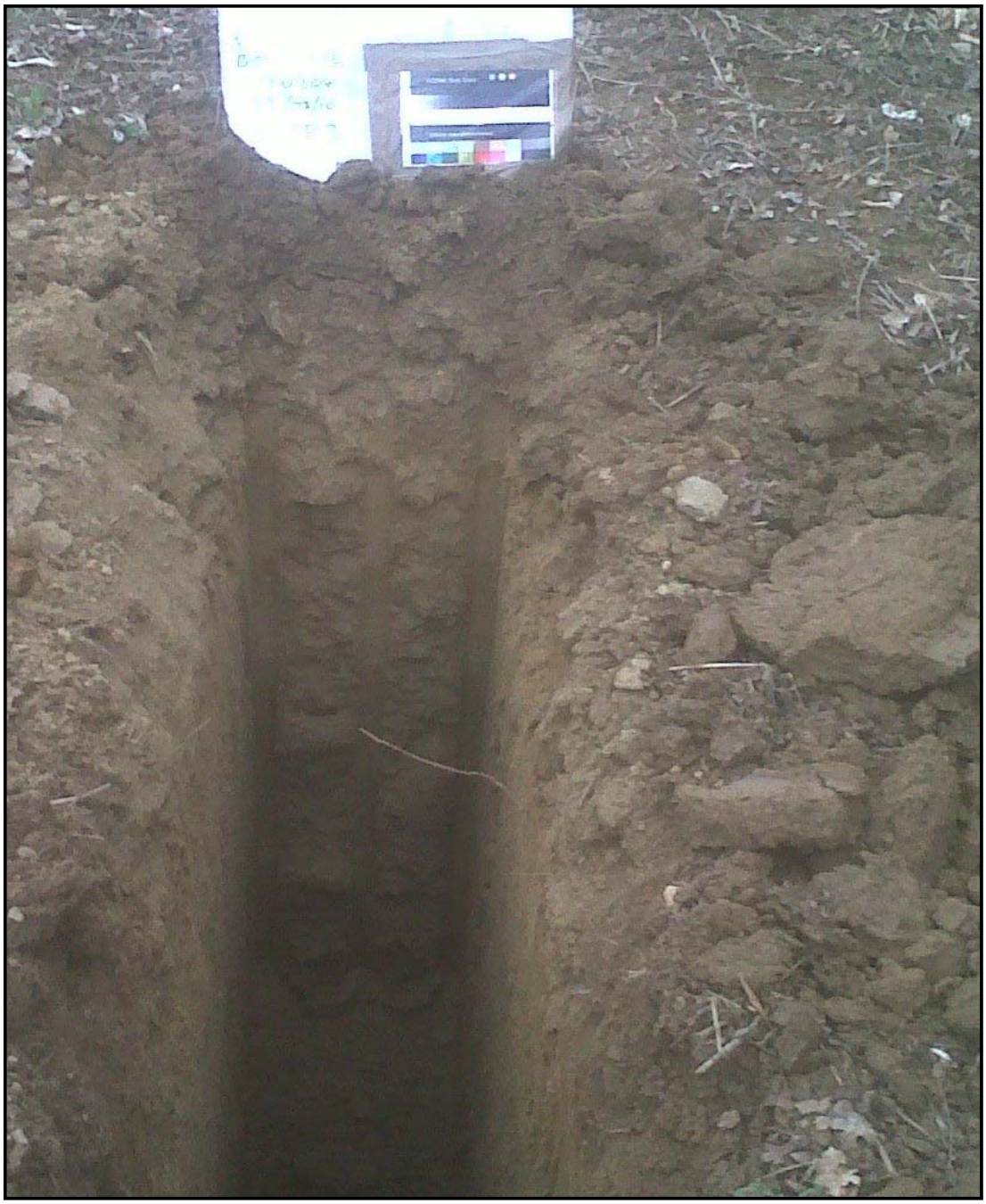


cjassociates	Project Bodicote	Drawing Title Trial Pit Photographs	
	RPS	Project No. Y0204	TP2

cjassociates	Project Bodicote	Drawing Title Trial Pit Photographs	
	RPS	Project No. Y0204	TP2

cjassociates	Project Bodicote	Drawing Title Trial Pit Photographs	
	RPS	Project No. Y0204	TP2A

cjassociates	Project Bodicote	Drawing Title Trial Pit Photographs	
	RPS	Project No. Y0204	TP2A



cjassociates	Project Bodicote	Drawing Title Trial Pit Photographs	
	RPS	Project No. Y0204	TP3

cjassociates	Project Bodicote	Drawing Title Trial Pit Photographs	
	RPS	Project No. Y0204	TP3

cjassociates	Project Bodicote	Drawing Title Trial Pit Photographs	
	RPS	Project No. Y0204	TP4

cjassociates	Project Bodicote	Drawing Title Trial Pit Photographs	
	RPS	Project No. Y0204	TP4

cjassociates	Project Bodicote	Drawing Title Trial Pit Photographs	
	RPS	Project No. Y0204	TP5

cjassociates	Project Bodicote	Drawing Title Trial Pit Photographs	
	RPS	Project No. Y0204	TP5