

APPENDIX I

SOIL PROFILES

HOLLAND-MUTER & ASSOCIATES - SOIL PROFILE

PROJECT :	PORTION 4 OF THE WILLOWS 340 JR		
PROFILE NO :	TP 1		
Logged by : Date :	L. Holland-Muter September 2006		

Other Data	Geolog. Data Symbol	Depth (m)	Description
	 SVSP	0.1_	Slightly moist, light brown, intact, soft, clayey SILT.
		0.2_	Hillwash A1
		0.3_	Slight moist, light red, intact, soft, silty CLAY.
		0.4_	Residual Shale. C1
		0.5_	Light grey, slightly weathered soft to hard rock
		0.6_	SHALE R1
		0.7_	
		0.8_	
		0.9_	
		1.0_	
		1.1_	
		1.2_	
		1.3_	
		1.4_	
		1.5_	
	1.6_		
	1.7_		
	1.8_		
	1.9_		
	2.0_		
	2.1_		
	2.2_		
	2.3_		
	2.4_		
	2.5_		
	2.6_		
	2.7_		
	2.8_		
	2.9_		
	3.0_		
	3.2_		
	3.5_		

KEY :

- Disturbed Sample
- Undisturbed Sample
- Y Water Level
- EOH End of Hole
- XXX Backhoe Refusal
- SVSP Trial pitting terminated due to very slow penetration

HOLLAND-MUTER & ASSOCIATES - SOIL PROFILE

PROJECT :		PORTION 4 OF THE WILLOWS 340 JR	
PROFILE NO :		TP 2	
Logged by : Date :		L. Holland-Muter September 2006	
Other Data	Geolog. Data Symbol	Depth (m)	Description
	 EOH	0.1_	Slightly moist, dark grey, fissured, soft silty CLAY. Colluvium. A3
		0.2_	
		0.3_	Slightly moist, dark grey, soft fissured, silty CLAY. Colluvium. B1/2
		0.4_	
		0.5_	
		0.6_	
		0.7_	
		0.8_	
		0.9_	
		1.0_	
		1.1_	
		1.2_	
		1.3_	
		1.4_	Slightly moist, dark grey fissured, soft silty CLAY with abundant calcrete nodules. Colluvium. B2/1
		1.5_	
		1.6_	
		1.7_	
		1.8_	
		1.9_	
		2.0_	
		2.1_	
		2.2_	
		2.3_	
		2.4_	
		2.5_	
		2.6_	
		2.7_	
		2.8_	
		2.9_	
		3.0_	
		3.2_	
		3.5_	

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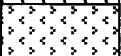
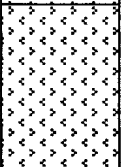
- Disturbed Sample
- Undisturbed Sample
- Y Water Level
- EOH End of Hole
- XXX Backhoe Refusal
- SVSP Trial pitting terminated due to very slow penetration

HOLLAND-MUTER & ASSOCIATES - SOIL PROFILE

PROJECT : PORTION 4 OF THE WILLOWS 340 JR

PROFILE NO : TP 3

Logged by : L. Holland-Muter
Date : September 2006

Other Data	Geolog. Data Symbol	Depth (m)	Description
		0.1_	Slightly moist, dark brown, intact, loose silty SAND.
		0.2_	Hillwash. A2
		0.3_	Slightly moist, dark red, intact, soft silty CLAY.
		0.4_	Residual Diabase. C2
		0.5_	
		0.6_	Dark red streaked black to olive green, blocky, slightly to highly weathered, soft to hard rock
		0.7_	DIABASE with rounded boulders in places. R2
		0.8_	
		0.9_	
		1.0_	
		1.1_	
		1.2_	
		1.3_	
		1.4_	
		1.5_	
		1.6_	
		1.7_	
		1.8_	
		1.9_	
		2.0_	
		2.1_	
		2.2_	
		2.3_	
		2.4_	
		2.5_	
		2.6_	
		2.7_	
		2.8_	
		2.9_	
		3.0_	
		3.2_	
		3.5_	

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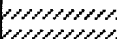
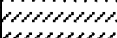
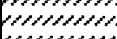
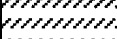
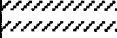
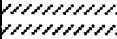
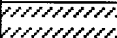
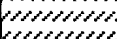
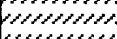
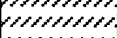
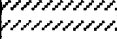
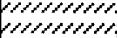
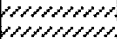
- Disturbed Sample
- Undisturbed Sample
- Y Water Level
- EOH End of Hole
- XXX Backhoe Refusal
- SVSP Trial pitting terminated due to very slow penetration

HOLLAND-MUTER & ASSOCIATES - SOIL PROFILE

PROJECT : PORTION 4 OF THE WILLOWS 340 JR

PROFILE NO : TP 4

Logged by : L. Holland-Muter
Date : September 2006

Other Data	Geolog. Data Symbol	Depth (m)	Description
		0.1_	Slightly moist, light brown, intact, soft, clayey SILT. Hillwash. A1
		0.2_	
		0.3_	
		0.4_	Slightly moist, light orange, intact, firm, silty CLAY. Colluvium B1/1
		0.5_	
		0.6_	
		0.7_	
		0.8_	
		0.9_	
		1.0_	Slightly moist, light orange, intact, firm, silty CLAY. Colluvium; ferruginised. B1/1
		1.1_	
		1.2_	
		1.3_	
		1.4_	
		1.5_	
		1.6_	
		1.7_	
	EOH	1.8_	
		1.9_	
		2.0_	
		2.1_	
		2.2_	
		2.3_	
		2.4_	
		2.5_	
		2.6_	
		2.7_	
		2.8_	
		2.9_	
		3.0_	
		3.2_	
		3.5_	

KEY :

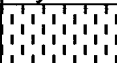
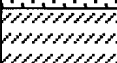
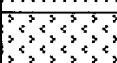
- Disturbed Sample
- Undisturbed Sample
- Y Water Level
- EOH End of Hole
- XXX Backhoe Refusal
- SVSP Trial pitting terminated due to very slow penetration

HOLLAND-MUTER & ASSOCIATES - SOIL PROFILE

PROJECT : PORTION 4 OF THE WILLOWS 340 JR

PROFILE NO : TP 5

Logged by : L. Holland-Muter
Date : September 2006

Other Data	Geolog. Data Symbol	Depth (m)	Description
		0.1_	Slightly moist, dark brown, intact, loose, silty SAND.
		0.2_	Hillwash. A2
		0.3_	Slightly moist, light orange, intact, firm, silty CLAY.
		0.4_	Colluvium B1/1
		0.5_	Slightly moist, dark red, intact, soft, silty CLAY.
		0.6_	Residual Diabase. C2
		0.7_	Dark red streaked black to olive green, highly weathered, soft to hard rock sugar DIABASE with rounded core stones in places. R2
		0.8_	
		0.9_	
		1.0_	
		1.1_	
		1.2_	
		1.3_	
		1.4_	
		1.5_	
		1.6_	
		1.7_	
		1.8_	
		1.9_	
		2.0_	NOTES: 1. Excavation terminated due to very slow penetration of TLB
		2.1_	
		2.2_	
		2.3_	
		2.4_	
		2.5_	
		2.6_	
		2.7_	
		2.8_	
		2.9_	
		3.0_	
		3.2_	
		3.5_	

KEY :

- Disturbed Sample
- Undisturbed Sample
- Y Water Level
- EOH End of Hole
- XXX Backhoe Refusal
- SVSP Trial pitting terminated due to very slow penetration

HOLLAND-MUTER & ASSOCIATES - SOIL PROFILE

PROJECT :	PORTION 4 OF THE WILLOWS 340 JR		
PROFILE NO :	TP 6		
Logged by : Date :	L. Holland-Muter September 2006		
Other Data	Geolog. Data Symbol	Depth (m)	Description
	 XXX	0.1_	Slightly moist, dark brown, intact, loose, silty SAND. Hillwash. A2
		0.2_	
		0.3_	Slightly moist, light orange, intact, firm, silty CLAY. Colluvium B1/1
		0.4_	
		0.5_	
		0.6_	
		0.7_	
		0.8_	
		0.9_	
		1.0_	Dark red streaked black to olive green, blocky, slightly to highly weathered, soft to hard rock DIABASE with rounded boulders in places. R2
		1.1_	
		1.2_	NOTES: 1. TLB refusal.
		1.3_	
		1.4_	
		1.5_	
		1.6_	
		1.7_	
		1.8_	
		1.9_	
		2.0_	
	2.1_		
	2.2_		
	2.3_		
	2.4_		
	2.5_		
	2.6_		
	2.7_		
	2.8_		
	2.9_		
	3.0_		
	3.2_		
	3.5_		

KEY : ● [] Y EOH XXX SVSP	Disturbed Sample Undisturbed Sample Water Level End of Hole Backhoe Refusal Trial pitting terminated due to very slow penetration
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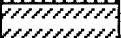
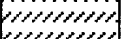
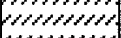
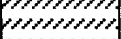
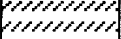
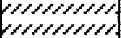
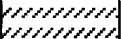
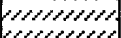
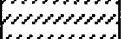
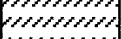
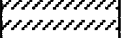
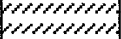
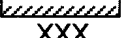
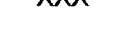
HOLLAND-MUTER & ASSOCIATES - SOIL PROFILE

PROJECT :		PORTION 4 OF THE WILLOWS 340 JR	
PROFILE NO :		TP 7	
Logged by : Date :		L. Holland-Muter September 2006	
Other Data	Geolog. Data Symbol	Depth (m)	Description
	 XXX	0.1_	Slightly moist, dark brown, intact, loose, silty SAND. Hillwash. A2
		0.2_	
		0.3_	Slightly moist, light to dark orange, intact, soft, silty CLAY. Colluvium B1/2
		0.4_	
		0.5_	
		0.6_	
		0.7_	
		0.8_	
		0.9_	
		1.0_	Dark red streaked black to olive green, highly weathered, soft rock sugar DIABASE with rounded core stones in places. R2
		1.1_	
		1.2_	NOTES: 1. TLB refusal.
		1.3_	
		1.4_	
		1.5_	
		1.6_	
		1.7_	
		1.8_	
		1.9_	
		2.0_	
		2.1_	
		2.2_	
		2.3_	
		2.4_	
		2.5_	
		2.6_	
		2.7_	
		2.8_	
		2.9_	
		3.0_	
		3.2_	
		3.5_	

KEY :	
●	Disturbed Sample
□	Undisturbed Sample
∇	Water Level
EOH	End of Hole
XXX	Backhoe Refusal
SVSP	Trial pitting terminated due to very slow penetration

HOLLAND-MUTER & ASSOCIATES - SOIL PROFILE

PROJECT :	PORTION 4 OF THE WILLOWS 340 JR
PROFILE NO :	TP 8
Logged by :	L. Holland-Muter
Date :	September 2006

Other Data	Geolog. Data Symbol	Depth (m)	Description
		0.1_	Slightly moist, light brown, intact, soft, clayey, SILT.
		0.2_	Hillwash A1
		0.3_	
		0.4_	Slightly moist, light orange, intact, firm, silty CLAY.
		0.5_	Colluvium; ferruginised. B1/1
		0.6_	
		0.7_	
		0.8_	
		0.9_	
		1.0_	
		1.1_	
		1.2_	
		1.3_	
		1.4_	
		1.5_	
	XXX	1.6_	
		1.7_	NOTES:
		1.8_	
		1.9_	1. TLB refusal on Shale.
		2.0_	
		2.1_	
		2.2_	
		2.3_	
		2.4_	
		2.5_	
		2.6_	
		2.7_	
		2.8_	
		2.9_	
		3.0_	
		3.2_	
		3.5_	

KEY :

●	Disturbed Sample
□	Undisturbed Sample
Y	Water Level
EOH	End of Hole
XXX	Backhoe Refusal
SVSP	Trial pitting terminated due to very slow penetration

HOLLAND-MUTER & ASSOCIATES - SOIL PROFILE

PROJECT :	PORTION 4 OF THE WILLOWS 340 JR
PROFILE NO :	TP 9
Logged by : Date :	L. Holland-Muter September 2006

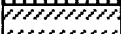
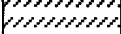
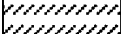
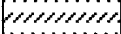
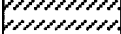
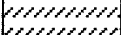
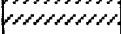
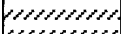
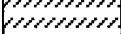
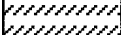
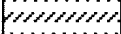
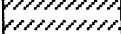
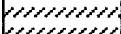
Other Data	Geolog. Data Symbol	Depth (m)	Description
		0.1_	Not excavated - too wet
		0.2_	
		0.3_	
		0.4_	
		0.5_	
		0.6_	
		0.7_	
		0.8_	
		0.9_	
		1.0_	
		1.1_	
		1.2_	
		1.3_	
		1.4_	
		1.5_	
		1.6_	
		1.7_	
		1.8_	
		1.9_	
		2.0_	
		2.1_	
		2.2_	
		2.3_	
		2.4_	
		2.5_	
		2.6_	
		2.7_	
		2.8_	
		2.9_	
		3.0_	
		3.2_	
		3.5_	

KEY :

●	Disturbed Sample
□	Undisturbed Sample
Y	Water Level
EOH	End of Hole
XXX	Backhoe Refusal
SVSP	Trial pitting terminated due to very slow penetration

HOLLAND-MUTER & ASSOCIATES - SOIL PROFILE

PROJECT :	PORTION 4 OF THE WILLOWS 340 JR
PROFILE NO :	TP 10
Logged by : Date :	L. Holland-Muter September 2006

Other Data	Geolog. Data Symbol	Depth (m)	Description
		0.1	Slightly moist, light brown, intact, soft, clayey, SILT.
		0.2	Hillwash
		0.3	
		0.4	
		0.5	Slightly moist, light orange, intact, firm, silty CLAY.
		0.6	Colluvium; ferruginised.
		0.7	
		0.8	
		0.9	
		1.0	
		1.1	
		1.2	
		1.3	
		1.4	
		1.5	
	XXX	1.6	
		1.7	NOTES:
		1.8	
		1.9	1. TLB refusal.
		2.0	
		2.1	
		2.2	
		2.3	
		2.4	
		2.5	
		2.6	
		2.7	
		2.8	
		2.9	
		3.0	
		3.2	
		3.5	

KEY :

●	Disturbed Sample
□	Undisturbed Sample
Y	Water Level
EOH	End of Hole
XXX	Backhoe Refusal
SVSP	Trial pitting terminated due to very slow penetration

HOLLAND-MUTER & ASSOCIATES - SOIL PROFILE

PROJECT :	PORTION 4 OF THE WILLOWS 340 JR
PROFILE NO :	TP 11
Logged by : Date :	L. Holland-Muter September 2006

Other Data	Geolog. Data Symbol	Depth (m)	Description
		0.1_	Slightly moist, light brown, intact, soft, clayey SILT. Hillwash. A1
		0.2_	
		0.3_	
		0.4_	Slightly moist, light orange, intact, firm, silty CLAY. Colluvium. B1/1
		0.5_	
		0.6_	
		0.7_	
		0.8_	Slightly moist, light to dark orange, intact, soft, silty CLAY. Colluvium; slightly ferruginised. B1/2
		0.9_	
		1.0_	
		1.1_	
		1.2_	
		1.3_	
		1.4_	
		1.5_	
		1.6_	
		1.7_	
		1.8_	
		1.9_	
		2.0_	
		2.1_	
		2.2_	
		2.3_	
		2.4_	
		2.5_	
		2.6_	
		2.7_	
		2.8_	
		2.9_	
		3.0_	
		3.2_	
		3.5_	

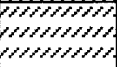
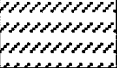
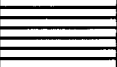
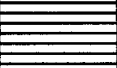
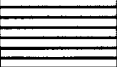
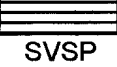
EOH

KEY :

●	Disturbed Sample
□	Undisturbed Sample
Y	Water Level
EOH	End of Hole
XXX	Backhoe Refusal
SVSP	Trial pitting terminated due to very slow penetration

HOLLAND-MUTER & ASSOCIATES - SOIL PROFILE

PROJECT :	PORTION 4 OF THE WILLOWS 340 JR
PROFILE NO :	TP 12
Logged by : Date :	L. Holland-Muter September 2006

Other Data	Geolog. Data Symbol	Depth (m)	Description
		0.1_	Slightly moist, light brown, intact, soft, clayey SILT.
		0.2_	Hillwash A1
		0.3_	Slightly moist, light orange, intact, firm, silty CLAY.
		0.4_	Colluvium B1/1
		0.5_	
		0.6_	
		0.7_	
		0.8_	Dark orange purple stained black on joints,
		0.9_	laminated, highly weathered, soft to hard rock
		1.0_	SHALE. R1
		1.1_	
		1.2_	
		1.3_	
		1.4_	
		1.5_	
		1.6_	
		1.7_	NOTES:
		1.8_	
		1.9_	1. Excavation terminated due to very slow
		2.0_	penetration of TLB.
		2.1_	
		2.2_	
		2.3_	
		2.4_	
		2.5_	
		2.6_	
		2.7_	
		2.8_	
		2.9_	
		3.0_	
		3.2_	
		3.5_	

SVSP

KEY :

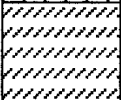
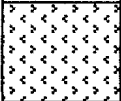
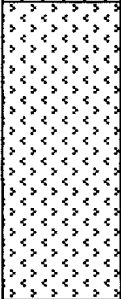
●	Disturbed Sample
□	Undisturbed Sample
Y	Water Level
EOH	End of Hole
XXX	Backhoe Refusal
SVSP	Trial pitting terminated due to very slow penetration

HOLLAND-MUTER & ASSOCIATES - SOIL PROFILE

PROJECT :	PORTION 4 OF THE WILLOWS 340 JR		
PROFILE NO :	TP 13		
Logged by : Date :	L. Holland-Muter September 2006		
Other Data	Geolog. Data Symbol	Depth (m)	Description
	 SVSP	0.1_	Slightly moist, light brown, intact, soft, clayey SILT. Hillwash A1
		0.2_	
		0.3_	
		0.4_	Slightly moist, light orange, intact, firm, silty CLAY. Colluvium B1/1
		0.5_	
		0.6_	
		0.7_	
		0.8_	Slightly moist, light orange red, intact, soft to stiff silty CLAY. Residual Shale. C1
		0.9_	
		1.0_	Dark orange purple stained black on joints, laminated, highly weathered, soft to hard rock SHALE. R1
		1.1_	
		1.2_	
		1.3_	
		1.4_	
		1.5_	
		1.6_	NOTES: 1. Excavation terminated due to very slow penetration of TLB.
		1.7_	
		1.8_	
		1.9_	
		2.0_	
	2.1_		
	2.2_		
	2.3_		
	2.4_		
	2.5_		
	2.6_		
	2.7_		
	2.8_		
	2.9_		
	3.0_		
	3.2_		
	3.5_		

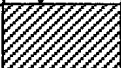
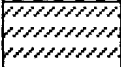
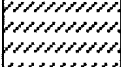
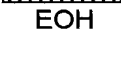
KEY : ● Disturbed Sample □ Undisturbed Sample Y Water Level EOH End of Hole XXX Backhoe Refusal SVSP Trial pitting terminated due to very slow penetration

HOLLAND-MUTER & ASSOCIATES - SOIL PROFILE

PROJECT :		PORTION 4 OF THE WILLOWS 340 JR	
PROFILE NO :		TP 14	
Logged by : Date :		L. Holland-Muter September 2006	
Other Data	Geolog. Data Symbol	Depth (m)	Description
		0.1_	Slightly moist, dark brown, intact, loose, silty SAND. Hillwash. A2
		0.2_ 0.3_ 0.4_ 0.5_	Slightly moist, light orange, intact, firm, silty CLAY. Colluvium B1/1
		0.6_ 0.7_ 0.8_	Slightly moist, dark red, intact, silty CLAY with few diabase boulders 0,30cm in diameter. Residual Diabase. C2
		0.9_ 1.0_ 1.1_ 1.2_ 1.3_ 1.4_ 1.5_ 1.6_ 1.7_	Dark red, streaked black to olive blocky slightly weathered, DIABASE R2
	SVSP	1.8_ 1.9_ 2.0_ 2.1_ 2.2_ 2.3_ 2.4_ 2.5_ 2.6_ 2.7_ 2.8_ 2.9_ 3.0_ 3.2_ 3.5_	NOTES: 1. Excavation terminated due to very slow penetration of TLB.
KEY : ● Disturbed Sample □ Undisturbed Sample - Y Water Level - EOH End of Hole - XXX Backhoe Refusal - SVSP Trial pitting terminated due to very slow penetration			

HOLLAND-MUTER & ASSOCIATES - SOIL PROFILE

PROJECT :	PORTION 4 OF THE WILLOWS 340 JR
PROFILE NO :	TP 15
Logged by : Date :	L. Holland-Muter September 2006

Other Data	Geolog. Data Symbol	Depth (m)	Description
		0.1_	Slightly moist, dark grey, fissured, soft, silty CLAY.
		0.2_	Colluvium. A3
		0.3_	Slightly moist, light to dark orange, intact, soft,
		0.4_	silty CLAY. Colluvium; slightly ferruginised. B1/2
		0.5_	
		0.6_	
		0.7_	Slightly moist, dark grey, fissured, soft, silty CLAY
		0.8_	with abundant calcrete nodules. Colluvium. B2/1
		0.9_	
		1.0_	
		1.1_	
		1.2_	
		1.3_	
		1.4_	Slightly moist, orange olive grey, slickensided, soft
		1.5_	to firm, silty CLAY. Colluvium. B3/1
		1.6_	
		1.7_	
		1.8_	
		1.9_	
		2.0_	
		2.1_	
		2.2_	
		2.3_	
		2.4_	
		2.5_	
		2.6_	
		2.7_	
		2.8_	
		2.9_	
		3.0_	
		3.2_	
		3.5_	

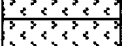
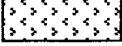
EOH

KEY :

- Disturbed Sample
- Undisturbed Sample
- Y Water Level
- EOH End of Hole
- XXX Backhoe Refusal
- SVSP Trial pitting terminated due to very slow penetration

HOLLAND-MUTER & ASSOCIATES - SOIL PROFILE

PROJECT :	PORTION 4 OF THE WILLOWS 340 JR
PROFILE NO :	TP 16
Logged by : Date :	L. Holland-Muter September 2006

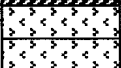
Other Data	Geolog. Data Symbol	Depth (m)	Description
		0.1_	Slightly moist, dark grey, fissured, soft, silty CLAY.
		0.2_	Colluvium. A3
		0.3_	Slightly moist, dark red, intact, soft, silty CLAY.
		0.4_	Residual Diabase C2
		0.5_	Dark red streaked black to olive green, blocky,
		0.6_	slightly to highly weathered, soft to hard rock
		0.7_	DIABASE with rounded core stones in places. R2
		0.8_	
		0.9_	
		1.0_	
		1.1_	NOTES:
		1.2_	1. TLB refusal.
		1.3_	
		1.4_	
		1.5_	
		1.6_	
		1.7_	
		1.8_	
		1.9_	
		2.0_	
		2.1_	
		2.2_	
		2.3_	
		2.4_	
		2.5_	
		2.6_	
		2.7_	
		2.8_	
		2.9_	
		3.0_	
		3.2_	
		3.5_	

KEY :

●	Disturbed Sample
□	Undisturbed Sample
Y	Water Level
EOH	End of Hole
XXX	Backhoe Refusal
SVSP	Trial pitting terminated due to very slow penetration

HOLLAND-MUTER & ASSOCIATES - SOIL PROFILE

PROJECT :	PORTION 4 OF THE WILLOWS 340 JR
PROFILE NO :	TP 17
Logged by : Date :	L. Holland-Muter September 2006

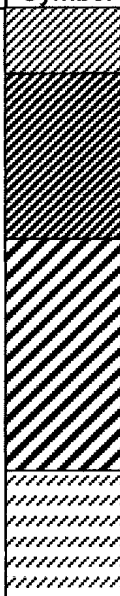
Other Data	Geolog. Data Symbol	Depth (m)	Description
		0.1_	Slightly moist, dark grey, fissured, soft, silty CLAY.
		0.2_	Colluvium. A3
		0.3_	
		0.4_	Slightly moist, light to dark orange, intact, soft, silty
		0.5_	CLAY. Colluvium. B1/2
		0.6_	
		0.7_	
		0.8_	Slightly moist, dark red, intact, soft, silty CLAY.
		0.9_	Residual Diabase C2
		1.0_	Dark red streaked black to olive green, blocky,
		1.1_	slightly to highly weathered, soft to hard rock
		1.2_	DIABASE with rounded core stones in places. R2
		1.3_	
		1.4_	
		1.5_	
		1.6_	
		1.7_	
		1.8_	
		1.9_	
		2.0_	
		2.1_	
		2.2_	
		2.3_	
		2.4_	
		2.5_	
		2.6_	
		2.7_	
		2.8_	
		2.9_	
		3.0_	
		3.2_	
		3.5_	

EOH

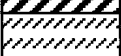
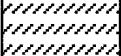
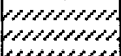
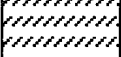
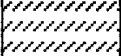
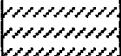
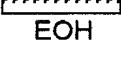
KEY :

●	Disturbed Sample
□	Undisturbed Sample
Y	Water Level
EOH	End of Hole
XXX	Backhoe Refusal
SVSP	Trial pitting terminated due to very slow penetration

HOLLAND-MUTER & ASSOCIATES - SOIL PROFILE

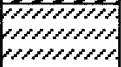
PROJECT :		PORTION 4 OF THE WILLOWS 340 JR	
PROFILE NO :		TP 18	
Logged by : Date :		L. Holland-Muter September 2006	
Other Data	Geolog. Data Symbol	Depth (m)	Description
	 EOH	0.1_	Slightly moist, dark grey, fissured, soft, silty CLAY. Colluvium. A3
		0.2_	
		0.3_	Slightly moist, light to dark orange, soft, fissured silty CLAY. Colluvium. B1/2
		0.4_	
		0.5_	
		0.6_	
		0.7_	Slightly moist, dark grey, fissured, soft, silty CLAY with calcrete nodules. Colluvium. B2/1
		0.8_	
		0.9_	
		1.0_	
		1.1_	
		1.2_	
		1.3_	
		1.4_	Slightly moist, orange olive grey slickensided, soft to firm, silty CLAY. Colluvium. B3/1
		1.5_	
		1.6_	
		1.7_	
		1.8_	
		1.9_	
		2.0_	
		2.1_	
		2.2_	
		2.3_	
		2.4_	
		2.5_	
		2.6_	
		2.7_	
		2.8_	
		2.9_	
		3.0_	
		3.2_	
		3.5_	
		KEY : ● Disturbed Sample □ Undisturbed Sample Y Water Level EOH End of Hole XXX Backhoe Refusal SVSP Trial pitting terminated due to very slow penetration	

HOLLAND-MUTER & ASSOCIATES - SOIL PROFILE

PROJECT :		PORTION 4 OF THE WILLOWS 340 JR		
PROFILE NO :		TP 19		
Logged by : Date :		L. Holland-Muter September 2006		
Other Data	Geolog. Data Symbol	Depth (m)	Description	
		0.1_	Slightly moist, dark grey, fissured, soft, silty CLAY. Colluvium.	A3
		0.2_		
		0.3_	Slightly moist, light to dark orange, intact, soft, silty CLAY. Colluvium	B1/2
		0.4_		
		0.5_	Slight moist, dark grey fissured, soft, silty CLAY with abundant calcrete nodules. Colluvium.	B2/1
		0.6_		
		0.7_		
		0.8_	Slightly moist, orange olive grey, slickensided, soft to firm, silty CLAY. Colluvium.	B3/1
		0.9_		
		1.0_		
		1.1_		
		1.2_		
		1.3_		
		1.4_		
		1.5_		
		1.6_		
		1.7_		
	EOH	1.8_		
		1.9_		
		2.0_		
		2.1_		
		2.2_		
		2.3_		
		2.4_		
		2.5_		
		2.6_		
		2.7_		
		2.8_		
		2.9_		
		3.0_		
		3.2_		
		3.5_		
KEY : ● Disturbed Sample □ Undisturbed Sample Y Water Level EOH End of Hole XXX Backhoe Refusal SVSP Trial pitting terminated due to very slow penetration				

HOLLAND-MUTER & ASSOCIATES - SOIL PROFILE

PROJECT :	PORTION 4 OF THE WILLOWS 340 JR
PROFILE NO :	TP 20
Logged by : Date :	L. Holland-Muter September 2006

Other Data	Geolog. Data Symbol	Depth (m)	Description
		0.1_	Slightly moist, dark grey, fissured, soft, silty CLAY.
		0.2_	Colluvium. A3
		0.3_	
		0.4_	Slightly moist, light to dark orange, soft, fissured silty CLAY.
		0.5_	B1/2
		0.6_	
		0.7_	
		0.8_	
		0.9_	Slightly moist, dark grey, fissured, soft, silty CLAY
		1.0_	with calcrete nodules. Colluvium. B1/2
		1.1_	
		1.2_	
		1.3_	
		1.4_	
		1.5_	
		1.6_	Slightly moist, orange olive grey, slickensided, soft
		1.7_	firm, silty CLAY. Colluvium. B3/1
		1.8_	
		1.9_	
		2.0_	
		2.1_	
		2.2_	
		2.3_	
		2.4_	
		2.5_	
		2.6_	
		2.7_	
		2.8_	
		2.9_	
		3.0_	
		3.2_	
		3.5_	

EOH

KEY :

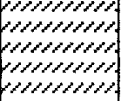
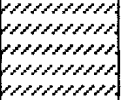
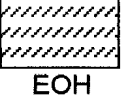
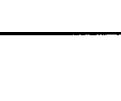
●	Disturbed Sample
□	Undisturbed Sample
Y	Water Level
EOH	End of Hole
XXX	Backhoe Refusal
SVSP	Trial pitting terminated due to very slow penetration

HOLLAND-MUTER & ASSOCIATES - SOIL PROFILE

PROJECT :		PORTION 4 OF THE WILLOWS 340 JR		
PROFILE NO :		TP 21		
Logged by : Date :		L. Holland-Muter September 2006		
Other Data	Geolog. Data Symbol	Depth (m)	Description	
		0.1_	Slightly moist, light brown, intact, soft, clayey SILT. Hillwash.	A1
		0.2_		
		0.3_	Slight moist, light orange, intact, firm, silty CLAY. Colluvium.	B1/1
		0.4_		
		0.5_	Slightly moist, light orange red, intact, soft to stiff, silty CLAY. Residual shale.	C1
		0.6_		
		0.7_	Dark orange purple stained black on joints, laminated, highly jointed, soft rock SHALE.	R1
		0.8_		
		0.9_		
		1.0_		
		1.1_		
		1.2_		
		1.3_		
		1.4_		
		1.5_		
		1.6_		
		1.7_		
		1.8_	NOTES: 1. Excavation terminated due to very slow penetration of TLB.	
		1.9_		
		2.0_		
		2.1_		
		2.2_		
		2.3_		
		2.4_		
		2.5_		
		2.6_		
		2.7_		
	2.8_			
	2.9_			
	3.0_			
	3.2_			
	3.5_			
KEY :				
● Disturbed Sample				
□ Undisturbed Sample				
Y Water Level				
EOH End of Hole				
XXX Backhoe Refusal				
SVSP Trial pitting terminated due to very slow penetration				

HOLLAND-MUTER & ASSOCIATES - SOIL PROFILE

PROJECT :	PORTION 4 OF THE WILLOWS 340 JR
PROFILE NO :	TP 22
Logged by :	L. Holland-Muter
Date :	September 2006

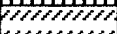
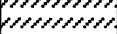
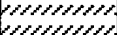
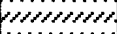
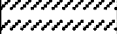
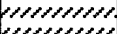
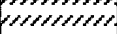
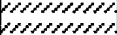
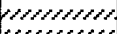
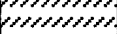
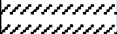
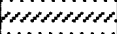
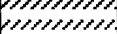
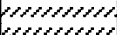
Other Data	Geolog. Data Symbol	Depth (m)	Description
		0.1_	Slightly moist, dark grey, fissured, soft, silty CLAY.
		0.2_	Colluvium. A3
		0.3_	Slightly moist, light to dark orange, intact, soft, silty
		0.4_	CLAY. Colluvium B1/2
		0.5_	Slight moist, dark grey fissured, soft, silty CLAY
		0.6_	with abundant calcrete nodules. Colluvium. B2/1
		0.7_	
		0.8_	
		0.9_	Slightly moist, orange olive grey, slickensided, soft to
		1.0_	firm, silty CLAY. Colluvium. B3/1
		1.1_	
		1.2_	
		1.3_	
		1.4_	
		1.5_	
		1.6_	
		1.7_	
		1.8_	
		1.9_	
		2.0_	
		2.1_	
		2.2_	
		2.3_	
		2.4_	
		2.5_	
		2.6_	
		2.7_	
		2.8_	
		2.9_	
		3.0_	
		3.2_	
		3.5_	

KEY :

●	Disturbed Sample
□	Undisturbed Sample
Y	Water Level
EOH	End of Hole
XXX	Backhoe Refusal
SVSP	Trial pitting terminated due to very slow penetration

HOLLAND-MUTER & ASSOCIATES - SOIL PROFILE

PROJECT :	PORTION 4 OF THE WILLOWS 340 JR
PROFILE NO :	TP 23
Logged by :	L. Holland-Muter
Date :	September 2006

Other Data	Geolog. Data Symbol	Depth (m)	Description
		0.1_	Slightly moist, light brown, intact, soft, clayey SILT. Hillwash. A1
		0.2_	
		0.3_	
		0.4_	Slightly moist, light orange, intact, firm, silty CLAY. Colluvium; ferruginised B1/1
		0.5_	
		0.6_	
		0.7_	
		0.8_	
		0.9_	
		1.0_	
		1.1_	
		1.2_	
		1.3_	
		1.4_	
		1.5_	
	EOH	1.6_	
		1.7_	
		1.8_	
		1.9_	
		2.0_	
		2.1_	
		2.2_	
		2.3_	
		2.4_	
		2.5_	
		2.6_	
		2.7_	
		2.8_	
		2.9_	
		3.0_	
		3.2_	
		3.5_	

KEY :

●	Disturbed Sample
□	Undisturbed Sample
Y	Water Level
EOH	End of Hole
XXX	Backhoe Refusal
SVSP	Trial pitting terminated due to very slow penetration

HOLLAND-MUTER & ASSOCIATES - SOIL PROFILE

PROJECT : PORTION 4 OF THE WILLOWS 340 JR

PROFILE NO : TP 24

Logged by : L. Holland-Muter
Date : September 2006

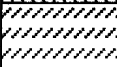
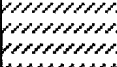
Other Data	Geolog. Data Symbol	Depth (m)	Description
		0.1_ 0.2_ 0.3_ 0.4_	Slightly moist, light brown, intact, soft, clayey SILT. Hillwash. A1
		0.5_ 0.6_ 0.7_ 0.8_ 0.9_ 1.0_	Slightly moist, light orange, intact, firm, silty CLAY. Colluvium; ferruginised B1/1
		1.1_ 1.2_ 1.3_ 1.4_ 1.5_ 1.6_ 1.7_	Dark orange purple stained black on joints, laminated, highly jointed, soft rock SHALE. R1
	SVSP	1.8_ 1.9_ 2.0_ 2.1_ 2.2_ 2.3_ 2.4_ 2.5_ 2.6_ 2.7_ 2.8_ 2.9_ 3.0_ 3.2_ 3.5_	NOTES: 1. Excavation terminated due to very slow penetration of TLB.

KEY :

- Disturbed Sample
- Undisturbed Sample
- Y Water Level
- EOH End of Hole
- XXX Backhoe Refusal
- SVSP Trial pitting terminated due to very slow penetration

HOLLAND-MUTER & ASSOCIATES - SOIL PROFILE

PROJECT :	PORTION 4 OF THE WILLOWS 340 JR
PROFILE NO :	TP 25
Logged by : Date :	L. Holland-Muter September 2006

Other Data	Geolog. Data Symbol	Depth (m)	Description
		0.1_	Slightly moist, light brown, intact, soft, clayey SILT. Hillwash. A1
		0.2_	
		0.3_	Slightly moist, light orange, intact, firm, silty CLAY. Colluvium. B1/1
		0.4_	
		0.5_	
		0.6_	
		0.7_	Slightly moist, light to dark orange, intact, soft, silty CLAY. Colluvium. B1/2
		0.8_	
		0.9_	
		1.0_	
		1.1_	
		1.2_	
		1.3_	
		1.4_	
		1.5_	
		1.6_	
		1.7_	
		1.8_	
		1.9_	
		2.0_	
		2.1_	
		2.2_	
		2.3_	
		2.4_	
		2.5_	
		2.6_	
		2.7_	
		2.8_	
		2.9_	
		3.0_	
		3.2_	
		3.5_	

KEY :

●	Disturbed Sample
□	Undisturbed Sample
Y	Water Level
EOH	End of Hole
XXX	Backhoe Refusal
SVSP	Trial pitting terminated due to very slow penetration

HOLLAND-MUTER & ASSOCIATES - SOIL PROFILE

PROJECT : PORTION 4 OF THE WILLOWS 340 JR

PROFILE NO : TP 26

Logged by : L. Holland-Muter
Date : September 2006

Other Data	Geolog. Data Symbol	Depth (m)	Description
		0.1_	Not excavated - too wet
		0.2_	
		0.3_	
		0.4_	
		0.5_	
		0.6_	
		0.7_	
		0.8_	
		0.9_	
		1.0_	
		1.1_	
		1.2_	
		1.3_	
		1.4_	
		1.5_	
		1.6_	
		1.7_	
		1.8_	
		1.9_	
		2.0_	
		2.1_	
		2.2_	
		2.3_	
		2.4_	
		2.5_	
		2.6_	
		2.7_	
		2.8_	
		2.9_	
		3.0_	
		3.2_	
		3.5_	

KEY :

- Disturbed Sample
- Undisturbed Sample
- Y Water Level
- EOH End of Hole
- XXX Backhoe Refusal
- SVSP Trial pitting terminated due to very slow penetration

HOLLAND-MUTER & ASSOCIATES - SOIL PROFILE

PROJECT :		PORTION 4 OF THE WILLOWS 340 JR	
PROFILE NO :		TP 27	
Logged by : Date :		L. Holland-Muter September 2006	
Other Data	Geolog. Data Symbol	Depth (m)	Description
		0.1_	Not excavated - too wet
		0.2_	
		0.3_	
		0.4_	
		0.5_	
		0.6_	
		0.7_	
		0.8_	
		0.9_	
		1.0_	
		1.1_	
		1.2_	
		1.3_	
		1.4_	
		1.5_	
		1.6_	
		1.7_	
		1.8_	
		1.9_	
		2.0_	
		2.1_	
		2.2_	
		2.3_	
		2.4_	
		2.5_	
		2.6_	
		2.7_	
		2.8_	
		2.9_	
		3.0_	
		3.2_	
		3.5_	
KEY : ● □ Y EOH XXX SVSP Disturbed Sample Undisturbed Sample Water Level End of Hole Backhoe Refusal Trial pitting terminated due to very slow penetration			

HOLLAND-MUTER & ASSOCIATES - SOIL PROFILE

PROJECT :	PORTION 4 OF THE WILLOWS 340 JR
PROFILE NO :	TP 28
Logged by : Date :	L. Holland-Muter September 2006

Other Data	Geolog. Data Symbol	Depth (m)	Description
		0.1_	Not excavated - too wet
		0.2_	
		0.3_	
		0.4_	
		0.5_	
		0.6_	
		0.7_	
		0.8_	
		0.9_	
		1.0_	
		1.1_	
		1.2_	
		1.3_	
		1.4_	
		1.5_	
		1.6_	
		1.7_	
		1.8_	
		1.9_	
		2.0_	
		2.1_	
		2.2_	
		2.3_	
		2.4_	
		2.5_	
		2.6_	
		2.7_	
		2.8_	
		2.9_	
		3.0_	
		3.2_	
		3.5_	

KEY :

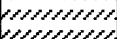
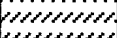
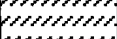
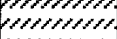
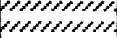
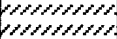
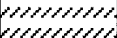
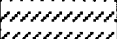
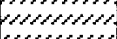
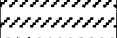
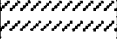
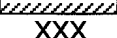
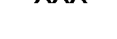
●	Disturbed Sample
□	Undisturbed Sample
Y	Water Level
EOH	End of Hole
XXX	Backhoe Refusal
SVSP	Trial pitting terminated due to very slow penetration

HOLLAND-MUTER & ASSOCIATES - SOIL PROFILE

PROJECT : PORTION 4 OF THE WILLOWS 340 JR

PROFILE NO : TP 29

Logged by : L. Holland-Muter
Date : September 2006

Other Data	Geolog. Data Symbol	Depth (m)	Description
		0.1_	Slightly moist, light brown, intact, soft, clayey SILT.
		0.2_	Hillwash. A1
		0.3_	
		0.4_	Slightly moist, light orange, intact, firm, silty CLAY.
		0.5_	Colluvium; ferruginised. B1/1
		0.6_	
		0.7_	
		0.8_	
		0.9_	
		1.0_	
		1.1_	
		1.2_	
		1.3_	
		1.4_	
		1.5_	
	XXX	1.6_	
		1.7_	NOTES:
		1.8_	
		1.9_	1. TLB refusal on Shale.
		2.0_	
		2.1_	
		2.2_	
		2.3_	
		2.4_	
		2.5_	
		2.6_	
		2.7_	
		2.8_	
		2.9_	
		3.0_	
		3.2_	
		3.5_	

KEY :

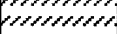
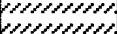
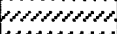
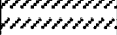
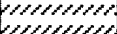
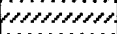
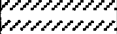
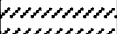
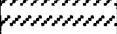
- Disturbed Sample
- Undisturbed Sample
- Y Water Level
- EOH End of Hole
- XXX Backhoe Refusal
- SVSP Trial pitting terminated due to very slow penetration

HOLLAND-MUTER & ASSOCIATES - SOIL PROFILE

PROJECT : PORTION 4 OF THE WILLOWS 340 JR

PROFILE NO : TP 30

Logged by : L. Holland-Muter
Date : September 2006

Other Data	Geolog. Data Symbol	Depth (m)	Description
		0.1_	Slightly moist, dark grey, fissured, soft, silty CLAY.
		0.2_	Colluvium. A3
		0.3_	Slight moist, light to dark orange, intact, soft , silty
		0.4_	CLAY . Colluvium. B1/2
		0.5_	Slightly moist, dark grey fissured, soft silty CLAY
		0.6_	with abundant calcrete nodules. Colluvium. B2/1
		0.7_	
		0.8_	
		0.9_	Slightly moist, orange olive grey, slickensided, soft to
		1.0_	firm, silty CLAY. Colluvium. B3/1
		1.1_	
		1.2_	
		1.3_	
		1.4_	
		1.5_	
		1.6_	
		1.7_	
		1.8_	
		1.9_	
		2.0_	
		2.1_	
		2.2_	
		2.3_	
		2.4_	
		2.5_	
		2.6_	
		2.7_	
		2.8_	
		2.9_	
		3.0_	
		3.2_	
		3.5_	

EOH

KEY :

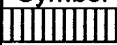
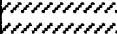
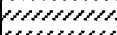
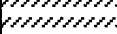
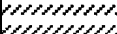
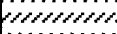
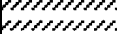
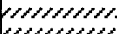
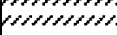
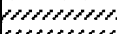
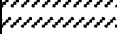
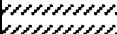
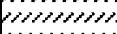
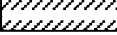
- Disturbed Sample
- Undisturbed Sample
- Y Water Level
- EOH End of Hole
- XXX Backhoe Refusal
- SVSP Trial pitting terminated due to very slow penetration

HOLLAND-MUTER & ASSOCIATES - SOIL PROFILE

PROJECT : PORTION 4 OF THE WILLOWS 340 JR

PROFILE NO : TP 31

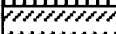
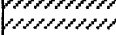
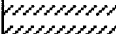
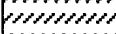
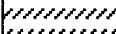
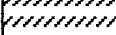
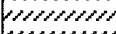
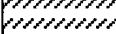
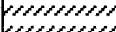
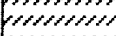
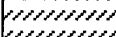
Logged by : L. Holland-Muter
Date : September 2006

Other Data	Geolog. Data Symbol	Depth (m)	Description
		0.1_	Slightly moist, light brown, intact, soft, clayey SILT.
		0.2_	Hillwash. A1
		0.3_	
		0.4_	Slightly moist, light orange, intact, firm, silty CLAY.
		0.5_	Colluvium; ferruginised. B1/1
		0.6_	
		0.7_	
		0.8_	
		0.9_	
		1.0_	
		1.1_	
		1.2_	
		1.3_	
		1.4_	
		1.5_	
	XXX	1.6_	
		1.7_	NOTES:
		1.8_	
		1.9_	1. TLB refusal on Shale.
		2.0_	
		2.1_	
		2.2_	
		2.3_	
		2.4_	
		2.5_	
		2.6_	
		2.7_	
		2.8_	
		2.9_	
		3.0_	
		3.2_	
		3.5_	

KEY :

- Disturbed Sample
- Undisturbed Sample
- Y Water Level
- EOH End of Hole
- XXX Backhoe Refusal
- SVSP Trial pitting terminated due to very slow penetration

HOLLAND-MUTER & ASSOCIATES - SOIL PROFILE

PROJECT :		PORTION 4 OF THE WILLOWS 340 JR	
PROFILE NO :		TP 32	
Logged by : Date :		L. Holland-Muter September 2006	
Other Data	Geolog. Data Symbol	Depth (m)	Description
		0.1_	Slightly moist, light brown, intact, soft, clayey SILT. Hillwash. A1
		0.2_	
		0.3_	
		0.4_	Slightly moist, light orange, intact, firm, silty CLAY. Colluvium; ferruginised. B1/1
		0.5_	
		0.6_	
		0.7_	
		0.8_	
		0.9_	
		1.0_	
		1.1_	
		1.2_	
		1.3_	
		1.4_	
		1.5_	
	XXX	1.6_	NOTES: 1. TLB refusal on Shale.
		1.7_	
		1.8_	
		1.9_	
		2.0_	
		2.1_	
		2.2_	
		2.3_	
		2.4_	
		2.5_	
		2.6_	
		2.7_	
		2.8_	
		2.9_	
		3.0_	
		3.2_	
		3.5_	

KEY :	
●	Disturbed Sample
□	Undisturbed Sample
Y	Water Level
EOH	End of Hole
XXX	Backhoe Refusal
SVSP	Trial pitting terminated due to very slow penetration

HOLLAND-MUTER & ASSOCIATES - SOIL PROFILE

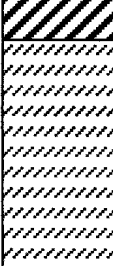
PROJECT :		PORTION 4 OF THE WILLOWS 340 JR	
PROFILE NO :		TP 33	
Logged by : Date :		L. Holland-Muter September 2006	
Other Data	Geolog. Data Symbol	Depth (m)	Description
		0.1_	Slightly moist, dark grey, fissured, soft, silty CLAY. Colluvium. A3
		0.2_	
		0.3_	
		0.4_	Slightly moist, light to dark orange, intact, soft, silty CLAY. Colluvium. B1/2
		0.5_	
		0.6_	
		0.7_	
		0.8_	
		0.9_	
		1.0_	
	1.1_	Dark red streaked black to olive green, highly weathered, soft rock sugar DIABASE with rounded core stones in places. R2	
	1.2_		
	1.3_		
	1.4_	NOTES: 1. TLB refusal.	
	1.5_		
	1.6_		
	1.7_		
	1.8_		
	1.9_		
	2.0_		
	2.1_		
	2.2_		
	2.3_		
	2.4_		
	2.5_		
	2.6_		
	2.7_		
	2.8_		
	2.9_		
	3.0_		
3.2_			
3.5_			
KEY : ● Disturbed Sample □ Undisturbed Sample Y Water Level EOH End of Hole XXX Backhoe Refusal SVSP Trial pitting terminated due to very slow penetration			

HOLLAND-MUTER & ASSOCIATES - SOIL PROFILE

PROJECT : PORTION 4 OF THE WILLOWS 340 JR

PROFILE NO : TP 34

Logged by : L. Holland-Muter
Date : September 2006

Other Data	Geolog. Data Symbol	Depth (m)	Description										
1.2m Y ● EOH		0.1_	Slightly moist, dark grey, fissured, soft, silty CLAY. Colluvium. A3										
		0.2_											
		0.3_	Slightly moist, dark grey fissured, soft, silty CLAY with abundant calcrete nodules. Colluvium. B2/1										
		0.4_											
		0.5_	Slightly moist, orange olive grey, slickensided, soft to firm, silty CLAY. Colluvium. B3/1										
		0.6_											
		0.7_											
		0.8_											
		0.9_											
		1.0_											
		1.1_											
		1.2_											
		1.3_	NOTES: 1. Side walls of trench collapsed. 2. Standing water depth: 1,2m from ground surface. 3. Laboratory Test: B3/1 0.5m - 1,2m <table><tr><td>Liquid Limit</td><td>84</td></tr><tr><td>Plasticity Index</td><td>27</td></tr><tr><td>Linear Skrinkage</td><td>14</td></tr><tr><td>Grading Modulus</td><td>0.25</td></tr><tr><td>Clay %</td><td>57</td></tr></table>	Liquid Limit	84	Plasticity Index	27	Linear Skrinkage	14	Grading Modulus	0.25	Clay %	57
	Liquid Limit	84											
	Plasticity Index	27											
	Linear Skrinkage	14											
	Grading Modulus	0.25											
	Clay %	57											
		1.4_											
		1.5_											
		1.6_											
		1.7_											
		1.8_											
		1.9_											
		2.0_											
		2.1_											
		2.2_											
		2.3_											
	2.4_												
	2.5_												
	2.6_												
	2.7_												
	2.8_												
	2.9_												
	3.0_												
	3.2_												
	3.5_												

KEY :

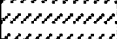
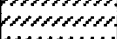
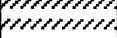
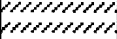
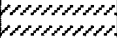
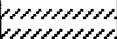
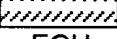
●	Disturbed Sample
□	Undisturbed Sample
Y	Water Level
EOH	End of Hole
XXX	Backhoe Refusal
SVSP	Trial pitting terminated due to very slow penetration

HOLLAND-MUTER & ASSOCIATES - SOIL PROFILE

PROJECT : PORTION 4 OF THE WILLOWS 340 JR

PROFILE NO : TP 35

Logged by : L. Holland-Muter
Date : September 2006

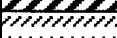
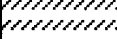
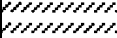
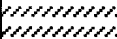
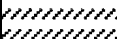
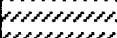
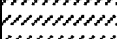
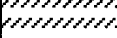
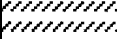
Other Data	Geolog. Data Symbol	Depth (m)	Description
		0.1_	Slightly moist, dark grey, fissured, soft, silty CLAY.
		0.2_	Colluvium. A3
		0.3_	Slightly moist, dark grey fissured, soft, silty CLAY
		0.4_	with abundant calcrete nodules. Colluvium. B2/1
		0.5_	Slightly moist, orange olive grey, slickensided, soft to firm, silty CLAY. Colluvium. B3/1
		0.6_	
		0.7_	
		0.8_	
		0.9_	
		1.0_	
		1.1_	
		1.2_	
	EOH	1.3_	NOTES: 1. Side walls of trench collapsed.
		1.4_	
		1.5_	
		1.6_	
		1.7_	
		1.8_	
		1.9_	
		2.0_	
		2.1_	
		2.2_	
		2.3_	
		2.4_	
		2.5_	
		2.6_	
		2.7_	
		2.8_	
		2.9_	
		3.0_	
		3.2_	
		3.5_	

KEY :

- Disturbed Sample
- [] Undisturbed Sample
- Y Water Level
- EOH End of Hole
- XXX Backhoe Refusal
- SVSP Trial pitting terminated due to very slow penetration

HOLLAND-MUTER & ASSOCIATES - SOIL PROFILE

PROJECT :	PORTION 4 OF THE WILLOWS 340 JR
PROFILE NO :	TP 36
Logged by : Date :	L. Holland-Muter September 2006

Other Data	Geolog. Data Symbol	Depth (m)	Description
		0.1_	Slightly moist, dark grey, fissured, soft, silty CLAY. Colluvium. A3
		0.2_	
		0.3_	
		0.4_	Slightly moist, dark grey fissured, soft, silty CLAY with abundant calcrete nodules. Colluvium. B2/1
		0.5_	
		0.6_	
		0.7_	Slightly moist, light orange, intact, firm, silty CLAY. Colluvium. B3/1
		0.8_	
		0.9_	
		1.0_	
		1.1_	
		1.2_	
		1.3_	
		1.4_	
		1.5_	
		1.6_	
		1.7_	Dark orange purple stained black on joints, laminated, highly jointed, soft rock SHALE. R1
		1.8_	
		1.9_	
		2.0_	
		2.1_	
		2.2_	
		2.3_	
		2.4_	
		2.5_	
		2.6_	
		2.7_	
		2.8_	
		2.9_	
		3.0_	
		3.2_	
		3.5_	

EOH

KEY :

●	Disturbed Sample
□	Undisturbed Sample
Y	Water Level
EOH	End of Hole
XXX	Backhoe Refusal
SVSP	Trial pitting terminated due to very slow penetration

HOLLAND-MUTER & ASSOCIATES - SOIL PROFILE

PROJECT :		PORTION 4 OF THE WILLOWS 340 JR	
PROFILE NO :		TP 37	
Logged by : Date :		L. Holland-Muter September 2006	
Other Data	Geolog. Data Symbol	Depth (m)	Description
		0.1_ 0.2_ 0.3_	Slightly moist, dark grey, fissured, soft, silty CLAY. Colluvium. A3
		0.4_ 0.5_ 0.6_ 0.7_ 0.8_ 0.9_ 1.0_	Slightly moist, dark grey fissured, soft, silty CLAY with abundant calcrete nodules. Colluvium. B2/1
		1.1_ 1.2_ 1.3_ 1.4_ 1.5_	Slightly moist, orange olive grey, slickensided, soft to firm, silty CLAY. Colluvium. B3/1
		1.6_ 1.7_	Dark orange purple stained black on joints, laminated, highly jointed, soft rock SHALE. R1
	EOH	1.8_ 1.9_ 2.0_ 2.1_ 2.2_ 2.3_ 2.4_ 2.5_ 2.6_ 2.7_ 2.8_ 2.9_ 3.0_ 3.2_ 3.5_	
KEY : ● Disturbed Sample □ Undisturbed Sample Y Water Level EOH End of Hole XXX Backhoe Refusal SVSP Trial pitting terminated due to very slow penetration			

HOLLAND-MUTER & ASSOCIATES - SOIL PROFILE

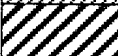
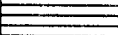
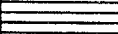
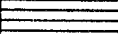
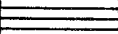
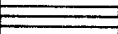
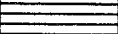
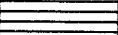
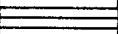
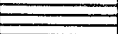
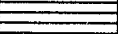
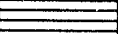
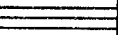
PROJECT :	PORTION 4 OF THE WILLOWS 340 JR
PROFILE NO :	TP 38
Logged by : Date :	L. Holland-Muter September 2006

Other Data	Geolog. Data Symbol	Depth (m)	Description
		0.1_ 0.2_ 0.3_	Slightly moist, dark grey, fissured, soft, silty CLAY. Colluvium. A3
		0.4_ 0.5_ 0.6_ 0.7_ 0.8_ 0.9_	Slightly moist, dark grey fissured, soft, silty CLAY with abundant calcrete nodules. Colluvium. B2/1
		1.0_ 1.1_ 1.2_ 1.3_ 1.4_	Slightly moist, orange olive grey, slickensided, soft to firm, silty CLAY. Colluvium. B3/1
		1.5_ 1.6_ 1.7_ 1.8_ 1.9_	Dark orange purple stained black on joints, laminated, highly jointed, soft rock SHALE. R1
	EOH	2.0_ 2.1_ 2.2_ 2.3_ 2.4_ 2.5_ 2.6_ 2.7_ 2.8_ 2.9_ 3.0_ 3.2_ 3.5_	

KEY :	
●	Disturbed Sample
□	Undisturbed Sample
▽	Water Level
EOH	End of Hole
XXX	Backhoe Refusal
SVSP	Trial pitting terminated due to very slow penetration

HOLLAND-MUTER & ASSOCIATES - SOIL PROFILE

PROJECT :	PORTION 4 OF THE WILLOWS 340 JR
PROFILE NO :	TP 39
Logged by : Date :	L. Holland-Muter September 2006

Other Data	Geolog. Data Symbol	Depth (m)	Description
		0.1_	Slightly moist, dark grey, fissured, soft, silty CLAY. Colluvium. A3
		0.2_	
		0.3_	
		0.4_	Slightly moist, dark grey fissured, soft, silty CLAY with abundant calcrete nodules. Colluvium. B2/1
		0.5_	
		0.6_	
		0.7_	Dark orange purple stained black on joints, laminated, highly jointed, soft rock SHALE. R1
		0.8_	
		0.9_	
		1.0_	
		1.1_	
		1.2_	
		1.3_	
		1.4_	
		1.5_	
		1.6_	
		1.7_	
		1.8_	
		1.9_	
		2.0_	
		2.1_	
		2.2_	
		2.3_	
		2.4_	
		2.5_	
		2.6_	
		2.7_	
		2.8_	
		2.9_	
		3.0_	
		3.2_	
		3.5_	

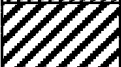
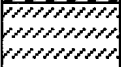
EOH

KEY :

- Disturbed Sample
- Undisturbed Sample
- Y Water Level
- EOH End of Hole
- XXX Backhoe Refusal
- SVSP Trial pitting terminated due to very slow penetration

HOLLAND-MUTER & ASSOCIATES - SOIL PROFILE

PROJECT :	PORTION 4 OF THE WILLOWS 340 JR
PROFILE NO :	TP 40
Logged by : Date :	L. Holland-Muter September 2006

Other Data	Geolog. Data Symbol	Depth (m)	Description
		0.1_	Slightly moist, dark grey, fissured, soft, silty CLAY.
		0.2_	Colluvium. A3
		0.3_	
		0.4_	Slightly moist, dark grey fissured, soft, silty CLAY
		0.5_	with abundant calcrete nodules. Colluvium. B2/1
		0.6_	
		0.7_	
		0.8_	
		0.9_	
		1.0_	
		1.1_	Slightly moist, orange olive grey, slickensided, soft to
		1.2_	firm, silty CLAY. Colluvium. B3/1
		1.3_	
		1.4_	
		1.5_	
		1.6_	
		1.7_	
		1.8_	
		1.9_	
		2.0_	
		2.1_	
		2.2_	
		2.3_	
		2.4_	
		2.5_	
		2.6_	
		2.7_	
		2.8_	
		2.9_	
		3.0_	
		3.2_	
		3.5_	

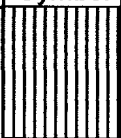
EOH

KEY :

- Disturbed Sample
- Undisturbed Sample
- Y Water Level
- EOH End of Hole
- XXX Backhoe Refusal
- SVSP Trial pitting terminated due to very slow penetration

HOLLAND-MUTER & ASSOCIATES - SOIL PROFILE

PROJECT :	PORTION 4 OF THE WILLOWS 340 JR
PROFILE NO :	TP 41
Logged by : Date :	L. Holland-Muter September 2006

Other Data	Geolog. Data Symbol	Depth (m)	Description
		0.1_ 0.2_ 0.3_ 0.4_	Slightly moist, light brown, intact, soft, clayey SILT. Hillwash. A1
	 XXX	0.5_ 0.6_ 0.7_ 0.8_ 0.9_ 1.0_ 1.1_ 1.2_ 1.3_ 1.4_ 1.5_ 1.6_ 1.7_ 1.8_ 1.9_ 2.0_ 2.1_ 2.2_ 2.3_ 2.4_ 2.5_ 2.6_ 2.7_ 2.8_ 2.9_ 3.0_ 3.2_ 3.5_	Slightly moist, light orange, intact, firm, silty CLAY. Colluvium. B1/1
			NOTES: 1. TLB refusal

KEY :

●	Disturbed Sample
□	Undisturbed Sample
Y	Water Level
EOH	End of Hole
XXX	Backhoe Refusal
SVSP	Trial pitting terminated due to very slow penetration

HOLLAND-MUTER & ASSOCIATES - SOIL PROFILE

PROJECT :	PORTION 4 OF THE WILLOWS 340 JR
PROFILE NO :	TP 42
Logged by : Date :	L. Holland-Muter September 2006

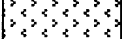
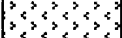
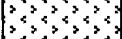
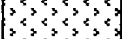
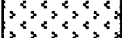
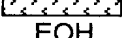
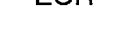
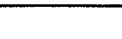
Other Data	Geolog. Data Symbol	Depth (m)	Description										
●		0.1	Slightly moist, light brown, intact, soft, clayey SILT. Hillwash. A1										
		0.2											
		0.3	Slightly moist, dark grey fissured, soft, silty CLAY with abundant calcrete nodules. Colluvium. B2/1										
		0.4											
		0.5											
		0.6	Slightly moist, light orange, intact, firm, silty CLAY. Colluvium. B1/1										
		0.7											
		0.8											
		0.9											
		1.0											
		1.1											
		1.2											
		1.3											
		1.4											
		1.5											
		1.6											
		1.7											
		1.8											
	XXX	1.9	NOTES: 1. TLB refusal 2. Laboratory Test: B2/1 0,1m - 0,5m <table><tr><td>Liquid Limit</td><td>56</td></tr><tr><td>Plasticity Index</td><td>26</td></tr><tr><td>Linear Skrinkage</td><td>13</td></tr><tr><td>Grading Modulus</td><td>0,25</td></tr><tr><td>Clay %</td><td>53</td></tr></table>	Liquid Limit	56	Plasticity Index	26	Linear Skrinkage	13	Grading Modulus	0,25	Clay %	53
	Liquid Limit	56											
Plasticity Index	26												
Linear Skrinkage	13												
Grading Modulus	0,25												
Clay %	53												
	2.0												
	2.1												
	2.2												
	2.3												
	2.4												
	2.5												
	2.6												
	2.7												
	2.8												
	2.9												
	3.0												
	3.2												
	3.5												

KEY :

●	Disturbed Sample
□	Undisturbed Sample
Y	Water Level
EOH	End of Hole
XXX	Backhoe Refusal
SVSP	Trial pitting terminated due to very slow penetration

HOLLAND-MUTER & ASSOCIATES - SOIL PROFILE

PROJECT :	PORTION 4 OF THE WILLOWS 340 JR
PROFILE NO :	TP 43
Logged by : Date :	L. Holland-Muter September 2006

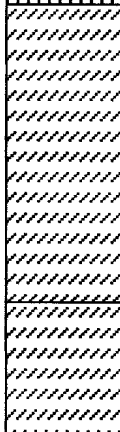
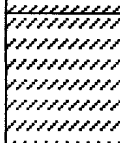
Other Data	Geolog. Data Symbol	Depth (m)	Description
		0.1	Slightly moist, light brown, intact, soft, clayey SILT. Hillwash. A1
		0.2	
		0.3	
		0.4	Slightly moist, dark grey fissured, soft, silty CLAY with abundant calcrete nodules. Colluvium. B2/1
		0.5	
		0.6	
		0.7	Olive green, highly weathered, soft rock boulder DIABASE. R2
		0.8	
		0.9	
		1.0	
		1.1	
		1.2	
		1.3	
		1.4	
		1.5	
		1.6	
		1.7	
		1.8	
		1.9	
		2.0	
		2.1	
		2.2	
		2.3	
		2.4	
		2.5	
		2.6	
		2.7	
		2.8	
		2.9	
		3.0	
		3.2	
		3.5	

KEY :

●	Disturbed Sample
□	Undisturbed Sample
Y	Water Level
EOH	End of Hole
XXX	Backhoe Refusal
SVSP	Trial pitting terminated due to very slow penetration

HOLLAND-MUTER & ASSOCIATES - SOIL PROFILE

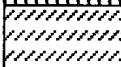
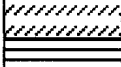
PROJECT :	PORTION 4 OF THE WILLOWS 340 JR
PROFILE NO :	TP 44
Logged by : Date :	L. Holland-Muter September 2006

Other Data	Geolog. Data Symbol	Depth (m)	Description										
		0.1_	Slightly moist, light brown, intact, soft, clayey SILT. Hillwash. A1										
		0.2_											
		0.3_											
		0.4_	Slightly moist, light orange, intact, firm, silty CLAY. Colluvium. B1/1										
		0.5_											
		0.6_											
		0.7_											
		0.8_											
		0.9_											
		1.0_											
		1.1_											
		1.2_											
		1.3_	Slightly moist, light orange, intact, firm, silty CLAY. Colluvium; slightly ferruginised B1/1										
		1.4_											
		1.5_											
		1.6_											
	XXX	1.7_	NOTES: 1. TLB refusal 2. Laboratory Test: B1/1 0,3m - 1,2m <table><tr><td>Liquid Limit</td><td>40</td></tr><tr><td>Plasticity Index</td><td>15</td></tr><tr><td>Linear Skrinkage</td><td>8</td></tr><tr><td>Grading Modulus</td><td>0,86</td></tr><tr><td>Clay %</td><td>24</td></tr></table>	Liquid Limit	40	Plasticity Index	15	Linear Skrinkage	8	Grading Modulus	0,86	Clay %	24
Liquid Limit	40												
Plasticity Index	15												
Linear Skrinkage	8												
Grading Modulus	0,86												
Clay %	24												
		1.8_											
		1.9_											
		2.0_											
		2.1_											
		2.2_											
		2.3_											
		2.4_											
		2.5_											
		2.6_											
		2.7_											
		2.8_											
		2.9_											
		3.0_											
		3.2_											
		3.5_											

KEY :

●	Disturbed Sample
□	Undisturbed Sample
Y	Water Level
EOH	End of Hole
XXX	Backhoe Refusal
SVSP	Trial pitting terminated due to very slow penetration

HOLLAND-MUTER & ASSOCIATES - SOIL PROFILE

PROJECT :	PORTION 4 OF THE WILLOWS 340 JR		
PROFILE NO :	TP 45		
Logged by : Date :	L. Holland-Muter September 2006		
Other Data	Geolog. Data Symbol	Depth (m)	Description
 SVSP		0.1_	Slightly moist, light brown, intact, soft, clayey SILT. Hillwash. A1
		0.2_	
		0.3_	Slightly moist, light orange, intact, firm, silty CLAY. Colluvium. B1/1
		0.4_	
		0.5_	
		0.6_	Dark orange purple stained black on joints, laminated, highly jointed, soft rock SHALE. R1
		0.7_	
		0.8_	
		0.9_	
		1.0_	
		1.1_	
		1.2_	
		1.3_	
		1.4_	
		1.5_	
	NOTES: 1. Excavation terminated due to very slow penetration of TLB.		
	1.6_ 1.7_ 1.8_ 1.9_ 2.0_ 2.1_ 2.2_ 2.3_ 2.4_ 2.5_ 2.6_ 2.7_ 2.8_ 2.9_ 3.0_ 3.2_ 3.5_		

KEY :

- Disturbed Sample
- Undisturbed Sample
- ▽ Water Level
- EOH End of Hole
- XXX Backhoe Refusal
- SVSP Trial pitting terminated due to very slow penetration

HOLLAND-MUTER & ASSOCIATES - SOIL PROFILE

PROJECT :	PORTION 4 OF THE WILLOWS 340 JR
PROFILE NO :	TP 46
Logged by : Date :	L. Holland-Muter September 2006

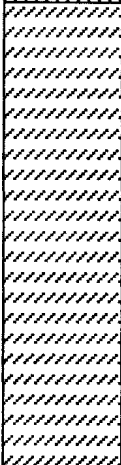
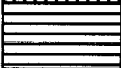
Other Data	Geolog. Data Symbol	Depth (m)	Description
		0.1_	Slightly moist, light brown, intact, soft, clayey SILT. Hillwash. A1
		0.2_	
		0.3_	Slightly moist, light orange, intact, firm, silty CLAY. Colluvium. B1/1
		0.4_	
		0.5_	
		0.6_	
		0.7_	Slightly moist, light orange, intact, firm, silty CLAY. Colluvium; slightly ferruginised. B1/1
		0.8_	
		0.9_	
		1.0_	
		1.1_	
		1.2_	
		1.3_	Dark orange purple stained black on joints, laminated, highly jointed, soft rock SHALE. R1
		1.4_	
		1.5_	
		1.6_	
		1.7_	
		1.8_	NOTES:
		1.9_	
		2.0_	1. Excavation terminated due to very slow penetration of TLB.
		2.1_	
		2.2_	
		2.3_	
		2.4_	
		2.5_	
		2.6_	
		2.7_	
		2.8_	
		2.9_	
		3.0_	
		3.2_	
		3.5_	

KEY :

●	Disturbed Sample
□	Undisturbed Sample
Y	Water Level
EOH	End of Hole
XXX	Backhoe Refusal
SVSP	Trial pitting terminated due to very slow penetration

HOLLAND-MUTER & ASSOCIATES - SOIL PROFILE

PROJECT :	PORTION 4 OF THE WILLOWS 340 JR
PROFILE NO :	TP 47
Logged by : Date :	L. Holland-Muter September 2006

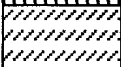
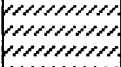
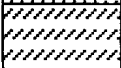
Other Data	Geolog. Data Symbol	Depth (m)	Description
		0.1_	Slightly moist, light brown, intact, soft, clayey SILT.
		0.2_	Hillwash. A1
		0.3_	Slightly moist, light orange, intact, firm, silty CLAY. Colluvium. B1/1
		0.4_	
		0.5_	
		0.6_	
		0.7_	
		0.8_	
		0.9_	
		1.0_	
		1.1_	
		1.2_	
		1.3_	
		1.4_	
		1.5_	
		1.6_	
		1.7_	Dark orange purple stained black on joints, laminated, highly jointed, soft rock SHALE. R1
		1.8_	
	XXX	1.9_	NOTES: 1. TLB refusal
		2.0_	
		2.1_	
		2.2_	
		2.3_	
		2.4_	
		2.5_	
		2.6_	
		2.7_	
		2.8_	
		2.9_	
		3.0_	
		3.2_	
		3.5_	

KEY :

●	Disturbed Sample
□	Undisturbed Sample
Y	Water Level
EOH	End of Hole
XXX	Backhoe Refusal
SVSP	Trial pitting terminated due to very slow penetration

HOLLAND-MUTER & ASSOCIATES - SOIL PROFILE

PROJECT :	PORTION 4 OF THE WILLOWS 340 JR
PROFILE NO :	TP 48
Logged by :	L. Holland-Muter
Date :	September 2006

Other Data	Geolog. Data Symbol	Depth (m)	Description
1.3m Y		0.1_	Slightly moist, light brown, intact, soft, clayey SILT. Hillwash. A1
		0.2_	
		0.3_	Slightly moist, light orange, intact, firm, silty CLAY. Colluvium. B1/1
		0.4_	
		0.5_	
		0.6_	
		0.7_	Slightly moist, light orange, intact, firm, silty CLAY. Colluvium; slightly ferruginised. B1/1
		0.8_	
		0.9_	
		1.0_	Dark orange purple stained black on joints, laminated, highly jointed, soft rock SHALE. R1
		1.1_	
		1.2_	
		1.3_	
		1.4_	
		1.5_	
		1.6_	
		1.7_	
		1.8_	
		1.9_	
		2.0_	
		2.1_	
		2.2_	
		2.3_	
		2.4_	
		2.5_	
		2.6_	
		2.7_	
		2.8_	
		2.9_	
		3.0_	
		3.2_	
		3.5_	

KEY :

●	Disturbed Sample
□	Undisturbed Sample
Y	Water Level
EOH	End of Hole
XXX	Backhoe Refusal
SVSP	Trial pitting terminated due to very slow penetration