

RECORD OF BOREHOLE No 01-24

1 OF 1

METRIC

W.P. 392-98-00 LOCATION 28+550 Rt 4.7m ORIGINATED BY P.R.
 DIST 54 HWY 17 BOREHOLE TYPE Hollow Stem Auger COMPILED BY T.G.
 DATUM Geodetic DATE 2004.11.15 CHECKED BY R.C.

SOIL PROFILE		SAMPLES			GROUND WATER CONDITIONS	ELEVATION SCALE	DYNAMIC CONE PENETRATION RESISTANCE PLOT					PLASTIC NATURAL LIQUID LIMIT MOISTURE LIMIT CONTENT			UNIT WEIGHT γ kN/m ³	REMARKS & GRAIN SIZE DISTRIBUTION (%) GR SA SI CL
ELEV DEPTH	DESCRIPTION	STRAT PLOT	NUMBER	TYPE			"N" VALUES	SHEAR STRENGTH kPa					WATER CONTENT (%)			
							20	40	60	80	100	W _p	W	W _L		
174.4	Ground Surface															
170.0	SUBSURFACE TREATMENT FILL - SAND & GRAVEL															
0.1	----- - SAND - some gravel, trace silt, brown, loose															
	----- - with rockfill, trace silt, very dense															
172.4	End of Borehole @ 1.95m. Auger Refusal.															
2.0																

✕³, ★³: Numbers refer to Sensitivity ○ 3% STRAIN AT FAILURE

ENCLOSURE 1

RECORD OF BOREHOLE No 01-24A

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METRIC

W.P. 392-98-00 LOCATION 28+496 Rt 4.7m ORIGINATED BY P.R.
 DIST 54 HWY 17 BOREHOLE TYPE Hollow Stem Auger COMPILED BY T.G.
 DATUM Geodetic DATE 2004.11.18 CHECKED BY R.C.

SOIL PROFILE			SAMPLES			GROUND WATER CONDITIONS	ELEVATION SCALE	DYNAMIC CONE PENETRATION RESISTANCE PLOT					PLASTIC NATURAL LIQUID LIMIT MOISTURE LIMIT CONTENT			UNIT WEIGHT γ kN/m ³	REMARKS & GRAIN SIZE DISTRIBUTION (%)					
ELEV DEPTH	DESCRIPTION	STRAT PLOT	NUMBER	TYPE	"N" VALUES			SHEAR STRENGTH kPa					WATER CONTENT (%)									
							20	40	60	80	100	20	40	60	80	100	10	20	30			
172.4	Ground Surface																					
0.0	FILL - SAND & GRAVEL - 300mm																					
	----- - SAND - some gravel, some silt, occasional cobble		1	AS																		
	----- - Silty, trace gravel, brown		2	AS																		
	----- - loose		3	SS	8																	
169.2	End of Borehole @ 3.2m. Auger Refusal.																					
3.2																						

x³, ★³: Numbers refer to Sensitivity ○ 3% STRAIN AT FAILURE

ENCLOSURE 2

RECORD OF BOREHOLE No 01-25

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METRIC

W.P. 392-98-00 LOCATION 28+625 Rt 4.7m ORIGINATED BY P.R.
DIST 54 HWY 17 BOREHOLE TYPE Hollow Stem Auger COMPILED BY T.G.
DATUM Geodetic DATE 2004.11.15 CHECKED BY R.C.

SOIL PROFILE			SAMPLES			GROUND WATER CONDITIONS	ELEVATION SCALE	DYNAMIC CONE PENETRATION RESISTANCE PLOT		PLASTIC LIMIT W _p	NATURAL MOISTURE CONTENT W	LIQUID LIMIT W _L	UNIT WEIGHT γ	REMARKS & GRAIN SIZE DISTRIBUTION (%)				
ELEV DEPTH	DESCRIPTION	STRAT PLOT	NUMBER	TYPE	"N" VALUES			SHEAR STRENGTH kPa							WATER CONTENT (%)			
								○ UNCONFINED	× FIELD VANE							□ QUICK TRIAXIAL	★ LAB VANE	
176.7	Ground Surface							20	40	60	80	100				GR SA SI CL		
176.0	SURFACE TREATMENT FILL - SAND & GRAVEL		1	AS												Dry on completion. Cave @ 4.1m on completion.		
0.1	- SAND - some gravel, trace silt, occasional cobbles, grey/brown																	
	- Silty, trace gravel, trace cobble, brown, loose		2	SS	18													
	- some silt, some gravel, occasional cobble, brown		3	SS	9										4 66 (30)			
	- trace gravel, trace silt		4	SS	8													
	- occasional cobble		5	SS	7													
	-some gravel, cobbles, brown		6	SS	12													
			7	SS	4													
			8	SS	101													
171.1	End of Borehole @ 5.6m. Auger Refusal.																	
5.6																		

✕³, ★³: Numbers refer to Sensitivity ○ 3% STRAIN AT FAILURE



ENCLOSURE 3

RECORD OF BOREHOLE No 01-80

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METRIC

W.P. 392-98-00 LOCATION 28+670 Rt 15.0m ORIGINATED BY P.R.
 DIST 54 HWY 17 BOREHOLE TYPE Portable Power Equipment COMPILED BY T.G.
 DATUM Geodetic DATE 2004.12.19 CHECKED BY R.C.

SOIL PROFILE			SAMPLES			GROUND WATER CONDITIONS	ELEVATION SCALE	DYNAMIC CONE PENETRATION RESISTANCE PLOT				PLASTIC LIMIT W _p	NATURAL MOISTURE CONTENT W	LIQUID LIMIT W _L	UNIT WEIGHT γ	REMARKS & GRAIN SIZE DISTRIBUTION (%)
ELEV DEPTH	DESCRIPTION	STRAT PLOT	NUMBER	TYPE	"N" VALUES			SHEAR STRENGTH kPa								
170.5 0.0	Ice - 200mm ----- - WATER						170									
168.9 1.6	SAND - some silt, some gravel, some organics, brown/grey, compact		1	SS	12		169									
			2	SS	16		168									
			3	SS	26											
167.1 3.4	End of Borehole @ 3.4m. Refusal.															

×³, ★³: Numbers refer to Sensitivity ○ 3% STRAIN AT FAILURE

ENCLOSURE 4

RECORD OF BOREHOLE No 01-81

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METRIC

W.P. 392-98-00 LOCATION 28+650 Rt 18.3m ORIGINATED BY P.R.
 DIST 54 HWY 17 BOREHOLE TYPE Portable Power Equipment COMPILED BY T.G.
 DATUM Geodetic DATE 2004.12.19 CHECKED BY R.C.




SOIL PROFILE		SAMPLES			GROUND WATER CONDITIONS	ELEVATION SCALE	DYNAMIC CONE PENETRATION RESISTANCE PLOT					PLASTIC LIMIT NATURAL MOISTURE CONTENT LIQUID LIMIT			UNIT WEIGHT γ kN/m ³	REMARKS & GRAIN SIZE DISTRIBUTION (%) GR SA SI CL
ELEV DEPTH	DESCRIPTION	STRAT PLOT	NUMBER	TYPE			"N" VALUES	SHEAR STRENGTH kPa					WATER CONTENT (%)			
							20	40	60	80	100	W _p	W	W _L		
170.6	Ice															
0.0	ICE - 200mm ----- - WATER															
169.6																
169.6																
1.1	SAND - Silty, some organics, trace gravel, brown End of Borehole @ 1.1m. Refusal.		1	SS												

RECORD OF BOREHOLE No 01-82

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METRIC

W.P. 392-98-00 LOCATION 28+625 Rt 15.0m ORIGINATED BY P.R.
 DIST 54 HWY 17 BOREHOLE TYPE Portable Power Equipment COMPILED BY T.G.
 DATUM Geodetic DATE 2004.12.19 CHECKED BY R.C.

SOIL PROFILE		SAMPLES			GROUND WATER CONDITIONS	ELEVATION SCALE	DYNAMIC CONE PENETRATION RESISTANCE PLOT					PLASTIC LIMIT NATURAL MOISTURE CONTENT LIQUID LIMIT			UNIT WEIGHT γ kN/m ³	REMARKS & GRAIN SIZE DISTRIBUTION (%)
ELEV DEPTH	DESCRIPTION	STRAT PLOT	NUMBER	TYPE			"N" VALUES	SHEAR STRENGTH kPa					WATER CONTENT (%)			
							20	40	60	80	100	W _p	W	W _L		
170.8	Beaver Dam															
0.0	ORGANICS AND WOOD - Beaver Dam															
169.8																
1.0	End of Borehole @ 1.0m. Refusal.															

RECORD OF BOREHOLE No 01-83

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METRIC

W.P. 392-98-00 LOCATION 28+600 Rt 18.8m ORIGINATED BY P.R.
 DIST 54 HWY 17 BOREHOLE TYPE Portable Power Equipment COMPILED BY T.G.
 DATUM Geodetic DATE 2004.12.18 CHECKED BY R.C.

SOIL PROFILE		SAMPLES			GROUND WATER CONDITIONS	ELEVATION SCALE	DYNAMIC CONE PENETRATION RESISTANCE PLOT					PLASTIC LIMIT NATURAL MOISTURE CONTENT LIQUID LIMIT			UNIT WEIGHT γ kN/m ³	REMARKS & GRAIN SIZE DISTRIBUTION (%) GR SA SI CL
ELEV DEPTH	DESCRIPTION	STRAT PLOT	NUMBER	TYPE			"N" VALUES	SHEAR STRENGTH kPa					WATER CONTENT (%)			
							20	40	60	80	100	W _p	W	W _L		
170.0	Ground Surface															
169.0	ORGANICS - 100mm		1	GRAB												
0.1	SAND - Silty, some organics, trace gravel, brown															
169.6			2	GRAB												
0.4	SAND - Silty, some gravel, occasional boulder, brown															
169.0			3	SS	28											
1.0	End of Borehole @ 1.0m. Refusal.															

1 OF 1

W.P.	392-98-00	LOCATION	28+575 Rt 14.5m	ORIGINATED BY	P.R.
DIST	54	HWY	17	BOREHOLE TYPE	Portable Power Equipment
DATUM	Geodetic	DATE	2004.12.18	COMPILED BY	T.G.
				CHECKED BY	R.C.

[illegible]

RECORD OF BOREHOLE No 01-85

1 OF 1

METRIC

W.P. 392-98-00 LOCATION 28+540 Rt 14.5m ORIGINATED BY P.R.
 DIST 54 HWY 17 BOREHOLE TYPE Portable Power Equipment COMPILED BY T.G.
 DATUM Geodetic DATE 2004.12.16 CHECKED BY R.C.

SOIL PROFILE			SAMPLES			GROUND WATER CONDITIONS	ELEVATION SCALE	DYNAMIC CONE PENETRATION RESISTANCE PLOT					PLASTIC LIMIT NATURAL MOISTURE CONTENT LIQUID LIMIT			UNIT WEIGHT γ kN/m³	REMARKS & GRAIN SIZE DISTRIBUTION (%)			
ELEV DEPTH	DESCRIPTION	STRAT PLOT	NUMBER	TYPE	"N" VALUES			SHEAR STRENGTH kPa					W _p W W _L							
								○ UNCONFINED ✕ FIELD VANE □ QUICK TRIAXIAL ★ LAB VANE					WATER CONTENT (%)							
169.0	Ice							20	40	60	80	100		10	20	30				
0.0	ICE - 200mm ----- - WATER						168													
168.0																				
167.8	ORGANICS																			
1.1	SAND - Silty, grey, loose to compact		1	SS	3		167													
			2	SS	15															
166.4							166													
2.6	SILT - some sand, grey, very loose to compact		3	SS	11															
							165													
			4	SS	4															
			5	SS	4		164													
			6	SS	3															
							163													
163.0	SAND & GRAVEL - Silty, grey, compact		7	SS	12															
162.3																				
6.7	End of Borehole @ 6.7m. Refusal.																			

×³, ★³: Numbers refer to Sensitivity ○ 3% STRAIN AT FAILURE
















ENCLOSURE 9

RECORD OF BOREHOLE No 01-86

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METRIC

W.P. 392-98-00 LOCATION 28+525 Rt 18.0m ORIGINATED BY P.R.
DIST 54 HWY 17 BOREHOLE TYPE Portable Power Equipment COMPILED BY T.G.
DATUM Geodetic DATE 2004.12.16 CHECKED BY R.C.

SOIL PROFILE			SAMPLES			GROUND WATER CONDITIONS	ELEVATION SCALE	DYNAMIC CONE PENETRATION RESISTANCE PLOT		PLASTIC LIMIT NATURAL MOISTURE CONTENT LIQUID LIMIT			UNIT WEIGHT γ kN/m ³	REMARKS & GRAIN SIZE DISTRIBUTION (%) GR SA SI CL
ELEV DEPTH	DESCRIPTION	STRAT PLOT	NUMBER	TYPE	"N" VALUES			SHEAR STRENGTH kPa		W _p W W _L				
169.2	Ice							20 40 60 80 100						
0.0	ICE - 200mm ----- - WATER						169							
														
														
														
168.0							168							
167.9	ORGANICS - 100mm													
1.3	SAND - some silt, grey, compact		1	SS	11									
														
167.1														
2.1	SILT & SAND - layered, grey, loose		2	SS	9		167							
														
			3	SS	6									
														
165.9							166							
3.3	SAND - Silty, trace gravel, grey, compact		4	SS	16									
165.6														
3.6	End of Borehole @ 3.6m. Refusal.													

✕³, ★³: Numbers refer to Sensitivity ○ 3% STRAIN AT FAILURE

ENCLOSURE 10

RECORD OF BOREHOLE No 01-87

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METRIC

W.P. 392-98-00 LOCATION 28+500 Rt 14.5m ORIGINATED BY P.R.
 DIST 54 HWY 17 BOREHOLE TYPE Portable Power Equipment COMPILED BY T.G.
 DATUM Geodetic DATE 2004.12.15 CHECKED BY R.C.

SOIL PROFILE			SAMPLES			GROUND WATER CONDITIONS	ELEVATION SCALE	DYNAMIC CONE PENETRATION RESISTANCE PLOT					PLASTIC LIMIT NATURAL MOISTURE CONTENT LIQUID LIMIT			UNIT WEIGHT γ kN/m ³	REMARKS & GRAIN SIZE DISTRIBUTION (%) GR SA SI CL
ELEV DEPTH	DESCRIPTION	STRAT PLOT	NUMBER	TYPE	"N" VALUES			SHEAR STRENGTH kPa					WATER CONTENT (%)				
							20	40	60	80	100	W _p	W	W _L			
169.2 0.0	Ice																
168.8 0.5	ICE & WATER																
168.4 0.5	ORGANICS - 100mm																
	SAND - Silty, brown/grey, loose		1	SS	6												
	----- - some gravel, trace silt, grey, dense		2	SS	35												
167.4 1.8	End of Borehole @ 1.8m. Refusal.																

x³, *³: Numbers refer to Sensitivity ○ 3% STRAIN AT FAILURE

ENCLOSURE 11

RECORD OF BOREHOLE No 01-88

1 OF 1

METRIC

W.P. 392-98-00 LOCATION 28+677 Rt 19.2m ORIGINATED BY P.R.
 DIST 54 HWY 17 BOREHOLE TYPE Portable Power Equipment COMPILED BY T.G.
 DATUM Geodetic DATE 2004.12.19 CHECKED BY R.C.

SOIL PROFILE			SAMPLES			GROUND WATER CONDITIONS	ELEVATION SCALE	DYNAMIC CONE PENETRATION RESISTANCE PLOT					PLASTIC LIMIT NATURAL MOISTURE CONTENT LIQUID LIMIT			UNIT WEIGHT γ	REMARKS & GRAIN SIZE DISTRIBUTION (%)
ELEV DEPTH	DESCRIPTION	STRAT PLOT	NUMBER	TYPE	"N" VALUES			SHEAR STRENGTH kPa					W _p	W	W _L		
							20	40	60	80	100						
170.4	Ice																
0.0	ICE - 200mm ----- - WATER																
169.7																	
0.7	SAND - Silty, some organics, trace gravel, brown, loose		1	SS	5												
169.2																	
1.2	SAND - some silt, trace gravel, brown, compact to dense		2	SS	36												
			3	SS	17												
167.9			4	SS	101												
2.5	End of Borehole @ 2.5m. Refusal.																

x³, ★³: Numbers refer to Sensitivity ○ 3% STRAIN AT FAILURE

ENCLOSURE 12

RECORD OF BOREHOLE No 01-89

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METRIC

W.P. 392-98-00 LOCATION 28+560 Rt 18.5m ORIGINATED BY P.R.
 DIST 54 HWY 17 BOREHOLE TYPE Hollow Stem Auger COMPILED BY T.G.
 DATUM Geodetic DATE 2004.12.18 CHECKED BY R.C.

SOIL PROFILE			SAMPLES			GROUND WATER CONDITIONS	ELEVATION SCALE	DYNAMIC CONE PENETRATION RESISTANCE PLOT					PLASTIC NATURAL LIQUID LIMIT MOISTURE CONTENT LIMIT			UNIT WEIGHT γ kN/m ³	REMARKS & GRAIN SIZE DISTRIBUTION (%) GR SA SI CL
ELEV DEPTH	DESCRIPTION	STRAT PLOT	NUMBER	TYPE	"N" VALUES			SHEAR STRENGTH kPa					WATER CONTENT (%)				
							20	40	60	80	100	W _p	W	W _L			
169.0	Ice																
0.0	ICE - 200mm ----- - WATER																
167.8							168										
167.2	ORGANICS - 100mm																
1.3	SAND - some gravel, some silt, trace cobbles, brown/grey, compact to dense		1	SS	12												
			2	SS	30		167										
166.4																	
2.6	End of Borehole @ 2.6m. Refusal.																

✕³, ★³: Numbers refer to Sensitivity ○ 3% STRAIN AT FAILURE

ENCLOSURE 13

UNIFIED SOIL CLASSIFICATION SYSTEM

