ENGINEERING BOREHOLE LOG

Queensland Government

FOR GEOTECHNICAL TERMS AND SYMBOLS REFER FORM F:GEOT 017/6-2010

BOREHOLE No BH C63
SHEET 1 of 2
REFERENCE No H11200

PROJECT Bruce Highway Upgrade (Cooroy to Curra) Section C
LOCATION Embankment 1/Traveston Creek Bridge Abut A
COORDINATES 473365.2 E; 7087925.6 N
PROJECT No FG5799 SURFACE R.L. 66.10m PLUNGE DATE STARTED 01/09/11 GRID DATUM MGA94
JOB No 232/10A/2 HEIGHT DATUM AHD BEARING DATE COMPLETED 02/09/11 DRILLER Cairns Drilling Contract

DEPTH (m)	R.L. (m)	AUGER / WASH BORING / CORE DRILLING	RQD ( )% / CORE REC %	SAMPLE	MATERIAL DESCRIPTION	LITHOLOGY	USC	WEATHERING	INTACT STRENGTH (EH VH H M L VL EL)	DEFECT SPACING (mm) (20 60 200 600 2000)	GRAPHIC LOG	ADDITIONAL DATA AND TEST RESULTS	SAMPLES	TESTS
0	66.10													
	66.00				**TOPSOIL:** Brown, moist, silty clay.		(CI)							
					Silty CLAY (Alluvium): Grey/brown, moist, very stiff to hard. Intermediate to high plasticity.							Based on driller's logs only		
1				A								5,10,15 N=25		SPT
2				B								5,7,10 N=17		SPT
3				C	3.0m-3.45m: Iron nodules.		(CI-CH)					5,8,11 N=19		SPT
4				D								6,14,19 N=33		SPT
5				E								5,11,15 N=26		SPT
6	60.10			F	**Gravelly Silty CLAY (Alluvium?):** Grey/brown, moist, very stiff, low to intermediate plasticity. Gravel fraction is angular/subangular sizing up to 25mm.		(CL-CI)					11,11,9 N=20		SPT
7	59.10			G	**METASILTSTONE (XW):** Generally exhibits engineering properties of a grey/brown, moist, dense to very dense, clayey gravel.		XW					11,14,18 N=32		SPT
8				H								13,8,30/80 N>50		SPT
	57.60		(32)		**METASILTSTONE (SW):** Grey, fine grained, subtly foliated, high to very high strength.		SW					Is(50) = 4.12MPa		L
9			100 (33)									J, 50°, Pl, O, R, Cn J, 70°, Pl, O, S, FeSt		
10					(See over)							CLy BZ		

REMARKS

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QLD_DMR_LIB_01A.GLB Log A_ENGINEERING BOREHOLE LOG W LITHOLOGY FG5799 - BRUCE HWY UPGRADE SECTION C.GPJ DWG46352.GDW Datgel CPT Tool gINt Add-In 12/12/2011 16:30

ENGINEERING BOREHOLE LOG

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BOREHOLE No	BH C63
SHEET	2 of 2
REFERENCE No	H11200

PROJECT Bruce Highway Upgrade (Cooroy to Curra) Section C

LOCATION Embankment 1/Traveston Creek Bridge Abut A — COORDINATES 473365.2 E; 7087925.6 N

PROJECT No FG5799 — SURFACE R.L. 66.10m — PLUNGE — DATE STARTED 01/09/11 — GRID DATUM MGA94

JOB No 232/10A/2 — HEIGHT DATUM AHD — BEARING — DATE COMPLETED 02/09/11 — DRILLER Cairns Drilling Contract

DEPTH (m)	R.L. (m)	AUGER / WASH BORING / CORE DRILLING	RQD ( )% CORE REC %	SAMPLE	MATERIAL DESCRIPTION	LITHOLOGY	USC	WEATHERING	INTACT STRENGTH (EH VH H M L VL EL)	DEFECT SPACING (mm) (20 60 200 600 2000)	GRAPHIC LOG	ADDITIONAL DATA AND TEST RESULTS	SAMPLES	TESTS
10	56.10				**METASILTSTONE (SW):** Cont'd Defects: -Quartz veining throughout. -Joint at 20° (3/m) -Joint at 40° (2/m) -Joint at 70° (1/m) Defect spacing is generally medium. Defect surfaces are planar, open or closed, slightly rough, iron stained, clay infilled or quartz infilled.							J, 80°, Pl, O, R, Clnf J, 10°, Pl, T, SR, QZ Is(50) = 3.79MPa J, 70°, I, FeSt Is(50) = 6.81MPa DD = 2.66t/m³; MC = 0.5%; UCS=55.4MPa BZ Is(50) = 1.75MPa J, 20°, Pl, O, S, Cn Is(50) = 4.67MPa J, 20°, Pl, O, S, FeSt BZ J, 30°, Pl, O, S, FeSt J, 40°, Pl, T, S, FeSt J, 10°, Pl, O, S, Cn Is(50) = 1.96MPa Is(50) = 2.06MPa Is(50) = 1.51MPa J, 30°, Pl, O, R, Cn J, 40°, Pl, O, R, Cn Is(50) = 0.28MPa Is(50) = 1.40MPa J, 50°, T, Cn J, 70°, Pl, T, S, Clnf	o x UCS x o x L o x o	
11			100 (53)											
12							SW							
13			100 (49)											
14	51.90		100		Borehole terminated at 14.2m									
15														
16														
17														
18														
19														
20														

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REMARKS

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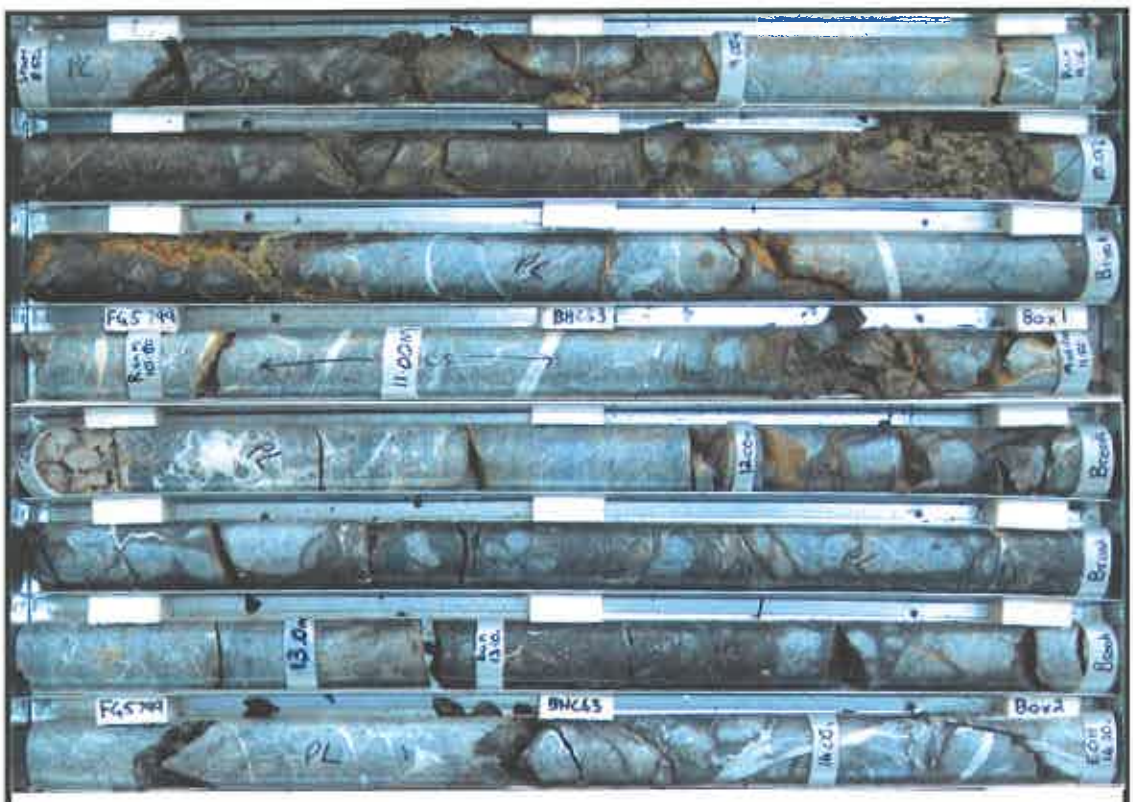
Queensland Government

CORE PHOTO LOG - BH C63

Project Name:	BRUCE HIGHWAY UPGRADE - SECTION C		
Project No.:	FG5799	Date:	14/10/2011
Details:	Embankment	Start Depth (m):	8.50
Reference No.:	H11200	Finish Depth (m):	14.20



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