ENGINEERING BOREHOLE LOG

Queensland Government

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

BOREHOLE No BH C77
SHEET 1 of 2
REFERENCE No H11152

PROJECT Bruce Highway Upgrade (Cooroy to Curra) Section C
LOCATION Near Keefton Rd Underpass COORDINATES 470408.1 E; 7097981.8 N
PROJECT No FG5799 SURFACE R.L. 62.80m PLUNGE DATE STARTED 21/08/11 GRID DATUM MGA94
JOB No 232/10A/2 HEIGHT DATUM AHD BEARING DATE COMPLETED 21/08/11 DRILLER Drillsure Pty Ltd

DEPTH (m)	R.L. (m)	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	62.80												
	62.65			**TOPSOIL** Grey, dry.									
1			A	**SILTSTONE (XW):** Generally exhibits engineering properties of a yellow/brown/grey, dry, low plasticity, gravelly silt. Gravel fraction is subangular to angular sizing up to ~10mm.		XW					15,30,30/100 N>50		SPT
2			B								30/40 N>50		SPT
	60.05	(20)		**SILTSTONE (HW):** Brown/grey, fine grained, subtly foliated, mainly low strength.							DD = 2.28t/m³; WD = 2.40t/m³; MC = 5.4%; UCS= 3.4 MPa		UCS
3											Is(50) = 0.47MPa		x
											J, 70°, Pl, T, S, Clnf Is(50) = 0.47MPa		o
											HF BZ		
		100 (8)		Defects: -Foliation parting at 50° (~5/m) -Joint at 50°-60° (2-3/m) -Joint at 80° (<1/m)							J, 80°, Pl, O, Clnf, 3mm		
4											FP, 40°, Pl, T, Clnf		
											FP, 40°, Pl, T, Clnf FP, 40°, Pl, O, Clnf, 3mm		
				Defect spacing is close to medium. Defect surfaces are planar, tight, smooth, thinly clay infilled, iron stained.							Clay Seam, 40°		
						HW					J, 50°, Pl, T, S, FeSt, Clnf		
5											J, 30°, Pl, T, S, FeSt Is(50) = 0.77MPa		x
		100 (39)									Is(50) = 1.48MPa		o
											High strength band Is(50) = 0.70MPa		x
											Is(50) = 1.28MPa		o
											High strength band, 40°		
6											DD = 2.37t/m³; MC = 3.7%;		UCS
											J, 10°, O, Clnf, 5mm UCS=5.6MPa		
	56.29												
		100 (12)		**SANDSTONE (MW):** Grey/brown, bedded, medium to high strength, indurated and/or slightly metamorphosed. Prominent siltstone interbeds. Bedding dips at 40°-50°.							Is(50) = 0.04MPa		x
7											J, 70°, Pl, T, S, Clnf Is(50) = 1.36MPa		o
											BP, 40°, Pl, O, R, Clnf		
											BP, 40°, Pl, T, FeSt		
											J, 70°, Pl, C, FeSt		
											BP, 40°, Pl, O, Clnf Is(50) = 0.78MPa		x
8		100 (31)		Defects: -Clayey broken zones up to 250mm. -Quartz veins up to 200mm. -Bedding parting at 40°-50° (~5/m) -Joint at 70° (1/m)							Is(50) = 1.26MPa		o
						MW					J, 50°, Pl, O, S, Clnf, FeSt		
											J, 20°, Curved, O, SR, FeSt		
9				Defect spacing is close to medium. Defect surfaces are planar, tight, smooth, clay infilled, iron stained.							J, 60°, Pl, T, S, FeSt		
											J, 70°, Pl, T, S, FeSt		
											BP, 40°, Pl, O, Clnf Is(50) = 2.68MPa		x
		100 (0)									Is(50) = 2.34MPa		o
10											BP, 30°, Pl, O, Clnf		

REMARKS

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GLD_DMR_LIB_01A.GLB Log A_ENGINEERING BOREHOLE LOG W LITHOLOGY FG5799 - BRUCE HWY UPGRADE SECTION C.GPJ DWG46352.GDW Datgel CPT Tool gINI Add-In 12/12/2011 16:31

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DEPTH (m)	R.L. (m)	AUGER / CASING / 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	52.80				**SANDSTONE (MW):** Cont'd									
			100 (11)									Clay Seam, 30° BP, Pl, O, Cinf, 10mm Broken Quartz band Clay Seam		
11			100 (25)									QZ vein BP, 40°, Pl, O, S, FeSt Is(50) = 1.63MPa		x
12								MW				Clay Seam		
			100 (48)									BP, 50°, Pl, T, S, FeSt		
13												BP, 50°, Pl, T, S, FeSt Is(50) = 0.07MPa Is(50) = 2.38MPa		x o
												BP, 40°, Pl, T, Cinf		
14	48.80				**SANDSTONE (SW):** Grey, fine grained, bedded, high to very high strength, indurated and/or slightly metamorphosed. Prominent siltstone interbeds. Bedding dips at 40°. Defects: -Quartz veins up to 40mm. -Bedding parting at 40° (3-4/m) -Joint at 60° (1/m) Defect spacing is medium to wide. Defect surfaces are planar, tight, smooth, iron stained.							QZ vein, 50° BP, 30°, Pl, T, FeSt Is(50) = 0.68MPa Is(50) = 3.29MPa J, 20°, Pl, O, R, FeSt BP, 60°, Pl, O, Thinly Cinf		x o
			100 (66)											
15								SW				DD = 2.58t/m^3; MC = 1.4%; J, 50°, Pl, O, SR, FeSt UCS=18.4MPa BP, 40°, Pl, O, S, FeSt		UCS
	46.96		100									BP, 40°, Pl, O, S, FeSt Is(50) = 2.06MPa Is(50) = 4.47MPa		x o
16					Borehole terminated at 15.84m									
17														
18														
19														
20														

REMARKS

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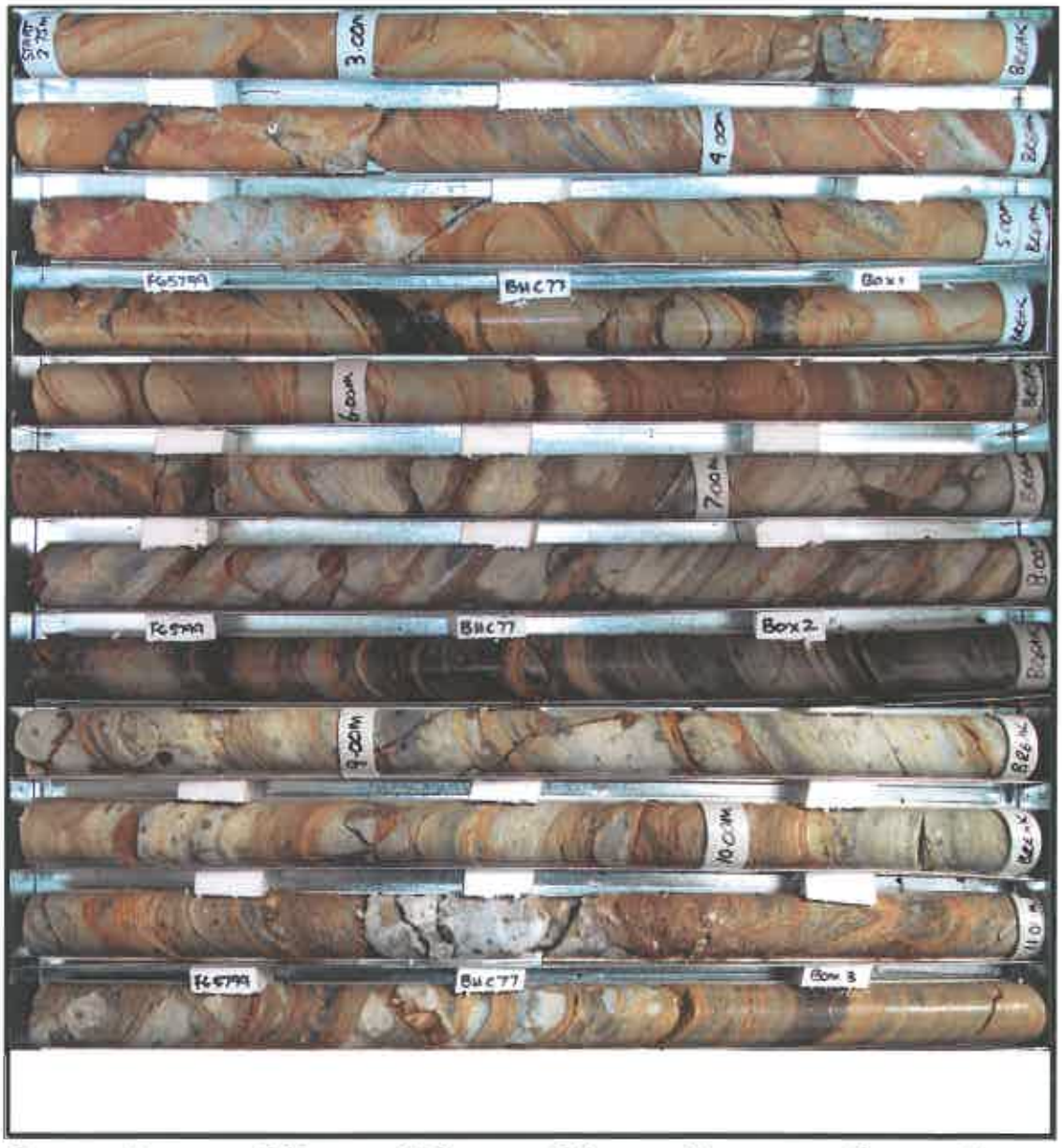
Queensland Government

CORE PHOTO LOG - BH C77

Project Name:	BRUCE HIGHWAY UPGRADE - SECTION C		
Project No.:	FG5799	Date:	08/09/2011
Details:	Keefton Rd	Start Depth (m):	2.75
Reference No.:	H11152	Finish Depth (m):	15.84



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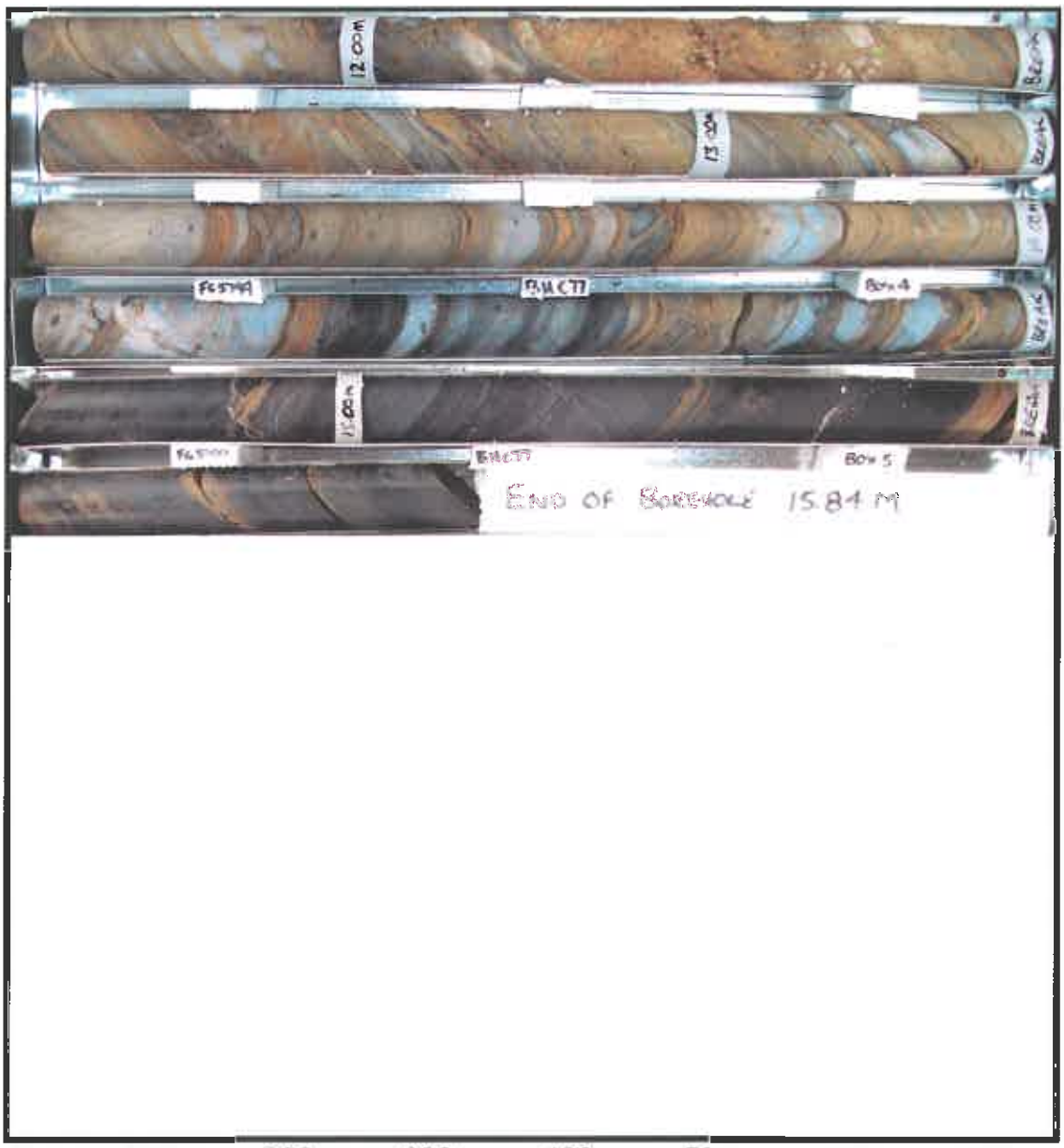

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