ENGINEERING BOREHOLE LOG

Queensland Government

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

BOREHOLE No **BH05**
SHEET 1 of 2
REFERENCE No **H11015**

PROJECT Moreton Bay Rail Link
LOCATION Bridge 3, Ch.2820 COORDINATES 500051.3 E; 6985143.0 N
PROJECT No FG5921 SURFACE R.L. 18.70m PLUNGE DATE STARTED 31/5/11 GRID DATUM MGA94 Zone 56
JOB No 250/120/3 HEIGHT DATUM AHD BEARING DATE COMPLETED 31/5/11 DRILLER R&D Drilling Pty Ltd

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
0	18.70				**Silty CLAY (RESIDUAL)** Mottled orange red to brown, moist, very stiff. Medium to high plasticity. Contains iron stained nodules.							Based on Driller's logs only	
1				A			(CI-CH)					4,8,12 N=20; LL-55%, PI=20%, LS=13+	SPT
2				B	Becoming more sandy below 2m.							4,6,12 N=18; LL-57%, PI=33%, LS=14+	SPT
3	15.70			C	**Conglomeratic SANDSTONE** **Medium to coarse grained, massive, poorly cemented sedimentary rock** **XW:** Generally exhibits the engineering properties of pale grey, moist, hard, gravelly sandy clay.		XW					15,22,30/110mm N>50	SPT
4				D	Sand fraction is medium grained. Gravel fraction is subangular, high strength, sizing <20mm.							14,19,24 N=43	SPT
5	13.70		(0)		Red brown iron staining throughout. **HW:** Grey to red, medium to coarse grained, very low strength. Exhibits engineering properties of hard conglomeratic gravelly clay.		HW				High strength inclusion (siliceous?)		
6			100 (0)		Very low strength. Gravel fraction is subangular to subrounded.						Band of coarse grained, well sorted particles		
7			100		Contains quartzitic fragments sizing <40mm.								
8			(0) 100 (0) 100 (0) 100 (0) 54 100 (0) 100 (0)		Iron stained bands <120mm. Frequent blue grey, fine grained, high strength quartzitic bands <80mm.						High strength quartzitic bands High strength QZ band		
9	10.06		(0) 100 100 (0) 100		**CLAYSTONE** **Fine grained sedimentary rock comprising mainly of clay-sized particles** **HW:** Mottled grey to orange red brown, fine grained, massive with minor laminations, very low strength.		HW				Possible XW bands		
10			(0) (90) 100 (44)										

REMARKS

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10	8.70				**CLAYSTONE** **HW:** (Cont'd) Orange iron stained bands sizing <250mm long.									
			25 (20)											
			100 (10)		Defects: - Joints @ 15-20° (1/m)							Is(50) = 0.07MPa Is(50) = 0.09MPa	x o	
11					Defect surfaces are mainly medium to widely spaced, smooth, open or infilled with secondary minerals.			HW						
			100 (88)		Becoming interbedded with silts and muds below 12.0m.							Is(50) = 0.10MPa	x	
12	6.20											Is(50) = 0.35MPa	x	
					Interbedded SILTSTONE and MUDSTONE **Fine grained sedimentary rock comprising of silt and mud-sized particles** **HW:** Grey to dark grey, black, orange brown, massive, fine grained, very low to low strength.							Is(50) = 0.16MPa Is(50) = 0.05MPa	x o	
13			91 (100)									Is(50) = 0.07MPa Is(50) = 0.04MPa	x o	
14					Defects: - Drilling-induced lamination partings (~2/m) - Joints @ 45-50° (1/m) - Joints @ 70-75° (1/m)									
			100 (52)		Defect surfaces are mainly medium spaced, clean, smooth, open, clean and minor iron stained.									
15														
16								HW				Is(50) = 0.12MPa	x	
			100 (42)											
17												FeSt <17.0m Is(50) = 0.21MPa	o	
18			100 (83)											
19	-0.60		100									Is(50) = 0.19MPa	x	
20					Borehole terminated at 19.3m									

REMARKS

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Project Name	**Moreton Bay Rail Link (MBRL)**		
Project No	FG5921	**Date**	31/05/11
Borehole No	BH 5	**TMR H No**	11015
Location	Goodfellows Rd Bridge & Cutting	**Start Depth (m)**	5.00
Detail	Structure	**Finish Depth (m)**	19.30
Chainage	**2840 Approx**	**Submitted By**	**BW**
Remarks			

CORE PHOTO LOG
DEPARTMENT OF TRANSPORT & MAIN ROADS
Geotechnical Branch
35 Butterfield Street, HERSTON Qld 4006
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GEOT043/1

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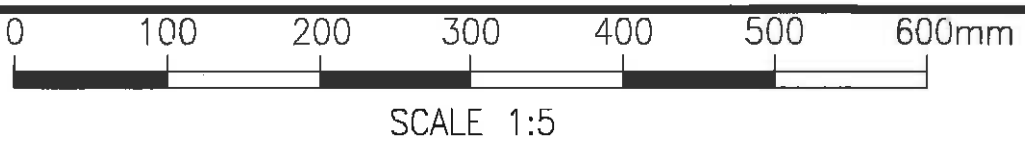

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