ENGINEERING BOREHOLE LOG

Queensland Government

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

BOREHOLE No **BH62**
SHEET 1 of 3
REFERENCE No **H11101**

PROJECT Moreton Bay Rail Link
LOCATION Fill 15, Ch.8380 COORDINATES 504227.6 E; 6988374.1 N
PROJECT No FG5921 SURFACE R.L. 2.50m PLUNGE DATE STARTED 19/7/11 GRID DATUM MGA94 Zone 56
JOB No 250/120/3 HEIGHT DATUM AHD BEARING DATE COMPLETED 19/7/11 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	2.50				**Silty SAND (Alluvium)** Dark grey to black, moist,fine grained, loose to medium dense. Organic contents: minor clay fraction throughout.		(SM/SP)					Based on Driller's logs only		
1				A								1,3,6 N=9		SPT
	1.00				**Silty CLAY (Residual)** Mottled red brown and grey, moist, firm to stiff.									
2				B	Medium plasticity.		(CI)					4,4,4 N=8		SPT
	0.00				Iron staining throughout.									
3				C	**SANDSTONE** **Fine to medium grained, massive, poorly cemented sedimentary rock mainly comprising of sand size particles** **XW:** Generally exhibits engineering properties of yellow orange and red mottled, moist, fine grained, medium dense silty sand.							4,6,12 N=18		SPT
4				D	Contains iron concretionary nodules throughout. Becoming moist to wet between 5m and 6m depth.							13,14,18 N=32		SPT
5				E	Highly iron stained bands below 6m depth.							4,5,9 N=14		SPT
6				F			XW					5,8,30 N=38		SPT
7				G								11,8,8 N=16		SPT
8				H								14,8,10 N=18		SPT
	-6.00				**HW:** Yellow grey, moist, fine grained, dense to very dense silty sand.									
9				J	Minor clay fraction throughout.		HW					6,9,16 N=25		SPT
10					**(See over)**									

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REMARKS

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DEPTH (m)	R.L. (m)	RQD ( ) % / CORE REC %	SAMPLE	MATERIAL DESCRIPTION	USC	WEATHERING	ADDITIONAL DATA AND TEST RESULTS	SAMPLES	TESTS
10	-7.50		K	**SANDSTONE** **HW:** (Cont'd) Relict rock structure visible throughout; iron staining in parts. Contains interbeds of claystone below 10m, approx. 500mm thick.			8,11,20 N=31	SPT	
11			L				17,26,23 N=49	SPT	
12		(44)		Becoming grey, fine to medium grained, massive, very low to low strength. Contains interbeds of claystone; occasional carbonaceous material in parts.		HW			
13	-10.76						Is(50) = 0.25MPa Is(50) = 0.50MPa		x o
		100 (76)		**MW:** Grey, fine to medium grained, massive with slightly laminations, low to medium strength. Defects: - Drilling-induced lamination / bedding partings @ 5° (2-3/m) - Joint @ 30° (1/m) - Joints @ 45° (2-3/m)			Is(50) = 0.29MPa Is(50) = 0.39MPa Is(50) = 0.85MPa Is(50) = 0.64MPa Is(50) = 0.32MPa Is(50) = 0.53MPa		x o x o x o
14						MW			
15		100 (74)		Defect surfaces are medium to wide spaced, irregular, rough, close, clean or with clay infill.			Is(50) = 0.98MPa Is(50) = 1.56MPa Is(50) = 0.78MPa Is(50) = 1.03MPa		x o x o
16	-13.46						Is(50) = 0.79MPa Is(50) = 0.71MPa		x o
		100 (74)		**MUDSTONE** **SW:** Dark grey to black, laminated, low to medium strength. Low strength broken zone below 16.4m, approx. 100mm thick.		SW	BZ		
17				Defects: - Drilling induced lamination partings @ 5° (2-3/m) - Joint @ 45°(1/m) - Subhorizontal joint @ 80-90° (1/m)					
	-15.01						Is(50) = 0.83MPa Is(50) = 1.02MPa		x o
18		100 (63)		Defect surfaces are close to medium spaced, planar, smooth and slightly rough, open, clean or clay infilled.			Sandstone interbeds Is(50) = 0.32MPa Is(50) = 0.48MPa Defect surfaces are medium spaced, planar, irregular, smooth and slightly rough, open and close with clay infill. Cabronacerous lens in parts.		x o
				Interbedded SANDSTONE and MUDSTONE **SW:** Grey and dark balck, fine grained, laminated, low to medium strength. Defects: - Drilling induced lamination partings @ 5-10° (3-4/m) - Joint @ 10° (1/m) - Joints @ 30-45° (2-3/m)		SW	Is(50) = 0.57MPa Is(50) = 1.15MPa Is(50) = 0.79MPa Is(50) = 0.87MPa		x o x o
19		100 (58)					Sandstone interbeds Is(50) = 0.76MPa Is(50) = 2.84MPa		x o
	-17.30								
20						SW	Is(50) = 0.48MPa		x

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20	-17.50				**MUDSTONE**									
					SW: Dark grey to black, massive with minor lamination, medium strength.		SW					Is(50) = 0.99MPa		x
	-18.00		100									Is(50) = 1.54MPa		o
					Borehole terminated at 20.5m									
21														
22														
23														
24														
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26														
27														
28														
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Project Name	**Moreton Bay Rail Link (MBRL)**		
Project No	FG5921	**Date**	19/07/11
Borehole No	BH 62	**TMR H No**	
Location	Hays Inlet Rail Bridge	**Start Depth (m)**	12.00
Detail	Structure	**Finish Depth (m)**	20.50
Chainage	8380	**Submitted By**	**BW**
Remarks	Near CPTu 8		

CORE PHOTO LOG
DEPARTMENT OF TRANSPORT & MAIN ROADS
Geotechnical Branch
35 Butterfield Street, HERSTON Qld 4006
Phone 07 3115 3035 Fax 07 3115 3011

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