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Moreton Bay Rail Link

PROJECT

## ENGINEERING **BOREHOLE LOG**

BOREHOLE No	<u>BH13</u>
SHEET	<u>1</u> of <u>2</u>
REFERENCE No	<u>H11023</u>

BW / LVD

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

LO	LOCATION <u>Cut 4, Ch.5520</u> E; 6986126.6 N													
PR	PROJECT No FG5921 SURFACE R.L26.60m PLUNGE DATE STARTED 12/5/11 GRID DATUM MGA94 Zone 56							56						
JOE	3 No	250/1	20/3		HEIGHT DATUM <u>AHD</u> BEARING			DATE CON	MPLETED _	<u>12/5/</u>	<u>11</u>	DRILLER	R&D Drilling F	Pty Ltd
o DEPTH (m)	R.L. (m)	AUGER CASING OTHER CORE DRILLING	CORE	SAMPLE	MATERIAL DESCRIPTION	гітногоду	USC WEATHERING	INTACT STRENGTH	DEFECT SPACING (mm)	GRAPHIC LOG		DITIONAL D AND EST RESUL		SAMPLES TESTS
	24.60				SANDSTONE Medium to coarse grained, massive, poorly cemented sedimentary rock mainly comprising sand-sized particles XW: Generally exhibits engineering properties of light brown red, moist, medium to coarse grained, dense sand. Gradually grading into low strength rock with depth.		xw				- depth.	uctive drilling up Driller's logs or		
				_A_	HW: As above.		нw						N>50	SPT
LTHOLOGY FG5921 MORETON BAY RAIL LINK GPJ < <drawingfile>&gt; Datgel CPT Tool gINt Add-In 06/10/2011 14:45 </drawingfile>	24.10		(85) 100 37	X	MW: Grey pink, fine grained, massive with faint laminations, low to medium strength. Defects: - Drilling-induced lamination partings @ 5-10° (2/m) - Joints @ 10° (1-2/m) - Joints @ 35° (1-3/m) Defects surfaces are mainly medium to widely spaced, irregular, rough, open and closed, clay infilled and iron stained. Red iron staining between 4.8m - 8.5m.		MW				– Heavily Fe	Is(50 Is(50 Is(50 Is(50 Is(50 Is(50 Is(50 Is(50)	<ul> <li>a) = 0.50MPa</li> <li>b) = 0.42MPa</li> <li>b) = 0.48MPa</li> <li>c) = 0.35MPa</li> <li>c) = 0.55MPa</li> <li>c) = 0.55MPa</li> <li>c) = 0.47MPa</li> <li>c) = 0.31MPa</li> <lic>c) = 0.31MPa <lic>c) = 0.40MPa </lic></lic></ul>	0 X 0 X 0 X 0 X 0 X 0 X 0 X 0 X 0 X 0 X
			100		Contains day bands in parts.							le(5(	)) = 0.33MPa	- -
QLD_DMR_LUB_01A.GLB_Log_A_ENGINEERING_BOREHOLELOGW_LITHOLOGY_FG5921 MORE 			100		Becoming pale grey between 8.0 - 10.0m.						PROPOSE	ls(50 ls(50	)) = 0.29MPa )) = 0.30MPa )) = 0.40MPa	x
												ls(50	)) = 0.29MPa	x -
													)) = 0.36MPa	0
		S Obser	vation w	ell in	stalled. Infiltration zone 14.0 and 17.0m.								DGGED BY	

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Moreton Bay Rail Link

<u>Cut 4, Ch.5520</u>

PROJECT

LOCATION

## ENGINEERING BOREHOLE LOG

BOREHO	LE No	<u>_BH13</u>
SHEET		2 of2
REFEREN	NCE No	<u>H11023</u>

LOGGED BY

BW / LVD

COORDINATES 502547.2 E; 6986126.6 N

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

JOB No <u>250/120/3</u> HEIGHT DATUM <u>AHD</u> <u>BEARING</u> DATE COMPLETED <u>12/5/11</u> DRILLER <u>R&amp;D Drilling Pty_Ltd</u> <u>R.L.</u> <u>R.L.</u> <u>R.D.</u> <u>ROD</u> <u>C ( )%</u> <u>H</u> <u>AHD</u> <u>BEARING</u> <u>DESCRIPTION</u> <u>DESCRIPTION <u>DESCRIPTION</u> <u>DESCRIPTION <u>DESCRIPTION</u> <u>DESCRIPTION <u>DESCRIPTION</u></u></u></u>											11 GRID DATUM MGA94 Zone	
R.L.       ROD ()%       MATERIAL DESCRIPTION       MATERIAL DESCRIPTION       MATERIAL USSUBJER       MATERIAL USSUBJER       DEFECT STRENGTH       DEFECT SPACING (mm)       ADDITIONAL DATA         10       16.60       CORE       W       MATERIAL       DESCRIPTION       W       VIENTIACT       DEFECT STRENGTH       SPACING (mm)       0       ADDITIONAL DATA       AND       SI         10       16.60       CORE       SANDSTONE       MW       VIENTIACT       DEFECT       SPACING (mm)       VIENTIACT       DESCRIPTION         10       16.60       CORE       CORE       MW       VIENTIACT       DEFECT       SPACING (mm)       VIENTIACT       ADDITIONAL DATA         10       16.60       VIENTIACT       SANDSTONE       MW       VIENTIACT       DEFECT       ADDITIONAL DATA         10       16.10       100       SANDSTONE       MW       VIENTIACT       DISCRIPTION       SISSO = 0.15MPa       X         11       100       Conglomeratic SANDSTONE       MW       VIENTIACT       SISSO = 0.15MPa       X         11       100       Contains quartzitic chert, opal grains sizing <30mm, approx. 500mm thick.												
Image: Construct of the second sec	JOB No	250/	120/3					DATE COM	IPLETED	12/5/	<u>11DRILLERR&amp;D_Drilling I</u>	Pty Ltd
10       10.00       SANDSTONE MW: (Cont'd)       MW	(m) (m)	近いが	()%	AMPLE		ТНОГОСУ	SC /EATHERING	STRENGTH	SPACING (mm)	RAPHIC LOG	AND	SAMPLES TESTS
16.10       MW: (Cont'd)       MW       Vein of opal in CLy matrix         16.10       Is(50) = 0.15MPa o       x         0       Conglomeratic SANDSTONE HW: Grey to dark red brown, coarse grained, massive, low strength.       QZ groundmass (s(50) = 0.15MPa o       x         0       Contains quartzitic chert, opal grains sizing <30mm, approx. 500mm thick.	_10 _16.60	0005	REC %	ري ا			S∣≥			U		- v ⊢
HW: Grey to dark red brown, coarse grained, massive, low strength. Contains quartzitic chert, opal grains sizing <30mm, approx. 500mm thick. Defects: - Joint @ 10° - Joint @ 60° Defect surfaces are medium to widely spaced irregular rough open and closed	<u>16.10</u>		100	$\vdash$	MW: (Cont'd)		мw				ls(50) = 0.15MPa	
$\begin{array}{c c} Is(50) = 0.10MPa & x \\ Is(50) = 0.24MPa & o \\ Is(50) = 0.24MPa & o \\ Is(50) = 0.37MPa & x \\ Is(50) = 0.44MPa & o \\ Is(50) = 0.44$	- 12				<ul> <li>HW: Grey to dark red brown, coarse grained, massive, low strength.</li> <li>Contains quartzitic chert, opal grains sizing &lt;30mm, approx. 500mm thick.</li> <li>Defects: <ul> <li>Joint @ 10°</li> <li>Joint @ 60°</li> </ul> </li> <li>Defect surfaces are medium to widely spaced, irregular, rough, open and closed, clay infilled or iron stained.</li> </ul>						approx. 500mm thick Is(50) = 0.35MPa Is(50) = 0.26MPa Is(50) = 0.20MPa Is(50) = 0.10MPa Is(50) = 0.10MPa Is(50) = 0.24MPa Is(50) = 0.37MPa Is(50) = 0.44MPa	X
Image: Second process of the second	JFile>> Datgel CPT				staining between 14.0 - 14.3m.		нw				ls(50) = 0.19MPa	0
100 100 100 100 100 100	MORETON BAY RAIL LINK GPJ < <drawing </drawing 										Is(50) = 0.18MPa Is(50) = 0.26MPa	
1000         1000 <td< td=""><td>LTHOLOGY FG5921</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>ls(50) = 0.57MPa ls(50) = 0.50MPa ls(50) = 0.79MPa</td><td>0 X</td></td<>	LTHOLOGY FG5921										ls(50) = 0.57MPa ls(50) = 0.50MPa ls(50) = 0.79MPa	0 X
9.27 100 FeSt zone	§ 9.27		100		Developed at 17 00m						⊢ FeSt zone	
13         100         Becoming grey at 13.2m.         HW         Is(50) = 0.3MPa x is(50) = 0.2MPa x is(50) = 0.3MPa x is(50) = 0.4MPa x is(50) = 0.2MPa x is(50) = 0.2M	D_DMR_LIB_01AGLB_Log_A_ENGINEERING BOREHOLE LC				Borenole terminated at 17.33m							
	ರ <u>20</u>								<u>t · · · · · · · · · · · · · · · · · · ·</u>			

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REMARKS Observation well installed. Infiltration zone 14.0 and 17.0m.



Project Name	Moreton Bay Rail Link (MBRL)	S.	
Project No	FG5921	Date	12/05/11
Borehole No	BH 1 <b>3</b>	TMR H No	11023
Location		Start Depth (m)	6.00
Detail	Cutting	Finish Depth (m)	17.33
Chainage	Approx	Submitted By	BW
Remarks			



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Project Name	Moreton Bay Rail Link (MBRL)		
Project No	FG5921	Date	12/05/11
Borehole No	BH 13	TMR H No	11023
Location		Start Depth (m)	2.50
Detail	Cutting	Finish Depth (m)	17.33
Chainage	Approx	Submitted By	BW
Remarks			· · · · · · ·
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