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# ENGINEERING BOREHOLE LOG

BOREHOLE No	<u>    BH166    </u>
SHEET	<u>    1    </u> of <u>    2    </u>
REFERENCE No	<u>    12107    </u>

FOR GEOTECHNICAL TERMS AND SYMBOLS REFER FORM F:GEOT 017/8-2014

PROJECT Mackay Ring Road Geotechnical Investigation - Stage 1  
LOCATION QR Port Rail Overpass Abutment B; CH: 11085m; COORDINATES 721172.5 E; 7663307.7 N  
PROJECT No FG6184 SURFACE R.L. 21.48m PLUNGE \_\_\_\_\_ DATE STARTED 7/11/14 GRID DATUM GDA 94 /MGA Zone 55  
JOB No \_\_\_\_\_ HEIGHT DATUM AHD BEARING \_\_\_\_\_ DATE COMPLETED 8/11/14 DRILLER Saxon Drilling

DEPTH (m)	R.L. (m)	AUGER CASING WASH BORING CORE DRILLING	RQD (%)	CORE REC %	SAMPLE	MATERIAL DESCRIPTION	LITHOLOGY	USC WEATHERING	INTACT STRENGTH			DEFECT SPACING (mm)			GRAPHIC LOG	ADDITIONAL DATA AND TEST RESULTS	SAMPLES TESTS
									EH	EH	EL	EC	EC	EW			
0	21.48					<b>Silty CLAY (TOPSOIL)</b> Dark brown, moist to dry, soft to firm. Low plasticity. Trace fine to medium gravel.	(CL)										
1.00	20.48				A	<b>Silty CLAY (RESIDUAL)</b> Yellow-brown, moist, stiff. Medium plasticity.	(CL-CI)									2.4,6 N=10	SPT
2					B	2.00m: High silt content. Becoming low plasticity.	(CL-CI)									2,3,9 N=12	SPT
2.80	18.68				C	<b>MICRODIORITE (Kgwu)</b> <b>XW:</b> Recovered as brown, grey and yellow, moist to dry, very dense Clayey SAND. Fine to medium grained. Some fine, angular rock fragments.	XW									30/150	SPT
3					D	<b>MICRODIORITE (Kgwu) XW:</b> Recovered as yellow-brown and grey, moist to dry, very dense Gravelly SAND.	XW									13,30/150	SPT
4.00	17.48			(0)		<b>MICRODIORITE (Kgwu) HW:</b> Pale grey-brown, fine grained, massive, mainly medium strength. Fractured throughout. Some XW zones with EL strength.	HW										
4.37	17.11			(0)			XW										
5				100		5.33m: Becoming MW.	MW										
5.95	15.53			(17)													
6				100		<b>MICRODIORITE (Kgwu) SW:</b> Brown-grey, fine grained, massive, high to very high strength. Some HW-MW zones with low to medium strength. Defects: - Js; 10° (3/m); Pl/Ro, OP-TI, Fe St or Cn; - Js; 30° (4/m); Pl/Ro, OP-TI, Fe St or Cn; - Js; 80° (1/m); Pl/Ro, OP-TI, Fe St or Cn;	SW										
6.90				(21)													
7				100													
8				(0)													
8				100													
8				(0)													
8				100													
9				(23)													
9				100		9.10m: Becoming very high to extremely high strength; dark grey.											
9				(62)													
9				100													
9				(63)													
9				100													
9				(63)													
10																	

TMR JAN 15.GLB Log\_A\_ENGINEERING BOREHOLE LOG W LITHOLOGY FG6184 - BOREHOLES.GPJ <<DrawingFile>> Date: get CPT Tool gInt.Avd-In 04/03/2015 10:52

REMARKS Kgwu - Wundaru Granodiorite;  
# Sample failed along existing defect surface.

LOGGED BY  
**MS**



# ENGINEERING BOREHOLE LOG

FOR GEOTECHNICAL TERMS AND  
SYMBOLS REFER FORM F:GEOT 017/8-2014

BOREHOLE No	<u><b>BH166</b></u>
SHEET	<u> 2  </u> of <u> 2  </u>
REFERENCE No	<u><b>12107</b></u>

PROJECT  Mackay Ring Road Geotechnical Investigation - Stage 1   
 LOCATION  QR Port Rail Overpass Abutment B; CH: 11085m;  COORDINATES  721172.5 E; 7663307.7 N   
 PROJECT No  FG6184  SURFACE R.L.  21.48m  PLUNGE \_\_\_\_\_ DATE STARTED  7/1/14  GRID DATUM  GDA 94 /MGA Zone 55   
 JOB No \_\_\_\_\_ HEIGHT DATUM  AHD  BEARING \_\_\_\_\_ DATE COMPLETED  8/11/14  DRILLER  Saxon Drilling

DEPTH (m)	R.L. (m)	AUGER CASING WASH BORING CORE DRILLING	RQD ( ) %	CORE REC %	SAMPLE	MATERIAL DESCRIPTION	LITHOLOGY	USC	WEATHERING	INTACT STRENGTH							DEFECT SPACING (mm)							GRAPHIC LOG	ADDITIONAL DATA AND TEST RESULTS	SAMPLES TESTS										
										EH	VH	H	M	J	VL	EL	EC	VC	W	VW	EW															
10	11.48																																			
-10.15	11.33		100			<b>MICRODIORITE (Kgwu) SW: (Cont'd)</b> Borehole terminated at 10.15m .	+	SW																												
11																																				
12																																				
13																																				
14																																				
15																																				
16																																				
17																																				
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REMARKS  Kgwu - Wundaru Granodiorite;   
 # Sample failed along existing defect surface.

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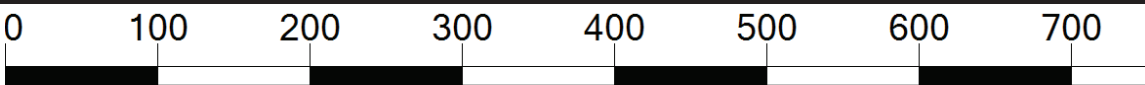
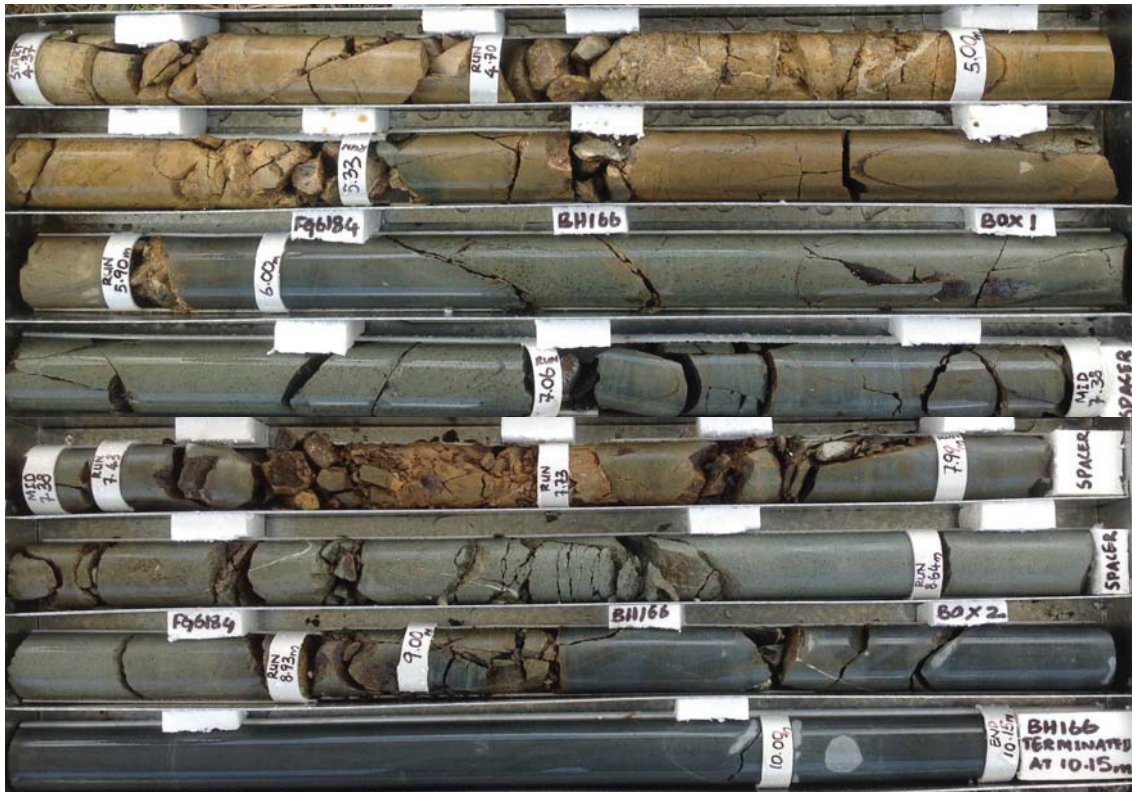
**CORE PHOTO LOG**

DEPARTMENT OF TRANSPORT & MAIN ROADS  
 Geotechnical Branch  
 35 Butterfield Street, HERSTON Qld 4006  
 Phone 07 3066 3336



Department of  
 Transport and Main Roads

Project Name	<b>Mackay – Ring Road</b>		
Project No	FG6184	Date	08/11/14
Borehole No	BH166	TMR H No	12107
Location	QR Port Rail Overpass	Start Depth (m)	4.37
Detail	Abutment B	Finish Depth (m)	10.15
Chainage	<b>11085m</b>	Submitted By	J. Lopez
Remarks			



SCALE 1:5