

## **COPYRIGHT NOTICE**

This geotechnical log and its associated data (the Document) is licensed by the Queensland Department of Transport and Main Roads under the [Creative Commons Attribution 4.0 Licence](#) (CC BY 4.0). When reusing the Document, in whole or in part, please attribute the Department as follows: "*(c) State of Queensland (Department of Transport and Main Roads) 2020, licensed under the CC BY 4.0 Licence*". This licence does not apply to the Queensland Government logo or trademarks.

## **LIMITATION OF LIABILITY**

The CC BY 4.0 Licence contains a comprehensive Disclaimer of Warranties and Limitation of Liability. In addition, please note that this Document was prepared for Departmental use only. Reuse of the Document by anyone for any other purpose could result in error and/or loss. You should obtain professional advice before making decisions based on the contents of the Document.

When reproducing any part of this Document, you must also reproduce this limitation of liability notice in addition to the italicised attribution statement above.

Retrieved from the Queensland Geotechnical Database <http://qgd.org.au/>

**ENGINEERING  
BOREHOLE LOG**

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

BOREHOLE No BH159

SHEET 1 of 2

REFERENCE No 12100

PROJECT Mackay Ring Road Geotechnical Investigation - Stage 1  
 LOCATION Embankment - North of Sugarshed Road; CH: 10859m; COORDINATES 721278.0 E; 7663107.1 N  
 PROJECT No FG6184 SURFACE R.L. 10.73m PLUNGE        DATE STARTED 17/12/14 GRID DATUM GDA 94 /MGA Zone 55  
 JOB No        HEIGHT DATUM AHD BEARING        DATE COMPLETED 17/12/14 DRILLER ND Drilling Pty Ltd

DEPTH (m)	R.L. (m)	AUGER CASING WASH BORING CORE DRILLING	RQD (%)	CORE REC %	SAMPLE	MATERIAL DESCRIPTION	LITHOLOGY	USC	WEATHERING							DEFECT SPACING (mm)	GRAPHIC LOG	ADDITIONAL DATA AND TEST RESULTS	SAMPLES TESTS
									EH	VH	H	M	J	VL	EL				
0	10.73					<b>Sandy CLAY (TOPSOIL)</b> Black, moist, firm. Medium plasticity. Fine to coarse grained sand. Roots & root fibres.	(Cl)												
0.40	10.33						(Cl)												
0.80	9.93					<b>CLAY (ALLUVIUM)</b> Black, moist, firm. Medium Plasticity.	(Cl)												
1					A	<b>CLAY (RESIDUAL)</b> Orange, grey, moist, stiff. Medium Plasticity.	(Cl)											$Su_{(PB)}=110kPa;$	U50
1.30	9.43					<b>Sandy CLAY (RESIDUAL)</b> Orange, grey, white, moist, stiff. sand is fine to coarse grained. Medium plasticity.	(Cl)												2,2,3 N=5
2					B	Clayey Sand bands 1.30-1.80m and 3.20-4.00m	(Cl)												
3					C		(Cl)											$Su_{(PP)}=>250kPa;$	U50
4	6.73						(Cl)											4.00m: Water seepage.	
5					D	<b>GRANODIORITE (Kgwu)</b> XW: White, grey, orange, phaneritic, extremely low strength.	+											10,19,21 N=40	SPT
6					E		+	XW										14,18,33 N=51	SPT
7					F		+											18,24,35 N=59	SPT
8	4.23					<b>GRANODIORITE (Kgwu)</b> HW: White, grey, orange, phaneritic, very low strength.	+												
9					G		+											14,31,38 N=69	SPT
10					H		+	HW										23,44/120	SPT
9.20	1.53				J		+											40/100	SPT
						<b>GRANODIORITE (Kgwu)</b> HW: White, grey, black, very low to low strength.	+												
							+	HW											

REMARKS Kgwu - Wundaru Granodiorite;

LOGGED BY  
ML



# ENGINEERING BOREHOLE LOG

BOREHOLE No   BH159    
 SHEET   2   of   2    
 REFERENCE No   12100  

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

PROJECT   Mackay Ring Road Geotechnical Investigation - Stage 1    
 LOCATION   Embankment - North of Sugarshed Road; CH: 10859m;   COORDINATES   721278.0 E; 7663107.1 N    
 PROJECT No   FG6184   SURFACE R.L.   10.73m   PLUNGE \_\_\_\_\_ DATE STARTED   17/12/14   GRID DATUM   GDA 94 /MGA Zone 55    
 JOB No \_\_\_\_\_ HEIGHT DATUM   AHD   BEARING \_\_\_\_\_ DATE COMPLETED   17/12/14   DRILLER   ND Drilling Pty Ltd  

DEPTH (m)	R.L. (m)	AUGER CASING WASH BORING CORE DRILLING	RQD (%)	CORE REC %	SAMPLE	MATERIAL DESCRIPTION	LITHOLOGY	USC	WEATHERING											DEFECT SPACING (mm)	GRAPHIC LOG	ADDITIONAL DATA AND TEST RESULTS	SAMPLES TESTS		
									EH	VH	H	M	J	VL	EL	EC	VC	C	W					VW	EW
10	0.73																								
						<b>GRANODIORITE (Kgwu)</b> <b>HW: (Cont'd)</b>																			
11					K																			45/140	SPT
			(73)																						
11.67	-0.94																								
			100			<b>GRANODIORITE (Kgwu)</b> <b>MW: White, grey, brown, phaneritic, massive, medium strength, with extremely high strength band.</b>																			
			(78)																						
			100			Defects: - Js; 45°-60° (6/m); - Js; 0°-15° (5/m); - Js; 45°-60° (1/m);																			
13.09	-2.27																								
13						Borehole terminated at 13m. .																			
14																									
15																									
16																									
17																									
18																									
19																									
20																									

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

REMARKS   Kgwu - Wundaru Granodiorite;  

LOGGED BY  
**ML**

**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	17/12/14
Borehole No	BH159	TMR H No	12100
Location	North of Sugarshed Road	Start Depth (m)	11.4
Detail	Embankment	Finish Depth (m)	13.0
Chainage	<b>10859m</b>	Submitted By	DC
Remarks			

