

## **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 **BH104**  
SHEET **1** of **3**  
REFERENCE No **12051**

PROJECT Mackay Ring Road Geotechnical Investigation - Stage 1  
LOCATION Schmidtke's Road Overpass Abutment B; CH: 3850m; COORDINATES 720712.2 E; 7656224.5 N  
PROJECT No FG6184 SURFACE R.L. 11.28m PLUNGE \_\_\_\_\_ DATE STARTED 16/9/14 GRID DATUM GDA 94 /MGA Zone 55  
JOB No \_\_\_\_\_ HEIGHT DATUM AHD BEARING \_\_\_\_\_ DATE COMPLETED 17/9/14 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
0	11.28					<b>Silty Sandy CLAY (ALLUVIUM)</b> Brown-orange mottled grey, moist, firm to stiff. Medium to mainly high plasticity. Fine grained sand.	(CI-CH)						
1					A							4,6,8 N=14	SPT
1.60	9.68					<b>Silty SAND (ALLUVIUM)</b> Brown, moist, loose. Fine grained.	(SM)					16/09/2014	
2					B							4,3,3 N=6	SPT
3													
3.20	8.08				C	<b>Silty CLAY (ALLUVIUM)</b> Brown to dark brown, moist, firm to stiff. High plasticity. Trace fine sand.	(CH)					3,2,2 N=4	SPT
4					D							2,5,7 N=12	SPT
5					E	5.00m: Colour change to brown.						3,4,8 N=12	SPT
6													
6.30	4.98				F	6.10-6.30m: Thin lense of fine to medium grained sand.						6,3,5 N=8	SPT
7					G	<b>Sandy Silty CLAY (ALLUVIUM)</b> Brown-orange mottled grey, moist, hard. Low plasticity.	(CL)					12,30/90	SPT
8													
8.80	3.28				H	<b>Clayey SAND (ALLUVIUM)</b> Brown-orange mottled grey, moist, very dense. Fine to medium grained. Patches of low plasticity clay.						25,30/80	SPT
9					J	9.00m: Becoming dense.	(SC)					12,16,21 N=37	SPT
10													
10.10	1.28												

REMARKS Kgwu - Wundaru Granodiorite;

LOGGED BY  
MS

# ENGINEERING BOREHOLE LOG

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

BOREHOLE No **BH104**  
SHEET **2** of **3**  
REFERENCE No **12051**

PROJECT Mackay Ring Road Geotechnical Investigation - Stage 1  
LOCATION Schmidtke's Road Overpass Abutment B; CH: 3850m; COORDINATES 720712.2 E; 7656224.5 N  
PROJECT No FG6184 SURFACE R.L. 11.28m PLUNGE \_\_\_\_\_ DATE STARTED 16/9/14 GRID DATUM GDA 94 /MGA Zone 55  
JOB No \_\_\_\_\_ HEIGHT DATUM AHD BEARING \_\_\_\_\_ DATE COMPLETED 17/9/14 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
10	1.28												
11					K	<b>Silty CLAY (RESIDUAL)</b> Brown-orange mottled grey, moist, hard. High plasticity. Trace sand.						8,16,28 N=44	SPT
12					L							6,18,28 N=46	SPT
13					M							10,12,18 N=30	SPT
14					N	13.00m: Colour change to dark brown-grey mottled orange. Becoming mainly medium to high plasticity.	(CI-CH)					9,12,21 N=33	SPT
15					P							10,17,21 N=38	SPT
16					Q	15.00m: Becoming Silty Sandy CLAY. Medium plasticity.						11,17,24 N=41	SPT
17	-4.42				R	<b>Clayey SAND (RESIDUAL)</b> Brown-orange, moist, very dense. Fine to medium grained.	(SC)					17,30/120	SPT
18	-5.52				S	<b>GRANODIORITE (Kgwu)</b> XW: Recovered as white, grey and brown, moist to dry, very dense Clayey SAND. Medium to coarse grained.						17,30/120	SPT
19					T			XW				24,30/90	SPT
20	-7.82				U	<b>GRANODIORITE (Kgwu)</b> HW: White and brown-grey, medium to coarse grained, massive, very low strength. Defects: - Js; 40°-45° (1/m); Un/Ro, OP, Cly Vr;		HW				30/90 q <sub>u</sub> =359kPa; 19.30m-19.50m: XW rock recovered as Clayey SAND.	SPT

REMARKS Kgwu - Wundaru Granodiorite;

LOGGED BY  
MS

# ENGINEERING BOREHOLE LOG

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

BOREHOLE No BH104  
SHEET 3 of 3  
REFERENCE No 12051

PROJECT Mackay Ring Road Geotechnical Investigation - Stage 1  
LOCATION Schmidtke's Road Overpass Abutment B; CH: 3850m; COORDINATES 720712.2 E; 7656224.5 N  
PROJECT No FG6184 SURFACE R.L. 11.28m PLUNGE \_\_\_\_\_ DATE STARTED 16/9/14 GRID DATUM GDA 94 /MGA Zone 55  
JOB No \_\_\_\_\_ HEIGHT DATUM AHD BEARING \_\_\_\_\_ DATE COMPLETED 17/9/14 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
20	-8.72												
21				(80)		GRANODIORITE (Kgwu) HW: (Cont'd)	+					20.10m-20.35m: XW rock recovered as Clayey SAND.	UCS
22	-10.72			100 (71)			+	HW				q <sub>u</sub> =315kPa;	
23	-12.07			70 (0)		GRANODIORITE (Kgwu) XW: Recovered as grey-brown, dry, very dense Clayey SAND. Medium to coarse grained.	+	XW				22.20m-22.50m: Core Loss	
24				63 (0)			+					22.50m-22.65m: Core Loss	
25				100			+	XW					
26						Borehole terminated at 23.35m. .							
27													
28													
29													
30													

REMARKS Kgwu - Wundaru Granodiorite;

LOGGED BY  
MS

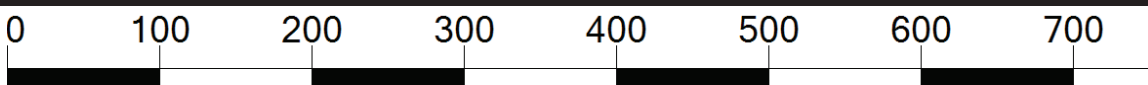
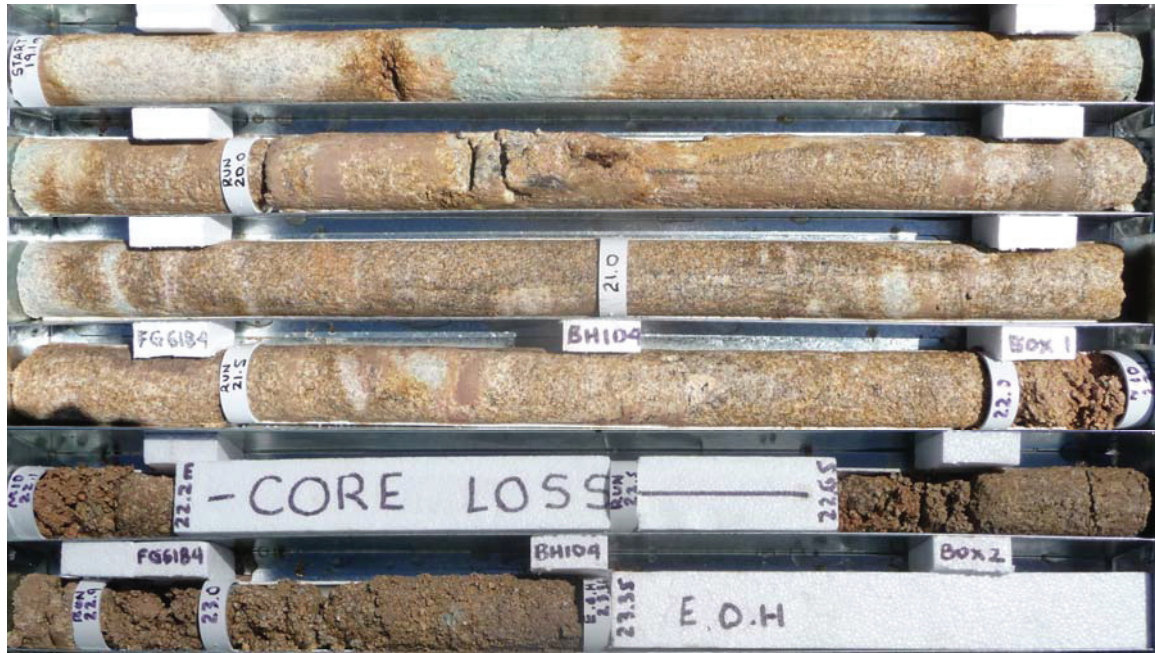
# CORE PHOTO LOG

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	16/09/14
Borehole No	BH 104	TMR H No	12051
Location	Schmidke's Road Overpass	Start Depth (m)	19.1
Detail	Abutment B	Finish Depth (m)	23.35
Chainage	<b>3850</b>	Submitted By	J. Lopez
Remarks			



SCALE 1:5