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ENGINEERING BOREHOLE LOG

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

BOREHOLE No BH102
SHEET 1 of 3
REFERENCE No 12049

PROJECT Mackay Ring Road Geotechnical Investigation - Stage 1
LOCATION Schmidtke's Road Overpass Abutment A; CH: 3825m; COORDINATES 720708.1 E; 7656199.0 N
PROJECT No FG6184 SURFACE R.L. 11.78m PLUNGE _____ DATE STARTED 18/9/14 GRID DATUM GDA 94 /MGA Zone 55
JOB No _____ HEIGHT DATUM AHD BEARING _____ DATE COMPLETED 19/9/14 DRILLER Saxon Drilling

DEPTH (m)	R.L. (m)	AUGER 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	11.78												
1					A	Silty CLAY (ALLUVIUM) Dark brown mottled orange, moist, firm. High plasticity. Trace fine grained sand.	(CH)					2,2,4 N=6	SPT
1.80	9.98												
2					B	Silty SAND (ALLUVIUM) Pale brown and grey, moist, loose to medium dense. Fine grained sand. Trace medium gravel.						2,3,4 N=7	SPT
3					C		(SM)					6,5,5 N=10	SPT
4					D							4,4,5 N=9	SPT
4.70	7.08												
5					E	Silty CLAY (ALLUVIUM) Pale brown and grey, moist, very stiff.						6,11,15 N=26	SPT
6					F	5.70m: Becoming Sandy Silty CLAY.						8,11,15 N=26	SPT
7					G	6.80m: Becoming Silty CLAY.	(CH)					7,9,12 N=21	SPT
8					H	8.00m: Becoming hard.						9,13,21 N=34	SPT
8.80	2.98												
9					J	Silty SAND (ALLUVIUM) Pale grey and orange-brown, moist, very dense. Medium grained sand.	(SM)					11,23,30 N=53	SPT
10.10	1.78												

REMARKS Kgwu - Wundaru Granodiorite;

Sample failed along existing defect surface.

LOGGED BY
ME

ENGINEERING BOREHOLE LOG

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

BOREHOLE No **BH102**
SHEET **2** of **3**
REFERENCE No **12049**

PROJECT Mackay Ring Road Geotechnical Investigation - Stage 1
LOCATION Schmidtke's Road Overpass Abutment A; CH: 3825m; COORDINATES 720708.1 E; 7656199.0 N
PROJECT No FG6184 SURFACE R.L. 11.78m PLUNGE _____ DATE STARTED 18/9/14 GRID DATUM GDA 94 /MGA Zone 55
JOB No _____ HEIGHT DATUM AHD BEARING _____ DATE COMPLETED 19/9/14 DRILLER Saxon Drilling

DEPTH (m)	R.L. (m)	AUGER 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	1.78												
11					K	Silty CLAY (ALLUVIUM) Pale grey and orange-brown, moist, very stiff. High plasticity. Trace fine grained sand.	(CH)					7,11,14 N=25	SPT
11.70	0.08				L							9,12,17 N=29	SPT
12					M	Silty SAND (ALLUVIUM) Pale grey, moist, dense. Medium to coarse grained sand.	(SM)					11,21,17 N=38	SPT
12.80	-1.02				N	Silty CLAY (ALLUVIUM) Pale grey and brown, moist, very stiff. High plasticity. Trace fine grained sand. Trace medium gravel.	(CH)					11,11,12 N=23	SPT
14					P							9,11,16 N=27	SPT
14.70	-2.92				Q	Silty Clayey SAND (RESIDUAL) Brown, moist, medium dense.	(SC)					8,10,14 N=24	SPT
15.60	-3.82				R	Silty CLAY (RESIDUAL) Brown and grey, moist, hard. High plasticity. Trace fine grained sand.	(CH)					8,15,18 N=33	SPT
16.80	-5.02				S	GRANODIORITE (Kgwu) HW: Pale grey and brown, medium to coarse grained, extremely low to very low strength.						12,21,30/115	SPT
18					T							12,30/135	SPT
19					U							30/135	SPT
19.13	-7.35				(0)	MICRODIORITE (Kgwu) SW: Grey, fine to medium grained, massive, mainly very high strength.							
20					100							19.35m-19.39m: Cly seam.	
					(0)							19.72m-19.74m: Cly seam.	
					100							Is(50) = 0.06MPa; #	A (19.75m)

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BOREHOLE No **BH102**
SHEET **3** of **3**
REFERENCE No **12049**

PROJECT Mackay Ring Road Geotechnical Investigation - Stage 1
LOCATION Schmidtke's Road Overpass Abutment A; CH: 3825m; COORDINATES 720708.1 E; 7656199.0 N
PROJECT No FG6184 SURFACE R.L. 11.78m PLUNGE _____ DATE STARTED 18/9/14 GRID DATUM GDA 94 /MGA Zone 55
JOB No _____ HEIGHT DATUM AHD BEARING _____ DATE COMPLETED 19/9/14 DRILLER Saxon Drilling

DEPTH (m)	R.L. (m)	AUGER 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	-8.22													
21			(50)	100		MICRODIORITE (Kgwu) SW: (Cont'd)							20.20m-20.24m: Cly seam. Is(50) = 4.18MPa	D (20.45m)
			(55)										20.65m-20.73m: Cly seam. UCS=189MPa Is(50) = 8.75MPa Is(50) = 7.49MPa	A (21.00m) D (21.05m)
22	-10.42			100									21.10m-21.20m: Cly seam. Is(50) = 7.73MPa Is(50) = 10.08MPa	A (21.53m) D (21.60m)
22.20						Borehole terminated at 22.2m. .							21.83m: Cly seam, 50°, 10mm. 21.90m: Cly seam, 30°, 5mm. 21.98m: Cly seam, 10°, 5mm.	
23														
24														
25														
26														
27														
28														
29														
30														

REMARKS Kgwu - Wundaru Granodiorite;

Sample failed along existing defect surface.

LOGGED BY
ME

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	Mackay – Ring Road		
Project No	FG6184	Date	16/09/14
Borehole No	BH 102	TMR H No	12049
Location	Schmidtke's Road Overpass	Start Depth (m)	19.13
Detail	Abutment A	Finish Depth (m)	22.2
Chainage	3825m	Submitted By	M. Ensor
Remarks			



SCALE 1:5