FINAL 17/03/2016

Queensland Government

GEOTECHNICAL BOREHOLE LOG

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

BOREHOLE No **BH279**

Sheet 1 of 2

REFERENCE No **H12431**

PROJECT Mackay Ring Road

LOCATION Lagoon Creek

COORDINATES 721040.2 E; 7658343.2 N

PROJECT No FG6184 | SURFACE RL 7.05m | PLUNGE 90° | DATE STARTED 12/10/2015 | GRID DATUM GDA 94 / MGA Z55

JOB No 242/10G/906 | HEIGHT DATUM A.H.D. | BEARING ° | DATE COMPLETED 13/10/2015 | DRILLER Cairns Drilling

DEPTH (m)	R.L. (m)	SAMPLE	MATERIAL DESCRIPTION	USCS / WEATHERING	ADDITIONAL DATA AND TEST RESULTS	SAMPLES TESTS
	6.55		Silty CLAY (Topsoil) Dark grey, dry, soft to firm. Low to medium plasticity, organics and rootlets.	(CI)		
1		A	CLAY (Alluvium) Dark grey, dry, stiff. Low to medium plasticity.	(CI)	3, 4, 5 N=9	SPT
		B	1.00m: becomes grey		3, 4, 5 N=9	SPT
	5.55	C	CLAY trace sand (Alluvium) Grey brown, moist, firm to stiff. Fine grained sand, low to medium plasticity.		3, 3, 5 N=8	SPT
2		D	2.00m: becomes grey, firm.		3, 3, 4 N=7	SPT
		E	2.5m: Becoming soft.	(CI)	LL=47% PI= 24% MC=33.1% LS= 12%	SPT
3		F	3.00 to 3.80m: Clay lens: dark brown, moist, very soft. Medium to high plasticity.		hw, 2, 1 N=3	U50
	3.25	G			hw, 2, 7 N=9	SPT
4		H	SAND trace silt (Alluvium) Grey, moist, loose. Medium to coarse grained, subrounded to subangular.		3, 5, 4 N=9	SPT
		I	4.50m: becomes medium dense. Trace fine to medium grained gravel, subrounded grains.		3, 6, 6 N=12	SPT
5		J		(SP)	2, 5, 6 N=11	SPT
		K	5.50m: becomes loose		3, 3, 3 N=6	SPT
6		L	6.00m: with fine to medium grained gravel, subrounded grains.		1, 3, 3 N=6	SPT
	0.45	M	Silty CLAY trace sand (Alluvium) Mottled grey and red brown, moist, very stiff. Fine grained sand, medium to high plasticity.		2, 7, 10 N=17	SPT
7		N	7.00m: becomes hard. Trace fine to medium grained gravel, angular grains.		4, 18, 23 N=41	SPT
		O		(CI)	5, 18, 21 N=39	SPT
8		P	8.00m: becomes very stiff		7, 10, 13 N=23	SPT
	-1.75	Q	8.50m: becomes mottled pale brown, dark grey and orange brown. Trace fine grained sand.		6, 12, 16 N=28	SPT
	-1.95			(CI)		
9		R	Silty CLAY trace sand (Residual) Pale brown, dark grey and orange brown, moist, very stiff. Fine grained sand, medium plasticity.		13, 20, 21 N=41	SPT
		S	Clayey SAND trace gravel (Residual)	(SC)	13, 30/140	SPT
	-2.95					

Continued on next sheet

REMARKS: Kgwu = Wundaru Granodiorite

LOGGED BY	REVIEWED BY
T.Goosey	S.Foley

TMR GEOTECHNICAL BOREHOLE LOG - CREATED WITH HOLEBASE SI

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Sheet 2 of 2

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DEPTH (m)	R.L. (m)	RQD ( ) % / CORE REC %	SAMPLE	MATERIAL DESCRIPTION	USCS WEATHERING	ADDITIONAL DATA AND TEST RESULTS	SAMPLES TESTS
			T	Brown and dark grey, moist, dense to very dense. GRANODIORITE (Kgwu) XW: Recovered as grey brown, moist, very dense, silty sand. Fine to coarse grained sand.	XW	30/130	SPT
11	-3.95	(65)		GRANODIORITE SW: Green grey, grey and black, medium to coarse grained, crystalline, massive, slightly porphyritic, elongated hornblende phenocrysts, generally very high strength. Js: 25° to 35° ;(2/m); Pl/Ro ;Cly Ct, Fe St; Js: 40° to 50;° (3/m); Pl/Ro; Fe St; Js: 65° to 80°; (1/m); Pl-Un/Ro; Cly Ct 3mm, Fe St;	MW	Is(50)=7.10 MPa	D (11.05m)
12		100 (97)			SW	11.59m-11.70m: MW zone, medium to high strength. Is(50)=2.70 MPa	A (11.85m)
13				12.20m: Defects become: Js: 5° to 20°; (1/m); Pl/Ro; Fe St;	MW	Is(50)=6.80 MPa Is(50)=5.00 MPa	D (12.82m) A (12.83m)
14					SW	Is(50)=5.40 MPa	A (13.46m)
	-7.71	100		Borehole completed at 14.76m		Is(50)=8.70 MPa Is(50)=8.70 MPa	D (14.15m) A (14.16m)
15						UCS=91.20 MPa E=89.5 GPa v= 0.19	(14.65m)
16							
17							
18							
19							

REMARKS: Kgwu = Wundaru Granodiorite

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T.Goosey	S.Foley

TMR GEOTECHNICAL BOREHOLE LOG - CREATED WITH HOLEBASE SI

CORE PHOTO LOG

DEPARTMENT OF TRANSPORT AND MAIN ROADS
Geotechnical Section
35 Butterfield Street, Herston Qld 4006
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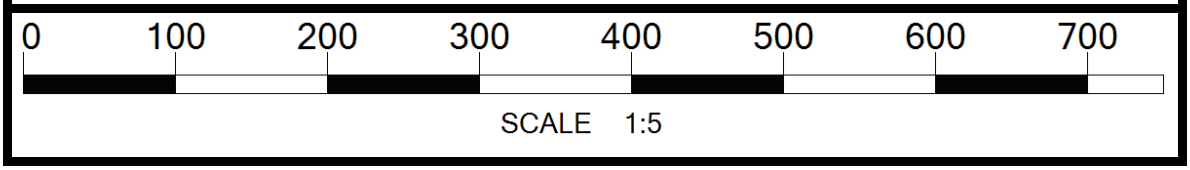
Queensland Government

Project Name	**Mackay – Ring Road (Stage 2)**		
Project No.	FG6184	Date	13/10/15
Borehole No.	BH 279	TMR H No.	H12431
Location	Lagoon	Start Depth (m)	10.70
Detail	Abutment A, centreline	Finish Depth (m)	14.76
Chainage		Submitted By	M.Ensor
Remarks			



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