FINAL 18/03/2016

Queensland Government

GEOTECHNICAL BOREHOLE LOG

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

BOREHOLE No **BH264**

Sheet 1 of 3

REFERENCE No **H12273**

PROJECT Mackay Ring Road

LOCATION Fursden Creek Bridge, Pier 2 (LHS) COORDINATES 721480.0 E; 7661443.4 N

PROJECT No FG6184 SURFACE RL 5.39m PLUNGE 90° DATE STARTED 02/08/2015 GRID DATUM GDA 94 / MGA Z55

JOB No 242/10G/906 HEIGHT DATUM A.H.D. BEARING ° DATE COMPLETED 03/08/2015 DRILLER Saxon Drilling

DEPTH (m)	R.L. (m)	AUGER / CASING / WASH BORING / CORE DRILLING	RQD ( ) % CORE REC %	SAMPLE	MATERIAL DESCRIPTION	LITHOLOGY	USCS WEATHERING	INTACT STRENGTH EH VH H M I VL EL	DEFECT SPACING EC VC C M W VW EW	ADDITIONAL DATA AND TEST RESULTS	SAMPLES TESTS
0					Silty CLAY trace sand (Topsoil) Dark brown, dry, firm. Fine grained sand, medium plasticity. trace roots and rootlets.						
1				A	1.10m: becomes stiff to very stiff		(CI)			5, 7, 7 N=14	SPT
2	3.29			B	Sandy SILT (Alluvium) Brown, dry, very stiff. Fine grained sand, low plasticity.		(ML)			6, 8, 8 N=16	SPT
	2.59				SAND trace clay (Alluvium) Pale orange grey, dry, medium dense. Fine to medium grained sand.						
3				C						7, 8, 8 N=16	SPT
4				D	4.00m: becomes medium grained sand.		(SW)			6, 9, 12 N=21	SPT
5	0.09			E	5.00m: becomes fine to coarse grained sand.					11, 10, 11 N=21	SPT
					Silty SAND (Alluvium) Grey, wet, medium dense to dense. Fine to medium grained sand.						
6				F			(SM)			10, 15, 16 N=31	SPT
	-1.41				Sandy CLAY (Alluvium) Mottled orange brown and grey, moist, very stiff. Fine grained sand, medium plasticity.						
7				G						9, 12, 15 N=27	SPT
8				H	8.00m: sand content increasing. Becomes clayey sand trace gravel. Fine grained gravel, rounded grains.		(CI)			7, 9, 11 N=20	SPT
9	-3.61			I	CLAY trace sand (Residual) Pale grey, moist, stiff. Fine grained sand, medium to high plasticity.		(CI)			5, 7, 7 N=14	SPT
	-4.61										

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REMARKS: Kgwu = Wundaru Granodiorite

LOGGED BY	REVIEWED BY
C.Boyes	S.Foley

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

BOREHOLE No **BH264**

Sheet 2 of 3

REFERENCE No **H12273**

PROJECT Mackay Ring Road

LOCATION Fursden Creek Bridge, Pier 2 (LHS)

COORDINATES 721480.0 E; 7661443.4 N

PROJECT No FG6184 | SURFACE RL 5.39m | PLUNGE 90° | DATE STARTED 02/08/2015 | GRID DATUM GDA 94 / MGA Z55

JOB No 242/10G/906 | HEIGHT DATUM A.H.D. | BEARING ° | DATE COMPLETED 03/08/2015 | DRILLER Saxon Drilling

DEPTH (m)	R.L. (m)	AUGER / CASING / WASH BORING / CORE DRILLING	RQD ( ) % CORE REC %	SAMPLE	MATERIAL DESCRIPTION	LITHOLOGY	USCS WEATHERING	INTACT STRENGTH (EH VH H M I VL EL)	DEFECT SPACING (EC VC C M W VW EW)	ADDITIONAL DATA AND TEST RESULTS	SAMPLES TESTS
	-4.91			J	CLAY trace sand (Residual) (Cont'd) 10.00m: sand content increasing		(CI)			8, 10, 11 N=21	SPT
					GRANODIORITE XW: Recovered as speckled pink, grey and dark grey, moist, medium dense, silty clayey sand. Fine to medium grained.						
11				K						9, 11, 14 N=25	SPT
12				L	12.00m: becomes very dense.					18, 21, 30/140	SPT
13				M			XW			16, 28, 30/100	SPT
14				N						30, 30/90	SPT
15				O						28, 30/110	SPT
16				P						27, 30/140 hb	SPT
	-11.11				GRANODIORITE HW: Pink, brown and white, coarse grained, massive, very low strength.						
17				Q						30, 30/40	SPT
18				R			HW			30/105 hb	SPT
19				S	19.00m: becomes orange brown speckled pale and dark grey.					30/60 hb	SPT
	-14.61										

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hb

REMARKS: Kgwu = Wundaru Granodiorite

LOGGED BY	REVIEWED BY
C.Boyes	S.Foley

TMR GEOTECHNICAL BOREHOLE LOG - CREATED WITH HOLEBASE SI

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GEOTECHNICAL BOREHOLE LOG

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

BOREHOLE No **BH264**

Sheet 3 of 3

REFERENCE No **H12273**

PROJECT Mackay Ring Road

LOCATION Fursden Creek Bridge, Pier 2 (LHS) COORDINATES 721480.0 E; 7661443.4 N

PROJECT No FG6184 SURFACE RL 5.39m PLUNGE 90° DATE STARTED 02/08/2015 GRID DATUM GDA 94 / MGA Z55

JOB No 242/10G/906 HEIGHT DATUM A.H.D. BEARING ° DATE COMPLETED 03/08/2015 DRILLER Saxon Drilling

DEPTH (m)	R.L. (m)	AUGER / CASING / WASH BORING / CORE DRILLING	RQD ( ) % CORE REC %	SAMPLE	MATERIAL DESCRIPTION	LITHOLOGY	USCS WEATHERING	INTACT STRENGTH (EH VH H M L VL EL)	DEFECT SPACING (EC VC C M W VW EW)	ADDITIONAL DATA AND TEST RESULTS	SAMPLES TESTS
21				U	GRANODIORITE HW: (Cont'd)		HW				SPT 30/50 hb
22	-16.61		(31)		GRANODIORITE SW: Speckled grey, dark grey and pink, medium to coarse grained, massive, high to very high strength. Js: 5° to 10° (<2/m); Pl/Ro; OP; some Fe St;		HW MW	VL	EC VC	22.10m: VN: 80°; CA 22.30m-22.34m: BZ:	A (22.27m) A (22.56m)
23			100 (79)		Js: 20° to 35°; (<3/m); Pl/Sm; OP; CA VN <1mm; Js: 70° to 80°; (<2/m); Pl/Sm; OP or CD; Fe St;				VC C VC C M C	Is(50)=1.80 MPa Is(50)=3.10 MPa 22.75m-22.94m: VN: 90°; CA <10mm; Is(50)=0.39 MPa Is(50)=5.70 MPa	A (23.05m) D (23.15m)
24			100 (93)		24.00m: becomes dark grey		SW	H-VH	M	23.70m: Total Water Loss 02/08/2015 UCS=59.10 MPa Is(50)=1.90 MPa 24.51m: BZ: 5°; 10mm;	(23.89m) D (24.40m)
25			100 (39)							Is(50)=11.00 MPa Is(50)=6.70 MPa	D (25.18m) A (25.25m)
26					26.08 to 26.52m: MICRODIORITE (MW): Grey, fine grained, massive, high strength. Calcite veinlets <2mm throughout. Locally fractured. Upper contact: 70°; Pl/Sm; OP; CA VN <4mm; Lower contact: 70°; Pl/Sm; CD;		MW	H	EC VC	26.11m-26.15m: BZ: 5°; some Sinf; 26.33m-26.52m: BZ: Js: 70° to 80°; and 5° to 10°; CA VN: 80°; Pl/Sm; <5mm; 26.52m-26.70m: VN: 80° to 90°; Un/Ro; CD; CA;	
27							SW	VH	C M VC M	Is(50)=6.50 MPa Is(50)=4.50 MPa 27.15m-28.00m: VN: 90°; Un/Ro; OP; CA; UCS=110.00 MPa	D (27.00m) A (27.10m) (28.00m)
28	-23.01		100		Borehole completed at 28.40m						
29											

REMARKS: Kgwu = Wundaru Granodiorite

LOGGED BY	REVIEWED BY
C.Boyes	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
Phone 07 3066 3336

Queensland Government

Project Name	**Mackay – Ring Road (Stage 2)**		
Project No.	FG6184	Date	03/08/15
Borehole No.	BH 264	TMR H No.	H12273
Location	Fursden Creek Bridge	Start Depth (m)	22.00
Detail	Pier 2, LHS	Finish Depth (m)	28.40
Chainage		Submitted By	M.Ensor
Remarks			

0 100 200 300 400 500 600 700

SCALE 1:5

GEOT043/2