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Queensland

GEOTECHNICAL BOREHOLE LOG

FINAL 18/03/2016

BOREHOLE No BH224

Sheet 1 of 3

		%		GO	Vŧ	ernment	SY		GEOTECHNICAL TE REFER FORM F:GE			REFERENCE No	H1	12233
PROJE	СТ	Ν	1ac	kay Ring	g Rc	ad								
LOCAT	ION	Р	ion	eer Rive	r B	ridge, Pier 7 (RHS)						COORDINATES 721321.8	E; 766024	46.1 N
PROJE	CT No	F	G61	L84		SURFACE RL 7.74m	PLI	JNGE S	90°	DATE STAF	RTED 10/09/2015	GRID DATUM	GDA 94 / N	MGA Z55
JOB No		2	242/10G/906			HEIGHT DATUM A.H.D.	BEA	RING		DATE COMPLE	TED 11/09/2015	DRILLER S	Saxon Drill	ing
DEPTH (m)	R.L. (m)	AUGER CASING	WASH BORING CORE DRILLING	RQD ()% CORE REC%	SAMPLE	MATERIAL DESCRIPTION	LITHOLOGY	USCS WEATHERING	INTACT STRENGTH 플루그씨스	DEFECT SPACING		ADDITIONAL DATA AND TEST RESULTS		SAMPLES TESTS
1 2					A	Silty SAND trace clay (Alluvium) Brown, moist, loose. Fine grained sand. 2.0m: Becomes very loose. 2.35m: becomes fine to medium grained sand.		(SM)					3, 3, 2 N=5 2, 1, 2 N=3	SPT SPT
- 3 - 3 	4.69				C	SAND (Alluvium) Grey, dry, medium dense. Medium grained sand. 4.00m: becomes medium to coars grained sand, with silt	se	(SP)		-			3, 8, 5 N=13 8, 11, 10 N=21	SPT
5 - - - - - - - - - - - - - - - - - - -	3.04				E	GRAVEL trace sand (Alluvium) Grey and dark grey, wet, medium dense. Fine to coarse grained gravel, subangular to subrounded grains 6.00m: becomes dense.	· · ·			-	6.00m-6.45m: No sa recovered	nmple	3, 12, 10 N=22	SPT
- - - - - - - - - - - - - - - - - - -					G	7.00 to 7.30m: pale grey, wet, medium dense sand lens. Fine to medium grained sand, trace grave		(GP)		-			N=48 14, 11, 20 N=31	SPT
7 - 7 8	-1.26				Н	8.00m: Fine to medium gravel, angular to subrounded <30mm. Becomes medium dense.							13, 15, 14 N=29	SPT
— 9 - - - - - - -	-2.26				ı	SAND trace silt and gravel (Alluvium) Pale grey, wet, medium dense. Fine to medium grained sand, medium gravel; angular.		(SP)	-	-			6, 6, 7 N=13	SPT
						Continued on next sheet		-1			•			
R	EMAR	KS:	k	(gwu =	· W	undaru Granodiorite						LOGGED BY	REVIE	WED BY
												C.Boyes	S.I	Foley
							TMR GEOTE	HNICAL E	OREHOLE LOG - CREATED V	VITH HOLEBASE SI				

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GEOTECHNICAL BOREHOLE LOG

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FOR GEOTECHNICAL TERMS AND H12233 REFERENCE No SYMBOLS REFER FORM F:GEOT 017/8-2014 Mackay Ring Road PROJECT COORDINATES 721321.8 E; 7660246.1 N Pioneer River Bridge, Pier 7 (RHS) LOCATION FG6184 SURFACE RL 7.74m PLUNGE 90° DATE STARTED 10/09/2015 GRID DATUM GDA 94 / MGA Z55 PROJECT No 242/10G/906 DRILLER Saxon Drilling HEIGHT DATUM A.H.D. DATE COMPLETED 11/09/2015 JOB No BEARING USCS WEATHERING ADDITIONAL DATA INTACT DEFECT SPACING SAMPLES TESTS Ê LITHOLOGY AND TEST RESULTS STRENGTH RΙ DEPTH SAMP MATERIAL DESCRIPTION (m) CORE REC % ᅾᆂᆂᆂᆋᆛᅿᆲᅵᇊᆼᇅᄛᇂᇂᇕ Gravelly SAND trace clay (Alluvium) 11, 19, 17 Pale grey and grey, wet, dense. (GW Fine to coarse grained sand, fine to -2.86 medium grained gravel, subangular grains. Silty SAND trace clay (Alluvium) Pale grey, moist, medium dense. 11. 11. 11 Fine grained sand. N=22 SPT (SM) 11, 12, 16 13 SPT N=22 -6.16 Sandy CLAY (Alluvium) Pale grey mottled orange brown, SPT 10, 15, 17 moist, hard. Fine to medium grained sand, medium plasticity. (CI) 15 15.0m: Becoming very stiff. 0 SPT 12, 11, 12 N=23 -8.31 16 SPT GRANODIORITE (Kgwu) XW: Recovered as pale grey and orange brown, moist, very dense, clayey sand. Fine to coarse grained 17.00m: trace fine grained gravel, XW SPT angular grains. N=42 18 -10.61 30/90 (32) GRANODIORITE (Kgwu) SW SW: Grey speckled dark grey and 18.68m-18.72m; HFZ; Is(50)=1.10 MPa D (18.77m) pink, medium to coarse grained, 18.84m-18.98m: XW HFZ: 5°. PI/Ro: porphyritic, high to very high 18.98m-19.24m: Microdiorite Vn, 19 20cm thick, 70° Upper contact: 75° to 90°; Un/Sm; CD; strength. Js: 5°-15°(<5/m); Pl-Un/Ro; OP-TI; Lower contact: 15°; Un/Sm; CD; Fe St or Sinf; Js: 30°-45°(<3/m); Un/Ro; OP; Fe St; Js: 60°-90°(2/m); Pl-Un/Ro; OP;FeSt; Is(50)=1.10 MPa A (19.95m) Continued on next sheet 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

FINAL 18/03/2016

BOREHOLE No BH224

Sheet 3 of 3

REFERENCE No H12233

Mackay Ring Road PROJECT Pioneer River Bridge, Pier 7 (RHS) COORDINATES 721321.8 E; 7660246.1 N LOCATION FG6184 SURFACE RL 7.74m DATE STARTED 10/09/2015 GRID DATUM GDA 94 / MGA Z55 PLUNGE 90° PROJECT No 242/10G/906 DRILLER Saxon Drilling HEIGHT DATUM A.H.D. DATE COMPLETED 11/09/2015 JOB No BEARING USCS WEATHERING ADDITIONAL DATA INTACT DEFECT SPACING SAMPLES TESTS Ê LITHOLOGY AND TEST RESULTS STRENGTH RΙ SAMP MATERIAL DESCRIPTION CORE REC % ᅾᆍᅚᄝᄀᅿᆿᇜᇬᇬᇰᄝᇂᇂᇕ -12.41 D (20.05m) Is(50)=2.20 MPa 20.18m-20.24m: XW Cly zone, 5°, MICRODIORITE (Kgwu) PI/Ro; □ 20.24m-20.36m: HFZ; MW: Dark grey, fine grained, 7 20.38m-20.42m: XW Cly zone, 5°, massive, high strength. MW Js: 5° to 25°; (<10/m); Pl-Un/Ro; OP; 20.54m-20.69m: GRANODIORITE: 100 grey and dark grey, medium to Sinf or Cly Vr; (60) coarse grained, very high strength. A (21.05m). -13.48 100 Js: 70°; (<1/m); Pl-Un/Sm; OP; Cly 20.63m-20.83m: HFZ; 20.83m-20.95m: XW Cly zone; Is(50)=8.20 MPa Is(50)=3.40 MPa A (21.25m) 21.13m-21.20m: BZ; D (21.35m) GRANODIORITE (Kgwu) 21.22m: Contact; 45°, PI/Sm, CD; SW: Grey, dark grey and pink, -14.09 21.83m: Contact; 80°, Un/Sm, CD medium to coarse grained, С 22 porphyritic, very high strength. ¬ 22.13m-22.20m: HFZ; Some Calcite veins 70°; PI/Sm. Js: 5°; (<1/m); Un/Sm; TI; Fe St; Is(50)=5.40 MPa D (22.40m) SW MICRODIORITE (Kgwu) SW: Dark grey, fine grained, -15.26 massive, very high strength. Calcite 23.00m: Contact; 50°, PL/Sm, CD, veins throughout. CA VN <20mm 23.01m-23.02m: VN; 50°, PI/Sm, FL, CA; VC s: 5° to 15°; (~1/m); PI-Un/Sm; OP-Is(50)=12.00 MPa A (23.44m) TI; Fe St or CA VN 1mm; SW 100 (83) GRANODIORITE (Kgwu) SW: Grey, dark grey and pink, -16.24 23.98m: Contact; 5°-10° (Un/Sm, CD; medium to coarse grained, UCS=109.00 MPa (24.15m) porphyritic, very high strength. 24.30m: Total water loss Is(50)=11.00 MPa A (24.35m) s: 5° to 15°; (<6/m); Pl-Un/Sm; OP; SW Cn or Fe St; Js: 60°; (~1/m); Pl/Sm; OP; Cn; -17.22 MICRODIORITE (Kgwu) 24.96m: Contact; 60°, PI/Sm, CD; 25 SW: Dark grey, fine grained, massive, very high strength. Is(50)=10.00 MPa A (25 37m) s: 5° to 20°; (2/m); Un/Ro; OP; Cn; М Is(50)=9.90 MPa D (25.53m) GRANODIORITE (Kgwu) SW: Grey, dark grey and pink, SW 26 medium to coarse grained, porphyritic, very high strength. Is(50)=11.00 MPa D (26.17m)-Js: 5° to 15°; (<5/m); PI-Un/Sm-Ro; OP; Fe St or Cn; Js: 20° to 30°; (<2/m); PI/Sm; OP; Fe -19.16 26.90m: Contact; 70°-80°, Un/Sm, 27 Is(50)=9.30 MPa D (27.05m)_ s: 60° to 70°; (<2/m); PI/Sm; OP; Fe Is(50)=8.80 MPa A (27.15m) MICRODIORITE (Kgwu) SW: Dark grey, fine grained, massive, very high strength. 27.80m; VN: 70°. Un-Irr. FL. CA <3m Js: 5°; (<2/m); PI/Sm; OP; Cn; Is(50)=9.20 MPa A (28.15m)_ М Is(50)=9.40 MPa D (28.75m) -21.11 100 Borehole completed at 28.85m 29 REMARKS: Kgwu = Wundaru Granodiorite **LOGGED BY REVIEWED BY** S.Foley C.Boyes 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



Project Name	Mackay – Ring Road (Stage 2)		
Project No.	FG6184	Date	11/09/15
Borehole No.	BH 224	TMR H No.	H12233
Location	Pioneer River Bridge	Start Depth (m)	18.35
Detail	Pier 7, RHS	Finish Depth (m)	28.85
Chainage		Submitted By	M.Ensor
Remarks		·	
-F46184	B. C.	H2214	1/2 3/10



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Remarks			



0	100	200	300	400	500	600	700				
SCALE 1:5											