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Queensland Government

GEOTECHNICAL BOREHOLE LOG

FINAL 18/03/2016

BOREHOLE No BH258

Sheet 1 of 3

FOR GEOTECHNICAL TERMS AND SYMBOLS REFER FORM F:GEOT 017/8-2014 H12267 REFERENCE No Mackay Ring Road PROJECT COORDINATES 721361.5 E; 7660663.2 N Pioneer River Bridge, Pier 19 (LHS) LOCATION FG6184 SURFACE RL 6.50m PLUNGE 90° DATE STARTED 03/07/2015 GRID DATUM GDA 94 / MGA Z55 PROJECT No 242/10G/906 DRILLER Saxon Drilling HEIGHT DATUM A.H.D. DATE COMPLETED 04/07/2015 JOB No BEARING ADDITIONAL DATA AND TEST RESULTS USCS WEATHERING INTACT DEFECT SPACING SAMPLES TESTS Ê LITHOLOGY STRENGTH RΙ DEPTH SAMPI MATERIAL DESCRIPTION (m) CORE REC % ᇁᆂᆂᄫᅴᅿᆿᆸᇝᇰᄓᄫᇂᇂᇕ Silty Sandy CLAY (Topsoil) Dark brown, moist, soft. Fine grained sand. 5.80 Silty SAND (Alluvium) Brown, dry, very loose. (SM) Fine grained sand. SPT 1. 1. 2 5.10 Sandy Silty CLAY (Alluvium) Brown, dry, stiff to very stiff. Fine grained sand, low to medium plasticity. SPT (CL) 3.40 SAND trace gravel (Alluvium) SPT Pale orange grey, wet, medium N=16 dense becoming dense with depth. Fine to coarse grained sand, fine to (SW) medium grained gravel, angular. SPT 12, 18, 20 4.30m: fines content increasing. Fine to medium grained gravel. 1.80 Gravelly SAND (Alluvium) Brown grey, wet, medium dense. Medium to coarse grained sand, SPT fine to medium grained gravel, subrounded to angular grains. SPT N=15 (SP) 7.00m: becomes dense. Fine to medium grained gravel. SPT N=33 SPT 9, 12, 18 N=30 -2.00 Silty Clayey SAND (Alluvium) Pale grey, moist, medium dense. Fine grained sand. SPT (SC) N=17 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

FINAL 18/03/2016

BH258

Sheet 2 of 3

BOREHOLE No

FOR GEOTECHNICAL TERMS AND H12267 REFERENCE No SYMBOLS REFER FORM F:GEOT 017/8-2014 Mackay Ring Road PROJECT Pioneer River Bridge, Pier 19 (LHS) COORDINATES 721361.5 E; 7660663.2 N LOCATION FG6184 SURFACE RL 6.50m PLUNGE 90° DATE STARTED 03/07/2015 GRID DATUM GDA 94 / MGA Z55 PROJECT No 242/10G/906 DRILLER Saxon Drilling HEIGHT DATUM A.H.D. DATE COMPLETED 04/07/2015 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 Sandy CLAY (Alluvium) 4, 5, 5 Pale grey, moist, stiff. (CH) N=10 Fine grained sand, high plasticity. -4.20 Silty SAND (Alluvium) Dark grey and orange, moist, medium dense. 7. 7. 6 Fine grained sand. (SM) SPT 6, 11, 14 -6.50 Sandy CLAY (Alluvium) SPT 8, 10. Dark orange brown, moist, very stiff. (CH) N=18 Medium grained sand, fine to -7.20 medium grained gravel, rounded grains, high plasticity. Silty CLAY (Residual) Mottled orange brown and grey, SPT 10, 12, 17 moist, very stiff. (CH) Mainly high plasticity, trace medium plasticity carbonaceous clay. -8.50 15 GRANODIORITE 0 SPT XW: Recovered as speckled dark grey, grey and pale red, moist, dense, clayey sand. Fine to coarse grained sand. XW 16 Becoming very dense SPT 24, 30, 30/130 10.35 (22) MICRODIORITE A (16.94m) 17 SW Is(50)=2.50 MP SW: Grey speckled dark grey, fine to medium grained, massive, medium ¬ 17.42m-17.45m; SZ; 70°; Clv. Sinf; MW to very high strength, weathered Is(50)=1.80 MPa I (17.49m)-17.42II-17.43III. 32.70°, Cly, Sinf, 17.52m-17.62m: SZ: 70°; Cly, Sinf; 17.62m-17.70m: CORE LOS 17.70m-17.80m: SZ: 70°; Cly, Sinf; seams throughout <20mm thick. -11.30 HW Some MW zones. ¢V: 5° to 20°; (5/m); PI/Sm; Cly; HW GRANODIORITE HW: Speckled dark grey, grey and pale red, medium to coarse grained, ΧW -12.28 massive, extremely low to very low 18.78m-18.92m: SZ: 50°; MW brecciated, Cly; 18.92m-19.00m: CORE LOSS 19.00m-19.04m: CORE LOSS strength. 19 (15) MICRODIORITE SW SW: Grey, fine grained, massive, 19.35m-19.57m: SZ: 50°; MW high to very high strength. Some -13.07 brecciated, Clv: moderately weathered zones. HW GRANODIORITE Continued on next sheet REMARKS: Kgwu = Wundaru Granodiorite **LOGGED BY REVIEWED BY** S.Foley C.Boyes

TMR GEOTECHNICAL BOREHOLE LOG - CREATED WITH HOLEBASE SI

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GEOTECHNICAL BOREHOLE LOG

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BOREHOLE No BH258

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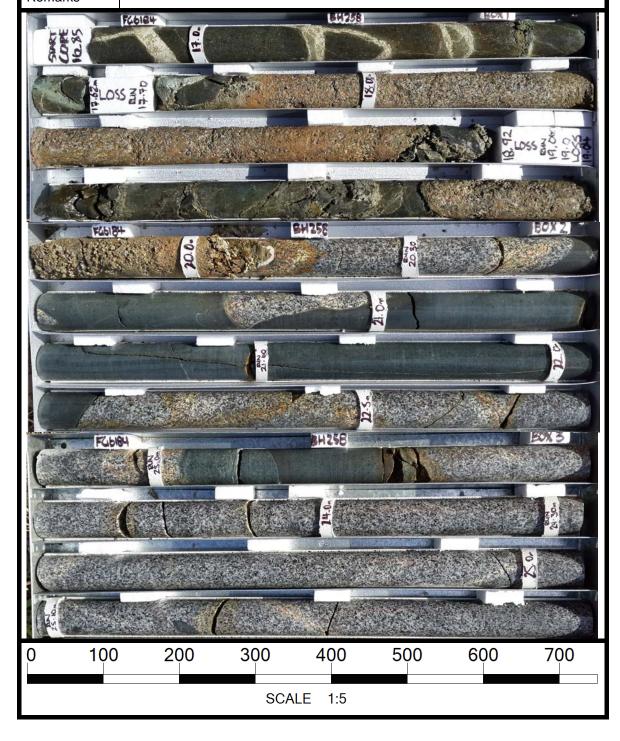
FOR GEOTECHNICAL TERMS AND H12267 REFERENCE No SYMBOLS REFER FORM F:GEOT 017/8-2014 Mackay Ring Road PROJECT Pioneer River Bridge, Pier 19 (LHS) COORDINATES 721361.5 E; 7660663.2 N LOCATION FG6184 SURFACE RL 6.50m PLUNGE 90° DATE STARTED 03/07/2015 GRID DATUM GDA 94 / MGA Z55 PROJECT No 242/10G/906 HEIGHT DATUM A.H.D. DATE COMPLETED 04/07/2015 DRILLER Saxon Drilling 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 % ᅾᆂᆂᆂᄀᅿᆿᇛᇬᇬᇎᇂᇂᇕ HW + HW: Speckled dark grey, grey and Is(50)=8.10 MPa A (20.06m) pale red, medium to coarse grained, SW -13.95 (82) Is(50)=14.00 MPa D (20.35m) massive, extremely low strength. 20.45m; CA VN: 70° at contact s: 20°-30°(<2/m); PI/Sm-Ro; OP; Cn/ A (20.75m) Is(50)=5.60 MPa MICRODIORITE 20.80m-21.00m: GRANODIORITE (SW) SW: Grey, fine grained, massive, UCS=119.00 MPa E=70 GPa (21.05m) very high strength. SW v= 0.073 Js: 20° to 50°; (2/m); PI/Ro; OP; 21.35m-22.05m: J: 80° to 90°; Pl-Un/Ro; OP; CA Ct <0.5mm; some Fe St and CA Ct; (33) 22 -15.60 Is(50)=2.70 MPa A (22.14m)_ GRANODIORITE 22.20m-22.40m: J: 80° to 90°; Un/ Ro; CD; SW: Speckled grey, dark grey and pale red, medium to coarse grained, SW massive, very high to extremely high Is(50)=12.00 MPa D (22.88m)-100 (92) strength. 23 s: 30° to 50°; (<4/m); PI/Sm-Ro; OP; 23.17m-23.30m; MICRODIORITE (SW) 23.30m-23.36m: BZ: CA Ct <1mm; UCS=116.00 MPa From 23.11m: Js: 5° to 20°; (2/m); (23.40m) -PI/Sm-Ro; OP; Cn; Is(50)=9.80 MPa A (24.17m)-100 Is(50)=10.00 MPa (100) D (24.25m) 25 100 Is(50)=9.40 MPa A (25.15m)_ (100) Is(50)=8.70 MPa D (25.25m) SW 26 Is(50)=11.00 MPa A (26.24m)_ 100 (89) 27 (85) UCS=124.00 MPa E=77.7 GPa (27.24m) v= 0.154 -21.29 MICRODIORITE 28 SW: Grey, fine grained, massive, high strength. Calcite veining С Is(50)=2.00 MPa A (28.25m) throughout. Js: 50° to 70°; (1/m); PI/Sm; CD-OP; some CA; Js: 20° to 40°; (2/m); PI/Sm; TI; Cn; 29 Is(50)=5.70 MPa A (29 20m) Is(50)=13.00 MPa D (29.30m) -23.35 100 Is(50)=7.60 MPa A (29.83m) Borehole completed at 29.85m 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	04/07/15
Borehole No.	BH 258	TMR H No.	H12267
Location	Pioneer River Bridge	Start Depth (m)	16.85
Detail	Pier 19, LHS	Finish Depth (m)	29.85
Chainage		Submitted By	M.Ensor
Remarks			



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