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**Queensland
Government**

**GEOTECHNICAL
BOREHOLE LOG**

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

BOREHOLE No **BH206**

Sheet 1 of 3

REFERENCE No **H12215**

PROJECT	Mackay Ring Road		
LOCATION	Pioneer River Bridge, Pier 1 (RHS)	COORDINATES 721271.5 E; 7660041.1 N	
PROJECT No	FG6184	SURFACE RL 6.24m	PLUNGE 90°
			DATE STARTED 10/09/2015
			GRID DATUM GDA 94 / MGA 255
JOB No	242/10G/906	HEIGHT DATUM A.H.D.	BEARING °
			DATE COMPLETED 11/09/2015
			DRILLER Cairns Drilling

DEPTH (m)	R.L. (m)	AUGER CASING WASHBORING CORE DRILLING	RQD (%) CORE REC %	SAMPLE	MATERIAL DESCRIPTION	LITHOLOGY	USCS WEATHERING	INTACT STRENGTH	DEFECT SPACING	ADDITIONAL DATA AND TEST RESULTS	SAMPLES TESTS		
												EH	VH
0	5.64				Sandy CLAY (Topsoil) Dark brown, dry, very soft to soft. Low plasticity, rootlets and organics.	(CL)							
1				A	Sandy CLAY (Alluvium) Dark brown, moist, soft to firm. Fine grained sand, low plasticity.	(CL)					1, 1, 2 N=3 SPT		
2				B		(CL)					1, 2, 2 N=4 SPT		
3	3.24			C	CLAY trace sand (Alluvium) Grey mottled brown, moist, stiff. Fine grained sand, medium plasticity.	(CI)					2, 4, 6 N=10 SPT		
4	2.24			D	Clayey SAND (Alluvium) Pale grey, moist, medium dense. Fine grained sand.	(SC)					6, 12, 15 N=27 SPT		
5				E		(SC)					7, 10, 15 N=25 SPT		
6				F	6.00m: becoming dense.	(SC)					11, 15, 22 N=37 SPT		
7	-0.76			G	Silty CLAY (Alluvium) Grey mottled brown and brown, moist, very stiff. Medium plasticity.	(CI)					7, 12, 16 N=28 SPT		
8				H		(CI)					6, 9, 12 N=21 SPT		
9				I	9.00m: becomes brown grey.	(CI)					6, 9, 13 N=22 SPT		

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REMARKS: Kgwu = Wundaru Granodiorite

LOGGED BY	REVIEWED BY
T.Goosey	S.Foley



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BOREHOLE No **BH206**

Sheet 2 of 3

REFERENCE No **H12215**

PROJECT	Mackay Ring Road				
LOCATION	Pioneer River Bridge, Pier 1 (RHS)			COORDINATES 721271.5 E; 7660041.1 N	
PROJECT No	FG6184	SURFACE RL	6.24m	PLUNGE	90°
				DATE STARTED	10/09/2015
				GRID DATUM	GDA 94 / MGA 255
JOB No	242/10G/906	HEIGHT DATUM	A.H.D.	BEARING	°
				DATE COMPLETED	11/09/2015
				DRILLER	Cairns Drilling

DEPTH (m)	R.L. (m)	FAUGER CASING WASHBORING CORE DRILLING	RQD (%) CORE REC %	SAMPLE	MATERIAL DESCRIPTION	LITHOLOGY	USCS WEATHERING	INTACT STRENGTH						DEFECT SPACING						ADDITIONAL DATA AND TEST RESULTS	SAMPLES TESTS	
								EH	VH	H	M	J	VI	EL	EC	VC	C	M	W			VW
-3.96				J	Clayey SAND (Alluvium) Grey, moist, medium dense. Fine to medium grained sand.	(SC)														5, 11, 17 N=28	SPT	
-4.76				K	Silty CLAY (Alluvium) Grey, moist, very stiff. Medium plasticity.	(CI)														5, 7, 11 N=18	SPT	
				L																12.00m-12.45m: No sample recovered	5, 11, 13 N=24	SPT
-6.76				M	Silty SAND trace clay (Alluvium) Pale grey, moist, medium dense. Fine to medium grained sand.	(SM)														8, 12, 16 N=28	SPT	
				N																7, 8, 11 N=19	SPT	
-8.76				O	Sandy CLAY (Alluvium) Pale grey, moist, very stiff. Low to medium plasticity.	(CI)														7, 10, 15 N=25	SPT	
-9.76				P	MICRODIORITE (Kgwu) HW: Grey, fine grained, massive, very low strength.															30/120 hb	SPT	
-10.76				Q	GRANODIORITE (Kgwu) XW: Recovered as pale brown-grey, moist, very dense, clayey sand.															18, 30/120 hb	SPT	
-11.26			(53)		GRANODIORITE (Kgwu) SW: Pale red grey, coarse grained, porphyritic, very high strength. Js: 5° to 15°; (3/m); Pl/Ro; Tl; Fe St; Js: 70° to 75°; (1/m); Pl/Sm; Tl; Fe St; Js: 80° to 90°; (<1/m); Pl/Sm; Tl; Fe St;	SW														Is(50)=6.90 MPa Is(50)=4.40 MPa	D (18.55m) A (18.62m)	
			100 (99)																	Is(50)=9.50 MPa	D (19.70m)	

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REMARKS: Kgwu = Wundaru Granodiorite

LOGGED BY	REVIEWED BY
T.Goosey	S.Foley



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BOREHOLE No **BH206**

Sheet 3 of 3

REFERENCE No **H12215**

PROJECT	Mackay Ring Road				
LOCATION	Pioneer River Bridge, Pier 1 (RHS)			COORDINATES 721271.5 E; 7660041.1 N	
PROJECT No	FG6184	SURFACE RL 6.24m	PLUNGE 90°	DATE STARTED 10/09/2015	GRID DATUM GDA 94 / MGA 255
JOB No	242/10G/906	HEIGHT DATUM A.H.D.	BEARING °	DATE COMPLETED 11/09/2015	DRILLER Cairns Drilling

DEPTH (m)	R.L. (m)	AUGER CASING WASHBORING CONE DRILLING	RQD (%) CORE REC %	SAMPLE	MATERIAL DESCRIPTION	LITHOLOGY	USCS WEATHERING	INTACT STRENGTH										DEFECT SPACING										ADDITIONAL DATA AND TEST RESULTS	SAMPLES TESTS
								EH	VH	H	M	L	JL	EL	EC	VC	C	M	W	VW	EW	EC	VC	C	M	W	VW		
21			100 (80)					[Strength bars: W, C, M, C, M]										[Defect bars: W, C, M]										Is(50)=5.40 MPa Is(50)=5.50 MPa	D (20.55m) A (20.80m)
22								[Strength bars: C, M]										[Defect bars: C, M]										Is(50)=3.40 MPa Is(50)=13.00 MPa	A (21.62m) D (21.75m)
23								[Strength bars: M]										[Defect bars: M]											
24			100 (100)					[Strength bars: W, M]										[Defect bars: W, M]										Is(50)=9.00 MPa Is(50)=4.20 MPa	A (23.68m) D (23.78m)
25	-18.86				MICRODIORITE (Kgwu) SW: Blue grey, fine to medium grained, massive, high to very high strength.	SW		[Strength bars: M]										[Defect bars: M]										Is(50)=12.00 MPa	D (24.74m)
26	-19.36				GRANODIORITE (Kgwu) SW: Pale red grey, coarse grained, porphyritic, high to very high strength. Js: 5° to 15°; (3/m); Pl/Ro; Tl; Fe St; Js: 40° to 50°; (<1/m); Pl/Ro; Tl; Fe St;	SW		[Strength bars: M, C, M]										[Defect bars: M, C, M]										Is(50)=6.40 MPa Is(50)=13.00 MPa	A (25.35m) D (25.50m)
27	-21.06		100					[Strength bars: M, C, M]										[Defect bars: M, C, M]										UCS=207.00 MPa Is(50)=12.00 MPa	(26.40m) A (26.50m)
Borehole completed at 27.30m																													

REMARKS: Kgwu = Wundaru Granodiorite	LOGGED BY	REVIEWED BY
	T.Goosey	S.Foley

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	10/09/15
Borehole No.	BH 206	TMR H No.	H12215
Location	Pioneer River Bridge	Start Depth (m)	17.50
Detail	Pier 1, RHS	Finish Depth (m)	27.30
Chainage		Submitted By	M.Ensor
Remarks			



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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	02/07/15
Borehole No.	BH 206	TMR H No.	H12215
Location	Pioneer River Bridge	Start Depth (m)	17.50
Detail	Pier 1, RHS	Finish Depth (m)	27.30
Chainage		Submitted By	M.Ensor
Remarks			



SCALE 1:5