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**Queensland
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**GEOTECHNICAL
BOREHOLE LOG**

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

BOREHOLE No **BH212**

Sheet 1 of 3

REFERENCE No **H12221**

PROJECT Mackay Ring Road
 LOCATION Pioneer River Bridge, Pier 3 (RHS) COORDINATES 721301.5 E; 7660108.5 N
 PROJECT No FG6184 SURFACE RL 5.70m PLUNGE 90° DATE STARTED 26/08/2015 GRID DATUM GDA 94 / MGA Z55
 JOB No 242/10G/906 HEIGHT DATUM A.H.D. BEARING ° DATE COMPLETED 27/08/2015 DRILLER Saxon 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
0.00 - 1.00	4.70				Silty CLAY (Topsoil) Dark brown, moist, firm.								
1.00 - 2.00				A	Silty CLAY trace sand (Alluvium) Brown, moist, firm. Fine grained sand, low to medium plasticity.	(CI)					3, 3, 3 N=6 SPT		
2.00 - 3.00	2.90			B							3, 3, 3 N=6 SPT		
3.00 - 4.00				C	Clayey SAND (Alluvium) Pale brown, moist, loose. Fine grained sand.	(SC)					2, 3, 3 N=6 SPT		
4.00 - 5.00	1.70			D	Silty SAND (Alluvium) Brown, moist, medium dense. Fine to medium grained sand. 4.50m: gravel lens	(SM)					5, 8, 9 N=17 SPT		
5.00 - 6.00	0.70			E	Gravelly SAND (Alluvium) Brown, moist, medium dense. Fine to coarse grained sand, fine to medium grained gravel, subrounded grains.	(SP)					4, 5, 9 N=14 SPT		
6.00 - 7.00				F	6.00m: becomes fine to coarse grained gravel, subrounded to rounded grains, trace clay.						9, 10, 18 N=28 SPT		
7.00 - 8.00	-0.80			G	Silty CLAY trace sand (Alluvium) Pale grey and orange brown, moist, very stiff. Fine grained sand, medium to high plasticity.	(CI)					7, 8, 10 N=18 SPT		
8.00 - 9.00				H	8.00m: becomes stiff						4, 4, 6 N=10 SPT		
9.00 - 10.00				I	9.00m: becomes stiff to very stiff. With fine grained sand.						5, 7, 8 N=15 SPT		
10.00 - 11.00	-4.30												

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REMARKS: Kgwu = Wundaru Granodiorite

LOGGED BY	REVIEWED BY
C.Boyes	S.Foley



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**GEOTECHNICAL
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FOR GEOTECHNICAL TERMS AND
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BOREHOLE No **BH212**

Sheet 2 of 3

REFERENCE No **H12221**

PROJECT	Mackay Ring Road				
LOCATION	Pioneer River Bridge, Pier 3 (RHS)			COORDINATES 721301.5 E; 7660108.5 N	
PROJECT No	FG6184	SURFACE RL	5.70m	PLUNGE	90°
				DATE STARTED	26/08/2015
				GRID DATUM	GDA 94 / MGA 255
JOB No	242/10G/906	HEIGHT DATUM	A.H.D.	BEARING	°
				DATE COMPLETED	27/08/2015
				DRILLER	Saxon Drilling

DEPTH (m)	R.L. (m)	FAUGER 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
-4.80				J	Silty CLAY trace sand and gravel (Alluvium) (Cont'd)	(CI)					6, 9, 12 N=21	SPT	
11				K	Sandy CLAY (Alluvium) Mottled grey and orange brown, moist, stiff. Fine to medium grained sand, medium to high plasticity.	(CH)					6, 6, 8 N=14	SPT	
-6.30				L	Clayey SAND (Alluvium) Mottled grey and orange brown, moist, dense. Fine to medium grained sand. Medium to high plasticity clay. 12.00m: clay content decreasing.	(SC)					8, 14, 18 N=32	SPT	
-7.30				M	Sandy CLAY trace gravel (Alluvium) Pale grey, orange, white, moist, very stiff. Fine to coarse grained sand, fine grained gravel, subrounded to subangular grains, medium to high plasticity.	(CH)					9, 12, 17 N=29	SPT	
-8.30				N	Silty CLAY trace sand and gravel (Residual) Mottled green grey and orange brown, moist, very stiff. Fine grained sand. 14.40m: Fine grained gravelly band, angular grains.	(CL)					6, 6, 8 N=14	SPT	
15				O							11, 12, 13 N=25	SPT	
-10.30				P	MICRODIORITE (Kgwu) XW: Recovered as green grey, moist, hard, sandy silt trace gravel. Fine grained sand. 16.00m: becoming pale green grey, very dense.	XW					30/130	SPT	
17	-11.40		(65)		MICRODIORITE (Kgwu) SW: Grey speckled dark grey, fine to medium grained, massive, high strength. Calcite veins throughout <1mm thick. Js: 5° to 15°; (<5/m); Pl-Un/Sm; OP; some Fe St and Cly Vr; Js: 40° to 50°; (<4/m); Pl/Ro-Sm; OP; Fe St or CA VN; 19.00m: core becomes more intact, joint frequency decreasing.	SW				17.60m-18.20m: CA VN; 90°, CD, <2mm 18.55m-19.96m: CA VN; 90°, Ir, <5mm 18.94m-18.96m: HW zone, 50°, Pl/Sm, ~20mm	Is(50)=1.50 MPa Is(50)=2.70 MPa UCS=50.20 MPa Is(50)=3.10 MPa Is(50)=7.40 MPa Is(50)=2.80 MPa	hb A (17.20m) D (17.45m) (18.15m) D (18.65m) D (19.75m) A (19.76m)	
-14.30			100 (83)										

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REMARKS: Kgwu = Wundaru Granodiorite

LOGGED BY	REVIEWED BY
C.Boyes	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	27/08/15
Borehole No.	BH 212	TMR H No.	H12221
Location	Pioneer River Bridge	Start Depth (m)	17.10
Detail	Pier 3, RHS	Finish Depth (m)	27.50
Chainage		Submitted By	M.Ensor
Remarks			

The photograph shows three boxes of soil core samples. Box 1 contains samples from 17.10m to 19.50m. Box 2 contains samples from 20.0m to 22.50m. Box 3 contains samples from 23.05m to 25.50m. The samples are dark grey to black, with some lighter, sandy or silty sections. A scale bar at the bottom indicates a length of 700 units, with a scale of 1:5.

CORE PHOTO LOG

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 35 Butterfield Street, Herston Qld 4006
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Project Name	Mackay – Ring Road (Stage 2)		
Project No.	FG6184	Date	27/08/15
Borehole No.	BH 212	TMR H No.	H12221
Location	Pioneer River Bridge	Start Depth (m)	17.10
Detail	Pier 3, RHS	Finish Depth (m)	27.50
Chainage		Submitted By	M.Ensor
Remarks			



SCALE 1:5