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**Queensland
Government**

**GEOTECHNICAL
BOREHOLE LOG**

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

BOREHOLE No **BH268**

Sheet 1 of 4

REFERENCE No **H12277**

PROJECT	Mackay Ring Road		
LOCATION	Calrossie Rd - Embankment	COORDINATES 720889.0 E; 7657743.1 N	
PROJECT No	FG6184	SURFACE RL 12.11m	PLUNGE 90°
			DATE STARTED 17/08/2015
			GRID DATUM GDA 94 / MGA 255
JOB No	242/10G/906	HEIGHT DATUM A.H.D.	BEARING °
			DATE COMPLETED 18/08/2015
			DRILLER Saxon 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
11.81						Clayey SAND trace gravel (Topsoil)		(SC)					
					A	Clayey SAND trace gravel (Alluvium) Grey brown, dry, medium dense. Fine to coarse grained sand.		(SC)				7, 12, 9 N=21	
10.11					B	Clayey SAND (Alluvium) Grey brown, moist, medium dense. Fine grained sand.		(SC)				5, 7, 10 N=17	
					C			(SC)				5, 8, 15 N=23	
7.91					D	SAND trace clay and silt (Alluvium) Grey brown, wet, medium dense. Fine to coarse grained sand.		(SP)				4, 4, 6 N=10	
					E			(SP)				6, 8, 10 N=18	
					F	6.00 to 6.10m: gravelly sand lens.		(SP)				6, 8, 10 N=18	
5.11					G	Gravelly SAND trace clay and silt (Alluvium) Grey brown, wet, dense. Fine to coarse grained sand, fine to medium grained gravel.		(SP)				8, 16, 19 N=35	
4.41					H	CLAY trace sand (Alluvium) Grey, moist, stiff to very stiff. High plasticity. Fine grained sand.		(CH)				4, 6, 9 N=15	
					I	9.00m: becomes stiff.		(CH)				3, 5, 6 N=11	
2.11													

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REMARKS: Kgwu = Wundaru Granodiorite

LOGGED BY	REVIEWED BY
T.Goosey	S.Foley



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BOREHOLE No **BH268**

Sheet 2 of 4

REFERENCE No **H12277**

PROJECT	Mackay Ring Road		
LOCATION	Calrossie Rd - Embankment	COORDINATES 720889.0 E; 7657743.1 N	
PROJECT No	FG6184	SURFACE RL 12.11m	PLUNGE 90°
			DATE STARTED 17/08/2015
			GRID DATUM GDA 94 / MGA 255
JOB No	242/10G/906	HEIGHT DATUM A.H.D.	BEARING °
			DATE COMPLETED 18/08/2015
			DRILLER Saxon 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
1.81				J	CLAY trace sand (Alluvium) Cont'd.	(CH)					5, 5, 8 N=13	SPT	
1.11					Clayey SAND (Alluvium) Grey, moist to wet, medium dense. Fine to medium grained sand.	(SC)							
				K	SAND trace clay and silt (Alluvium) Brown grey, wet, medium dense. Fine to medium grained sand.	(SP)					8, 7, 7 N=14	SPT	
				L		(SP)					4, 6, 8 N=14	SPT	
-0.89				M	Clayey SAND (Alluvium) Grey brown, wet, medium dense. Fine to medium grained sand.	(SC)					8, 8, 9 N=17	SPT	
-1.19					Sandy CLAY (Alluvium) Dark brown, moist, very stiff. Fine to medium grained sand, medium to high plasticity.	(CI)							
-1.89				N	Sandy CLAY (Alluvium) Red brown mottled grey, moist, hard. Fine to medium grained sand, high plasticity.	(CH)					16, 19, 22 N=41	SPT	
-2.89				O	Clayey SAND (Alluvium) Pale grey, moist, medium dense. Fine to medium grained sand.	(SC)					6, 10, 14 N=24	SPT	
				P	16.00m: becomes pale grey brown.	(SC)					8, 9, 11 N=20	SPT	
-4.89				Q	SAND trace clay and silt (Alluvium) Brown, wet, medium dense. Fine to medium grained sand.	(SP)					8, 11, 14 N=25	SPT	
-6.09				R	Sandy CLAY (Alluvium) Brown grey, moist, hard. Fine grained sand, high plasticity.	(CH)					13, 14, 17 N=31	SPT	
-7.89				S		(CH)					10, 14, 18 N=32	SPT	

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REMARKS: Kgwu = Wundaru Granodiorite

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REFERENCE No **H12277**

PROJECT	Mackay Ring Road		
LOCATION	Calrossie Rd - Embankment	COORDINATES 720889.0 E; 7657743.1 N	
PROJECT No	FG6184	SURFACE RL 12.11m	PLUNGE 90°
			DATE STARTED 17/08/2015
			GRID DATUM GDA 94 / MGA Z55
JOB No	242/10G/906	HEIGHT DATUM A.H.D.	BEARING °
			DATE COMPLETED 18/08/2015
			DRILLER Saxon 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
21					T	GRANODIORITE (Kgwu) XW: Recovered as brown grey, moist, dense, clayey sand. Fine to coarse grained sand, high plasticity.						11, 14, 21 N=35	SPT
22					U							12, 17, 22 N=39	SPT
23					V							15, 16, 21 N=37	SPT
24					W	From 23.0m: Recovered as brown grey mottled black and white, moist, very dense, sand trace clay and silt. Fine to medium grained sand.						29, 30/100 hb	SPT
25					X							30/100 hb	SPT
26					Y							30/130 hb	SPT
27					Z	26.00m: becomes pale grey.						30/50 hb	SPT
28					AA							30/50 hb	SPT
29	-16.89		(0)		AB							30/50 hb	SPT
	-17.53		43 (86)	CORE LOSS		GRANODIORITE (Kgwu) HW: Grey brown, coarse grained, porphyritic, low strength. Highly fractured, sand infill throughout. GRANODIORITE (Kgwu)		HW				29.15m-29.35m: CORE LOSS	
								SW				Is(50)=6.80 MPa	A (29.80m)

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REMARKS: Kgwu = Wundaru Granodiorite	LOGGED BY	REVIEWED BY
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			DATE STARTED 17/08/2015
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JOB No	242/10G/906	HEIGHT DATUM A.H.D.	BEARING °
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			DRILLER Saxon Drilling

DEPTH (m)	R.L. (m)	AUGER CASING WASHBORING CORE DRILLING	RQD (%) CORE REC %	SAMPLE	MATERIAL DESCRIPTION	LITHOLOGY	UCS WEATHERING	INTACT STRENGTH											DEFECT SPACING	ADDITIONAL DATA AND TEST RESULTS	SAMPLES TESTS
								INTACT STRENGTH													
								EH	VH	H	M	J	VI	EL	EC	VC	C	M			
31					SW: Dark grey, coarse grained, porphyritic, very high strength. Frequent Microdiorite xenoliths; subrounded to subangular up to 100mm. Js: 40° to 50°; (1/m); Pl/Ro; Tl; Cn; Js: 10° to 15°; (1/m); Pl-Un/Ro; Tl; Cn;	+		[Strength bars: W, M, C, W, M, M, W, M]												Is(50)=4.70 MPa Is(50)=8.60 MPa	D (30.25m) A (30.26m)
32			100 (100)			+	SW	[Strength bars: VH, M, M, W, M]												Is(50)=12.00 MPa UCS=104.00 MPa E=66.8 GPa ν= 0.23	(31.48m)
33						+		[Strength bars: M, M, W, M]												32.45m: J: 65°; Pl/Ro; Fl; CA 10mm; Is(50)=7.00 MPa Is(50)=12.00 MPa	D (32.60m) A (32.61m)
34	-21.84		100		Borehole completed at 33.95m	+		[Strength bars: M]												Is(50)=6.30 MPa Is(50)=8.80 MPa	D (33.70m) A (33.71m)
35								[Empty strength bars]													
36								[Empty strength bars]													
37								[Empty strength bars]													
38								[Empty strength bars]													
39								[Empty strength bars]													

REMARKS: Kgwu = Wundaru Granodiorite	LOGGED BY	REVIEWED BY
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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	18/08/15
Borehole No.	BH 268	TMR H No.	H12277
Location	Calrossie Road Overpass	Start Depth (m)	29.00
Detail	Abutment A, LHS	Finish Depth (m)	33.95
Chainage		Submitted By	M.Ensor
Remarks			



SCALE 1:5

CORE PHOTO LOG

DEPARTMENT OF TRANSPORT AND MAIN ROADS
 Geotechnical Section
 35 Butterfield Street, Herston Qld 4006
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Project Name	Mackay – Ring Road (Stage 2)		
Project No.	FG6184	Date	18/08/15
Borehole No.	BH 268	TMR H No.	H12277
Location	Calrossie Road Overpass	Start Depth (m)	29.00
Detail	Abutment A, LHS	Finish Depth (m)	33.95
Chainage		Submitted By	M.Ensor
Remarks			



SCALE 1:5