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Mackay Ring Road Geotechnical Investigation - Stage 1

PROJECT

-3.02

AWL 10100

ENGINEERING **BOREHOLE LOG**

BOREHOLE No	BH179
SHEET	<u>1</u> of <u>3</u>
REFERENCE No	12120

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

LOCATION	<u>Fursden Creek Ov</u>	erflow Bridge Pier 4; CH: 8770m;		ES <u>721441.9 E; 7661089.9 N</u>
PROJECT N	lo_FG6184	SURFACE R.L6.98mPLUNGE	DATE STARTED <u>_16/10/14</u> GF	RID DATUM <u>GDA 94 /MGA Zone 5</u> 5
JOB No		_ HEIGHT DATUM _ <u>AHD</u> BEARING	DATE COMPLETED <u>17/10/14</u>	DRILLER Saxon Drilling
(m) (m) HLLd JO 0 6.98	AUGER CASING CAS	MATERIAL DESCRIPTION	OLOGY (mm) OLOGY	DDITIONAL DATA AND SINCE TEST RESULTS WAS
- - - - - - - - - - - - - - - - - - -		Clayey SILT (TOPSOIL) Dark brown, moist, soft. Low plasticity. Some roots. Silty CLAY (ALLUVIUM)		
- - 	A	Dark brown, moist, stiff. Low plasticity.	(CL)	4,6,6 N=12
-2 2	B	Silty SAND (ALLUVIUM) Brown, moist, loose to medium dense. Fine grained sand.		3,3,4 N=7
03/2015 10:52 	с		(SM)	5,5,8 N=13
981 C.PT Tool gINL Add-In 04	D			3,5,4 N=9
and - 5 And - 5 An	E			4,7,7 N=14 SPT
6 6 6.50 0.48	F	Gravelly SAND (ALLUVIUM) Brown, moist, loose to medium dense. Fine to medium grained sand. Fine, subrounded gravel.	(SP)	7,7,3 N=10 SPT
W LTHOLOGY FG6184 - E	G	Sandy GRAVEL (ALLUVIUM) Brown and black, moist, medium dense. Fine to medium, subrounded gravel. Fine to coarse grained sand.		16,15,14 N=29 SPT
1.702 1.102 1.	н			14,16,12 N=28 SPT
	J	Gravelly SAND (ALLUVIUM) Brown, moist, medium dense. Fine to coarse grained sand. Fine, subrounded gravel.	u ⊂ (sw)	11,9,10 N=19

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LOGGED BY

MS

Sample failed along existing defect surface.

REMARKS Kgwu - Wundaru Granodiorite;



ENGINEERING BOREHOLE LOG

BOREHOLE No	<u>_BH179_</u> _
SHEET	<u>2</u> of <u>3</u>
REFERENCE No	12120

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

 PROJECT
 Mackay Ring Road Geotechnical Investigation - Stage 1

 LOCATION
 Fursden Creek Overflow Bridge Pier 4; CH: 8770m;
 COORDINATES
 721441.9 E; 7661089.9 N

 PROJECT No
 FG6184
 SURFACE R.L.
 6.98m
 PLUNGE
 DATE STARTED
 16/10/14
 GRID DATUM
 GDA 94 /MGA Zone 55

 JOB No
 HEIGHT DATUM
 AHD
 BEARING
 DATE COMPLETED
 17/10/14
 DRILLER
 Saxon Drilling

 E
 (m)
 GZ
 ()%
 MATERIAL
 SPACING
 G
 ADDITIONAL DATA

(E	(m)	R IG BORING	LLING	()%		MATERIAL	≻	UN N	STRENGTH	SPACING (mm)	LOG	ADDITIONAL DATA	
DEPTH (m)		SH BOI	RE DRI	CORE	SAMPLE	DESCRIPTION	ГІТНОГОGY	ATHER	STRENGTH	~~ >>	GRAPHIC LOG		SAMPLES TESTS
10	-3.02		ő	REC %			1 1 777	USO WF/	╡┥┥┥┥┥	₩>0≥≥≥≥₩	GR∕	TEST RESULTS	SAMPLI TESTS
					к	Clayey SAND (ALLUVIUM) Brown and yellow, moist, medium dense. Fine to medium grained sand. Trace fine						8,13,14 N=27	SPT
						gravel.		(0.0)					-
- 11								(SC]				-
					L							6,11,11 N=22	SPT
11.50	-4.52					Silty CLAY (RESIDUAL)				-			-
- 12						Brown-yellow and grey, moist, mainly very stiff to hard.							-
					М	High plasticity.						8,11,13 N=24	SPT
E													-
													-
- 13					N			(CH				6,9,12 N=21	SPT
													-
													-
					Р	14.00m: Becoming Sandy CLAY. Low plasticity.						15,15,17 N=32	- SPT -
						providely.						N=32	-
5 14.90	-7.92												-
15					Q	GRANODIORITE (Kgwu) XW: Recovered as grey-black and brown,	+					15,22,30/130	SPT -
						moist to dry, very dense Clayey SAND. Fine to medium grained sand.	+					-, ,	
							+						
16					R		+					23,30/70	SPT -
							+		· · · · · · · · - <u>-</u>				-
							+						-
- 17					S		+					30/120	SPT _
							+	xw					-
							+						-
18					Т		 +					30/110	SPT _
													-
					-U-		+					30/70	SPT
							+						
							+						-
							+						-
R	EMARK					ranodiorite;						LOGGED BY	
		<u># S</u>	am	pie ralie	<u>u alo</u>	ng existing defect surface.							

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ENGINEERING BOREHOLE LOG

BOREHOLE No	BH179
SHEET	<u>3</u> of <u>3</u>
REFERENCE No	12120

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

 PROJECT
 Mackay Ring Road Geotechnical Investigation - Stage 1

 LOCATION
 Fursden Creek Overflow Bridge Pier 4; CH: 8770m;
 COORDINATES
 721441.9 E; 7661089.9 N

 PROJECT No
 FG6184
 SURFACE R.L.
 6.98m
 PLUNGE
 DATE STARTED
 16/10/14
 GRID DATUM
 GDA 94 /MGA Zone 55

 JOB No
 HEIGHT DATUM
 AHD
 BEARING
 DATE COMPLETED
 17/10/14
 DRILLER
 Saxon Drilling

	R.L. (m)	0 U U	RQD ()%					INTACT STRENGTH	DEFECT SPACING		ADDITIONAL DATA	
DEPTH (m)		R IG DRING DRILLING	() /0		MATERIAL	G≺	THERING	GINENOIT	(mm)	GRAPHIC LOG	AND	6
EPTI		RNG PBG	0005	SAMPLE	DESCRIPTION	ГІТНОГОСУ	LIE .		>>	PHIC		SAMPLES TESTS
20	-13.02	AUG CAS COR COR	CORE REC %	SAM		E E	USC		ບບ ພ>ບ≥≥≥>⊔	GRA	TEST RESULTS	SAMPLI TESTS
-				V	GRANODIORITE (Kgwu) XW: (Cont'd) Clay content increasing from 20.00m.	+ +					30/120	SPT _ - -
Ē							-					-
F						[+ _						-
-21						+	xw				30/30	SPT [
F						 +						-
E												-
-						+					00/50	-
- 22	-15.22		(0)	×						L_	30/50 ls(50)_= Z_16MPa_	SPT D (22.13m)
F			(0)		GRANODIORITE (Kgwu) MW: Brown, orange and grey, fine to	+ 						-
F					medium grained, massive, highly fractured, high strength.	+						-
-23					Defects:	 +	1				ls(50) = 1.01MPa	
E					- Js; 10°-20° (2/m); Pl/Ro, OP, Fe St; - Js; 30° (5/m); Pl/Ro, OP, Fe St;	- ' -					15(50) = 1.0 IMFa	D (23.00m)
5 10:52					- Js; 50°-60° (2/m); Pl/Ro, OP, Fe St; - Js; 60°-70° (1/m); Pl/Ro, OP, Fe St;	+						-
3/201			100		- 38, 00 -70 (1/11), FI/K0, OF, T e 31,		MW					-
- 04/0			(0)									-
t Add-						+ 						
ool gIN						+						-
DT TO						 +						-
atgel (-18.02		100							L_		
			(35)		GRANODIORITE (Kgwu) SW: Grey-pink and orange, fine to	+					ls(50) = 4.34MPa	
wingFi					medium grained, massive, high to very high	+						(25.25m)-
					strength. Defects:	F					25.60m-25.70m: MW zone, M-H	-
Rep. 26					- Js; 10°-20° (1/m); Pl/Ro, OP, Fe St, some CA;	+ 						
			100		- Js; 30° (3/m); Pl/Ro, OP, Fe St, some CA;	+					ls(50) = 0.60MPa; # ls(50) = 0.85MPa; #	D (26.05m)- A (26.10m)-
BORE			(47)		- Js; 60° (1/m); Pl/Ro, OP, Fe St, some CA;		sw					-
3184 - 1			. ,									-
27						+ 						-
OLOG						+					ls(50) = 4.12MPa; # □_27.30m-27.50m: MW zone, M-H	A (27.25m)
						 +	1				Strength.	-
100	00.00		100			- ' -						-
비 <u>27.90</u> 오 - 28	-20.92		100		Borehole terminated at 27.9m						ls(50) = 9.00MPa	D _(27.85m)
BORE												-
RING												
GINEE												
₩ 4 - 29												-
B Log												
15.GLI								· · · · · · · · · · · ·				
TMR. JAN 15.GLB. Log. A. ENGINEERING BOREHOLE LOG W. LITHOLOGY FG8184 - BOREHOLE S. GPJ. <												
									<u>+ · · · · · · · · · · · · · · · · · · ·</u>			
	REMARK										LOGGED BY	
		<u># San</u>	nple faile	ed ald	ng existing defect surface.							

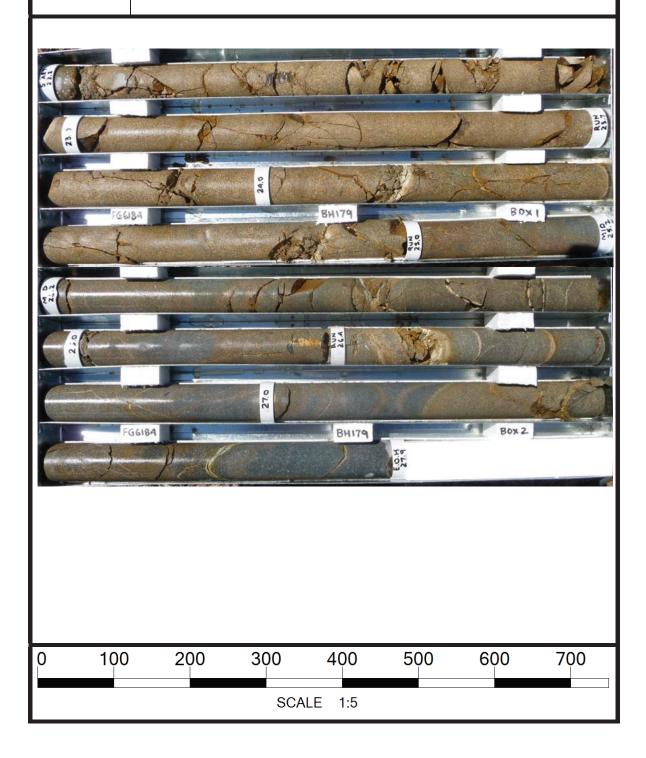
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CORE PHOTO LOG

DEPARTMENT OF TRANSPORT & MAIN ROADS Geotechnical Branch 35 Butterfield Street, HERSTON Qld 4006 Phone 07 3066 3336



Project Name	Mackay – Ring Road		
Project No	FG6184	Date	17/10/14
Borehole No	BH179	TMR H No	12120
Location	Fursden Creek Overflow Bridge	Start Depth (m)	22.2
Detail	Pier 4	Finish Depth (m)	27.9
Chainage	8770m	Submitted By	J. Lopez
Remarks			



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