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TMR JAN 15.GLB Log A\_ENGINEERING BOREHOLE LOG W LITHOLOGY FG6184 - BOREHOLES.GPJ <<DrawingFile>> Datgel CPT Tool glNt Add-In 04/03/2015 10:52

## ENGINEERING BOREHOLE LOG

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

BOREHOLE No	BH181
SHEET	_1_ of _3_
REFERENCE No	12122

PROJECT	<u>Macka</u>	ay Ring F	Road_	Geotechnical Investigation - Stage 1								
LOCATION	_Fursd	en Creek	<u>Ove</u>	rflow Bridge Abutment B; CH: 8789m;					COORDIN	ATES <u>72144</u>	4.9 E; 7661108.	8 <u>N</u>
PROJECT N	lo <u>FG61</u>	84		SURFACE R.L 7.25m PLUNGE				DATE STARTED <u>14/</u>	10/14	GRID DATUM	GDA 94 /MGA	A Zone 5
JOB No				HEIGHT DATUM <u>AHD</u> BEARING		_		DATE COMPLETED _15/	10/14	DRILLER	Saxon Drilling	L
R.L. (m)	GER SING SH BORING RE DRILLING		SAMPLE	MATERIAL DESCRIPTION	LITHOLOGY	O	ATHERING	INTACT DEFECT STRENGTH SPACING (mm)	GRAPHIC LOG	ADDITIONAL AND TEST RESU		SAMPLES TESTS
0 7.25	AUGE CASIN WASH CORE	REC %	SAI		5	Š	WE	<u> </u>	R	TESTINESC	)LIS	SAI
- - - - - 0.50 6.75	5			Clayey SILT (TOPSOIL) Dark brown, moist, soft. Low plasticity. Some roots.	1/ 1/	(M	IL)					-
- - - - -1				Silty CLAY (ALLUVIUM) Dark brown, moist, stiff. Low plasticity.		(C	:L)					- - - -
- - - - - - - - - - 5.65			Α			(0	·L)				3,5,5 N=10	SPT -
	2		В	Silty SAND (ALLUVIUM) Brown, moist, loose. Fine grained.							2,3,3 N=6	SPT :
- - - - - - - -3											14-0	- - - -
-			С								2,3,4 N=7	SPT -
- -4 - - - -			D	4.00m: Becoming loose to medium dense.		(S	M)	<u>+</u>			2,4,6 N=10	SPT -
- - - - - 5 - - -			Е	5.00m: Becoming loose Clayey SAND.				± ± ± ± ± ± ± ± ± ± ± ± ± ± ± ± ± ± ±			1,2,2 N=4	SPT :
			F	6.00m: Fine to medium grained sand.							2,3,3 N=6	SPT
			G	Sandy GRAVEL (ALLUVIUM) Grey-brown, moist, dense. Fine to medium gravel. Fine to coarse grained sand.		(G	P)				19,25,20 N=45	SPT -
	5		Н	Silty SAND (ALLUVIUM) Brown, moist, meidum dense. Fine grained sand.	000						7,7,8 N=15	SPT -
			J			(S	M)	‡ + + + + + + + + + + + + + + + + + + +			5,8,8 N=16	SPT -
9.70 -2.45	4 📗			Silty Sandy CLAY (RESIDUAL)		(C	H)					-
REMAR				ranodiorite;  ng existing defect surface.	 		- -		 		LOGGED BY MS	



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# **ENGINEERING**BOREHOLE LOG

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

BOREHOLE No \_\_BH181 \_\_

SHEET \_\_2 \_\_ of \_\_3 \_\_

REFERENCE No \_\_12122 \_\_\_

PROJECT N	M <u>acka</u>	ay Ring F	Road_	Geotechnical Investigation - Stage 1							
				rflow Bridge Abutment B; CH: 8789m;							
PROJECT No <u>F</u>				SURFACE R.L 7.25m PLUNGE _						GDA 94 /MG/	<u> Zone 55</u>
JOB No _				HEIGHT DATUM <u>AHD</u> BEARING _			DATE COMPLETED 15/	10/14	DRILLER	Saxon Drilling	L
DEI	VASH BORING CORE DRILLING		SAMPLE	MATERIAL DESCRIPTION	LITHOLOGY	JSC VEATHERING	INTACT DEFECT SPACING (mm)	GRAPHIC LOG	ADDITIONAL I AND TEST RESU		SAMPLES
10 -2.75 < C		REC %		Silty Sandy CLAY (RESIDUAL)		<ار				4,5,8	-
- - - - - -			K	(Cont'd) Grey and yellow mottled brown, moist, stiff to mainly very stiff. High plasticity.			± ± ± ± ± ± ± ± ± ± ± ± ± ± ± ± ± ± ±			N=13	SPT :
			L				+			7,10,12 N=22	SPT =
			M			(CH)	<del>-</del>			6,10,10 N=20	SPT
-							<u>+</u>			N=20	- - - - -
-13 - - - - - - - - - - - - - - - - - -			N	13.00m: Becoming hard.			T			11,15,20 N=35	SPT :
- 14 			Р	GRANODIORITE (Kgwu) XW: Recovered as grey, brown and pink moist, hard Sandy CLAY. Low plasticity. Some HW rock fragments.	+ + + + + +		± ± ± ± ± ± ± ± ± ± ± ± ± ± ± ± ± ± ±			25,27,25 N=52	SPT -
15 15 			Q		+ + + + + + +		±			10,17,30 N=47	SPT =
			R	16.00m: Recovered as Clayey SAND / Sandy CLAY. High medium grained sand content.	+ + + + + + + + + + + + + + + + + + + +	xw	± ± ± ± ± ± ± ± ± ± ± ± ± ± ± ± ± ± ±			14,26,23 N=49	SPT =
			S		+ + +		‡ + + + + +			16,25,22 N=47	SPT -
			Т		+ + + + + +		±			21,30/140	SPT ]
				GRANODIORITE (Kgwu) HW: Grey and pink, medium grained, very low strength.	+ + + + + + +	HW				30/60	SPT -
REMARKS L	S COLARIA	- Wunda	aru C	ranodiorite:	+				1	OGGED BY	-
				ng existing defect surface.		 		· <b>-</b>		MS	



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## ENGINEERING BOREHOLE LOG

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

BOREHOLE No	BH181
SHEET	_3_ of _3_
REFERENCE No	12122

PRO	JECT	_Mack	ay Ring F	Road_	Geotechnical Investigation - Stage 1							
LOC	ATION	_Furso	den Creek	<u>c Ove</u>	rflow Bridge Abutment B; CH: 8789m;					COOR	DINATES 721444.9 E; 7661108	.8 <u>N</u>
PRO	JECT No	<u>FG61</u>	184		SURFACE R.L7.25m_ PLUNGE	DATE STARTED _14/10			DATE STARTED <u>1</u>	<u>4/10/14</u>	GRID DATUM GDA 94 /MG/	<u> </u>
JOB	No				HEIGHT DATUM <u>AHD</u> BEARING _				DATE COMPLETED 1	<u>5/10/14</u>	DRILLER <u>Saxon</u> <u>Drilling</u>	<u> </u>
DEPTH (m)	R.L. (m)	AÚGER CASING WASH BORING	RQD ()%	SAMPLE	MATERIAL DESCRIPTION	LITHOLOGY	nsc	WEATHERING	INTACT DEFECT STRENGTH SPACING (mm)  IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	GRAPHIC LOG	ADDITIONAL DATA  AND  TEST RESULTS	SAMPLES
-				V	GRANODIORITE (Kgwu) HW: (Cont'd)	+					30/130	SPT -
- - - - - - - - - - - - - - - - - - -	-14.25			W	TW. (Conta)	+ + + + + + + + + + + + + + + + + + + +	H	w			9,30/40	SPT -
	-14.20		(0) 100 (0)		GRANODIORITE (Kgwu)  MW: Brown-grey, fine to medium grained, massive, highly fractured, high strength. Some CA veins throughout the rock mass. Defects:  - Js; 20°-30° (4/m); Un/Ro, OP-TI, some CA; - Js; 50°-60° (4/m); Un/Ro, OP-TI, some CA; - Js; 85°-90° (1/m); Un/Ro, OP-TI, some CA;	+ + + + + + + + + + + + + + + + + + + +	M	W			Is(50) = 2.71MPa Is(50) = 2.42MPa; # Is(50) = 1.46MPa; #	
-			400			<u>-</u> -					Is(50) = 1.60MPa; #	-
		H	(0)				-				10(00)	(23.65m)-
- 24 - - - - 24.50	-17.25		100			+ +						-
-	11.20				Borehole terminated at 24.5m							-
- 25 26 												
	EMARK	S <u>Kgw</u> ı	u - Wunda	aru G	ranodiorite;		_	_			LOGGED BY	
		# <u>Sa</u>	mple faile	ed alc	ng existing defect surface.		_	_			MS	

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



Borehole No Location Fursden Creek Overflow Bridge Detail Abutment B Finish Depth (m) Abutment B Finish Depth (m) Submitted By  J. Lopez  Remarks  Submitted By  FG6184  BH181  TMR H No 12122  21.5  Etail Depth (m) 24.5  Submitted By J. Lopez							
Project No         FG6184         Date         15/10/14           Borehole No         BH181         TMR H No         12122           Location         Fursden Creek Overflow Bridge         Start Depth (m)         24.5           Detail         Abutment B         Finish Depth (m)         24.5           Chainage         8789m         Submitted By         J. Lopez    FG6184  BH187  FG6184  BH187  BH187  BH187  BON 1  BO	Project Name	Mackay – Ring R	oad				
Borehole No	Project No				Date		15/10/14
Detail Abutment B Finish Depth (m) 24.5 Chainage 8789m Submitted By J. Lopez  Remarks  FG4184 SH181 Sox 1  TG4184 SH181 SH181 SOX 1  TG4184 SH181 SH181 SOX 1  TG4184 SH181 SH18	Borehole No	BH181			TMR H No	)	12122
Chainage Remarks         8789m         Submitted By         J. Lopez	Location	Fursden Creek Ov	erflow Bridge	е	Start Dept	h (m)	21.5
Chainage Remarks         8789m         Submitted By         J. Lopez	Detail	Abutment B					24.5
0 100 200 300 400 500 600 700	Chainage	8789m					J. Lopez
O 100 200 300 400 500 600 700	Remarks						d
0 100 200 300 400 500 600 700	in Control	The state of the s	1747		222		3 08
0 100 200 300 400 500 600 700	FG618		BHIEI			Box	7
	on on	240	XX.	13		117	E P
CONIL 1.E	0 100	200			500	600	700