COPYRIGHT NOTICE

This geotechnical log and its associated data (the Document) is licensed by the Queensland Department of Transport and Main Roads under the <u>Creative Commons Attribution 4.0 Licence</u> (CC BY 4.0). When reusing the Document, in whole or in part, please attribute the Department as follows: "(c) State of Queensland (Department of Transport and Main Roads) 2020, licensed under the CC BY 4.0 Licence". This licence does not apply to the Queensland Government logo or trademarks.

LIMITATION OF LIABILITY

The CC BY 4.0 Licence contains a comprehensive Disclaimer of Warranties and Limitation of Liability. In addition, please note that this Document was prepared for Departmental use only. Reuse of the Document by anyone for any other purpose could result in error and/or loss. You should obtain professional advice before making decisions based on the contents of the Document.

When reproducing any part of this Document, you must also reproduce this limitation of liability notice in addition to the italicised attribution statement above.

Retrieved from the Queensland Geotechnical Database http://qgd.org.au/

Queensland Government

ENGINEERING BOREHOLE LOG

BOREHOLE No	BH115
SHEET	<u>1</u> of <u>3</u>
REFERENCE No	12061

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

PROJECT	<u>Macka</u>	<u>y Ring R</u>	oad (Seotechnical Investig	<u>gation - Stage</u>	1	 	 						
LOCATION	<u>Peak [</u>	<u> Downs H</u>	wy Ov	erpass Abutment A;	<u>CH: 5568m;</u>		 	 		CC	ORDINATE	S <u>72096</u>	6.6 E; 7657922	.8 <u>N</u>
PROJECT N	D_FG618	84		SURFACE R.L.	<u>12.47m</u>	PLUNGE	 	 DATE S	TARTED	23/9/	<u>14</u> GR	ID DATUM	GDA 94 /MG/	<u>A Zone 55</u>
JOB No				HEIGHT DATUM	_ <u>AHD</u>	BEARING	 	 DATE COM	IPLETED	24/9/	14	DRILLER	Saxon Drilling	1
R.L.	(1)	RQD						INTACT	DEFECT					

o DEPTH (m)	R.L. (m) 12.47	AÚGER CASING WASH RORING	CORE DRILLING	RQD ()% CORE REC%	SAMPLE	MATERIAL DESCRIPTION	LITHOLOGY	USC WEATHERING	DEFECT SPACING (mm) ₩>⇔≈≥≥≥	GRAPHIC LOG	ADDITIONAL DATA AND TEST RESULTS	SAMPLES TESTS
- - 0.40	12.07					Clayey SILT (TOPSOIL) Dark brown, moist, soft. Low plasticity.	<u>17</u> 17 - 71	(ML)				-
					A	Silty CLAY (ALLUVIUM) Brown and orange mottled grey, moist, mainly stiff to very stiff. Medium plasticity.					3,5,7 N=12	SPT -
- - - - - - - - - - - - - -					В			(CI)			3,3,6 N=9	SPT -
15 10:50 	8.97				С						4,6,10 N=16	SPT -
FG6184 - BOREHOLES.GFJ < <dreakingfile>> Datget CPT Tool glNt Add-In 04,03/2015 10:50</dreakingfile>					D	Silty Sandy CLAY (ALLUVIUM) Brown and orange mottled grey, moist, very stiff. Medium plasticity. Some pockets of fine grained Clayey SAND.					5,8,15 N=23	SPT
<pre><<drawingfile>> Datge </drawingfile></pre>					E	5.00m: Becoming firm to stiff.		(CI)			5,2,4 N=6	SPT
184 - BOREHOLES.GPJ					F						2,4,6 N=10	SPT
- <u>6.90</u> 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	5.57				G	Silty CLAY (ALLUVIUM) Dark grey, moist, stiff to very stiff. High plasticity.					5,7,11 N=18	SPT -
GINEERING BOREHOLE					Н			(CH)			3,9,7 N=16	SPT
TMR. Jan 15. GLB. Log. A_ENGINEERING BOREHOLE. LOG W. LITHOLOGY					J						3,5,7 N=12	SPT
	EMARK	<u> </u>	wu ·	- Wunda	iru G				 		LOGGED BY	
		<u># S</u>	<u>Sam</u>	pl <u>e</u> faile	<u>d alo</u>	ng existing defect surface.	(MS	

(c) State of Queensland (Department of Transport and Main Roads) 2020, CC BY 4.0. Please note copyright and limitation of liability notices on attached cover page.



ENGINEERING BOREHOLE LOG

BOREHOLE No	BH115
SHEET	<u>2</u> of <u>3</u>
REFERENCE No	12061

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

PROJECT	Mackay Ring Road	eotechnical Investig	ation - Stage	1	 					
LOCATION	Peak Downs Hwy Ov	erpass Abutment A;	<u>CH: 5568m;</u>		 		COORDI	NATES 72096	6.6 E; 7657922.	<u>8 N</u>
PROJECT No		SURFACE R.L.	<u>12.47m</u>	PLUNGE	 DATE S	TARTED	23/9/14	GRID DATUM	<u>GDA 94 /MG/</u>	<u>A Zone 5</u> 5
JOB No		HEIGHT DATUM	_ <u>AHD</u>	BEARING	 DATE COM	IPLETED	24/9/14	DRILLER	<u>Saxon</u> Drilling	L
R.L.	RQD 0岁()%				INTACT STRENGTH	DEFECT SPACING	(1)	ADDITIONAL	DATA	

Ê	(m)	RING	()%		MATERIAL	≻	NG	STRENGTH SPACING (mm)	0G	ADDITIONAL DATA	
DEPTH (m)		ER NG EDRI		ЧE	DESCRIPTION	ГІТНОГОСУ	THERING		GRAPHIC LOG	AND	SAMPLES TESTS
<u>ස</u> 10	2 47	AUGER CASING WASH BORING CORE DRILLING	CORE REC %	SAMPLE		ГІТНО	USC WEA ⁻	SS COLL ST CL	GRAF	TEST RESULTS	SAMPLI TESTS
-					Silty CLAY (ALLUVIUM) (Cont'd) Becoming brown and yellow mottled grey.					3,3,7 N=10	SPT
- - - - - - - - - - - - -				L			(CH)			5,8,11 N=19	SPT
- - - - 12.50	-0.03			М						4,7,9 N=16	SPT
13/2015 10:50	-1.33			Ν	Sandy CLAY (RESIDUAL) Brown and orange mottled grey, moist, very stiff. Medium to high plasticity.		(CI- CH)			4,9,12 N=21	SPT
7 Tool gINt Add-In 04/				Р	Silty CLAY (RESIDUAL) Brown and orange mottled grey, moist, very stiff. High plasticity.					7,10,16 N=26	SPT -
TMR.JAN 15.GLB Log A_ENGINEERING BOREHOLE LOG W LITHOLOGY F66184 - BOREHOLES GPJ - -				Q						8,11,15 N=26	SPT
84 - BOREHOLES.GPJ <				R			(CH)			7,11,16 N=27	SPT
1993 ALTHOLOGY FG81				S						7,9,14 N=23	SPT -
INEERING BOREHOLE LO				т						7,10,14 N=24	SPT
AN 15.GLB Log A_ENG	-7.13			U	Clayey SAND (RESIDUAL)					8,10,14 N=24	SPT
							(SC)	<u> </u>			-
l	REMARK				ranodiorite;	1				LOGGED BY	
						1				- L	

(c) State of Queensland (Department of Transport and Main Roads) 2020, CC BY 4.0. Please note copyright and limitation of liability notices on attached cover page.



ENGINEERING BOREHOLE LOG

BOREHOLE No	BH115
SHEET	<u>3</u> of <u>3</u>
REFERENCE No	12061

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

PROJECT	Mackay Ring I	<u>Road G</u>	eotechnical Investig	<u>ation - Stage</u>	1	 						
LOCATION	Peak Downs H	<u>lwy Ov</u>	erpass_Abutment A;	<u>CH: 5568m;</u>		 		COORD	INATES	720966	6.6 E; 7657922.	<u>8 N </u>
PROJECT N	o <u>FG6184</u>		SURFACE R.L.	<u>12.47m</u>	PLUNGE	 DATE S	TARTED	23/9/14	GRID [DATUM	<u>GDA 94 /MG</u>	<u>A Zone 55</u>
JOB No			HEIGHT DATUM	_ <u>AHD</u>	BEARING	 DATE COM	IPLETED	24/9/14	DF	RILLER	Saxon Drilling	L
R.L.	RQD					INTACT	DEFECT					

	R.L. (m)		<u>.</u> 0	RQD ()%						INTACT DEFECT STRENGTH SPACING		() ADDITIONAL DATA	
DEPTH (m)	(111)	200		()/0		MATERIAL	λS		THERING	(mm)	,		~
L L L		R S S S S S S S S S S S S S S S S S S S	П П П П П П С С		Щ	DESCRIPTION						의 AND	PLES
20	-7.53	AUGE CASI	CORI	CORE REC %	SAMPLE		гітногоду	USC.	MEA.	ZEOCOLLEZZE	<u>х</u>	ADDITIONAL DATA AND TEST RESULTS	SAMPLES TESTS
- 20	-7.55					Clayey SAND (RESIDUAL)	///	- 1-		+ + + + + + + + + + + + + + + + + + + +		9,10,26	-
E					V	(Cont'd) Pale grey-brown, moist, dense.				<u>.</u>		N=36	SPT -
F						Fine to medium grained.					•		-
F													-
-21										· · · · · · · ·] · · · · · ·	-		
E					W			(SC	C)		-	8,14,16 N=30	SPT _
F											÷	-	-
E										· · · · · · ·] · · · · ·			-
- 22										· · · · · · · · · · · · · · · · · · ·			
- 22.30	-9.83				x							9,14,18	SPT -
-						Sandy CLAY (RESIDUAL)							
-						Grey-brown, moist, hard. Medium plasticity.							-
-								(CI	I)				-
- 23	10.00				V							29,20,17	-
023.30	-10.83				Y	MICRODIORITE (Kgwu)	+		+			N=37	SPT -
1 1						XW: Recovered as dark brown-grey, moist	[+]			+			-
04/03			н			to dry, very dense Clayey SAND. Fine grained. Some HW rock fragments.	+	X٧	~	<u>.</u>			-
무 24					Z	5		~	v	÷ ÷ ÷ ÷ ÷ ÷ ÷ ÷ ÷ ÷ ÷ ÷ ÷ ÷ ÷ ÷ ÷ ÷ ÷		27,30/50	SPT -
gINt A					_		+ - +			÷ · · · · · · · · · · · · · · · · · · ·			-
Contracting Filess Datget CPT Tool gINL Add-In 04.03.2015 10:50 	-12.03		₩	(13)					_	· · · · · · · · · · · · · · · · · · ·			_
I CPT				()		MW: Dark grey to black, fine grained,	+	мv	~			ls(50) = 3.13MPa; #	
- 25	-12.68					massive, high strength. Defects:	[+]	1010			-	15(50) = 5.15WF a, # 1	D (24.84m)_
A 25.15	-12.00					- Js; 25° (2/m); Pl/Ro, OP, Fe St;	+	MV	~/	· · · · · · · · · · · · · · · · · · ·			-
awingf						- Js; 40° (3/m); Pl/Ro, OP, Fe St; - Js; 65° (1/m); Pl/Ro, OP, Fe St;		XW			-	☐ 25.48m-25.57m: XW zone.	-
P P						GRANODIORITE (Kgwu)	+	MV	-1				-
rd9.s - 26				100		MW: Pale grey and orange, fine to coarse grained, massive, mainly medium strength.	+	XV	V			25.85m-25.95m: XW zone.	-
FG6184 - BOREHOLES.GPJ				(0)		Defects:							-
						- Js; 5°-15° (4/m); PI/Ro, OP, Fe St, some Clv Vr;	+						-
84 - B						- Js; 40°-45° (2/m); PI/Ro, OP, Fe St, some	+	MV	~				-
FG61				100		Cly Vr; - Js; 55°-60° (2/m); Pl/Ro, OP, Fe St, some		IVIV				ls(50) = 0.97MPa	A (26.80m)
> −27				(34)		Cly Vr;	+					ls(50) = 0.60MPa	– D (27.12m)
HI						- Ĵs; 85°-90° (1/m); Pl/Ro, OP, Fe St, some Cly Vr;	+				-		A (27.38m)
 ≥						Frequent microdiorite inclusions		X٧	V			- 27.50m-27.65m: XW zone.	(27.3011)
О- щ 27.90	-15.43					r requent microdionte inclusions	+	MV	N				-
TMR.Jan 15.GLB Log A_ENGINEERING BOREHOLE LOG W LITHOLOGY 16 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1				400		GRANODIORITE (Kgwu)	+				•	-	
1 BOR				100 (100)		SW: Pale grey to white, medium to coarse grained, massive, very high to extremely	+				-	ls(50) = 6.45MPa; #	A (28.27m)
ERINC				()		high strength.	- +					Is(50) = 9.78MPa	D _(28.33m)
IGINE						Frequent fine grained inclusion (xenoliths)	+	SV	\sim				-
≝ 2						throughout.		30	•		•		-
						Defects:	-						-
5.GLE						- Js; 0°-10° (1/m); PI/Ro, OP, Cn;	+					ls(50) = 12.41MPa	D (29 48m)
NA -29.75	-17.28			100									(20:1011)
MT - 30						Borehole terminated at 29.75m				<u> </u>			-
F	REMARK	s <u>K</u> g	<u>gwu</u>	- Wunda	aru G	anodiorite;						LOGGED BY	
		# \$	S <u>a</u> m	ple faile	d alc	ng existing defect surface						MS	
		_											

(c) State of Queensland (Department of Transport and Main Roads) 2020, CC BY 4.0. Please note copyright and limitation of liability notices on attached cover page.

CORE PHOTO LOG

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



Department of Transport and Main Roads

Project Name	Mackay – Ring Road		
Project No	FG6184	Date	24/09/14
Borehole No	BH115	TMR H No	12061
Location	Peak Downs Hwy Overpass	Start Depth (m)	24.5
Detail	Abutment A	Finish Depth (m)	29.75
Chainage	5568	Submitted By	J. Lopez
Remarks			



Page 1 of 1 GEOT043/1 (c) State of Queensland (Department of Transport and Main Roads) 2020, CC BY 4.0. Please note copyright and limitation of liability notices on attached cover page.