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ENGINEERING BOREHOLE LOG

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

BOREHOLE No **BH109**
SHEET **1** of **3**
REFERENCE No **12055**

PROJECT Mackay Ring Road Geotechnical Investigation - Stage 1
LOCATION Stotts Road Overpass Abutment A; CH: 5055m; COORDINATES 720899.9 E; 7657414.1 N
PROJECT No FG6184 SURFACE R.L. 12.05m PLUNGE _____ DATE STARTED 21/9/14 GRID DATUM GDA 94 /MGA Zone 55
JOB No _____ HEIGHT DATUM AHD BEARING _____ DATE COMPLETED 22/9/14 DRILLER Saxon Drilling

DEPTH (m)	R.L. (m)	AUGER CASING WASH BORING CORE DRILLING	RQD () %	CORE REC %	SAMPLE	MATERIAL DESCRIPTION	LITHOLOGY	USC WEATHERING	INTACT STRENGTH	DEFECT SPACING (mm)	GRAPHIC LOG	ADDITIONAL DATA AND TEST RESULTS	SAMPLES TESTS
0	12.05												
0.50	11.55					Silty CLAY (ALLUVIUM) Dark brown, moist, firm. High plasticity.	(CH)						
1					A	Silty CLAY (ALLUVIUM) Pale grey and orange-brown, moist, stiff. High plasticity. With fine grained sand.	(CH)					3.4,6 N=10	SPT
2					B	2.00m: Increasing in sand content.						3.5,3 N=8	SPT
2.30	9.75					SAND (ALLUVIUM) Pale brown, moist, medium dense. Fine to medium grained sand. Trace silt. Trace fine gravel.							
3					C							4.5,6 N=11	SPT
4					D		(SW)					6.7,6 N=13	SPT
5					E							8.10,11 N=21	SPT
5.50	6.55					Gravelly SAND (ALLUVIUM) Pale brown, moist, medium dense. Fine gravel.	(SW)						
6	5.95				F	Silty CLAY (ALLUVIUM) Brown and grey, moist, stiff to very stiff. High plasticity.	(CH)					9.5,9 N=14	SPT
7					G							6.9,12 N=21	SPT
7.70	4.35					Gravelly Clayey SAND (ALLUVIUM) Brown, moist, medium dense. Medium to coarse grained sand. Fine gravel.	(SC)					4.6,9 N=15	SPT
8					H								
8.80	3.25					Silty CLAY (ALLUVIUM) Pale grey and brown, moist, very stiff. High plasticity.	(CH)					5.8,12 N=20	SPT
9					J								
10.10	2.05												

REMARKS Kgwu - Wundaru Granodiorite;

Sample failed along existing defect surface.

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ME

ENGINEERING BOREHOLE LOG

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

BOREHOLE No BH109
SHEET 2 of 3
REFERENCE No 12055

PROJECT Mackay Ring Road Geotechnical Investigation - Stage 1
LOCATION Stotts Road Overpass Abutment A; CH: 5055m; COORDINATES 720899.9 E; 7657414.1 N
PROJECT No FG6184 SURFACE R.L. 12.05m PLUNGE _____ DATE STARTED 21/9/14 GRID DATUM GDA 94 /MGA Zone 55
JOB No _____ HEIGHT DATUM AHD BEARING _____ DATE COMPLETED 22/9/14 DRILLER Saxon Drilling

DEPTH (m)	R.L. (m)	AUGER CASING WASH BORING CORE DRILLING	RQD () %	CORE REC %	SAMPLE	MATERIAL DESCRIPTION	LITHOLOGY	USC WEATHERING	INTACT STRENGTH	DEFECT SPACING (mm)	GRAPHIC LOG	ADDITIONAL DATA AND TEST RESULTS	SAMPLES TESTS
10	2.05												
10.90	1.15				K	Sandy Silty CLAY (ALLUVIUM) Pale grey and brown, moist, very stiff. High plasticity. Medium grained sand. Trace fine gravel.	(CH)					7,11,12 N=23	SPT
11					L	Sandy SILT (ALLUVIUM) Pale grey, moist, very stiff. Low plasticity. Fine grained sand. Trace fine gravel.						6,7,10 N=17	SPT
12					M		(ML)					7,11,13 N=24	SPT
12.90	-0.85				N	Silty CLAY (RESIDUAL) Pale grey and brown, moist, very stiff to hard. High plasticity. Trace fine to medium grained sand. Trace fine gravel.						9,14,16 N=30	SPT
14					P							10,14,16 N=30	SPT
15					Q							11,14,15 N=29	SPT
16					R	16.00m: Reducing in sand and gravel content.	(CH)					10,15,18 N=33	SPT
17					S							9,13,18 N=31	SPT
18					T							8,13,14 N=27	SPT
19					U							8,12,14 N=26	SPT
20													

REMARKS Kgwu - Wundaru Granodiorite;

Sample failed along existing defect surface.

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ENGINEERING BOREHOLE LOG

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BOREHOLE No BH109
SHEET 3 of 3
REFERENCE No 12055

PROJECT Mackay Ring Road Geotechnical Investigation - Stage 1
LOCATION Stotts Road Overpass Abutment A; CH: 5055m; COORDINATES 720899.9 E; 7657414.1 N
PROJECT No FG6184 SURFACE R.L. 12.05m PLUNGE _____ DATE STARTED 21/9/14 GRID DATUM GDA 94 /MGA Zone 55
JOB No _____ HEIGHT DATUM AHD BEARING _____ DATE COMPLETED 22/9/14 DRILLER Saxon Drilling

DEPTH (m)	R.L. (m)	AUGER CASING WASH BORING CORE DRILLING	RQD () %	CORE REC %	SAMPLE	MATERIAL DESCRIPTION	LITHOLOGY	USC WEATHERING	INTACT STRENGTH	DEFECT SPACING (mm)	GRAPHIC LOG	ADDITIONAL DATA AND TEST RESULTS	SAMPLES TESTS
20	-7.95				V	Silty CLAY (RESIDUAL) (Cont'd)						10,14,19 N=33	SPT
21					W							25,30/140	SPT
21.60	-9.55				X	GRANODIORITE (Kgwu) HW: Pale grey and orange-brown, medium to coarse grained, very low strength.						16,30/140	SPT
22					Y							30/130	SPT
23	-11.25		(0) 100 (95)			GRANODIORITE (Kgwu) SW: Pale grey and pink, medium to coarse grained, massive, very high strength.						Is(50) = 5.18MPa	D (23.48m)
24												Is(50) = 2.75MPa; # Is(50) = 6.22MPa Is(50) = 7.87MPa	A (24.25m) A (24.39m) D (24.45m)
25												Is(50) = 9.79MPa Is(50) = 9.94MPa	A (24.97m) D (25.05m)
26	-14.15			100								Is(50) = 6.35MPa; # Is(50) = 8.05MPa UCS=190MPa	A (25.50m) D (25.57m)
26.20						Borehole terminated at 26.2m.							
27													
28													
29													
30													

REMARKS Kgwu - Wundaru Granodiorite;
Sample failed along existing defect surface.

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ME

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	21/09/14
Borehole No	BH 109	TMR H No	12055
Location	Stotts Road Overpass	Start Depth (m)	23.3
Detail	Abutment A	Finish Depth (m)	26.2
Chainage	5055	Submitted By	M.Ensor
Remarks			



SCALE 1:5