

## **COPYRIGHT NOTICE**

This geotechnical log and its associated data (the Document) is licensed by the Queensland Department of Transport and Main Roads under the [Creative Commons Attribution 4.0 Licence](#) (CC BY 4.0). When reusing the Document, in whole or in part, please attribute the Department and author as follows: "(c) *State of Queensland (Department of Transport and Main Roads) 2020, licensed under the CC BY 4.0 Licence, prepared by Jacobs*". 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/>

This log has been contributed to the Queensland Geotechnical Database with the permission of Jacobs.

CLIENT : TRANSPORT AND MAIN ROADS

POSITION : E: 358875, N: 8136929 (56 MGA94)

PAGE : 1 OF 3

PROJECT : TNRP

**SURFACE ELEVATION : 303.7 (AHD)**

DATE DRILLED : 6/11/12 TO 6/11/12




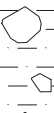
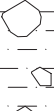

JOB NO : CB27000.F687

DIP / AZIMUTH : 90°

LOGGED BY : KMF

LOCATION : KENNEDY HWY (CAIRNS - MAREEBA)

CHECKED BY : AJ

DRILLING						MATERIAL						
PROGRESS		DRILLING PENETRATION	GROUND WATER LEVELS	SAMPLES & FIELD TESTS	RL (m)	DEPTH (m)	GRAPHIC LOG	CLASSIFICATION SYMBOL	MATERIAL DESCRIPTION Soil Type, Colour, Plasticity or Particle Characteristic Secondary and Minor Components	MOISTURE CONDITION	CONSISTENCY	STRUCTURE & Other Observations
DRILLING & CASING	WATER											
↑ ADV ↓		H			303.7	0.0		GP	SANDY GRAVEL (GP): Grey, fine to coarse gravel, angular, fine to medium grained sand, with fines.			FILL
									0.60m			
		F		1.50m SPT 7, 7, 6 N=13	302.7	1.0		CI-CH	SILTY CLAY (CI-CH): Brown becoming red brown, medium to high plasticity, with fine to coarse grained sand and fine to medium grained angular gravel, trace of rootlets.		St	COLLUVIUM
				1.95m								
		F-H			301.7	2.0						
		F		3.00m SPT 8, 12, 16 N=28	300.7	3.0			3.00m	M		
				3.45m					SOIL (60%) AND ROCK FRAGMENTS (40%): Red brown, soil comprises of SILTY CLAY (CI-CH), medium to high plasticity, with some fine to medium grained sand, trace of rootlets, rock fragments comprise of fine to coarse grained angular gravel and cobbles.		VSt	
												
												
		H	4.50m SPT 10/40mm HB N=R 4.54m					4.54m				
					298.7	5.0			Continued as Cored Drill Hole			

DRILLING				SAMPLES & FIELD TESTS				DENSITY (SPT N-value)				CONSISTENCY (Su) (N-value)			
HA	Hand Auger	RR	Rock Rolling	DS	Disturbed Sample	SPT Standard Penetration Test		VL	Very Loose	0 - 4	VS	Very Soft	< 12 kPa	{0-2}	
AS	Auger Screw	AT	Air Track	ES	Env Soil Sample	U Undisturbed Tube Sample		L	Loose	4 - 10	S	Soft	12 - 25	{2-4}	
AD/T	Auger Drill TC-bit	HQ	HQ Coring	EW	Env Water Sample	W Water Sample		MD	Medium Dense	10 - 30	F	Firm	25 - 50	{4-8}	
AD/V	Auger Drill V-bit	NQ	NQ Coring					D	Dense	30 - 50	St	Stiff	50 - 100	{8-15}	
WB	Washbore	NMLC	NMLC Coring	HP	Hand Penetrometer	MOISTURE CONDITION		VD	Very Dense	50 - 100	VSt	Very Stiff	100 - 200	{15-30}	
DRILLING PENETRATION				HV	Hand Vane Shear	D = Dry M = Moist W = Wet		CO	Compact	>50/150mm	H	Hard	> 200 kPa	{>30}	
VE	Very Easy	F	Firm	VH	Very Hard										
E	Easy	H	Hard												
GROUNDWATER SYMBOLS															
▼ = Water level (static)															
▽ = Water level (during drilling)															

PAGE : 2 OF 3

DATE DRILLED : 6/11/12 TO 6/11/12

LOGGED BY : KMF

CHECKED BY : AJ

BRISBANE\_OFFICE\_LIBRARY\_CURRENT.GLB Log CORED BOREHOLE CB27000.F688\_GINT.GPJ <<DrawingFile>> 07/01/2014 12:55

File: CB27000.F687 GE057M BH02 2 OF 3



# CORED BOREHOLE ENGINEERING LOG HOLE NO : GE057M\_BH02

CLIENT : TRANSPORT AND MAIN ROADS

POSITION : E: 358875, N: 8136929 (56 MGA94)

PAGE : 3 OF 3

PROJECT : TNRP

SURFACE ELEVATION : 303.7 (AHD)

DATE DRILLED : 6/11/12 TO 6/11/12

JOB NO : CB27000.F687

DIP / AZIMUTH : 90°

LOGGED BY : KMF

LOCATION : KENNEDY HWY (CAIRNS - MAREEBA)


CHECKED BY : AJ

DRILLING			MATERIAL			DEFECTS & COMMENTS		
DRILLING	WATER DETAIL	DEPTH (m)	GRAPHIC LOG	DESCRIPTION ROCK TYPE : Colour, Grain size, Structure (texture, fabric, mineral composition, hardness alteration, cementation, etc as applicable)	Weathering	ESTIMATED STRENGTH Is(50) ● - Axial ○ - Diametral	DEFECT SPACING (mm)	Description of joints, seams, defects, additional observations and comments
		297.7	6.0	PHYLLITE: Green grey, orange brown, pale grey, white, indistinct bedding. (continued)	HW			5.83 SZ GC 730 mm
	100% TCR 0% RQD	6.65		CORE LOSS 0.65m (6.65-7.30)				6.56 JT 20° CU RF
		296.7	7.0					
	35% TCR 0% RQD	295.7	8.0	PHYLLITE: Green grey, orange brown, pale grey, white, massive.	MW			7.35 JT 50° UN RF 7.39 JT 60° UN RF 7.46 JT 60° ST RF 7.50 JT 60° PR RF 7.57 JT 60° PR RF 7.64 JT 20° CU RF 7.70 JT 70° PR RF 7.77 JT 70° PR RF 7.79 JT 40° UN RF 7.82 SS Clay 50 mm 7.87 JT 30° ST RF 7.91 SS 50° Clay UN RF 180 mm 8.09 JT 60° PR RF 8.18 SZ 30° GC UN RF 920 mm
		294.7	9.0	PHYLLITE: Orange brown, dark grey, indistinct to distinct bedding at 20° to 30°.	HW			
	100% TCR 0% RQD	9.45		CORE LOSS 0.25m (9.45-9.70)				9.10 JT 70° UN RF 9.17 SS 70° GC UN RF 280 mm
		293.7	10.0	PHYLLITE: Dark grey, orange brown, indistinct to distinct bedding at 20° to 30°.	HW - MW			9.70 SS GC 30 mm 9.73 JT 30° CU RF 9.92 JT 60° IR RF 10.00 JT 50° PR RF 10.10 JT 10° PR RF 10.17 JT 40° PR RF 10.23 CS 30° GC PR RF 50 mm 10.34 JT 30° CU RF 10.39 JT 30° CU RF 10.41 JT 50° CU RF 10.50 JT 60° PR RF 10.55 JT 60° PR RF 10.64 CS 120 mm 10.83 JT 50° CU RF 10.90 JT 60° PR RF 10.95 JT 30° UN RF
	84% TCR 15% RQD	11.00		Cored Drill Hole Terminated at 11.00 m.				
		291.7	12.0					

DRILLING		SAMPLES & FIELD TESTS		DEFECT ABBREVIATIONS		ROCK STRENGTH (Is50 MPa)	
NMLC NMLC Coring	HQ HQ Coring	D Disturbed Sample	ES Env Soil Sample	CS Crushed Seam	CN Clean	0-0.03 Extremely Low	
NQ NQ Coring	PQ PQ Coring	W Water Sample	EW Env Water Sample	CZ Crushed Zone	CT Coating	0.03-0.1 Very Low	
TCR % core run recovered		SPT SPT Sample		DB Drill Break	SN Stain	0.1-0.3 Low	
RQD % core run > 100mm long (rock fraction only measured)		U Undisturbed Tube Sample		FZ Fractured Zone	VR Veneer	0.3-1.0 Medium	
				JT Joint	ST Stepped	1.0-3.0 High	
				IS Infilled Seam	Un Undulated	3.0-10 Very High	
				SZ Shear Zone	POL Polished		
				VN Vein	RF Rough		
					S Smooth		
					SL Slickensided		

GROUNDWATER SYMBOLS  
▼ = Water level (static)  
▽ = Water level (during drilling)



		Client: Transport and Main Roads	
		Project: Transport Network Reconstruction Program	
drawn	KMF	Core Photograph – GE057M_BH02	
date	8/11/2012	Project no. CB27000	
scale	NTS	Photo No: GE057M_BH02 1 of 1	