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**Queensland
Government**

**GEOTECHNICAL
BOREHOLE LOG**

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

BOREHOLE No **CRR733**

Sheet 1 of 1

REFERENCE No **H12959**

PROJECT	Cross River Rail CRR2017 - Additional Geotechnical Investigation		
LOCATION	QR land (Mayne Yard)	COORDINATES 503659.4 E; 6964499.2 N	
PROJECT No	FG6470	SURFACE RL 4.89m	PLUNGE 90°
			DATE STARTED 23/10/2017
			GRID DATUM MGA94
JOB No		HEIGHT DATUM AHD	BEARING °
			DATE COMPLETED 23/10/2017
			DRILLER Geodrill

DEPTH (m)	R.L. (m)	AUGER CASING WASHBORING CORE DRILLING	RQD (%)	CORE REC %	SAMPLE	MATERIAL DESCRIPTION	LITHOLOGY	USCS WEATHERING	INTACT STRENGTH	DEFECT SPACING	ADDITIONAL DATA AND TEST RESULTS	SAMPLES TESTS	
													EH
0.30m-0.80m	3.89				A	Gravelly CLAY (Fill) Brown, moist, stiff. Medium plasticity. Fine to medium grained gravel, angular.	(CI)				0.30m-0.80m: Auger sample taken between Non Destructive Drilling trenches. 0.65m: CBR=35	MC=12.2%	BULK
1.38m-1.41m			(96)		B	TUFF (Rif) MW: Pale brown and grey, fine to coarse grained angular clasts within fine grained matrix, massive, medium to high strength. -Js: 0°-10° (5-7/m), Un/Ro, CD-OP, Fe St -Js: 30°-45° (1-2/m), Un/Ro, OP, FeSt	MW	MH	C		1.38m-1.41m: HFZ	5/20mm hb	SPT
3.69m-3.72m			100 (65)									Is(50)=1.00 MPa Is(50)=1.30 MPa UCS=61.40 MPa E=10.7 GPa v= 0.065 Is(50)=0.48 MPa Is(50)=0.99 MPa	D (1.32m) A (1.33m) (1.50m) D (1.65m) A (1.67m)
4.0m			100 (96)			4.0m: Becoming high to very high strength, pale brown and pink.						Is(50)=0.55 MPa Is(50)=4.50 MPa	D (2.85m) A (2.86m)
6.71m-7.02m			100 (86)						M		3.69m-3.72m: HFZ	Is(50)=0.22 MPa Is(50)=3.10 MPa Is(50)=2.80 MPa Is(50)=7.50 MPa	D (3.82m) A (3.83m) D (4.14m) A (4.16m)
6.71m-7.02m			100 (75)					H-VH	C		6.71m-7.02m: -J: 80°, Un/Ro, IV, OP, FeSt-Vr	Is(50)=3.70 MPa Is(50)=4.20 MPa UCS=81.80 MPa E=20.8 GPa v= 0.064	D (5.10m) A (5.12m) (5.38m)
9.44m-9.72m			100 (97)								9.44m-9.72m: -Js: 70°-90°, Un/Ro, IV, OP, FeSt	Is(50)=4.90 MPa Is(50)=7.10 MPa	D (6.30m) A (6.31m)
	-5.11		100									Is(50)=3.40 MPa Is(50)=2.70 MPa Is(50)=1.00 MPa Is(50)=5.20 MPa	D (7.41m) A (7.42m) D (7.80m) A (7.81m)
												Is(50)=1.70 MPa Is(50)=2.60 MPa	D (9.92m) A (9.94m)

Borehole completed at 10.00m

REMARKS: Rif - Brisbane Tuff	LOGGED BY	REVIEWED BY
	SB	S. Foley

Project Name	Cross River Rail CRR2017 – Geotechnical Investigation		
Project No.	FG6470	Date	23/10/2017
Borehole No.	CRR733	Reference No.	H12959
Location	QR land (Mayne Yard)	Start Depth (m)	1.10
Submitted By	M. de Gee	Finish Depth (m)	10.00



Detailed Discontinuity Description Log



This form is intended for the detailed description of discontinuities and defects as measured in outcrop by line mapping, or as they occur downhole in drilled rock core. The descriptions and abbreviations used shall be in accordance with Australian Standard AS1726-1993 Geotechnical site investigations and TMR Geotechnical Terms and Symbols Form F:GEOT017/8.

Project Name		Cross River Rail				Project No.		FG6470	
Site ID / Borehole No.		CRR733				Surface RL		5.04	
Geologist		S.B.				Date		23/10/2017	
						Page		1	of 2
Traverse Chainage; or Down hole depth (rock core)	Type LP / BP / FP / J etc.	Dip ° / Dip Direction °; or Angle ° from horizontal (rock core)	Planarity Stp / Un / Pl	Roughness Ro / Sm / Sl	Roughness Class I to IX	Aperture CD / OP / FL / TI	Infilling Cn / St / Vr / Ct ¹	Zones ¹ SZ / CZ / HFZ / AZ	Other
1.25-1.26	J	45	Un	Ro	IV	OP	Vr		
1.38-1.41	2Js	30 & 5	Un	Ro	IV	OP	Vr	HFZ	Int
1.60	J	30	Pl	Ro	VII	OP	St		
1.84	J	0	Un	Ro	IV	OP	St		
1.88	J	60	Un	Ro	IV	CD	Fe St		
2.03	J	5	Un	Ro	IV	OP	St		
2.09	J	0	Un	Ro	IV	OP	St		
2.19	J	0	Un	Ro	IV	OP	Cn		
2.26	J	5	St	Ro	I	OP	Cn		
2.47	J	15	Un	Ro	IV	TI	Fe St		
2.53	J	30	Un	Ro	IV	OP	Cn		
2.76	J	60	Un	Ro	IV	OP	St		
2.93	J	0	Un	Ro	IV	OP	Cn		
3.12	J	25	Un	Ro	IV	OP	St		
3.21	J	30	Un	Ro	IV	OP	Vr		
3.48	J	0	Un	Ro	IV	OP	St		
3.69-3.72	2Js	30 & 5	Un	Ro	IV	OP	Ct	HFZ	Int
3.95	J	30	Un	Ro	IV	OP	St		
4.41	J	30	Un	Ro	IV	OP	St		
4.45	J	15	Un	Ro	IV	OP/CD	St		
4.58	J	30	Un	Ro	IV	OP	St		
4.78	J	60	Un	Ro	IV	OP	Cn		
4.83	J	0	Un	Ro	IV	OP	Vr		
5.00	J	0	Un	Ro	IV	OP	St		
5.20	J	0	Un	Ro	IV	OP	St		
5.61	J	0	Un	Ro	IV	OP	St		
5.67	J	15	Un	Ro	IV	OP	St		
5.94	J	0	Un	Ro	IV	OP	St		
6.14	J	0	Un	Ro	IV	OP	St		
6.28	J	0	Un	Ro	IV	OP	St		
6.52	J	0	Un	Ro	IV	OP	St		

Note: 1. Describe zones and coatings in terms of composition and thickness (mm)

F:GEOT 533/9 – 2014

Detailed Discontinuity Description Log



This form is intended for the detailed description of discontinuities and defects as measured in outcrop by line mapping, or as they occur downhole in drilled rock core. The descriptions and abbreviations used shall be in accordance with Australian Standard AS1726-1993 Geotechnical site investigations and TMR Geotechnical Terms and Symbols Form F:GEOT017/8.

Project Name		Cross River Rail				Project No.		FG6470		
Site ID / Borehole No.		CRR733				Surface RL		5.04		
Geologist		S.B.				Date		23/10/2017		
						Page		2	of	2
Traverse Chainage; or Down hole depth (rock core)	Type LP / BP / FP / J etc.	Dip ° / Dip Direction °; or Angle ° from horizontal (rock core)	Planarity Stp / Un / Pl	Roughness Ro / Sm / Sl	Roughness Class I to IX	Aperture CD / OP / FL / TI	Infilling Cn / St / Vr / Ct ¹	Zones ¹		Other
								SZ / CZ / HFZ / AZ		
6.58	J	0	Un	Ro	IV	CD	Vr			Fe
6.71-7.07	J	80	Un	Ro	IV	OP	St	Int		
6.94	J	45	Un	Ro	IV	OP	St			
7.07	J	0	Un	Ro	IV	OP	Cn			
7.19	J	0	Un	Ro	IV	CD	St			
7.26	J	10	Stp	Ro	I	OP	St			
7.55	J	5	Un	Ro	IV	OP	St			
7.62	J	5	Un	Ro	IV	CD	St			
7.80	J	30	Un	Ro	IV	OP	St			
8.20	J	0	Un	Ro	IV	OP	St			
8.50	J	10	Un	Ro	IV	OP	St			
8.73	J	10	Un	Ro	IV	OP	Cn			
8.84	J	0	Un	Ro	IV	OP	Cn			
9.00	J	10	Un	Ro	IV	OP	St			
9.51	J	0	Un	Ro	IV	OP	Cn			
9.86	J	0	Un	Ro	IV	OP	Cn			
9.44-9.72	J2	70-90	Un	Ro	IV	OP	St			Fe

Note: 1. Describe zones and coatings in terms of composition and thickness (mm)

F:GEOT 533/9 – 2014