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**Queensland
Government**

**GEOTECHNICAL
BOREHOLE LOG**

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

BOREHOLE No **CRR921**

Sheet 1 of 1

REFERENCE No **H13125**

PROJECT	Cross River Rail (CRR) Project - Additional Geotechnical Investigation		
LOCATION	O'Connell Terrace	COORDINATES 503278.8 E; 6963890.1 N	
PROJECT No	FG6470	SURFACE RL 16.14m	PLUNGE 90°
			DATE STARTED 28/08/2018
			GRID DATUM MGA94
JOB No		HEIGHT DATUM AHD	BEARING °
			DATE COMPLETED 28/08/2018
			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
15.99						ASPHALT							
15.74						COBBLES (Fill) Grey, pale red, orange brown, dry, dense. Angular to subangular fine to coarse sized cobbles. Cobbles are mainly high strength Tuff.	(CH)						
14.84						Sandy CLAY (Fill)							
14.67			(81)			Pale brown and pale grey, moist, stiff to very stiff. High plasticity. Fine to coarse grained sand. Trace fine, sub-angular gravel.	HW				Is(50)=0.65 MPa Is(50)=0.65 MPa	D (1.65m) A (1.67m)	
			100	(75)		TUFF (Rif) HW: Pale grey and pale red, stained pale orange, fine grained, massive, fine to medium gravel sized clasts throughout. Low strength.	MW				Is(50)=0.90 MPa Is(50)=1.40 MPa	D (2.65m) A (2.66m)	
						TUFF (Rif) MW: Pale grey and pale red, stained pale orange, fine grained, massive, fine to medium gravel sized clasts throughout. Medium to high strength.					UCS=40.70 MPa E=19.8 GPa v= 0.134	(3.17m) D (3.46m) A (3.47m)	
12.19						TUFF (Rif) SW: Pale grey and pale red, stained pale orange, fine grained, massive, fine to medium gravel sized clasts throughout, high to very strength.	SW				Is(50)=5.10 MPa Is(50)=4.90 MPa	D (3.85m) A (3.87m)	
			100	(85)		TUFF (Rif) MW: Pale grey and pale red, stained pale orange, fine grained, massive, fine to medium gravel sized clasts throughout, high to very high strength.					Is(50)=6.70 MPa Is(50)=6.40 MPa	D (4.85m) A (4.87m)	
11.06											Is(50)=2.90 MPa Is(50)=4.80 MPa	D (5.50m) A (5.52m)	
											Is(50)=3.00 MPa Is(50)=5.40 MPa UCS=87.30 MPa E=26.6 GPa v= 0.09	D (6.65m) A (6.67m) (6.67m) D (7.05m) A (7.06m)	
			100								Is(50)=1.20 MPa Is(50)=0.47 MPa	D (7.70m) A (7.71m)	
7.68						Borehole completed at 8.46m							

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

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 - Stage 2				Project No		FG6470	
Site ID / Borehole No.		CRR921				Surface RL		16.14	
Geologist		Nick Dewar				Date		28/08/2018	
						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 / PI	Roughness Ro / Sm / SI	Roughness Class I to IX	Aperture CD / OP / FL / TI	Infilling Cn / St / Vr / Ct ¹	Zones ¹ SZ / CZ / HFZ / AZ	Other
1.32	J	0	Un	Ro	IV	OP	Vr		Cly
1.33	J	5	Un	Ro	IV	OP	Cn		
1.35	J	5	Un	Ro	IV	OP	Cn		
1.47	J	20	Un	Ro	IV	FL	Ct		Cly
1.50	J	10	Un	Ro	IV	OP	Vr		Cly
1.63	J	20	Un	Ro	IV	OP	Cn		
1.75	J	10	Un	Ro	IV	CD	St		Fe
1.81	J	20	Un	Ro	IV	CD	St		Fe
2.10	J	10	Un	Ro	IV	CD	St		Fe
2.28	J	0	Un	Ro	IV	OP	St		Fe
2.55	J	10	Un	Ro	IV	OP	St		Fe
2.60	J	0	Un	Ro	IV	OP	St		Fe
2.68	J	5	PI	Ro	VII	OP	Cn		
2.97	J	0	Un	Ro	IV	OP	St		Fe
3.10	J	0	Un	Ro	IV	OP	St		Fe
3.15	J	20	Un	Ro	IV	OP	St		Fe
3.41	J	5	Un	Ro	IV	OP	St		Fe
3.48	J	5	PI	Ro	Vii	OP	St		Fe
3.55	J	10	Un	Ro	IV	OP	St		Fe
3.74	J	20	Un	Ro	IV	OP	St		Fe
3.79	J	0	Un	Ro	IV	CD/TI	St		Fe
3.92	J	5	Un	Ro	IV	CD/TI	St		Fe
4.25	J	20	Un	Ro	IV	OP	St		Fe
4.54	J	20	Un	Ro	IV	OP	St		Fe
4.59	J	0	Un	Ro	IV	OP	St		Fe
5.02	J	70	PI	Ro	VII	OP	Cn		Fe
5.18	J	5	PI	Ro	VII	OP	St		Fe
5.19	J	5	Un	Ro	IV	OP	St		Fe
5.21	J	5	PI	Ro	VII	OP	St		Fe
5.27	J	10	Un	Ro	IV	OP	St		Fe
5.80	J	5	Un	Ro	IV	OP	St		Fe

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

F:GEOT 533/9 – 2014

Detailed Discontinuity Description Log



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Project Name						Cross River Rail - Stage 2				Project No		FG6470	
Site ID / Borehole No.						CRR921				Surface RL		16.14	
Geologist						Nick Dewar				Date		28/08/2018	
						Page		2		of		2	
5.80	J	5	Un	Ro	IV	OP	St						Fe
5.98	J	5	Un	Ro	IV	OP	St						Fe
6.19	SM	10	Un	Ro	IV	OP/FL	Ct						Cly
6.24	J	20	Un	Ro	IV	OP	Vr						Cly
6.26	J	10	Un	Ro	IV	OP	Vr						Cly
6.30	J	0	Un	Ro	IV	OP	St						Fe
6.54	J	10	Un	Ro	IV	OP	St						Fe
6.76	J	5	Un	Ro	IV	OP	St						Fe
7.19	J	5	Stp	Ro	I	OP	St						Fe
7.53	J	5	Un	Ro	IV	OP	St						Fe
7.63	J	15	Un	Ro	IV	OP	St						Fe
8.30	J	70	Un	Ro	IV	OP	St						Fe

Note: 1. Describe zones and coatings in terms of composition and thickness (mm)
 F:GEOT 533/9 – 2014

Project Name	Cross River Rail CRR 2018 – Geotechnical Investigation		
Project No.	FG6470	Date	28/08/2018
Borehole No.	CRR921	Reference No.	H13125
Location	O'Connell Terrace	Start Depth (m)	1.3
Submitted By	J. Armstrong	Finish Depth (m)	8.46

