

COPYRIGHT NOTICE

This geotechnical log and its associated data (the Document) is licensed by the Cross River Rail Delivery Authority under the [Creative Commons Attribution 4.0 Licence](#) (CC BY 4.0). When reusing the Document, in whole or in part, please attribute as follows: "*(c) Cross River Rail Delivery Authority 2023, licensed under the CC BY 4.0 Licence, prepared by the State of Queensland (Department of Transport and Main Roads)*". This licence does not apply to logos 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 the Cross River Rail Delivery Authority 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**

**GEOTECHNICAL
BOREHOLE LOG**

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

BOREHOLE No **CRR736**

Sheet 1 of 2

REFERENCE No **H12962**

PROJECT Cross River Rail CRR2017 - Additional Geotechnical Investigation
 LOCATION QR land (Mayne Yard) COORDINATES 503794.6 E; 6964782.3 N
 PROJECT No FG6470 SURFACE RL 4.26m PLUNGE 90° DATE STARTED 24/10/2017 GRID DATUM MGA94
 JOB No _____ HEIGHT DATUM AHD BEARING ° DATE COMPLETED 24/10/2017 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
0.00					COBBLES with Gravel and Sandy Clay (Fill)					0.00m-1.50m: Non destructive drilling.	
1.76	2.76			A	Gravelly CLAY (Fill) Brown, moist, soft to very soft. Medium plasticity. Fine grained gravel, angular. Trace fine to coarse grained sand.	(CI)				2.50m: Rapid water loss.	1, 1, 1 N=2 SPT
3.00				B	Sandy GRAVEL with Cobbles (Fill) Black and brown, wet. Fine to coarse grained gravel, angular, fine to coarse grained sand, angular.	(GP)				3.00m-4.00m: No drilling return of material. Expected Voids.	2, 5, 30/120mm hb SPT
5.00	-0.74			C	Clayey GRAVEL (Fill) Dark grey, moist, loose. High plasticity clay. Trace fine grained sand.	GC					3, 5, 9 N=14 SPT
6.00				U1						LL=76% PI= 51% MC=60.5% LS= 19% <75µm= 28%	U50
7.00	-2.74			D	Silty CLAY (Alluvium) Dark grey, moist, very soft.	(CH)				hw, hw, hw N<1	SPT
8.00	-3.14				SAND (Alluvium) Grey, wet, loose. Fine to coarse grained, angular.	(SP)					
9.00	-4.24 -4.34		(85)	E	Clayey SAND (Residual) Pale grey and white, moist, very dense. Fine to coarse grained sand, angular. Medium plasticity clay. TUFF (Rif) SW: Grey brown, fine to medium grained, massive, medium to high strength strength.	(SC)				30/100mm hb MC=31% <75µm= 38%	SPT D (8.82m) A (8.83m) D (9.30m) A (9.32m) D (9.44m) A (9.45m) A (9.60m) D (9.74m)
9.06	-5.74					SW				9.06m-9.09m: Water loss.	

Continued on next sheet

REMARKS: Rif - Brisbane Tuff. Standpipe piezometer installed.

LOGGED BY	REVIEWED BY
SB	S. Foley



**Queensland
Government**

GEOTECHNICAL BOREHOLE LOG

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

BOREHOLE No **CRR736**

Sheet 2 of 2

REFERENCE No **H12962**

PROJECT Cross River Rail CRR2017 - Additional Geotechnical Investigation

LOCATION QR land (Mayne Yard) COORDINATES 503794.6 E; 6964782.3 N

PROJECT No FG6470 SURFACE RL 4.26m PLUNGE 90° DATE STARTED 24/10/2017 GRID DATUM MGA94

JOB No _____ HEIGHT DATUM AHD BEARING ° _____ DATE COMPLETED 24/10/2017 DRILLER Geodrill

DEPTH (m)	R.L. (m)	FAUGER CASING WASHBORING CORE DRILLING	RQD (%) CORE REC %	SAMPLE	MATERIAL DESCRIPTION	LITHOLOGY	USCS WEATHERING	INTACT STRENGTH							DEFECT SPACING							ADDITIONAL DATA AND TEST RESULTS	SAMPLES TESTS
								INTACT STRENGTH							DEFECT SPACING								
								EH	VH	H	M	L	VL	EL	EC	VC	C	M	W	VW	EW		
9.75			100 (95)		TUFF (Rif) SW: Cont'd. -Js: 0° (2/m), Un-Pl/Ro, OP, Fe St	SW														UCS=15.00 MPa E=2.25 GPa v= 0.025 Is(50)=1.00 MPa Is(50)=0.29 MPa Is(50)=0.82 MPa Is(50)=1.20 MPa Is(50)=0.72 MPa Is(50)=0.98 MPa Is(50)=1.30 MPa Is(50)=1.60 MPa Is(50)=0.53 MPa Is(50)=0.53 MPa UCS=24.80 MPa E=3.03 GPa v= 0.047 Is(50)=0.53 MPa Is(50)=1.40 MPa Is(50)=0.17 MPa Is(50)=0.51 MPa	D (9.75m) D (10.25m) A (10.26m) D (10.42m) A (10.43m) D (10.67m) A (10.68m) D (11.10m) A (11.11m) (11.37m) D (11.51m) A (11.52m) D (11.89m) A (11.90m)		
12.00	-7.74		100		Borehole completed at 12.00m	MW																	

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



**Queensland
Government**

STANDPIPE INSTALLATION LOG

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

BOREHOLE No **CRR736**

Sheet 1 of 2

PIEZOMETER No **CRR736**

PROJECT	Cross River Rail CRR2017 - Additional Geotechnical Investigation		
LOCATION	QR land (Mayne Yard)	COORDINATES 503794.6 E; 6964782.3 N	
PROJECT No	FG6470	SURFACE RL 4.26m	PLUNGE 90°
			DATE STARTED 24/10/2017
			GRID DATUM MGA94
JOB No		HEIGHT DATUM AHD	BEARING °
			DATE COMPLETED 24/10/2017
			DRILLER Geodrill

DEPTH (m)	R.L. (m)	LITHOLOGY	MATERIAL DESCRIPTION	Standpipe Construction Details		
				Depth (m) / RL (AHD)	50mm PVC Class No. 18 Stick Up = 0.00m	Backfill Details
1	2.76		COBBLES with Gravel and Sandy Clay(Fill)			Grout: Cement / Bentonite mix
2	1.76		Gravelly CLAY(Fill) Brown, moist, soft to very soft. Medium plasticity. Fine grained gravel, angular. Trace fine to coarse grained sand.	1.80m / 2.46 AHD		Bentonite Seal
3			Sandy GRAVEL with Cobbles(Fill) Black and brown, wet. Fine to coarse grained gravel, angular, fine to coarse grained sand, angular.	2.70m / 1.56 AHD		Top of Slotted Pipe
5	-0.74		Clayey GRAVEL(Fill) Dark grey, moist, loose. High plasticity clay. Trace fine grained sand.	3.00m / 1.26 AHD		
7	-2.74		Silty CLAY(Alluvium) Dark grey, moist, very soft.			
8	-3.14		SAND(Alluvium) Grey, wet, loose. Fine to coarse grained, angular.			
9	4.24 4.34		Clayey SAND(Residual) Pale grey and white, moist, very dense. Fine to coarse grained sand, angular. Medium plasticity clay.			Filter: Washed / Graded Sand
	-5.74		TUFF Grey brown, fine to medium grained, massive, medium to high strength strength.			

Continued on next sheet

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



**Queensland
Government**

**STANDPIPE
INSTALLATION LOG**

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

BOREHOLE No **CRR736**

Sheet 2 of 2

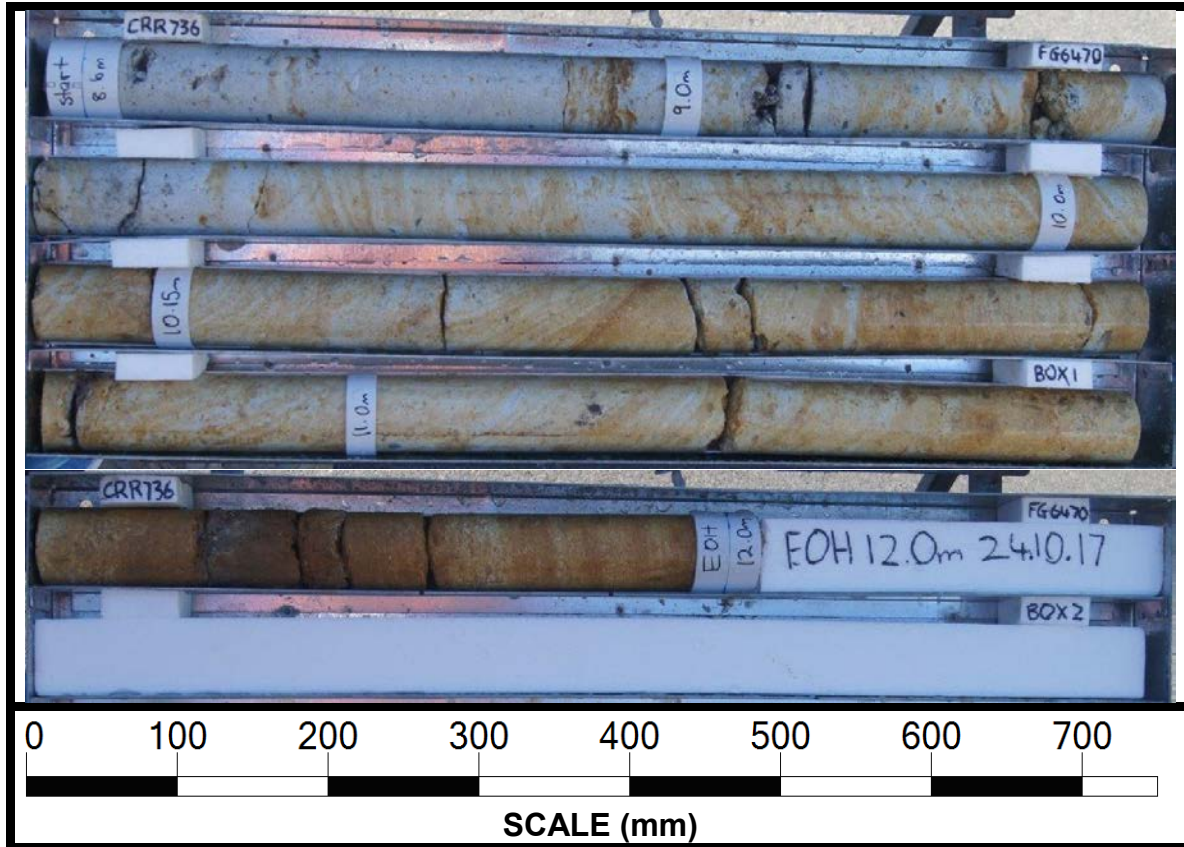
PIEZOMETER No **CRR736**

PROJECT	Cross River Rail CRR2017 - Additional Geotechnical Investigation		
LOCATION	QR land (Mayne Yard)	COORDINATES 503794.6 E; 6964782.3 N	
PROJECT No	FG6470	SURFACE RL 4.26m	PLUNGE 90°
			DATE STARTED 24/10/2017
			GRID DATUM MGA94
JOB No		HEIGHT DATUM AHD	BEARING °
			DATE COMPLETED 24/10/2017
			DRILLER Geodrill

DEPTH (m)	R.L. (m)	LITHOLOGY	MATERIAL DESCRIPTION	Standpipe Construction Details		
				Depth (m) /RL (AHD)	50mm PVC Class No. 18 Stick Up = 0.00m	Backfill Details
11			TUFF Cont'd. -Js: 0° (2/m), Un-Pl/Ro, OP, Fe St			
12	-7.74		Borehole completed at 12.00m	12.00m / -7.74 AHD		
13						
14						
15						
16						
17						
18						
19						

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

Project Name	Cross River Rail CRR2017 – Geotechnical Investigation		
Project No.	FG6470	Date	24/10/2017
Borehole No.	CRR736	Reference No.	H12962
Location	QR Land (Mayne Yard)	Start Depth (m)	8.60
Submitted By	M. de Gee	Finish Depth (m)	12.00



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.		CRR736				Surface RL		4.17		
Geologist		S.B.				Date		24.10.17		
						Page		1	of	1
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		
8.93	J	0	Un	Ro	IV	OP	Cn			
9.06-9.07	J	0	Un	Ro	IV	OP	Ct	HFZ		
9.07	J	0	Un	Ro	IV	OP	Cn			
9.10	J	0	Un/Pl	Ro	IV/III	OP	Cn			
9.25	J	60	Un	Ro	IV	OP	Cn			
9.34	J	30	Un	Ro	IV	OP	Cn			
9.40	J	30	Un	Ro	IV	OP	Cn			
9.48	J	30	Un	Ro	IV	OP	Cn			
10.15	DI									
10.33	J	0	Un	Ro	IV	OP				
10.50	J	15	Un	Ro	IV	OP				
10.35	J	15	Un	Ro	IV	OP				
10.77	J	15	Un	Ro	IV	OP				
10.82	J	0	Un	Ro	IV	OP	Ct			Clay
11.25	J	10	Un	Ro	IV	OP	Ct			Clay
11.63-11.73										Clay
11.78	J	0	Un	Ro	IV	OP	Cn			

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

F:GEOT 533/9 – 2014