

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 as follows: "*(c) State of Queensland (Department of Transport and Main Roads) 2026, licensed under the CC BY 4.0 Licence*". 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/>



**Queensland
Government**

GEOTECHNICAL BOREHOLE LOG

FOR GEOTECHNICAL TERMS AND SYMBOLS
REFER TO TMR FORM F:GEOT 017/10 - 2019

BOREHOLE No **BH17**

Sheet 1 of 5

REFERENCE No **H13337**

PROJECT Centenary Bridge Upgrade

LOCATION Kooringal Drive Park, Jindalee, M5 Centenary Motorway, Jindalee to Kenmore COORDINATES 494732.38 E; 6955015.57 N

PROJECT No FG18012 SURFACE RL 7.24m PLUNGE 90° DATE STARTED 18/02/2019 GRID DATUM MGA94 56J

JOB No 498/05038 HEIGHT DATUM m AHD BEARING DATE COMPLETED 20/02/2019 DRILLER Schneider Drilling

DEPTH (m)	R.L. (m)	AUGER CASING WASH BORING CORE DRILLING	RQD (%) CORE REC %	SAMPLE	MATERIAL DESCRIPTION	LITHOLOGY GROUP SYMBOL / WEATHERING	INTACT STRENGTH	DEFECT SPACING	ADDITIONAL DATA AND TEST RESULTS	SAMPLES TESTS
	7.14					(SP)	EH _VH _H _M _I _VL	EC _VC _C _W _VW		
	6.94				Silty SAND (TOPSOIL) Pale brown, moist, loose. 80% Fine to medium grained sand. 20% silt, low plasticity.	(GW)				
1				A	Sandy GRAVEL with silt (FILL) Red/brown and grey, moist, dense. 55% fine to coarse grained gravel. 35% fine to coarse grained sand. 10% silt, low plasticity.	(CL)				6, 6, 9 N=15 SPT
2	5.74			B	Silty CLAY trace sand and gravel (FILL) Red/brown and grey, moist, very stiff. 45% low to medium plasticity clay. 25% silt, low plasticity. 15% fine to coarse grained gravel . 15% fine to coarse grained sand.	(SP)				4, 4, 4 N=8 SPT
3	4.44			C	Silty SAND (Alluvium) Pale brown, moist, loose. 80% fine to medium grained sand. 20% silt, low plasticity.					5, 6, 6 N=12 SPT
4				D	Sandy SILT (Alluvium) Pale brown, moist, stiff-very stiff. 51% fines, low to medium plasticity. 49% fine grained sand. Interbedded Silty SAND and Silty CLAY layers.					6, 7, 9 N=16 SPT
5				E		ML				6, 7, 8 N=15 MC=19.1% <75µm= 51% SPT
6				F						5, 8, 12 N=20 SPT
7				G	From 7.0m: Becoming firm.					2, 2, 3 N=5 SPT
8				H						hw, 2, 2 N=4 SPT
9	-1.26			I	Silty SAND with clay (Alluvium) Brown, moist, very loose to loose . 65% fine to medium grained sand. 25% silt, low plasticity. 10% clay, medium plasticity. Interbedded layers of Silty CLAY with sand.	(SM)				hw, 1, 4 N=5 SPT
	-2.76									

REMARKS:

LOGGED BY

S. Manson

REVIEWED BY

S. Foley



**Queensland
Government**

GEOTECHNICAL BOREHOLE LOG

FOR GEOTECHNICAL TERMS AND SYMBOLS
REFER TO TMR FORM F:GEOT 017/10 - 2019

BOREHOLE No **BH17**

Sheet 2 of 5

REFERENCE No **H13337**

PROJECT	Centenary Bridge Upgrade				
LOCATION	Koorngal Drive Park, Jindalee, M5 Centenary Motorway, Jindalee to Kenmore			COORDINATES 494732.38 E; 6955015.57 N	
PROJECT No	FG18012	SURFACE RL	7.24m	PLUNGE	90°
				DATE STARTED	18/02/2019
				GRID DATUM	MGA94 56J
JOB No	498/05038	HEIGHT DATUM	m AHD	BEARING	
				DATE COMPLETED	20/02/2019
				DRILLER	Schneider Drilling

DEPTH (m)	R.L. (m)	AUGER CASING WASH BORING CORE DRILLING	RQD (%) CORE REC %	SAMPLE	MATERIAL DESCRIPTION	LITHOLOGY GROUP SYMBOL / WEATHERING	INTACT STRENGTH	DEFECT SPACING	ADDITIONAL DATA AND TEST RESULTS	SAMPLES TESTS
				J	Silty SAND with clay (Alluvium) Continued.				1, hw, hw N<1	SPT
11				K		(SM)			2, 4, 3 N=7	SPT
12	-5.01			L	CLAY with sand (Alluvium) Grey/brown, moist, soft to firm. 94% fines, medium to high plasticity. 6% sand.				3, 2, 1 N=3	SPT
13				M	Interbedded Silty SAND layers.					U75
14				N					Su(PP)=52 kPa	U75
15				O	15.0-16.0m: Very stiff band.				Su(PP)=50 kPa	U75
16				P	From 16.0m: Becoming very soft to soft	CH			8, 10, 13 N=23	SPT
17				Q					1, 1, 2 N=3 MC=56.5% <75µm= 94%	SPT
18				R					hw, hw, hw N<1	SPT
19				S	From 18.5m: Becoming pale brown, interbedded Clayey SILT layers.				Su(PP)=60 kPa	U75
	-12.76								2, 3, 4 N=7	SPT

REMARKS:

LOGGED BY

S. Manson

REVIEWED BY

S. Foley



**Queensland
Government**

GEOTECHNICAL BOREHOLE LOG

FOR GEOTECHNICAL TERMS AND SYMBOLS
REFER TO TMR FORM F:GEOT 017/10 - 2019

BOREHOLE No **BH17**

Sheet 3 of 5

REFERENCE No **H13337**

PROJECT	Centenary Bridge Upgrade				
LOCATION	Koorngal Drive Park, Jindalee, M5 Centenary Motorway, Jindalee to Kenmore			COORDINATES 494732.38 E; 6955015.57 N	
PROJECT No	FG18012	SURFACE RL	7.24m	PLUNGE	90°
				DATE STARTED	18/02/2019
				GRID DATUM	MGA94 56J
JOB No	498/05038	HEIGHT DATUM	m AHD	BEARING	
				DATE COMPLETED	20/02/2019
				DRILLER	Schneider Drilling

DEPTH (m)	R.L. (m)	AUGER Casing Wash Boring Core Drilling Core Rec %	RQD (%) CORE REC %	SAMPLE	MATERIAL DESCRIPTION	LITHOLOGY GROUP SYMBOL / WEATHERING	INTACT STRENGTH	DEFECT SPACING	ADDITIONAL DATA AND TEST RESULTS	SAMPLES TESTS
21				T	CLAY with sand (Alluvium) Continued. From 20.0m: Becoming stiff to very stiff.				3, 6, 9 N=15	SPT
				U		CH			3, 6, 8 N=14 LL=51% PI= 31% LS=14%	SPT
22				V					9, 11, 13 N=24	SPT
23				W					8, 16, 30/80mm	SPT
	-16.01				Silty CLAY trace gravel (Residual) Grey/brown, moist, hard. 60% clay, medium to high plasticity. 35% silt, medium plasticity. 5% fine to medium grained gravel.	(CI)			23.50m: Js: 15-30° (4-6/m), Ro, FL, Cly Vr, Fe Stn. Js: 40-50° (2-3/m), Ro, FL, Cly Vr, Fe Stn.	
	-16.26			(0)	ARGILLITE HW: Pale grey, fine grained, medium strength.	HW			Is(50)=0.08 MPa Is(50)=0.36 MPa	D (24.55m) A (24.56m)
24				100 (17)					25.00m-25.02m: Clay seam	
	-18.26			100 (0)	From 25.3m: Becoming blue/grey, fine to medium grained. ARGILLITE MA: Blue/grey, fine to medium grained, medium strength.	HA			25.30m: Js: 15-30° (10-12/m), Ro, FL, Cly Vr, Fe Stn. Js: 40-50° (2-3/m), Ro, FL, Cly Vr, Fe Stn. 25.77m-26.50m: Fragmented zone.	
25				100 (24)		MA			Is(50)=0.58 MPa Is(50)=0.37 MPa	D (26.54m) A (26.55m)
26					From 26.95m: With quartz inclusions.					
27				100 (47)	ARGILLITE SA: Blue/grey, fine to medium grained, low to medium strength.	SA			28.06m: Js: 15-30° (4-8/m), Ro, FL, Cly Vr, Fe Stn.	(28.00m)
28									UCS=3.77 MPa E=0.646 GPa v= 0.011 Is(50)=0.13 MPa Is(50)=0.22 MPa	D (28.34m) A (28.35m)
29				100 (70)	From 29.3m: becoming mainly medium to high strength				Is(50)=0.31 MPa Is(50)=1.70 MPa	D (29.55m) A (29.57m)
	-22.76									

REMARKS:

LOGGED BY

S. Manson

REVIEWED BY

S. Foley



**Queensland
Government**

GEOTECHNICAL BOREHOLE LOG

FOR GEOTECHNICAL TERMS AND SYMBOLS
REFER TO TMR FORM F:GEOT 017/10 - 2019

BOREHOLE No **BH17**

Sheet 4 of 5

REFERENCE No **H13337**

PROJECT	Centenary Bridge Upgrade				
LOCATION	Koorngal Drive Park, Jindalee, M5 Centenary Motorway, Jindalee to Kenmore			COORDINATES 494732.38 E; 6955015.57 N	
PROJECT No	FG18012	SURFACE RL	7.24m	PLUNGE	90°
				DATE STARTED	18/02/2019
				GRID DATUM	MGA94 56J
JOB No	498/05038	HEIGHT DATUM	m AHD	BEARING	
				DATE COMPLETED	20/02/2019
				DRILLER	Schneider Drilling

DEPTH (m)	R.L. (m)	AUGER CASING WASH BORING CORE DRILLING	RQD (%) CORE REC %	SAMPLE	MATERIAL DESCRIPTION	LITHOLOGY GROUP SYMBOL / WEATHERING	INTACT STRENGTH EH _VH _H _M _I _VL	DEFECT SPACING _EC _VC _C _M _W _VW	ADDITIONAL DATA AND TEST RESULTS	SAMPLES TESTS
31					ARGILLITE SA: Continued.					
32			100 (66)			SA			UCS=8.62 MPa Is(50)=0.24 MPa Is(50)=0.96 MPa	(30.80m) D (30.91m) A (30.92m)
33									32.28m-32.60m: Fragmented zone. 32.60m: Js: 15-30° (4-6/m), Ro, FL, Cly Vr, Fe Stn.	
34					From 33.9m: With iron staining.	SW			Is(50)=1.10 MPa Is(50)=1.20 MPa	D (33.15m) A (33.16m)
35			100 (40)			SA			Is(50)=0.15 MPa Is(50)=0.67 MPa	D (34.20m) A (34.21m)
36						XA			34.96m-35.04m: Fragmented zone. 35.07m-35.18m: Extremely altered zone	
37									UCS=16.30 MPa Is(50)=0.52 MPa Is(50)=1.10 MPa	(36.10m) D (36.38m) A (36.39m)
38			100 (95)			SA			Is(50)=0.80 MPa Is(50)=1.30 MPa	D (37.10m) A (37.12m)
39									Is(50)=2.90 MPa Is(50)=3.70 MPa	D (38.69m) A (38.70m)
	-32.76									

REMARKS:

LOGGED BY

REVIEWED BY

S. Manson

S. Foley



**Queensland
Government**

GEOTECHNICAL BOREHOLE LOG

FOR GEOTECHNICAL TERMS AND SYMBOLS
REFER TO TMR FORM F:GEOT 017/10 - 2019

BOREHOLE No **BH17**

Sheet 5 of 5

REFERENCE No **H13337**

PROJECT Centenary Bridge Upgrade

LOCATION Koorlingal Drive Park, Jindalee, M5 Centenary Motorway, Jindalee to Kenmore COORDINATES 494732.38 E; 6955015.57 N

PROJECT No FG18012 SURFACE RL 7.24m PLUNGE 90° DATE STARTED 18/02/2019 GRID DATUM MGA94 56J

JOB No 498/05038 HEIGHT DATUM m AHD BEARING DATE COMPLETED 20/02/2019 DRILLER Schneider Drilling

DEPTH (m)	R.L. (m)	AUGER CASING WASH BORING CORE DRILLING	RQD (%) CORE REC %	SAMPLE	MATERIAL DESCRIPTION	LITHOLOGY	GROUP SYMBOL / WEATHERING	INTACT STRENGTH					DEFECT SPACING					ADDITIONAL DATA AND TEST RESULTS	SAMPLES TESTS																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
								EH	_VH	_H	_M	_L	VL	_EC	_VC	_C	_M			_W	_VW																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
41	-33.76		100		ARGILLITE SA: Continued.		SA																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												</

Is(50)=1.90 MPa
Is(50)=2.20 MPa

D (40.45m)
A (40.48m)

REMARKS:

LOGGED BY

REVIEWED BY

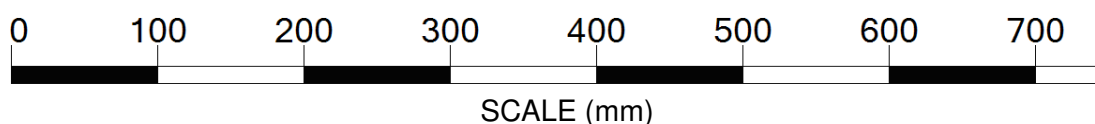
S. Manson

S. Foley

CORE PHOTO LOG

DEPARTMENT OF TRANSPORT AND MAIN ROADS
GEOTECHNICAL SECTION

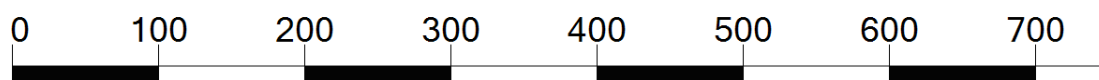
Project Name	Centenary Bridge Upgrade - Geotechnical Investigation		
Project No.	FG18012	Date	18-20/02/2019
Borehole No.	BH17	Reference No.	H13337
Location	Koorinal Drive Park, Jindalee	Start Depth (m)	23.70
Submitted By	M. Hayes	Finish Depth (m)	41.00



CORE PHOTO LOG

DEPARTMENT OF TRANSPORT AND MAIN ROADS
GEOTECHNICAL SECTION

Project Name	Centenary Bridge Upgrade - Geotechnical Investigation		
Project No.	FG18012	Date	18-20/02/2019
Borehole No.	BH17	Reference No.	H13337
Location	Koorinal Drive Park, Jindalee	Start Depth (m)	23.70
Submitted By	M. Hayes	Finish Depth (m)	41.00



SCALE (mm)