Queensland Government
Department of Main Roads

ENGINEERING BOREHOLE

FOR GEOTECHNICAL TERMS AND SYMBOLS REFER FORM F:GEOT 017/3-2005

BOREHOLE No BH4
SHEET 1 of 2
REFERENCE No H9784

PROJECT Caboolture River Bridge Foundation Investigation
LOCATION Pier 3 - 14.3m left (along skew) of existing northbound bridge C/L
COORDINATES 497553.8 E; 7003505.6 N
PROJECT No FG5439 SURFACE R.L. 3.00 DATE STARTED 08/11/05 DATUM MGA94 Zone 56
JOB No 25/10A/60C DATUM AHD DATE COMPLETED 08/11/05 DRILLER Drillsure Pty Ltd

DEPTH (m)	R.L. (m)	AUGER / CASING / WASH BORING / CORE DRILLING	RQD ( )% CORE REC %	SAMPLE	MATERIAL DESCRIPTION	USC	WEATHERING	INTACT STRENGTH (EH VH H M L VL EL)	DEFECT SPACING (mm) (20 60 200 600 2000)	GRAPHIC LOG	ADDITIONAL DATA AND TEST RESULTS	SAMPLES / TESTS
0	3.00				**Sandy CLAY (Alluvium):** Brown, moist, soft, medium plasticity, fine grained sand.						1,1,2 N=3	SPT
1												
2						CI					Su = 32 kPa (PP)	U50
3					High plasticity and some medium grained sand below 2.6m. Numerous orange iron-cemented nodules below 2.5m.						▽ 8/11/05 1,2,1 N=3	SPT
4	-0.90				**Clayey Gravelly SAND (Alluvium):** Grey-brown, moist, medium dense, fine to coarse grained, fine to medium angular gravel up to 20mm, high plasticity clay lenses.	SP					7,6,6 N=12	SPT
5	-2.00				**Gravelly SAND (Alluvium):** Pale grey-brown, moist, loose, medium to coarse grained, fine angular gravel up to 5mm.							
6						SP					5,4,4 N=8	SPT
7					More gravel and less sand at base of unit. Gravel up to 30mm.							
	-4.25				**SANDSTONE:** HW: Dark orange-brown, medium grained, very low to low strength, subhorizontal bedding laminations.	HW					13,18,30/50 N>50	SPT
8	-5.00		(85)		MW: Pale orange-brown, medium grained, low to high strength, ironstained & iron cemented orange-brown throughout rockmass, occasional subhorizontal dark brown carbonaceous laminae and black vitreous coal laminae up to 20mm thick, and gravelly lenses throughout. Less orange-brown iron staining and cementation 9.5-10.15m.	MW					7.5m: Blade refusal. 7.5m-8.0m: Rockroller. Pile Tip -5.0 Is(50)=1.54 MPa Is(50)=1.87 MPa	x o
9												
10	-7.00										9.75-10.15m: Grey sandstone with only slight ironstaining.	

REMARKS

LOGGED BY A O'Rourke

ENGINEERING BOREHOLE CABOOLTURE R BRIDGE WIDENINGS.GPJ QLD MAIN ROADS.GDT 23/02/06

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FOR GEOTECHNICAL TERMS AND SYMBOLS REFER FORM F:GEOT 017/3-2005

BOREHOLE No BH4
SHEET 2 of 2
REFERENCE No H9784

PROJECT Caboolture River Bridge Foundation Investigation
LOCATION Pier 3 - 14.3m left (along skew) of existing northbound bridge C/L
COORDINATES 497553.8 E; 7003505.6 N
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DEPTH (m)	R.L. (m)	AUGER / CASING / WASH BORING / CORE DRILLING	RQD ( )% CORE REC %	SAMPLE	MATERIAL DESCRIPTION	USC	WEATHERING	INTACT STRENGTH (EH VH H M L VL EL)	DEFECT SPACING (mm) (20 60 200 600 2000)	GRAPHIC LOG	ADDITIONAL DATA AND TEST RESULTS	SAMPLES	TESTS
10	-7.00												
11			100 (58)		**SANDSTONE:** As above. MW: Defects: Numerous subhorizontal to 20° planar bedding partings. Only minor orange-brown staining between 10.8 - 11.15m. Gradation to SW sandstone.	MW					Is(50)=0.07 MPa Is(50)=0.16 MPa		x o
	-8.50				SW: Grey, some orange-brown iron staining, medium to coarse grained, low to medium strength. Numerous black coal laminae up to 20mm thick between 11.85 to 13.82m.						Is(50)=0.32 MPa		o
12											11.44-12.5m: Grey sandstone with only minor orange-brown ironstaining. Total water loss into rock fractures below 12.5m.		
13					Iron cemented between 12.5 - 13.65m. Numerous fine gravel lenses below 13.07m.	SW					Is(50)=1.21 MPa Is(50)=1.52 MPa 13.23-13.25m: Dark brown carbonaceous laminae. 13.67-13.68m: Black coal laminae.		x o
14	-11.00		100		Borehole terminated at 14m								
15													
16													
17													
18													
19													
20													

ENGINEERING BOREHOLE CABOOLTURE R BRIDGE WIDENINGS.GPJ QLD MAIN ROADS.GDT 23/02/06

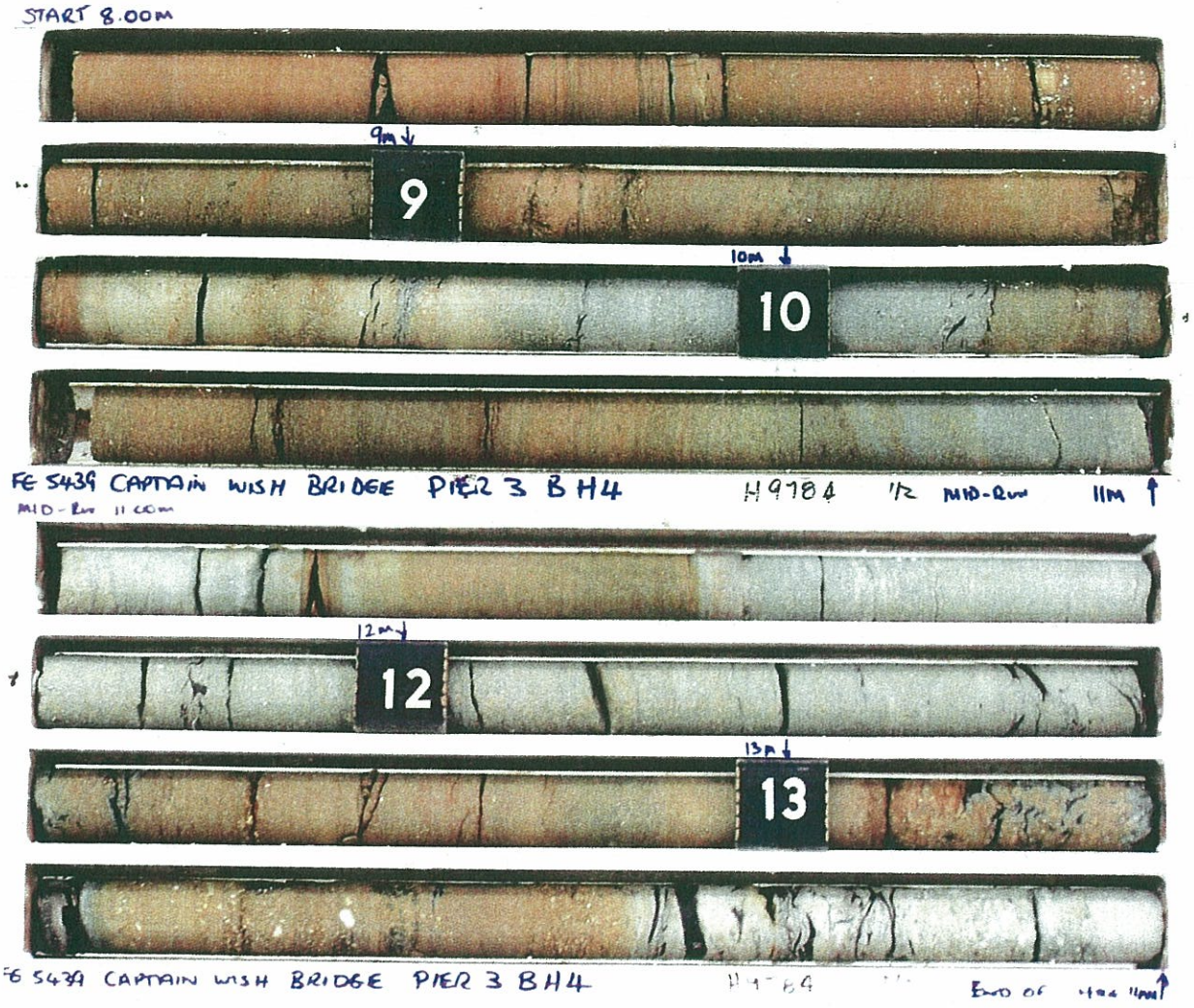
REMARKS

LOGGED BY
A O'Rourke

Project: **FOUNDATION INVESTIGATION FOR THE WIDENING OF THE CAPTAIN WHISH BRIDGES (NORTH AND SOUTHBOUND) – CABOOLTURE RIVER**

Borehole No: **BH4 Pier 3**

Start Depth: 8.00m
Finish Depth: 14.00m
Project No: FG5439
H No: 9784



0 100 200 300 400 500 600mm

SCALE 1:5

F:GEOT043/1

Queensland Government
Department of Main Roads

ROAD SYSTEM & ENGINEERING
GEOTECHNICAL BRANCH
35 Butterfield St
Herston Q 4006

Point Load Strength Index - Test Report

Project: CABOOLTURE RIVER BRIDGE
Project No: FG 5439

Date Sampled 8/11/05
Feature: PIER 3
Sample Type: NMLC ROCK CORE

Date Tested 2/12/05

Report No. FG 5439/2/GS05/793AS4133.4.1

Sample Number	Sample Location	Depth (m)	Test Type D,A,B,I*	Is (MPa)	Is50 (MPa)	Strength Descriptor**	Lithology
GS05/793-A	BH4	8.05	D	1.55	1.54	H	Sandstone
GS05/793-B	BH4	8.08	A	2.17	1.87	H	Sandstone
GS05/793-C	BH4	9.96	D	0.08	0.07	VL	Sandstone
GS05/793-D	BH4	9.99	A	0.19	0.16	L	Sandstone
GS05/793-E	BH4	11.46	A	0.33	0.32	M	Sandstone
GS05/793-F	BH4	12.89	D	1.22	1.21	H	Sandstone
GS05/793-G	BH4	12.92	A	1.69	1.52	H	Sandstone

Sample Remarks

* D - Diametral; A - Axial; B - Block; I - Irregular;

** EL - Extremely Low; VL - Very Low; L - Low; M - Medium; H - High; VH - Very High; EH - Extremely High (taken from AS1726 Table 8A)

Remarks / Variations to Test Procedures:

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Test Method: AS4133.4.1
Software Version 2.03 April 2005

Client Name: RS&E STRUCTURES DIVISION
Client Address: PO BOX 1412 SPRING HILL 4001

Signatory .....

(P.REYNOLDS)

2/12/05

Accreditation Number: 2302
Accredited for compliance with ISO/IEC 17025

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