Queensland Government
Department of Main Roads

ENGINEERING BOREHOLE

FOR GEOTECHNICAL TERMS AND SYMBOLS REFER FORM F:GEOT 017/2-2004

BOREHOLE No BH2
SHEET 1 of 2
REFERENCE No H9551

PROJECT GATEWAY UPGRADE PROJECT - GATEWAY BRIDGE FOUNDATION INVESTIGATION
LOCATION ABUTMENT A
COORDINATES 10543.8 E; 167251.3 N
PROJECT No FG5388
SURFACE R.L. 21.32
DATE STARTED 24/4/05
DATUM SETP
JOB No 0405
DATUM AHD
DATE COMPLETED 24/4/05
DRILLER GEO DRILLING PTY LTD

DEPTH (m)	R.L. (m)	AUGER / CASING / CORE DRILLING	RQD ( )% CORE REC %	SAMPLE	MATERIAL DESCRIPTION	LITHOLOGY	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	21.32													
	21.12				**SILTY GRAVEL** Grey.									
			(100)		**SANDSTONE** **MEDIUM GRAINED MAINLY MASSIVE TO SLIGHTLY LAMIONATED POORLY CEMENTED SEDIMENTARY ROCK** MW : Pale grey to mottled red brown, medium grained, mainly massive to laminated, mainly low to medium strength.							Is(50)=0.10 MPa Is(50)=0.07 MPa	x o	
1												XW Clayey band.		
												XW Clayey band. Jt, 70-80°, PL, 5mm clay infill.		
			100		Occasional interbeds of mudstone up to 80mm thick. Minor orange brown iron staining in parts with some high strength iron cemented sands.									
			(85)				MW							
2												Is(50)=0.10 MPa Is(50)=0.25 MPa	x o	
			(100)		Defects : - Lamination/ bedding partings < 10°(5/m). - Occasional joints @ 70-80° (1//m)							Jt,30°,PL,R,T, Ir. Is(50)=0.21 MPa Is(50)=0.57 MPa Jt,20°,PL,R,C, 1mm clay infill.	x o	
3					Defects are plannar, smooth to slightly rough, clean or occasionally with 5mm thick clay infill.							Is(50)=0.13 MPa Is(50)=0.04 MPa	x o	
	17.62											Is(50)=0.95 MPa	o	
			(86)		**INTERBEDDED MUDSTONE & SANDSTONE (SANDSTONE DOMINANT)** MW : Dark grey and grey with red iron staining, fine to medium grained very low to low strength.		MW					Jt,40°,St,SR, Ir. Is(50)=0.01 MPa Is(50)=0.19 MPa	x o	
4	16.87				**SANDSTONE** MW : Pale grey with orange-red iron staining, very coarse grained, low to medium strength.							Is(50)=0.10 MPa Is(50)=0.49 MPa Jt,10°,PL,SM, 2mm clay infill.	x o	
5	16.07		(100)		Occasional pebbles and thin mudstone interbeds.		MW					Is(50)=0.19 MPa Is(50)=0.54 MPa Jt,70°,PL,SM,T, Ir.	x o	
	15.42				**INTERBEDDED MUDSTONE & SANDSTONE** SW : Fine grained, low strength.		MW					Is(50)=0.06 MPa Is(50)=0.14 MPa	x o	
6					**SANDSTONE** MW : Pale grey with orange iron staining, coarse grained, mainly low to mdium strength.							Contact,10°,PL,SM,2mm clay infill, iron stained. Is(50)=0.12 MPa	o	
							MW					Is(50)=0.10 MPa Is(50)=0.48 MPa	x o	
7			(97)		Occasional mudstone or fine grained sandstone interbeds. Defects : Bedding partings 10 - 20°. Joints @ 30° and 70°							Is(50)=0.16 MPa Is(50)=0.14 MPa	x o	
8					Clayey weathering zone.		XW-HW					Jt,70°,PL,C.		
			(100)		Pale grey with orange iron staining, medium - coarse grained.							Jt,30°,PL,SR,CN, minor clayey weathering. Is(50)=0.03 MPa	x	
9					Defects mostly 30° or 70°, PL, Closed, or occasionally with clay infill up to 2mm thick.		MW					Jt,30°,PL,T, 1mm clay infill. Is(50)=0.12 MPa Jt,70°,PL, 2mm clay infill.	o	
10	11.32											2 Jts,70°,PL,T,2mm clay infill, 40mm vertical displacement.		

BOREHOLE WITH LITHOLOGY 24_5_2005 - BORELOGS FOR SOUTHERN APPROACH PIERS AND ABUT A.GPJ ENGINEERING BOREHOLE 09_04.GDT 31/8/05

REMARKS

LOGGED BY
J. LESTER & A. DISSANAYAKE (DIS

Queensland Government
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ENGINEERING BOREHOLE

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10	11.32													
			(70)		**SANDSTONE** MW : (As above). Contains some extremely weathered clayey zones.		MW XW-HW MW					Clayey weathering zone. XW Clayey sand. Clay seam, 10°, brown.		
	10.47											Clay seam, 10°, brown.		Is(50)=1.62 MPa x Is(50)=0.72 MPa o
11					**INTERBEDDED MUDSTONE & SILTSTONE (MUDSTONE DOMINANT)** SW : Grey and dark grey, fine grained, laminated, very low to low strength. Thin carbonaceous laminations throughout. Defects : - Mostly lamination partings parallel to bedding (10°) - Occasional joints @70°, Defects are PL, SM & CN.		SW					Clay seam, 10°, dark grey, stiff. Jt,70°,PL,SM,CN. Sheared seam,10°, 20mm thick.		
			(100)											Is(50)=0.05 MPa x Is(50)=0.19 MPa o
	9.37													
12					**SANDSTONE** SW : Pale grey, medium grained, generally massive, mainly medium strength. Occasional mudstone interbands. Defects : Faint bedding partings ~10°.		SW					Jt,70°,Un,R,T. Jt,80°,Cu,R,CN. Jt,70-80°,PL-Cu,R,T,CN.		
13														Is(50)=0.35 MPa x Is(50)=0.33 MPa o
	7.97													
					INTERBEDDED MUDSTONE & SANDSTONE (MUDSTONE DOMINANT) SW : Pale grey to dark grey, laminated and interbedded, low to medium strength. Occasional siltstone bands. Defects : - lamination Bedding partings <10°. - Occasional Joints @ 70°.									Is(50)=0.08 o Is(50)=0.41 x Is(50)=0.38 o Is(50)=0.02 x Is(50)=0.04 x Is(50)=0.16 o
14							SW							
	6.80		(100)											Is(50)=0.02 x Is(50)=0.07 o
					SANDSTONE SW : Pale grey, fine to medium grained, mainly medium strength. Minor mudstone interbands ; occasional carbonaceous laminations.									
15							SW							Is(50)=0.55 MPa x Is(50)=0.56 MPa o
	5.98													
					Defects: Mostly lamination/bedding partings (10-20°). Borehole terminated at 15.34m									
16														
17														
18														
19														
20														

BOREHOLE WITH LITHOLOGY 24_5_2005 - BORELOGS FOR SOUTHERN APPROACH PIERS AND ABUT A.GPJ ENGINEERING BOREHOLE 09_04.GDT 31/8/05

REMARKS

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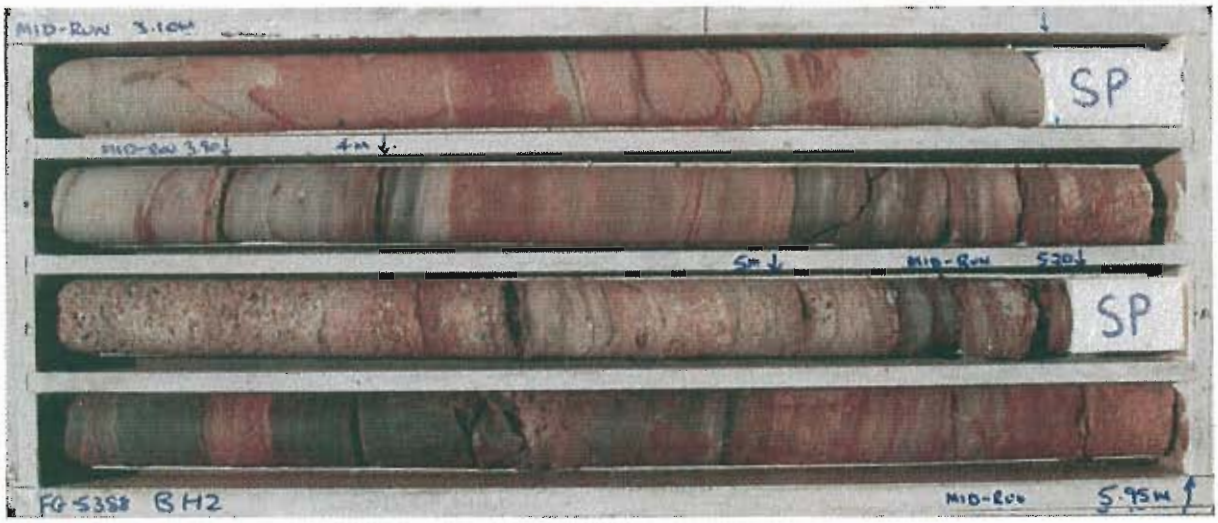
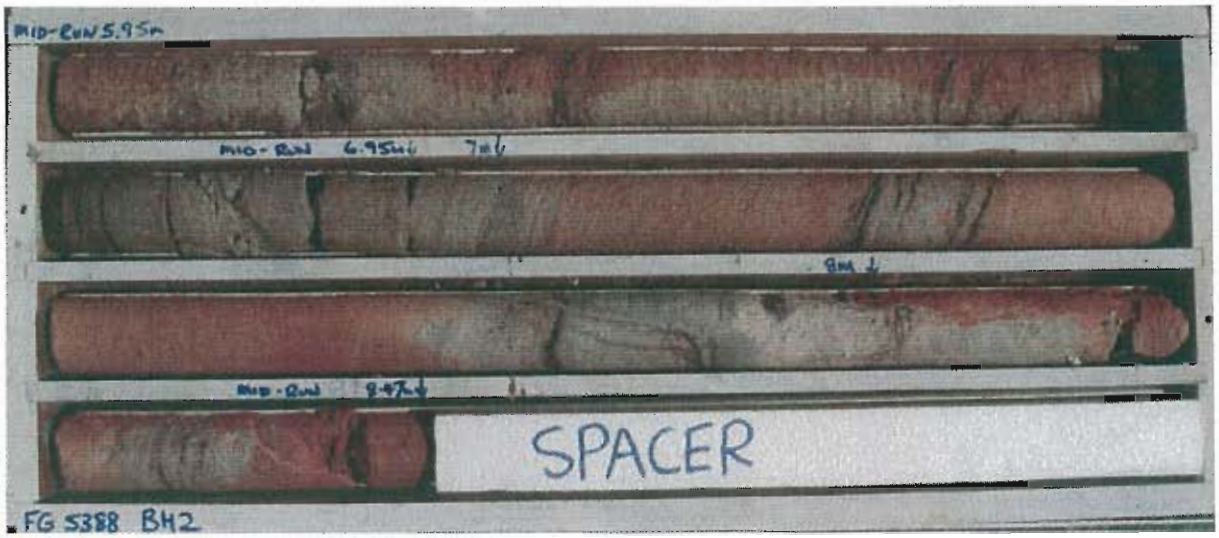
J. LESTER & A. DISSANAYAKE (DIS

Project: **Gateway Upgrade Project - Gateway Bridge**

Borehole No: **BH 2**

Start Depth: 0.7m
Finish Depth: 15.34m
Project No: FG 5388
H No: 9551





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