Queensland Government
Department of Main Roads

ENGINEERING BOREHOLE

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

BOREHOLE No BH1
SHEET 1 of 2
REFERENCE No H9550

PROJECT GATEWAY UPGRADE PROJECT - GATEWAY BRIDGE FOUNDATION INVESTIGATION
LOCATION ABUTMENT A
COORDINATES 10589.7 E; 167274.4 N
PROJECT No FG5388
SURFACE R.L. 7.78
DATE STARTED 23/4/05
DATUM SETP
JOB No 0405
DATUM AHD
DATE COMPLETED 23/4/05
DRILLER GEOTECH DRILLING

DEPTH (m)	R.L (m)	AUGER / CASING / WASH BORING / 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	7.78				**RESIDUAL SILTY GRAVEL** Grey and brown, moist.		GC							
	6.98													
1			(100)		**SANDSTONE** **MEDIUM TO COARSE GRAINED LAMINATED TO MASSIVE POORLY CEMENTED SEDIMENTARY ROCK** MW : Pale grey to orange, laminated to massive, medium to coarse grained, mainly medium to high strength. Minor orange iron stained bands and carbonaceous interlaminations parallel to bedding in parts.		XW MW SW					VL strength clayey band. As above. Is(50)=0.51 MPa LP, 20°, PL, SM, CN. Is(50)=0.54 MPa JT, T, subvertical, iron stained. Massive Is(50)=0.61 MPa Is(50)=0.51 MPa	x o x o	
2			(55)		Defects : Bedding/lamiantion partings mainly 10-20°, occasionally 30°. Defects are mostly lamination partings parallel to bedding.							Is(50)=0.32 MPa Is(50)=0.41 MPa	x o	
3	4.78						HW					Is(50)=1.59 MPa Is(50)=0.91 MPa JT, 70°, PL, SM, 5mm Clay infill	x o	
					INTERBEDDED SANDSTONE & MUDSTONE (MUDSTONE DOMINANT) SW : Grey and dark grey, fine grained low strength. Contains some HW soft clayey bands in parts. Defects : Bedding <20°. - Occasional fractured/sheared zones. Defects mostly parallel to bedding or 60-70°, PL, SM with thin clayey fill or infill up to 3mm thick.		SW MW					JTs, 70°, PL, SM,clay coat,3mm infill Multiple JTs, 70°, PL SM, CN.		
4	3.91						SW					HW clayey zone, EL strength. Is(50)=0.31 MPa JT, T, 80°, 2mm vert. displacement Is(50)=2.05 MPa Is(50)=1.85 MPa JT, 70°, PL-SR, CN Is(50)=0.77 MPa 2 intersecting JTs Is(50)=0.61 MPa 60 & 80° PL-Cu, SR, thin clayey film	x x o x o	
	2.94				**SANDSTONE**							JT, 70°, PL , SR, CN		
5			(100)		SW : Pale grey, medium grained, medium to high strength. Trace carbonaceous interlaminations and ripup clasts. Defects mostly 70°, PL-Cu, SR. Defect surfaces generally clean, or with a thin slightly clayey film.		SW					LP, 10°, PL, SM, CN Is(50)=2.26 MPa LP, 30°, PL, SM, CN Is(50)=0.99 MPa Is(50)=0.73 MPa JT, 70°, PL, SM, thin clayey cont. Is(50)=1.04 MPa	o x o x	
6	1.58				**INTERBEDDED MUDSTONE & SANDSTONE (MUDSTONE DOMINANT)** SW : Grey and dark grey, fine grained, medium to high strength. Defects : Bedding/lamination partings <10°. Joints @ 60°-70°							Is(50)=0.50 MPa Is(50)=0.78 MPa	x o	
7	0.68						SW					Is(50)=2.60 MPa Is(50)=1.88 MPa JT, 70°, PL. SR, LN JT, 80°, Cu, SR, CN	x o	
			(100)		Defects mostly 10° (often partings) and defect surfaces are mostly PL, SM, LN or occasional 60-70° PL, SM with thin clayey coat.							Is(50)=1.32 MPa Is(50)=0.81 MPa JT, 70°, PL, SM, T	o x	
8			(100)		**SANDSTONE** SW : Pale grey, medium grained, laminated to massive, mainly high strength. Minor carbonaceous laminations parallel to bedding. Defects: Bedding 10-20°. Occasional defects 70° or subvertical. Defect surfaces are PL-Cu, SR, CN.		SW					Is(50)=0.85 MPa Is(50)=2.44 MPa LP, 10°, PL, SM & CN Is(50)=0.81 MPa Is(50)=1.95 MPa	x o x o	
	-0.82											Is(50)=1.34 MPa JT, 30°, St, SR, CN, Tight	x	
9					**MUDSTONE** SW : Dark grey & grey, fine grained, thinly laminated, medium to high strength. Thin fine grained sandstone interbands throughout. Defects : Lamination partings<10°.		SW					Is(50)=1.22 MPa Is(50)=2.38 MPa 2 Intersecting, JTs, 70°, PL, SR, CN Is(50)=1.11 MPa Is(50)=1.47 MPa Mudstone band with fine grained sandstone interbeds Is(50)=0.58 MPa Is(50)=1.55 MPa	x o x o x o	
10	-2.22													

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
Department of Main Roads

ENGINEERING BOREHOLE

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

BOREHOLE No BH1
SHEET 2 of 2
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10	-2.22				Occasional joints @ 70°									
			(100)		Defects mostly parallel to bedding (often lamination partings) or occassional 70°, PL, SM, CN.		SW					JT, 20°, Un, SM, CN Is(50)=0.79 MPa Is(50)=1.98 MPa		x o
	-2.75				**SANDSTONE** SW : Pale grey to pale grey brown, medium grained, laminated, medium to mainly high strength. Minor mudstone interbands in parts.							Is(50)=1.11 MPa Bedding 20° (LP?) Is(50)=1.23 MPa		x o
11					Defects: Bedding partings - 10-20°.							Is(50)=1.25 MPa Is(50)=1.16 MPa		x o
					INTERBEDDED SILTSTONE, MUDSTONE & SANDSTONE SW: Pale grey to dark grey, laminated, medium to high strength.		SW					Is(50)=1.02 MPa Is(50)=1.24 MPa		x o
12					**SANDSTONE** SW : Pale grey, lamianted, medium to mainly high strength. Medium to coarse grained in parts. Minor thin siltstone interbands in parts.							Is(50)=1.18 MPa Bedding 20° (LP?) Is(50)=1.14 MPa		x o
13	-5.44				Defects : Bedding partings - mainly 10-20° occasionally 30°.							Is(50)=1.39 MPa Is(50)=1.14 MPa		x o
					Borehole terminated at 13.22m									
14														
15														
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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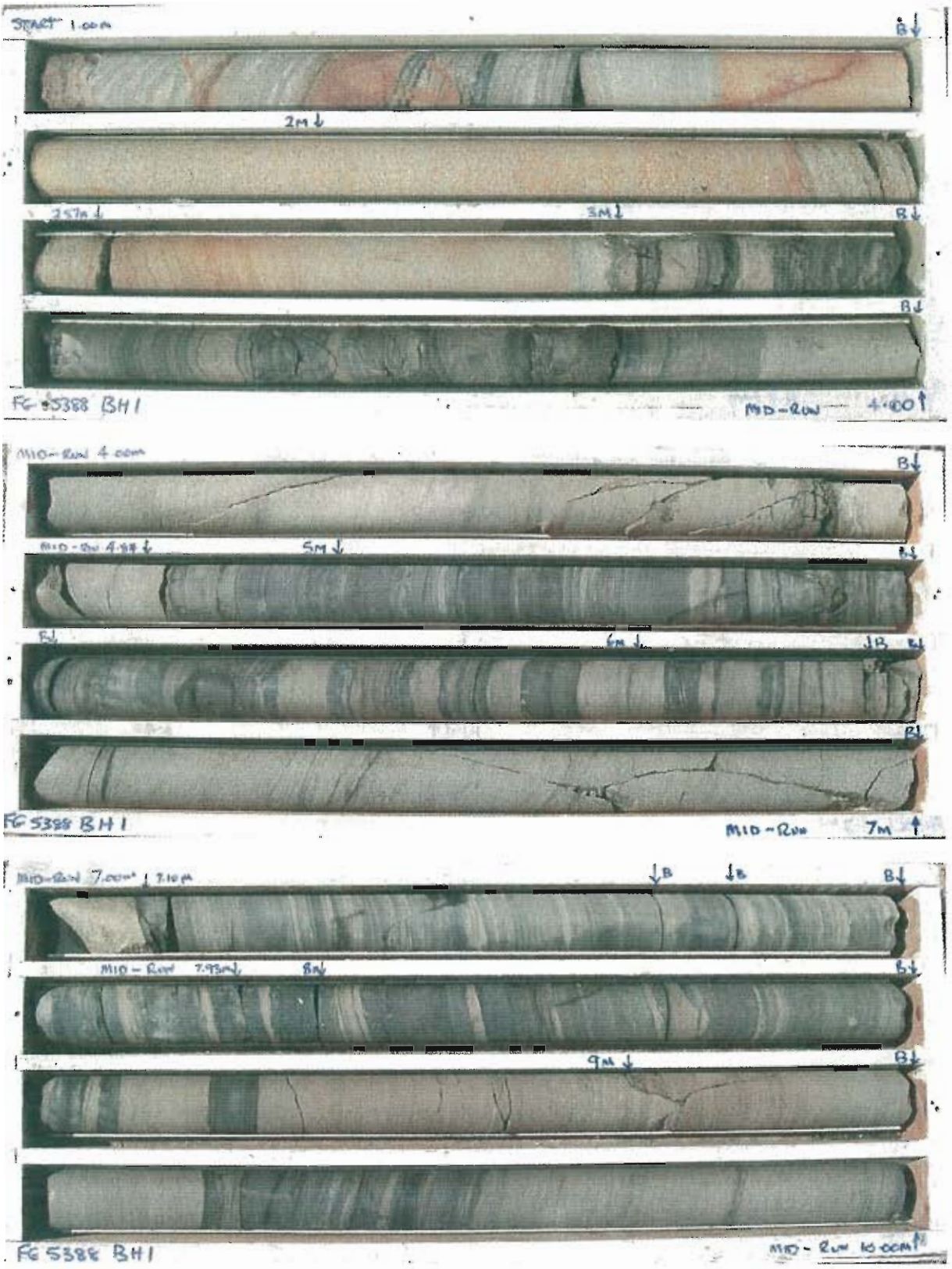
J. LESTER & A. DISSANAYAKE (DIS

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

Borehole No: **BH 1**

Start Depth: 1.00m
Finish Depth: 13.22m
Project No: FG 5388
H No: 9550



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

Borehole No: **BH 1**

Start Depth: 1.00m
Finish Depth: 13.22m
Project No: FG 5388
H No: 9550