Queensland Government
Department of Main Roads

ENGINEERING BOREHOLE

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

BOREHOLE No BH37
SHEET 1 of 2
REFERENCE No H9732

PROJECT IPSWICH MOTORWAY / LOGAN MOTORWAY GEOTECHNICAL INVESTIGATION

LOCATION Bertha St O'pass. Near Pier 1, Approximate Chainage 12890m, 6m left of control MC20. COORDINATES 28584.9 E; 146932.6 N

PROJECT No FG5404 SURFACE R.L. 11.00 DATE STARTED 15/08/05 DATUM Ipswich Motorway

JOB No 148/17A/57 DATUM AHD DATE COMPLETED 15/08/05 DRILLER Drillsure

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	11.00				**ASPHALT and ROAD BASE**							
	10.40				**SILT and GRAVEL** (Fill) Grey, moist. Very dense.							
1	9.92				**CONCRETE** Old road.						15/80mm HB N>50 Layer of concrete from old road.	SPT
	9.50				**SILTY CLAY** (Fill) Pale grey - yellow, mottled with orange iron stains, moist. Contains some gravel up to 15mm size. Firm.							
2											1,2,2 N=4	SPT
3											2,2,3 N=5	SPT
	7.10				**SILTY CLAY** (Alluvium) Dark brown - black, organic, intermediate plasticity, moist. Very stiff.	CI-OL					PI=12 LL=48 DD=1.46 t/m^3 WD=1.90 t/m^3 MC=29.8% PP(Su) = 196 KPa	U48
4												
5												
	5.60				**CLAYEY SAND** (Alluvium) Grey-brown, fine grained, moist. Loose - medium dense.	SC					3,4,5 N=9	SPT
6												
7											9,14,14 N=28	SPT
8											Minor gravel.	
	2.50				**SILTY CLAY** (Alluvium) Grey, minor brown iron stains, moist. Trace gravel. Stiff.	CL-CI					3,6,7 N=13	SPT
9												
10	1.00										5/0mm HB N>50	SPT

REMARKS No groundwater reported during drilling. See Additional Descriptive Coding sheet for abbreviations.

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ENGINEERING BOREHOLE FG5404 - BOREHOLES.GPJ QLD MAIN ROADS.GDT 17/11/05

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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	1.00		(86)		**SANDSTONE** Pale grey with some yellow brown iron staining throughout.	SW					Slightly silicified. Is(50)=0.94 MPa Is(50)=1.15 MPa		x o
	0.25				Fine - medium grained quartz with a slightly clayey matrix in parts. Occasional MW siltstone bands or MW-HW clayey sandstone bands. Some thin carbonaceous interlaminations in parts. Bedding ~10°.	MW					Is(50)=0.11 MPa Is(50)=0.29 MPa		x o
11	-0.87				Deffects mostly dip 10°, occasionally 70°. Most defect surfaces are PL, SM-SR, C or O, CN. Occasionally defect surfaces have a clay infill up to 5mm thick or minor iron stains.	SW					Is(50)=0.16 MPa Is(50)=0.28 MPa		x o
12	-1.89		100								Is(50)=0.96 MPa Is(50)=0.66 MPa		x o
			(81)								HW clayey band.		
13					As before.	MW-HW					HW clayey band. Is(50)=0.05 MPa Is(50)=0.08 MPa		x o
	-2.65										HW clayey band.		
14					As before.	SW					Is(50)=1.18 MPa Is(50)=0.91 MPa		x o
15	-4.10		100								Jt, 10°, PL, CL infill 5mm thick. Jts, 10°, surrounding HW CLy weathering (DI?). Is(50)=0.44 MPa		x
					Borehole terminated at 15.1m						Is(50)=1.57 MPa		o
16													
17													
18													
19													
20													

ENGINEERING BOREHOLE FG5404 - BOREHOLES.GPJ QLD MAIN ROADS.GDT 17/11/05

REMARKS No groundwater reported during drilling. See Additional Descriptive Coding sheet for abbreviations.

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Project: **Ipswich Motorway / Logan Motorway Interchange**

Borehole No: **BH37**

Start Depth: 10.00m
Finish Depth: 15.10m
Project No: FG5404
H No: 9732