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16/11/05

QLD MAIN ROADS.GDT

FG5404 - BOREHOLES.GPJ

ENGINEERING BOREHOLE

## ENGINEERING BOREHOLE

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

BOREHOLE No	BH5						
SHEET	_1_ of _2_						
REFERENCE No	<u>H9740</u>						

**PROJECT** IPSWICH MOTORWAY / LOGAN MOTORWAY GEOTECHNICAL INVESTIGATION Near Pier 6, Approximate Chainage 173m on control MCK1-C. LOCATION COORDINATES 29628.7 E; 147281.9 N PROJECT No \_FG5404 \_ \_ \_ \_ SURFACE R.L. \_\_24.00 \_\_\_ DATE STARTED 26/08/05 DATUM Ipswich Motorway DRILLER <u>Drillsure</u> \_ \_ \_ \_148/17A/57\_\_\_\_ DATUM <u>AHD</u> \_\_ DATE COMPLETED 26/08/05 JOB No INTACT RQD DEFECT ()% ADDITIONAL DATA (m) STRENGTH SPACING Ξ MATERIAL (mm) DEPTH AND AUGER CASING CASH CORE D DESCRIPTION SAMPL TESTS USC | WEA | VEA | CORE **TEST RESULTS** REC % 0 GM GRAVELLY SILT (Residual) Grey 23.80 SILTSTONE Pale grey with orange red iron staining throughout, clayey. Exhibits engineering properties of very stiff Clayey Silt / Silty Clay. lxw Fine sand in parts. НΜ 7,10,12 SPT N=22 22.00 SANDSTONE Pale grey with orange iron staining 12/20mm HB throughout, fine grained, dry, friable. Silty in N>50 parts. Exhibits engineering properties of very dense slightly clayey Sand. XW ΗW 10/20mm HB 19.90 N>50 (76) Pale grey - grey, discoloured with minor brown iron staining in parts. Fine - medium grained quartz with a slightly clayey matrix in parts. Minor Is(50)=0.90 MPa Is(50)=0.72 MPa Slightly siliceous 0 cementation. Jt, 70-80°, PL, SR, O, minor Fest thin carbonaceous interlaminations in parts. - 5 Bedding ~10°. Is(50)=0.65 MPa MW-HW band. O Defects mostly dip 10°, 40°, 70°, 80°. Most defect surfaces are PL, SM-SR, C or T, CN, 100 MW (95)occasionally with a brown clay coat or infill up to Is(50)=0.11 MPa - 6 SW Is(50)=0.24 MPa Is(50)=0.48 MPa o  $\begin{array}{lll} \mbox{Jt, } 80^{\circ}, \mbox{Un, C, thin HW infill.} \\ \mbox{Jt, } 40^{\circ}, \mbox{PL, SM, T.} & \mbox{Is}(50) = 0.21 \mbox{ MPa} \\ \mbox{Jt, } 70^{\circ}, \mbox{PL, SM, } 5 \mbox{mmls}(50) = 0.25 \mbox{ MPa} \\ \end{array}$ Between 7.05 and 8.55m: Brown iron stained band with clayey weathering throughout. o brown CL infill Jt, 70°, PL, SR, thin CL film. MΜ Jt, 10°, T, CL film. Jt, 80°, PL, SM, 15mm brown CL infill 100 HW band. Resembles Vst sandy clay (90) Is(50)=0.94 MPa Is(50)=1.24 MPa SW Jt, 90°, T, Fest, CL infill. 2 Jts, 20°, PL, SR, O, Ox, CL film Jt, 80°, PL, SR, T. Between 9.65 and 9.78m: Claystone / siltstone MW Numerous CL seams, 10°, 5-10 mm 14.20 band. SW REMARKS No groundwater reported during drilling. See Additional Descriptive Coding sheet for abbreviations. LOGGED BY JML



ENGINEERING BOREHOLE FG5404 - BOREHOLES.GPJ QLD MAIN ROADS.GDT 16/11/05

## ENGINEERING BOREHOLE

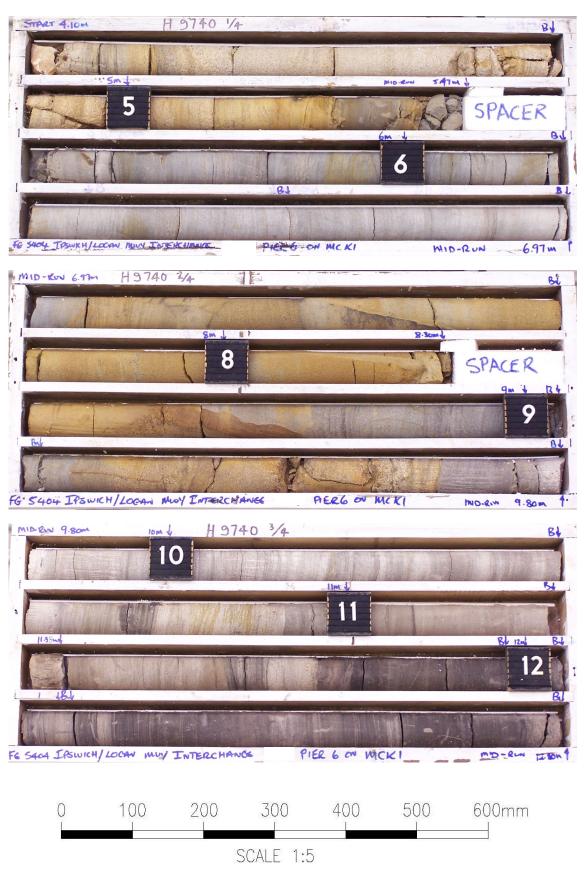
FOR GEOTECHNICAL TERMS AND SYMBOLS REFER FORM F:GEOT 017/3-2005

BOREHOLE No	BH5						
SHEET	_2_ of _2_						
REFERENCE No	H9740						

PRO	JECT	IPSWICH MOTORWAY / LOGAN MOTORWAY GEOTECHNICAL INVESTIGATION											
LOC	ATION	<u>Near</u>	Pier 6, A	Appro	oximate Chainage 173m on control MCK1-C.					CC	OORDINATES <u>29628.7 E; 147281.9 N</u>		
PROJECT No						DATE STARTED _26/08/05				<u>way</u>			
JOB No		<u>148/</u>	17 <u>A/57</u> _		DATUM <u>AHD</u>	DAT	E CO	MPLETE	D _26/0	<u>8/05</u>	DRILLER <u>Drillsure</u>		
DEPTH (m)	R.L. (m)	AUGER CASING WASH BORING CORE DRILLING	RQD ()% CORE REC%	SAMPLE	MATERIAL DESCRIPTION	USC	STRENGTH SP.		DEFECT SPACING (mm)	GRAPHIC LOG	ADDITIONAL DATA  AND  TEST RESULTS	SAMPLES TESTS	
-111	12.30		100 (92)		Sandstone Cont'd.  As before. Numerous drilling induced breaks along faint bedding planes.  MUDSTONE and SANDSTONE Interbeds  Dark grey - black, thinly laminated. Sandstone interbeds are fine grained. Bedding~10°. Occasional black coal seams dipping 10° up to 20mm thick.  SANDSTONE	sw					Is(50)=0.29 MPa Is(50)=1.03 MPa CL seam 10°, 5mm thick. Is(50)=0.46 MPa Is(50)=0.40 MPa 2 CL seams 10°, 5-8mm thick. Is(50)=0.23 MPa Is(50)=1.05 MPa	x	
- - - - - -	10.13		100		Grey with occasional dark grey mudstone bands. Numerous thin carbonaceous interlaminations throughout. Bedding 10°, local variations to 20°.			-			S(50)=0.56 MPa   Carb lam, 20°, PL,   Is(50)=1.65 MPa   SR, DI?   Carb mudstone band.   Jt. 40°, R. O.	X _ O _ - -	
-14 					Borehole terminated at 13.87m								
RI	EMARKS	<u>No g</u> r	roundwat	er <u>re</u> p	ported during drilling. See Additional Descriptive Coding	shee	t for a	abbreviat	tions.		LOGGED BY JML		

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

Borehole No: BH5
Start Depth: 4.10m
Finish Depth: 13.87m
Project No: FG5404
H No: 9740



Project: <u>Ipswich Motorway / Logan Motorway Interchange</u>

Borehole No: BH5
Start Depth: 4.10m
Finish Depth: 13.87m
Project No: FG5404
H No: 9740



