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QLD\_DMR\_LIB\_01.GLB Log A\_ENGINEERING BOREHOLE LOG FG5779 IPSWICH MWY\_ROCKLEA TO DARRA.GPJ <<DrawingFiles> Datgel CPT Tool gilht Add-in 14/02/2011 17:34

# ENGINEERING BOREHOLE LOG

FOR GEOTECHNICAL TERMS AND SYMBOLS REFER FORM F:GEOT 017/6-2010

BOREHOLE No \_\_BH108\_\_

SHEET \_\_1\_ of \_\_4\_\_

REFERENCE No \_\_H10892\_\_

PROJ	ECT	T <u>Ipswich Motorway Upgrade - Rocklea to Darra</u>													
LOCA	TION	_0	<u>xley</u>	<u> Creek</u>	- <u>L</u> e	<u>ft Bank</u>		COORDINATES 498951.7 E; 6951115.3 N							
PROJECT No		_F	<u>G57</u>	<u> 79</u>		SURFACE R.L. <u>3.23 m</u> PLUNGE <u>-9</u>	<u>0 ° </u>	-	DATE	STA	ARTED _	27 <u>/</u> 10	<u>0/10</u> GRID DATUM <u>GDA94</u>		
JOB N	lo	_14	<u> 10/L</u>	J16/902		HEIGHT DATUM <u>AHD</u> BEARING		-	DATE CO	OMP	LETED _	27 <u>/</u> 10	D/10 DRILLER R&D Drilling F	ty Ltd _	
o DEPTH (m)	R.L. (m)	AUGER CASING	ROCK ROLLER CORE DRILLING	RQD ( )% CORE REC %	SAMPLE	MATERIAL DESCRIPTION	nsc	WEATHERING	INTACT STRENGTH	H	DEFECT SPACING (mm)	GRAPHIC LOG	ADDITIONAL DATA  AND  TEST RESULTS	SAMPLES TESTS	
- - - - - - - - - - - - - - - - - - -	1.73				A	Silty CLAY Red-brown, moist, mainly firm.  Medium to high plasticity.  Minor trace of plant material.  Becoming sandy at base.	((	CI- :H)					Based on Drillers logs only up to 1m depth.	SPT -	
- 2					В	Brown to dark grey, moist, mainly loose.  Sand fraction mainly fine to medium grained.							2,2,3 inferred GWT	SPT	
3 3 					С			SP- M)					1,1,4 N=5  — Dark grey, sandy clay and peat (based on Driller's Logs).	SPT -	
-	-1.53				D	Silty CLAY (Estuarine?)							5,4,3 N=7	SPT	
-5 					F	Dark grey to black, moist, mainly very soft to soft. soft to firm  High plasticity.  Contains high organic content.  Minor trace of decomposed carbonaceous materials (peat / wooden material).							RW,RW,HW N<1 su=32kPa p'c=90kPa OCR=2.2	SPT -	
- - - - - - - 7					н		(CH	I/OH	1)				Sample slip - su=25kPa p'c=90kPa	U100 -	
- - - - - - - - - - - - - - - - - - -	5 70				J								OCR=1.9  RW,RW,2  N=2	SPT	
- - - - - - - - - - -	-5.78				К	SILTSTONE FINE GRAINED SEDIMENTARY ROCK COMPOSED MAINLY OF SILT SIZED PARTICLES.	×	(W					4,11,17 N=28	SPT	
10						(See over)				+					
RE	MARK	s_ _	_					· —	 	 		 	LOGGED BY BW / SG		



QLD\_DMR\_LIB\_01.GLB Log A\_ENGINEERING BOREHOLE LOG FG5779 IPSWICH MWY\_ROCKLEA TO DARRA.GPJ <<DrawingFiles> Datgel CPT Tool gilht Add-in 14/02/2011 17:34

# ENGINEERING BOREHOLE LOG

FOR GEOTECHNICAL TERMS AND SYMBOLS REFER FORM F:GEOT 017/6-2010

BOREHOLE No \_\_\_BH108\_\_

SHEET \_\_2\_ of \_\_4\_\_

REFERENCE No \_\_\_H10892\_\_

PROJE	CT	T <u>Ipswich Motorway Upgrade - Rocklea to Darra</u>													
LOCAT	_0	<u>xley</u>	<u>Creek</u>	<u>- Le</u>	<u>ft Bank</u>	COORDINATES 498951.7 E; 6951115.3 N									
PROJECT No		_F	<u>357</u>	79		SURFACE R.L. <u>3.23 m</u> PLUNGE <u>-90 °</u>	_		DATE S	TARTED _	<u> 27/10</u>	<u>)/10</u> G	GRID DATUM GDA94		
JOB No	)	_14	<u>10/L</u>	1 <u>16/902</u>		HEIGHT DATUM <u>AHD</u> BEARING	_	-	DATE COM	PLETED _	<u>27/10</u>	<u>0/10</u>	DRILLER	R&D Drilling I	Pty Ltd _
лтн (m)	R.L. (m)	AUGER CASING	SORE DRILLING	RQD ( )% CORE REC %	SAMPLE	MATERIAL DESCRIPTION	USC	WEATHERING	INTACT STRENGTH ボチェヌーラゴ	DEFECT SPACING (mm)	GRAPHIC LOG		ADDITIONAL AND TEST RESU		SAMPLES TESTS
- 10 	-8.03			NEO %	L	SILTSTONE (Cont'd) XW: Generally exhibits engineering properties of grey to dark grey, fine grained, very stiff to hard, clayey silt / silty clay.  Relict rock fabric and structure visible throughout.		w			0			20,24,31 N>50 15,17,26	SPT -
					N	MUDSTONE FINE GRAINED SEDIMENTARY ROCK COMPOSED MAINLY OF CLAY SIZED PARTICLES XW:Generally exhibits engineering properties of black, moist, mainly very stiff to hard silty clay.  Contains interbeddeds of siltstone; slightly fissiling on drying.	×	×w						N=43 10,15,20 N=35 7,10,14 N=24 20/100mm,HB N>50 12,12,12 N=24 9,17,19 N=36	SPT
- 18 18 	13.78				U	Sandy SILTSTONE HW: Generally exhibits engineering properties of greenish-grey, moist, fine grained, hard, sandy silt.  Relict rock fabric and structure visible throughout; minor clay fraction in parts.  Becoming more sandy below 20m depth.  (See over)	Н	iw					30/120	29,30/100mm N>50 24,30/85mm N>50 0mm,30/80mm N>50	SPT -
20						(See over)	_							LOGGED BY	
REN	MARK	s_ _					_	- -						BW / SG	



QLD\_DMR\_LIB\_01.GLB Log A\_ENGINEERING BOREHOLE LOG FG5779 IPSWICH MWY\_ROCKLEA TO DARRA.GPJ <<DrawingFiles> Datgel CPT Tool gilht Add-in 14/02/2011 17:34

# ENGINEERING BOREHOLE LOG

FOR GEOTECHNICAL TERMS AND SYMBOLS REFER FORM F:GEOT 017/6-2010

BOREHOLE No \_\_BH108\_\_

SHEET \_\_3\_ of \_\_4\_\_

REFERENCE No \_\_H10892\_\_

COCATION   Output Greek   Left Bank   Cocation   Coca	PRO.		Ipswich Motorway Upgrade - Rocklea to Darra												
149U16902   HEIGHT DATUM _ AND _ BEARING															<u>.3 N</u>
RL															
MATERIAL   DESCRIPTION   SPECIAL	JOB	NO .	_140/0	<u> 16/902</u>		neight DatowiAnd BEARING				IPLET		21/10	/10_	DRILLER RAD DIMING	- <u> </u>
Sandy SiLTSTONE HW; (Contrd)		R.L. (m)	~S				(1)	INTAG	CT GTH	DEFE	CT ING	(J)	A	DDITIONAL DATA	
Sandy SiLTSTONE HW; (Contrd)	E) H		SCLE			MATERIAL	ERIN			(mn	n)	СГО		AND	ပ္သ
Sandy SiLTSTONE HW; (Contrd)	DEP.		띪쯘矢띪	CORE	MPLE	DESCRIPTION	S H		یے.	0.08	000	ХАРНІ		TEST RESULTS	MPLE
17.28   (84)   SANDSTONE   Fine TO MEDIUM GRAINED SEDIMENTARY ROCK COMPOSED MAINLY OF SAND SIZED   (850) = 0.06MPp   X   0.06M	20	-16.78	49 <u>8</u> 8	REC %	-	Sandy SII TSTONE HW: (Contid)	5  ≥		1/1	1111	1	ß		30.30/100mm	-
SANDSTONE   FINE TO MEDIUM GRAINED SEDIMENTARY   ROCK COMPOSED MAINLY OF SAND SIZED   PARTICLES   PA	-				VV	Sandy SIETSTONE TW. (Cont. d)	HW		: : =						581
FINE TO MEDIUM GRAINED SEDIMENTATION   18(50) = 0.03MPa   X   No. COMPOSE DIMENTATION   No. 1   18(50) = 0.05MPa   X   18(50) = 0.05MPa		-17.28		(84)		SANDSTONE								interbed, approx. 250mm	-
## PARTICLES ## Pa				` ,									UIICK		x =
Deplays cracking on drying   Deplays cracking on drying   Cenerally defects are rare   Cenerally continued   Cenerally conti	- 21					PARTICLES								e Diokeii , ,	0 -
Cenerally defects are rare.   0.0						very low strength.									
100   Get   100						Generally defects are rare.	MW				J: :			Io(E0) - 0.06MPa	
19.38	-			100										Is(50) = 0.10MPa	
19.38   Slightly rough, open and clean.   SliLTSTONE   MW: Mottled grey, bedded with faint laminations, fine grained, mainly very low to low strength.   100   C(25)   Cenerally defects are rare.   Diffiling induced bedding/ lamination partings   S (3 (3 m)   Joint@45° (1/m)   Defects are mainly medium spaced, planar, slightly rough, open and clean.   MW Pale grey to dark grey, massive with faint laminations, very low to low strength.   100   10	- 22			(81)		• •				:					-
SILTSTONE		-10 38													
Iarinations, fine grained, mainly very low to low strength.   Iarinations, fine grained, mainly very low to low strength.   Iarinations, strengt		13.50								:	: :		Irregular f	racture @ 45°	
100   Cenerally defects are rare.   Colling induced bedding/ lamination partings   Cenerally defects are mainly medium spaced, planar, slightly rough, open and clean.	23					laminations, fine grained, mainly very low to low							Iron stain		
- Dilling induced bedding/ lamination partings	-			100		strength.									
Second process   Seco				(25)											
Defects are mainly medium spaced, planar, slightly rough, open and clean.    Defects are mainly medium spaced, planar, slightly rough, open and clean.   Is(50) = 0.12MPa   Is(50) = 0.11MPa   Is(50) = 0.11MPa   Is(50) = 0.05MPa,   X   Is(50) = 0.13MPa   Is(50) = 0.15MPa   Is(50)						@ 5° (3/m)								Is(50) = 0.09MPa	x =
Slightly rough, open and clean.   Slig	- 24 -					, ,	MW							Is(50) = 0.12MPa	0 -
100   100	[					slightly rough, open and clean.									]
100   (73)															
100   100	25			100										IS(50) = 0.11MPa	
MUDSTONE   MW: Pale grey to dark grey, massive with faint laminations, very low to low strength.   Becoming greyish-brown and iron stained below 29.25m depth, approx. 900mm long; iron staining in parts.   Numerous drilling-induced partings.   Numerous drilling-induced partings.   Numerous drilling-induced partings.   Numerous drilling-induced partings   Numerous drilling-induc	-	-22 13		(73)										L (50) 0.05MD	
Numerous drilling-induced partings.   Numerous drilling-induced part	-	22.10											Brown iro		
Becoming greyish-brown and iron stained below 29.25m depth, approx. 900mm long; iron staining in parts.  Numerous drilling-induced partings.													·	D = 1.86t/m <sup>3</sup> : MC = 15.6%:	
29.25m depth, approx. 900mm long; iron staining in parts.  Numerous drilling-induced partings.  Is(50) = 0.18MPa	26													UCS=1.13MPa	
100				100											0 -
100				(78)		Numerous drilling-induced partings.					] ]			Is(50) = 0.05MPa	
100						Ç , Ç								13(30) = 0.1 HWI a	
100  (70)  Is(50) = 0.18MPa	[ ]			(27)						H					
100  (70)  Is(50) = 0.18MPa										H					
100   Is(50) = 0.18MPa   x   Is(50) = 0.11MPa   o   Is(50) = 0.11MPa   o   Is(50) = 0.11MPa   x   Is(50) = 0.11MPa   x   Is(50) = 0.11MPa   x   Is(50) = 0.11MPa   o   Is(50) = 0.11MPa							MW						— HF7		
(70)	- 28									K					-
(70)	-			100						H	: :				
See over	-														
100	‡													ıs(50) = 0.11MPa	0 =
100   Is(50) = 0.11MPa   x   Is(50) = 0.11MPa   x   o   c   c   c   c   c   c   c   c   c	29									5					
														Is(50) = 0.11MPa	
REMARKS LOGGED BY	-			(50)										ıs(50) = 0.11MPa	0 -
NEW/ WOOD						(See over)									
	R	EMARK	S												



# ENGINEERING BOREHOLE LOG

FOR GEOTECHNICAL TERMS AND SYMBOLS REFER FORM F:GEOT 017/6-2010

BOREHOLE No \_\_BH108\_\_

SHEET \_\_4\_ of \_\_4\_

REFERENCE No \_\_H10892\_\_

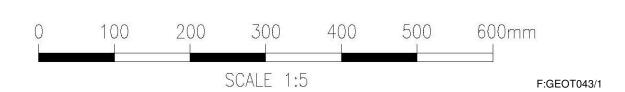
PRO.			<u>vich Moto</u> ey Creek	 S498951.7 E; 6951118	- – – - · 5 3 N					
				ID DATUM <u>GDA94</u>	<u></u>					
JOB I					HEIGHT DATUM AHD BEARING				DRILLER R&D Drilling	Pty Ltd
00 DEPTH (m)	R.L. (m)	AUGER CASING ROCK ROLLER CORE DRIFTING	RQD ( ) % CORE REC %	SAMPLE	MATERIAL DESCRIPTION	USC	INTACT DEFECT STRENGTH SPACION (mm)	AC	DDITIONAL DATA AND TEST RESULTS	SAMPLES
-	-27.28		1120 //		MUDSTONE (Cont'd) MW: Becoming dark grey, highly fractured, extremely low to very low strength.				Is(50) = 0.11MPa Is(50) = 0.08MPa	x -
-31			100		Generally defects are rare.  - Drilling induced lamination partings @ 5-10° (2/m)  - Joint / irregular fracture @ 45° (1/m)  Defects are close to wide spaced, planar, smooth, closed and open with clay infill or iron stained.			XW CLy z	one	
			100 (8) (71)	X		MW		XW CLy z	one	- - - - -
DARKA, G-CLOWINGFIRES - Datigle CPT 100 gNN Add-th 4/0/2011 17:34			100					— Yellow-bro	wn iron stained band.	
35 35	-32.08		100		Borehole terminated at 35.3m			Siltstone II	nterbeds	
SOWICH MWY_KOCKEA TO DARKA,					Dorenole terminated at 33.3m					
- 37										
OLD DWALLE OF A ENGINEERING BOXEHOLE LOG 1997/9 PSWICH MWY KOCKERA OLD 1997/9 PSWICH MWY KOCKERA										
	EMARK	s						 _	LOGGED BY BW / SG	1

Project: <u>Ipswich Motorway Upgrade - Rocklea to Darra</u>

Page 1 of 2

Borehole No: BH 108
Start Depth: 20.50m
Finish Depth: 35.30m
Project No: FG5779
H No: H10892





Project: **Ipswich Motorway Upgrade - Rocklea to Darra** 

Page 2 of 2

Borehole No: BH 108
Start Depth: 20.50m
Finish Depth: 35.30m
Project No: FG5779
H No: H10892



