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ENGINEERING BOREHOLE LOG

BOREHOLE No	<u>_BH107</u>
SHEET	_1_ of _3_
REFERENCE No	<u>H10872</u>

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

PROJECT	_lpsw	ich Moto	or <u>wa</u>	y Upgrade - Rocklea to Darra					
LOCATION	<u>Oxle</u>	<u>y Creek</u>	<u>- Le</u>	ft Bank			CC	ORDINATES	<u>.2 N</u>
PROJECT N	5 <u>FG5</u>	<u>779</u>		SURFACE R.L. <u>3.03 m</u> PLUNGE <u>-90</u>	°	DATE STARTED	25/10	<u>)/10</u> GRID DATUM <u>GDA94</u>	
JOB No	<u>140/</u>	<u>U16/902</u>	<u> </u>	HEIGHT DATUM <u>AHD</u> BEARING		DATE COMPLETED	25/10	<u>)/10</u> DRILLER <u>R&D Drilling</u>	Pty Ltd
(m) HLH D	CASING DTHER WASH BORING CORE DRILLING	RQD ()% CORE	SAMPLE	MATERIAL DESCRIPTION	JSC VEATHERING	INTACT DEFECT STRENGTH SPACING (mm)	SRAPHIC LOG	ADDITIONAL DATA AND TEST RESULTS	SAMPLES
-1			A	Silty CLAY (Possible Fill?) Brown to grey, moist, soft. stiff (from UU) Medium plasticity. SAND (Alluvium) Brown to dark grey, wet, loose to mainly medium dense.	CI			- Based on Driller's Logs only su>90kPa p'c=100kPa OCR=3.4 11/2/2011 ∑ 22/12/2010	U100
night Add-In 14,02201 17:34			B	Sand fraction fine to medium grained. Contains thin layer of grey, medium to coarse grained quartzitic gravelly sand below 2.5m depth.				2,3,1 N=4 fragments 3,5,6 N=11	SPT SPT
자.G.PJ <chawingfiles> Dalge CPT To</chawingfiles>			D		(SP- SM)			8,8,8 N=16	SPT
Z V 2 V 2 V 2 V 2 V 2 V 2 V 2 V 2 V 2 V			E					8,10,10 N=20	SPT
77-10 77-100			F	Silty SAND (Alluvium) Grey to dark grey, wet, mainly very loose to loose. Sand fraction fine grained.					U100
NERING BOREHOLE L			G	ivinor clay fraction in parts; high organic content.	(SP- SM)			1,0,0 N<1	SPT
3.01.GLB Log A_ENGII			н					2,0,0 N<1	SPT
OLD_DMR_LI			J	Becoming loose sand below 9.5m depth. (See over)				1,3,4 N=7	SPT

(See over) REMARKS Observation well installed, infiltration zone from 6.3m to 23.53m.

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Ipswich Motorway Upgrade - Rocklea to Darra

PROJECT

ENGINEERING BOREHOLE LOG

BOREHOLE No	<u>_BH107</u>
SHEET	_2_ of _3_
REFERENCE No	<u>H10872</u>

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

LOC	ATION	<u>Oxle</u>	<u>y Cree</u>	<u>k - L</u>	eft Bank	· ·			CC	ORDINATES <u>498968.7 E; 6951017</u>	7.2 <u>N</u>
PRO	JECT No	_ <u>FG5</u>	<u>779 _</u>		SURFACE R.LPLUNGE90	°	DATE S	TARTED	25/10	0/10GRID DATUM	
JOB	No	<u>140/</u>	<u>U16/90</u>	2_	HEIGHT DATUM <u>AHD</u> BEARING		DATE COM	IPLETED	25/10	0/10 DRILLER <u>R&D Drilling</u>	<u>Pty Ltd</u>
DEPTH (m)	R.L. (m)	ASING DTHER VASH BORING CORE DRILLING	RQD ()% CORE	SAMPLE	MATERIAL DESCRIPTION	JSC VEATHERING	INTACT STRENGTH	DEFECT SPACING (mm)	SRAPHIC LOG	ADDITIONAL DATA AND TEST RESULTS	SAMPLES
10 	-6.97		REC 9	5 0	Silty SAND (Cont'd)	(SP-			0		⊢
- - - - - - - - - - - - - - - - - - -	-7.37			К	MUDSTONE FINE GRAINED SEDIMENTARY ROCK MAINLY COMPOSED OF CLAY SIZED PARTICLES. HW: Generally exhibits engineering properties of dark grey to black, moist, laminated, hard, silty clay.	HW				24,30/105mm N>50 10/10mm HB HB	SPT
12:34	-0.47		(67)		Sandy CLAYSTONE FINE GRAINED SEDIMENTARY ROCK COMPOSED MAINLY OF CLAY SIZED PARTICLES. MW: Dark grey, massive, fine grained, mainly low strength. Generally defects are rare. - Drilling induced/ lamination partings @ 5°	MW				DD = 1.77t/m ³ ; MC = 16.2%; UCS=4.99MPa	SPT x o
A.GPJ < <datgel cpt<="" td=""> Tool gINI Add-In 14/02/2011 T</datgel>	-10.07		100 (53) 100 (70)		 (2/m) Irregular fracture @ 25° (1/m) Defects are close to wide spaced, planar, smooth, closed and clean. MUDSTONE MW: Dark grey to black, massive with faint laminations, extremely low to very low strength. Generally defects are rare. Drilling induced lamination partings @ 5° (2-3/m) Joint @ 45° (1/m) Defects are predominately medium spaced, planar, smooth, open and closed with clay infill. 	MW				Is(50) = 0.19MPa Is(50) = 0.03MPa Is(50) = 0.03MPa Is(50) = 0.03MPa Is(50) = 0.03MPa Is(50) = 0.04MPa Is(50) = 0.14MPa Is(50) = 0.06MPa Is(50) = 0.06MPa Is(50) = 0.04MPa	x o x o x o
SSWICH MWY_ROCKLEA TO DARR	-13.77		33		Interbedded MUDSTONE and SANDSTONE					Is(50) = 0.07MPa Is(50) = 0.14MPa — Possible XW mudstone.	x o
17 17 18 18	-15.27		(40) 100 (43)		(Sandstone Dominant) MW: Mottled grey-black, massive with faint laminations, fine grained, mainly very low strength to low strength. Defects as above.	MVV				Is(50) = 0.08MPa Is(50) = 0.06MPa DD = 1.78t/m³; MC = 19.4%; UCS=0.550MPa Is(50) = 0.00MPa Is(50) = 0.27MPa Is(50) = 0.27MPa Is(50) = 0.14MPa	x o x o
ALD_DMR_LIB_01.GLB_Log_A_ENGINEE	-16 97		92 (46)	X	Sandy SILTSTONE MW: Pale grey, massive, fine grained, very low to low strength. Occasional interbeds of extremely low strength sandstone, approx. 150mm thick. Defects as above.	MW				Is(50) = 0.14MPa Is(50) = 0.21MPa Is(50) = 0.20MPa Is(50) = 0.26MPa Is(50) = 0.13MPa Is(50) = 0.13MPa	

REMARKS Observation well installed, infiltration zone from 6.3m to 23.53m.

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ENGINEERING BOREHOLE LOG

BOREHOLE No	<u>_BH107</u>
SHEET	<u>3</u> of <u>3</u>
REFERENCE No	<u>H10872</u>

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

PROJECT	<u>lpswich</u>	<u>Motorw</u>	a <u>y Upgrad</u>	l <u>e - Rockle</u>	<u>a to Darra</u>										
LOCATION	<u>Oxley Cr</u>	r <u>eek - L</u>	e <u>ft Bank</u>								CC	ORDINATES	498968	B.7 E; 6951017	.2 <u>N</u>
PROJECT N	No <u>FG5779</u> SURFACE R.L. <u>3.03 m</u> PLUNGE <u>-90 °</u> DATE STARTED <u>25/10/10</u> GRID DATUM								DATUM						
JOB No	<u>140/U16</u>	/ <u>902</u>	HEIGH	T DATUM	_ <u>AHD</u>	BEARING			DATE CO	MPLETED	25/10	<u>0/10</u> DF	RILLER	R&D Drilling	Pty Ltd
(m) (m) DE PTH (m)	ASING THER ASH BORING ORE DRILLING CORE DRILLING	QD)% JRE		D	MATERIAL	'n	C	EATHERING	INTACT STRENGTH	DEFECT SPACING (mm)	RAPHIC LOG	ADDIT	TIONAL AND T RESU	DATA LTS	AMPLES ESTS
20 -16.97	COSO RE	C% ഗ്	SANDS	TONE			=	5 3			0	DD = 1.9	93t/m ³ ; V	VD = 2.16t/m ³ ;	v ⊨
-21	(4	00	MW: Pa grained, General - Drilling Defects rough, c	le grey, mainly low mainly defects g induced la are wide sopen and c	assive, fine w strength. are rare. amination p spaced, irre lean.	to medium partings @ 5° (gular, slightly	(1/m) N	лч				MC = 1	I2.4%; U Is(5 Is(5 Is(5 Is(5 Is(5 Is(5	ICS=1376KPa 50) = 0.14MPa 50) = 0.13MPa 50) = 0.12MPa 50) = 0.14MPa 50) = 0.08MPa 50) = 0.01MPa 50) = 0.07MPa	x 0 x 0 x 0
F	1	00											ls(5	50) = 0.10MPa	0
- 22 19.37	(4	18)	CLAYS	TONE	Inminated								ing-induce	ed partings	-
11 17:34			strength	ey-brown, ì.	iaminateo,		~ .	1\\\/				Becoming grey depth.	-brown be Is(5	elow 22.80m 50) = 0.04MPa	x
-23 			General	lly defects a induced la	are rare. amination p	partings @ 5° ((2/m)	// • •				Displays cracki	ls(5 ing on drvi	50) = 0.13MPa	0
-20.50	1	00	Defects	are close	to medium	spaced, plana	ir,					dessicated stru	icture	50) – 0.15MPa	
			Boreholi	e terminate	ed at 23.53	m									

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REMARKS Observation well installed, infiltration zone from 6.3m to 23.53m.

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Project:	Ipswich Motorway Upgrade - Rocklea to Darra	Page 1 of 2
Borehole No:	BH 107	_
Start Depth:	11.60m	
Finish Depth:	23.53m	
Project No:	FG5779	
H No:	H10872	





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Project:	Ipswich Motorway Upgrade - Rocklea to Darra	Page 2 of 2
Borehole No:	BH 107	
Start Depth:	11.60m	
Finish Depth:	23.53m	
Project No:	FG5779	
H No:	H10872	



