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SHEET 1 **BOREHOLE RECORD BH201** OF 4 LOGGED BY ACS CLIENT **DMR** CHECKED BY PROJECT IPSWICH MOTORWAY UPGRADE - WACOL TO DARRA DRILLED DATE 07-Aug-07 to 08-Aug-07 RL 23.35m CONTRACTOR ANGLE **GROUND LEVEL** Terratest Vertical 32689 E 150450 N **DRILL MODEL** Edson 3000 BEARING LOCATION **DRILLER Brent Ormsby** HOLE DIAMETER 100mm () **ELEVATION DATUM** Australian Height Datum COORDINATE SYSTEM Local Grid DRILLING **STRATA** MATERIAL DESCRIPTION **OBSERVATION** CONDITION GROUP SYMBOL CONSISTENCY WATER/ MOISTURE SAMPLE, TEST. EGEND R.L DEPTH SOIL ORIGIN, SOIL TYPE NON BIT. SUPPORT. STRUCTURE, Plasticity / Grain Size, Colour, Minor Components COHESIVE COHESIVE ETC. ETC. SN ST ST VSJ m 23.30 0.05 FILL **ASHPHALT** SW D Clayey Gravelly SAND (SW) loose to medium dense, medium to coarse grained, dark brown **FILL** 22.75 0.60 CLAY (CL) soft to firm, grey mottled red-brown to light brown, with coarse grained sub-rounded sand and fine grained sub-rounded gravel. CL D **FILL** 21.65 1.70 SPT at 1.8m CL Sandy CLAY (CL) firm, mottled brown-grey, sand fine to medium grained, with a trace of quartz gravel coarse grained sub-angular. 2.00 with sand, fine to coarse grained **COHES** 3 20.30 3.05 CLAY (CI) very stiff, grey mottled red-brown, with ironstaining and ironstained nodules (that break down to ironstone sand fine to coarse CI SPT at 3.3m N 8;16,17 grained angular). **COHES** SPT at 4.8m N 7:13.13 17.55 5.80 CLAY (CI-CH) very stiff, grey. SPT at 6.3m N 9;15,18 **COHES** 16.15 7.20 Sandy CLAY (CL) stiff with pocket of soft, grey, sand fine to medium W CL SPT at 7.8m **COHES** ... 9.10 medium dense sand band N 5;9,11 9.33 sand coarse grained, with gravel fine grained 13.45 9.90 **NOTES** JOB Hole Diameter 100mm to 30.45m depth. (Solid Flight Augering to 7.5m. HW casing to 8.6m, HQ casing to 19.5m. Washboring with 100mm diameter tri-blade bit from 7.5m to 19.5m, 75mm diameter tri-blade bit from 19.5m to 30m.) 86015

SHEET 2 **BOREHOLE RECORD BH201** OF 4 LOGGED BY ACS CLIENT **DMR** CHECKED BY PROJECT IPSWICH MOTORWAY UPGRADE - WACOL TO DARRA DRILLED DATE 07-Aug-07 to 08-Aug-07 RL 23.35m CONTRACTOR ANGLE **GROUND LEVEL** Terratest Vertical **DRILL MODEL** Edson 3000 32689 E 150450 N BEARING LOCATION **DRILLER Brent Ormsby** HOLE DIAMETER 100mm () **ELEVATION DATUM** Australian Height Datum COORDINATE SYSTEM Local Grid DRILLING **STRATA** MATERIAL DESCRIPTION **OBSERVATION** CONDITION GROUP SYMBOL CONSISTENCY WATER / MOISTURE SAMPLE, TEST. EGEND R.L DEPTH SOIL ORIGIN, SOIL TYPE NON BIT. SUPPORT. STRUCTURE, Plasticity / Grain Size, Colour, Minor Components COHESIVE COHESIVE ETC. ETC. S = TS ST = TS VS1 m m NONCO SAND and GRAVEL (SW) quartz sand coarse grained, quartz gravel fine grained grey. (continued) SW 0.0 **NONCO** 12.80 10.55 CLAY (CI) very stiff, grey and mottled light brown. CI SPT at 10.8m N 6;11,15 **COHES** 11.35 - **12**12.00 Sandy CLAY (CL) very stiff, light brown, sand medium to coarse grained, with ironstone gravel fine to medium grained. SPT at 12.3m N 7;12,14 12.43m - 12.45m - fine to medium grained ironstone gravel, red brown **COHES** ... 12.70 harder drilling 13 9.85 13.50 СН CLAY (CH) hard, grey-brown, with silt. SPT at 13.8m N 9;18,24 15 SPT at 15.3m N 8;13,15 16 **COHES** 16.55 some light brown ironstaining SPT at 16.8m 1.013 Licenced to ARUP (1800) and 1900 17 18 SPT at 18.3m N 10;16,19 3.85 19.50 СН CLAY (CH) hard, brown-grey with light brown mottling, with silt SPT at 19.76m **COHES** N 9;52/225 19.80 Ironstone band that breaks down to gravel and sand fine to **NOTES** JOB Hole Diameter 100mm to 30.45m depth. (Solid Flight Augering to 7.5m. HW casing to 8.6m, HQ casing to 19.5m. Washboring with 100mm diameter tri-blade bit from 7.5m to 19.5m, 75mm diameter tri-blade bit from 19.5m to 30m.) 86015

CLIENT	DMR						OGGED BY ACS		
PROJECT	IPSWIC	СН МОТС	RWA	Y UPGF	RADE - WACOL TO DARRA		HECKED BY RILLED DATE	Aug-07 to 08-A	
CONTRACTOR DRILL MODEL DRILLER	Eds	rratest son 3000 ent Ormsb	у		ANGLE Vertical BEARING - HOLE DIAMETER 100mm ()	L(	OCATION 326	23.35m 89 E 150450 l ralian Height Dati Il Grid	
DRILLING		STRA	TA		MATERIAL DESCRIPTION		CONDITION	OBSERVA	
SAMPLE, TEST, BIT, SUPPORT, ETC.	R.L.	DEPTH	GROUP SYMBOL	LEGEND	SOIL TYPE Plasticity / Grain Size, Colour, Minor Components	WATER/ MOISTURE	CONSISTENCY  COHESIVE NON COHESIVE  S S L S H J J W G	I FT	
-	-	 - - -	CH		medium grained angular with clay CLAY (CH) hard, brown-grey with light brown mottling, with silt. (continued) 20.25 very slow penetration ~15mins/1.5m	-	> % L % > 1 > 1 > 1	СОНЕ	
SPT at 21.3m N 14;23,26	2.35 -	-2121.00 - - - - - - - - - - - - -	СН		CLAY (CH) hard, light brown, with a trace of ironstone sand fine to medium grained angular, with ironstaining.  21.35 with a trace of ash				
SPT at 22.8m N 16;24,26	-				- - - - - - - - - - -	-		СОНЕ	
SPT at 24.07t N 30/140s	n -0.65 -		CL		Sandy CLAY (CL) hard, grey, sand fine to medium grained.	-		СОНЕ	
-	-	- 25 			- - - -			CORE	
SPT at 25.7m N 29;30/90	-2.15 -2.25	25.50 - 25.60 <b>26</b>	СН		CLAY (CH) hard, grey-brown.  SANDSTONE, properties of clayey SAND, medium to coarse grained, very dense, with clay and a trace of fine grained quartz subangular gravel light brown.			СОНЕ	
- - -	-3.65 -	- - - - <b>27</b> 27.00				-		SNDS	
SPT at 27.19r N 27;30/75	-3.75 <sub>.</sub>	27.10	SW SP		Clayey Gravelly SAND (SW) very dense, fine to coarse grained, grey, brown, red and black, gravel fine grained angular to sub-rounded.  SAND (SP) very dense, fine to coarse grained, light brown, with gravel fine grained sub-angular to sub-rounded, with a trace of clay.	4		SNDG	
- - - SPT at 28.7m	-5.15 -5.20	- <b>28</b> 28.50 - 28.55	SC	<u> </u>	28.05 sand medium to coarse grained  Clayey SAND (SC) very dense, medium to coarse grained.			SNDG	
N 24;30/100	-5.27 -5.75	28.62 - 29 29.10	GW SP SP		Sandy GRAVEL (GW) very dense, fine to medium grained, white, grey, (red, black (multicoloured).  SAND (SP) very dense, fine to coarse grained, light brown.  SAND (SP) very dense, medium to coarse grained, sub-angular.	/-		SNDG SNDG SNDG	

CLIENT	DMR							HOLE LOGGED BY ACS					OF 4		
		Н МОТО	H MOTORWAY UPGRADE - WACOL TO DARRA						CHECKED BY DRILLED DATE 07-AL						
CONTRACTOR DRILL MODEL DRILLER	Eds	ratest son 3000 nt Ormsb	n 3000 BEARING -						GROUND LEVEL RL 23 LOCATION 32686 ELEVATION DATUM Austra COORDINATE SYSTEM Local						
DRILLING		STRA	TA		MATERIAL DESCRIPTION	CONDITION					OB	OBSERVAT			
SAMPLE, TEST, BIT, SUPPORT, ETC.	R.L.	DEPTH	GROUP SYMBOL	LEGEND	SOIL TYPE Plasticity / Grain Size, Colour, Minor Components	WATER / MOISTURE	C SN	CON OHESI	VE	СОН	ION IESIV	E .	SOIL ORI STRUCTI ETC.		
CDT at 20.2m	-6.65	30.00	GW	000	Sandy GRAVEL (GW) dense, fine grained sub-angular, grey-brown and white-red, sand medium to coarse grained.	1	Í		Ī				SNDGR		
SPT at 30.3m N 10;7,27	-6.93 -7.10	30.28 30.45	sc		Clayey SAND (SC) dense, medium to coarse grained, grey.  Borehole completed at 30.45m depth								SNDGR		
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