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BOREHOLE ENGINEERING LOG

BOREHOLE NO.

BH52

SHEET 1 OF 4

Client: QUEENSLAND MAIN ROADS
Project: TUGUN BYPASS GEOTECHNICAL INVESTIGATION
Borehole Location: Airport Tunnel, southern end
Project Number: 2134070C

Date Commenced: 19/7/05
Date Completed: 19/7/05
Recorded By: JM
Log Checked By: JAW

Drill Model/Mounting: HYDRAPOWER SCOUT 250 Hole Angle: 90° Surface RL: 1.4 m AHD
Borehole Diameter: 100 mm Bearing: --- Co-ords: E 51322.8 N 86642.2 PMG

Borehole Information						Field Material Description						
1	2	3	4	5	6	7	8	9	10	11	12	13
METHOD	SUPPORT	WATER	RL(m) AHD	DEPTH(m)	FIELD TEST	SAMPLE	GRAPHIC LOG	USC SYMBOL	SOIL/ROCK MATERIAL FIELD DESCRIPTION	MOISTURE	RELATIVE DENSITY / CONSISTENCY	STRUCTURE AND ADDITIONAL OBSERVATIONS
Au	C											
			0.20						Clayey SAND: dark grey, fine grained.	M		TOPSOIL
			1					SP	SAND: fine grained, pale brown, quartzose, poorly graded.			ESTUARINE/ FLOODPLAIN/TIDAL DELTA DEPOSITS
					SPT 2.1,2 N=3	SPT			... becoming grey.	W		MC=22.7% % passing 0.425mm=95% % passing 0.075mm=5%.
			0						... interbedded dark grey layers with shell fragments and a trace of silt.			
			2									
WB	M		2.20					SP	Cemented Silty SAND (Coffee Rock): fine grained, dark brown poor graded.			
			-1		SPT 23,30 /105mm	SPT						
			3									
			-2									
			4		SPT 24,23,23 N=46	SPT						
			-3									
			5									
			-4		SPT 30 /135mm	SPT						
			6									
			-5									
			7		SPT 7,9,12 N=21	SPT			... becoming brown, interbedded indurated and non-indurated (brown) layers.			MC=21.8% % passing 0.425mm=99% % passing 0.075mm=3%.
			-6									
			8									
			-7		SPT 15,16,17 N=33	SPT						
			9									
			-8					SP	Silty SAND: fine grained, pale grey, poorly graded.			
			2.40									

This borehole log should be read in conjunction with Parsons Brinckerhoff's accompanying standard notes.



BOREHOLE ENGINEERING LOG

BOREHOLE NO.

BH52

SHEET 2 OF 4

Client: QUEENSLAND MAIN ROADS
Project: TUGUN BYPASS GEOTECHNICAL INVESTIGATION
Borehole Location: Airport Tunnel, southern end
Project Number: 2134070C

Date Commenced: 19/7/05
Date Completed: 19/7/05
Recorded By: JM
Log Checked By: DAW

Drill Model/Mounting: HYDRAPOWER SCOUT 250 Hole Angle: 90° Surface RL: 1.4 m AHD
Borehole Diameter: 100 mm Bearing: --- Co-ords: E 51322.8 N 86642.2 PMG

Borehole Information						Field Material Description						
1	2	3	4	5	6	7	8	9	10	11	12	13
METHOD	SUPPORT	WATER	RL(m) AHD	DEPTH(m)	FIELD TEST	SAMPLE	GRAPHIC LOG	USC SYMBOL	SOIL/ROCK MATERIAL FIELD DESCRIPTION	MOISTURE	RELATIVE DENSITY / CONSISTENCY	STRUCTURE AND ADDITIONAL OBSERVATIONS
WB					SPT			SP	Silty SAND: fine grained, pale grey, poorly graded. (continued)	W		
			-9	10.60	SPT 5,4,11 N=15			SP	Silty SAND: fine grained, pale brown and brown bands, poorly graded.			
			-11									
			-10									
			-12		SPT 9,12,16 N=28							
			-11									
			-13		SPT 6,9,14 N=23							
			-12									
			-14									
			-13		SPT 6,8,11 N=19							
			-15									
			-14									
			-16									
			-15						... interbedded dark brown indurated layers (100-200mm thick).			
			-17									
			-16									
			-18		SPT 8,11,10 N=21							
			-17									
			-19									
			-18									

MC=22.6%
% passing 0.425mm=100%.
% passing 0.075mm=3%.

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BOREHOLE ENGINEERING LOG

BOREHOLE NO.

BH52

SHEET 3 OF 4

Client: QUEENSLAND MAIN ROADS

Date Commenced: 19/7/05

Project: TUGUN BYPASS GEOTECHNICAL INVESTIGATION

Date Completed: 19/7/05

Borehole Location: Airport Tunnel, southern end

Recorded By: JM

Project Number: 2134070C

Log Checked By: *DM*

Drill Model/Mounting: HYDRAPOWER SCOUT 250

Hole Angle: 90°

Surface RL: 1.4 m AHD

Borehole Diameter: 100 mm

Bearing: ---

Co-ords: E 51322.8 N 86642.2 PMG

Borehole Information						Field Material Description						
1	2	3	4	5	6	7	8	9	10	11	12	13
METHOD	SUPPORT	WATER	RL(m) AHD	DEPTH(m)	FIELD TEST	SAMPLE	GRAPHIC LOG	USC SYMBOL	SOIL/ROCK MATERIAL FIELD DESCRIPTION	MOISTURE	RELATIVE DENSITY / CONSISTENCY	STRUCTURE AND ADDITIONAL OBSERVATIONS
WB												
			-19		SPT 4.6.7 N=13	SPT			Silty SAND: fine grained, pale brown and brown bands, poorly graded.(continued)	W		
			-21									
			-20									
			-22									
			-21									
			-23									
			-22		SPT 2.0.0 N=0	SPT			SAND with clay: fine grained, grey, well graded with high plasticity fines.			MC=23% % passing 0.425mm=100%. % passing 0.075mm=24%.
			-24									
			-23									
			-25									
			-24			U50						70 70 60
			-26									
			-25		SPT 6.8.12 N=20	SPT			Silty SAND: coarse grained, pale grey, sub-angular well graded with a trace of fine grained quartz-lithic gravel.			
			-27									
			-26									
			-28		SPT 7.10.7 N=17	SPT						MC=22.4% % passing 0.425mm=55%. % passing 0.075mm=33%.

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BOREHOLE ENGINEERING LOG

BOREHOLE NO.

BH52

SHEET 4 OF 4

Client: QUEENSLAND MAIN ROADS
Project: TUGUN BYPASS GEOTECHNICAL INVESTIGATION
Borehole Location: Airport Tunnel, southern end
Project Number: 2134070C

Date Commenced: 19/7/05
Date Completed: 19/7/05
Recorded By: JM
Log Checked By: DAW

Drill Model/Mounting: HYDRAPOWER SCOUT 250 Hole Angle: 90° Surface RL: 1.4 m AHD
Borehole Diameter: 100 mm Bearing: --- Co-ords: E 51322.8 N 86642.2 PMG

Borehole Information						Field Material Description						
1	2	3	4	5	6	7	8	9	10	11	12	13
METHOD	SUPPORT	WATER	RL(m) AHD	DEPTH(m)	FIELD TEST	SAMPLE	GRAPHIC LOG	USC SYMBOL	SOIL/ROCK MATERIAL FIELD DESCRIPTION	MOISTURE	RELATIVE DENSITY / CONSISTENCY	STRUCTURE AND ADDITIONAL OBSERVATIONS
WB									SW			
			-29						Silty SAND: coarse grained, pale grey, sub-angular well graded with a trace of fine grained quartz-lithic gravel.(continued)	VS	FB	
										VL	LD	
			31							VS	LD	
			-30							VS	LD	
										VS	LD	
			32							VS	LD	
			-31							VS	LD	
					SPT	SPT				VS	LD	
			33		6,6,8 N=14					VS	LD	
			-32							VS	LD	
			34							VS	LD	
			-33						CH			RESIDUAL SOIL
			34.80									
			-33									
			34.80									
			-35						ARGILLITE: pale grey with brown mottling, highly to moderately weathered, low strength, remnant rock texture and joint traces.			WEATHERED ROCK
			35									
			-34									
			36		SPT	SPT						
			-35		17,30 /120mm							
			36									
			-37									
			37									
			-36									
			38									
			-37						... becoming red mottling			
			39		SPT	SPT			END OF BOREHOLE AT 38.60 m			
			-38		30 /105mm							

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