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BOREHOLE ENGINEERING LOG

BOREHOLE NO.

BH50

SHEET 1 OF 5

Client: QUEENSLAND MAIN ROADS
Project: TUGUN BYPASS GEOTECHNICAL INVESTIGATION
Borehole Location: Airport Tunnel, central section on Pony Club
Project Number: 2134070C

Date Commenced: 21/7/05
Date Completed: 22/7/05
Recorded By: JM
Log Checked By: DAW

Drill Model/Mounting: HYDRAPOWER SCOUT 250 Hole Angle: 90° Surface RL: 1.1 m AHD
Borehole Diameter: 100 mm Bearing: --- Co-ords: E 51142.3 N 86716.2 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	HAND PENETROMETER (kPa)	STRUCTURE AND ADDITIONAL OBSERVATIONS
Au	C		1	0.20				SP	Clayey SAND: dark grey.	M			TOPSOIL
				1	SPT 2,2,3 N=5	SPT		SP	SAND: fine grained, pale brown, poorly graded quartzose.	W			ESTUARINE/ FLOODPLAIN/TIDAL DELTA DEPOSITS
			0	1.20									
				2					Silty SAND: fine grained, brown-grey, poorly graded with shell fragments.				
WB	M		-1	2									
				2.80	SPT 1,2,2 N=4	SPT		SP	Cemented Silty SAND (Coffee Rock): fine grained, dark brown with non-cemented brown layers of various thickness between 2.9m and 4.7m depth.				
			-2	3									
				4	SPT 1,2,5 N=7	SPT							
			-3	5									
				5	SPT 7,30 /140mm	SPT							
			-4	6									
				6									
			-5	7	SPT 30 /140mm	SPT							
			-6	8									
				8									
			-7	9	SPT 23,30 /130mm	SPT			... from 8.5m, non-indurated, brown layers.				
			-8										

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



BOREHOLE ENGINEERING LOG

BOREHOLE NO.

BH50

SHEET 2 OF 5

Client: QUEENSLAND MAIN ROADS
Project: TUGUN BYPASS GEOTECHNICAL INVESTIGATION
Borehole Location: Airport Tunnel, central section on Pony Club
Project Number: 2134070C

Date Commenced: 21/7/05
Date Completed: 22/7/05
Recorded By: JM
Log Checked By: DAW

Drill Model/Mounting: HYDRAPOWER SCOUT 250 Hole Angle: 90° Surface RL: 1.1 m AHD
Borehole Diameter: 100 mm Bearing: --- Co-ords: E 51142.3 N 86716.2 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			-9	SPT 8.15, 21 N=36	SPT			SP	Cemented Silty SAND (Coffee Rock): fine grained, dark brown with non-cemented brown layers of various thickness between 2.9m and 4.7m depth. (continued)	W		
			-10					SP	Silty SAND: fine grained, brown, poorly graded.			
			-11	SPT 4.7, 14 N=21	SPT							MC=24.5% % passing 0.425mm=98% % passing 0.075mm=4%
			-12									
			-13									
			-14	SPT 6.8, 14 N=22	SPT							
			-15					SP	Cemented Silty SAND (Coffee Rock): fine grained, dark brown.			
			-16					SP	Silty SAND: fine grained, brown, poorly graded.			
			-17	SPT 10.13, 26 N=39	SPT							
			-18									
			-19									
			-20					SP				

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



BOREHOLE ENGINEERING LOG

BOREHOLE NO.

BH50

SHEET 3 OF 5

Client: QUEENSLAND MAIN ROADS

Date Commenced: 21/7/05

Project: TUGUN BYPASS GEOTECHNICAL INVESTIGATION

Date Completed: 22/7/05

Borehole Location: Airport Tunnel, central section on Pony Club

Recorded By: JM

Project Number: 2134070C

Log Checked By: DAV

Drill Model/Mounting: HYDRAPOWER SCOUT 250

Hole Angle: 90°

Surface RL: 1.1 m AHD

Borehole Diameter: 100 mm

Bearing: ---

Co-ords: E 51142.3 N 86716.2 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					SP	SAND with Clay: fine grained, grey, well graded high plasticity fines. (continued)	VS	FB	
					SPT 6,7,9 N=16	SPT				VL	LD	
			-20	21						LT	ST	
										RT	RD	
			-21	22						W	W	
			-22	23								
					SPT 1,1,3 N=4	SPT						
			-23	24								
			-24	25								
			-25.80					CH	Silty CLAY: high plasticity, dark grey.			
			-25	26								
							U50					
			-26	27				SC	Sandy CLAY: high plasticity, grey, fine grained sand.			
			-27.10									
			-27	28								
			-28	29								
					SPT 0,0,0 N=0	SPT						

MC=28.9%
% passing 0.425mm=100%.
% passing 0.075mm=19%.

210
190
190

Weight of rods.

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



BOREHOLE ENGINEERING LOG

BOREHOLE NO.

BH50

SHEET 4 OF 5

Client:	QUEENSLAND MAIN ROADS	Date Commenced:	21/7/05
Project:	TUGUN BYPASS GEOTECHNICAL INVESTIGATION	Date Completed:	22/7/05
Borehole Location:	Airport Tunnel, central section on Pony Club	Recorded By:	JM
Project Number:	2134070C	Log Checked By:	DAW

Drill Model/Mounting:	HYDRAPOWER SCOUT 250	Hole Angle:	90°	Surface RL:	1.1 m AHD
Borehole Diameter:	100 mm	Bearing:	---	Co-ords:	E 51142.3 N 86716.2 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			29					SC	Sandy CLAY: high plasticity, grey, fine grained sand. (continued)	W		
			30.70					SW	Silty SAND with gravel: coarse grained, pale grey, sub-angular with fine to medium grained quartz-lithic gravel, well graded.			
			31									
			32									
			33									
			33.70									
			34					CH	Silty CLAY: high plasticity, pale grey, with a trace of sand sized angular rock fragments.	MC<PL		RESIDUAL SOIL
			34.80									
			35						ARGILLITE: pale grey with yellow-brown staining along fractures. extremely weathered, extremely low strength, thinly laminated.			WEATHERED ROCK
			36									
			37									
			38									
			39						... extremely low strength, thinly laminated.			

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BOREHOLE ENGINEERING LOG

BOREHOLE NO.

BH50

SHEET 5 OF 5

Client: QUEENSLAND MAIN ROADS

Date Commenced: 21/7/05

Project: TUGUN BYPASS GEOTECHNICAL INVESTIGATION

Date Completed: 22/7/05

Borehole Location: Airport Tunnel, central section on Pony Club

Recorded By: JM

Project Number: 2134070C

Log Checked By: DAN

Drill Model/Mounting: HYDRAPOWER SCOUT 250

Hole Angle: 90°

Surface RL: 1.1 m AHD

Borehole Diameter: 100 mm

Bearing: ---

Co-ords: E 51142.3 N 86716.2 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	HAND PENETROMETER (kPa)	STRUCTURE AND ADDITIONAL OBSERVATIONS
WB			39						ARGILLITE: pale grey with yellow-brown staining along fractures, extremely weathered, extremely low strength, thinly laminated.(continued)				
			40	41									
					SPT 16,21,30 /140mm	SPT							
			41	42					END OF BOREHOLE AT 41.94 m				
			42	43									
			43	44									
			44	45									
			45	46									
			46	47									
			47	48									
			48	49									

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