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REPORT OF BOREHOLE: BH401

SHEET: 1 OF 3

CLIENT: McConnell Dowell Constructors (Aust) P/L
PROJECT: Gold Coast Rapid Transit
LOCATION: Zone 4
JOB NO: 117632047

COORDS: 85373.9 m E 60471.1 m N GCCC
SURFACE RL: 1.63 m DATUM: AHD
INCLINATION: -90°
HOLE DEPTH: 10.50 m

DRILL RIG: Hydrapower Scout
CONTRACTOR: GeoDrill Pty Ltd
LOGGED: BT DATE: 16/9/11
CHECKED: NK DATE: 26/9/11

Drilling					Sampling		Field Material Description					
METHOD	PENETRATION RESISTANCE	WATER	DEPTH (metres)	*DEPTH* RL	SAMPLE OR FIELD TEST	RECOVERED	GRAPHIC LOG	USC SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY DENSITY	STRUCTURE AND ADDITIONAL OBSERVATIONS
ADV	L		0	1.63					FILL: Sandy Clayey GRAVEL fine to medium grained, sub-rounded to sub-angular, low plasticity clay, fine to coarse grained sand	D		
				0.70								
				0.93				SM	Silty SAND fine to coarse grained, sub-rounded to sub-angular, grey			
			1		SPT 1.00-1.45 m 2, 1, 3 N=4					M	L	
			2									
RT	M				SPT 2.50-2.95 m 2, 1, 12 N=13					W	MD	
				2.90								
			3	-1.27				GP	Sandy Silty GRAVEL fine to coarse grained, sub-rounded to sub-angular, grey, fine to coarse sand, inferred greywacke			
									For Continuation Refer to Sheet 2			
			4									
			5									
			6									
			7									
			8									
			9									
			10									

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REPORT OF BOREHOLE: BH401

CLIENT: McConnell Dowell Constructors (Aust) P/L
PROJECT: Gold Coast Rapid Transit
LOCATION: Zone 4
JOB NO: 117632047

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HOLE DEPTH: 10.50 m

DRILL RIG: Hydrapower Scout
CONTRACTOR: GeoDrill Pty Ltd
LOGGED: BT DATE: 16/9/11
CHECKED: NK DATE: 26/9/11

Drilling						Field Material Description				Defect Information	
METHOD	WATER	TCR	RQD (SCR)	DEPTH (metres)	DEPTH RL	GRAPHIC LOG	ROCK / SOIL MATERIAL DESCRIPTION	WEATHERING	INFERRED STRENGTH $Is_{(50)}$ MPa (EL 0.03, VL 0.1, L 0.3, M 1, H 3, VH 10, EH)	DEFECT DESCRIPTION & Additional Observations	AVERAGE DEFECT SPACING (mm) (10, 30, 100, 300, 1000, 3000)
				0							
				1							
				2							
				3	3.15		Continuation of Sheet 1				
NMLC					-1.52		CORE LOSS				
					3.49						
					-1.86		GREYWACKE fine grained, pale grey, massive, orange red iron oxide staining in joints	MW		3.51-3.63 m: DB 3.66-3.67 m: J, 30°, Pl, Sn, 1 mm, iron oxide 3.70-3.90 m: J, subvertical, closed, with conjugate joints at 3.4 m, 3.42 m, 3.54 m, all showing iron oxide staining 3.91-3.98 m: CZ 3.99-4.09 m: J, 70°, Un, Ro, Sn, 2 mm, iron oxide, conjugate joint at 3.64 m 4.10-4.11 m: J, 40°, Pl, Ro, Sn, 1 mm, iron oxide 4.14-4.15 m: J, 30°, Un, Ro, Sn, 1 mm, iron oxide 4.21-4.22 m: J, 20°, Un, Ro, Sn, 1 mm, iron oxide 4.29-4.36 m: CZ 4.41-4.42 m: J, Un, Ro, Sn, 1 mm, iron oxide 4.51 m: J, 30°, Un, Ro, Sn, 2 mm, iron oxide 4.59 m: J, 40°, Un, Sn, 2 mm, iron oxide 4.62 m: IS, 10°, 10 mm, grey clay 4.68-4.72 m: HB 4.83 m: J, 40°, Un, Ro, Sn, 2 mm, iron oxide 4.87 m: J, 10°, Un, Ro, Sn, 1 mm, iron oxide 4.95-5.05 m: HB 5.10 m: J, 20°, healed 5.28 m: J, 10°, Un, Ro, 1 mm, iron oxide 5.44 m: J, 20°, Un, Ro, Sn, 1 mm, iron oxide 5.63 m: J, 40°, Un, Ro, Sn, 2 mm, iron oxide 5.72 m: J, 20°, Un, Ro, Sn, 2 mm, iron oxide 5.75 m: J, 20°, Un, Ro, Sn, 2 mm, iron oxide 5.84 m: J, 40°, Un, Ro, Sn, 1 mm, iron oxide 5.89 m: J, 30°, Un, Ro, Sn, 2 mm, iron oxide 6.06 m: DB 6.08 m: J, 10°, Un, Ro, Cn, 3 mm 6.16 m: J, 10°, Un, Ro, Cn, 1 mm 6.29 m: J, 20°, Un, Ro, Cn, 3 mm 6.43 m: J, 10°, Un, Ro, Cn, 1 mm 6.60 m: J, 10°, Un, Ro, Sn, iron oxide 6.62-6.63 m: CZ 6.67 m: J, 30°, Un, Ro, Sn, 1 mm, iron oxide 6.77 m: J, 30°, Un, Ro, Sn, 1 mm, iron oxide 6.82 m: J, 30°, Un, Ro, Sn, 1 mm, iron oxide 7.00 m: J, 30°, Un, Ro, Sn, iron oxide 7.08 m: J, 10°, Un, Ro, Sn 7.14-7.18 m: CZ 7.80-8.28 m: FZ, high water loss, significant iron oxide staining 8.05 m: J, 30°, Un, Ro, Sn, 2 mm, iron oxide 8.13 m: J, 40°, Un, Ro, Sn, 1 mm, iron oxide, conjugate joint 8.18 m: J, 40°, Un, Ro, Sn, 1 mm, iron oxide 8.20-8.28 m: HB 8.34-8.42 m: CZ 8.55 m: J, 50°, Sn, closed, iron oxide 8.70 m: IS, 30°, 10 mm, quartz crystals 8.85 m: J, 40°, Un, Sn, 1 mm, iron oxide 9.10-10.13 m: CZ, high iron oxide staining, some fine gravel, very highly fractured, many subvertical joints	
		51	9	4							
		100	0								
		100	69	5							
		100	87								
		100	76	6				MW - SW			
				7				MW			
		100	0	8							
		100	29	9							
		100	0	10							

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REPORT OF BOREHOLE: BH401

SHEET: 3 OF 3

CLIENT: McConnell Dowell Constructors (Aust) P/L
PROJECT: Gold Coast Rapid Transit
LOCATION: Zone 4
JOB NO: 117632047

COORDS: 85373.9 m E 60471.1 m N GCCC
SURFACE RL: 1.63 m DATUM: AHD
INCLINATION: -90°
HOLE DEPTH: 10.50 m

DRILL RIG: Hydrapower Scout
CONTRACTOR: GeoDrill Pty Ltd
LOGGED: BT DATE: 16/9/11
CHECKED: NK DATE: 26/9/11

Drilling						Field Material Description				Defect Information	
METHOD	WATER	TCR	RQD (SCR)	DEPTH (metres)	DEPTH RL	GRAPHIC LOG	ROCK / SOIL MATERIAL DESCRIPTION	WEATHERING	INFERRED STRENGTH $Is_{(50)}$ MPa (EL 0.03, VL 0.1, L 0.3, M 1, H 3, VH 10, EH)	DEFECT DESCRIPTION & Additional Observations	AVERAGE DEFECT SPACING (mm) (10, 30, 100, 300, 1000, 3000)
NMLC		100	0	10			GREYWACKE fine grained, pale grey, massive, orange red iron oxide staining in joints	MW		10.16 m: J, 10°, Un, Ro, Sn, 1 mm, iron oxide 10.20 m: J, subhorizontal, closed 10.27 m: J, 20°, Pl, Ro, Sn, 2 mm, iron oxide 10.34-10.50 m: HB	
					10.50 -8.87		END OF BOREHOLE @ 10.50 m TARGET DEPTH GROUNDWATER ENCOUNTERED @ 2.20 m DEPTH Hole collapsed to 3.0 m Backfilled with spoil and concreted at surface				

11 12 13 14 15 16 17 18 19 20

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RL3

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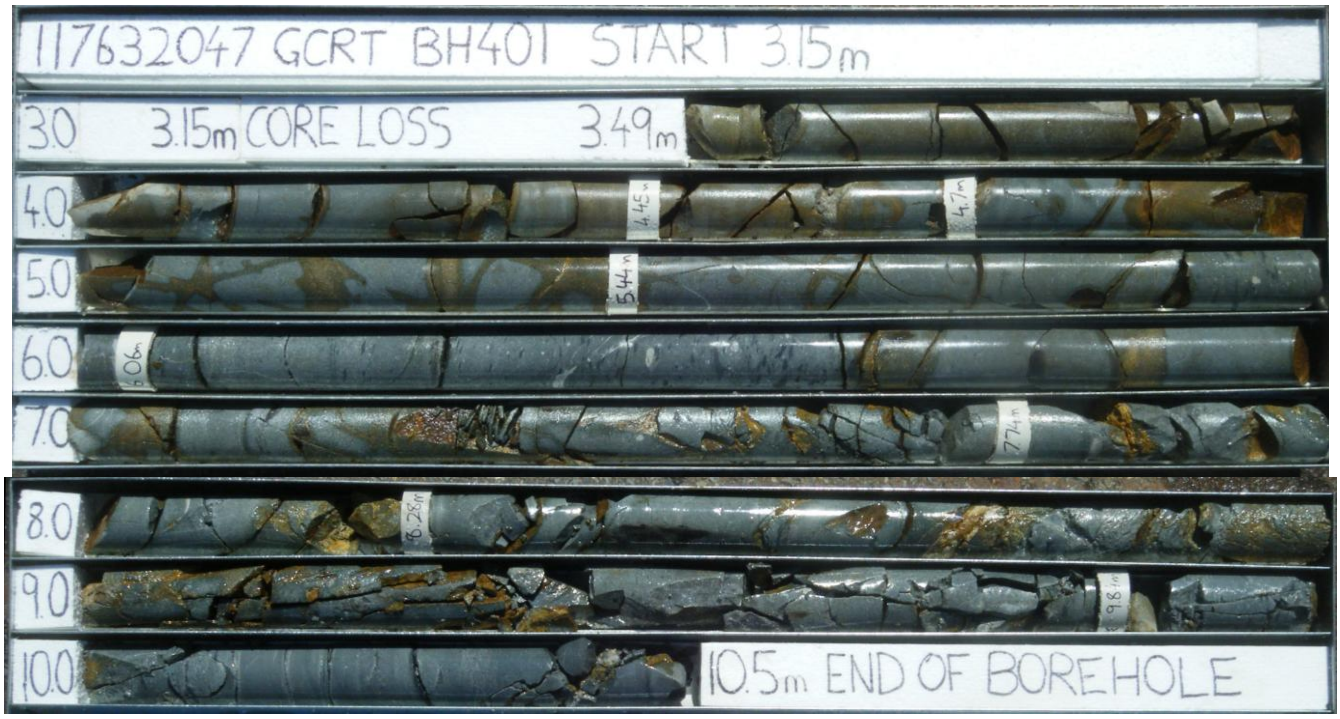
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REPORT OF CORE PHOTOGRAPHS: BH401

CLIENT: McConnell Dowell Constructors
PROJECT: Gold Coast Rapid Transit
LOCATION: Zone 4
JOB NO: 117632047

COORDS: 85373.9 m E, 60471.1 m N
SURFACE RL: 1.63 m DATUM: AHD
INCLINATION: -90°
HOLE DEPTH: 10.50 m

DEPTH RANGE: 3.15 – 10.50 m
DRILL RIG: Hydropower Scout
DRILLER: Geodrill Pty Ltd
LOGGED: BT DATE: 16/09/11
CHECKED: NK DATE: 26/09/11



3.15 – 10.50m

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