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Bore No: MW2D
Client: Costco Wholesale (Australia) Pty Ltd
Project: Phase I and II Site Investigations
Box 1 of 2
Depth: 7.0 - 11.0 m
Date: 26 July 2009



Bore No: MW2D
Client: Costco Wholesale (Australia) Pty Ltd
Project: Phase I and II Site Investigations
Box 2 of 2
Depth: 11.0 - 15.0 m
Date: 26 July 2009



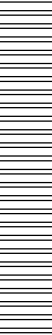
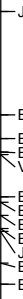
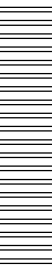


Cored Borehole

BOREHOLE MW2D

Sheet 1 of 2

URS Australia PTY LTD	Phone:	Project Reference:	Client:
	Fax:	Preliminary Geotechnical Assessment	Costco Wholesale (Australia) Pty Ltd
Drilling Contractor: Terratest Pty Ltd		Project No.: 43217997	Location: 17-21 Parramatta Road, Lidcombe
Logged By: J Kor	Bore Size: 100mm mm	Relative Level: mRL	Drill Type: HQ triple tube, wire line coring
Checked By: V Tandjiria	Casing Size: mm	Coordinates: 6252973.00 mN	Drill Model: EDSON 3000
Date Started: 26-7-09	Total Depth: 15.00 m	319485.00 mE	Drill Fluid: Water
Date Finished: 26-7-09	Borehole Inclination and Bearing: 90° from horizontal at ° True North	Permit No:	

DRILLING					MATERIAL DESCRIPTION					DISCONTINUITY DESCRIPTION				
METHOD	WATER	RUN/RECOVERY	FIELD TESTS/ SAMPLING	DEPTH (m)	GRAPHIC LOG	DESCRIPTION OF STRATA (Rock type, strength, Weathering, color, fabric, grain size, inclusions, degree of fracturing)	WEATHERING	STRENGTH Is (50) MPa EL -0.03 VL -0.1 LM -0.3 MH -1 VH -3 EH -10	RQD (%)	DEFECT SPACING (mm) 0-19 20-49 50-99 100-199 200-599 ≥600	DEFECT LOG	DEFECT DESCRIPTION (Defect type, inclination, shape, roughness, infill, thickness)		
				5										
				6										
				7		Start coring at 7.0m Core Loss (130mm)	DW		7			JN, 40°-45°, Pl, S, C		
						SHALE, medium to high strength, distinctly weathered, dark grey, thinly laminated, highly fractured to slightly fractured						JN, 70°-75°, Pl, S, KL		
				8		Point Load Test (Is50) at 7.73m A=0.42, D=0.72			49			BG, 5°-10°, Pl, S, KL BG, 5°-10°, St, Sr, KL BG, 5°-10°, Wa, Sr, KL Vertical Crack (8.4m to 8.5m) BG, 5°-10°, Pl, Sr, KL BG, 5°-10°, Wa, Sr, KL BG, 5°-10°, Pl, S, KL BG, 5°-10°, Pl, S, KL JN, 45°-50°, Pl, S, KL BG, 5°-10°, Pl, S, KL BG, 5°-10°, Pl, S, KL		
				9		Point Load Test (Is50) at 9m A=0.46, D=0.01	DW		9.34			BG, 0°-5°, Pl, S, KL BG, 5°-10°, Pl, S, KL BG, 0°-5°, Pl, S, KL BG, 5°-10°, Pl, Sr, KL		

URS Cored Borehole		BOREHOLE MW2D	
URS Australia PTY LTD	Phone: Fax:	Project No.: 43217997	Project Reference: Preliminary Geotechnical Assessment

DRILLING				MATERIAL DESCRIPTION				DISCONTINUITY DESCRIPTION				
METHOD	WATER	RUN/RECOVERY	FIELD TESTS/ SAMPLING	DEPTH (m)	GRAPHIC LOG	DESCRIPTION OF STRATA (Rock type, strength, Weathering, color, fabric, grain size, inclusions, degree of fracturing)	WEATHERING	STRENGTH Is (50) MPa	RQD (%)	DEFECT SPACING (mm)	DEFECT LOG	DEFECT DESCRIPTION (Defect type, inclination, shape, roughness, infill, thickness)
HQ - DIAMOND IMPREGNATED BIT		100%		10		Coring ended at 15.0m, target depth reached						
						Point Load Test (Is50) at 10.6m A=0.85, D=0.95			88			JN, 50°-55°, Pl, S, KI
				11								BG, 5°-10°, Pl, S, KL
												JN, 45°-50°, St, Sr, KL
												BG, 10°-15°, Pl, S, KL
												JN, 50°-55°, Pl, S, KL
				12								JN, 60°-65°, Pl, S, KL
							DW		12.34			JN, 40°-45°, Wa, Sr, KL
				13		Point Load Test (Is50) at 12.85m A=1.43, D=0.27						Fractured (13.24m to 13.28m) JN, Ir, S, KL
									92			JN, 45°-50°, Pl, S, KL
											JN, 45°-50°, Pl, S, KL	
			14		Point Load Test (Is50) at 14.16m A=0.75, D=0.76						JN, 15°-20°, Wa, S, KL	
											BG, 5°-10°, S, Pl, KL	
						Core loss (100mm) As above						
				15		Coring ended at 15.0m, target depth reached						



Non-cored Hole

BOREHOLE MW3D

Sheet 1 of 2

URS Australia Pty Ltd Lvl 3, 116 Miller Street, North Sydney NSW 2060		Phone: +61.2.8925 5500 Fax: +61.2.8925 5555	Project Reference: Preliminary Geotechnical Assessment	Client: Costco Wholesale (Australia) Pty Ltd
Drilling Contractor: Terratest Pty Ltd			Project No.: 43217997	Location: 17-21 Parramatta Rd, Lidcombe
Logged By: J Kor	Bore Size: 100mm mm	Relative Level: mRL	Drill Type: SFA "V" Bit, Hand Augering	
Checked By: V Tandjiria	Total Depth: 13.00 m	Coordinates: 6252975.00 mN		
Date Started: 1-8-09	Casing Size: mm	319675.00 mE		
Date Finished: 1-8-09		Permit No:	Drill Model: EDSON 3000	
			Drill Fluid: N/A	

SAMPLE TYPE	RUN (m)	FIELD SHEAR STRENGTH (kPa)	PENETROMETER BLOWS (N)	SAMPLING AND OTHER TESTING	GROUND WATER DATA AND COMMENTS	DEPTH (m)	GRAPHIC LOG	DESCRIPTION OF STRATA	MOISTURE CONDITION	USCS	CONSISTENCY/DENSITY	GEOLOGICAL DESCRIPTION
	C					0		CONCRETE (140mm thick)				
	Hand Auger							Fill, sand, uniformly graded, fine grained, brown, with a trace of clay colloid, dry to moist	D/M			FILL
								CLAY, high plasticity, greyish red, with a trace of sand, moist to dry				
			N=13	SPT @ 1.0m 3,5,8		1		Stiff, with a trace of ironstone (1m to 1.45m) and dry at 1m			St	
			N=30	SPT @ 2.0m 5,11,19		2		Very stiff and becoming brownish grey at 2m			VSt	
	V Bit		N=41	SPT @ 3.0m 8,15,26		3		Hard and shaley at 3m	D/M		H	RESIDUAL
			N=64	SPT @ 4.0m 14,17,47		4		Hard and shaley at 4m			H	



Non-cored Hole

BOREHOLE MW3D

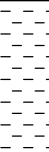
Sheet 2 of 2

URS Australia Pty Ltd
Lvl 3, 116 Miller Street, North Sydney NSW 2060

Phone: +61.2.8925 5500
Fax: +61.2.8925 5555

Project No.: **43217997**

Project Reference: **Preliminary Geotechnical Assessment**

SAMPLE TYPE	RUN (m)	FIELD SHEAR STRENGTH (kPa)	PENETROMETER BLOWS (N)	SAMPLING AND OTHER TESTING	GROUND WATER DATA AND COMMENTS	DEPTH (m)	GRAPHIC LOG	DESCRIPTION OF STRATA	MOISTURE CONDITION	USCS	CONSISTENCY/DENSITY	GEOLOGICAL DESCRIPTION
 SPT			N=N/A	SPT @ 5.0m 29, 42/110mm		5		Hard and shaley at 5m			H	
						6		V Bit refusal at 5.6m, continues with NMLC coring				
						7						
						8						
						9						
						10						

Remarks: C in "Run (m)" column represents Concrete Cutting
DS in "SAMPLE TYPE" column represents Disturbed Sample