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Bore No: MW3D
Client: Costco Wholesale (Australia) Pty Ltd
Project: Phase I and II Site Investigations
Box 1 of 2
Depth: 5.6 - 9.0 m
Date: 1 August 2009



Bore No: MW3D
Client: Costco Wholesale (Australia) Pty Ltd
Project: Phase I and II Site Investigations
Box 2 of 2
Depth: 9.0 - 13.0 m
Date: 1 August 2009





Cored Borehole

BOREHOLE MW3D

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: 6252885.00 mN	Drill Model: EDSON 3000
Date Started: 1-8-09	Total Depth: 13.00 m	319631.00 mE	Drill Fluid: Water
Date Finished: 1-8-09	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 EI -0.03 VL -0.1 L 0.3 M 0.7 H 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)
HQ - DIAMOND IMPREGNATED BIT				5								
			5.6			Start coring at 5.6m			5.6			
			100%			SHALE, very low to low strength, extremely weathered, brownish grey, thinly laminated, iron staining, fractured to slightly fractured Ironstone band Ironstone band Point Load Test (Is50) at 5.83m A=0.09, D=0.03	XW		73			BG, 5°-10°, Pl, S, iron staining BG, 5°-10°, Pl, S, iron staining BG, 5°-10°, St, S, KL BG, 5°-10°, Pl, S, iron staining BG, 5°-10°, Pl, S, KL
			6.38						6.38			BG, 5°-10°, Pl, S, iron staining BG, 5°-10°, Pl, S, KL
												BG, 5°-10°, Pl, S, iron staining JN, 75°-80°, Ir, S, KL JN, 75°-85°, Wa, S, KL
												JN, 10°-15°, Pl, S, KL JN, 85°-90°, Wa, S, KL
												Highly fractured zone (7.3m to 8.7m)
				6								




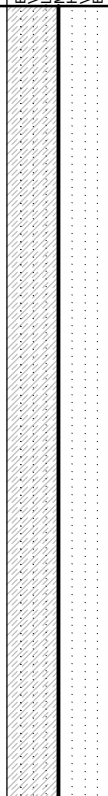



Cored Borehole

BOREHOLE MW3D

Sheet 2 of 2

URS Australia PTY LTD

Phone:
Fax: Project
No.: 43217997Project
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)
		100%		10		Point Load Test (Is50) at 11.34m A=0.67, D=0.29			90			BG, 5°-10°, St, S, KL JN, 25°-30°, Pl, S, KL BG, 5°-10°, Pl, S, KL BG, 0°-5°, Pl, S, KL
			11									
		12.3	12									
		100%	13									
				13	Coring ended at 13.0m, target depth reached							
				14								
				15								



Non-cored Hole

BOREHOLE MW4D

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: 13.80 m	Coordinates: 6252971.00 mN		
Date Started: 1-8-09	Casing Size: mm	319673.00 mE		
Date Finished: 2-8-09		Permit No:	Drill Model: EDSON 3000	
			Drill Fluid: N/A	

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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	Hand Auger					0		CONCRETE (140mm thick)				FILL
								FILL, clayey sand, uniformly graded, fine grained, dark brown, with a trace of glass, dry to moist	D/M			
SPT	V Bit		N=4	SPT @ 1.0m 2,2,2		1		CLAY, medium to high plasticity, dark brown, with a trace of sand, dry to moist, soft			S	ALLUVIUM
								Becoming reddish brown at 1.5m				
SPT			N=31	SPT @ 2.0m 5,13,18		2		Very stiff, with iron staining, becoming mottled reddish brown grey, and dry at 2m			VSt	RESIDUAL
SPT	V Bit		N=38	SPT @ 3.0m 9,15,23		3		Hard, shaley, brownish grey, and with some ironstone fragments at 3m	D/M		H	RESIDUAL
SPT	V Bit		N=64	SPT @ 4.0m 16,27,37		4		Hard and shaley at 4m			H	RESIDUAL

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

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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=35	SPT @ 5.0m 7,11,24		5		Hard at 5m			H	
 SPT			N=101	SPT @ 6.0m 19,44,57		6		SHALE, extremely weathered, extremely low strength, with iron staining			H	
						7		V Bit refusal at 6.45m, continues with NMLC coring				
						8						
						9						
						10						

Remarks: C in "Run (m)" column represents Concrete Cutting