DOUGLAS PARTNERS PTY LTD

MACQUARIE VILLAGE

BORE 110 PROJECT 72138 10 DECEMBER 2010

1.40 – 6.00 m

DOUGLAS PARTNERS PTY LTD

MACQUARIE VILLAGE

BORE 110 PROJECT 72138 10 DECEMBER 2010

6.00 – 11.00 m

DOUGLAS PARTNERS PTY LTD

MACQUARIE VILLAGE
BORE 110 PROJECT 72138 10 DECEMBER 2010

11.00 – 16.00 m

BOREHOLE LOG

CLIENT: Stamford Property Services Pty Ltd
PROJECT: Macquarie Village
LOCATION: 110-114 Herring Road, Macquarie Park

SURFACE LEVEL: 72.2 AHD
EASTING:
NORTHING:
DIP/AZIMUTH: 90°/--

BORE No: 111
PROJECT No: 72138
DATE: 9/12/2010
SHEET 1 OF 2

RL	Depth (m)	Description of Strata	Degree of Weathering (EW HW MW SW FS FR)	Graphic Log	Rock Strength (Ex Low, Very Low, Low, Medium, High, Very High, Ex High)	Water	Fracture Spacing (m) (0.01, 0.05, 0.10, 0.50, 1.00)	Discontinuities (B - Bedding J - Joint S - Shear F - Fault)	Sampling & In Situ Testing: Type	Core Rec. %	RQD %	Test Results & Comments
72	0.15	CONCRETE - 150mm thick						Note: Unless otherwise stated, rock is fractured along rough planar bedding planes dipping between 0°- 10°	A/E			
	0.5	FILLING - brown silty clay filling, with some organic matter (grass cuttings) and sub-rounded gravel							A/E			
	0.8	FILLING - light brown, silty clay filling with some angular gravel										
71	1.1	LAMINITE - extremely low strength extremely weathered, red purple laminite with some clay							A			20/40mm refusal
		LAMINITE - high strength with extremely low strength bands, highly weathered with extremely weathered bands, highly fractured to fractured, grey and red brown, medium grained laminite							S			PL(A) = 1.2
70								1.7m: Cs, 10mm				
								2.05m: Cs, 20mm	C			
								2.4m: Cs, 20mm 2.53m: J45°, pl, ro, cly 2.7-2.9m: F90°, pl, ro, 50mm displaced				PL(A) = 1.1
69												
68	4.36	SANDSTONE - medium to high then high strength, slightly weathered then fresh, slightly fractured, light grey then orange brown, medium grained sandstone, thickly bedded with indistinct and distinct laminations						4.09m: Cs, 30mm				PL(A) = 1
67									C	100	34	
								5.3m: J60°, pl, ro, he				PL(A) = 0.9
66												PL(A) = 0.9
								6.35m: Cs, 20mm				
65												PL(A) = 1.5
64									C	100	99	PL(A) = 1.1
	9.0	SANDSTONE - high strength, slightly then moderately weathered, light grey then orange brown, slightly fractured, medium grained sandstone, thickly bedded with distinct laminations										PL(A) = 0.8
63												PL(A) = 1.2
									C	100	92	

RIG: Bobcat **DRILLER:** SY **LOGGED:** PGH **CASING:** HW to 1.0m
TYPE OF BORING: Diatube to 0.15m; Solid flight auger (TC-bit) to 1.0m; Rotary (water) to 1.10m; NMLC-Coring to 14.20m
WATER OBSERVATIONS: No free groundwater observed whilst augering
REMARKS:

SURVEY DATUM:

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U,	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

Douglas Partners
Geotechnics / Environment / Groundwater

BOREHOLE LOG

CLIENT: Stamford Property Services Pty Ltd
PROJECT: Macquarie Village
LOCATION: 110-114 Herring Road, Macquarie Park

SURFACE LEVEL: 72.2 AHD
EASTING:
NORTHING:
DIP/AZIMUTH: 90°/--

BORE No: 111
PROJECT No: 72138
DATE: 9/12/2010
SHEET 2 OF 2

RL	Depth (m)	Description of Strata	Degree of Weathering (EW HW MW SW FS FR)	Graphic Log	Rock Strength (Ex Low, Very Low, Low, Medium, High, Very High, Ex High)	Water	Fracture Spacing (m) (0.01, 0.05, 0.10, 0.50, 1.00)	Discontinuities (B - Bedding J - Joint S - Shear F - Fault)	Sampling & In Situ Testing: Type	Core Rec. %	RQD %	Test Results & Comments
62		SANDSTONE - high strength, slightly then moderately weathered, light grey then orange brown, slightly fractured, medium grained sandstone, thickly bedded with distinct laminations *(continued)*										PL(A) = 1.3
61	11							10.78m: Cs, 7mm	C	100	92	PL(A) = 1.2
60	12											PL(A) = 1.3
59	13								C	100	97	
58	14											PL(A) = 1.4
	14.2	Bore discontinued at 14.2m										PL(A) = 1
57	15											
56	16											
55	17											
54	18											
53	19											

RIG: Bobcat **DRILLER:** SY **LOGGED:** PGH **CASING:** HW to 1.0m
TYPE OF BORING: Diatube to 0.15m; Solid flight auger (TC-bit) to 1.0m; Rotary (water) to 1.10m; NMLC-Coring to 14.20m
WATER OBSERVATIONS: No free groundwater observed whilst augering
REMARKS:

SURVEY DATUM:

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▽	Water level	V	Shear vane (kPa)

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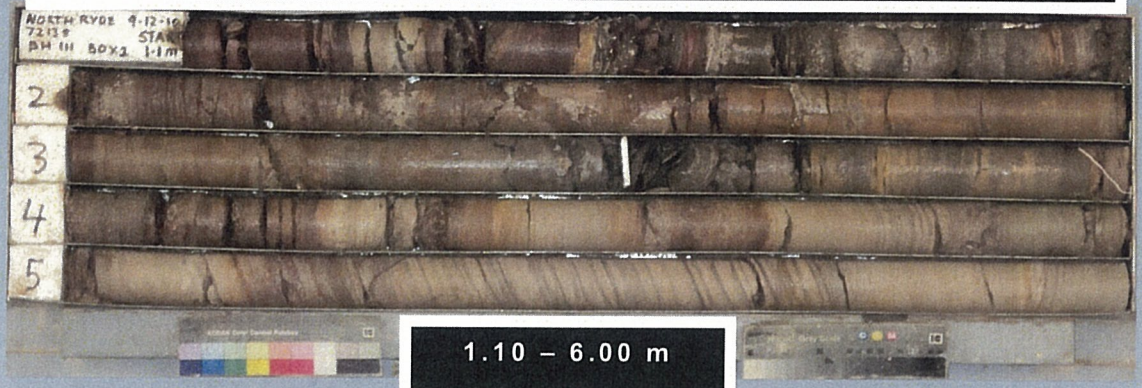
BORE 111 PROJECT 72138 9 DECEMBER 2010



1.10 – 6.00 m

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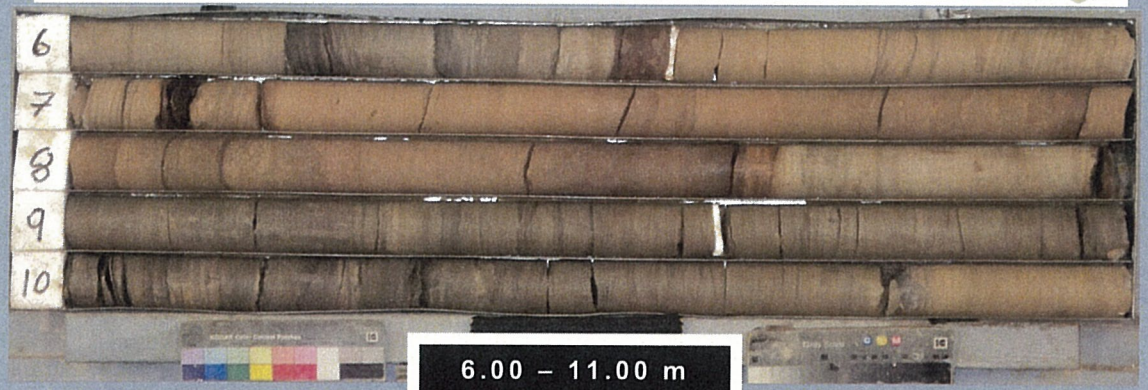
MACQUARIE VILLAGE

BORE 111 PROJECT 72138 9 DECEBER 2010



6.00 – 11.00 m

DOUGLAS PARTNERS PTY LTD

MACQUARIE VILLAGE

BORE 111 PROJECT 72138 9 DECEMBER 2010

11.00 – 14.20 m

BOREHOLE LOG

CLIENT: Stamford Property Services Pty Ltd
PROJECT: Macquarie Village
LOCATION: 110-114 Herring Road, Macquarie Park

SURFACE LEVEL: 72 AHD
EASTING:
NORTHING:
DIP/AZIMUTH: 90°/--

BORE No: 112
PROJECT No: 72138
DATE: 20/12/2010
SHEET 1 OF 2

RL	Depth (m)	Description of Strata	Degree of Weathering (EW HW MW SW FS FR)	Graphic Log	Rock Strength (Ex Low, Very Low, Low, Medium, High, Very High, Ex High)	Water	Fracture Spacing (m) (0.01, 0.05, 0.10, 0.50, 1.00)	Discontinuities (B - Bedding J - Joint S - Shear F - Fault)	Sampling & In Situ Testing: Type	Core Rec. %	RQD %	Test Results & Comments
72	0.08	PAVERS										
	0.1	FILLING - yellow brown, sand filling										
	0.2	FILLING (ROADBASE) - grey blue metal gravel filling										
		LAMINITE - extremely low strength, yellow brown laminite						Note: Unless otherwise stated, rock is fractured along rough planar bedding planes dipping between 0°- 10°	A/E			
71	1								A/E			10,12/125mm refusal
	1.2	LAMINITE - medium and high strength, highly to moderately weathered, slightly fractured, orange brown, grey and purple red laminite							S			
		2.19-2.4m: fragmented zone							C	100	98	PL(A) = 0.8
70	2											
69	3							2.93m: J45°, st, ro, cln				PL(A) = 0.6
		3.83-3.95m: 130mm clay band							C	100	96	
68	4											PL(A) = 1.4
	4.6	SANDSTONE - high strength, highly weathered to fresh, fractured to slightly fractured, orange brown and grey, medium to coarse grained sandstone										PL(A) = 1.6
67	5											
66	6											PL(A) = 1.5
65	7								C	100	93	
												PL(A) = 1
64	8											
												PL(A) = 1
63	9								C	100	99	
		9.45-11.20m: distinctly laminated										PL(A) = 1

RIG: Multi-drill **DRILLER:** SK **LOGGED:** PGH **CASING:** NW to 1.2m
TYPE OF BORING: Diatube to 0.1m; Solid flight auger (TC-bit) to 1.2m; NMLC-Coring to 14.0m
WATER OBSERVATIONS: No free groundwater observed whilst augering
REMARKS:

SURVEY DATUM:

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▽	Water level	V	Shear vane (kPa)

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Geotechnics / Environment / Groundwater

BOREHOLE LOG

CLIENT: Stamford Property Services Pty Ltd
PROJECT: Macquarie Village
LOCATION: 110-114 Herring Road, Macquarie Park

SURFACE LEVEL: 72 AHD
EASTING:
NORTHING:
DIP/AZIMUTH: 90°/--

BORE No: 112
PROJECT No: 72138
DATE: 20/12/2010
SHEET 2 OF 2

RL	Depth (m)	Description of Strata	Degree of Weathering (EW HW MW SW FS FR)	Graphic Log	Rock Strength (Ex Low, Very Low, Low, Medium, High, Very High, Ex High)	Water	Fracture Spacing (m) (0.01, 0.05, 0.10, 0.50, 1.00)	Discontinuities (B - Bedding J - Joint S - Shear F - Fault)	Sampling & In Situ Testing: Type	Core Rec. %	RQD %	Test Results & Comments
62		SANDSTONE - high strength, highly weathered to fresh, fractured to slightly fractured, orange brown and grey, medium to coarse grained sandstone *(continued)*							C	100	99	PL(A) = 1.5
61	11											PL(A) = 1.3
60	12								C	100	94	PL(A) = 1.3
59	13							13.52m: Cs, 12mm				PL(A) = 1.1
58	14 14.0	Bore discontinued at 14.0m										
57	15											
56	16											
55	17											
54	18											
53	19											

RIG: Multi-drill **DRILLER:** SK **LOGGED:** PGH **CASING:** NW to 1.2m

TYPE OF BORING: Diatube to 0.1m; Solid flight auger (TC-bit) to 1.2m; NMLC-Coring to 14.0m

WATER OBSERVATIONS: No free groundwater observed whilst augering

REMARKS:

SURVEY DATUM:

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▽	Water level	V	Shear vane (kPa)

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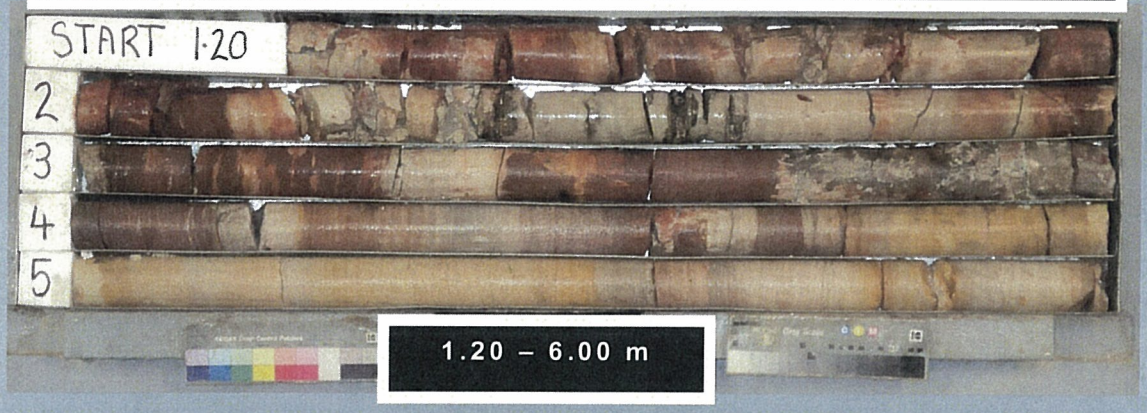
MACQUARIE VILLAGE

BORE 112 PROJECT 72138 20 DECEMBER 2010



1.20 – 6.00 m

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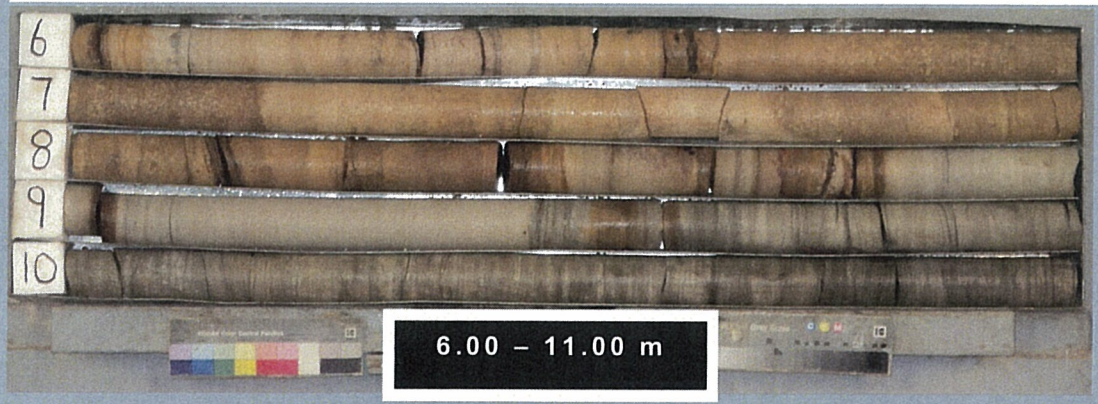
MACQUARIE VILLAGE

BORE 112 PROJECT 72138 20 DECEMBER 2010

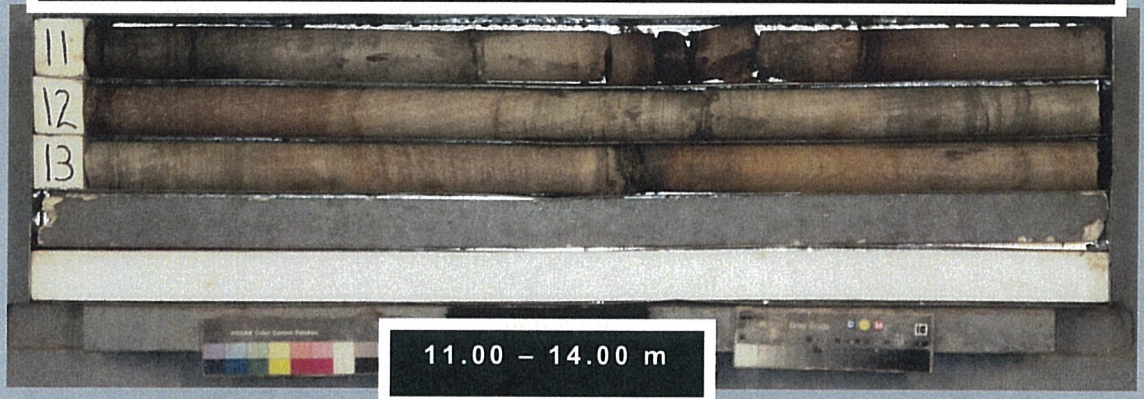


6.00 – 11.00 m

DOUGLAS PARTNERS PTY LTD

MACQUARIE VILLAGE

BORE 112 PROJECT 72138 20 DECEMBER 2010



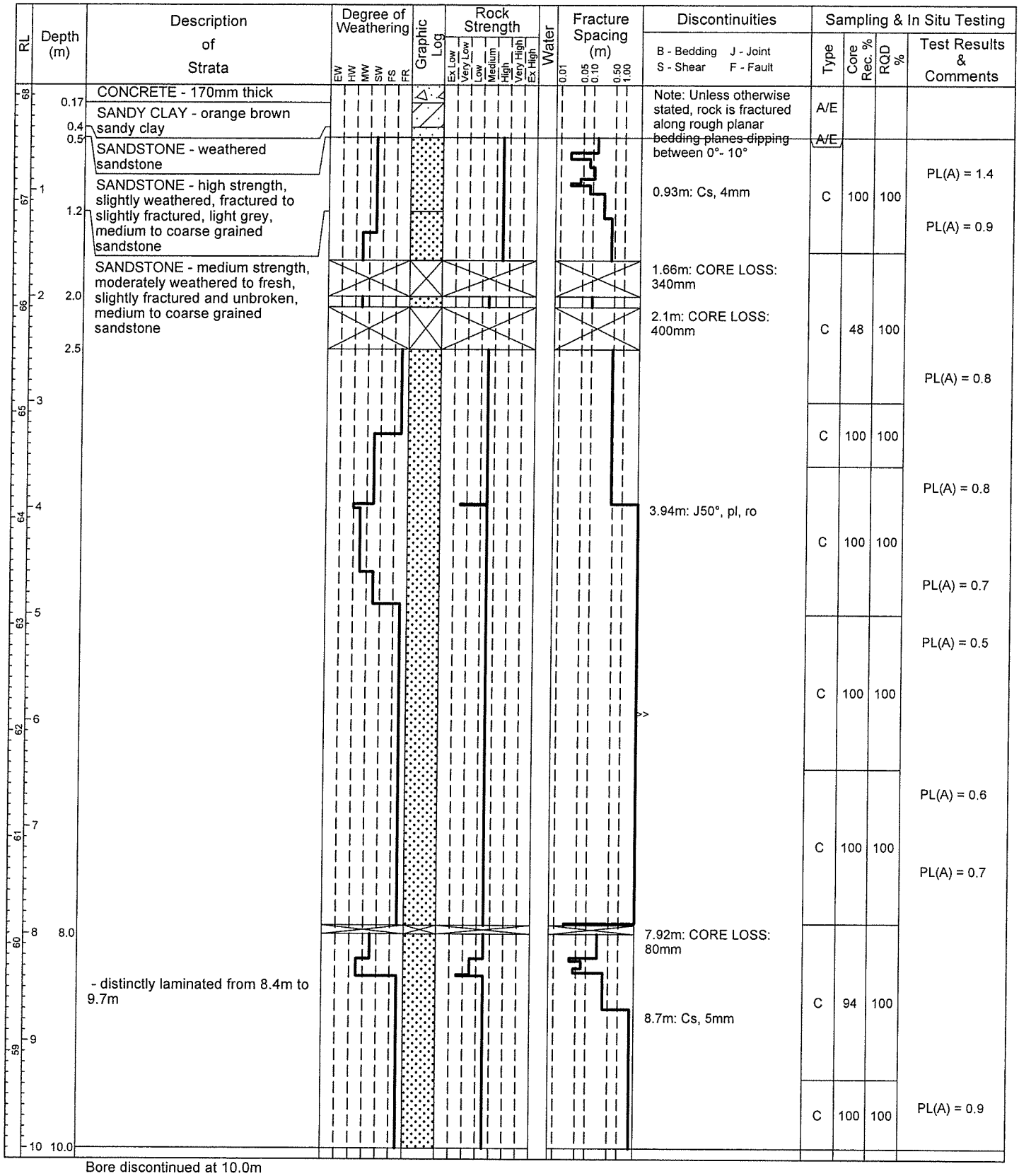
11.00 – 14.00 m

BOREHOLE LOG

CLIENT: Stamford Property Services Pty Ltd
PROJECT: Macquarie Village
LOCATION: 110-114 Herring Road, Macquarie Park

SURFACE LEVEL: 68.1 AHD
EASTING:
NORTHING:
DIP/AZIMUTH: 90°/--

BORE No: 113
PROJECT No: 72138
DATE: 17/12/2010
SHEET 1 OF 1



RIG: Underpinner **DRILLER:** LC **LOGGED:** PGH **CASING:** HW to 0.50m

TYPE OF BORING: Solid flight auger (TC-bit) to 0.50m; NMLC-Coring to 10.0m

WATER OBSERVATIONS: No free groundwater observed whilst augering

REMARKS:

SURVEY DATUM:

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U_x	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	▷	Water seep	S	Standard penetration test
E	Environmental sample	▽	Water level	V	Shear vane (kPa)

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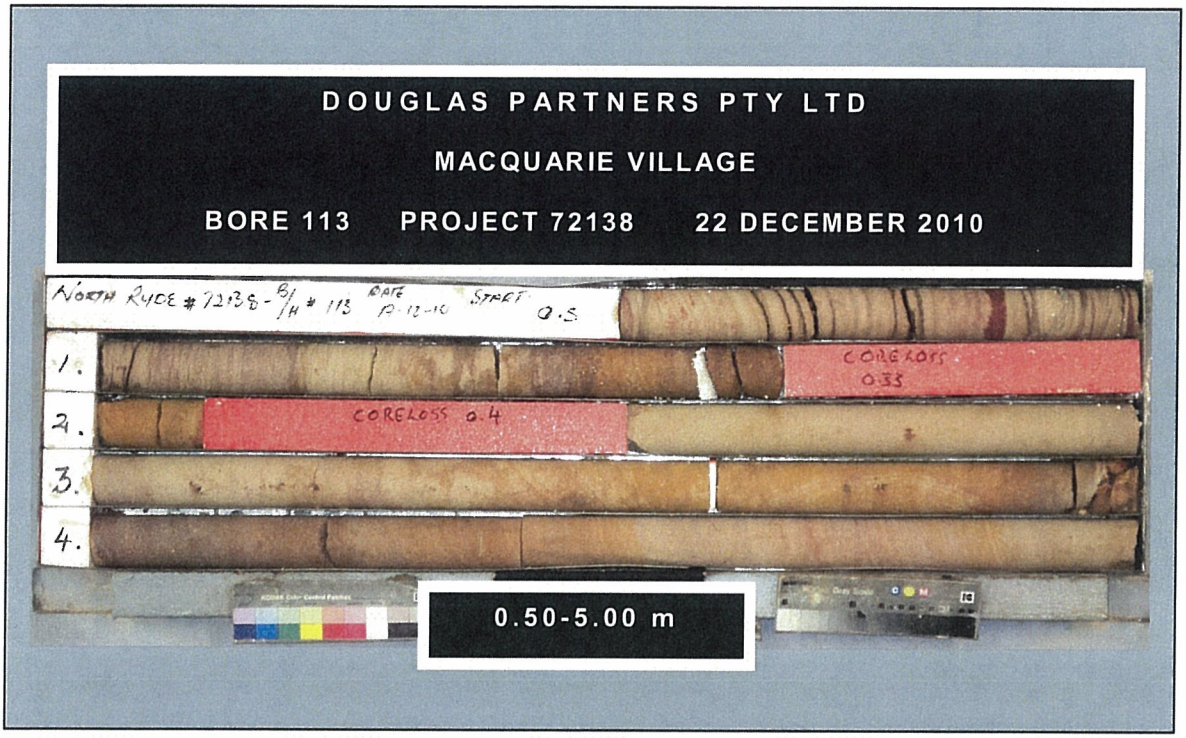
Geotechnics / Environment / Groundwater


DOUGLAS PARTNERS PTY LTD
MACQUARIE VILLAGE
BORE 113 PROJECT 72138 22 DECEMBER 2010
NORTH RYDE # 72138 - B/H # 113 DATE 22-12-10 START 0.5
1.
2.
3.
4.
CORE LOSS 0.35
CORE LOSS 0.4
0.50-5.00 m


DOUGLAS PARTNERS PTY LTD
MACQUARIE VILLAGE
BORE 113 PROJECT 72138 22 DECEMBER 2010
6.
7.
8.
9.
CORE LOSS
5.00-10.00 m