



NON-CORE DRILL HOLE - GEOLOGICAL LOG

HOLE NO : BH-009

CLIENT : MPDC
LOCATION : Macquarie Point

PROJECT : Macquarie Point GI

FILE / JOB NO : PS212776
SHEET : 1 OF 4

POSITION : E: 527621.45, N: 5252515.83 (MGA2020-55)	SURFACE ELEVATION : 4.13 (AHD)	ANGLE FROM HORIZONTAL : 90°
RIG TYPE : MRS XL Max	MOUNTING : Track	CONTRACTOR : SWD
DRILLER : GB	DATE STARTED : 10/5/2024	DATE COMPLETED : 11/5/2024
DATE LOGGED : 10/5/2024	LOGGED BY : MIR	CHECKED BY : JRG

DRILLING				MATERIAL			
PROGRESS	DEPTH (m)	GRAPHIC LOG	MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY	RELATIVE DENSITY	STRUCTURE & Other Observations
DRILLING & CASING	RL (m AHD)	GROUP SYMBOL	Soil Type, Colour, Plasticity or Particle Characteristic Secondary and Minor Components				
↑	0.0		ASPHALTIC CONCRETE.				ROAD SURFACE
	0.06m		FILL Clayey SAND: fine to coarse grained, sub-rounded to sub-angular, dark grey, clay is medium plasticity; with gravel; trace wood chips, glass and tile fragments.	M			FILL Acid Sulfate Sampling every 0.5m to bedrock
	0.40m		FILL Gravelly SAND: fine to coarse grained, sub-rounded to sub-angular, brown and grey, gravel is fine to coarse grained, sub-rounded to sub-angular.	D			
	1.0		0.80m: becoming dark brown				
	3.1		1.00m: becoming orange-brown, with clay				
	1.40m		1.40m: becoming red-brown, with brick fragments, trace clay, trace nails and glass fragments	D - M			
	1.90m						
	2.0		FILL SAND: fine to coarse grained, sub-rounded to sub-angular, dark grey, with fine to medium grained, sub-rounded to angular gravel; with clay; trace glass, tile, wood and brick fragments.	M			
	2.1						
	3.00m						
	3.0		FILL Clayey SAND: fine to coarse grained, sub-rounded to sub-angular, dark grey, with gravel; trace glass, tile, wood and brick fragments.	M - W			
	3.45m		3.00-5.00m: moderate hydrocarbon / tar odour				
	4.0		3.80m: becoming dark green-grey, increasing gravel content, trace shell fragments	M			
	0.1		4.50m: becoming dark grey				
	5.0		FILL SAND: fine to coarse grained, sub-angular, dark grey, with fine to coarse grained, sub-rounded to sub-angular gravel; with clay; trace wood, glass and shell fragments.	M			
	-0.9		5.80m: becoming fine to medium, sub-rounded, grey				
	6.0		FILL Sandy CLAY: medium to high plasticity, dark grey to grey, sand is fine to medium grained; metal fragments, trace shell fragments.	w=PL			6.80: PP =50 kPa
	-1.9						
	6.45m						
	7.0		FILL CLAY: high plasticity, green-grey.	w=PL			
	-2.9						
	7.00m						
	7.40m		Sandy CLAY: medium plasticity, green mottled orange-brown, sand is fine to medium grained, sub-rounded to sub-angular; 30% shell fragments decreasing with depth.	w<PL	S		ESTUARINE SOIL
	7.50m						7.70: PP =90 kPa
	1.1,2 N=3						7.90: PP >500 kPa
	7.95m						
	8.0						
	-3.9						

See Explanatory Notes for details of abbreviations & basis of descriptions.

WSP-AU-GLB Log IS AU BOREHOLE 2A PS212776_MASTER.CPJ <DrawingFiles> 18/6/2024 12:19 10:03:00.09 Digitl Lab and I Silu Tech - DGD [Lib: WSP-5.05.2.2023-08-23; Pk: WSP-5.04.0.2023-04-11]



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HOLE NO : BH-009

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SHEET : 2 OF 4

POSITION : E: 527621.45, N: 5252515.83 (MGA2020-55) SURFACE ELEVATION : 4.13 (AHD) ANGLE FROM HORIZONTAL : 90°
 RIG TYPE : MRS XL Max MOUNTING : Track CONTRACTOR : SWD DRILLER : GB
 DATE STARTED : 10/5/2024 DATE COMPLETED : 11/5/2024 DATE LOGGED : 10/5/2024 LOGGED BY : MIR CHECKED BY : JRG

DRILLING					MATERIAL							
PROGRESS		DRILLING PENETRATION	GROUND WATER LEVELS	SAMPLES & FIELD TESTS	DEPTH (m) RL (m AHD)	GRAPHIC LOG	GROUP SYMBOL	MATERIAL DESCRIPTION Soil Type, Colour, Plasticity or Particle Characteristic Secondary and Minor Components	MOISTURE CONDITION	CONSISTENCY	RELATIVE DENSITY	STRUCTURE & Other Observations
DRILLING & CASING	WATER											
S PWT		F-H			8.0 -3.9			DOLERITE: recovered as silty gravel, fine to coarse grained, inferred extremely to highly weathered.	D			ROCK
					9.0 -4.9		9.00m	Continued as Cored Drill Hole				
					10.0 -5.9							
					11.0 -6.9							
					12.0 -7.9							
					13.0 -8.9							
					14.0 -9.9							
					15.0 -10.9							
					16.0 -11.9							

See Explanatory Notes for details of abbreviations & basis of descriptions.



CORED DRILL HOLE LOG

HOLE NO : BH-009

CLIENT : MPDC
LOCATION : Macquarie Point

PROJECT : Macquarie Point GI

FILE / JOB NO : PS212776
SHEET : 3 OF 4

POSITION : E: 527621.45, N: 5252515.83 (MGA2020-55)	SURFACE ELEVATION : 4.13 (AHD)	ANGLE FROM HORIZONTAL : 90°
RIG TYPE : MRS XL Max	MOUNTING : Track	CONTRACTOR : SWD
DRILLER : GB	DATE STARTED : 10/5/2024	DATE COMPLETED : 11/5/2024
DATE LOGGED : 10/5/2024	LOGGED BY : MIR	CHECKED BY : JRG
CASING DIAMETER : 140 mm	BARREL (Length) : 1.50 m	BIT : IMPREG RC10
		BIT CONDITION : Good

DRILLING				MATERIAL				FRACTURES							
DRILLING & CASING	WATER	CORE LOSS DRILL RUN (%)	ROD (%)	SAMPLES & FIELD TESTS	DEPTH (m)	GRAPHIC LOG	DESCRIPTION ROCK TYPE : Colour, Grain size, Structure (texture, fabric, mineral composition, hardness alteration, cementation, etc as applicable)	WEATHERING	ESTIMATED STRENGTH				NATURAL FRACTURE (mm)	VISUAL	ADDITIONAL DATA (joints, partings, seams, zones, etc) Description, orientation, infilling or coating, shape, roughness, thickness, other
									UCS-194 ₂₀₀	UCS	UCS	UCS			
					8.0										
					9.00		9.00m START CORING AT 9.00m								
		0% LOSS	72		9.60		DOLERITE: fine to coarse grained, orange-brown, porphyritic.	HW							<ul style="list-style-type: none"> J, 80 - 85°, VN, PR, SM, clay J, 60 - 70°, CN, ST, SM EWx2, 20 - 35°, PR, clay with sand, 20mm J, 60 - 80°, SN, PR, SM, Fe J, 60°, VN, PR, RF, Fe, clay
		0% LOSS	49		10.30			HW							<ul style="list-style-type: none"> IS, 80 - 90°, CU, SM, Chl, clay, 3mm J, 80 - 90°, VN, CU, SM, clay, Chl IS, 30°, PR, SM, clay, Chl, 2mm J, 70 - 80°, CN, CU, SM, clay, Chl, Fe
		0% LOSS	51	Is(50) D=3.79 MPa Is(50) A=3.36 MPa	11.46		11.00m: grey with orange-brown, crystalline	MW - SW							<ul style="list-style-type: none"> CS, SN, IR, RF, sand, Fe J, 10 - 20°, SN, PR, RF, Fe J, 0 - 30°, SN, ST, RF, Fe EW, 10 - 20°, ST, RF, clay, sand, Fe, 20mm J, 70°, CN, PR, SM J, 50 - 55°, SN, UN, RF, Fe EW, 0 - 10°, PR, RF, clayey sand J, 75 - 80°, VN, PR, RF, Fe J, 30°, VN, PR, RF, Fe J, 60 - 70°, VN, PR, RF, Fe J, 0 - 10°, SN, UN, RF, Fe J, 10 - 30°, SN, PR, RF, Fe J, 80 - 90°, VN, CU, RF, Fe Jx2, 20 - 30°, SN, PR, RF, Fe Jx2, 10 - 20°, SN, PR, SM, Fe
		0% LOSS	80	UCS =1.1 MPa Is(50) A=6.35 MPa Is(50) D=6.60 MPa	12.95		12.00m: increasing coarse grained elongated dark grey mineral								<ul style="list-style-type: none"> J, 50 - 60°, VN, PR, SM, Fe J, 10 - 20°, SN, PR, SM, Fe J, 10°, SN, PR, SM, Fe J, 80 - 90°, CT, PR, RF, Cal, Fe J, 30°, SN, PR, RF, Fe J, 60 - 70°, SN, UN, RF, Fe J, 70°, SN, PR, SM, Fe IS, 80 - 90°, PR, RF, Cal, Fe, 2mm J, 10 - 30°, SN, ST, RF, Fe
		0% LOSS	91	Is(50) D=5.65 MPa	13.50		13.00m: becoming grey								<ul style="list-style-type: none"> IS, 70 - 90°, UN, RF, Cal, Fe, 2mm J, 50 - 60°, VN, PR, SM, Zeo, Cal J, 80 - 90°, CT, PR, SM, Zeo, Cal Jx2, 40 - 60°, SN, PR, SM, Zeo, Cal J, 40 - 50°, CN, PR, SM J, 60 - 70°, CT, PR, RF, Zeo, Cal J, 50 - 60°, CN, ST, SM J, 10 - 30°, CN, ST, SM
		0% LOSS	100	Is(50) D>6.33 MPa Is(50) A>5.28 MPa	14.50		13.50m: becoming pale grey								
		0% LOSS	100	Is(50) D>5.88 MPa Is(50) A=1.23 MPa	15.00		13.90m: becoming grey, reducing coarse grained dark grey minerals, with possible pyrite	SW - FR							
		0% LOSS	100	Is(50) D>5.90 MPa Is(50)	16.00										

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WSP-AU-GLB Log IS AU CORED BOREHOLE 2A PS212776_MASTER.GPJ -> Drawing File -> 18/6/2024 12:19 10.03.00.09 Datal Lab and In Situ Tool - DGD Lib. WSP 5.03.2 2023-08-23 Proj. WSP 5.04.0 2023-04-11



CORED DRILL HOLE LOG

HOLE NO : BH-009

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FILE / JOB NO : PS212776
SHEET : 4 OF 4

POSITION : E: 527621.45, N: 5252515.83 (MGA2020-55)	SURFACE ELEVATION : 4.13 (AHD)	ANGLE FROM HORIZONTAL : 90°
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DRILLER : GB	DATE STARTED : 10/5/2024	DATE COMPLETED : 11/5/2024
DATE LOGGED : 10/5/2024	LOGGED BY : MIR	CHECKED BY : JRG
CASING DIAMETER : 140 mm	BARREL (Length) : 1.50 m	BIT : IMPREG RC10
		BIT CONDITION : Good


DRILLING				MATERIAL				FRACTURES							
DRILLING & CASING	WATER	CORE LOSS DRILL DEPTH (%)	ROD (%)	SAMPLES & FIELD TESTS	DEPTH (m)	GRAPHIC LOG	DESCRIPTION ROCK TYPE : Colour, Grain size, Structure (texture, fabric, mineral composition, hardness alteration, cementation, etc as applicable)	WEATHERING	ESTIMATED STRENGTH				NATURAL FRACTURE (mm)	VISUAL	ADDITIONAL DATA (joints, partings, seams, zones, etc) Description, orientation, infilling or coating, shape, roughness, thickness, other
									UCS-154 ₂₀₀	UCS-200	UCS-300	UCS-400			
H03	100% Polymer RETURN	0% LOSS	99	A=2.76 MPa Is(50) A>4.94 MPa Is(50) D>6.15 MPa	16.0		DOLERITE: fine to coarse grained, orange-brown, porphyritic. (continued) 16.00m: fine to coarse grained, grey-blue, porphyritic	SW FR	●	○	○	○	20-100		Jx2, 70 - 80°, CT, PR, RF, Zeo, Cal, Fe J, 30 - 40°, CN, PR, SM
		0% LOSS	100	Is(50) D>5.91 MPa Is(50) A>5.95 MPa	17.0		17.05m: fine to medium grained, grey, crystalline, trace pyrite		●	○	○	○	20-100		J, 30°, SN, PR, RF, Fe
		0% LOSS		Is(50) D>6.52 MPa Is(50) A>4.94 MPa 18.65m UCS =153 MPa	18.0				●	○	○	○	20-100		J, 25 - 35°, SN, PR, SM, Cal
					19.0		Hole Terminated at 19.00 m Target depth Grouted to Surface								
					20.0										
					21.0										
					22.0										
					23.0										
					24.0										

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PointID : BH-009 Depth Range: 0.00 - 1.50 m

	TITLE	DRAWN	DATE
	MPDC Macquarie Point Macquarie Point GI Core Photo - BH-009	CHECKED	DATE
		SCALE	FIGURE No
		PROJECT No	
		PS212776	1/9




PointID : BH-009 Depth Range: 1.50 - 4.00 m

	TITLE	DRAWN	DATE
	MPDC Macquarie Point Macquarie Point GI Core Photo - BH-009	CHECKED	DATE
		SCALE	FIGURE No
		PROJECT No	SCALE
		PS212776	2/9




PointID : BH-009 Depth Range: 4.00 - 5.00 m

	TITLE MPDC Macquarie Point Macquarie Point GI Core Photo - BH-009	DRAWN	DATE	18/6/2024
		CHECKED	DATE	18/6/2024
		SCALE	Not To Scale	A4
		PROJECT No PS212776	FIGURE No 3/9	




PointID : BH-009 Depth Range: 5.00 - 6.80 m

	TITLE MPDC Macquarie Point Macquarie Point GI Core Photo - BH-009	DRAWN	DATE	18/6/2024
		CHECKED	DATE	18/6/2024
		SCALE	Not To Scale	A4
		PROJECT No	PS212776	FIGURE No




PointID : BH-009 Depth Range: 6.80 - 8.00 m

	TITLE MPDC Macquarie Point Macquarie Point GI Core Photo - BH-009	DRAWN	DATE	18/6/2024
		CHECKED	DATE	18/6/2024
		SCALE	Not To Scale	A4
		PROJECT No	PS212776	FIGURE No




PointID : BH-009 Depth Range: 8.00 - 9.00 m

	TITLE MPDC Macquarie Point Macquarie Point GI Core Photo - BH-009	DRAWN	DATE
		CHECKED	DATE
		SCALE	A4
		PROJECT No	FIGURE No
		PS212776	6/9




PointID : BH-009 Depth Range: 9.00 - 13.00 m

	TITLE	DRAWN		DATE
	MPDC Macquarie Point Macquarie Point GI Core Photo - BH-009	CHECKED		DATE
		SCALE		FIGURE No
		PROJECT No		
		PS212776		7/9




PointID : BH-009 Depth Range: 13.00 - 17.00 m

	TITLE MPDC Macquarie Point Macquarie Point GI Core Photo - BH-009	DRAWN	DATE	18/6/2024
		CHECKED	DATE	18/6/2024
		SCALE	Not To Scale	A4
		PROJECT No	PS212776	FIGURE No



PointID : BH-009 Depth Range: 17.00 - 19.00 m

	TITLE MPDC Macquarie Point Macquarie Point GI Core Photo - BH-009	DRAWN	DATE	18/6/2024	
		CHECKED	DATE	18/6/2024	
		SCALE	Not To Scale		A4
		PROJECT No	PS212776		FIGURE No