BOREHOLE LOG

CLIENT: Example Pty Ltd
PROJECT: Facility
LOCATION: Somewhere

SURFACE LEVEL: 32.94 m AHD
EASTING: 321040
NORTHING: 5813623
DIP/AZIMUTH: 90°/--

BORE No: BH 1
PROJECT No: 0000001
DATE: 28/9/2020
SHEET 1 OF 3

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Well Construction Details
32	0.2	Concrete.							
		FILL / GRAVEL (GP): fine to medium angular gravel (crushed rock), grey, wet.							
	1.1	at 1 m: geofabric.							
31		FILL / SANDY CLAY (CI): fine to coarse sand, brown, grey, trace basalt gravel, w≤PL, strong hydrocarbon smell.							
				S	2.0		3,5,5 N = 10		
	2.25	SILTY SAND (SP): fine to medium sand, pale grey, dry, loose. (Brighton Group)			2.45				
	2.6	SILTY CLAY (CH): light brown, trace siltstone fragments, W > PL, hard. (Residual)							
30		3 m: hard.							
		3.5 m: mottled pale grey, XW siltstone.		S	3.5		21,25,29 N = 54		
29	3.95				3.95				
	4.0	Core Loss.							
		SILTY CLAY (CH): pale brown, mottled pale grey, w≥ PL, very stiff to hard, with bands of XW-HW siltstone.		C	4.3		pp = 270-480 4.3-4.5 subsample		
28				U_{63}	5.0		pp = 400-400		
					5.35				
27				C	6.0		pp = 200-580		
	6.45	SILTSTONE (HW): very low to low strength, fine grained, pale brown, grey, slightly fractured, friable, wet.			6.5				
26					6.85		6.85- 7 subsample		
				C			6.5 - 6.6 Subsample		
		7.5 m: becoming pale brown, laminated, with brown iron rich layers, steeply bedded.							
25					8.0				
				C					
24					9.5				
	9.6	(HW-MW): low strength.		C			8.95 - 9 subsample		
	10.0								

RIG: GEO Comacchio **DRILLER:** Rock Well Drilling **LOGGED:** MC **CASING:** HQ to 4.2 m

TYPE OF BORING: Concrete coring to 0.2 m; Hand auger to 0.5 m: Solid flight auger to 3.95 m; NMLC coring to end.

WATER OBSERVATIONS: No free groundwater observed.

REMARKS: Location coordinates are in MGA94 Zone 55 H. Standpipe installed upon completion.

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)

Douglas Partners
Geotechnics / Environment / Groundwater

BOREHOLE LOG

CLIENT: Example Pty Ltd
PROJECT: Facility
LOCATION: Somewhere

SURFACE LEVEL: 32.94 m AHD
EASTING: 321040
NORTHING: 5813623
DIP/AZIMUTH: 90°/--

BORE No: BH 1
PROJECT No: 0000001
DATE: 28/9/2020
SHEET 2 OF 3

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Well Construction Details
		SILTSTONE (HW-MW): low strength.							
	10.35	(MW): low to medium strength, brown, fractured, very steeply bedded, with iron rich layers.		C			8.95 - 9 subsample		
22	11				11.0				11
				C					
21	12	12-12.15 m: highly fractured.							12
					12.5				
20	13			C			12-12.05 subsample		13
19	14				14.0				14
				C			13.25-13.5 subsample		
18	15								15
					15.55				
17	16			C			15.05-15.15 subsample		16
16	17	17 m: becoming brown grey, with darker brown veins, becoming grey.			17.0				17
				C					
15	18				18.05				18
	18.8								
14	19	(HW): very low to low strength.		C					19
	19.45	(MW): medium strength, grey, fine to medium grained, fractured, very steeply bedded, laminated, with iron rich orange brown layers.							
	20.0	Bore discontinued at 20.0m			20.0				

RIG: GEO Comacchio **DRILLER:** Rock Well Drilling **LOGGED:** MC **CASING:** HQ to 4.2 m

TYPE OF BORING: Concrete coring to 0.2 m; Hand auger to 0.5 m: Solid flight auger to 3.95 m; NMLC coring to end.

WATER OBSERVATIONS: No free groundwater observed.

REMARKS: Location coordinates are in MGA94 Zone 55 H. Standpipe installed upon completion.

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)

Douglas Partners
Geotechnics / Environment / Groundwater

BOREHOLE LOG

CLIENT: Example Pty Ltd
PROJECT: Facility
LOCATION: Somewhere

SURFACE LEVEL: 32.94 m AHD
EASTING: 321040
NORTHING: 5813623
DIP/AZIMUTH: 90°/--

BORE No: BH 1
PROJECT No: 0000001
DATE: 28/9/2020
SHEET 3 OF 3

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Well Construction Details
12	21			C	20.0				21
					21.55				
11	22			C					22
10	23				23.0				23
9	24								24
8	25								25
7	26								26
6	27								27
5	28								28
4	29								29

RIG: GEO Comacchio **DRILLER:** Rock Well Drilling **LOGGED:** MC **CASING:** HQ to 4.2 m

TYPE OF BORING: Concrete coring to 0.2 m; Hand auger to 0.5 m: Solid flight auger to 3.95 m; NMLC coring to end.

WATER OBSERVATIONS: No free groundwater observed.

REMARKS: Location coordinates are in MGA94 Zone 55 H. Standpipe installed upon completion.

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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BOREHOLE LOG

CLIENT: Example Pty Ltd
PROJECT: Facility
LOCATION: Somewhere

SURFACE LEVEL: 33.39 m AHD
EASTING: 321017
NORTHING: 5813627
DIP/AZIMUTH: 90°/--

BORE No: BH 2
PROJECT No: 0000001
DATE: 29/9/2020
SHEET 1 OF 3

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Well Construction Details
33	0.2	Concrete.							
		FILL / GRAVEL : medium to coarse angular gravel, dark grey, trace clay, wet.							
	0.9								
	1	FILL / CONCRETE.							
32	1.3								
		FILL / SILTY SAND (SP): fine to medium sand, grey and brown, trace basaltic grave, trace clay, moist.							
	1.8								
	2	SILTY CLAY (CH): brown, mottled pale grey, orange, w>PL, very stiff. (Residual)		S	2.0		7,13,15 N = 28		
31					2.45				
	3								
30		3.5 m: hard.		S	3.5		20/36 mm double bouncing		
	3.8				3.8				
	4	Core Loss.							
	4.1								
29		SILTSTONE (XW-HW): very low to low strength, pale brown, fine grained fragments, pale grey clay seam.		C					
	5								
	5.0				5.1				
28		(HW): very low to low strength, slightly fractured, fragmented fe stain or iron crusts at joints.		C					
	6								
27					6.37				
	7			C					
26									
	8								
	8.0				8.1				
25		(MW): low to medium strength, brown, pale grey, slightly fractured.		C					
	9								
24		9.5 m: some laminations, with iron rich layer.			9.7				
	10.0			C					

RIG: GEO Comacchio **DRILLER:** Rock Well Drilling **LOGGED:** MC **CASING:** HQ to 4 m

TYPE OF BORING: Concrete coring to 0.15 m; Solid flight auger to 3.8 m; NMLC coring to end.

WATER OBSERVATIONS: Groundwater between 11.5 and 12.7 m.

REMARKS: Location coordinates are in MGA94 Zone 55 H.

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)

Douglas Partners
Geotechnics / Environment / Groundwater

BOREHOLE LOG

CLIENT: Example Pty Ltd
PROJECT: Facility
LOCATION: Somewhere

SURFACE LEVEL: 33.39 m AHD
EASTING: 321017
NORTHING: 5813627
DIP/AZIMUTH: 90°/--

BORE No: BH 2
PROJECT No: 0000001
DATE: 29/9/2020
SHEET 2 OF 3

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Well Construction Details
23	11	SILTSTONE (MW): predominantly medium strength, brown, pale grey, fractured to slightly fractured.		C					11
22	12			C	11.2				12
21	13			C	12.8				13
20	14			C	14.2				14
19	15			C					15
18	16	15.7 m: fragmented.		C	15.7				16
17	17			C					17
16	18	17.3 m: slightly fractured.		C	17.3				18
15	19			C	18.75				19
14	20.0	Bore discontinued at 20.0m							

RIG: GEO Comacchio **DRILLER:** Rock Well Drilling **LOGGED:** MC **CASING:** HQ to 4 m

TYPE OF BORING: Concrete coring to 0.15 m; Solid flight auger to 3.8 m; NMLC coring to end.

WATER OBSERVATIONS: Groundwater between 11.5 and 12.7 m.

REMARKS: Location coordinates are in MGA94 Zone 55 H.

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: Example Pty Ltd
PROJECT: Facility
LOCATION: Somewhere

SURFACE LEVEL: 33.39 m AHD
EASTING: 321017
NORTHING: 5813627
DIP/AZIMUTH: 90°/--

BORE No: BH 2
PROJECT No: 0000001
DATE: 29/9/2020
SHEET 3 OF 3

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Well Construction Details
				C	20.2				

RIG: GEO Comacchio **DRILLER:** Rock Well Drilling **LOGGED:** MC **CASING:** HQ to 4 m

TYPE OF BORING: Concrete coring to 0.15 m; Solid flight auger to 3.8 m; NMLC coring to end.

WATER OBSERVATIONS: Groundwater between 11.5 and 12.7 m.

REMARKS: Location coordinates are in MGA94 Zone 55 H.

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)

Douglas Partners
Geotechnics / Environment / Groundwater

BOREHOLE LOG

CLIENT: Example Pty Ltd
PROJECT: Facility
LOCATION: Somewhere

SURFACE LEVEL: 33.38 m AHD
EASTING: 321003
NORTHING: 5813609
DIP/AZIMUTH: 90°/--

BORE No: BH 3
PROJECT No: 0000001
DATE: 30/9/2020
SHEET 1 OF 3

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Well Construction Details
33	0.15	Concrete.							
	0.25	FILL / GRAVEL (GP): medium to coarse, angular gravel, dark grey, trace sand, trace clay, wet.							
		SILTY CLAY (CH): pale brown, mottled pale grey, w<PL, hard. (Residual)							
	1	1 m: frequent siltstone fragments.			1.0				1
32				U_{63}	1.25		pp >600		
				S			10,11,14 N = 25		
					1.7				
	2								2
31					2.5				
				S			10,14,20 N = 34		
	3				2.95				3
30									
	4				4.0				4
				S			13/33 mm double bouncing		
29	4.3	SILTY CLAY (CH): pale grey, mottled pale brown, with siltstone fragments, w>PL, hard (EW Siltstone).			4.3				
	4.6	SANDSTONE (MW): fine to medium grained, pale brown, pale grey, highly fractured to fractured, siltstone in parts.		C					
	5				5.0				5
28				C					
	6								6
27					6.5				
	7			C					7
26									
		7.75 m: slightly fractured.							
	8				8.0				8
25				C					
	9								9
24					9.5				
				C					
	10.0								

RIG: GEO Comacchio **DRILLER:** Rock Well Drilling **LOGGED:** MC **CASING:** HQ to 4.3 m

TYPE OF BORING: Concrete coring to 0.15 m; Solid flight auger to 4.3 m; HQ coring to end.

WATER OBSERVATIONS: No free groundwater observed.

REMARKS: Location coordinates are in MGA94 Zone 55 H. Standpipe installed upon completion.

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)

Douglas Partners
Geotechnics / Environment / Groundwater

BOREHOLE LOG

CLIENT: Example Pty Ltd
PROJECT: Facility
LOCATION: Somewhere

SURFACE LEVEL: 33.38 m AHD
EASTING: 321003
NORTHING: 5813609
DIP/AZIMUTH: 90°/--

BORE No: BH 3
PROJECT No: 0000001
DATE: 30/9/2020
SHEET 2 OF 3

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Well Construction Details
23		SANDSTONE (MW): fine to medium grained, pale brown, pale grey, highly fractured to fractured, siltstone in parts. 11.1 m: unbroken.		C					
22	11 11.0	SILTSTONE (MW): low strength, fine grained, grey, with brown sandstone laminae, slightly fractured.		C	11.0				11
21	12								12
	12.6	SANDSTONE (MW): medium to high strength, fine to medium grains, brown, highly fractured, iron staining at joints.		C	12.5				
20	13								13
19	14			C	14.0				14
	14.9	SILTSTONE / SANDSTONE (MW): grey, pale brown, fine to medium grains, fractured to slightly fractured, frequent iron stained and iron crust at joints.			15.35				
18	15			C					15
17	16				16.9				16
16	17			C					17
	18				18.5				18
15	18.5	(MW-SW): medium to high strength.		C	18.7				
				C	18.85				
14	19			C					19
	20.0	Bore discontinued at 20.0m							

RIG: GEO Comacchio **DRILLER:** Rock Well Drilling **LOGGED:** MC **CASING:** HQ to 4.3 m

TYPE OF BORING: Concrete coring to 0.15 m; Solid flight auger to 4.3 m; HQ coring to end.

WATER OBSERVATIONS: No free groundwater observed.

REMARKS: Location coordinates are in MGA94 Zone 55 H. Standpipe installed upon completion.

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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BOREHOLE LOG

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BORE No: BH 3
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SHEET 3 OF 3

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Well Construction Details
13	21			C					21
					21.2				
12	22			C					22
11	23				22.65				23
10	24								24
9	25								25
8	26								26
7	27								27
6	28								28
5	29								29
4									

RIG: GEO Comacchio **DRILLER:** Rock Well Drilling **LOGGED:** MC **CASING:** HQ to 4.3 m

TYPE OF BORING: Concrete coring to 0.15 m; Solid flight auger to 4.3 m; HQ coring to end.

WATER OBSERVATIONS: No free groundwater observed.

REMARKS: Location coordinates are in MGA94 Zone 55 H. Standpipe installed upon completion.

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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