

Appendix K Rotary Boreholes Records

Earth Science Partnership Consulting Engineers Geologists Environmental Scientists						Project Name: Afan Valley Resort		Drilling method Rotary cored		BH01								
						Site Location: Cymmer		Equipment KLEMM										
Start date: 18/05/2022		Driller: APEX		Client: Wildfox Resorts - Afan Valley		Ground Level: 258.36 mOD												
End date: 20/05/2022		Logged by: ESP		Project No: 8053		Easting: 285110 m												
Backfill date: 20/05/2022		Date logged: 20/05/2022				Northing: 195915 m												
Core Details and SPT Data						Strata Details						Water	Depth		Backfill/Installations			
Depth (Length)	TCR (%)	SCR (%)	RQD (%)	FI	SPT-N	Depth	Description			Legend	Strikes/ Standing	Depth (Thickness)	mOD					
					50 (25 for 105mm/50 for 10mm)	0.5	Grass over; very dense dark greyish brown silty clayey fine to coarse angular medium to coarse GRAVEL with a low cobble content. (GRADE VI BRITHDIR MEMBER)											
1.20 - 2.70 (1.50)	13					1.0												
2.70 - 2.90	100				50 (25 for 65mm/50 for 15mm)	1.5												
						2.0												
2.90 - 4.20 (1.30)	69	7	0	NI		2.5												
				NR		3.0	Very dense dark greyish brown coarse subangular sandstone medium strong GRAVEL. (GRADE VI BRITHDIR MEMBER)						255.66	255.46				
						3.5	Weak thinly laminated dark greyish brown stained orange SILTSTONE. Bedding fractures dipping 0 - 10° with clay infill (<10mm). Highly weathered. (GRADE IV BRITHDIR MEMBER)											
						4.0												
4.20 - 5.70 (1.50)	93	36	7	NI		4.5	Medium strong thinly bedded dark grey stained orange and dark brown fine grained SANDSTONE. Bedding fractures dipping 0 - 10° planar and rough with closely spaced beds of fine angular gravel. Moderately weathered. (GRADE III BRITHDIR MEMBER)						254.16					
				NR		5.0												
						5.5												
5.70 - 7.20 (1.50)	100	61	28	5		6.0	Strong thinly bedded dark grey stained orange fine grained SANDSTONE. Bedding fractures dipping 0 - 10° planar and rough clean with rare fine gravel infill (10 - 20mm). Subvertical fractures dipping 60 - 70° closely spaced planar and stepped smooth clean fractures with orange surface staining. Slightly weathered. (GRADE II BRITHDIR MEMBER)						252.66					
						6.5												
						7.0												
7.20 - 8.70 (1.50)	100	67	37	2		7.5												
						8.0												
						8.5												
8.70 - 10.20 (1.50)	100	95	85			9.0	Strong thinly to medium bedded dark grey medium and coarse grained SANDSTONE with extremely closely spaced thin (<2mm) coal laminations. Bedding fractures dipping 0 - 10° planar and rough clean. Subvertical to vertical fractures dipping 60 - 90° medium spaced planar and stepped smooth clean fractures with rare						249.66					
						9.5												
Progress & Standing Water Levels					Water Strikes								Hole Diameter				Casing Diameter	
Date	Time	Hole Depth	Casing Depth	Water Depth	Date	Time	Strike Depth	Casing Depth	Elapsed Minutes	Depth to Water	Depth Sealed				Hole Depth	Hole Diameter	Casing Diameter	Casing Depth
18-05-2022	05:00	10.20	2.90	Dry											30.60	78	152	2.90
19-05-2022	08:00	10.20	2.90	Dry														
19-05-2022	05:00	26.10	2.90	16														
20-05-2022	08:00	26.10	2.90	18														
20-05-2022	12:00	30.60	2.90	27														
General Remarks																		
1. Coordinates and ground levels obtained using Geode GNS2 - Horizontal accuracy <30cm. Vertical accuracy <50cm.																		
2. Service plans inspected and borehole position scanned with CAT & Genny prior to breaking ground. Hand excavated service inspection pit dug to 1.2m depth.																		
3. See separate detailed remarks sheet for further borehole information.																		

Earth Science Partnership

Consulting Engineers | Geologists | Environmental Scientists

Project Name:

Afan Valley Resort

Site Location:

Cymmer

Client:

Wildfox Resorts - Afan Valley

Project No:

8053

Drilling method

Rotary cored

Equipment

KLEMM

Ground Level:

258.36 mOD

Easting:

285110 m

Northing:

195915 m

Start date:

18/05/2022

End date:

20/05/2022

Backfill date:

20/05/2022

Driller:

APEX

Logged by:

ESP

Date logged:

20/05/2022

BH01

Core Details and SPT Data

Depth (Length)	TCR (%)	SCR (%)	RQD (%)	FI	SPT-N
10.20 - 11.70 (1.50)	100	99	93	0	
11.70 - 12.70 (1.00)	100	91	78		
12.70 - 14.20 (1.50)	100	94	94		
14.20 - 15.70 (1.50)	100	77	70	4	
15.70 - 17.20 (1.50)	100	61	43	8	
17.20 - 18.70 (1.50)	97	17	17	13	
				NI	
				16	
18.70 - 20.10 (1.40)	94	42	42	7	

Strata Details

Depth	Description	Legend
10.5	Strong thinly to medium bedded dark grey medium and coarse grained SANDSTONE with extremely closely spaced thin (<2mm) coal laminations. Bedding fractures dipping 0 - 10° planar and rough clean. Subvertical to vertical fractures dipping 60 - 90° medium spaced planar and stepped smooth clean fractures with rare orange surface staining. Fresh. (GRADE I BRITHDIR MEMBER)	
11.0		
11.5		
12.0		
12.5	between 10.6 to 11.6m: vertical undulating smooth clean fracture with orange surface staining.	
13.0		
13.5		
14.0		
14.5		
15.0	between 15.0 to 15.7m: vertical planar and undulating smooth clean fracture with orange surface staining.	
15.5		
16.0	Medium strong to strong thinly laminated dark grey MUDSTONE. Bedding fractures dipping 0 to 5° planar and rough with orange surface staining. Slightly weathered. (GRADE II BRITHDIR MEMBER)	
16.5		
17.0		
17.5	between 17.2 - 18.25: clean planar vertical fracture with surface orange staining. between 17.2 and 18.7: recovered liner damp.	
18.0		
18.5	Medium strong thinly bedded dark grey coarse grained SANDSTONE. Bedding fractures dipping 0 - 5° planar and rough with orange surface staining and occasional clay/silt infill (<5mm). Vertical fractures dipping 90° medium spaced undulating and rough clean fractures with orange surface staining. Slightly weathered. (GRADE II BRITHDIR MEMBER)	
19.0		
19.5		

Water

Strikes/ Standing	Depth (Thickness)	mOD
	(7.00)	
	15.70	242.66
	(2.55)	
	18.25	240.11
	(3.00)	

Backfill/ Install- ations

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Progress & Standing Water Levels

Date	Time	Hole Depth	Casing Depth	Water Depth
18-05-2022	05:00	10.20	2.90	Dry
19-05-2022	08:00	10.20	2.90	Dry
19-05-2022	05:00	26.10	2.90	16
20-05-2022	08:00	26.10	2.90	18
20-05-2022	12:00	30.60	2.90	27

Water Strikes

Date	Time	Strike Depth	Casing Depth	Elapsed Minutes	Depth to Water	Depth Sealed

Hole Diameter

Hole Depth	Hole Diameter
30.60	78

Casing Diameter

Casing Diameter	Casing Depth
152	2.90

General Remarks

1. Coordinates and ground levels obtained using Geode GNS2 - Horizontal accuracy <30cm. Vertical accuracy <50cm.

2. Service plans inspected and borehole position scanned with CAT & Genny prior to breaking ground. Hand excavated service inspection pit dug to 1.2m depth.

3. See separate detailed remarks sheet for further borehole information.

Earth Science Partnership

Consulting Engineers | Geologists | Environmental Scientists

Project Name:

Afan Valley Resort

Site Location:

Cymmer

Client:

Wildfox Resorts - Afan Valley

Project No:

8053

Drilling method

Rotary cored

Equipment

KLEMM

Ground Level:

258.36 mOD

Easting:

285110 m

Northing:

195915 m

Start date:

18/05/2022

End date:

20/05/2022

Backfill date:

20/05/2022

Driller:

APEX

Logged by:

ESP

Date logged:

20/05/2022

BH01

Core Details and SPT Data

Depth (Length)	TCR (%)	SCR (%)	RQD (%)	FI	SPT-N
20.10 - 21.60 (1.50)	100	43	43	7	
21.60 - 23.10 (1.50)	93	14	7	9	
23.10 - 24.60 (1.50)	100	54	48	10	
24.60 - 26.10 (1.50)	93	68	60	12	
26.10 - 27.60 (1.50)	87	75	68	10	
27.60 - 29.10 (1.50)	100	90	86	10	
29.10 - 30.60 (1.50)	97	69	30	14	

Strata Details

Depth	Description	Legend
20.5	Medium strong thinly bedded dark grey coarse grained SANDSTONE. Bedding fractures dipping 0 - 5° planar and rough with orange surface staining and occasional clay/silt infill (<5mm). Vertical fractures dipping 90° medium spaced undulating and rough clean fractures with orange surface staining. Slightly weathered. (GRADE II BRITHDIR MEMBER)	
21.0		
21.5	between 20.1 and 21.6m: fracture infill becoming sandy.	
22.0	Black COAL (POSSIBLE BRITHDIR SEAM)	
22.5	Medium strong thinly bedded dark grey coarse grained SANDSTONE. Bedding fractures dipping 0 - 5° planar and rough with orange surface staining and occasional clay/silt infill (<5mm). Vertical fractures dipping 90° medium spaced undulating and rough clean fractures with orange surface staining. Slightly weathered. (GRADE II RHONDDA MEMBER)	
23.0		
23.5	below 21.6m: fractures are clean.	
24.0	Medium strong thinly laminated dark grey MUDSTONE. Bedding fractures dipping 5° planar and rough with rare surface orange staining. Vertical fractures dipping 85 - 90° medium spaced rough planar. Fresh. (GRADE I RHONDDA MEMBER)	
24.5		
25.0	below 23.1m: common orange staining on fractures. between 23.1 and 23.4m: two parallel subvertical (70°) planar rough fractures with penetrating orange staining (<5mm).	
25.5	Medium strong to strong thickly bedded dark grey SANDSTONE. Bedding fractures dipping 5° planar and rough with rare surface orange staining and silty sand infill (<10mm). Vertical fractures dipping 85 - 90° medium spaced rough planar. Slightly weathered. (GRADE II RHONDDA MEMBER)	
26.0		
26.5	below 26.1m: no infill. between 26.1 and 26.4m: vertical planar rough fracture with quartz vein infill (<5mm).	
27.0		
27.5		
28.0	between 27.6 and 30.6m: secondary fracture set dipping at 40°. Fractures are planar smooth with surface orange staining, clean. between 27.9 and 29.0m: closely spaced vertical (90°) fractures.	
28.5		
29.0		
29.5		

Water

Strikes/ Standing

Depth

Depth (Thickness)	mOD
21.25 (0.05)	237.11
21.30 (1.15)	237.06
22.45	235.91
25.20	233.16
(5.40)	

Backfill/ Installations

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Progress & Standing Water Levels

Date	Time	Hole Depth	Casing Depth	Water Depth
18-05-2022	05:00	10.20	2.90	Dry
19-05-2022	08:00	10.20	2.90	Dry
19-05-2022	05:00	26.10	2.90	16
20-05-2022	08:00	26.10	2.90	18
20-05-2022	12:00	30.60	2.90	27

Water Strikes

Date	Time	Strike Depth	Casing Depth	Elapsed Minutes	Depth to Water	Depth Sealed

Hole Diameter

Hole Depth	Hole Diameter
30.60	78

Casing Diameter

Casing Diameter	Casing Depth
152	2.90

General Remarks

1. Coordinates and ground levels obtained using Geode GNS2 - Horizontal accuracy <30cm. Vertical accuracy <50cm.

2. Service plans inspected and borehole position scanned with CAT & Genny prior to breaking ground. Hand excavated service inspection pit dug to 1.2m depth.

3. See separate detailed remarks sheet for further borehole information.

Earth Science Partnership

Consulting Engineers | Geologists | Environmental Scientists

Consulting Engineers | Geologists | Environmental Scientists

Start date:	18/05/2022
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Driller: APEX

End date: 20/05/2022

Logged by: ESP

Backfill date: 20/05/2022

Date logged: 20/05/2022

Project Name:

Afan Valley Resort

Site Location:

Cymmer

Client:

Wildfox Resorts - Afan Valley

Project No:

8053

Drilling method

Rotary cored

Equipment

KLEMM

Ground Level: 258.36 mOD

Easting: 285110 m

Northing: 195915 m

BH01

Core Details and SPT Data						Strata Details			Water	Depth		Backfill/ Install- ations
Depth (Length)	TCR (%)	SCR (%)	RQD (%)	FI	SPT-N	Depth	Description	Legend	Strikes/ Standing	Depth (Thickness)	mOD	
						30.5	Medium strong to strong thickly bedded dark grey SANDSTONE. Bedding fractures dipping 5° planar and rough with rare surface orange staining and silty sand infill (<10mm). Vertical fractures dipping 85 - 90° medium spaced rough planar. Slightly weathered. (GRADE II RHONDDA MEMBER)			30.60	227.76	
						31.0	End of Borehole at 30.600m					
						31.5						
						32.0						
						32.5						
						33.0						
						33.5						
						34.0						
						34.5						
						35.0						
						35.5						
						36.0						
						36.5						
						37.0						
						37.5						
						38.0						
						38.5						
						39.0						
						39.5						

[illegible]

General Remarks	
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1. Coordinates and ground levels obtained using Geode GNS2 - Horizontal accuracy <30cm. Vertical accuracy <50cm.
2. Service plans inspected and borehole position scanned with CAT & Genny prior to breaking ground. Hand excavated service inspection pit dug to 1.2m depth.
3. See separate detailed remarks sheet for further borehole information.

Earth Science Partnership

Consulting Engineers | Geologists | Environmental Scientists

Project Name:

Afan Valley Resort

Site Location:

Cymmer

Client:

Wildfox Resorts - Afan Valley

Project No:

8053

Drilling method

Rotary cored

Equipment

KLEMM

Ground Level:

293.60 mOD

Easting:

285339 m

Northing:

195638 m

Start date:

19/05/2022

End date:

23/05/2022

Backfill date:

23/05/2022

Driller:

APEX

Logged by:

ESP

Date logged:

23/05/2022

BH02

Core Details and SPT Data

Depth (Length)	TCR (%)	SCR (%)	RQD (%)	FI	SPT-N
					13 (1,1/1,2,3,7)
				NR	
					41 (1,4/6,10,15,10)
				NI	
2.00 - 3.20 (1.20)	46	21	0	NR	
3.20 - 4.70 (1.50)	97	97	0	>15	
4.70 - 6.20 (1.50)	100	100	7	15	
6.20 - 7.70 (1.50)	100	100	63	>15 0	
7.70 - 9.20 (1.50)	60	27	0	14 NR	
9.20 - 10.70 (1.50)	80	73	47	5	

Strata Details

Depth	Description	Legend
0.5	Grass over; orange brown silty fine to coarse SAND and GRAVEL. Gravel is angular to subangular sandstone. (GRADE VI RHONDDA MEMBER)	
1.0	Dark greenish grey slightly silty very sandy medium to coarse GRAVEL with many cobbles. Gravel is angular sandstone. (GRADE VI RHONDDA MEMBER)	
1.5	bedrock recovered as; light brown angular sandstone COBBLES (GRADE V RHONDDA MEMBER)	
2.0	between 0.8 - 1.7 m: inferred from observations - no recovery	
2.5	Strong to very strong light grey with occasional orange brown mottling very thinly to medium bedded fine to medium SANDSTONE with occasional beds (up to 150mm) of angular coarse gravel. Bedding fractures dipping 5 - 20° rough and smooth with orange brown and black staining. Subvertical fractures dipping 20° closely spaced undulating rough with orange brown and black staining. Slightly weathered. (GRADE II RHONDDA MEMBER)	
3.0		
3.5		
4.0		
4.5		
5.0		
5.5		
6.0		
6.5		
7.0		
7.5		
8.0		
8.5		
9.0		
9.5		

Water

Strikes/ Standing

Depth

Depth (Thickness)	mOD
(0.30)	293.30
0.30	
(0.50)	292.80
0.80	
(1.20)	
2.00	291.60
(8.50)	

Backfill/ Install- ations

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Progress & Standing Water Levels

Date	Time	Hole Depth	Casing Depth	Water Depth

Water Strikes

Date	Time	Strike Depth	Casing Depth	Elapsed Minutes	Depth to Water	Depth Sealed

Hole Diameter

Hole Depth	Hole Diameter
31.20	78

Casing Diameter

Casing Diameter	Casing Depth
152	1.70

General Remarks

1. Coordinates and ground levels obtained using Geode GNS2 - Horizontal accuracy <30cm. Vertical accuracy <50cm.

2. Service plans inspected and borehole position scanned with CAT & Genny prior to breaking ground. Hand excavated service inspection pit dug to 1.2m depth.

3. See separate detailed remarks sheet for further borehole information.

Earth Science Partnership Consulting Engineers Geologists Environmental Scientists						Project Name: Afan Valley Resort		Drilling method Rotary cored		BH02								
						Site Location: Cymmer		Equipment KLEMM										
Start date: 19/05/2022		Driller: APEX		Client: Wildfox Resorts - Afan Valley		Ground Level: 293.60 mOD												
End date: 23/05/2022		Logged by: ESP		Project No: 8053		Easting: 285339 m												
Backfill date: 23/05/2022		Date logged: 23/05/2022				Northing: 195638 m												
Core Details and SPT Data						Strata Details						Water	Depth		Backfill/Installations			
Depth (Length)	TCR (%)	SCR (%)	RQD (%)	FI	SPT-N	Depth	Description				Legend	Strikes/ Standing	Depth (Thickness)	mOD				
						10.5	Strong to very strong light grey with occasional orange brown mottling very thinly to medium bedded fine to medium SANDSTONE with occasional beds (up to 150mm) of angular coarse gravel. Bedding fractures dipping 5 - 20° rough and smooth with orange brown and black staining. Subvertical fractures dipping 20° closely spaced undulating rough with orange brown and black staining. Slightly weathered. (GRADE II RHONDDA MEMBER)						10.50 (0.30)	283.10				
10.70 - 12.20 (1.50)	67	53	0	NI		11.0	Bedrock recovered as: black fine to medium angular coal gravel. (RHONDDA MEMBER - PROBABLE No.1 RHONDDA COAL SEAM)						10.80 (0.30)	282.80				
				NR		11.5	COAL recovered as: black fine to medium angular coal gravel. (RHONDDA MEMBER - PROBABLE No.1 RHONDDA COAL SEAM)						11.10 (0.30)	282.50				
						12.0	Bedrock recovered as: black fine to medium angular coal gravel. (RHONDDA MEMBER - PROBABLE No.1 RHONDDA COAL SEAM)						11.40 (0.10)	282.20				
						12.5	Bedrock recovered as: soft grey very gravelly very sandy silty CLAY. (RHONDDA MEMBER)						11.50 (1.30)	282.10				
12.20 - 13.70 (1.50)	90	87	11	10		13.0	Medium strong to strong dark grey thinly bedded fine to medium SANDSTONE. Bedding fractures dipping 5 - 10° planar smooth with orange brown and red brown staining. Subvertical fractures dipping 70° closely spaced undulating rough with dark orange brown staining. Slightly weathered. (GRADE II RHONDDA MEMBER)						12.80 (0.60)	280.80				
						13.5	Weak to medium strong thinly laminated dark grey MUDSTONE. Bedding fractures dipping 0 - 5° planar smooth with orange brown and red brown staining. Subvertical fractures dipping 70° planar smooth and rough with orange brown staining. Slightly weathered. (GRADE II RHONDDA MEMBER)						13.40 (1.50)	280.20				
13.70 - 15.20 (1.50)	100	97	33	9		14.0	Medium strong to strong dark grey thinly bedded fine to medium SANDSTONE. Slightly weathered. Bedding fractures dipping 5 - 10° planar smooth with orange brown and red brown staining. Subvertical fractures dipping 70 - 80° closely spaced undulating rough with dark orange brown staining. Slightly weathered. (GRADE II RHONDDA MEMBER)						14.90 (1.50)	278.70				
						14.5	below 14.0m: closely spaced thin (<1cm) black bands.											
15.20 - 16.70 (1.50)	97	97	40	2		15.0	Medium strong thinly to medium bedded dark grey SILTSTONE with occasional beds (up to 400mm) of gravelly clay and coarse angular siltstone gravel. Bedding fractures dipping 0 - 10° planar and undulating smooth with rare orange brown staining. Subvertical fractures dipping 60 - 80° closely to medium spaced undulating rough with dark orange brown staining. Slightly weathered. (GRADE II RHONDDA MEMBER)											
						15.5												
16.70 - 18.20 (1.50)	100	100	67	5		16.0												
						16.5												
18.20 - 19.70 (1.50)	80	53	20	9		17.0												
				NI		17.5												
				NR		18.0												
						18.5												
						19.0												
						19.5												
Progress & Standing Water Levels						Water Strikes						Hole Diameter				Casing Diameter		
Date	Time	Hole Depth	Casing Depth	Water Depth		Date	Time	Strike Depth	Casing Depth	Elapsed Minutes	Depth to Water	Depth Sealed			Hole Depth	Hole Diameter	Casing Diameter	Casing Depth
															31.20	78	152	1.70
General Remarks																		
1. Coordinates and ground levels obtained using Geode GNS2 - Horizontal accuracy <30cm. Vertical accuracy <50cm.																		
2. Service plans inspected and borehole position scanned with CAT & Genny prior to breaking ground. Hand excavated service inspection pit dug to 1.2m depth.																		
3. See separate detailed remarks sheet for further borehole information.																		

General Remarks	
1.	Coordinates and ground levels obtained using Geode GNS2 - Horizontal accuracy <30cm. Vertical accuracy <50cm.
2.	Service plans inspected and borehole position scanned with CAT & Genny prior to breaking ground. Hand excavated service inspection pit dug to 1.2m depth.
3.	See separate detailed remarks sheet for further borehole information.

Consulting Engineers | Geologists | Environmental Scientists

Consulting Engineers | Geologists | Environmental Scientists

Backfill date: 23/05/2022

Date logged: 23/05/2022

8053

Northing: 195638 m

BH02

Core Details and SPT Data						Strata Details			Water	Depth		Backfill/ Install- ations
Depth (Length)	TCR (%)	SCR (%)	RQD (%)	FI	SPT-N	Depth	Description	Legend	Strikes/ Standing	Depth (Thickness)	mOD	
29.70 - 31.20 (1.50)	97	97	53	7		30.5	Very strong medium bedded dark grey fine to medium SANDSTONE with occasional beds (up to 300mm) of coarse angular cobbles and gravel. Bedding fractures dipping 0 - 10° planar and undulating smooth with occasional orange brown staining. Secondary fractures dipping 40° closely spaced planar rough with orange brown staining. Subvertical fractures dipping 75 - 80° closely to medium spaced undulating rough with dark orange brown staining. Slightly weathered. (GRADE II RHONDDA MEMBER)			31.20	262.40	
				NR		31.0	End of Borehole at 31.200m					
						31.5						
						32.0						
						32.5						
						33.0						
						33.5						
						34.0						
						34.5						
						35.0						
						35.5						
						36.0						
						36.5						
						37.0						
						37.5						
						38.0						
						38.5						
						39.0						
						39.5						

[illegible]

General Remarks	
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1. Coordinates and ground levels obtained using Geode GNS2 - Horizontal accuracy <30cm. Vertical accuracy <50cm.
2. Service plans inspected and borehole position scanned with CAT & Genny prior to breaking ground. Hand excavated service inspection pit dug to 1.2m depth.
3. See separate detailed remarks sheet for further borehole information.

Earth Science Partnership						Project Name:		Drilling method		BH03											
Consulting Engineers Geologists Environmental Scientists						Afan Valley Resort		Rotary cored													
Start date: 16/05/2022 End date: 18/05/2022 Backfill date: 18/05/2022						Site Location:		Equipment													
						Cymmer		KLEMM													
Driller: APEX						Client:		Ground Level: 313.97 mOD													
Logged by: ESP						Wildfox Resorts - Afan Valley		Easting: 285297 m													
Date logged: 18/05/2022						Project No: 8053		Northing: 195340 m													
Core Details and SPT Data						Strata Details				Water	Depth		Backfill/Installations								
Depth (Length)	TCR (%)	SCR (%)	RQD (%)	FI	SPT-N	Depth	Description			Legend	Strikes/ Standing	Depth (Thickness)	mOD								
1.20 - 2.70 (1.50)	100	45	7	NI	50 (25 for 130mm/50 for 15mm)	0.5	Very dark grey to black gravelly sandy SILT. Gravel is angular to subangular fine to coarse sandstone. (TOPSOIL)					(0.50)	313.47								
				1.0		Light greyish brown very silty fine to coarse SAND and GRAVEL with a low cobble content. Gravel is fine to coarse angular to subangular sandstone. Cobbles are angular sandstone (GRADE VI RHONDDA MEMBER)				0.50											
				1.5		Very dense orange-brown very silty fine to coarse SAND and GRAVEL. Gravel is fine to coarse angular to subangular sandstone. (GRADE VI RHONDDA MEMBER)				(0.40)											
				2.0						0.90											
				2.5						(0.30)											
2.70 - 4.20 (1.50)	100	23	0	NI		3.0	Medium strong and strong thinly to medium bedded dark grey coarse grained SANDSTONE. Bedding fractures dipping 0 - 20° planar to undulating and smooth with orange and brown surface staining and rare clay infill (<10mm). Subvertical fractures dipping 70° medium spaced planar and undulating and rough with up to 5mm dark brown penetrative staining, clean. Slightly weathered. (GRADE II RHONDDA MEMBER) between 2.7 and 2.8m: recovered as fine to medium angular gravel. between 2.9 and 3.0m: recovered as fine to medium angular gravel. between 3.0 and 3.9m: vertical fracture, planar and rough with dark brown staining and fine gravel infill (<10mm) between 4.5 to 4.7m: 60° incipient fracture with 5mm penetrative orange staining. below 4.7: rare thin (<5mm) coal bands.					(5.50)			312.77						
				3.5																	
				4.0																	
				4.5																	
				5.0																	
4.20 - 5.70 (1.50)	100	67	15	4	5.5																
				6.0																	
				6.5																	
				7.0	Strong thinly bedded pale and dark grey coarse grained SANDSTONE with very closely spaced thin coal laminae (<5mm). Bedding fractures dipping 0 to 10° planar and smooth, clean. Fresh. (GRADE I RHONDDA MEMBER) between 7.0 and 7.8m: subvertical (70°) fracture undulating and rough with orange surface staining.								6.70	307.27							
				7.5																	
5.70 - 6.70 (1.00)	85	35	17	NI	8.0	Strong thinly bedded dark grey medium grained SANDSTONE. Bedding fractures dipping 0 - 5° planar and undulating with orange and brown surface staining. Vertical to subvertical fractures dipping 75 - 90°, closely spaced planar undulating and rough with black gravelly clay infill (<20mm). Slightly weathered. (GRADE II RHONDDA MEMBER) between 9.6 and 9.7m: recovered as dark greyish black medium angular gravel.						8.00			305.97						
				2	8.5																
				NR	9.0																
				2	9.5																
				3																	
6.70 - 8.20 (1.50)	100	78	56	NI															(1.70)	304.27	
				3																	
				NI																	
8.20 - 9.70 (1.50)	100	20	9	3																	
				NI																	
Progress & Standing Water Levels						Water Strikes						Hole Diameter				Casing Diameter					
Date	Time	Hole Depth	Casing Depth	Water Depth	Date	Time	Strike Depth	Casing Depth	Elapsed Minutes		Depth to Water	Depth Sealed				Hole Depth	Hole Diameter	Casing Diameter	Casing Depth		
16-05-2022	05:00	15.70	1.20	Dry												30.70	103	152	1.20		
17-05-2022	08:00	15.70	1.20	Dry																	
17-05-2022	05:00	29.20	1.20	Dry																	
18-05-2022	08:00	29.20	1.20	26																	
18-05-2022	12:00	30.70	1.20	26																	
General Remarks																					
1. Coordinates and ground levels obtained using Geode GNS2 - Horizontal accuracy <30cm. Vertical accuracy <50cm.																					
2. Service plans inspected and borehole position scanned with CAT & Genny prior to breaking ground. Hand excavated service inspection pit dug to 1.2m depth																					
3. See separate detailed remarks sheet for further borehole information.																					

Earth Science Partnership

Consulting Engineers | Geologists | Environmental Scientists

Project Name:

Afan Valley Resort

Site Location:

Cymmer

Client:

Wildfox Resorts - Afan Valley

Project No:

8053

Drilling method

Rotary cored

Equipment

KLEMM

Ground Level:

313.97 mOD

Easting:

285297 m

Northing:

195340 m

Start date:

16/05/2022

End date:

18/05/2022

Backfill date:

18/05/2022

Driller:

APEX

Logged by:

ESP

Date logged:

18/05/2022

BH03

Core Details and SPT Data

Strata Details

Water

Depth

Backfill/Installations

Depth (Length)	TCR (%)	SCR (%)	RQD (%)	FI	SPT-N	Depth	Description	Legend	Strikes/ Standing	Depth (Thickness)	mOD	
9.70 - 11.20 (1.50)	100	76	54	5		10.5	Very strong medium bedded grey coarse grained SANDSTONE with very closely spaced thin coal laminae (<5mm). Bedding fractures dipping 0 - 10° planar and smooth with rare fine gravel infill (<5mm). Subvertical fractures dipping 67 - 75° medium spaced planar and rough with brown surface staining. Fresh. (GRADE I RHONDDA MEMBER)			(2.70)		
11.20 - 12.70 (1.50)	100	77	72			11.0						
						11.5						
				20		12.0						
				NI		12.5	Medium strong thinly laminated dark brown and grey SILTSTONE with thin coal laminae (<5mm). Orange and brown surface staining. Moderately weathered. (POSSIBLE FIELD VEIN COAL SEAM)			12.40	301.57	
						13.0				(0.10)	301.47	
						13.5				12.50		
12.70 - 14.20 (1.50)	93	56	38	2		14.0	Bedrock recovered as: weak dark brown weakly cemented coarse angular sandstone GRAVEL. Completely weathered. (GRADE VI RHONDDA MEMBER)			(0.45)	301.02	
						14.5				12.95	300.87	
						15.0				(0.15)		
14.20 - 15.70 (1.50)	100	62	41	NR		15.5	between 12.6 and 12.7: recovered as medium brown fine to coarse grained gravelly SAND. Very weakly cemented.			(0.30)	300.57	
						16.0				13.10	300.52	
						16.5				13.40		
15.70 - 17.20 (1.50)	93	52	43	3		17.0	between 12.5 and 13.0m: no loss of flush recorded.			(0.05)		
						17.5				13.80		
						18.0						
17.20 - 18.70 (1.50)	100	90	81	2		18.5	Bedrock recovered as: weak dark greyish brown mottled black medium angular clayey sandstone GRAVEL. Completely weathered. (POSSIBLE FIELD VEIN COAL SEAM)					
						19.0						
						19.5						
18.70 - 20.20 (1.50)	100	47	21				Medium strong thinly laminated dark brown and grey SILTSTONE with coal clasts (<20mm). Orange and brown surface staining. Moderately weathered. (GRADE III RHONDDA MEMBER)			(5.50)		
							Bedrock recovered as; dark brownish grey clayey fine to medium angular siltstone GRAVEL with fine coal gravels. (POSSIBLE FIELD VEIN COAL SEAM)					
							Strong dark greyish brown CONGLOMERATE with fine to medium matrix and fine to medium rounded coal, siltstone and sandstone clasts up to 30mm. (GRADE II POSSIBLE RHONDDA MEMBER)					
							Very strong medium bedded grey coarse grained SANDSTONE with rare thin coal laminae (<5mm) and rare coal clasts. Bedding fractures dipping 0 - 10° planar and smooth with rare fine gravel infill (<10mm). Subvertical fractures dipping 60 - 70° medium spaced planar undulating and rough with brown surface staining. Slightly weathered. (GRADE II POSSIBLE RHONDDA MEMBER)					
							between 13.85 and 13.9m: black angular coarse coal GRAVEL.					
							between 14.4 and 14.45m: black angular coarse coal GRAVEL.					
							between 16.2 and 17.2m: locally slightly weathered with dark brown and orange staining. below 18.0m: very closely spaced coal laminae (<5mm)					
										19.30	294.67	

Progress & Standing Water Levels

Water Strikes

Hole Diameter

Casing Diameter

Date	Time	Hole Depth	Casing Depth	Water Depth	Date	Time	Strike Depth	Casing Depth	Elapsed Minutes	Depth to Water	Depth Sealed				Hole Depth	Hole Diameter	Casing Diameter	Casing Depth
16-05-2022	05:00	15.70	1.20	Dry											30.70	103	152	1.20
17-05-2022	08:00	15.70	1.20	Dry														
17-05-2022	05:00	29.20	1.20	Dry														
18-05-2022	08:00	29.20	1.20	26														
18-05-2022	12:00	30.70	1.20	26														

General Remarks

1. Coordinates and ground levels obtained using Geode GNS2 - Horizontal accuracy <30cm. Vertical accuracy <50cm.

2. Service plans inspected and borehole position scanned with CAT & Genny prior to breaking ground. Hand excavated service inspection pit dug to 1.2m depth

3. See separate detailed remarks sheet for further borehole information.

Earth Science Partnership

Consulting Engineers | Geologists | Environmental Scientists

Project Name:

Afan Valley Resort

Site Location:

Cymmer

Client:

Wildfox Resorts - Afan Valley

Project No:

8053

Drilling method

Rotary cored

Equipment

KLEMM

Ground Level:

313.97 mOD

Easting:

285297 m

Northing:

195340 m

Start date:

16/05/2022

End date:

18/05/2022

Backfill date:

18/05/2022

Driller:

APEX

Logged by:

ESP

Date logged:

18/05/2022

BH03

Core Details and SPT Data

Depth (Length)	TCR (%)	SCR (%)	RQD (%)	FI	SPT-N
20.20 - 21.70 (1.50)	100	52	24	>20	
21.70 - 23.20 (1.50)	100	55	37	15	
23.20 - 24.70 (1.50)	100	59	29	>20	
24.70 - 26.20 (1.50)	100	90	74	1	
26.20 - 27.70 (1.50)	100	89	74		
27.70 - 29.20 (1.50)	100	97	97	1	
29.20 - 30.70 (1.50)	100	100	93		

Strata Details

Depth	Description	Legend
20.5	Medium strong dark grey thinly laminated MUDSTONE. Closely spaced beds (up to 50mm) of fine to medium angular gravel. Slightly weathered. (GRADE II POSSIBLE LLYNFI MEMBER)	
21.0		
21.5	between 21.2 and 21.3m: locally grades to SANDSTONE.	
22.0		
22.5		
23.0		
23.5		
24.0		
24.5		
25.0	Very strong medium bedded grey coarse grained SANDSTONE with closely spaced thin coal laminae (<5mm). Bedding fractures dipping 0 - 10° planar and smooth with rare fine gravel infill <20mm). Subvertical fractures dipping 60 - 70° medium spaced, planar undulating and rough with brown surface staining. Fresh. (GRADE I POSSIBLE LLYNFI MEMBER)	
25.5		
26.0		
26.5		
27.0		
27.5		
28.0		
28.5		
29.0		
29.5		

Water

Strikes/ Standing

Depth

Depth (Thickness)	mOD
(5.40)	
24.70	289.27
(6.00)	

Backfill/ Install- ations

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Progress & Standing Water Levels

Date	Time	Hole Depth	Casing Depth	Water Depth
16-05-2022	05:00	15.70	1.20	Dry
17-05-2022	08:00	15.70	1.20	Dry
17-05-2022	05:00	29.20	1.20	Dry
18-05-2022	08:00	29.20	1.20	26
18-05-2022	12:00	30.70	1.20	26

Water Strikes

Date	Time	Strike Depth	Casing Depth	Elapsed Minutes	Depth to Water	Depth Sealed

Hole Diameter

Hole Depth	Hole Diameter
30.70	103

Casing Diameter

Casing Diameter	Casing Depth
152	1.20

General Remarks

1. Coordinates and ground levels obtained using Geode GNS2 - Horizontal accuracy <30cm. Vertical accuracy <50cm.

2. Service plans inspected and borehole position scanned with CAT & Genny prior to breaking ground. Hand excavated service inspection pit dug to 1.2m depth

3. See separate detailed remarks sheet for further borehole information.

Earth Science Partnership Consulting Engineers Geologists Environmental Scientists						Project Name: Afan Valley Resort Site Location: Cymmer Client: Wildfox Resorts - Afan Valley Project No: 8053			Drilling method: Rotary cored Equipment: KLEMM Ground Level: 313.97 mOD Easting: 285297 m Northing: 195340 m			BH03						
Start date: 16/05/2022		Driller: APEX		End date: 18/05/2022		Logged by: ESP		Backfill date: 18/05/2022		Date logged: 18/05/2022								
Core Details and SPT Data						Strata Details						Water	Depth		Backfill/Installations			
Depth (Length)		TCR (%)	SCR (%)	RQD (%)	FI	SPT-N	Depth	Description			Legend	Strikes/Standing	Depth (Thickness)	mOD				
							30.5	Very strong medium bedded grey coarse grained SANDSTONE with closely spaced thin coal laminae (<5mm). Bedding fractures dipping 0 - 10° planar and smooth with rare fine gravel infill <20mm). Subvertical fractures dipping 60 - 70° medium spaced, planar undulating and rough with brown surface staining. Fresh. (GRADE I POSSIBLE LLYNFI MEMBER)					30.70	283.27				
							31.0											
							31.5	End of Borehole at 30.700m										
							32.0											
							32.5											
							33.0											
							33.5											
							34.0											
							34.5											
							35.0											
							35.5											
							36.0											
							36.5											
							37.0											
							37.5											
							38.0											
							38.5											
							39.0											
							39.5											
Progress & Standing Water Levels						Water Strikes									Hole Diameter		Casing Diameter	
Date	Time	Hole Depth	Casing Depth	Water Depth	Date	Time	Strike Depth	Casing Depth	Elapsed Minutes	Depth to Water	Depth Sealed				Hole Depth	Hole Diameter	Casing Diameter	Casing Depth
16-05-2022	05:00	15.70	1.20	Dry											30.70	103	152	1.20
17-05-2022	08:00	15.70	1.20	Dry														
17-05-2022	05:00	29.20	1.20	Dry														
18-05-2022	08:00	29.20	1.20	26														
18-05-2022	12:00	30.70	1.20	26														
General Remarks																		
1. Coordinates and ground levels obtained using Geode GNS2 - Horizontal accuracy <30cm. Vertical accuracy <50cm.																		
2. Service plans inspected and borehole position scanned with CAT & Genny prior to breaking ground. Hand excavated service inspection pit dug to 1.2m depth																		
3. See separate detailed remarks sheet for further borehole information.																		

General Remarks	
1. Coordinates and ground levels obtained using Geode GNS2 - Horizontal accuracy <30cm. Vertical accuracy <50cm. 2. Service plans inspected and borehole position scanned with CAT & Genny prior to breaking ground. Hand excavated service inspection pit dug to 1.2m depth. 3. See separate detailed remarks sheet for further borehole information.	

Earth Science Partnership

Consulting Engineers | Geologists | Environmental Scientists

Project Name:

Afan Valley Resort

Site Location:

Cymmer

Client:

Wildfox Resorts - Afan Valley

Project No:

8053

Drilling method

Rotary cored

Equipment

KLEMM

Ground Level:

288.15 mOD

Easting:

285420 m

Northing:

195542 m

Start date:

20/05/2022

End date:

25/05/2022

Backfill date:

25/05/2022

Driller:

APEX

Logged by:

ESP

Date logged:

25/05/2022

BH04

Core Details and SPT Data						Strata Details			Water	Depth		Backfill/Install-ations
Depth (Length)	TCR (%)	SCR (%)	RQD (%)	FI	SPT-N	Depth	Description	Legend	Strikes/Standing	Depth (Thickness)	mOD	
9.70 - 11.20 (1.50)	100	70	48	7		10.5	Medium strong medium bedded dark grey medium grained SANDSTONE. Bedding fractures dipping at 10 - 15° planar rough and undulating, with black silt infill and orange surface staining. Subvertical fractures dipping 70-80° closely to medium spaced, planar and undulating smooth with orange brown surface staining. Slightly weathered. (GRADE II RHONDDA MEMBER)			11.20	276.95	
11.20 - 12.70 (1.50)	93	52	52	10		11.0	between 9.7 and 11.2m: closely spaced thin coal laminae (1mm).					
				NR		11.5	Medium strong dark grey quartz rich medium to thickly bedded SANDSTONE. Bedding fractures dipping between 15 - 20° planar rough with rare surface staining and occasional fine gravel infill (<10mm). Vertical fractures dipping 70 - 90° undulating rough fractures with penetrative orange staining (5mm). Slightly weathered (GRADE II RHONDDA MEMBER)					
12.70 - 13.90 (1.20)	100	75	67	7		13.0	at 11.3m: striations noted and sandy/gravel infill (<10mm).					
13.90 - 15.40 (1.50)	100	65	55	9		13.5	between 13.6 and 13.9m: closely spaced thin coal laminae (1mm).					
						14.0						
						14.5						
15.40 - 16.90 (1.50)	100	97	91	7		15.0				(8.20)		
						15.5	between 15.4 and 17.9m: no vertical fractures					
						16.0						
16.90 - 17.90 (1.00)	100	97	84			16.5						
17.90 - 19.40 (1.50)	100	89	85	5		17.0						
						17.5						
						18.0						
19.40 - 20.40 (1.00)	86	76	63	11		18.5						
						19.0	between 19.0 and 19.4m: very closely spaced thin coal laminae (1mm).					
						19.5	Strong dark grey medium bedded SANDSTONE. Bedding fractures dipping between 5 - 10° planar rough with rare surface staining and occasional			19.40	268.75	

Progress & Standing Water Levels					Water Strikes						Hole Diameter			Casing Diameter	
Date	Time	Hole Depth	Casing Depth	Water Depth	Date	Time	Strike Depth	Casing Depth	Elapsed Minutes	Depth to Water	Depth Sealed				
20-05-2022	05:00	1.20	1.20	Dry											
23-05-2022	08:00	1.20	1.20	Dry											
23-05-2022	05:00	11.20	1.20	Dry											
24-05-2022	08:00	11.20	1.20	Dry											
24-05-2022	05:00	20.40	1.20	Dry											
25-05-2022	08:00	20.40	1.20	Dry											
25-05-2022	05:00	30.90	1.20	25.1											

General Remarks

1. Coordinates and ground levels obtained using Geode GNS2 - Horizontal accuracy <30cm. Vertical accuracy <50cm.

2. Service plans inspected and borehole position scanned with CAT & Genny prior to breaking ground. Hand excavated service inspection pit dug to 1.2m depth.

3. See separate detailed remarks sheet for further borehole information.

General Remarks	
1.	Coordinates and ground levels obtained using Geode GNS2 - Horizontal accuracy <30cm. Vertical accuracy <50cm.
2.	Service plans inspected and borehole position scanned with CAT & Genny prior to breaking ground. Hand excavated service inspection pit dug to 1.2m depth.
3.	See separate detailed remarks sheet for further borehole information.

Earth Science Partnership Consulting Engineers Geologists Environmental Scientists						Project Name: Afan Valley Resort		Drilling method Rotary cored		BH05					
						Site Location: Cymmer		Equipment KLEMM							
Start date: 16/05/2022		Driller: APEX		Client: Wildfox Resorts - Afan Valley		Ground Level: 329.28 mOD									
End date: 19/05/2022		Logged by: ESP		Project No: 8053		Easting: 285601 m									
Backfill date: 19/05/2022		Date logged: 19/05/2022				Northing: 195320 m									
Core Details and SPT Data						Strata Details						Water	Depth		Backfill/ Install- ations
Depth (Length)	TCR (%)	SCR (%)	RQD (%)	FI	SPT-N	Depth	Description			Legend	Strikes/ Standing	Depth (Thickness)	mOD		
					32 (6,9/10,10,6 ,6)	0.5	Very dark grey to black sandy very gravelly SILT. Gravel is fine to coarse angular sandstone. (TOPSOIL)					(0.20)	329.08		
						1.0	Orange brown silty fine to coarse SAND and GRAVEL. Gravel is angular to subangular medium to coarse sandstone. (GRADE VI RHONDDA MEMBER)					0.70	328.58		
						1.5	Dark brown very gravelly sandy SILT. Gravel is medium to coarse angular sandstone. (GRADE VI RHONDDA MEMBER)					(0.15)	328.43		
						2.0	Loose light grey slightly silty fine to coarse GRAVEL. Gravel is angular sandstone. (GRADE VI RHONDDA MEMBER)					0.85			
						2.5	Dark brownish grey coarse angular GRAVEL with high cobble content. Comprising medium to coarse sandstone with occasional thin black laminae. (GRADE VI RHONDDA MEMBER)					(0.85)			
1.70 - 3.20 (1.50)	87	0	0	NI		3.0						1.70	327.58		
				NR		3.5	Medium strong to strong thinly bedded dark greyish brown SILTSTONE. Bedding fractures dipping 20° planar and stepped smooth with orange brown and black staining. Subvertical fractures dipping 60° closely spaced planar and rough with orange surface staining. Slightly weathered. (GRADE II RHONDDA MEMBER)					(1.60)			
3.20 - 4.70 (1.50)	67	40	0	>15		4.0						3.30	325.98		
				NR		4.5						(1.50)			
4.70 - 6.20 (1.50)	100	93	0	15		5.0	Strong to very strong thinly bedded brownish grey medium to coarse SANDSTONE. Slightly weathered. Bedding fractures dipping 0 - 15° planar and undulating smooth with orange brown and black staining. Secondary fractures dipping at 40° closely spaced undulating rough with black and orange brown penetrative staining (<5mm). Subvertical fractures dipping 60° planar undulating rough with dark brown staining. Slightly weathered. (GRADE II RHONDDA MEMBER)					4.80	324.48		
6.20 - 7.70 (1.50)	100	100	0	>15	5.5										
					6.0										
7.70 - 9.20 (1.50)	100	80	0	>15	6.5										
9.20 - 9.90 (0.70)	86	86	0	NR	7.0										
					7.5										
					8.0										
					8.5										
					9.0										
					9.5										

Earth Science Partnership

Consulting Engineers | Geologists | Environmental Scientists

Project Name:

Afan Valley Resort

Site Location:

Cymmer

Client:

Wildfox Resorts - Afan Valley

Project No:

8053

Drilling method

Rotary cored

Equipment

KLEMM

Ground Level:

329.28 mOD

Easting:

285601 m

Northing:

195320 m

Start date:

16/05/2022

End date:

19/05/2022

Backfill date:

19/05/2022

Driller:

APEX

Logged by:

ESP

Date logged:

19/05/2022

BH05

Core Details and SPT Data

Depth (Length)	TCR (%)	SCR (%)	RQD (%)	FI	SPT-N
9.90 - 10.70 (0.80)	100	75	0	NI	
10.70 - 12.20 (1.50)	100	93	0		
12.20 - 13.70 (1.50)	97	40	7		
13.70 - 15.20 (1.50)	97	87	0	>15	
15.20 - 16.70 (1.50)	97	80	0		
16.70 - 18.20 (1.50)	100	93	0		
18.20 - 19.70 (1.50)	100	93	0	>15	

Strata Details

Depth	Description	Legend
10.5	Strong to very strong thinly bedded brownish grey medium to coarse SANDSTONE. Slightly weathered. Bedding fractures dipping 0 - 15° planar and undulating smooth with orange brown and black staining. Secondary fractures dipping at 40° closely spaced undulating rough with black and orange brown penetrative staining (<5mm). Subvertical fractures dipping 60° planar undulating rough with dark brown staining. Slightly weathered. (GRADE II RHONDDA MEMBER) between 10.3 - 10.5m: sightly weathered/ fractured zone.	
11.0		
11.5		
12.0		
12.5	Bedrock recovered as; coarse angular GRAVEL with high cobble content. Comprising of fine to medium sandstone with occasional thin black laminae. Completely weathered. (GRADE VI RHONDDA MEMBER)	
13.0	Strong to very strong thinly to medium bedded dark grey medium to coarse SANDSTONE. Bedding fractures dipping 0 to 10° undulating and planar smooth and rough with orange/brown. Subvertical fractures dipping 60 to 80° closely to very closely spaced undulating rough with dark orange to black surface and penetrative staining (<5mm). Slightly weathered. (GRADE II RHONDDA MEMBER) between 13.7 - 14m : highly weathered/fractured zone.	
13.5		
14.0		
14.5		
15.0		
15.5		
16.0		
16.5		
17.0		
17.5		
18.0		
18.5		
19.0		
19.5		

Water

Strikes/
Standing

Depth
(Thickness)

mOD

Backfill/
Install-
ations

Progress & Standing Water Levels

Date	Time	Hole Depth	Casing Depth	Water Depth
16-05-2022	05:00	16.70	1.70	Dry
17-05-2022	08:00	16.70	1.70	Dry
17-05-2022	05:00	31.70	1.70	Dry
18-05-2022	08:00	31.00	1.70	Dry
18-05-2022	05:00	40.20	1.70	Dry

Water Strikes

Date	Time	Strike Depth	Casing Depth	Elapsed Minutes	Depth to Water	Depth Sealed

Hole Diameter

Casing Diameter

Hole Depth	Hole Diameter	Casing Diameter	Casing Depth
40.20	78	152	1.70

General Remarks

1. Coordinates and ground levels obtained using Geode GNS2 - Horizontal accuracy <30cm. Vertical accuracy <50cm.
2. Service plans inspected and borehole position scanned with CAT & Genny prior to breaking ground. Hand excavated service inspection pit dug to 1.2m depth.
3. See separate detailed remarks sheet for further borehole information.

Earth Science Partnership

Consulting Engineers | Geologists | Environmental Scientists

Project Name:

Afan Valley Resort

Site Location:

Cymmer

Client:

Wildfox Resorts - Afan Valley

Project No:

8053

Drilling method

Rotary cored

Equipment

KLEMM

Ground Level:

329.28 mOD

Easting:

285601 m

Northing:

195320 m

Start date:

16/05/2022

End date:

19/05/2022

Backfill date:

19/05/2022

Driller:

APEX

Logged by:

ESP

Date logged:

19/05/2022

BH05

Core Details and SPT Data

Depth (Length)	TCR (%)	SCR (%)	RQD (%)	FI	SPT-N
19.70 - 21.20 (1.50)	100	80	7		
21.20 - 22.70 (1.50)	100	90	7		
22.70 - 24.20 (1.50)	80	67	0		
				NR	
24.20 - 25.70 (1.50)	93	80	0		
				NI	
25.70 - 27.20 (1.50)	97	97	17		
				11	
27.20 - 28.70 (1.50)	100	73	20		
				10	
				NI	
28.70 - 30.20 (1.50)	97	93	0		
				>15	
				NI	
				>15	

Strata Details

Depth	Description	Legend
20.5	Strong to very strong thinly to medium bedded dark grey medium to coarse SANDSTONE. Bedding fractures dipping 0 to 10° undulating and planar smooth and rough with orange/brown. Subvertical fractures dipping 60 to 80° closely to very closely spaced undulating rough with dark orange to black surface and penetrative staining (<5mm). Slightly weathered. (GRADE II RHONDDA MEMBER)	
21.0		
21.5	between 19.4 - 21.0m: highly fractured with occasional thin (<1cm) black bands (possibly containing coal).	
22.0	below 21.0m depth: becoming light grey.	
22.5		
23.0		
23.5		
24.0		
24.5		
25.0		
25.5		
26.0		
26.5		
27.0		
27.5		
28.0		
28.5	between 28.2 - 28.6m: highly fractured with occasional thin (<1cm) black bands (possibly containing coal).	
29.0		
29.5	between 29.0 - 29.3m: highly fractured with occasional thin (<1cm) black bands (possibly containing coal).	

Water

Strikes/ Standing

Depth

Depth (Thickness)	mOD

Backfill/
Install-
ations

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Progress & Standing Water Levels

Date	Time	Hole Depth	Casing Depth	Water Depth
16-05-2022	05:00	16.70	1.70	Dry
17-05-2022	08:00	16.70	1.70	Dry
17-05-2022	05:00	31.70	1.70	Dry
18-05-2022	08:00	31.00	1.70	Dry
18-05-2022	05:00	40.20	1.70	Dry

Water Strikes

Date	Time	Strike Depth	Casing Depth	Elapsed Minutes	Depth to Water	Depth Sealed

Hole Diameter

Hole Depth	Hole Diameter
40.20	78

Casing Diameter

Casing Diameter	Casing Depth
152	1.70

General Remarks

1. Coordinates and ground levels obtained using Geode GNS2 - Horizontal accuracy <30cm. Vertical accuracy <50cm.

2. Service plans inspected and borehole position scanned with CAT & Genny prior to breaking ground. Hand excavated service inspection pit dug to 1.2m depth.

3. See separate detailed remarks sheet for further borehole information.

Earth Science Partnership

Consulting Engineers | Geologists | Environmental Scientists

Project Name:

Afan Valley Resort

Site Location:

Cymmer

Client:

Wildfox Resorts - Afan Valley

Project No:

8053

Drilling method

Rotary cored

Equipment

KLEMM

Ground Level:

329.28 mOD

Easting:

285601 m

Northing:

195320 m

Start date:

16/05/2022

End date:

19/05/2022

Backfill date:

19/05/2022

Driller:

APEX

Logged by:

ESP

Date logged:

19/05/2022

BH05

Core Details and SPT Data

Depth (Length)	TCR (%)	SCR (%)	RQD (%)	FI	SPT-N
				NR	
				1	
30.20 - 31.70 (1.50)	100	97	13	>15	
31.70 - 33.20 (1.50)	100	100	0	11	
33.20 - 34.70 (1.50)	100	100	0	>15	
34.70 - 36.20 (1.50)	100	100	12	10	
36.20 - 37.70 (1.50)	100	97	0	14	
				NI	
				>15	
37.70 - 38.70 (1.00)	100	30	13	NI	
				6	
38.70 - 40.20 (1.50)	100	73	17	NI	
				9	

Strata Details

Depth	Description	Legend
30.5	Strong to very strong thinly to medium bedded dark grey medium to coarse SANDSTONE. Bedding fractures dipping 0 to 10° undulating and planar smooth and rough with orange/brown. Subvertical fractures dipping 60 to 80° closely to very closely spaced undulating rough with dark orange to black surface and penetrative staining (<5mm). Slightly weathered. (GRADE II RHONDDA MEMBER)	
31.0	between 30.5 - 32.5m: highly fractured with occasional thin (<1cm) black bands (possibly containing coal).	
31.5		
32.0		
32.5		
33.0		
33.5	between 33.3 and 35.0m: highly fractured with occasional thin (<1cm) black bands (possibly containing coal).	
34.0		
34.5		
35.0		
35.5		
36.0		
36.5		
37.0	between 36.9 and 36.95m: band of coal.	
	below 37.0m: closely spaced black bands.	
37.5		
38.0	COAL recovered as; black fine to coarse angular coal gravel. (PROBABLE FIELD VEIN COAL SEAM)	
	Bedrock recovered as; coarse angular sandstone and coal GRAVEL. (PROBABLE FIELD VEIN COAL SEAM)	
38.5	Strong to very strong dark grey medium to coarse SANDSTONE. Bedding fractures dipping 0 to 10° undulating and planar smooth and rough with orange/brown. Slightly weathered. (PROBABLE FIELD VEIN COAL SEAM)	
39.0		
39.5	COAL recovered as; fine to coarse angular coal gravel. (PROBABLE FIELD VEIN COAL SEAM)	
	Medium strong dark to light greyish brown	

Water

Strikes/ Standing

Depth

Depth (Thickness)	mOD
37.60	291.68
(0.10)	291.58
37.70	291.38
(0.20)	291.18
37.90	290.93
(0.20)	290.68
38.10	290.68
(0.25)	
38.35	290.28
(0.25)	
38.60	
(0.40)	
39.00	
(1.20)	

Backfill/ Install- ations

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Progress & Standing Water Levels

Date	Time	Hole Depth	Casing Depth	Water Depth
16-05-2022	05:00	16.70	1.70	Dry
17-05-2022	08:00	16.70	1.70	Dry
17-05-2022	05:00	31.70	1.70	Dry
18-05-2022	08:00	31.00	1.70	Dry
18-05-2022	05:00	40.20	1.70	Dry

Water Strikes

Date	Time	Strike Depth	Casing Depth	Elapsed Minutes	Depth to Water	Depth Sealed

Hole Diameter

Hole Depth	Hole Diameter
40.20	78

Casing Diameter

Casing Diameter	Casing Depth
152	1.70

General Remarks

1. Coordinates and ground levels obtained using Geode GNS2 - Horizontal accuracy <30cm. Vertical accuracy <50cm.

2. Service plans inspected and borehole position scanned with CAT & Genny prior to breaking ground. Hand excavated service inspection pit dug to 1.2m depth.

3. See separate detailed remarks sheet for further borehole information.

Earth Science Partnership

Consulting Engineers | Geologists | Environmental Scientists

Project Name:

Afan Valley Resort

Site Location:

Cymmer

Client:

Wildfox Resorts - Afan Valley

Project No:

8053

Drilling method

Rotary cored

Equipment

KLEMM

Ground Level:

329.28 mOD

Easting:

285601 m

Northing:

195320 m

Start date:

16/05/2022

End date:

19/05/2022

Backfill date:

19/05/2022

Driller:

APEX

Logged by:

ESP

Date logged:

19/05/2022

BH05

Core Details and SPT Data

Strata Details

Water

Depth

Backfill/Installations

Depth (Length)	TCR (%)	SCR (%)	RQD (%)	FI	SPT-N	Depth	Description	Legend	Strikes/Standing	Depth (Thickness)	mOD	Backfill/Installations
				NI			Medium strong dark to light greyish brown CONGLOMERATE with fine to medium matrix and fine to medium rounded coal, siltstone and sandstone clasts up to 30mm. (GRADE II RHONDDA MEMBER)			40.20	289.08	
						40.5						
						41.0	Medium strong grey thinly bedded fine to medium SANDSTONE. Bedding fractures dipping 0 to 10° undulating and planar smooth and rough with orange/brown. Slightly weathered. (GRADE II POSSIBLE RHONDDA MEMBER)					
						41.5						
						42.0	Strong dark grey thinly to medium bedded medium to coarse SANDSTONE. Slightly weathered. Bedding fractures dipping 10 - 20° planar smooth with orange brown staining					
						42.5	Subvertical fractures dipping 70-80° closely spaced undulating smooth with dark brown surface staining. Slightly weathered. (GRADE II POSSIBLE RHONDDA MEMBER)					
						43.0						
						43.5						
						44.0						
						44.5						
						45.0						
						45.5						
						46.0						
						46.5						
						47.0						
						47.5						
						48.0						
						48.5						
						49.0						
						49.5						

Progress & Standing Water Levels

Water Strikes

Hole Diameter

Casing Diameter

Date	Time	Hole Depth	Casing Depth	Water Depth	Date	Time	Strike Depth	Casing Depth	Elapsed Minutes	Depth to Water	Depth Sealed	Hole Diameter	Casing Diameter
16-05-2022	05:00	16.70	1.70	Dry								40.20	78
17-05-2022	08:00	16.70	1.70	Dry									152
17-05-2022	05:00	31.70	1.70	Dry									1.70
18-05-2022	08:00	31.00	1.70	Dry									
18-05-2022	05:00	40.20	1.70	Dry									

General Remarks

1. Coordinates and ground levels obtained using Geode GNS2 - Horizontal accuracy <30cm. Vertical accuracy <50cm.

2. Service plans inspected and borehole position scanned with CAT & Genny prior to breaking ground. Hand excavated service inspection pit dug to 1.2m depth.

3. See separate detailed remarks sheet for further borehole information.

Consulting Engineers | Geologists | Environmental Scientists

Afan Valley Resort

Cymmer

Wildfox Resorts - Afan Valley

8053

Rotary cored

KLEMM

Easting: 286020 m

Easting: 286020 m

Northings: 195429 m

Date logged: 13/05/2022

Progress & Standing Water Levels					Water Strikes										Hole Diameter		Casing Diameter	
Date	Time	Hole Depth	Casing Depth	Water Depth	Date	Time	Strike Depth	Casing Depth	Elapsed Minutes	Depth to Water	Depth Sealed				Hole Depth	Hole Diameter	Casing Diameter	Casing Depth
09-05-2022	05:00	1.70	1.70	Dry											46.70	78	152	1.70
10-05-2022	08:00	1.70	1.70	Dry														
10-05-2022	05:00	13.70	1.70	Dry														
11-05-2022	08:00	13.70	1.70	Dry														
11-05-2022	05:00	29.30	1.70	Dry														
12-05-2022	08:00	29.30	1.70	Dry														
12-05-2022	05:00	39.70	1.70	34.1														

3. See separate detailed remarks sheet for further borehole information.

Earth Science Partnership

Consulting Engineers | Geologists | Environmental Scientists

Project Name:

Afan Valley Resort

Site Location:

Cymmer

Client:

Wildfox Resorts - Afan Valley

Project No:

8053

Drilling method

Rotary cored

Equipment

KLEMM

Ground Level:

296.52 mOD

Easting:

286020 m

Northing:

195429 m

Start date:

09/05/2022

End date:

13/05/2022

Backfill date:

13/05/2022

Driller:

APEX

Logged by:

ESP

Date logged:

13/05/2022

Core Details and SPT Data

Strata Details

Water

Depth

Backfill/Installations

Depth (Length)	TCR (%)	SCR (%)	RQD (%)	FI	SPT-N	Depth	Description	Legend	Strikes/Standing	Depth (Thickness)	mOD	Backfill/Installations
10.20 - 11.70 (1.50)	87	73	0	>15		10.5	Very strong to strong thinly bedded grey medium to coarse SANDSTONE. Bedding fractures dipping subhorizontal 5 - 20° extremely closely to closely spaced planar, rough and smooth with black and orange-brown surface staining. Subvertical 60 - 70° fractures dipping medium spaced, planar, rough and smooth with orange surface staining. Slightly weathered. (GRADE II RHONDDA MEMBER)			10.20	286.32	
				NR		11.0						
				NI		11.5						
11.70 - 12.80 (1.10)	18	0	0	NR		12.0						
						12.5						
12.80 - 13.70 (0.90)	89	83	61	3		13.0						
				NR		13.5						
13.70 - 14.10 (0.40)	75	38	0	10		14.0						
				NR		14.5						
14.10 - 15.20 (1.10)	100	91	32	5		15.0						
15.20 - 16.10 (0.90)	89	22	0	NI		15.5	Medium strong dark brownish grey fine to coarse CONGLOMERATE with closely spaced thin (<1cm) black laminae. Bedding factures are subhorizontal (20 - 30°) planar, rough and smooth with black and orange-brown staining. Slightly weathered. (GRADE II RHONDDA MEMBER - POSSIBLE FIELD VEIN HORIZON)			17.70	278.82	
				NR		16.0						
16.10 - 16.70 (0.60)	92	75	25	13		16.5						
						17.0						
16.70 - 18.20 (1.50)	97	93	50	10		17.5						
				NI		18.0						
						18.5						
18.20 - 19.70 (1.50)	100	100	13	13		19.0						
						19.5						
										Strong to very strong thinly bedded dark grey SANDSTONE. Bedding fractures dipping subhorizontal 10 - 30° planar and undulating, rough and smooth with black and orange-brown surface staining. Slightly weathered. (GRADE II RHONDDA MEMBER)		

Progress & Standing Water Levels

Water Strikes

Hole Diameter

Casing Diameter

Date	Time	Hole Depth	Casing Depth	Water Depth	Date	Time	Strike Depth	Casing Depth	Elapsed Minutes	Depth to Water	Depth Sealed	Hole Diameter	Casing Diameter
09-05-2022	05:00	1.70	1.70	Dry								46.70	78
10-05-2022	08:00	1.70	1.70	Dry									152
10-05-2022	05:00	13.70	1.70	Dry									1.70
11-05-2022	08:00	13.70	1.70	Dry									
11-05-2022	05:00	29.30	1.70	Dry									
12-05-2022	08:00	29.30	1.70	Dry									
12-05-2022	05:00	39.70	1.70	34.1									

General Remarks

1. Coordinates and ground levels obtained using Geode GNS2 - Horizontal accuracy <30cm. Vertical accuracy <50cm.

2. Service plans inspected and borehole position scanned with CAT & Genny prior to breaking ground. Hand excavated service inspection pit dug to 1.2m depth

3. See separate detailed remarks sheet for further borehole information.

Earth Science Partnership

Consulting Engineers | Geologists | Environmental Scientists

Project Name:

Afan Valley Resort

Site Location:

Cymmer

Client:

Wildfox Resorts - Afan Valley

Project No:

8053

Drilling method

Rotary cored

Equipment

KLEMM

Ground Level:

296.52 mOD

Easting:

286020 m

Northing:

195429 m

Start date:

09/05/2022

End date:

13/05/2022

Backfill date:

13/05/2022

Driller:

APEX

Logged by:

ESP

Date logged:

13/05/2022

BH06

Core Details and SPT Data

Depth (Length)	TCR (%)	SCR (%)	RQD (%)	FI	SPT-N
19.70 - 21.20 (1.50)	93	83	63	6	20.5 21.0 21.5 22.0 22.5 23.0 23.5 24.0 24.5 25.0 25.5 26.0 26.5 27.0 27.5 28.0 28.5 29.0 29.5
				NR	
21.20 - 22.70 (1.50)	97	90	30	10	
22.70 - 24.20 (1.50)	100	97	67	5	
24.20 - 25.70 (1.50)	97	97	57	6	
				NR	
25.70 - 26.70 (1.00)	95	75	22	7	
				NR	
26.70 - 28.20 (1.50)	100	97	63	5	
28.20 - 28.70 (0.50)	90	0	0	NI	
				NR	
28.70 - 29.30 (0.60)	100	63	33	5	
29.30 - 30.20 (0.90)	133	133	42	12	

Strata Details

Depth	Description	Legend
	Strong to very strong thinly bedded dark grey SANDSTONE. Bedding fractures dipping subhorizontal 10 - 30° planar and undulating, rough and smooth with black and orange-brown surface staining. Slightly weathered. (GRADE II RHONDDA MEMBER)	
	between 19.05 - 19.10 m: bed of COAL.	
	Medium strong dark brownish grey fine to coarse CONGLOMERATE with closely spaced thin (<1cm) black laminae. Bedding fractures dipping subhorizontal 20° planar rough and smooth with black and orange-brown staining. Subvertical 80° fractures closely spaced planar and stepped rough with black and orange-brown staining. Slightly weathered. (GRADE II RHONDDA MEMBER - POSSIBLE WERNDDU SEAM HORIZON)	
	Strong to very strong medium bedded dark grey SANDSTONE. Bedding fractures dipping subhorizontal 10 - 25° planar and rough with black and orange surface and penetrative staining (<3mm). Secondary fracture set dipping at 30 - 40° planar rough and smooth with dark orange surface staining. Subvertical 60 - 80° fractures dipping closely to widely spaced planar and undulating, rough and smooth with black and orange-brown staining. Slightly weathered. (GRADE II PROBABLE LLYNFI MEMBER)	
	below 22.7m: fine to medium grained. No black laminations present.	
	between 28.2 - 28.7m: recovered as broken sandstone COBBLES.	
	between 28.7 - 29.3m: fractures (20° and subvertical) are planar, smooth with reddish brown staining.	

Water

Strikes/ Standing

Depth

Depth (Thickness)	mOD
(3.45)	
21.85 (0.45)	274.67
22.30	274.22
(7.80)	

Backfill/ Install- ations

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Progress & Standing Water Levels

Date	Time	Hole Depth	Casing Depth	Water Depth
09-05-2022	05:00	1.70	1.70	Dry
10-05-2022	08:00	1.70	1.70	Dry
10-05-2022	05:00	13.70	1.70	Dry
11-05-2022	08:00	13.70	1.70	Dry
11-05-2022	05:00	29.30	1.70	Dry
12-05-2022	08:00	29.30	1.70	Dry
12-05-2022	05:00	39.70	1.70	34.1

Water Strikes

Date	Time	Strike Depth	Casing Depth	Elapsed Minutes	Depth to Water	Depth Sealed

Hole Diameter

Hole Depth	Hole Diameter
46.70	78

Casing Diameter

Casing Diameter	Casing Depth
152	1.70

General Remarks

1. Coordinates and ground levels obtained using Geode GNS2 - Horizontal accuracy <30cm. Vertical accuracy <50cm.

2. Service plans inspected and borehole position scanned with CAT & Genny prior to breaking ground. Hand excavated service inspection pit dug to 1.2m depth

3. See separate detailed remarks sheet for further borehole information.

Earth Science Partnership

Consulting Engineers | Geologists | Environmental Scientists

Project Name:

Afan Valley Resort

Site Location:

Cymmer

Client:

Wildfox Resorts - Afan Valley

Project No:

8053

Drilling method

Rotary cored

Equipment

KLEMM

Ground Level:

296.52 mOD

Easting:

286020 m

Northing:

195429 m

Start date:

09/05/2022

End date:

13/05/2022

Backfill date:

13/05/2022

Driller:

APEX

Logged by:

ESP

Date logged:

13/05/2022

BH06

Core Details and SPT Data						Strata Details			Water	Depth		Backfill/ Install- ations
Depth (Length)	TCR (%)	SCR (%)	RQD (%)	FI	SPT-N	Depth	Description	Legend	Strikes/ Standing	Depth (Thickness)	mOD	
39.70 - 41.20 (1.50)	90	67	27	11		40.5	Weak to medium strong very thinly bedded dark grey MUDSTONE. Bedding fractures dipping subhorizontal 10° - 20° planar and smooth with orange surface staining. Secondary fractures set dipping at 30 - 40°closely spaced planar and rough. Subvertical 80° fractures closely spaced planar smooth with orange brown staining. Slightly weathered. (GRADE II LLYNFI MEMBER) between 39.2 - 39.25m: bed of coal gravel. between 41.2 - 41.8m: fractures (70°) are planar, smooth with reddish brown staining.			(3.00)		
				NI		41.0						
				NR		41.5						
41.20 - 42.70 (1.50)	57	57	23	9		41.5	Very strong to strong thinly bedded dark grey fine to medium SANDSTONE. Bedding fractures dipping subhorizontal 10° - 20° planar rough and smooth with orange brown staining. Subvertical 80° fractures closely spaced planar smooth with orange brown staining. Slightly weathered. (GRADE II LLYNFI MEMBER) between 42.7 - 43.7m fractures (subhorizontal and 70°) are very closely to closely spaced, planar, smooth and rough with reddish brown and orange brown staining. between 42.7 - 43.7m: Over 100% recovery as core from previous runs collected. between 43.7 - 45.2m: thin (<1cm) black laminations.			41.80	254.72	
				NR		42.0						
42.70 - 43.70 (1.00)	150	150	0	10		42.5				(3.60)		
						43.0						
43.70 - 45.20 (1.50)	80	60	29	5		43.5						
						44.0						
						44.5						
45.20 - 46.70 (1.50)	100	87	63	3		45.0	Medium strong thinly bedded very dark grey MUDSTONE. Bedding fractures dipping 5 to 15° planar and smooth. Subvertical 80° fractures closely spaced planar and rough. Fresh. (GRADE I LLYFNI MEMBER)			(1.30)		
						45.5						
						46.0						
						46.5	End of Borehole at 46.700m			46.70	249.82	
						47.0						
						47.5						
						48.0						
						48.5						
						49.0						
						49.5						

Progress & Standing Water Levels					Water Strikes										Hole Diameter		Casing Diameter	
Date	Time	Hole Depth	Casing Depth	Water Depth	Date	Time	Strike Depth	Casing Depth	Elapsed Minutes	Depth to Water	Depth Sealed				Hole Depth	Hole Diameter	Casing Diameter	Casing Depth
09-05-2022	05:00	1.70	1.70	Dry											46.70	78	152	1.70
10-05-2022	08:00	1.70	1.70	Dry														
10-05-2022	05:00	13.70	1.70	Dry														
11-05-2022	08:00	13.70	1.70	Dry														
11-05-2022	05:00	29.30	1.70	Dry														
12-05-2022	08:00	29.30	1.70	Dry														
12-05-2022	05:00	39.70	1.70	34.1														

General Remarks

1. Coordinates and ground levels obtained using Geode GNS2 - Horizontal accuracy <30cm. Vertical accuracy <50cm.

2. Service plans inspected and borehole position scanned with CAT & Genny prior to breaking ground. Hand excavated service inspection pit dug to 1.2m depth

3. See separate detailed remarks sheet for further borehole information.

Earth Science Partnership Consulting Engineers Geologists Environmental Scientists						Project Name: Afan Valley Resort			Drilling method Rotary cored			BH07						
						Site Location: Cymmer			Equipment KLEMM									
Start date: 23/05/2022			Driller: APEX			Client: Wildfox Resorts - Afan Valley			Ground Level: 300.35 mOD									
End date: 26/05/2022			Logged by: ESP			Project No: 8053			Easting: 286158 m									
Backfill date: 26/05/2022			Date logged: 26/05/2022						Northing: 195236 m									
Core Details and SPT Data						Strata Details						Water	Depth		Backfill/ Install- ations			
Depth (Length)	TCR (%)	SCR (%)	RQD (%)	FI	SPT-N	Depth	Description				Legend	Strikes/ Standing	Depth (Thickness)	mOD				
					4 (1,1/1,1,1,1)	0.5	Dark brown slightly gravelly sandy very clayey SILT. Gravel is fine to coarse angular to subangular sandstone. (TOPSOIL)						(0.30)	300.05				
						1.0	Soft to very soft light grey mottled orange brown very sandy slightly clayey gravelly SILT with low cobble content. Gravel is fine to coarse angular to subrounded sandstone. (GRADE VI RHONDDA MEMBER)						(0.50)					
1.20 - 1.70 (0.50)	100					1.5	Medium dense brown mottled black very silty clayey very sandy medium to coarse GRAVEL.						(0.80)					
1.70 - 2.50 (0.80)	100					2.0	Gravel is angular to subangular sandstone. (GRADE VI RHONDDA MEMBER)											
					12 (6,8/4,3,2,3)	2.5								299.55				
						3.0	below 2.9m depth: lower silt/clay content.						(4.40)					
2.50 - 3.50 (1.00)	85					3.5												
3.50 - 4.30 (0.80)	88					4.0												
					10 (3,3/2,3,3,4)	4.5												
						5.0												
4.30 - 5.60 (1.30)	54					5.5	Medium dense brown slightly silty sandy fine to coarse GRAVEL with low cobble content. Gravel is fine to coarse angular to subangular sandstone. (GRADE VI RHONDDA MEMBER)						5.20					
						6.0	between 5.6 - 6.5: zone of no recovery						(1.30)					
					50 (8,8/9,12,12 ,17)	6.5							6.50	295.15				
5.60 - 6.50 (0.90)	0			NR		7.0	Bedrock recovered as; coarse angular dark grey siltstone GRAVEL with high cobble content (GRADE V RHONDDA MEMBER)						(1.20)					
						7.5												
6.50 - 7.30 (0.80)	50	0	0	NI		8.0	Strong to very strong thinly to medium bedded dark greenish grey medium SANDSTONE. Bedding fractures dipping 0 - 15° planar smooth and rough. Secondary fractures dipping 40 to 50° closely spaced planar smooth and rough with orange brown staining. Subvertical fractures dipping 80 - 85°very closely to closely spaced undulating smooth and rough with orange/brown and black staining. Slightly weathered. (GRADE II POSSIBLE LLYNFI MEMBER)						7.70					
					6	8.5								292.65				
						9.0												
7.30 - 8.20 (0.90)	72	0	0	NI		9.5	between 7.7 - 8.2 m depth: recovered as coarse angular cobbles and gravel of medium to coarse sandstone.											
				NR														
				NI														
Progress & Standing Water Levels						Water Strikes									Hole Diameter		Casing Diameter	
Date	Time	Hole Depth	Casing Depth	Water Depth	Date	Time	Strike Depth	Casing Depth	Elapsed Minutes	Depth to Water	Depth Sealed				Hole Depth	Hole Diameter	Casing Diameter	Casing Depth
23-05-2022	05:00	3.50	3.50	Dry											26.20	78	152	6.50
24-05-2022	08:00	3.50	3.50	Dry														
24-05-2022	05:00	14.80	6.50	7.7														
25-05-2022	08:00	14.80	6.50	7														
25-05-2022	05:00	23.70	6.50	7														
26-05-2022	08:00	23.70	6.50	7														
General Remarks																		
1. Coordinates and ground levels obtained using Geode GNS2 - Horizontal accuracy <40cm. Vertical accuracy <50cm.																		
2. Service plans inspected and borehole position scanned with CAT & Genny prior to breaking ground. Hand excavated service inspection pit dug to 1.2m depth.																		
3. See separate detailed remarks sheet for further borehole information.																		

BH07

[illegible]