

Earth Science Partnership

Consulting Engineers | Geologists | Environmental Scientists

Excavation method/plant:

3T Mini-digger

Shoring/support:

None

ETP1

Project Name: Upper Cosmeston Farm

Site Location: Cosmeston, VoG

Client: Welsh Assesmbly

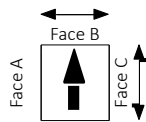
Project No: 7061b

Excavation date: 15/02/2019

Backfill date: 15/02/2019

Logged by: MTE

Plan details:



Face Stability:

stable

Groundwater observations:

Groundwater not encountered

Survey details:

Ground Level: 17.0 mOD

Easting: 318059 mE

Northing: 169105 mN

Bearing:

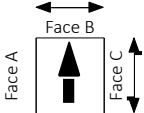
Depth m	Sample		Test Details		Strata Details			
	Type	Class	Type	Result	Description	Depth (thickness)	mOD	Legend
0.10	ES				Soft very dark brown sandy organic CLAY with roots. (TOPSOIL)	(0.20)		
0.25	ES				Firm light greyish brown slightly gravelly CLAY with roots. Gravel is fine of mudstone lithorelicts. (PROBABLE ST. MARYS WELL BAY FORMATION)	0.20	16.80	
0.40	B					Probably medium dense to dense brownish grey COBBLES of limestone within a clay matrix. Cobbles are angular to subrounded. (PROBABLE ST. MARYS WELL BAY FORMATION)	(0.10) (0.30) (0.20)	16.70
0.70	D				Firm becoming very stiff brownish grey gravelly CLAY. Gravel of angular lithorelicts. (PROBABLE ST. MARYS WELL BAY FORMATION)	(0.20) (0.50)	16.50	
						(0.65)		
						1.0		
						1.15	15.85	
					Strong grey LIMESTONE. (PROBABLE ST. MARYS WELL BAY FORMATION)	(0.05)	15.80	
					End of Trialpit at 1.200m	1.20		

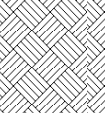
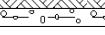
Weather and environmental conditions:

1. Sunny, cold

Other comments:

- Coordinates and ground level for investigation point estimated from online resources.
- Trial pit excavated until bedrock or maximum reach of excavator.
- Groundwater not encountered.
- Trial pit backfilled with arising and left proud to settle.
- Trial pit area fenced off until settlement complete.

Earth Science Partnership Consulting Engineers Geologists Environmental Scientists		Excavation method/plant: Hand Tools	Shoring/support: None	ETP10
Project Name: Upper Cosmeston Farm		Excavation date: 22/02/2019		
Site Location: Cosmeston, VoG		Backfill date: 22/02/2019		
Client: Welsh Assesmbly		Logged by: MTE		
Project No: 7061b		Plan details: 	Face Stability: stable	Groundwater observations: Groundwater not encountered
Survey details: Ground Level: 30.0 mOD Easting: 318360 mE Northing: 169254 mN Bearing:				

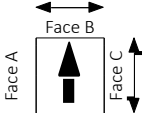
Depth m	Sample		Test Details		Strata Details			
	Type	Class	Type	Result	Description	Depth (thickness)	mOD	Legend
0.20	ES				Very dark brown organic CLAY with roots. (TOPSOIL)	(0.35)		
0.40	ES				Probably medium dense to dense brownish grey COBBLES of limestone within a clay matrix. Cobbles are angular to subrounded. (PROBABLE ST. MARYS WELL BAY FORMATION) <small>End of Trialpit at 0.400m</small>	0.35 (0.05) 0.40	29.65 29.60	
						1.0		
						2.0		
						3.0		

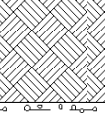
Weather and environmental conditions:

1. Overcast

Other comments:

- Coordinates and ground level for investigation point estimated from online resources.
- Trial pit excavated using hand tool until unable to advance trial pit.
- Groundwater not encountered.
- Trial pit backfilled with arising and left proud to settle.

Earth Science Partnership Consulting Engineers Geologists Environmental Scientists		Excavation method/plant: Hand Tools	Shoring/support: None	ETP11
Project Name: Upper Cosmeston Farm	Excavation date: 22/02/2019			
Site Location: Cosmeston, VoG	Backfill date: 22/02/2019			
Client: Welsh Assesmbly	Logged by: MTE			
Project No: 7061b	Plan details:	Face Stability: stable	Groundwater observations: Groundwater not encountered	
Survey details: Ground Level: 32.0 mOD Easting: 318361 mE Northing: 169176 mN Bearing:				

Depth m	Sample		Test Details		Strata Details			
	Type	Class	Type	Result	Description	Depth (thickness)	mOD	Legend
0.20	ES				Very dark brown organic CLAY with roots. (TOPSOIL)	(0.30)	31.70 31.65	
					Probably medium dense to dense brownish grey COBBLES of limestone within a clay matrix. Cobbles are angular to subrounded. (PROBABLE ST. MARYS WELL BAY FORMATION) <small>End of Trialpit at 0.350m</small>	0.30 (0.05) 0.35		
						1.0		
						2.0		
						3.0		

Weather and environmental conditions:
1. Overcast
Other comments:
1. Coordinates and ground level for investigation point estimated from online resources. 2. Trial pit excavated using hand tool until unable to advance trial pit. 3. Groundwater not encountered. 4. Trial pit backfilled with arising and left proud to settle.

Earth Science Partnership

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Excavation method/plant:

Hand Tools

Shoring/support:

None

ETP12

Project Name: Upper Cosmeston Farm

Site Location: Cosmeston, VoG

Client: Welsh Assesmbly

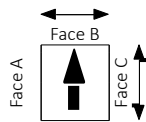
Project No: 7061b

Excavation date: 22/02/2019

Backfill date: 22/02/2019

Logged by: MTE

Plan details:



Face Stability:

stable

Groundwater observations:

Groundwater not encountered

Survey details:

Ground Level: 35.0 mOD

Easting: 318438 mE

Northing: 169074 mN

Bearing:

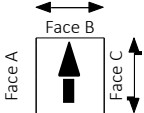
Depth m	Sample		Test Details		Strata Details			
	Type	Class	Type	Result	Description	Depth (thickness)	mOD	Legend
0.20	ES				Very dark brown organic CLAY with roots. (TOPSOIL)	(0.45)		
0.50	ES				Firm quickly becoming very stiff brownish grey slightly very gravelly CLAY. Gravel of angular lithorelicts. (PROBABLE ST. MARYS WELL BAY FORMATION)	0.45	34.55	
0.70	D					(0.45)		
					End of Trialpit at 0.900m	0.90	34.10	
						1.0		
						2.0		
						3.0		


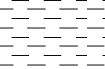
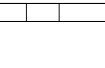
Weather and environmental conditions:

1. Overcast

Other comments:

1. Coordinates and ground level for investigation point estimated from online resources.
2. Trial pit excavated using hand tool until unable to advance trial pit.
3. Groundwater not encountered.
4. Trial pit backfilled with arising and left proud to settle.

Earth Science Partnership Consulting Engineers Geologists Environmental Scientists		Excavation method/plant: Hand Tools	Shoring/support: None	ETP13
Project Name: Upper Cosmeston Farm		Excavation date: 22/02/2019		
Site Location: Cosmeston, VoG		Backfill date: 22/02/2019		
Client: Welsh Assesmbly		Logged by: MTE		
Project No: 7061b		Plan details: 	Face Stability: stable	Groundwater observations: Groundwater not encountered
Survey details: Ground Level: 34.0 mOD Easting: 318418 mE Northing: 168965 mN Bearing:				

Depth m	Sample		Test Details		Strata Details			
	Type	Class	Type	Result	Description	Depth (thickness)	mOD	Legend
0.10	ES				Very dark brown organic CLAY with roots. (TOPSOIL)	(0.20)		
0.30	ES				Firm orangish greyish brown CLAY with roots. (PROBABLE ST. MARYS WELL BAY FORMATION)	(0.20)	33.80	
0.35	D				Strong brownish grey LIMESTONE. (PROBABLE ST. MARYS WELL BAY FORMATION)	(0.40)	33.60	
					End of Trialpit at 0.450m	(0.05)	33.55	
						1.0		
						2.0		
						3.0		

Weather and environmental conditions:
1. Overcast

Other comments:
1. Coordinates and ground level for investigation point estimated from online resources.
2. Trial pit excavated using hand tool until unable to advance trial pit.
3. Groundwater not encountered.
4. Trial pit backfilled with arising and left proud to settle.

Earth Science Partnership

Consulting Engineers | Geologists | Environmental Scientists

Excavation method/plant:

Hand Tools

Shoring/support:

None

ETP15

Project Name: Upper Cosmeston Farm

Site Location: Cosmeston, VoG

Client: Welsh Assesmbly

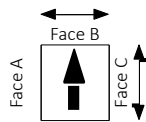
Project No: 7061b

Excavation date: 22/02/2019

Backfill date: 22/02/2019

Logged by: MTE

Plan details:



Face Stability:

stable

Groundwater observations:

Groundwater not encountered

Survey details:

Ground Level: 34.0 mOD

Easting: 318373 mE

Northing: 169073 mN

Bearing:

Depth m	Sample		Test Details		Strata Details			
	Type	Class	Type	Result	Description	Depth (thickness)	mOD	Legend
0.10	ES				Very dark brown organic CLAY with roots. (TOPSOIL)	(0.15)		
0.20	ES				Firm orangish greyish brown CLAY with roots. (PROBABLE ST. MARYS WELL BAY FORMATION)	(0.15)	33.85	
					Strong brownish grey LIMESTONE. (PROBABLE ST. MARYS WELL BAY FORMATION)	(0.30)	33.70	
					End of Trialpit at 0.350m	(0.05)	33.65	
						0.35		
						1.0		
						2.0		
						3.0		

Weather and environmental conditions:

1. Overcast

Other comments:

1. Coordinates and ground level for investigation point estimated from online resources.
2. Trial pit excavated using hand tool until unable to advance trial pit.
3. Groundwater not encountered.
4. Trial pit backfilled with arising and left proud to settle.

Earth Science Partnership Consulting Engineers Geologists Environmental Scientists		Excavation method/plant: JCB 3CX	Shoring/support: None	ETP17
Project Name: Upper Cosmeston Farm		Excavation date: 31/01/2019		
Site Location: Cosmeston, VoG		Backfill date: 31/01/2019		
Client: Welsh Assesmbly		Logged by: MTE		
Project No: 7061b		Plan details: 	Face Stability: spalling but stable	Groundwater observations: Groundwater not encountered
Survey details: Ground Level: 33.0 mOD Easting: 318326 mE Northing: 169064 mN Bearing:				

Depth m	Sample		Test Details		Strata Details			
	Type	Class	Type	Result	Description	Depth (thickness)	mOD	Legend
0.20	ES				Brown slightly gravelly very sandy organic CLAY with roots and rare fragments of brick. (PLACED TOPSOIL)	(0.30)		
0.35	ES				Firm brown and grey gravelly CLAY with fragments of plastic and brick. (MADE GROUND)	0.30 (0.10)	32.70 32.60	
0.50	ES				LANDFILL comprising multicoloured waste of 15% plastic bottles, plastic items, 10% plastic bags, 10% glass bottles and jars, 15% metal wire, tins and sheets, 5% fabric (carpet and rags), 10% brick and mortar rubble, 35% matrix of soft organic silty gravelly CLAY.	0.40		
1.00	B					1.0		
1.50	ES							
3.00	B					(4.10)		
						3.0		

Weather and environmental conditions:

- Cold, wintery showers

Other comments:

- Coordinates and ground level for investigation point estimated from online resources.
- Trial pit excavated until bedrock or maximum reach of excavator.
- Groundwater not encountered.
- Trial pit backfilled with arising and left proud to settle.
- Trial pit area fenced off until settlement complete.

Earth Science Partnership Consulting Engineers Geologists Environmental Scientists		Excavation method/plant: JCB 3CX	Shoring/support: None	ETP17
Project Name: Upper Cosmeston Farm	Excavation date: 31/01/2019			
Site Location: Cosmeston, VoG	Backfill date: 31/01/2019			
Client: Welsh Assesmbly	Logged by: MTE			
Project No: 7061b	Plan details:	Face Stability: spalling but stable	Groundwater observations: Groundwater not encountered	
Survey details: Ground Level: 33.0 mOD Easting: 318326 mE Northing: 169064 mN Bearing:				

Depth m	Sample		Test Details		Strata Details			
	Type	Class	Type	Result	Description	Depth (thickness)	mOD	Legend
4.00	ES				LANDFILL comprising multicoloured waste of 15% plastic bottles, plastic items, 10% plastic bags, 10% glass bottles and jars, 15% metal wire, tins and sheets, 5% fabric (carpet and rags), 10% brick and mortar rubble, 35% matrix of soft organic silty gravelly CLAY.			
					End of Trialpit at 4.500m	4.50	28.50	
						5.0		
						6.0		
						7.0		

Weather and environmental conditions:
1. Cold, wintery showers
Other comments:
1. Coordinates and ground level for investigation point estimated from online resources.
2. Trial pit excavated until bedrock or maximum reach of excavator.
3. Groundwater not encountered.
4. Trial pit backfilled with arising and left proud to settle.
5. Trial pit area fenced off until settlement complete.

Earth Science Partnership Consulting Engineers Geologists Environmental Scientists		Excavation method/plant: JCB 3CX	Shoring/support: None	ETP18
Project Name: Upper Cosmeston Farm	Excavation date: 31/01/2019			
Site Location: Cosmeston, VoG	Backfill date: 31/01/2019			
Client: Welsh Assesmbly	Logged by: MTE			
Project No: 7061b	Plan details:	Face Stability: spalling but stable	Groundwater observations: Seepage at 1.6m	
Survey details: Ground Level: 29.0 mOD Easting: 318249 mE Northing: 169071 mN Bearing:				

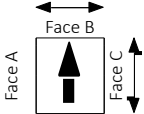
Depth m	Sample		Test Details		Strata Details			
	Type	Class	Type	Result	Description	Depth (thickness)	mOD	Legend
0.10	ES				Brown slightly gravelly very sandy organic CLAY with roots and rare fragments of brick. (PLACED TOPSOIL)	(0.15)	28.85	
0.30	ES				Firm brown and grey slightly sandy gravelly CLAY with cobbles and fragments of plastic. (MADE GROUND)	(0.55)		
0.50	B						28.30	
0.80	ES				LANDFILL comprising multicoloured waste of 10% plastic bottles, plastic items, 10% plastic bags, 5% glass bottles and jars, 5% metal wire and tins, 5% fabric, 5% bricks, 5% paper, 55% matrix of organic silty CLAY. Moderate hydrocarbon (possible tar) odour and seepage of groundwater emanating from this layer noted to be black.	(0.90)		
1.00	B						27.40	
1.70	D				Weak to moderately weak MUDSTONE. (PROBABLE ST. MARY'S WELL BAY MEMBER)	(0.25)		
					End of Trialpit at 1.850m	1.85	27.15	
						2.0		
						3.0		

Weather and environmental conditions:

1. Cold, wintery showers

Other comments:

1. Coordinates and ground level for investigation point estimated from online resources.
2. Trial pit excavated until bedrock or maximum reach of excavator.
3. Seepage of groundwater at 1.6m.
4. Trial pit backfilled with arising and left proud to settle.
5. Trial pit area fenced off until settlement complete.

Earth Science Partnership Consulting Engineers Geologists Environmental Scientists		Excavation method/plant: JCB 3CX	Shoring/support: None	ETP19
Project Name: Upper Cosmeston Farm	Excavation date: 31/01/2019			
Site Location: Cosmeston, VoG	Backfill date: 31/01/2019			
Client: Welsh Assesmbly	Logged by: MTE			
Project No: 7061b	Plan details:	Face Stability: spalling but stable	Groundwater observations: Groundwater not encountered	
Survey details: Ground Level: 32.0 mOD Easting: 318297 mE Northing: 169009 mN Bearing:				

Depth m	Sample		Test Details		Strata Details			
	Type	Class	Type	Result	Description	Depth (thickness)	mOD	Legend
0.10	ES				Brown slightly gravelly very sandy organic CLAY with roots and rare fragments of brick. (PLACED TOPSOIL)	(0.18)		
0.30	ES				Soft reddish brown sandy gravelly CLAY with rounded sandstone gravel and plastic bags. (MADE GROUND)	(0.27)	31.82	
0.40	D							
0.50	ES					0.45	31.55	
1.00	B				LANDFILL comprising multicoloured waste of 20% plastic bottles, 10% plastic bags, 10% glass bottles, jars and pottery, 5% metal wire and tins, <5% fabric (carpet and possible lagging), 10% decomposed organic material, possibly straw/grass/bedding, 5% brick rubble, <5% wood and <5% paper, 35% matrix of black organic silty sandy gravelly clay matrix and pockets of soft reddish-brown gravelly clay. Suspected brown asbestos lagging noted at a depth of 3.1m. Newspaper dated 10th January 1982. Strong organic odour. (LANDFILL WASTE - MADE GROUND)	1.0		
2.00	B					(2.75)		
						3.20	28.80	
End of Trialpit at 3.200m								

Weather and environmental conditions:

- Cold, wintery showers

Other comments:

- Coordinates and ground level for investigation point estimated from online resources.
- Trial pit excavated until bedrock or maximum reach of excavator.
- Groundwater not encountered.
- Trial pit backfilled with arising and left proud to settle.
- Trial pit area fenced off until settlement complete.

Earth Science Partnership Consulting Engineers Geologists Environmental Scientists		Excavation method/plant: 3T Mini-digger	Shoring/support: None	ETP2
Project Name: Upper Cosmeston Farm		Excavation date: 15/02/2019		
Site Location: Cosmeston, VoG		Backfill date: 15/02/2019		
Client: Welsh Assesmbly		Logged by: MTE		
Project No: 7061b		Plan details: 	Face Stability: stable	
Survey details: Ground Level: 16.0 mOD Easting: 318023 mE Northing: 169006 mN Bearing:				

Depth m	Sample		Test Details		Strata Details			
	Type	Class	Type	Result	Description	Depth (thickness)	mOD	Legend
0.10	ES				Soft very dark brown sandy organic CLAY with roots. (TOPSOIL)	(0.20)		
					Firm light greyish brown slightly gravelly CLAY with roots. Gravel is fine of mudstone lithorelicts. (PROBABLE ST. MARYS WELL BAY FORMATION)	0.20	15.80	
0.40	ES					(0.40)		
0.50	D							
					Probably medium dense to dense brownish grey COBBLES of limestone within a clay matrix. Cobbles are angular to subrounded. (PROBABLE ST. MARYS WELL BAY FORMATION)	0.60	15.40	
0.80	D					(0.15)	15.25	
0.90	D				Firm becoming very stiff brownish grey gravelly CLAY. Gravel of angular lithorelicts. (PROBABLE ST. MARYS WELL BAY FORMATION)	0.75		
1.00	B				Moderately strong dark grey thinly laminated MUDSTONE. (PROBABLE ST. MARYS WELL BAY FORMATION)	(0.20)	15.05	
						(0.05)	15.00	
					End of Trialpit at 1.000m	1.00		

Weather and environmental conditions:
1. Sunny, cold

Other comments:
1. Coordinates and ground level for investigation point estimated from online resources.
2. Trial pit excavated until bedrock or maximum reach of excavator.
3. Seepage of groundwater at 0.75m.
4. Trial pit backfilled with arising and left proud to settle.
5. Trial pit area fenced off until settlement complete.

Earth Science Partnership Consulting Engineers Geologists Environmental Scientists		Excavation method/plant: 3T Mini-digger	Shoring/support: None	ETP20
Project Name: Upper Cosmeston Farm		Excavation date: 04/03/2019		
Site Location: Cosmeston, VoG		Backfill date: 04/03/2019		
Client: Welsh Assesmbly		Logged by: MTE		
Project No: 7061b		Plan details: 	Face Stability: stable	
Survey details: Ground Level: 29.0 mOD Easting: 318543 mE Northing: 169074 mN Bearing:			Groundwater observations: Groundwater not encountered	

Depth m	Sample		Test Details		Strata Details			
	Type	Class	Type	Result	Description	Depth (thickness)	mOD	Legend
0.10	ES				Very dark brown slightly sandy slightly gravelly organic CLAY with roots and decaying organic matter. Organic matter fragments of decaying corn. (TOPSOIL) Firm to stiff orange-brown mottled grey gravelly CLAY with occasional fine to medium gravel of limestone. (PROBABLE PENARTH GROUP)	(0.20)	28.80	
0.50	D					(0.80)		
0.70	B							
0.90	D							
					Stiff to very stiff and hard yellowish brown mottled grey gravelly CLAY. Gravel of fine to coarse angular lithorelicts. (PROBABLE PENARTH GROUP)	1.00.0	28.00	
						(0.50)		
					End of Trialpit at 1.500m	1.50	27.50	
						2.0		
						3.0		

Weather and environmental conditions:

- Heavy rain showers

Other comments:

- Coordinates and ground level for investigation point estimated from online resources.
- Trial pit excavated until bedrock or maximum reach of excavator.
- Groundwater not encountered.
- Trial pit backfilled with arising and left proud to settle.

Earth Science Partnership

Consulting Engineers | Geologists | Environmental Scientists

Excavation method/plant:

Hand Tools

Shoring/support:

None

ETP22

Project Name: Upper Cosmeston Farm

Site Location: Cosmeston, VoG

Client: Welsh Assesmbly

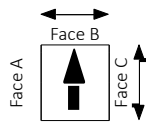
Project No: 7061b

Excavation date: 22/02/2019

Backfill date: 22/02/2019

Logged by: MTE

Plan details:



Face Stability:

stable

Groundwater observations:

Groundwater not encountered

Survey details:

Ground Level: 28.0 mOD

Easting: 318562 mE

Northing: 169195 mN

Bearing:

Depth m	Sample		Test Details		Strata Details			
	Type	Class	Type	Result	Description	Depth (thickness)	mOD	Legend
0.20	ES				Very dark brown organic CLAY with roots. (TOPSOIL)	(0.35)		
0.40	ES				Firm quickly becoming very stiff brownish grey slightly very gravelly CLAY. Gravel of angular lithorelicts. (PROBABLE ST. MARYS WELL BAY FORMATION)	0.35	27.65	
0.60	D					(0.45)		
					End of Trialpit at 0.800m	0.80	27.20	
						1.0		
						2.0		
						3.0		

Weather and environmental conditions:

1. Overcast

Other comments:

- Coordinates and ground level for investigation point estimated from online resources.
- Trial pit excavated using hand tool until unable to advance trial pit.
- Groundwater not encountered.
- Trial pit backfilled with arising and left proud to settle.

Earth Science Partnership Consulting Engineers Geologists Environmental Scientists		Excavation method/plant: 3T Mini-digger	Shoring/support: None	ETP23
Project Name: Upper Cosmeston Farm	Excavation date: 04/03/2019			
Site Location: Cosmeston, VoG	Backfill date: 04/03/2019			
Client: Welsh Assesmbly	Logged by: MTE			
Project No: 7061b	Plan details:	Face Stability: stable	Groundwater observations: Groundwater not encountered	
Survey details: Ground Level: 34.0 mOD Easting: 318447 mE Northing: 169215 mN Bearing:				

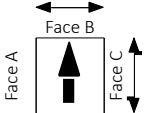
Depth m	Sample		Test Details		Strata Details			
	Type	Class	Type	Result	Description	Depth (thickness)	mOD	Legend
0.10	ES				Very dark brown slightly sandy slightly gravelly organic CLAY with roots and decaying organic matter. (TOPSOIL)	(0.20)		
0.40	ES				Probably medium dense brownish grey COBBLES of limestone within a clay matrix. Cobbles are angular to subrounded. (PROBABLE PENARTH GROUP)	0.20 (0.30)	33.80	
0.80	B				Stiff to very stiff and hard yellowish brown mottled grey gravelly CLAY. Gravel of fine to coarse angular lithorelicts. (PROBABLE PENARTH GROUP)	0.50 (0.39)	33.50	
					Extremely strong brownish grey LIMESTONE. (PROBABLE PENARTH GROUP)	0.89 (0.01) 0.90	33.11 33.10	
End of Trialpit at 0.900m								
						2.0		
						3.0		


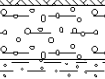
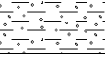
Weather and environmental conditions:

- Heavy rain showers

Other comments:

- Coordinates and ground level for investigation point estimated from online resources.
- Trial pit excavated until bedrock or maximum reach of excavator.
- Groundwater not encountered.
- Trial pit backfilled with arising and left proud to settle.

Earth Science Partnership Consulting Engineers Geologists Environmental Scientists		Excavation method/plant: Hand Tools	Shoring/support: None	ETP24
Project Name: Upper Cosmeston Farm		Excavation date: 22/02/2019		
Site Location: Cosmeston, VoG		Backfill date: 22/02/2019		
Client: Welsh Assesmbly		Logged by: MTE		
Project No: 7061b		Plan details: 	Face Stability: stable	Groundwater observations: Groundwater not encountered
Survey details: Ground Level: 24.0 mOD Easting: 318554 mE Northing: 169294 mN Bearing:				

Depth m	Sample		Test Details		Strata Details			
	Type	Class	Type	Result	Description	Depth (thickness)	mOD	Legend
0.20	ES				Very dark brown organic CLAY with roots. (TOPSOIL)	(0.25)		
0.40	ES				Probably medium dense to dense brownish grey COBBLES of limestone within a clay matrix. Cobbles are angular to subrounded. (PROBABLE ST. MARYS WELL BAY FORMATION)	0.25 (0.15)	23.75 23.60	
0.60	D				Firm quickly becoming very stiff brownish grey slightly very gravelly CLAY. Gravel of angular lithorelicts. (PROBABLE ST. MARYS WELL BAY FORMATION)	(0.20)	23.40	
					End of Trialpit at 0.600m			
						1.0		
						2.0		
						3.0		

Weather and environmental conditions:
1. Overcast
Other comments:
1. Coordinates and ground level for investigation point estimated from online resources.
2. Trial pit excavated using hand tool until unable to advance trial pit.
3. Groundwater not encountered.
4. Trial pit backfilled with arising and left proud to settle.

Earth Science Partnership

Consulting Engineers | Geologists | Environmental Scientists

Excavation method/plant:

3T Mini-digger

Shoring/support:

None

ETP25

Project Name: Upper Cosmeston Farm

Site Location: Cosmeston, VoG

Client: Welsh Assesmbly

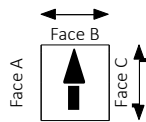
Project No: 7061b

Excavation date: 04/03/2019

Backfill date: 04/03/2019

Logged by: MTE

Plan details:



Face Stability:

stable

Groundwater observations:

Groundwater not encountered

Survey details:

Ground Level: 29.0 mOD

Easting: 318548 mE

Northing: 169376 mN

Bearing:

Depth m	Sample		Test Details		Strata Details			
	Type	Class	Type	Result	Description	Depth (thickness)	mOD	Legend
0.10	ES				Very dark brown slightly sandy slightly gravelly organic CLAY with roots and decaying organic matter. Organic matter fragments of decaying corn. (TOPSOIL)	(0.20)	28.80	
0.30	ES			Firm to stiff orange-brown mottled grey gravelly CLAY with occasional fine to medium gravel of limestone. (PROBABLE PENARTH GROUP)		(0.80)		
0.80	D				Very stiff to hard brown very gravelly CLAY with abundant mudstone lithorelicts. (PROBABLE PENARTH GROUP)	1.00	28.00	
1.10	D					(0.30)		
					End of Trialpit at 1.300m	1.30	27.70	
						2.0		
						3.0		

Weather and environmental conditions:

1. Heavy rain showers

Other comments:

1. Coordinates and ground level for investigation point estimated from online resources.
2. Trial pit excavated until bedrock or maximum reach of excavator.
3. Groundwater not encountered.
4. Trial pit backfilled with arising and left proud to settle.

Earth Science Partnership

Consulting Engineers | Geologists | Environmental Scientists

Excavation method/plant:

3T Mini-digger

Shoring/support:

None

ETP26

Project Name: Upper Cosmeston Farm

Site Location: Cosmeston, VoG

Client: Welsh Assesmbly

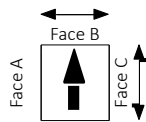
Project No: 7061b

Excavation date: 04/03/2019

Backfill date: 04/03/2019

Logged by: MTE

Plan details:



Face Stability:

stable

Groundwater observations:

Groundwater not encountered

Survey details:

Ground Level: 31.0 mOD

Easting: 318467 mE

Northing: 169333 mN

Bearing:

Depth m	Sample		Test Details		Strata Details			
	Type	Class	Type	Result	Description	Depth (thickness)	mOD	Legend
0.20	ES				Very dark brown slightly sandy slightly gravelly organic CLAY with roots and decaying organic matter. (TOPSOIL)	(0.40)		
0.45	D				Probably medium dense brownish grey COBBLES of limestone within a clay matrix. Cobbles are angular to subrounded. (ST. MARYS WELL BAT FORMATION) Firm orange-brown CLAY. (PROBABLE ST. MARYS WELL BAY FORMATION) Strong brownish grey LIMESTONE. (PROBABLE ST. MARYS WELL BAY FORMATION)	0.40	30.60	
0.55	D					0.50	30.50	
	ES					0.60	30.40	
						0.60		
						1.00	30.00	
					End of Trialpit at 1.000m			

Weather and environmental conditions:

1. Heavy rain showers

Other comments:

1. Coordinates and ground level for investigation point estimated from online resources.
2. Trial pit excavated until bedrock or maximum reach of excavator.
3. Groundwater not encountered.
4. Trial pit backfilled with arising and left proud to settle.

Earth Science Partnership

Consulting Engineers | Geologists | Environmental Scientists

Excavation method/plant:

3T Mini-digger

Shoring/support:

None

ETP3

Project Name: Upper Cosmeston Farm

Site Location: Cosmeston, VoG

Client: Welsh Assesmbly

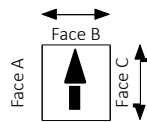
Project No: 7061b

Excavation date: 15/02/2019

Backfill date: 15/02/2019

Logged by: MTE

Plan details:



Face Stability:

stable

Groundwater observations:

Seepage at 1.2m

Survey details:

Ground Level: 17.0 mOD

Easting: 317953 mE

Northing: 168900 mN

Bearing:

Depth m	Sample		Test Details		Strata Details			
	Type	Class	Type	Result	Description	Depth (thickness)	mOD	Legend
0.10	ES				Soft very dark brown sandy organic CLAY with roots. (TOPSOIL)	(0.15)		
0.20	ES				Firm light greyish brown slightly gravelly CLAY with roots. Gravel is fine of mudstone lithorelicts. (PROBABLE ST. MARYS WELL BAY FORMATION)	0.15 (0.35)	16.85	
					Probably medium dense to dense brownish grey COBBLES of limestone within a clay matrix. Cobbles are angular to subrounded. (PROBABLE ST. MARYS WELL BAY FORMATION)	0.50 (0.20)	16.50	
0.80	D				Firm to stiff brownish grey slightly gravelly CLAY. Gravel of angular lithorelicts. (PROBABLE ST. MARYS WELL BAY FORMATION)	0.70 (0.50)	16.30	
0.90	D					1.0		
					Moderately strong to strong dark grey LIMESTONE. (PROBABLE ST. MARYS WELL BAY FORMATION)	1.20 (0.01)	15.80	
					End of Trialpit at 1.210m	1.21	15.79	
						2.0		
						3.0		

Weather and environmental conditions:

1. Sunny, cold

Other comments:

- Coordinates and ground level for investigation point estimated from online resources.
- Trial pit excavated until bedrock or maximum reach of excavator.
- Seepage of groundwater at 1.2m.
- Trial pit backfilled with arising and left proud to settle.
- Trial pit area fenced off until settlement complete.

Earth Science Partnership

Consulting Engineers | Geologists | Environmental Scientists

Excavation method/plant:

JCB 3CX

Shoring/support:

None

ETP4

Project Name: Upper Cosmeston Farm

Site Location: Cosmeston, VoG

Client: Welsh Assesmbly

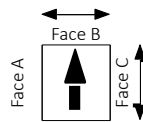
Project No: 7061b

Excavation date: 31/01/2019

Backfill date: 31/01/2019

Logged by: MTE

Plan details:



Face Stability:

stable

Groundwater observations:

Groundwater not encountered

Survey details:

Ground Level: 27.0 mOD

Easting: 318104 mE

Northing: 168908 mN

Bearing:

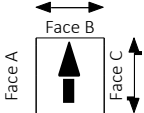
Depth m	Sample		Test Details		Strata Details			
	Type	Class	Type	Result	Description	Depth (thickness)	mOD	Legend
0.10	ES				Very dark brown sandy organic CLAY with roots. (PLACED TOPSOIL)	(0.20)		
0.30	ES				Probably medum dense grey very clayey slightly sandy fin to coarse angular GRAVEL of mudstone with pockets of gravelly clay. (MADE GROUND)	0.20 (0.30)	26.80	
0.60	D				Probably loose to medium dense black, mottled white, grey and dark brown sandy fine GRAVEL of clinker and occasional coal and slag (5-10%). (MADE GROUND)	0.50 (0.15)	26.50	
0.70	ES				Firm light orange-brown mottled grey gravelly slightly silty CLAY with some cobbles. Gravel and cobbles of angular to subangular mudstone. (MADE GROUND)	0.65	26.35	
1.20	B					1.0 (1.05)		
1.80	B				Probably loose to medium dense grey sandy fine to coarse GRAVEL with some cobbles. Gravel and cobbles of tabular angular to subangular mudstone. (MADE GROUND)	1.70 (0.30)	25.30	
2.05	D				Firm light orange-brown mottled grey gravelly slightly silty CLAY with some cobbles. Gravel and cobbles of angular to subangular mudstone. (MADE GROUND)	2.00 (0.10)	25.00	
2.15	D					2.10	24.90	
2.30	D				Probably loose black, dark grey and very dark brown gravelly SAND of clinker, some coal, ash and rare slag (<10%). (MADE GROUND)	2.10 (0.10)	24.80	
2.50	B				Firm light orange-brown mottled grey gravelly slightly silty CLAY with some cobbles. Gravel and cobbles of angular to subangular mudstone. (MADE GROUND)	2.20 (0.15)	24.65	
					Probably medium dense dark grey slightly clayey very gravelly SAND with pockets of light to dark grey sandy gravelly CLAY. Gavel mostly of fine to coarse angular mudstone, but with occasional clinker, slag and coal. (MADE GROUND)	2.35		
3.50	B					3.0 (1.95)		

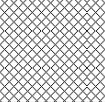
Weather and environmental conditions:

1. Cold, wintery showers

Other comments:

- Coordinates and ground level for investigation point estimated from online resources.
- Trial pit excavated until bedrock or maximum reach of excavator.
- Groundwater not encountered.
- Trial pit backfilled with arising and left proud to settle.
- Trial pit area fenced off until settlement complete.

Earth Science Partnership Consulting Engineers Geologists Environmental Scientists		Excavation method/plant: JCB 3CX	Shoring/support: None	ETP4
Project Name: Upper Cosmeston Farm		Excavation date: 31/01/2019		
Site Location: Cosmeston, VoG		Backfill date: 31/01/2019		
Client: Welsh Assesmbly		Logged by: MTE		
Project No: 7061b		Plan details: 	Face Stability: stable	Groundwater observations: Groundwater not encountered
Survey details: Ground Level: 27.0 mOD Easting: 318104 mE Northing: 168908 mN Bearing:				

Depth		Sample		Test Details		Strata Details		
m	Type	Class	Type	Result	Description	Depth (thickness)	mOD	Legend
					Probably medium dense dark grey slightly clayey very gravelly SAND with pockets of light to dark grey sandy gravelly CLAY. Gavel mostly of fine to coarse angular mudstone, but with occasional clinker, slag and coal. (MADE GROUND)	4.30	22.70	
					End of Trialpit at 4.300m	5.0		
						6.0		
						7.0		

Weather and environmental conditions:

1. Cold, wintery showers

Other comments:

1. Coordinates and ground level for investigation point estimated from online resources.
2. Trial pit excavated until bedrock or maximum reach of excavator.
3. Groundwater not encountered.
4. Trial pit backfilled with arising and left proud to settle.
5. Trial pit area fenced off until settlement complete.

Earth Science Partnership Consulting Engineers Geologists Environmental Scientists		Excavation method/plant: JCB 3CX	Shoring/support: None	ETP5
Project Name: Upper Cosmeston Farm		Excavation date: 30/01/2019		
Site Location: Cosmeston, VoG		Backfill date: 30/01/2019		
Client: Welsh Assesmbly		Logged by: MTE		
Project No: 7061b		Plan details: 	Face Stability: side wall spalling and wall collapse	Groundwater observations: Groundwater not encountered
Survey details: Ground Level: 26.0 mOD Easting: 318161 mE Northing: 169050 mN Bearing:				

Depth m	Sample		Test Details		Strata Details			
	Type	Class	Type	Result	Description	Depth (thickness)	mOD	Legend
0.20	ES				Very dark brown slightly gravelly slightly sandy organic CLAY with roots and rare fragments of brick and sandstone. (PLACED TOPSOIL)	(0.25)	25.75	
0.30	ES			Probably loose black gravelly fine to coarse SAND with little cobbles. Gravel of fine to medium clinker, ash and occasional coal and slag. Cobbles of mudstone typically angular. (MADE GROUND)		0.25		
0.40	ES					(0.10)		
0.50	B					0.35		
1.50	B			Firm with soft pockets, orange-brown mottled dark brown gravelly CLAY with cobbles. Gravel and cobbles of mudstone typically angular. (MADE GROUND)				
2.50	B				1.0			
3.50	B				(3.75)			

Weather and environmental conditions:
1. Cold, wintery showers
Other comments:
1. Coordinates and ground level for investigation point estimated from online resources.
2. Trial pit excavated until bedrock or maximum reach of excavator.
3. Groundwater not encountered.
4. Trial pit backfilled with arising and left proud to settle.
5. Trial pit area fenced off until settlement complete.

Earth Science Partnership

Consulting Engineers | Geologists | Environmental Scientists

Excavation method/plant:

JCB 3CX

Shoring/support:

None

ETP5

Project Name: Upper Cosmeston Farm

Site Location: Cosmeston, VoG

Client: Welsh Assesmbly

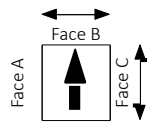
Project No: 7061b

Excavation date: 30/01/2019

Backfill date: 30/01/2019

Logged by: MTE

Plan details:



Face Stability:

side wall spalling and wall collapse

Groundwater observations:

Groundwater not encountered

Survey details:

Ground Level: 26.0 mOD

Easting: 318161 mE

Northing: 169050 mN

Bearing:

Depth m	Sample		Test Details		Strata Details			
	Type	Class	Type	Result	Description	Depth (thickness)	mOD	Legend
					Firm with soft pockets, orange-brown mottled dark brown gravelly CLAY with cobbles. Gravel and cobbles of mudstone typically angular. (MADE GROUND)	4.10	21.90	
					End of Trialpit at 4.100m			
						5.0		
						6.0		
						7.0		

Weather and environmental conditions:

1. Cold, wintery showers

Other comments:

1. Coordinates and ground level for investigation point estimated from online resources.
2. Trial pit excavated until bedrock or maximum reach of excavator.
3. Groundwater not encountered.
4. Trial pit backfilled with arising and left proud to settle.
5. Trial pit area fenced off until settlement complete.

Earth Science Partnership Consulting Engineers Geologists Environmental Scientists		Excavation method/plant: JCB 3CX	Shoring/support: None	ETP6
Project Name: Upper Cosmeston Farm		Excavation date: 30/01/2019		
Site Location: Cosmeston, VoG		Backfill date: 30/01/2019		
Client: Welsh Assesmbly		Logged by: MTE		
Project No: 7061b		Plan details: 	Face Stability: side wall collapse	
Survey details: Ground Level: 22.0 mOD Easting: 318154 mE Northing: 169142 mN Bearing:				

Depth m	Sample		Test Details		Strata Details			
	Type	Class	Type	Result	Description	Depth (thickness)	mOD	Legend
0.20	ES				Dark brown slightly sandy slightly gravelly organic CLAY with roots. (PLACED TOPSOIL)	(0.25)		
0.50	ES				Firm brown and grey very gravelly CLAY with much cobbles with partings of light greyish brown clay. Gravel is fine to coarse, typically of angular dark mudstone. (MADE GROUND)	0.25	21.75	
0.60	D					(1.20)		
1.00	B				Soft to firm grey mottled brown sandy gravelly CLAY with some cobbles and pockets of very soft dark brownish grey organic clay. Gravel and cobbles of mudstone are angular to subrounded. (MADE GROUND)	1.0		
						1.45	20.55	
2.00	B					2.0		
						(2.45)		
3.00	D					3.0		
						3.90	18.10	
End of Trialpit at 3.900m								

Weather and environmental conditions:
1. Cold, wintery showers
Other comments:
1. Coordinates and ground level for investigation point estimated from online resources.
2. Trial pit excavated until bedrock or maximum reach of excavator.
3. Groundwater encountered in coarse grained soils.
4. Trial pit backfilled with arising and left proud to settle.
5. Trial pit area fenced off until settlement complete.

Earth Science Partnership Consulting Engineers Geologists Environmental Scientists		Excavation method/plant: JCB 3CX	Shoring/support: None	ETP7
Project Name: Upper Cosmeston Farm		Excavation date: 30/01/2019		
Site Location: Cosmeston, VoG		Backfill date: 30/01/2019		
Client: Welsh Assesmbly		Logged by: MTE		
Project No: 7061b		Plan details: 	Face Stability: stable	Groundwater observations: Groundwater not encountered
Survey details: Ground Level: 25.0 mOD Easting: 318222 mE Northing: 169142 mN Bearing:				

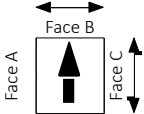
Depth m	Sample		Test Details		Strata Details			
	Type	Class	Type	Result	Description	Depth (thickness)	mOD	Legend
0.10	ES				Very dark brown clayey organic SAND with roots and occasional brick fragments. (PLACED TOPSOIL)	(0.20)	24.80	
0.40	ES				Probably medium dense grey very clayey GRAVEL with many cobbles. Gravel and cobbles of mudstone. (MADE GROUND)	0.20		
0.50	B					(0.70)	24.10	
1.00	B				Firm with soft pockets, orange-brown mottled dark brown gravelly CLAY with cobbles. Gravel and cobbles of mudstone typically angular. (MADE GROUND)	0.90 1.0 (0.40)		
1.50	D				Soft to firm orange-brown mottled grey cobbly gravelly CLAY with pockets of grey mudstone gravel. (MADE GROUND)	1.30	23.70	
						(1.20)	2.0	
2.60	D				Soft to firm orange-brown mottled grey slightly sandy gravelly CLAY with little cobbles. Gravel and cobbles of angular fine to coarse mudstone and rare brick fragments. (MADE GROUND)	2.50	22.50	
						3.0		
3.50	D					(1.80)		

Weather and environmental conditions:

1. Cold, wintery showers

Other comments:

- Coordinates and ground level for investigation point estimated from online resources.
- Trial pit excavated until bedrock or maximum reach of excavator.
- Groundwater not encountered.
- Trial pit backfilled with arising and left proud to settle.
- Trial pit area fenced off until settlement complete.

Earth Science Partnership Consulting Engineers Geologists Environmental Scientists		Excavation method/plant: JCB 3CX	Shoring/support: None	ETP7
Project Name: Upper Cosmeston Farm		Excavation date: 30/01/2019		
Site Location: Cosmeston, VoG		Backfill date: 30/01/2019		
Client: Welsh Assesmbly		Logged by: MTE		
Project No: 7061b		Plan details: 	Face Stability: stable	
Survey details: Ground Level: 25.0 mOD Easting: 318222 mE Northing: 169142 mN Bearing:			Groundwater observations: Groundwater not encountered	

Depth		Sample		Test Details		Strata Details		
m	Type	Class	Type	Result	Description	Depth (thickness)	mOD	Legend
					Soft to firm orange-brown mottled grey slightly sandy gravelly CLAY with little cobbles. Gravel and cobbles of angular fine to coarse mudstone and rare brick fragments. (MADE GROUND)			
					End of Trialpit at 4.300m	4.30	20.70	
						5.0		
						6.0		
						7.0		

Weather and environmental conditions:

- Cold, wintery showers

Other comments:

- Coordinates and ground level for investigation point estimated from online resources.
- Trial pit excavated until bedrock or maximum reach of excavator.
- Groundwater not encountered.
- Trial pit backfilled with arising and left proud to settle.
- Trial pit area fenced off until settlement complete.

Earth Science Partnership Consulting Engineers Geologists Environmental Scientists		Excavation method/plant: JCB 3CX	Shoring/support: None	ETP8
Project Name: Upper Cosmeston Farm		Excavation date: 30/01/2019		
Site Location: Cosmeston, VoG		Backfill date: 30/01/2019		
Client: Welsh Assesmbly		Logged by: MTE		
Project No: 7061b		Plan details: 	Face Stability: unstable and spalling	
Survey details: Ground Level: 20.0 mOD Easting: 318158 mE Northing: 169221 mN Bearing:				

Depth m	Sample		Test Details		Strata Details			
	Type	Class	Type	Result	Description	Depth (thickness)	mOD	Legend
0.20	ES				Dark brown slightly sandy slightly gravelly organic CLAY with roots. (PLACED TOPSOIL)	(0.23)		
0.40	ES				Probably medium dense grey very sandy angular mudstone GRAVEL with little cobbles. (MADE GROUND)	0.23 (0.37)	19.77	
0.50	B							
0.80	B				Firm orange-brown mottled grey gravelly CLAY with cobbles. Gravel and cobbles predominantly of mudstone is angular to subangular. (MADE GROUND)	0.60 (0.40)	19.40	
1.20	B				Probably medium dense to dense grey sandy gravelly COBBLES with occasional boulders including fragments of pottery. Gravel and cobbles typically angular of mudstone. (MADE GROUND)	1.00 (0.90)	19.00	
2.00	B				Firm orange-brown mottled grey gravelly CLAY with cobbles. Gravel and cobbles predominantly of mudstone is angular to subangular. (MADE GROUND)	1.90 2.0	18.10	
3.00	D					3.0 (2.30)		

Weather and environmental conditions: 1. Cold, wintery showers
Other comments: 1. Coordinates and ground level for investigation point estimated from online resources. 2. Trial pit excavated until bedrock or maximum reach of excavator. 3. Groundwater not encountered. 4. Trial pit backfilled with arising and left proud to settle. 5. Trial pit area fenced off until settlement complete.

Earth Science Partnership Consulting Engineers Geologists Environmental Scientists		Excavation method/plant: JCB 3CX	Shoring/support: None	ETP8
Project Name: Upper Cosmeston Farm		Excavation date: 30/01/2019		
Site Location: Cosmeston, VoG		Backfill date: 30/01/2019		
Client: Welsh Assesmbly		Logged by: MTE		
Project No: 7061b		Plan details: 	Face Stability: unstable and spalling	
Survey details: Ground Level: 20.0 mOD Easting: 318158 mE Northing: 169221 mN Bearing:				

Depth		Sample		Test Details		Strata Details		
m	Type	Class	Type	Result	Description	Depth (thickness)	mOD	Legend
4.00	D				Firm orange-brown mottled grey gravelly CLAY with cobbles. Gravel and cobbles predominantly of mudstone is angular to subangular. (MADE GROUND)	4.20	15.80	
					End of Trialpit at 4.200m			
						5.0		
						6.0		
						7.0		

Weather and environmental conditions:
1. Cold, wintery showers
Other comments:
1. Coordinates and ground level for investigation point estimated from online resources.
2. Trial pit excavated until bedrock or maximum reach of excavator.
3. Groundwater not encountered.
4. Trial pit backfilled with arising and left proud to settle.
5. Trial pit area fenced off until settlement complete.

Earth Science Partnership

Consulting Engineers | Geologists | Environmental Scientists

Excavation method/plant:

JCB 3CX

Shoring/support:

None

ETP9

Project Name: Upper Cosmeston Farm

Site Location: Cosmeston, VoG

Client: Welsh Assesmbly

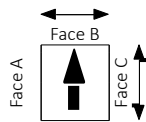
Project No: 7061b

Excavation date: 30/01/2019

Backfill date: 30/01/2019

Logged by: MTE

Plan details:



Face Stability:

unstable and spalling

Groundwater observations:

Groundwater not encountered

Survey details:

Ground Level: 21.0 mOD

Easting: 318254 mE

Northing: 169258 mN

Bearing:

Depth m	Sample		Test Details		Strata Details			
	Type	Class	Type	Result	Description	Depth (thickness)	mOD	Legend
0.20	ES				Dark brown slightly sandy slightly gravelly organic CLAY with roots. (PLACED TOPSOIL)	(0.28)		
0.30	ES				Probably medium dense brown very clayey fine to coarse angular mudstone GRAVEL with many cobbles. Cobbles of mudstone. (MADE GROUND)	0.28	20.72	
0.80	B					(1.12)		
1.50	D				Firm brown very gravelly sandy CLAY with many cobbles. Gravel and cobbles are fine to coarse, of angular mudstone. (MADE GROUND)	1.40 (0.40)	19.60	
2.00	B				Probably loose to medium dense grey sandy slightly clayey very gravelly COBBLES of mudstone and occasional pockets of gravelly sandy clay. (MADE GROUND)	1.80	19.20	
3.00	B					(2.00)		
					End of Trialpit at 3.800m	3.80	17.20	

Weather and environmental conditions:

1. Cold, wintery showers

Other comments:

1. Coordinates and ground level for investigation point estimated from online resources.
2. Trial pit excavated until bedrock or maximum reach of excavator.
3. Groundwater not encountered.
4. Trial pit backfilled with arising and left proud to settle.
5. Trial pit area fenced off until settlement complete.