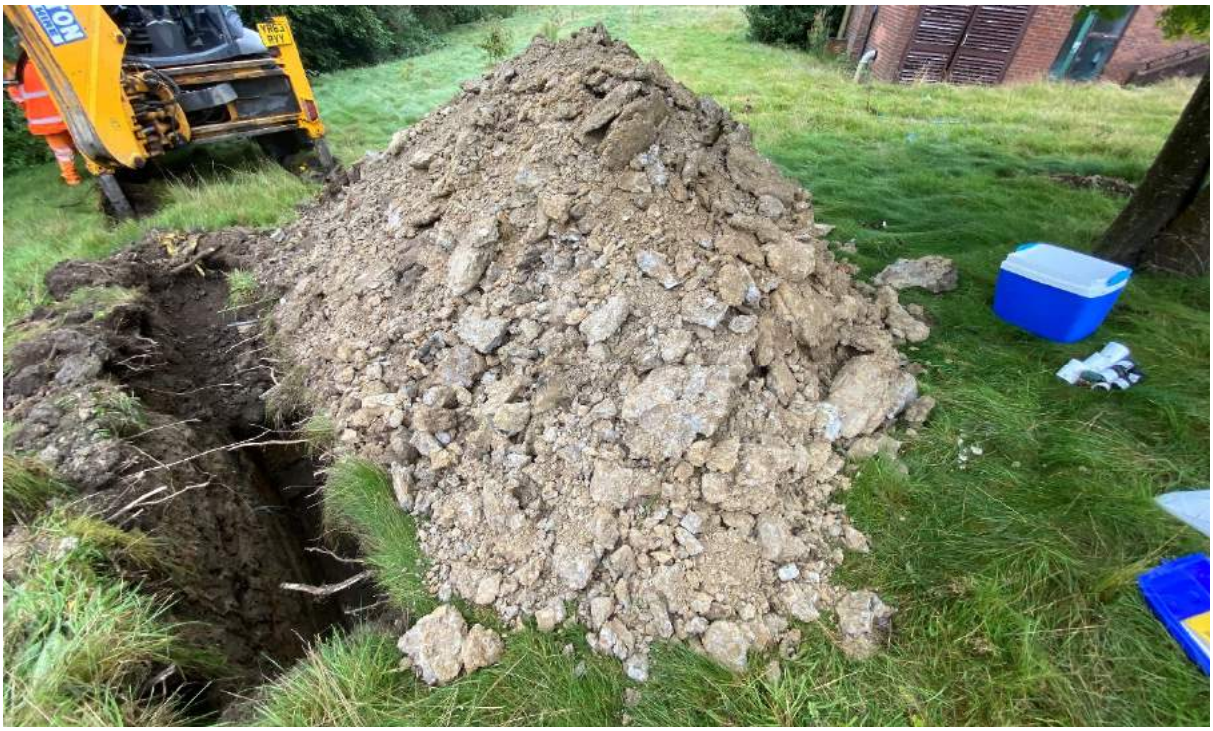
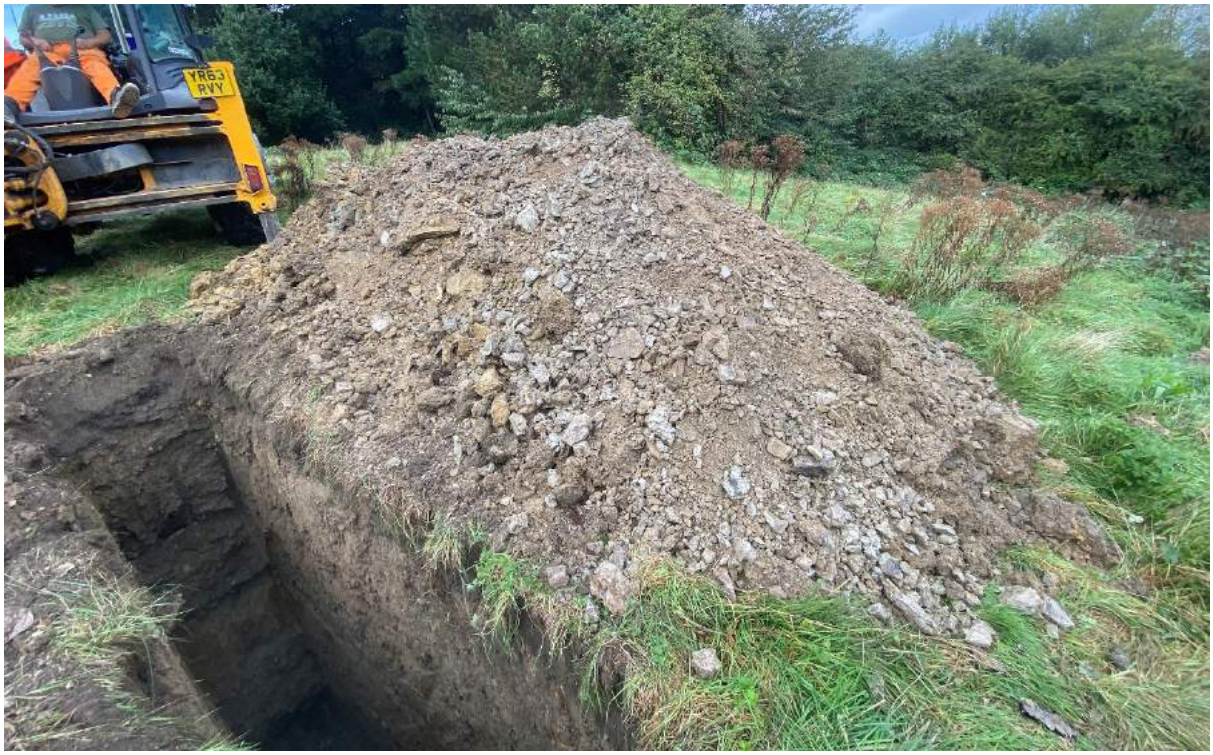


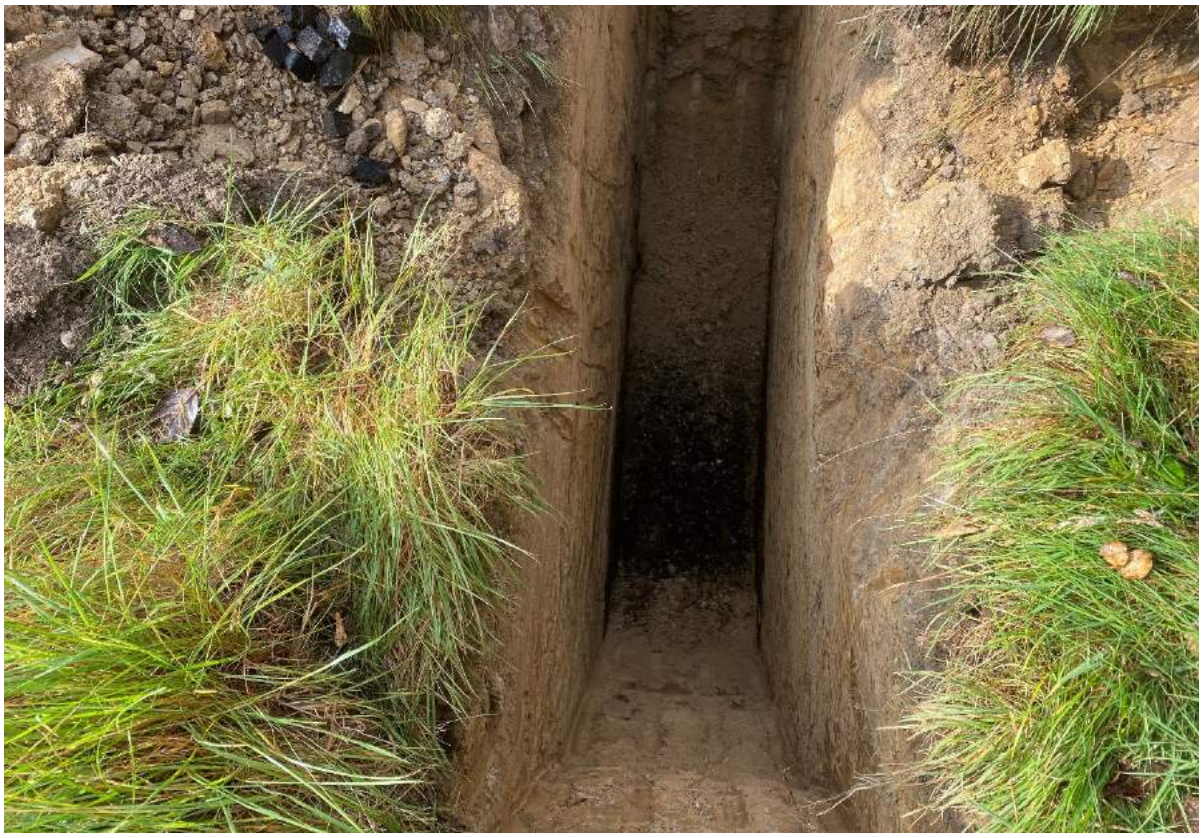
Photograph 12 – TP101 Spoil

Photograph 13 – TP102

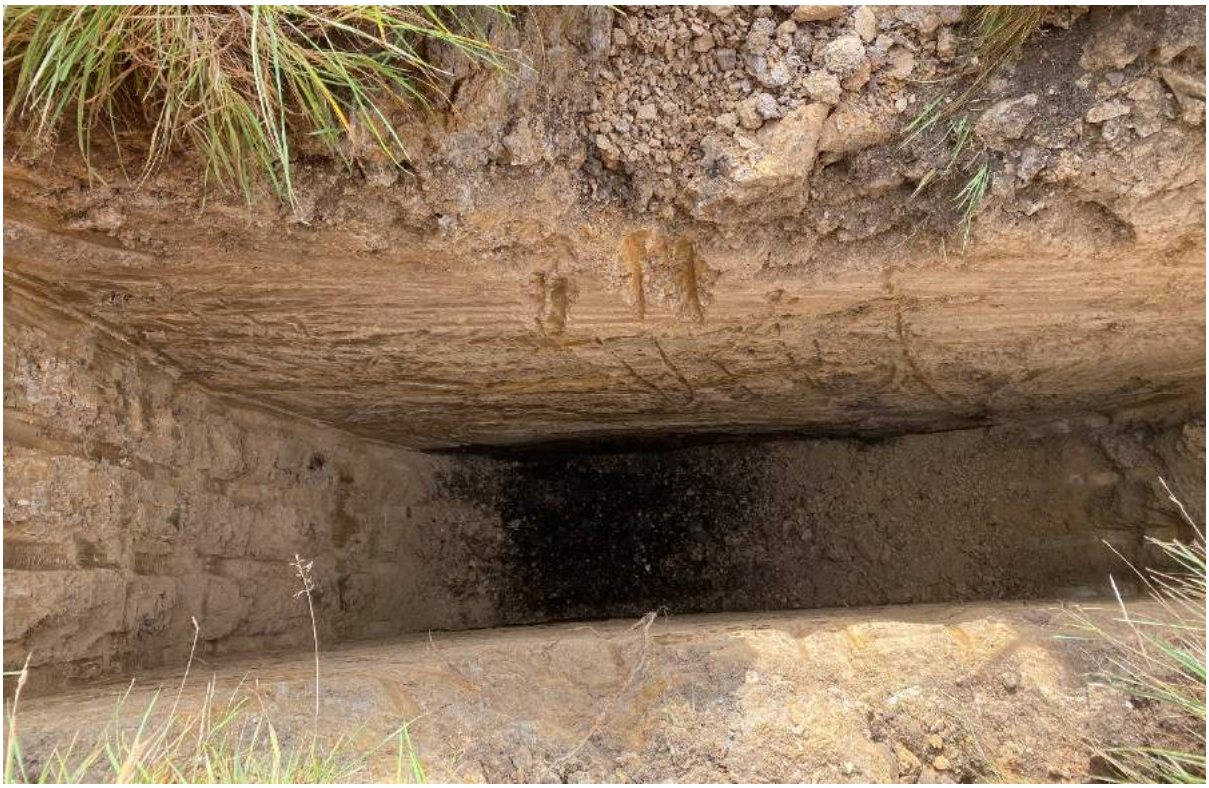
Photograph 14 – TP102



Photograph 15 – TP102 Spoil

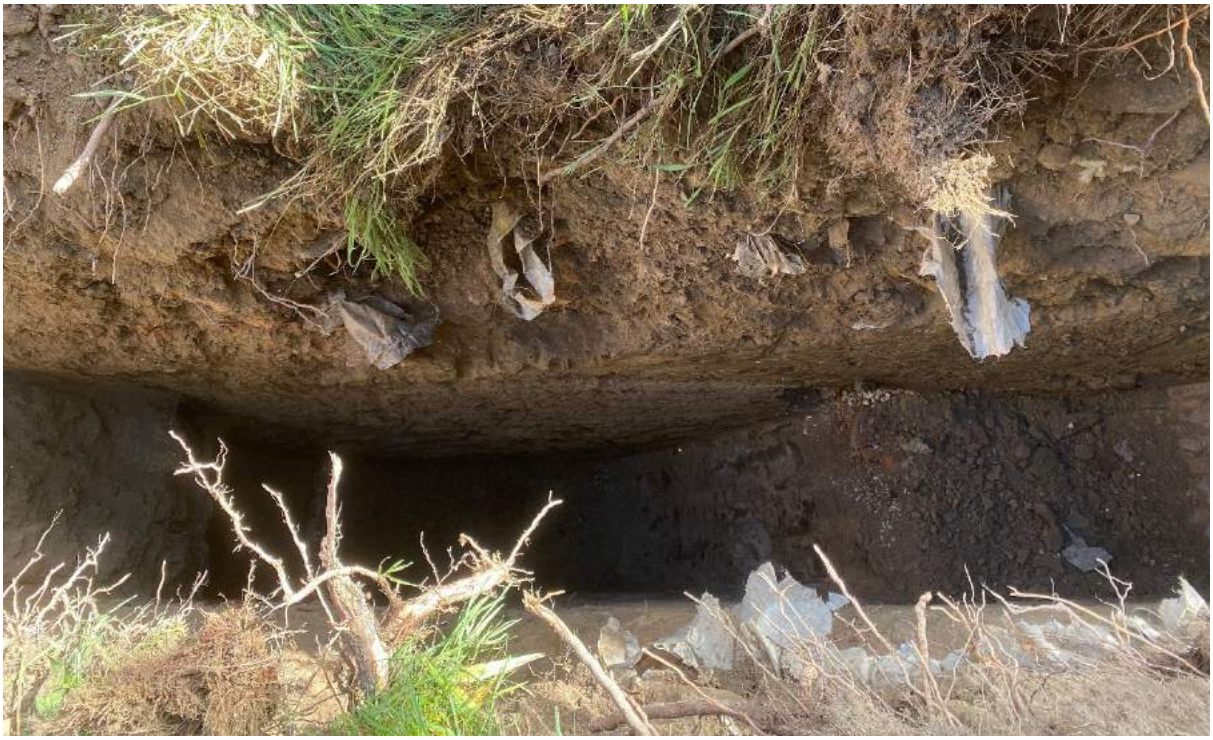


Photograph 16 – TP103

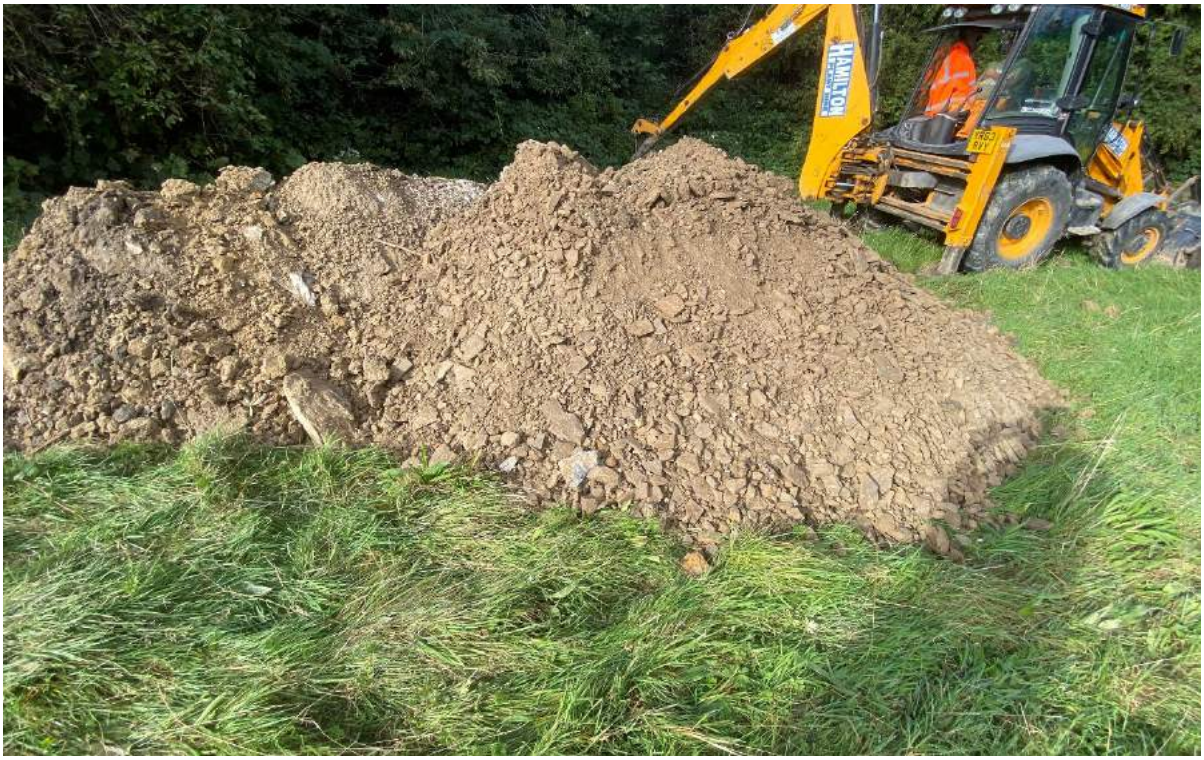


Photograph 17 – TP103

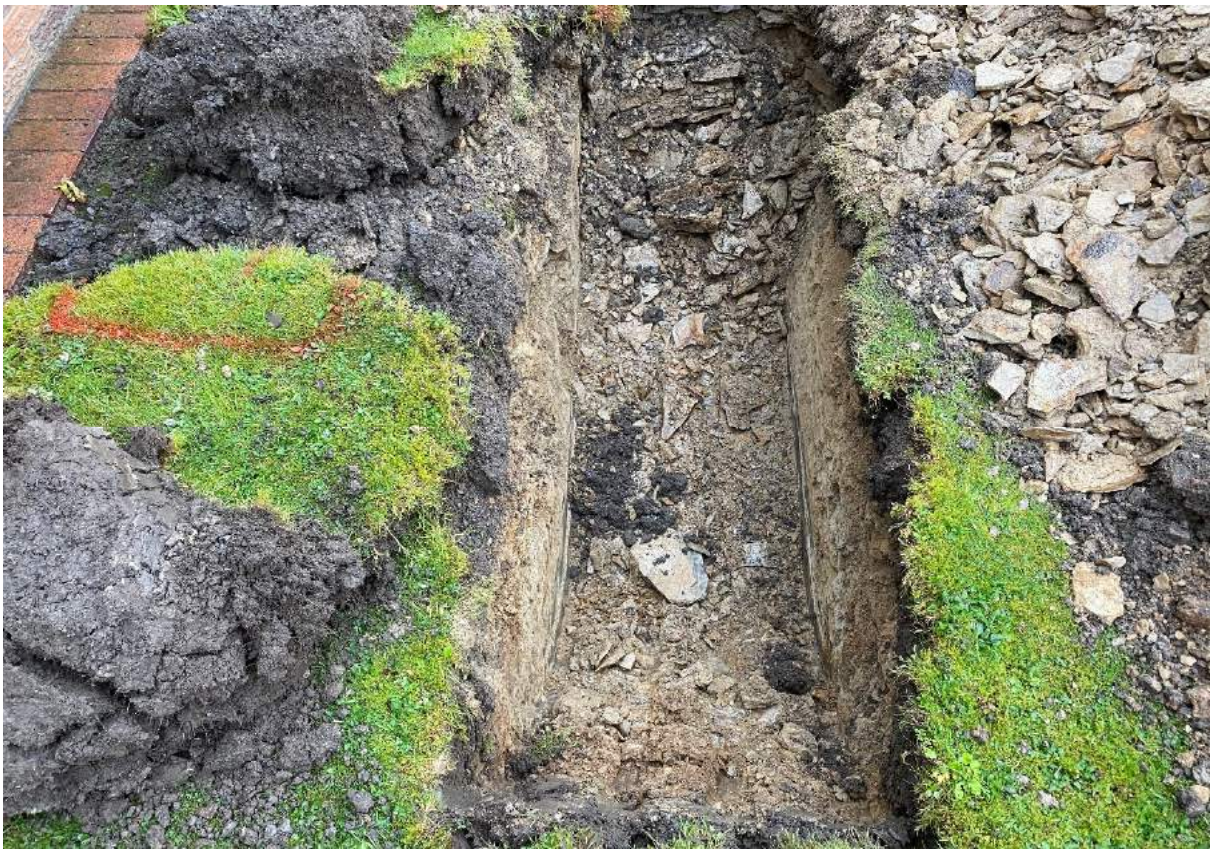
Photograph 18 – TP103 Spoil



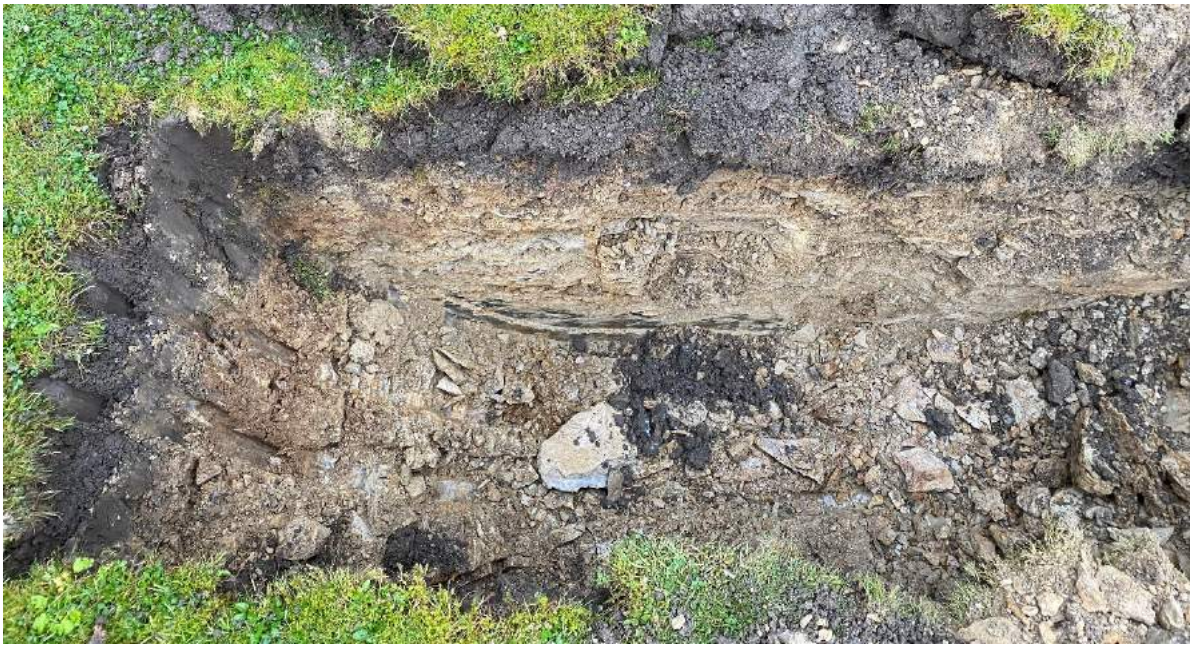
Photograph 19 – TP104



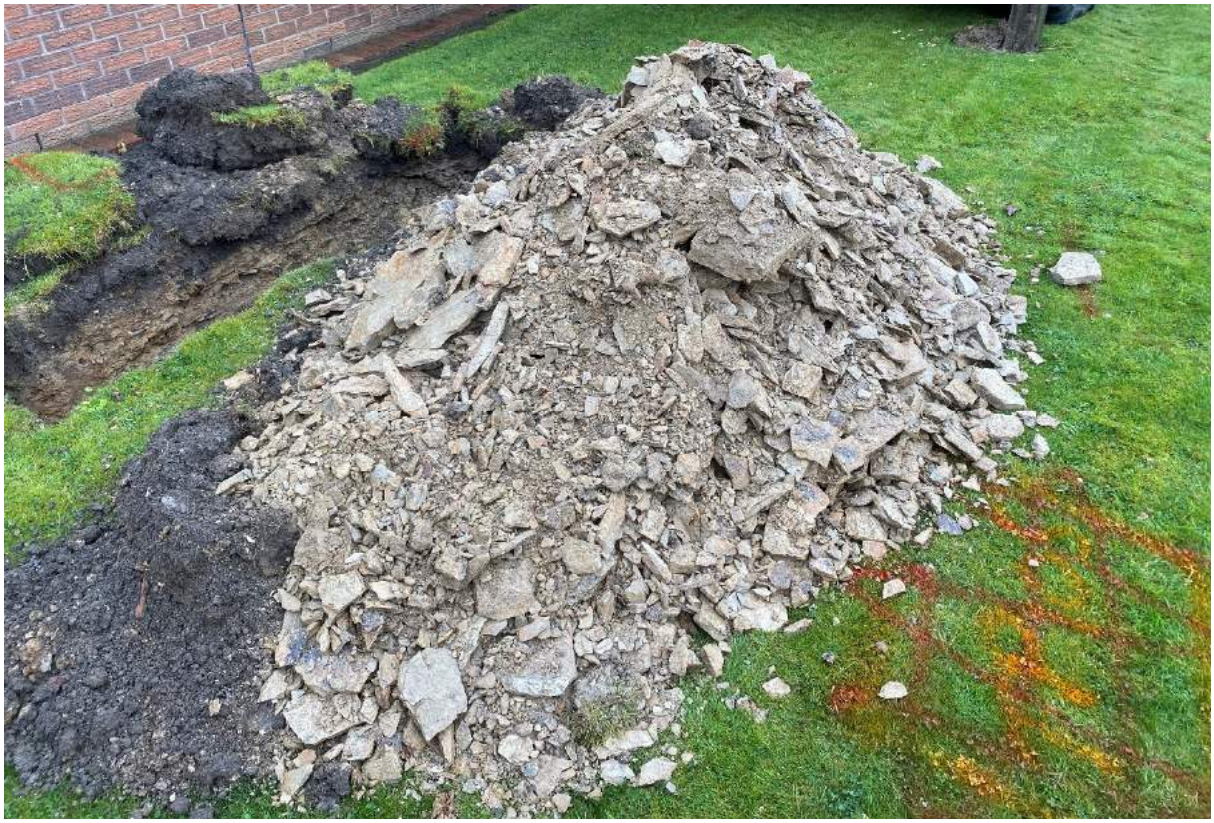
Photograph 20 – TP104 Spoil



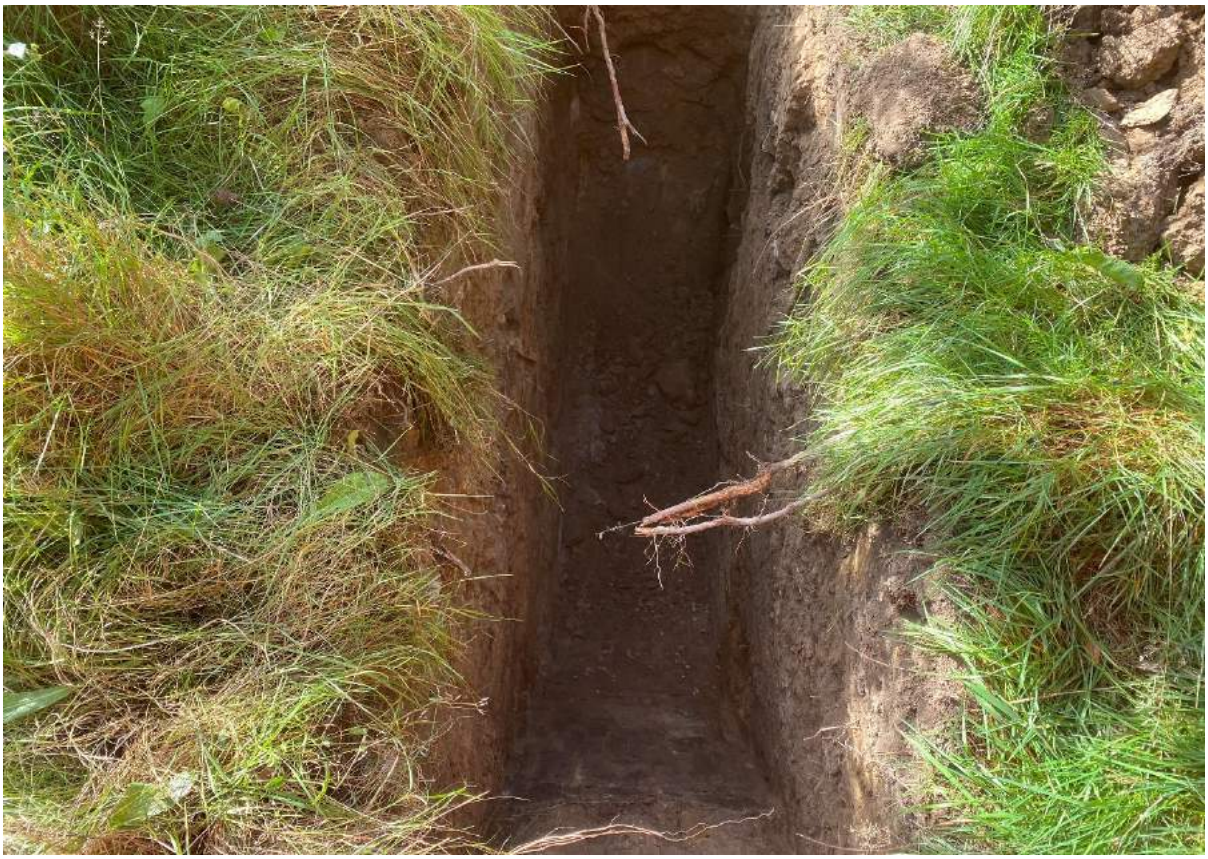
Photograph 21 – TP105



Photograph 22 – TP105

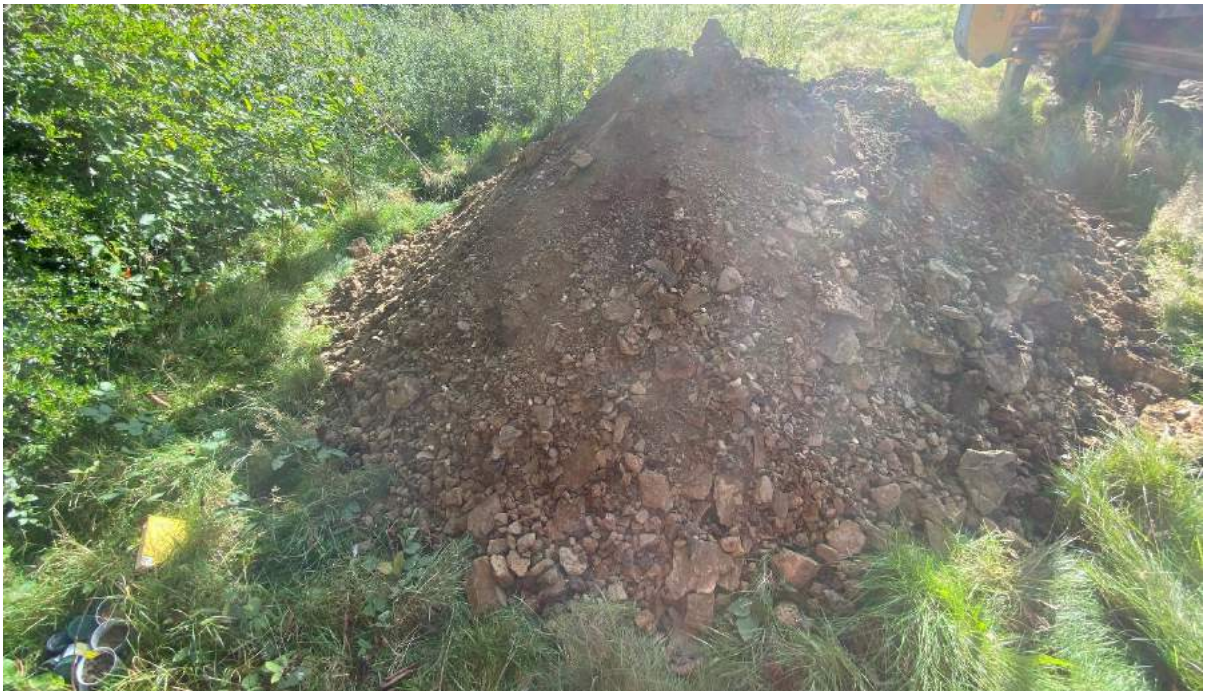


Photograph 23 – TP105 Spoil



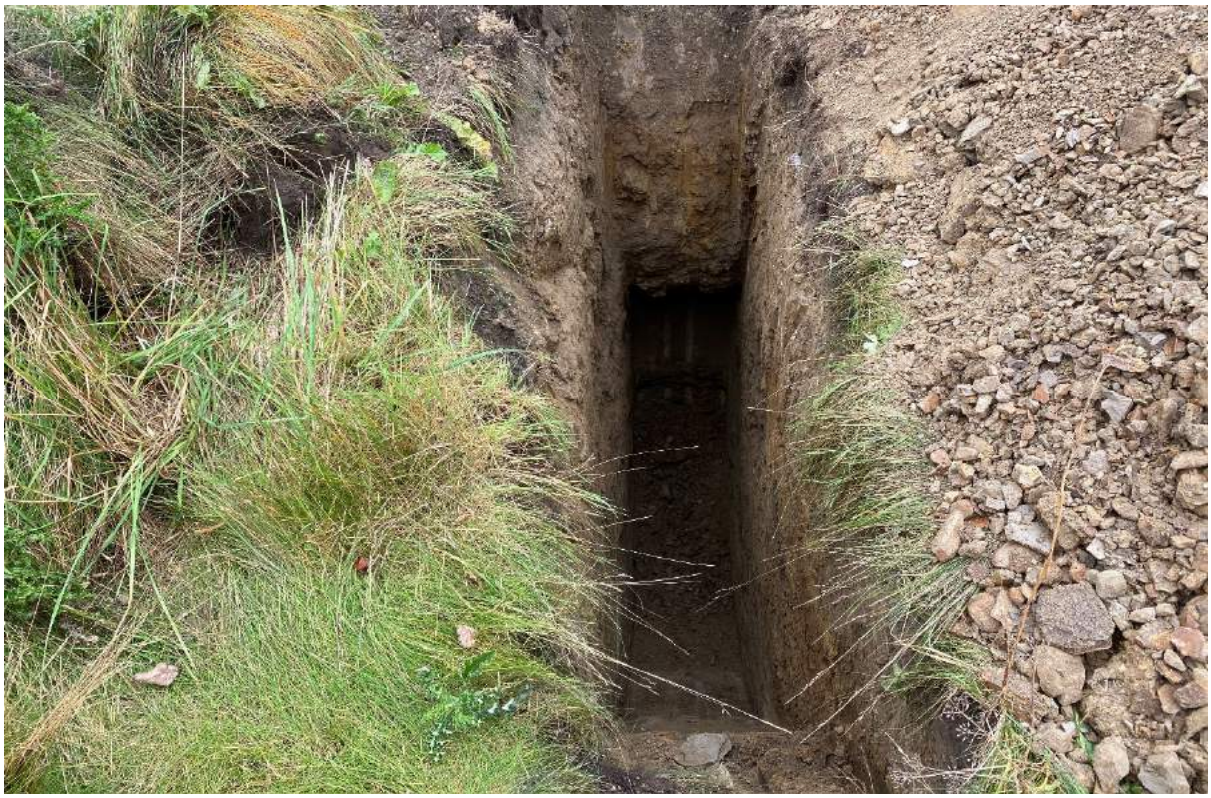
Photograph 24 – TP106

Photograph 25 – TP106

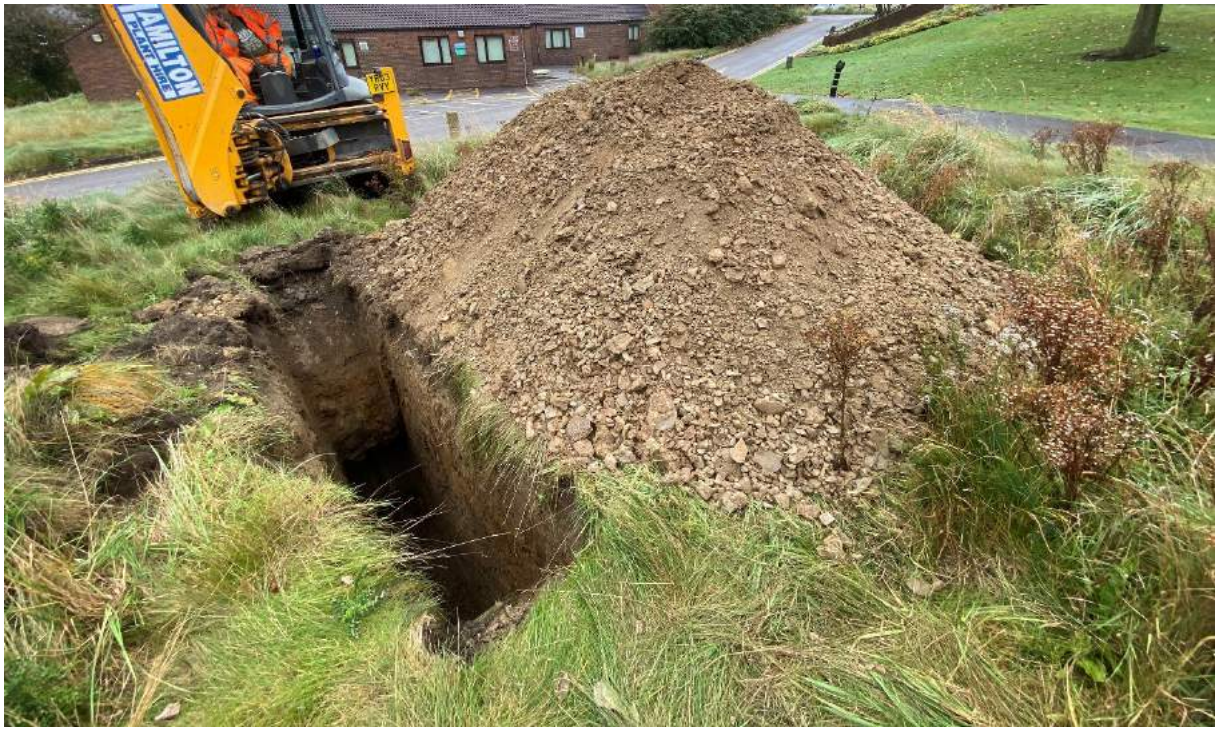


Photograph 26 – TP106 Spoil

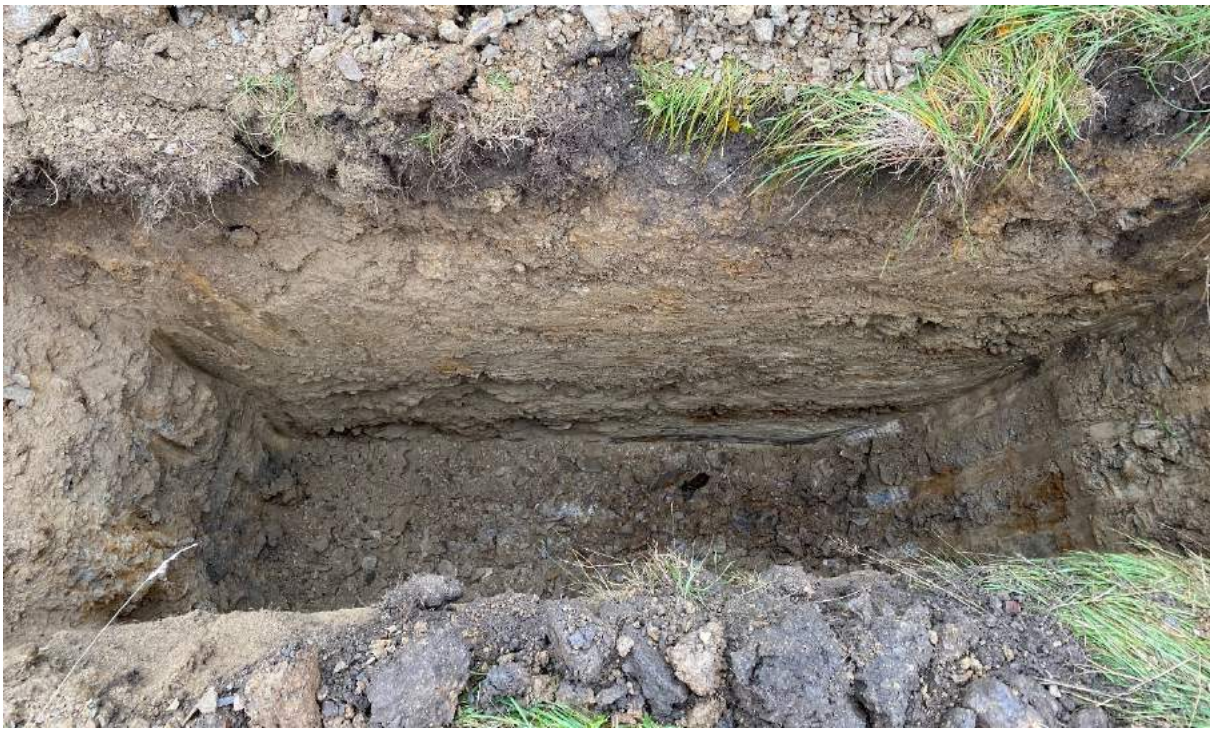
Photograph 27 – TP107



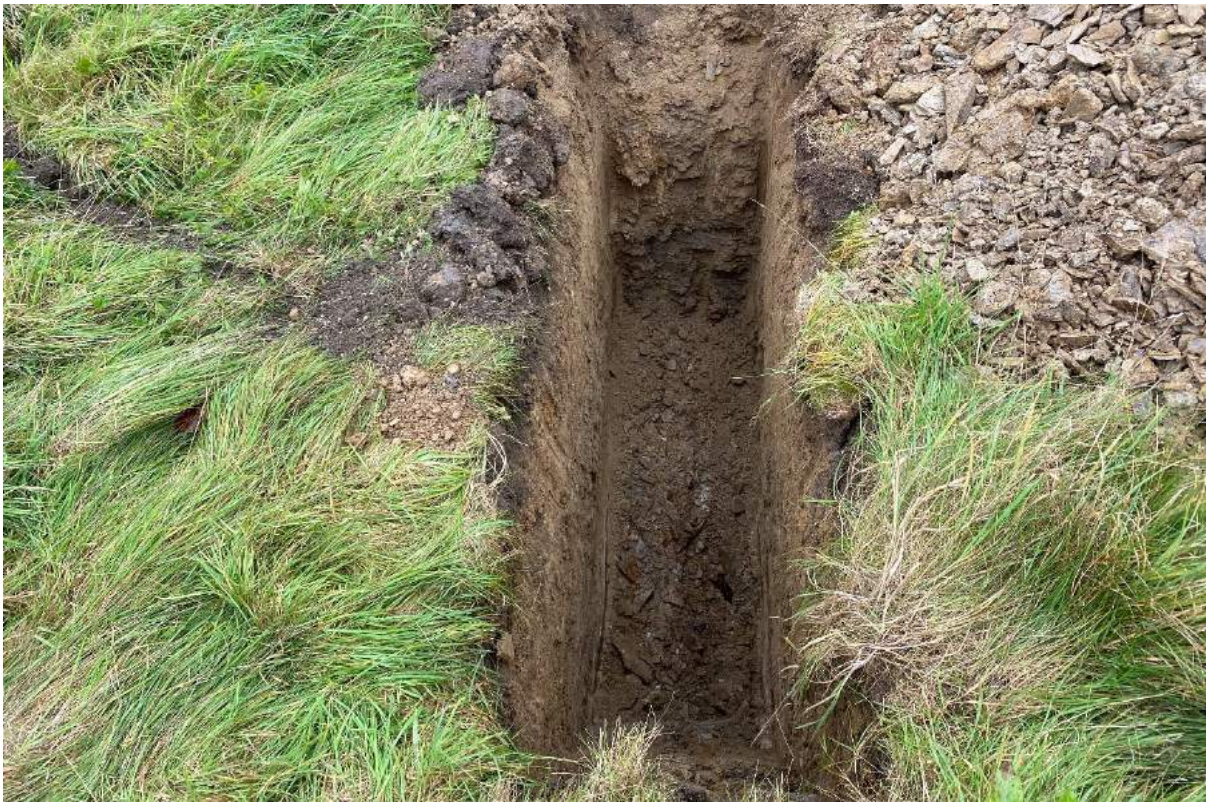
Photograph 28 – TP107



Photograph 29 – TP107 Spoil

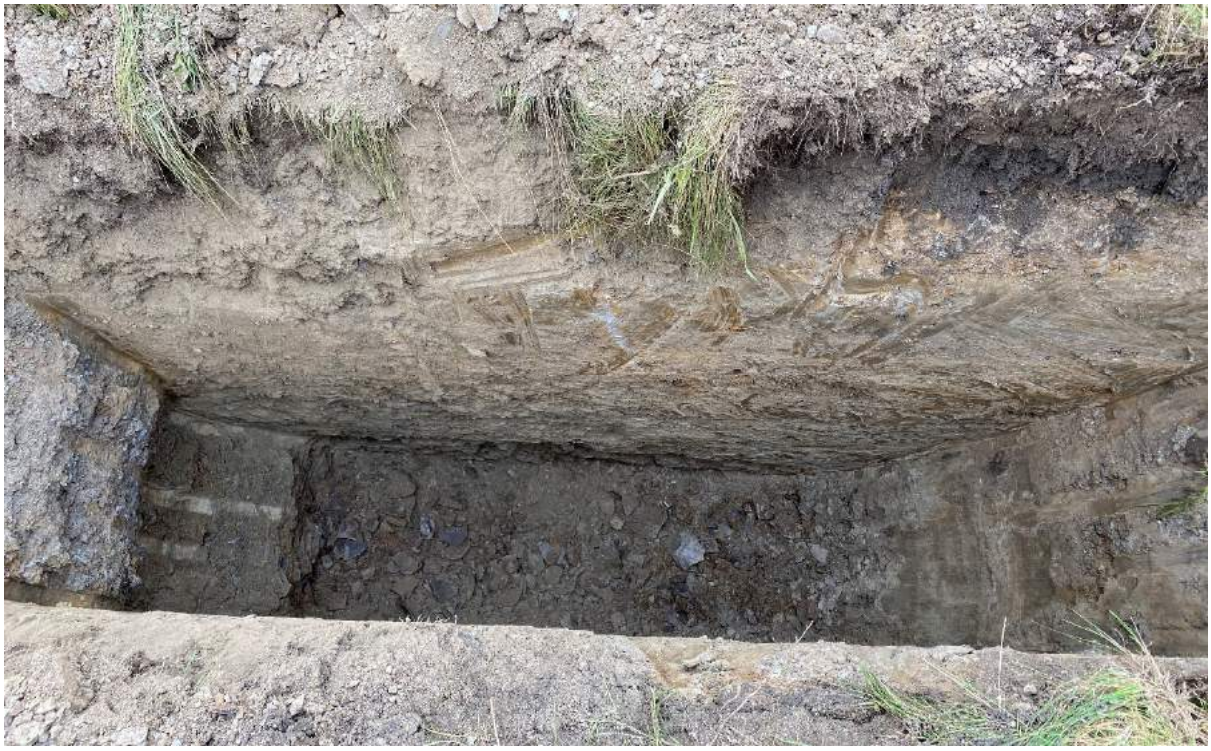


Photograph 30 – TP108

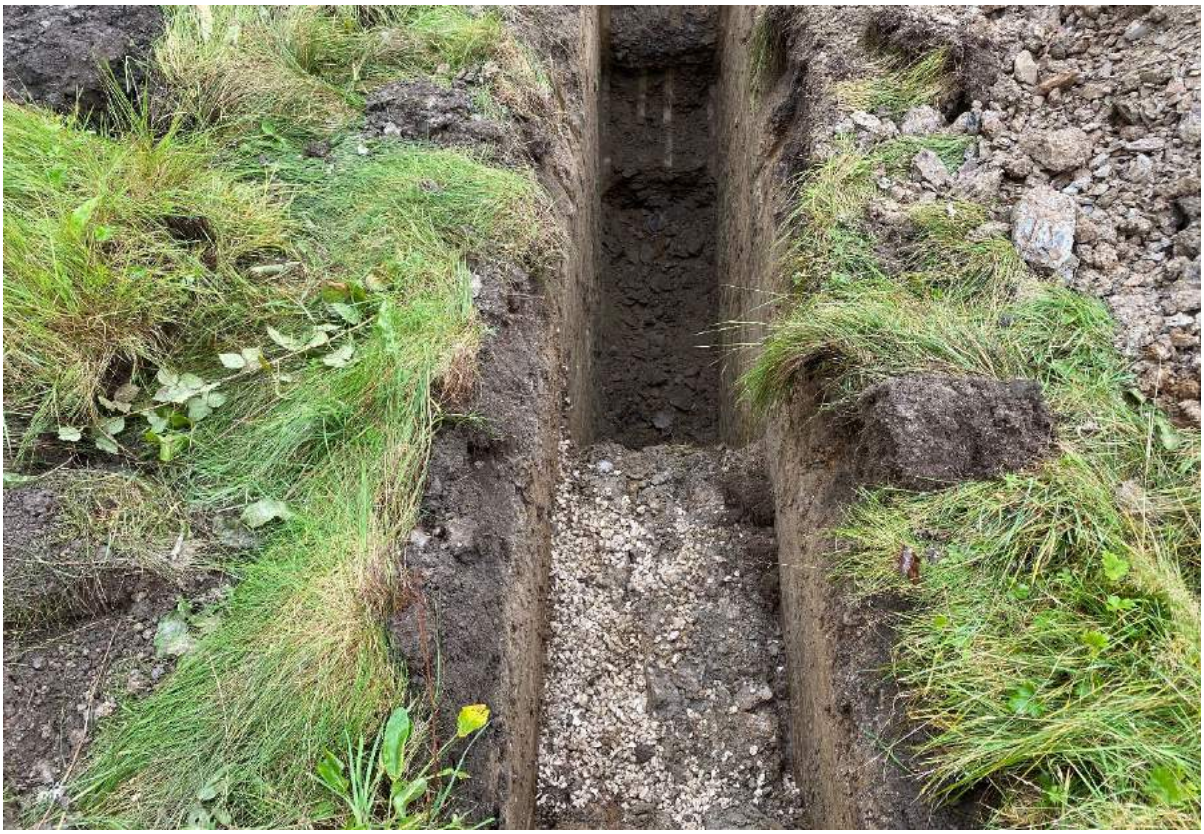


Photograph 31 – TP108

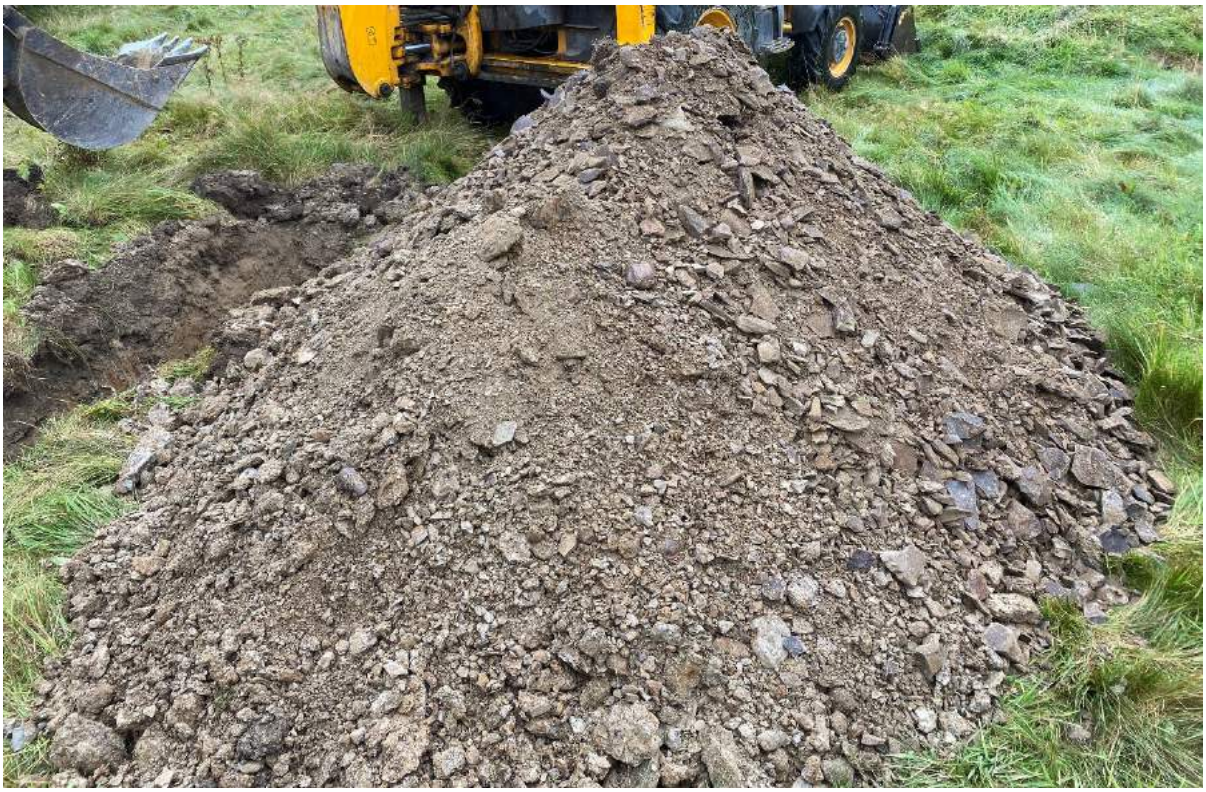
Photograph 32 – TP108 Spoil



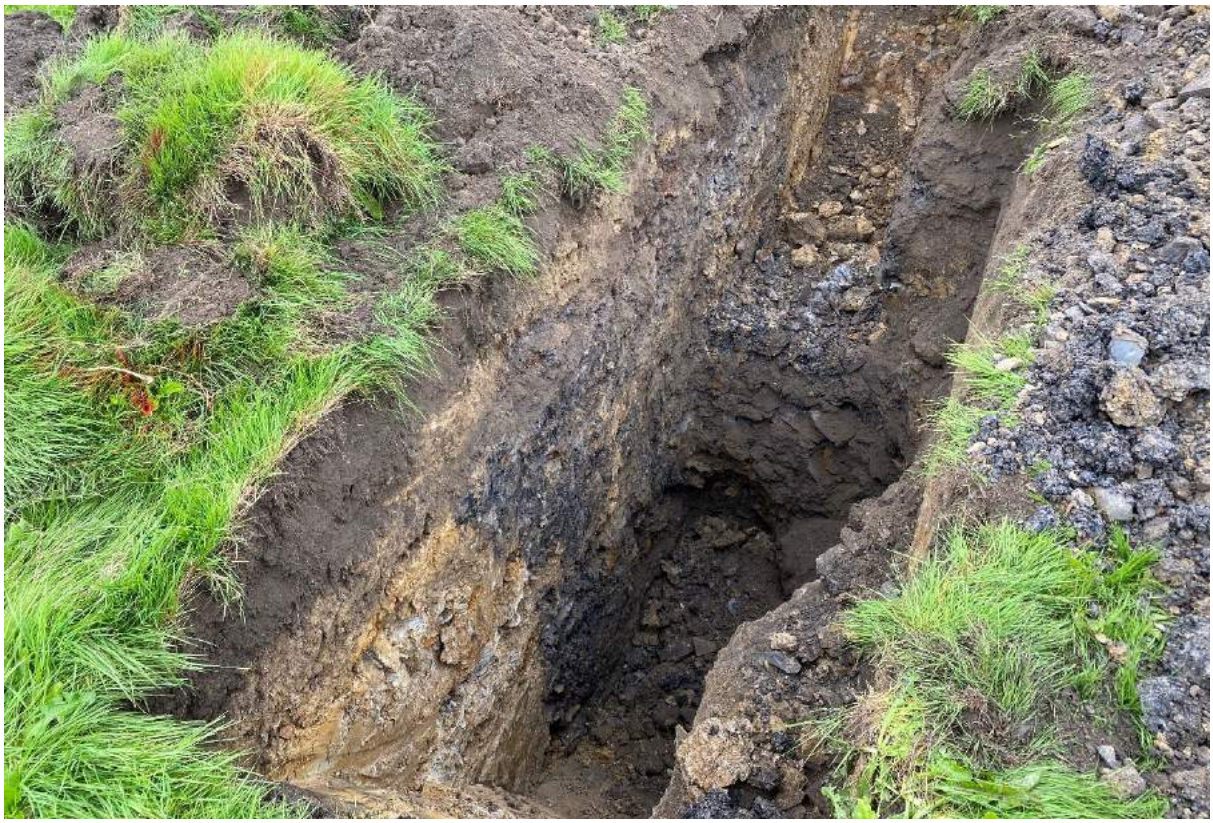
Photograph 33 – TP109



Photograph 34 – TP109

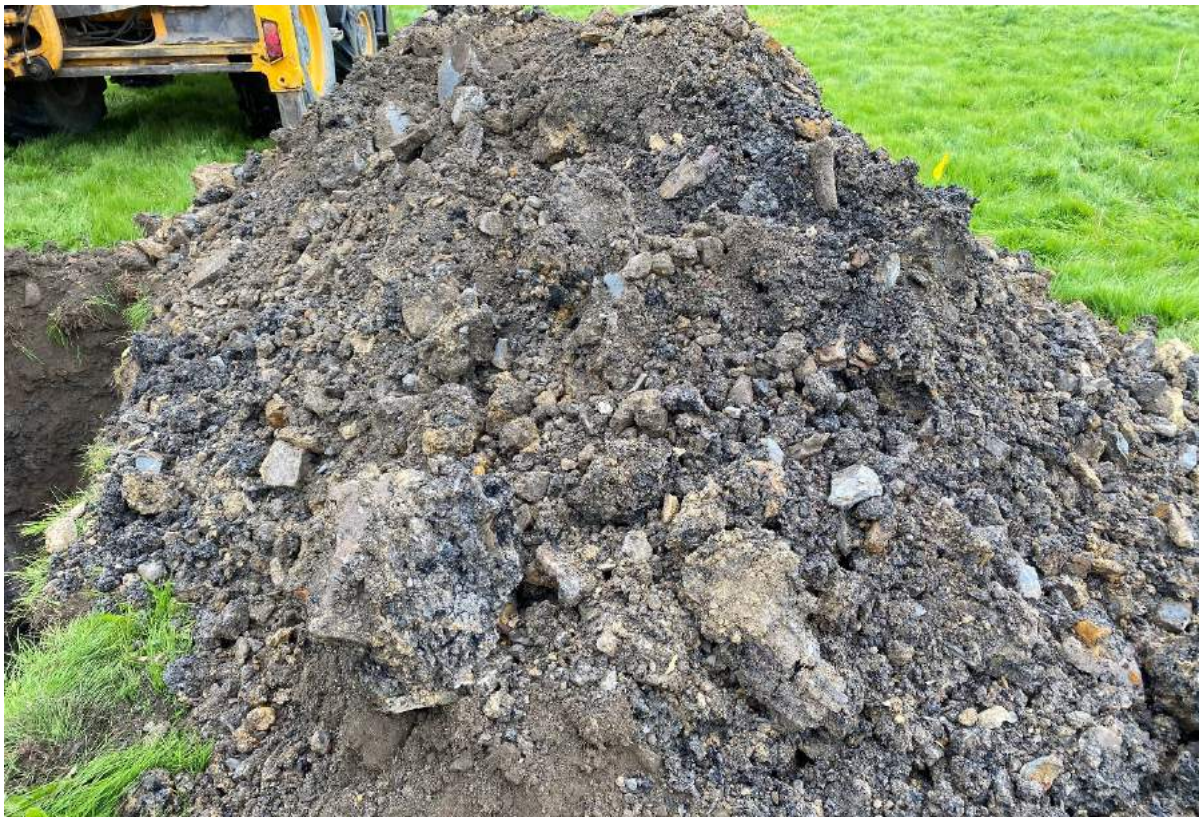


Photograph 35 – TP109 Spoil

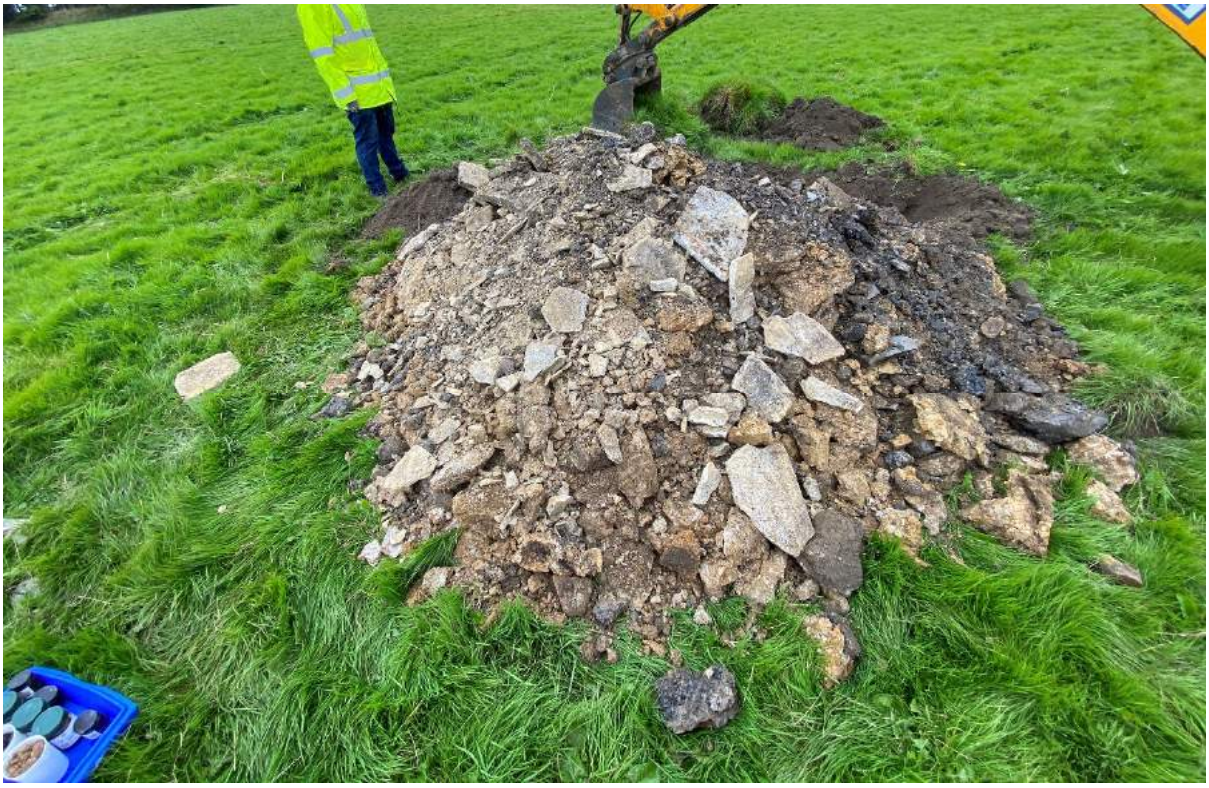


Photograph 36 – TP110 Showing change between natural and infilled shaft.

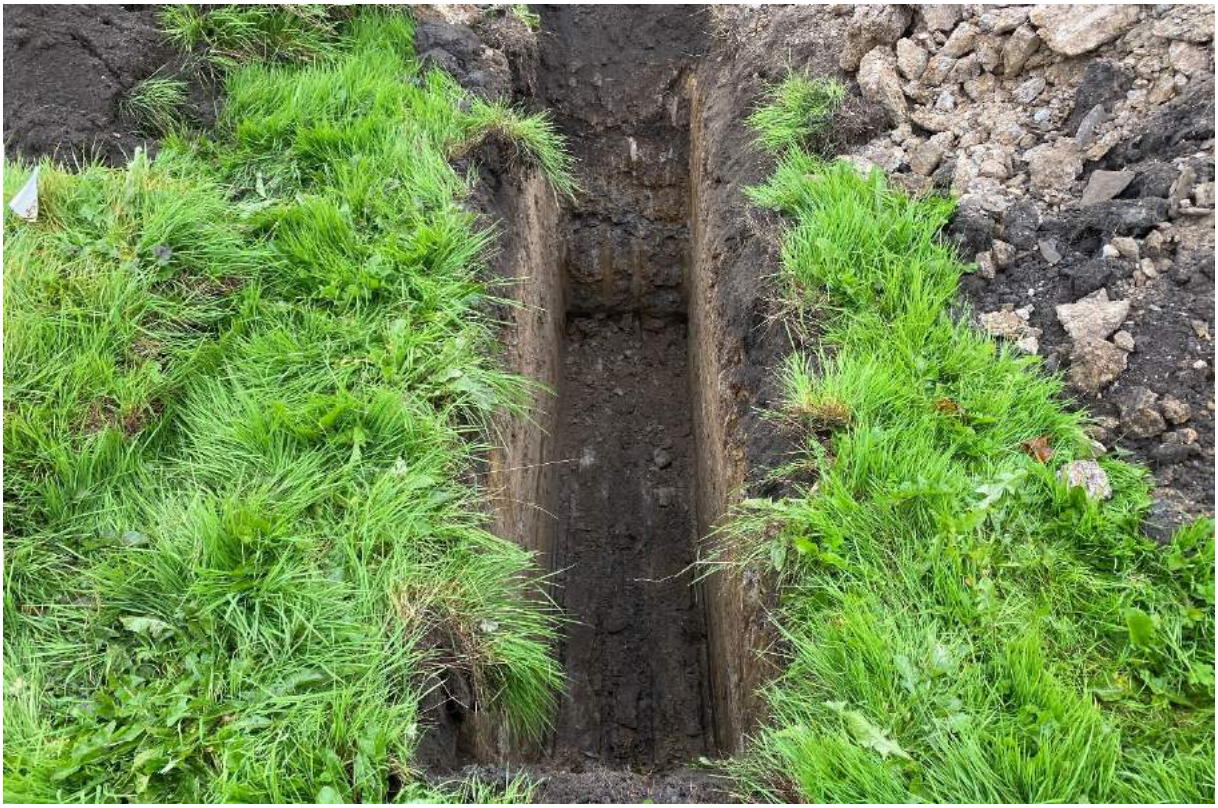
Photograph 37 – TP110



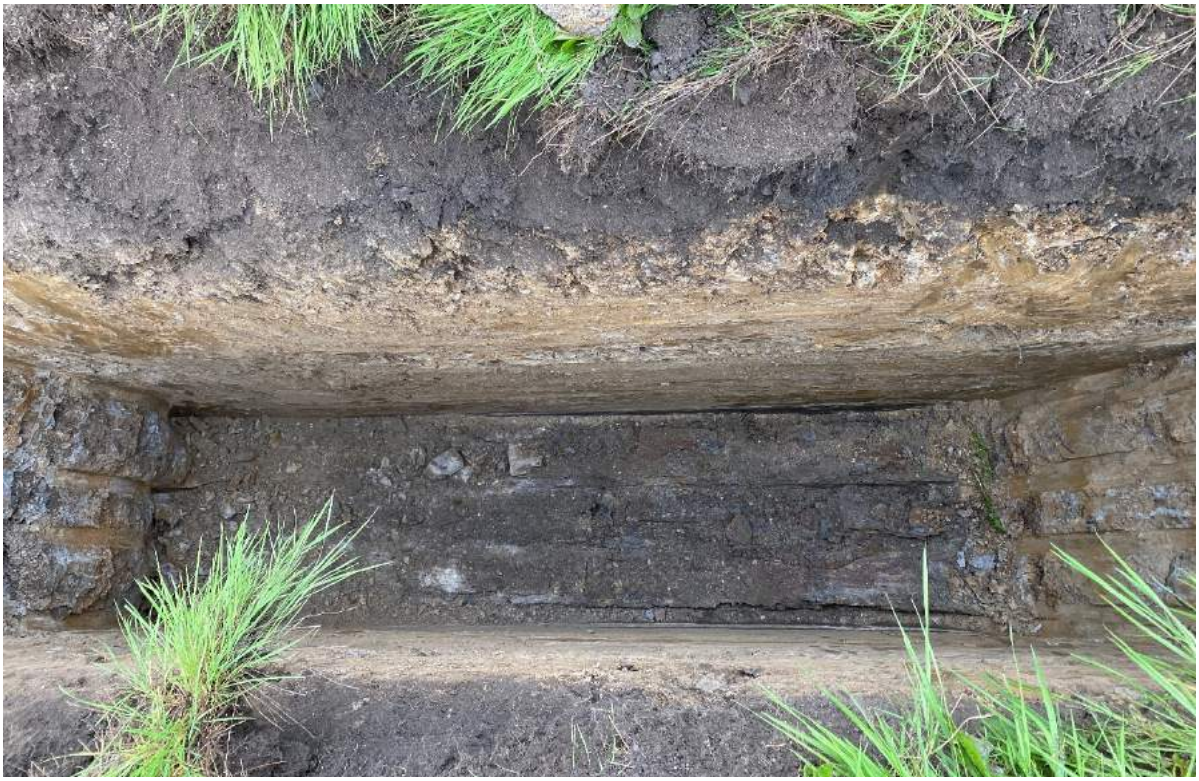
Photograph 38 – TP110 Spoil



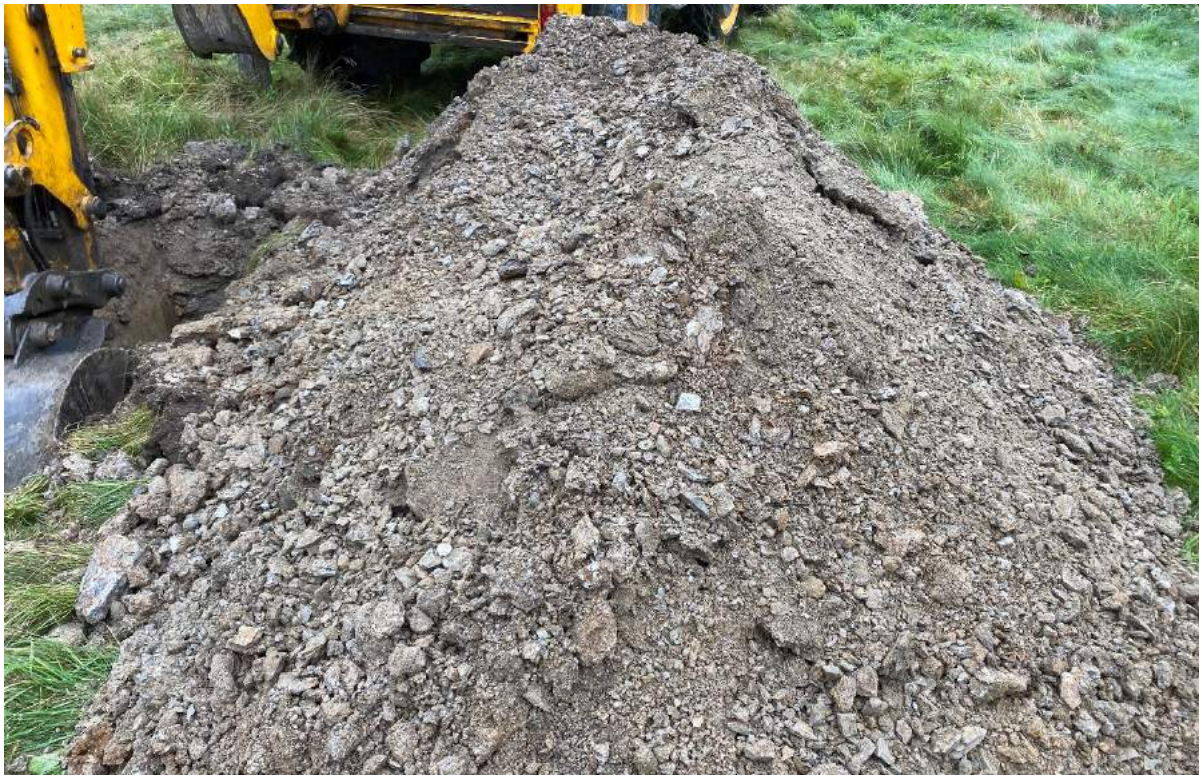
Photograph 39 – TP110 Spoil



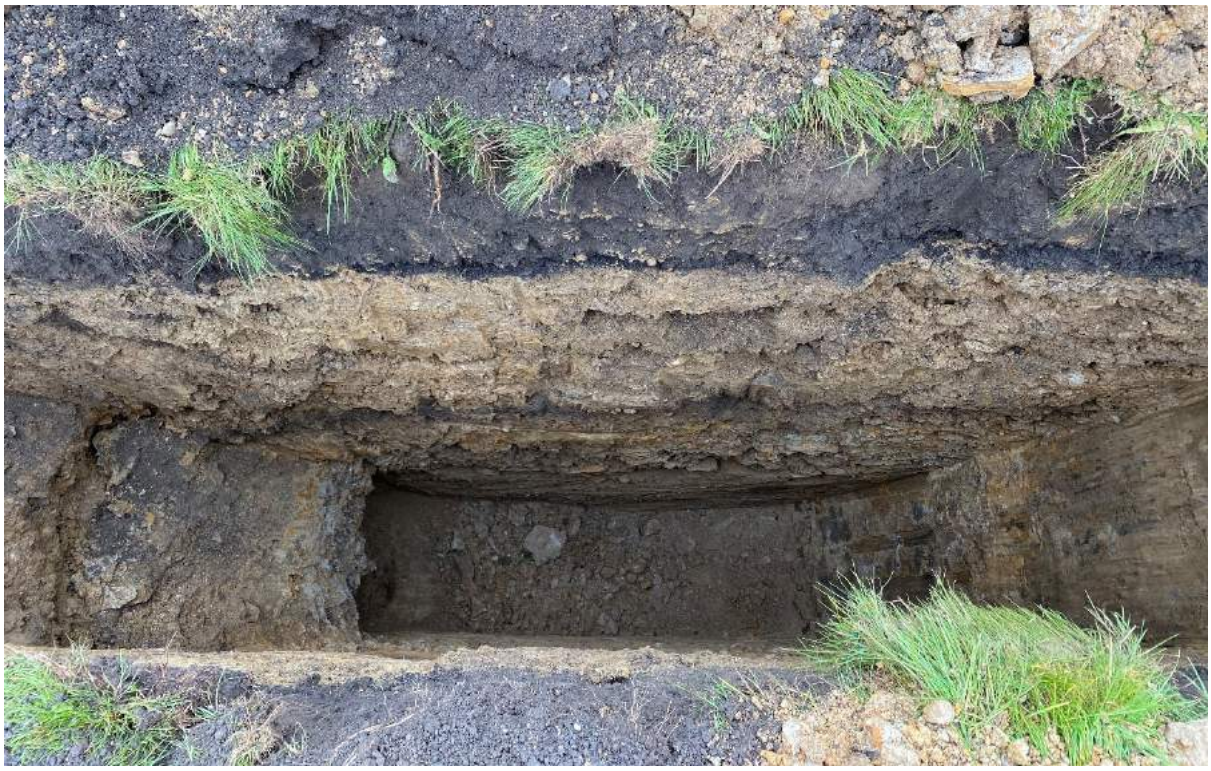
Photograph 40 – TP111



Photograph 41 – TP111

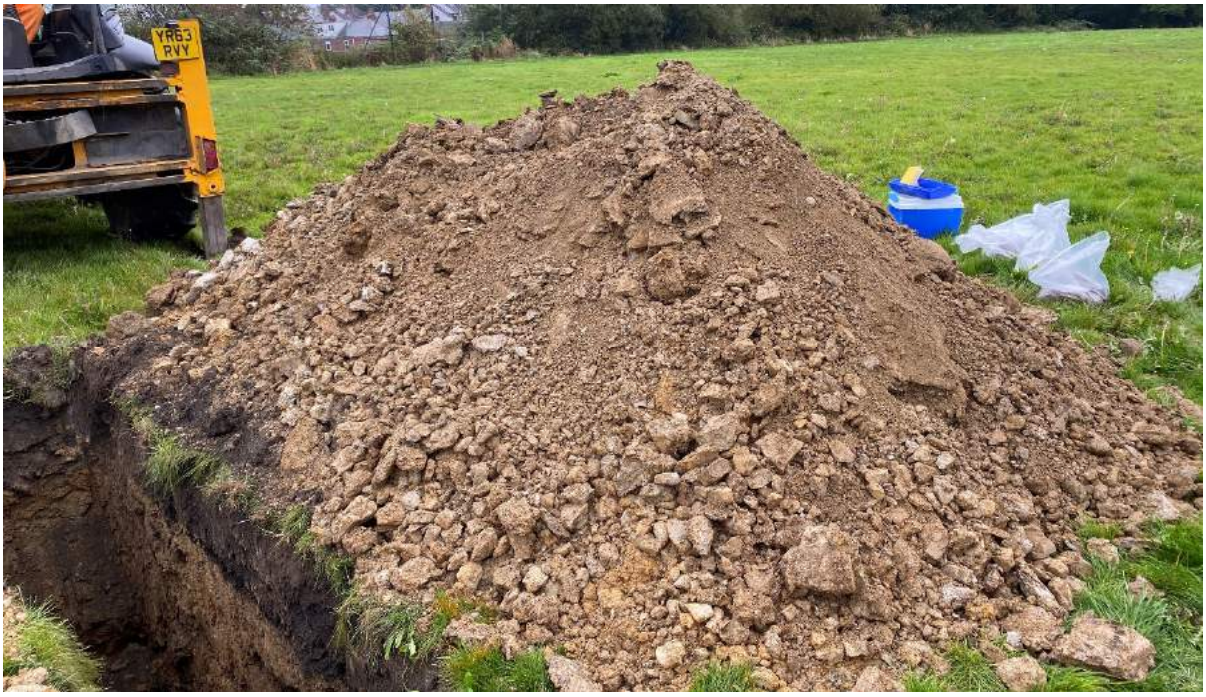


Photograph 42 – TP111 Spoil



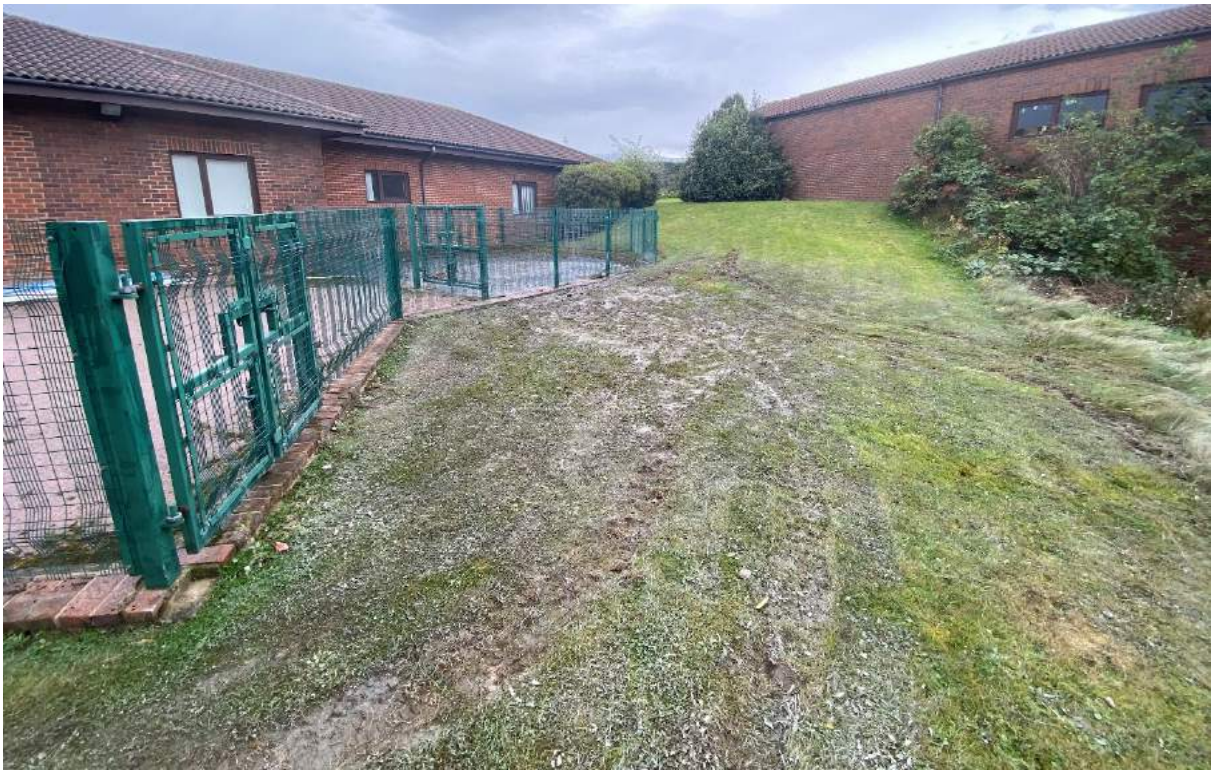
Photograph 43 – TP112

Photograph 44 – TP112

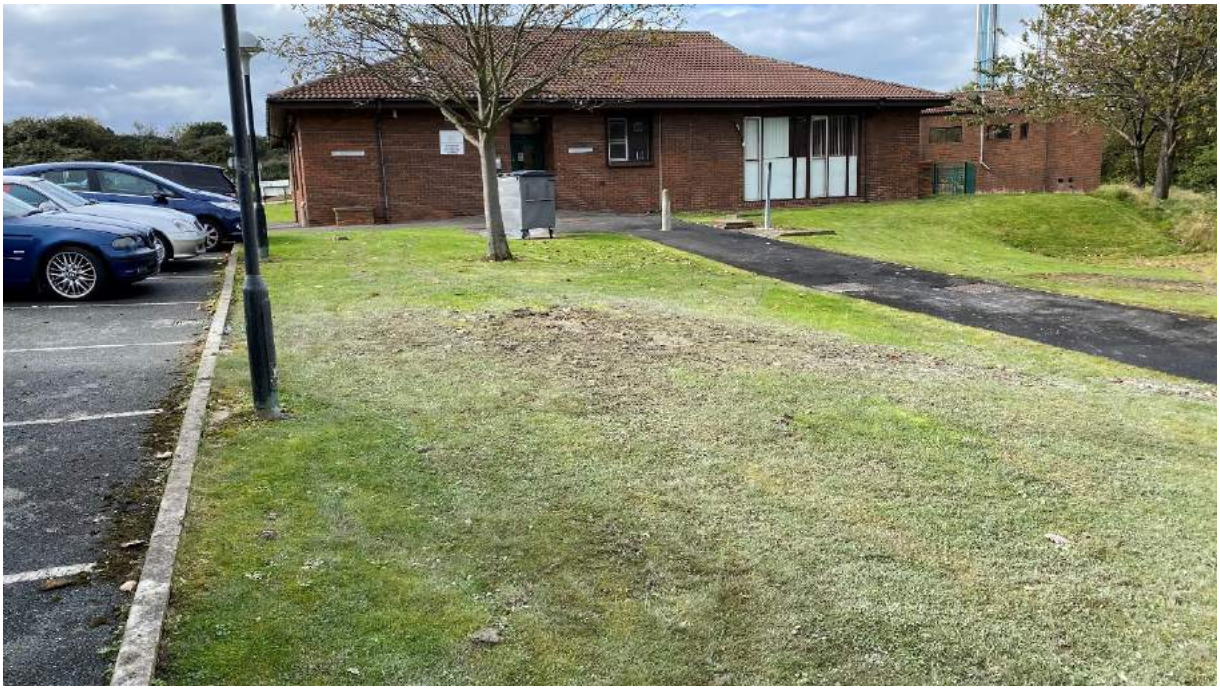


Photograph 45 – TP112 Spoil

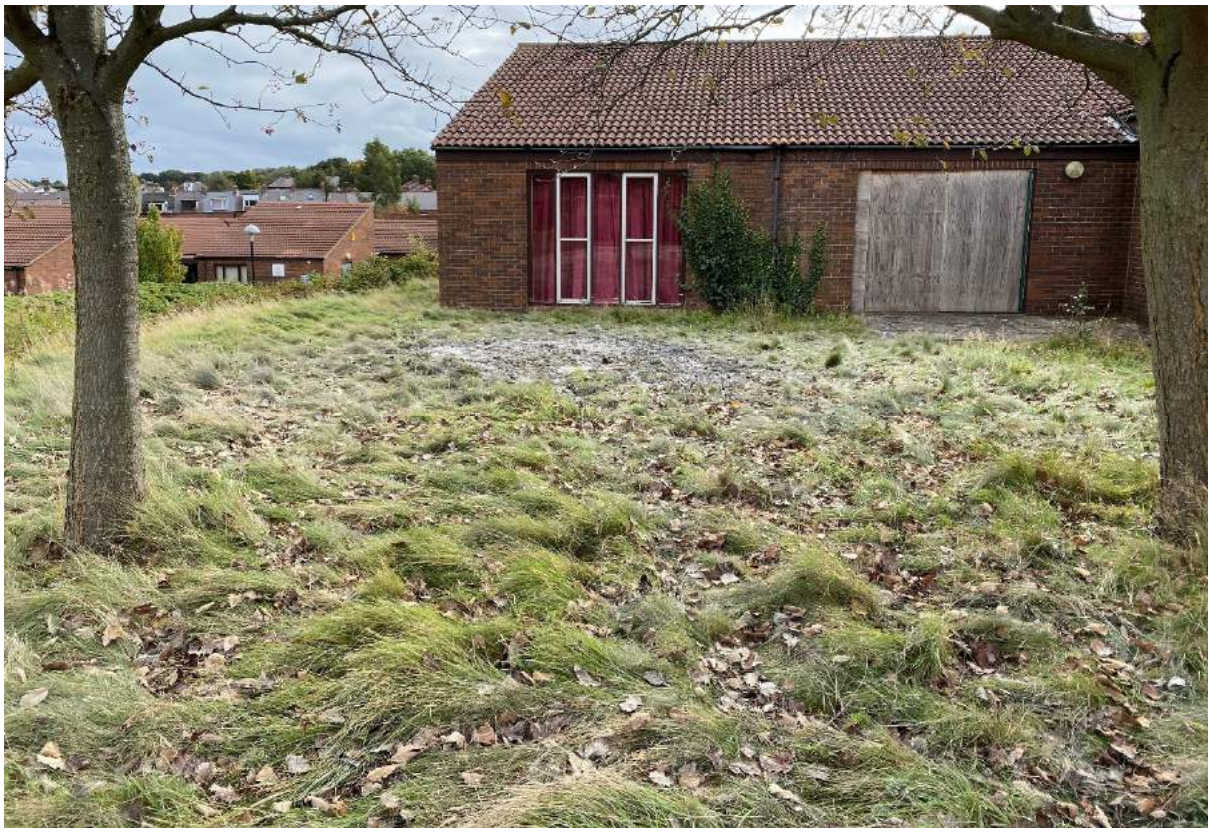
Photograph 46 – RC104 Location



Photograph 47 – RC101 Location



Photograph 48 – RC102 Location



Photograph 49 – RC103 Location

APPENDIX 3 - Exploratory Hole Logs

Rotary Core Log

Project Name: TRINITY ACADEMY	Client: WATERMAN I&E	Date: 24/09/2020 - 25/09/2020
Location: BARNSLEY	Contractor:	Co-ords: E433397.02 N405663.01
Project No. : 20063	Crew Name:	Drilling Equipment:

Borehole Number	Hole Type	Level	Logged By	Scale	Page Number
RC101	CP+RC	140.60m AoD	CH	1:10	Sheet 1 of 13

Well	Water	Depth (m)	Type /FI	Coring TCR	Coring SCR	Coring RQD	Diameter Recovery (SPT)	Depth (m)	Level (m)	Legend	Stratum Description
		0.10	ES					0.21	140.39		MADE GROUND: Grass over dark grey slightly sandy slightly gravelly clayey topsoil. Sand is fine to medium. Gravel is angular to subangular fine to coarse of sandstone and brick.
		0.50 0.50 - 1.00	B ES								Extremely weak orange brown fine grained SANDSTONE residually weathered recovered as sandy clayey angular to subangular fine to coarse gravel of sandstone. Sand is fine to medium.
		1.00	D				N=50 (25 for 75mm/ 50 for 30mm)	1.50	139.10		NO RECOVERY.
			NR					1.98	138.62		

1

2

Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation				Drilling Flush					
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Depth Top	Depth Base	Inclination	Orientation	Depth Top	Depth Base	Type	Colour	Min (%)	Max (%)

Remarks

1. Service clearance undertaken. 2. Hand dug inspection pit excavated to 1.20m bgl prior to drilling works. 3. Dynamic sampling commenced from base of inspection pit to 1.5m bgl. 4. Rotary coring undertaken from 1.5m to 10.5m bgl. 5. Rotary open hole drilling carried out from 10.5m bgl to 25.0m bgl. 6. Broken ground encountered between 8.0m and 10.5m bgl and water flush lost, suspected mine workings. 7. Groundwater strikes not encountered. 8. Standpipe installed to 10.5m bgl, 8.0m plain, 2.5m slotted.

Rotary Core Log

Project Name: TRINITY ACADEMY	Client: WATERMAN I&E	Date: 24/09/2020 - 25/09/2020
Location: BARNSLEY	Contractor:	Co-ords: E433397.02 N405663.01
Project No. : 20063	Crew Name:	Drilling Equipment:

Borehole Number	Hole Type	Level	Logged By	Scale	Page Number
RC101	CP+RC	140.60m AoD	CH	1:10	Sheet 2 of 13

Well	Water	Depth (m)	Type /Fl	Coring TCR	Coring SCR	Coring RQD	Diameter Recovery (SPT)	Depth (m)	Level (m)	Legend	Stratum Description	
			NI								Extremely weak light grey weathered orange brown fine grained SANDSTONE, highly weathered with horizontal to sub-horizontal (40) smooth to rough planar closely spaced discontinuities. *Recovered as subangular to subrounded coarse gravel and cobbles between 1.98m and 2.12m bgl.* *Recovered as subrounded cobbles between 2.20m and 2.28m bgl.* *Recovered as subangular cobbles between 2.41m and 2.56m bgl.*	
			1									
			NI									
			2									
		1.50 - 3.00	NI	68	12	0		2.56	138.04		Extremely weak grey SILTSTONE, highly weathered with horizontal rough planar closely spaced discontinuities and small scale bedding structures present. *Recovered as grey mottled orange brown slightly clayey angular to subrounded fine to coarse gravel and cobbles of siltstone between 2.56m and 2.82m bgl.* *Recovered as slightly clayey subangular to subrounded cobbles between 2.86m and 3.0m bgl.*	
			1									
			NI					3.00	137.60		NO RECOVERY.	3
			NR									
		3.00 - 4.50		65	5	0		3.53	137.07		Extremely weak grey SILTSTONE highly weathered with horizontal to sub-horizontal (10) smooth planar to undulating closely spaced discontinuities. *Weathering dark orange brown and recovered as angular to subrounded coarse gravel and cobbles with thin ironstone bands between 3.53m and 3.75m bgl.*	
			NI									
			1					3.82	136.78		Weak grey to dark orange brown fine grained SANDSTONE highly weathered, recovered as angular to subangular fine to coarse gravel and cobbles of sandstone and siltstone bands.	4

Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation				Drilling Flush					
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Depth Top	Depth Base	Inclination	Orientation	Depth Top	Depth Base	Type	Colour	Min (%)	Max (%)

Remarks

1. Service clearance undertaken. 2. Hand dug inspection pit excavated to 1.20m bgl prior to drilling works. 3. Dynamic sampling commenced from base of inspection pit to 1.5m bgl. 4. Rotary coring undertaken from 1.5m to 10.5m bgl. 5. Rotary open hole drilling carried out from 10.5m bgl to 25.0m bgl. 6. Broken ground encountered between 8.0m and 10.5m bgl and water flush lost, suspected mine workings. 7. Groundwater strikes not encountered. 8. Standpipe installed to 10.5m bgl, 8.0m plain, 2.5m slotted.

Rotary Core Log

GROUNDTECH CONSULTING

Project Name: TRINITY ACADEMY	Client: WATERMAN I&E	Date: 24/09/2020 - 25/09/2020
Location: BARNSLEY	Contractor:	Co-ords: E433397.02 N405663.01
Project No. : 20063	Crew Name:	Drilling Equipment:

Borehole Number	Hole Type	Level	Logged By	Scale	Page Number
RC101	CP+RC	140.60m AoD	CH	1:10	Sheet 3 of 13

Well	Water	Depth (m)	Type /Fl	Coring TCR	Coring SCR	Coring RQD	Diameter Recovery (SPT)	Depth (m)	Level (m)	Legend	Stratum Description
			NI					4.27	136.33		Weak grey to dark orange brown fine grained SANDSTONE highly weathered, recovered as angular to subangular fine to coarse gravel and cobbles of sandstone and siltstone bands.
											Extremely weak grey SILTSTONE residually weathered, recovered as slightly clayey angular to subangular fine to coarse gravel of siltstone.
								4.50	136.10		NO RECOVERY.
			NR								
		4.50 - 6.00	7	70	31	13		4.96	135.64		Extremely weak grey SILTSTONE moderately to highly weathered with horizontal smooth to rough planar closely spaced discontinuities with orange brown weathering staining on discontinuity surfaces.
											Discontinuities are smooth stepped to undulating between 5.33m and 5.48m bgl.
			NI								*Recovered as slightly clayey angular to subangular cobbles due to sub-vertical joints splitting core between 5.48m and 5.76m bgl.*
			1								*Discontinuities are very close between 5.76m and 5.79m bgl.*
			NI								*Recovered as slightly clayey angular to subangular cobbles due to sub-vertical joints splitting core between 5.79m and 6.0m bgl.*

5

6

Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation				Drilling Flush					
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Depth Top	Depth Base	Inclination	Orientation	Depth Top	Depth Base	Type	Colour	Min (%)	Max (%)

Remarks

1. Service clearance undertaken. 2. Hand dug inspection pit excavated to 1.20m bgl prior to drilling works. 3. Dynamic sampling commenced from base of inspection pit to 1.5m bgl. 4. Rotary coring undertaken from 1.5m to 10.5m bgl. 5. Rotary open hole drilling carried out from 10.5m bgl to 25.0m bgl. 6. Broken ground encountered between 8.0m and 10.5m bgl and water flush lost, suspected mine workings. 7. Groundwater strikes not encountered. 8. Standpipe installed to 10.5m bgl, 8.0m plain, 2.5m slotted.

Rotary Core Log

Project Name: TRINITY ACADEMY	Client: WATERMAN I&E	Date: 24/09/2020 - 25/09/2020
Location: BARNSLEY	Contractor:	Co-ords: E433397.02 N405663.01
Project No. : 20063	Crew Name:	Drilling Equipment:

Borehole Number	Hole Type	Level	Logged By	Scale	Page Number
RC101	CP+RC	140.60m AoD	CH	1:10	Sheet 4 of 13

Well	Water	Depth (m)	Type /Fl	Coring TCR	Coring SCR	Coring RQD	Diameter Recovery (SPT)	Depth (m)	Level (m)	Legend	Stratum Description
			NR								Extremely weak grey SILTSTONE moderately to highly weathered with horizontal smooth to rough planar closely spaced discontinuities with orange brown weathering staining on discontinuity surfaces.
			NI								*NO RECOVERY between 6.0m and 6.05m bgl.*
								6.30	134.30		*Recovered as slightly clayey subangular to subrounded fine to coarse gravel of siltstone between 6.05m and 6.30m bgl.*
			2								Extremely weak to very weak grey mottled brown SILTSTONE highly weathered with horizontal smooth to rough planar to stepped very close to closely spaced discontinuities. Small scale bedding structures present. Some sub-vertical joint fractures present.
			NI								*Residually weathered recovered as soft clay between 6.30m and 6.40m bgl.*
		6.00 - 7.50	4	96	48	36					*Recovered as angular to subangular cobbles between 6.54m and 6.63m bgl.*
			NI								*Recovered as subangular cobbles between 7.03m and 7.11m bgl.*
			1								
			NI								*Recovered as slightly gravelly angular to subangular cobbles between 7.18m and 7.50m bgl.*
								7.50	133.10		NO RECOVERY.

7

8

Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation				Drilling Flush					
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Depth Top	Depth Base	Inclination	Orientation	Depth Top	Depth Base	Type	Colour	Min (%)	Max (%)

Remarks

1. Service clearance undertaken. 2. Hand dug inspection pit excavated to 1.20m bgl prior to drilling works. 3. Dynamic sampling commenced from base of inspection pit to 1.5m bgl. 4. Rotary coring undertaken from 1.5m to 10.5m bgl. 5. Rotary open hole drilling carried out from 10.5m bgl to 25.0m bgl. 6. Broken ground encountered between 8.0m and 10.5m bgl and water flush lost, suspected mine workings. 7. Groundwater strikes not encountered. 8. Standpipe installed to 10.5m bgl, 8.0m plain, 2.5m slotted.

Rotary Core Log

Project Name: TRINITY ACADEMY	Client: WATERMAN I&E	Date: 24/09/2020 - 25/09/2020
Location: BARNSLEY	Contractor:	Co-ords: E433397.02 N405663.01
Project No. : 20063	Crew Name:	Drilling Equipment:

Borehole Number	Hole Type	Level	Logged By	Scale	Page Number
RC101	CP+RC	140.60m AoD	CH	1:10	Sheet 5 of 13

Well	Water	Depth (m)	Type /Fl	Coring TCR	Coring SCR	Coring RQD	Diameter Recovery (SPT)	Depth (m)	Level (m)	Legend	Stratum Description
			NR								NO RECOVERY. *Loss of water flush at 8.0m bgl due to suspected mine workings.*
		7.50 - 9.00	NI 1 NI 3 NI 1 NI	40	20	0		8.40 9.00	132.20 131.60		Extremely weak to very weak grey SILTSTONE highly weathered with horizontal smooth planar to stepped very closely to closely spaced discontinuities. *Recovered as angular to subrounded coarse gravel and cobbles between 8.40m and 8.50m bgl.* *Recovered as subangular to subrounded fine to coarse gravel and cobbles between 8.54m and 8.62m bgl.* *Recovered as soft gravelly clay and cobbles between 8.83m and 8.89m bgl.* *Recovered as soft grey gravelly clay between 8.89m and 8.95m bgl.*
		9.00 - 10.50		16	6	6					NO RECOVERY.

Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation				Drilling Flush					
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Depth Top	Depth Base	Inclination	Orientation	Depth Top	Depth Base	Type	Colour	Min (%)	Max (%)

Remarks

1. Service clearance undertaken. 2. Hand dug inspection pit excavated to 1.20m bgl prior to drilling works. 3. Dynamic sampling commenced from base of inspection pit to 1.5m bgl. 4. Rotary coring undertaken from 1.5m to 10.5m bgl. 5. Rotary open hole drilling carried out from 10.5m bgl to 25.0m bgl. 6. Broken ground encountered between 8.0m and 10.5m bgl and water flush lost, suspected mine workings. 7. Groundwater strikes not encountered. 8. Standpipe installed to 10.5m bgl, 8.0m plain, 2.5m slotted.

Rotary Core Log

Project Name: TRINITY ACADEMY	Client: WATERMAN I&E	Date: 24/09/2020 - 25/09/2020
Location: BARNSLEY	Contractor:	Co-ords: E433397.02 N405663.01
Project No. : 20063	Crew Name:	Drilling Equipment:

Borehole Number	Hole Type	Level	Logged By	Scale	Page Number
RC101	CP+RC	140.60m AoD	CH	1:10	Sheet 6 of 13

Well	Water	Depth (m)	Type /FI	Coring TCR	Coring SCR	Coring RQD	Diameter Recovery (SPT)	Depth (m)	Level (m)	Legend	Stratum Description
			NR								NO RECOVERY.
			NI					10.26	130.34		MADE GROUND: Soft grey gravelly clay with low cobble content of sandstone. Gravel is angular to subangular fine to coarse of sandstone and coal.
			1					10.40	130.20		Weak grey SILTSTONE moderately weathered with horizontal smooth stepped closely spaced discontinuities.
								10.50	130.10		Black anthracite COAL.
								10.90	129.70		Extremely weak grey MUDSTONE.

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12

Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation				Drilling Flush					
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Depth Top	Depth Base	Inclination	Orientation	Depth Top	Depth Base	Type	Colour	Min (%)	Max (%)

Remarks

1. Service clearance undertaken. 2. Hand dug inspection pit excavated to 1.20m bgl prior to drilling works. 3. Dynamic sampling commenced from base of inspection pit to 1.5m bgl. 4. Rotary coring undertaken from 1.5m to 10.5m bgl. 5. Rotary open hole drilling carried out from 10.5m bgl to 25.0m bgl. 6. Broken ground encountered between 8.0m and 10.5m bgl and water flush lost, suspected mine workings. 7. Groundwater strikes not encountered. 8. Standpipe installed to 10.5m bgl, 8.0m plain, 2.5m slotted.

Rotary Core Log

Project Name: TRINITY ACADEMY	Client: WATERMAN I&E	Date: 24/09/2020 - 25/09/2020
Location: BARNSLEY	Contractor:	Co-ords: E433397.02 N405663.01
Project No. : 20063	Crew Name:	Drilling Equipment:

Borehole Number	Hole Type	Level	Logged By	Scale	Page Number
RC101	CP+RC	140.60m AoD	CH	1:10	Sheet 7 of 13

Well	Water	Depth (m)	Type /Fl	Coring TCR	Coring SCR	Coring RQD	Diameter Recovery (SPT)	Depth (m)	Level (m)	Legend	Stratum Description
											Extremely weak grey MUDSTONE.
								12.50	128.10		Grey SILTSTONE.

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Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation				Drilling Flush					
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Depth Top	Depth Base	Inclination	Orientation	Depth Top	Depth Base	Type	Colour	Min (%)	Max (%)

Remarks

1. Service clearance undertaken. 2. Hand dug inspection pit excavated to 1.20m bgl prior to drilling works. 3. Dynamic sampling commenced from base of inspection pit to 1.5m bgl. 4. Rotary coring undertaken from 1.5m to 10.5m bgl. 5. Rotary open hole drilling carried out from 10.5m bgl to 25.0m bgl. 6. Broken ground encountered between 8.0m and 10.5m bgl and water flush lost, suspected mine workings. 7. Groundwater strikes not encountered. 8. Standpipe installed to 10.5m bgl, 8.0m plain, 2.5m slotted.

Rotary Core Log

Project Name: TRINITY ACADEMY	Client: WATERMAN I&E	Date: 24/09/2020 - 25/09/2020
Location: BARNSLEY	Contractor:	Co-ords: E433397.02 N405663.01
Project No. : 20063	Crew Name:	Drilling Equipment:

Borehole Number	Hole Type	Level	Logged By	Scale	Page Number
RC101	CP+RC	140.60m AoD	CH	1:10	Sheet 8 of 13

Well	Water	Depth (m)	Type /FI	Coring TCR	Coring SCR	Coring RQD	Diameter Recovery (SPT)	Depth (m)	Level (m)	Legend	Stratum Description
											Grey SILTSTONE.

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Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation				Drilling Flush					
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Depth Top	Depth Base	Inclination	Orientation	Depth Top	Depth Base	Type	Colour	Min (%)	Max (%)

Remarks

1. Service clearance undertaken. 2. Hand dug inspection pit excavated to 1.20m bgl prior to drilling works. 3. Dynamic sampling commenced from base of inspection pit to 1.5m bgl. 4. Rotary coring undertaken from 1.5m to 10.5m bgl. 5. Rotary open hole drilling carried out from 10.5m bgl to 25.0m bgl. 6. Broken ground encountered between 8.0m and 10.5m bgl and water flush lost, suspected mine workings. 7. Groundwater strikes not encountered. 8. Standpipe installed to 10.5m bgl, 8.0m plain, 2.5m slotted.

Rotary Core Log

Project Name: TRINITY ACADEMY	Client: WATERMAN I&E	Date: 24/09/2020 - 25/09/2020
Location: BARNSLEY	Contractor:	Co-ords: E433397.02 N405663.01
Project No. : 20063	Crew Name:	Drilling Equipment:

Borehole Number	Hole Type	Level	Logged By	Scale	Page Number
RC101	CP+RC	140.60m AoD	CH	1:10	Sheet 9 of 13

Well	Water	Depth (m)	Type /FI	Coring TCR	Coring SCR	Coring RQD	Diameter Recovery (SPT)	Depth (m)	Level (m)	Legend	Stratum Description
											Grey SILTSTONE.

17

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Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation				Drilling Flush					
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Depth Top	Depth Base	Inclination	Orientation	Depth Top	Depth Base	Type	Colour	Min (%)	Max (%)

Remarks

1. Service clearance undertaken. 2. Hand dug inspection pit excavated to 1.20m bgl prior to drilling works. 3. Dynamic sampling commenced from base of inspection pit to 1.5m bgl. 4. Rotary coring undertaken from 1.5m to 10.5m bgl. 5. Rotary open hole drilling carried out from 10.5m bgl to 25.0m bgl. 6. Broken ground encountered between 8.0m and 10.5m bgl and water flush lost, suspected mine workings. 7. Groundwater strikes not encountered. 8. Standpipe installed to 10.5m bgl, 8.0m plain, 2.5m slotted.

Rotary Core Log

Project Name: TRINITY ACADEMY	Client: WATERMAN I&E	Date: 24/09/2020 - 25/09/2020
Location: BARNSLEY	Contractor:	Co-ords: E433397.02 N405663.01
Project No. : 20063	Crew Name:	Drilling Equipment:

Borehole Number	Hole Type	Level	Logged By	Scale	Page Number
RC101	CP+RC	140.60m AoD	CH	1:10	Sheet 10 of 13

Well	Water	Depth (m)	Type /FI	Coring TCR	Coring SCR	Coring RQD	Diameter Recovery (SPT)	Depth (m)	Level (m)	Legend	Stratum Description
											Grey SILTSTONE.

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Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation				Drilling Flush					
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Depth Top	Depth Base	Inclination	Orientation	Depth Top	Depth Base	Type	Colour	Min (%)	Max (%)

Remarks

1. Service clearance undertaken. 2. Hand dug inspection pit excavated to 1.20m bgl prior to drilling works. 3. Dynamic sampling commenced from base of inspection pit to 1.5m bgl. 4. Rotary coring undertaken from 1.5m to 10.5m bgl. 5. Rotary open hole drilling carried out from 10.5m bgl to 25.0m bgl. 6. Broken ground encountered between 8.0m and 10.5m bgl and water flush lost, suspected mine workings. 7. Groundwater strikes not encountered. 8. Standpipe installed to 10.5m bgl, 8.0m plain, 2.5m slotted.

Rotary Core Log

Project Name: TRINITY ACADEMY	Client: WATERMAN I&E	Date: 24/09/2020 - 25/09/2020
Location: BARNSLEY	Contractor:	Co-ords: E433397.02 N405663.01
Project No. : 20063	Crew Name:	Drilling Equipment:

Borehole Number	Hole Type	Level	Logged By	Scale	Page Number
RC101	CP+RC	140.60m AoD	CH	1:10	Sheet 11 of 13

Well	Water	Depth (m)	Type /FI	Coring TCR	Coring SCR	Coring RQD	Diameter Recovery (SPT)	Depth (m)	Level (m)	Legend	Stratum Description
											Grey SILTSTONE.

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Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation				Drilling Flush					
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Depth Top	Depth Base	Inclination	Orientation	Depth Top	Depth Base	Type	Colour	Min (%)	Max (%)

Remarks

1. Service clearance undertaken. 2. Hand dug inspection pit excavated to 1.20m bgl prior to drilling works. 3. Dynamic sampling commenced from base of inspection pit to 1.5m bgl. 4. Rotary coring undertaken from 1.5m to 10.5m bgl. 5. Rotary open hole drilling carried out from 10.5m bgl to 25.0m bgl. 6. Broken ground encountered between 8.0m and 10.5m bgl and water flush lost, suspected mine workings. 7. Groundwater strikes not encountered. 8. Standpipe installed to 10.5m bgl, 8.0m plain, 2.5m slotted.

Rotary Core Log

Project Name: TRINITY ACADEMY	Client: WATERMAN I&E	Date: 24/09/2020 - 25/09/2020
Location: BARNSLEY	Contractor:	Co-ords: E433397.02 N405663.01
Project No. : 20063	Crew Name:	Drilling Equipment:

Borehole Number	Hole Type	Level	Logged By	Scale	Page Number
RC101	CP+RC	140.60m AoD	CH	1:10	Sheet 12 of 13

Well	Water	Depth (m)	Type /FI	Coring TCR	Coring SCR	Coring RQD	Diameter Recovery (SPT)	Depth (m)	Level (m)	Legend	Stratum Description
											Grey SILTSTONE.

23

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Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation				Drilling Flush					
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Depth Top	Depth Base	Inclination	Orientation	Depth Top	Depth Base	Type	Colour	Min (%)	Max (%)

Remarks

1. Service clearance undertaken. 2. Hand dug inspection pit excavated to 1.20m bgl prior to drilling works. 3. Dynamic sampling commenced from base of inspection pit to 1.5m bgl. 4. Rotary coring undertaken from 1.5m to 10.5m bgl. 5. Rotary open hole drilling carried out from 10.5m bgl to 25.0m bgl. 6. Broken ground encountered between 8.0m and 10.5m bgl and water flush lost, suspected mine workings. 7. Groundwater strikes not encountered. 8. Standpipe installed to 10.5m bgl, 8.0m plain, 2.5m slotted.

Rotary Core Log

Project Name: TRINITY ACADEMY	Client: WATERMAN I&E	Date: 24/09/2020 - 25/09/2020
Location: BARNSLEY	Contractor:	Co-ords: E433397.02 N405663.01
Project No. : 20063	Crew Name:	Drilling Equipment:

Borehole Number	Hole Type	Level	Logged By	Scale	Page Number
RC101	CP+RC	140.60m AoD	CH	1:10	Sheet 13 of 13

Well	Water	Depth (m)	Type /FI	Coring TCR	Coring SCR	Coring RQD	Diameter Recovery (SPT)	Depth (m)	Level (m)	Legend	Stratum Description
											Grey SILTSTONE.
								25.00	115.60		End of Borehole at 25.000m

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Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation				Drilling Flush					
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Depth Top	Depth Base	Inclination	Orientation	Depth Top	Depth Base	Type	Colour	Min (%)	Max (%)

Remarks

1. Service clearance undertaken. 2. Hand dug inspection pit excavated to 1.20m bgl prior to drilling works. 3. Dynamic sampling commenced from base of inspection pit to 1.5m bgl. 4. Rotary coring undertaken from 1.5m to 10.5m bgl. 5. Rotary open hole drilling carried out from 10.5m bgl to 25.0m bgl. 6. Broken ground encountered between 8.0m and 10.5m bgl and water flush lost, suspected mine workings. 7. Groundwater strikes not encountered. 8. Standpipe installed to 10.5m bgl, 8.0m plain, 2.5m slotted.

Rotary Core Log

Project Name: TRINITY ACADEMY	Client: WATERMAN I&E	Date: 28/09/2020 - 29/09/2020
Location: BARNSLEY	Contractor:	Co-ords: E433436.56 N405660.56
Project No. : 20063	Crew Name:	Drilling Equipment:

Borehole Number	Hole Type	Level	Logged By	Scale	Page Number
RC102	CP+RC	139.99m AoD	CH	1:10	Sheet 1 of 10

Well	Water	Depth (m)	Type /Fl	Coring TCR	Coring SCR	Coring RQD	Diameter Recovery (SPT)	Depth (m)	Level (m)	Legend	Stratum Description
		0.10	ES					0.35	139.64		MADE GROUND: Grass over dark grey brown slightly sandy slightly gravelly clayey topsoil. Sand is fine to medium. Gravel is angular to subangular fine to coarse of sandstone and brick.
		0.50	ES								Extremely weak orange brown fine grained SANDSTONE residually weathered recovered as sandy clayey angular to subangular fine to coarse gravel of sandstone. Sand is fine to medium.
		0.70	D				N=50 (25 for 60mm/ 50 for 30mm)				
								1.50	138.49		NO RECOVERY.

Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation				Drilling Flush					
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Depth Top	Depth Base	Inclination	Orientation	Depth Top	Depth Base	Type	Colour	Min (%)	Max (%)

Remarks

1. Service clearance undertaken. 2. Hand dug inspection pit excavated to 0.8m bgl prior to drilling works. 3. Dynamic sampling commenced from base of inspection pit to 1.5m bgl. 4. Rotary coring undertaken from 1.5m to 10.5m bgl. 5. Rotary open hole drilling carried out from 10.5m bgl to 20.0m bgl. 6. Broken ground encountered between 8.0m and 9.5m bgl and water flush lost, suspected mine workings 7. Void encountered between 9.5m and 10.5m bgl. 8. Groundwater strikes not encountered. 9. Void grouted with bentonite grout/ gravel mix. 10. Standpipe installed to 9.5m bgl, 7.5m plain, 2.0m slotted.

Rotary Core Log

Project Name: TRINITY ACADEMY	Client: WATERMAN I&E	Date: 28/09/2020 - 29/09/2020
Location: BARNSLEY	Contractor:	Co-ords: E433436.56 N405660.56
Project No. : 20063	Crew Name:	Drilling Equipment:

Borehole Number	Hole Type	Level	Logged By	Scale	Page Number
RC102	CP+RC	139.99m AoD	CH	1:10	Sheet 2 of 10

Well	Water	Depth (m)	Type /Fl	Coring TCR	Coring SCR	Coring RQD	Diameter Recovery (SPT)	Depth (m)	Level (m)	Legend	Stratum Description
			NR								NO RECOVERY.
								2.19	137.80		Very weak grey brown fine grained SANDSTONE, highly weathered with horizontal smooth planar to rough stepped closely spaced discontinuities and small scale bedding structures. Weathering orange brown.
		1.50 - 3.00	NI	54	8	0					*Extremely weak and residually weathered, recovered as orange brown slightly sandy angular to subangular fine to coarse gravel of sandstone between 2.19m and 2.67m bgl.*
			1								
			NI								*Recovered as slightly sandy slightly clayey fine to coarse gravel and cobbles between 2.75m and 2.87m bgl.*
			1								*Discontinuities are planar and very closely spaced between 2.87m and 2.90m bgl.*
			NI								*Recovered as brown subangular fine to coarse gravel and cobbles of sandstone between 2.90m and 3.0m bgl.*
			NR								*NO RECOVERY between 3.0m and 3.05m bgl.*
			NI								*Recovered as brown subangular fine to coarse gravel and cobbles of sandstone between 3.05m and 3.12m bgl.*
			1								*Extremely weak with horizontal smooth to rough planar discontinuities between 3.12m and 3.19m bgl.*
			NI								*Recovered as slightly gravelly angular to subangular cobbles of sandstone between 3.19m and 3.32m bgl. Gravel is angular to subangular fine to coarse.*
			3								*Discontinuities are planar to undulating and very closely spaced between 3.32m and 3.41m bgl.*
			NI								*Recovered as slightly gravelly angular to subangular cobbles of sandstone between 3.41m and 3.48m bgl. Gravel is angular to subangular fine to coarse.*
		3.00 - 4.50	2	96	29	0					*Discontinuities are planar to undulating and very closely spaced between 3.48m and 3.54m bgl.*
			NI								*Recovered as slightly clayey angular to subrounded fine to medium gravel of sandstone between 3.54m and 3.57m bgl.*
			3								*Extremely weak with horizontal smooth planar to undulating discontinuities with gravel infilling discontinuities between 3.57m and 3.72m bgl.*
											Recovered as angular to subangular fine to coarse gravel and cobbles between 3.72m and 3.94m bgl.
								3.94	136.05		Extremely weak grey SILTSTONE,

Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation				Drilling Flush					
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Depth Top	Depth Base	Inclination	Orientation	Depth Top	Depth Base	Type	Colour	Min (%)	Max (%)

Remarks

1. Service clearance undertaken. 2. Hand dug inspection pit excavated to 0.8m bgl prior to drilling works. 3. Dynamic sampling commenced from base of inspection pit to 1.5m bgl. 4. Rotary coring undertaken from 1.5m to 10.5m bgl. 5. Rotary open hole drilling carried out from 10.5m bgl to 20.0m bgl. 6. Broken ground encountered between 8.0m and 9.5m bgl and water flush lost, suspected mine workings 7. Void encountered between 9.5m and 10.5m bgl. 8. Groundwater strikes not encountered. 9. Void grouted with bentonite grout/ gravel mix. 10. Standpipe installed to 9.5m bgl, 7.5m plain, 2.0m slotted.

Rotary Core Log

Project Name: TRINITY ACADEMY	Client: WATERMAN I&E	Date: 28/09/2020 - 29/09/2020
Location: BARNSLEY	Contractor:	Co-ords: E433436.56 N405660.56
Project No. : 20063	Crew Name:	Drilling Equipment:

Borehole Number	Hole Type	Level	Logged By	Scale	Page Number
RC102	CP+RC	139.99m AoD	CH	1:10	Sheet 3 of 10

Well	Water	Depth (m)	Type /Fl	Coring TCR	Coring SCR	Coring RQD	Diameter Recovery (SPT)	Depth (m)	Level (m)	Legend	Stratum Description
			NI								Extremely weak grey SILTSTONE, moderately to highly weathered with horizontal smooth stepped very close sly spaced discontinuities. *Highly weathered and recovered as angular cobbles with sub-vertical joints splitting core and weathering to orange brown on surfaces between 3.94m and 4.34m bgl.*
			2					4.50	135.49		
		4.50 - 6.00	NR	42	10	0					NO RECOVERY.
			NI					5.36	134.63		Extremely weak grey SILTSTONE weathering orange brown on surfaces, highly weathered with horizontal rough planar to undulating very closely spaced discontinuities and fine to medium gravel infilling discontinuities. *Recovered as angular to subrounded fine to coarse gravel and cobbles between 5.36m and 5.52m bgl.*
			4								*Recovered as slightly gravelly angular to subangular cobbles between 5.69m and 5.80m bgl.*
			NI								*Soft brown gravelly clay. Gravel is subangular fine to coarse of siltstone between 5.80m and 6.0m bgl. (Possible disturbed ground).*
								6.00	133.99		

Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation				Drilling Flush					
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Depth Top	Depth Base	Inclination	Orientation	Depth Top	Depth Base	Type	Colour	Min (%)	Max (%)

Remarks

1. Service clearance undertaken. 2. Hand dug inspection pit excavated to 0.8m bgl prior to drilling works. 3. Dynamic sampling commenced from base of inspection pit to 1.5m bgl. 4. Rotary coring undertaken from 1.5m to 10.5m bgl. 5. Rotary open hole drilling carried out from 10.5m bgl to 20.0m bgl. 6. Broken ground encountered between 8.0m and 9.5m bgl and water flush lost, suspected mine workings 7. Void encountered between 9.5m and 10.5m bgl. 8. Groundwater strikes not encountered. 9. Void grouted with bentonite grout/ gravel mix. 10. Standpipe installed to 9.5m bgl, 7.5m plain, 2.0m slotted.

Rotary Core Log

Project Name: TRINITY ACADEMY	Client: WATERMAN I&E	Date: 28/09/2020 - 29/09/2020
Location: BARNSLEY	Contractor:	Co-ords: E433436.56 N405660.56
Project No. : 20063	Crew Name:	Drilling Equipment:

Borehole Number	Hole Type	Level	Logged By	Scale	Page Number
RC102	CP+RC	139.99m AoD	CH	1:10	Sheet 4 of 10

Well	Water	Depth (m)	Type /FI	Coring TCR	Coring SCR	Coring RQD	Diameter Recovery (SPT)	Depth (m)	Level (m)	Legend	Stratum Description
			NR								NO RECOVERY.
		6.00 - 7.50		32	8	0					
			2					7.02	132.97		Extremely weak grey MUDSTONE highly weathered with horizontal rough planar very closely to closely spaced discontinuities, weathering to clay on surfaces. *Recovered as slightly gravelly clayey angular to subangular cobbles of mudstone between 7.14m and 7.40m bgl.*
			NI					7.40	132.59		Grey angular to subangular fine to coarse gravel and cobbles of strong grey SILTSTONE with orange brown weathering staining.
								7.50	132.49		NO RECOVERY.

Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation				Drilling Flush					
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Depth Top	Depth Base	Inclination	Orientation	Depth Top	Depth Base	Type	Colour	Min (%)	Max (%)

Remarks

1. Service clearance undertaken. 2. Hand dug inspection pit excavated to 0.8m bgl prior to drilling works. 3. Dynamic sampling commenced from base of inspection pit to 1.5m bgl. 4. Rotary coring undertaken from 1.5m to 10.5m bgl. 5. Rotary open hole drilling carried out from 10.5m bgl to 20.0m bgl. 6. Broken ground encountered between 8.0m and 9.5m bgl and water flush lost, suspected mine workings 7. Void encountered between 9.5m and 10.5m bgl. 8. Groundwater strikes not encountered. 9. Void grouted with bentonite grout/ gravel mix. 10. Standpipe installed to 9.5m bgl, 7.5m plain, 2.0m slotted.

Rotary Core Log

Project Name: TRINITY ACADEMY	Client: WATERMAN I&E	Date: 28/09/2020 - 29/09/2020
Location: BARNSLEY	Contractor:	Co-ords: E433436.56 N405660.56
Project No. : 20063	Crew Name:	Drilling Equipment:

Borehole Number	Hole Type	Level	Logged By	Scale	Page Number
RC102	CP+RC	139.99m AoD	CH	1:10	Sheet 5 of 10

Well	Water	Depth (m)	Type /FI	Coring TCR	Coring SCR	Coring RQD	Diameter Recovery (SPT)	Depth (m)	Level (m)	Legend	Stratum Description
			NR								NO RECOVERY. *Water flush lost at 8.0m bgl, suspected mine workings.*
		7.50 - 9.00	NI	40	0	0		8.40	131.59		Brown rounded COBBLES of sandstone and grey subangular cobbles of siltstone.
		9.00 - 10.50		0	0	0		9.00	130.99		VOID (Suspected open mine workings).

Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation				Drilling Flush					
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Depth Top	Depth Base	Inclination	Orientation	Depth Top	Depth Base	Type	Colour	Min (%)	Max (%)

Remarks

1. Service clearance undertaken. 2. Hand dug inspection pit excavated to 0.8m bgl prior to drilling works. 3. Dynamic sampling commenced from base of inspection pit to 1.5m bgl. 4. Rotary coring undertaken from 1.5m to 10.5m bgl. 5. Rotary open hole drilling carried out from 10.5m bgl to 20.0m bgl. 6. Broken ground encountered between 8.0m and 9.5m bgl and water flush lost, suspected mine workings 7. Void encountered between 9.5m and 10.5m bgl. 8. Groundwater strikes not encountered. 9. Void grouted with bentonite grout/ gravel mix. 10. Standpipe installed to 9.5m bgl, 7.5m plain, 2.0m slotted.

Rotary Core Log

Project Name: TRINITY ACADEMY	Client: WATERMAN I&E	Date: 28/09/2020 - 29/09/2020
Location: BARNSLEY	Contractor:	Co-ords: E433436.56 N405660.56
Project No. : 20063	Crew Name:	Drilling Equipment:

Borehole Number	Hole Type	Level	Logged By	Scale	Page Number
RC102	CP+RC	139.99m AoD	CH	1:10	Sheet 6 of 10

Well	Water	Depth (m)	Type /FI	Coring TCR	Coring SCR	Coring RQD	Diameter Recovery (SPT)	Depth (m)	Level (m)	Legend	Stratum Description
			NR								VOID (Suspected open mine workings).
								10.50	129.49		Grey MUDSTONE.

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Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation				Drilling Flush					
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Depth Top	Depth Base	Inclination	Orientation	Depth Top	Depth Base	Type	Colour	Min (%)	Max (%)

Remarks

1. Service clearance undertaken. 2. Hand dug inspection pit excavated to 0.8m bgl prior to drilling works. 3. Dynamic sampling commenced from base of inspection pit to 1.5m bgl. 4. Rotary coring undertaken from 1.5m to 10.5m bgl. 5. Rotary open hole drilling carried out from 10.5m bgl to 20.0m bgl. 6. Broken ground encountered between 8.0m and 9.5m bgl and water flush lost, suspected mine workings 7. Void encountered between 9.5m and 10.5m bgl. 8. Groundwater strikes not encountered. 9. Void grouted with bentonite grout/ gravel mix. 10. Standpipe installed to 9.5m bgl, 7.5m plain, 2.0m slotted.

Rotary Core Log

Project Name: TRINITY ACADEMY	Client: WATERMAN I&E	Date: 28/09/2020 - 29/09/2020
Location: BARNSLEY	Contractor:	Co-ords: E433436.56 N405660.56
Project No. : 20063	Crew Name:	Drilling Equipment:

Borehole Number	Hole Type	Level	Logged By	Scale	Page Number
RC102	CP+RC	139.99m AoD	CH	1:10	Sheet 7 of 10

Well	Water	Depth (m)	Type /FI	Coring TCR	Coring SCR	Coring RQD	Diameter Recovery (SPT)	Depth (m)	Level (m)	Legend	Stratum Description	
											Grey MUDSTONE.	
								13.00	126.99		Grey SILTSTONE.	13
												14

Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation				Drilling Flush					
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Depth Top	Depth Base	Inclination	Orientation	Depth Top	Depth Base	Type	Colour	Min (%)	Max (%)

Remarks

1. Service clearance undertaken. 2. Hand dug inspection pit excavated to 0.8m bgl prior to drilling works. 3. Dynamic sampling commenced from base of inspection pit to 1.5m bgl. 4. Rotary coring undertaken from 1.5m to 10.5m bgl. 5. Rotary open hole drilling carried out from 10.5m bgl to 20.0m bgl. 6. Broken ground encountered between 8.0m and 9.5m bgl and water flush lost, suspected mine workings 7. Void encountered between 9.5m and 10.5m bgl. 8. Groundwater strikes not encountered. 9. Void grouted with bentonite grout/ gravel mix. 10. Standpipe installed to 9.5m bgl, 7.5m plain, 2.0m slotted.

Rotary Core Log

Project Name: TRINITY ACADEMY	Client: WATERMAN I&E	Date: 28/09/2020 - 29/09/2020
Location: BARNSLEY	Contractor:	Co-ords: E433436.56 N405660.56
Project No. : 20063	Crew Name:	Drilling Equipment:

Borehole Number	Hole Type	Level	Logged By	Scale	Page Number
RC102	CP+RC	139.99m AoD	CH	1:10	Sheet 8 of 10

Well	Water	Depth (m)	Type /FI	Coring TCR	Coring SCR	Coring RQD	Diameter Recovery (SPT)	Depth (m)	Level (m)	Legend	Stratum Description
											Grey SILTSTONE.

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Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation				Drilling Flush					
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Depth Top	Depth Base	Inclination	Orientation	Depth Top	Depth Base	Type	Colour	Min (%)	Max (%)

Remarks

1. Service clearance undertaken. 2. Hand dug inspection pit excavated to 0.8m bgl prior to drilling works. 3. Dynamic sampling commenced from base of inspection pit to 1.5m bgl. 4. Rotary coring undertaken from 1.5m to 10.5m bgl. 5. Rotary open hole drilling carried out from 10.5m bgl to 20.0m bgl. 6. Broken ground encountered between 8.0m and 9.5m bgl and water flush lost, suspected mine workings 7. Void encountered between 9.5m and 10.5m bgl. 8. Groundwater strikes not encountered. 9. Void grouted with bentonite grout/ gravel mix. 10. Standpipe installed to 9.5m bgl, 7.5m plain, 2.0m slotted.

Rotary Core Log

Project Name: TRINITY ACADEMY	Client: WATERMAN I&E	Date: 28/09/2020 - 29/09/2020
Location: BARNSLEY	Contractor:	Co-ords: E433436.56 N405660.56
Project No. : 20063	Crew Name:	Drilling Equipment:

Borehole Number	Hole Type	Level	Logged By	Scale	Page Number
RC102	CP+RC	139.99m AoD	CH	1:10	Sheet 9 of 10

Well	Water	Depth (m)	Type /FI	Coring TCR	Coring SCR	Coring RQD	Diameter Recovery (SPT)	Depth (m)	Level (m)	Legend	Stratum Description
											Grey SILTSTONE.

17

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Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation				Drilling Flush					
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Depth Top	Depth Base	Inclination	Orientation	Depth Top	Depth Base	Type	Colour	Min (%)	Max (%)

Remarks

1. Service clearance undertaken. 2. Hand dug inspection pit excavated to 0.8m bgl prior to drilling works. 3. Dynamic sampling commenced from base of inspection pit to 1.5m bgl. 4. Rotary coring undertaken from 1.5m to 10.5m bgl. 5. Rotary open hole drilling carried out from 10.5m bgl to 20.0m bgl. 6. Broken ground encountered between 8.0m and 9.5m bgl and water flush lost, suspected mine workings 7. Void encountered between 9.5m and 10.5m bgl. 8. Groundwater strikes not encountered. 9. Void grouted with bentonite grout/ gravel mix. 10. Standpipe installed to 9.5m bgl, 7.5m plain, 2.0m slotted.

Rotary Core Log

Project Name: TRINITY ACADEMY	Client: WATERMAN I&E	Date: 28/09/2020 - 29/09/2020
Location: BARNSLEY	Contractor:	Co-ords: E433436.56 N405660.56
Project No. : 20063	Crew Name:	Drilling Equipment:

Borehole Number	Hole Type	Level	Logged By	Scale	Page Number
RC102	CP+RC	139.99m AoD	CH	1:10	Sheet 10 of 10

Well	Water	Depth (m)	Type /FI	Coring TCR	Coring SCR	Coring RQD	Diameter Recovery (SPT)	Depth (m)	Level (m)	Legend	Stratum Description	
											Grey SILTSTONE.	19
								20.00	119.99		End of Borehole at 20.000m	20

Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation				Drilling Flush					
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Depth Top	Depth Base	Inclination	Orientation	Depth Top	Depth Base	Type	Colour	Min (%)	Max (%)

Remarks

1. Service clearance undertaken. 2. Hand dug inspection pit excavated to 0.8m bgl prior to drilling works. 3. Dynamic sampling commenced from base of inspection pit to 1.5m bgl. 4. Rotary coring undertaken from 1.5m to 10.5m bgl. 5. Rotary open hole drilling carried out from 10.5m bgl to 20.0m bgl. 6. Broken ground encountered between 8.0m and 9.5m bgl and water flush lost, suspected mine workings 7. Void encountered between 9.5m and 10.5m bgl. 8. Groundwater strikes not encountered. 9. Void grouted with bentonite grout/ gravel mix. 10. Standpipe installed to 9.5m bgl, 7.5m plain, 2.0m slotted.

GROUNDTECH CONSULTING

Rotary Core Log

Borehole No. **RC103** Sheet 1 of 3

Project Name: TRINITY ACADEMY	Project No. 20063	Co-ords: 433474.03 - 405631.70	Hole Type RO
Location: BARNSLEY		Level: 139.33	Scale 1:50
Client: WATERMAN I&E		Dates: 21/09/2020 - 23/09/2020	Logged By CH

Well	Water Strikes	Depth (m)	Type / FI	Coring TCR	Coring SCR	Coring RQD	Depth (m)	Level (m)	Legend	Stratum Description
		0.10 0.10 - 0.30 0.50 - 1.00 0.60 1.00	ES B B ES D				0.30	139.03		MADE GROUND: Grass over grey brown sandy slightly gravelly slightly clayey topsoil. Sand is fine. Gravel is subangular fine to coarse of sandstone. Stiff orange brown sandy slightly gravelly friable CLAY. Sand is fine to medium. Gravel is angular to subangular fine to coarse of sandstone.
							1.50	137.83		Brown MUDSTONE.
							2.50	136.83		Brown SANDSTONE.
							5.00	134.33		Grey SILTSTONE.
							8.50	130.83		Grey MUDSTONE.
							9.50	129.83		Grey SILTSTONE.
										Continued on next sheet

Remarks

1. Service clearance undertaken. 2. Hand dug inspection pit excavated to 1.0m bgl prior to drilling works. 3. Rotary open hole drilling undertaken from 1.2m to 30.0m bgl. 4. Intact Coal seam encountered between 19.5m and 22.0m bgl. 5. Groundwater strikes not encountered. 6. Standpipe installed to 4.0m bgl, 1.0m plain, 3.0m slotted.

GROUNDTECH CONSULTING

Rotary Core Log

Borehole No.
RC103
Sheet 2 of 3

Project Name: TRINITY ACADEMY	Project No. 20063	Co-ords: 433474.03 - 405631.70	Hole Type RO
Location: BARNSLEY		Level: 139.33	Scale 1:50
Client: WATERMAN I&E		Dates: 21/09/2020 - 23/09/2020	Logged By CH

Well	Water Strikes	Depth (m)	Type / FI	Coring TCR	Coring SCR	Coring RQD	Depth (m)	Level (m)	Legend	Stratum Description
							13.50	125.83		Grey MUDSTONE.
							15.00	124.33		Grey SILTSTONE.
							19.50	119.83		Black anthracite COAL. (Intact).
										Continued on next sheet

11 12 13 14 15 16 17 18 19 20

Remarks
1. Service clearance undertaken. 2. Hand dug inspection pit excavated to 1.0m bgl prior to drilling works. 3. Rotary open hole drilling undertaken from 1.2m to 30.0m bgl. 4. Intact Coal seam encountered between 19.5m and 22.0m bgl. 5. Groundwater strikes not encountered. 6. Standpipe installed to 4.0m bgl, 1.0m plain, 3.0m slotted.

GROUNDTECH CONSULTING

Rotary Core Log

Borehole No. **RC103** Sheet 3 of 3

Project Name:	TRINITY ACADEMY	Project No. 20063	Co-ords:	433474.03 - 405631.70	Hole Type RO
Location:	BARNSLEY		Level:	139.33	Scale 1:50
Client:	WATERMAN I&E		Dates:	21/09/2020 - 23/09/2020	Logged By CH

Well	Water Strikes	Depth (m)	Type / FI	Coring TCR	Coring SCR	Coring RQD	Depth (m)	Level (m)	Legend	Stratum Description
							22.00	117.33		Grey SILTSTONE.
							30.00	109.33		End of borehole at 30.00 m

21 22 23 24 25 26 27 28 29 30

Remarks

1. Service clearance undertaken. 2. Hand dug inspection pit excavated to 1.0m bgl prior to drilling works. 3. Rotary open hole drilling undertaken from 1.2m to 30.0m bgl. 4. Intact Coal seam encountered between 19.5m and 22.0m bgl. 5. Groundwater strikes not encountered. 6. Standpipe installed to 4.0m bgl, 1.0m plain, 3.0m slotted.

Rotary Core Log

Project Name: TRINITY ACADEMY	Client: WATERMAN I&E	Date: 30/09/2020
Location: BARNSLEY	Contractor:	Co-ords: E433454.36 N405549.28
Project No. : 20063	Crew Name:	Drilling Equipment:

Borehole Number	Hole Type	Level	Logged By	Scale	Page Number
RC104	CP+RC	140.47m AoD	CH	1:10	Sheet 1 of 15

Well	Water	Depth (m)	Type /Fl	Coring TCR	Coring SCR	Coring RQD	Diameter Recovery (SPT)	Depth (m)	Level (m)	Legend	Stratum Description
		0.10	ES					0.21	140.26		MADE GROUND: Grass over dark grey brown slightly gravelly sandy slightly clayey topsoil. Sand is fine to medium. Gravel is subangular to rounded fine to coarse of brick and quartzite.
		0.50 0.50 0.50 - 1.00	B D ES								Firm friable dark orange brown slightly gravelly very sandy CLAY. Sand is fine to medium. Gravel is angular to subangular fine to coarse of sandstone and coal (possibly reworked).
		1.20 - 1.65	U								
		1.50	D								
		1.60	ES					1.60	138.87		Dark brown sandy very clayey angular to subrounded fine to medium GRAVEL of coal, sandstone and mudstone. Sand is fine to medium.
		2.00	D				(21)				

1

2

Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation				Drilling Flush					
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Depth Top	Depth Base	Inclination	Orientation	Depth Top	Depth Base	Type	Colour	Min (%)	Max (%)

Remarks

1. Service clearance undertaken. 2. Hand dug inspection pit excavated to 1.2m bgl prior to drilling works. 3. Dynamic sampling commenced from base of inspection pit to 3.0m bgl. 4. Rotary coring undertaken from 3.0m to 10.5m bgl. 5. Rotary open hole drilling carried out from 10.5m bgl to 30.0m bgl. 6. Void encountered between 15.4m and 16.8m bgl, suspected mine workings. 7. Groundwater strikes not encountered. 8. Void grouted with bentonite grout/ gravel mix. 9. Standpipe installed to 7.0m bgl, 4.0m plain, 3.0m slotted.

Rotary Core Log

Project Name: TRINITY ACADEMY	Client: WATERMAN I&E	Date: 30/09/2020
Location: BARNSLEY	Contractor:	Co-ords: E433454.36 N405549.28
Project No. : 20063	Crew Name:	Drilling Equipment:

Borehole Number	Hole Type	Level	Logged By	Scale	Page Number
RC104	CP+RC	140.47m AoD	CH	1:10	Sheet 2 of 15

Well	Water	Depth (m)	Type /Fl	Coring TCR	Coring SCR	Coring RQD	Diameter Recovery (SPT)	Depth (m)	Level (m)	Legend	Stratum Description	
											Dark brown sandy very clayey angular to subrounded fine to medium GRAVEL of coal, sandstone and mudstone. Sand is fine to medium.	
								2.40	138.07			
		2.50	ES								Extremely weak grey mottled brown MUDSTONE residually weathered recovered as stiff slightly sandy gravelly silty clay with rare ironstone nodules. Sand is fine. Gravel is angular to subangular fine to coarse of mudstone, ironstone and sandstone.	
		3.00	D					3.00	137.47		NO RECOVERY.	3
		3.00 - 4.50	NR	52	0	0		3.72	136.75		Weak light grey fine grained SANDSTONE residually weathered recovered as slightly clayey gravelly cobbles weathered orange brown on surfaces with fine bedding structures present. Gravel is angular to subangular fine to coarse of sandstone. *Recovered as light brown angular to subangular fine to coarse gravel of sandstone between*	4

Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation				Drilling Flush					
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Depth Top	Depth Base	Inclination	Orientation	Depth Top	Depth Base	Type	Colour	Min (%)	Max (%)

Remarks

1. Service clearance undertaken. 2. Hand dug inspection pit excavated to 1.2m bgl prior to drilling works. 3. Dynamic sampling commenced from base of inspection pit to 3.0m bgl. 4. Rotary coring undertaken from 3.0m to 10.5m bgl. 5. Rotary open hole drilling carried out from 10.5m bgl to 30.0m bgl. 6. Void encountered between 15.4m and 16.8m bgl, suspected mine workings. 7. Groundwater strikes not encountered. 8. Void grouted with bentonite grout/ gravel mix. 9. Standpipe installed to 7.0m bgl, 4.0m plain, 3.0m slotted.

Rotary Core Log

Project Name: TRINITY ACADEMY	Client: WATERMAN I&E	Date: 30/09/2020
Location: BARNSLEY	Contractor:	Co-ords: E433454.36 N405549.28
Project No. : 20063	Crew Name:	Drilling Equipment:

Borehole Number	Hole Type	Level	Logged By	Scale	Page Number
RC104	CP+RC	140.47m AoD	CH	1:10	Sheet 3 of 15

Well	Water	Depth (m)	Type /FI	Coring TCR	Coring SCR	Coring RQD	Diameter Recovery (SPT)	Depth (m)	Level (m)	Legend	Stratum Description
			NI								Weak light grey fine grained SANDSTONE residually weathered recovered as slightly clayey gravelly cobbles weathered orange brown on surfaces with fine bedding structures present. Gravel is angular to subangular fine to coarse of sandstone. *Recovered as light brown angular to subangular fine to coarse gravel of sandstone between 3.72m and 3.96m bgl.* *Recovered as firm brown sandy silty clay between 4.30m and 4.37m bgl. Sand is fine.* *Grey clayey angular to subangular fine to coarse gravel of MUDSTONE between 4.37m and 4.50m bgl.*
								4.50	135.97		
			NR								NO RECOVERY.
								4.84	135.63		Extremely weak grey MUDSTONE highly weathered, recovered as angular to subrounded fine to coarse gravel and cobbles of mudstone with some orange brown weathering staining.
			NI								
		4.50 - 6.00		77	18	10					
			3					5.28	135.19		Weak to medium strong light grey fine grained SANDSTONE moderately weathered with very closely spaced horizontal smooth to rough undulating discontinuities and small scale cross bedding structures.
								5.50	134.97		*Recovered as subangular to subrounded fine to coarse gravel of sandstone between 5.46m and 5.50m bgl.* Medium strong light grey fine grained SANDSTONE partially to moderately weathered with horizontal rough planar closely spaced discontinuities and vertical (90) joints with orange brown weathering staining on joint surfaces. *Recovered as cobbles due to vertical joints between 5.50m and 5.85m bgl.*
			NI								
			1								
								6.00	134.47		

Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation				Drilling Flush					
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Depth Top	Depth Base	Inclination	Orientation	Depth Top	Depth Base	Type	Colour	Min (%)	Max (%)

Remarks

1. Service clearance undertaken. 2. Hand dug inspection pit excavated to 1.2m bgl prior to drilling works. 3. Dynamic sampling commenced from base of inspection pit to 3.0m bgl. 4. Rotary coring undertaken from 3.0m to 10.5m bgl. 5. Rotary open hole drilling carried out from 10.5m bgl to 30.0m bgl. 6. Void encountered between 15.4m and 16.8m bgl, suspected mine workings. 7. Groundwater strikes not encountered. 8. Void grouted with bentonite grout/ gravel mix. 9. Standpipe installed to 7.0m bgl, 4.0m plain, 3.0m slotted.

Rotary Core Log

Project Name: TRINITY ACADEMY	Client: WATERMAN I&E	Date: 30/09/2020
Location: BARNSLEY	Contractor:	Co-ords: E433454.36 N405549.28
Project No. : 20063	Crew Name:	Drilling Equipment:

Borehole Number	Hole Type	Level	Logged By	Scale	Page Number
RC104	CP+RC	140.47m AoD	CH	1:10	Sheet 4 of 15

Well	Water	Depth (m)	Type /Fl	Coring TCR	Coring SCR	Coring RQD	Diameter Recovery (SPT)	Depth (m)	Level (m)	Legend	Stratum Description
			NR								NO RECOVERY between 6.0m and 6.6m bgl.
								6.60	133.87		
			2								Medium strong to strong light grey fine grained SANDSTONE, partially to moderately weathered with horizontal smooth to rough planar very closely to closely spaced discontinuities.
		6.00 - 7.50	NI	60	29	6					*Highly weathered, recovered as subangular to subrounded fine to coarse gravel of sandstone between 6.60m and 6.66m bgl.*
			2								*Recovered as angular to subrounded fine to coarse gravel between 6.75m and 6.77m bgl.*
			NI								*Extremely weak grey MUDSTONE recovered as subrounded cobbles between 6.95m and 7.02m bgl.*
			2								
								7.16	133.31		
			NI								Weak to medium strong light grey SILTSTONE, partially to moderately weathered with horizontal smooth planar closely spaced discontinuities and small scale bedding structures.
			1								*Recovered as slightly clayey angular to subangular fine to coarse gravel and cobbles with orange brown weathering staining between 7.16m and 7.34m bgl.*
								7.41	133.06		
			NI								Extremely weak grey MUDSTONE highly weathered recovered as subangular cobbles.
								7.50	132.97		NO RECOVERY.
			NR								
			NI					7.69	132.78		Very weak grey SILTSTONE moderately to highly weathered with horizontal smooth to rough planar closely spaced discontinuities.
			1								*Recovered as firm grey silty clay between 7.69m and 7.70m bgl.*
			NI								*Recovered as firm grey silty clay between 7.76m and 7.78m bgl.*
			1								*Recovered as slightly gravelly slightly clayey subangular cobbles of siltstone between 7.85m*
			NI								

Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation				Drilling Flush					
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Depth Top	Depth Base	Inclination	Orientation	Depth Top	Depth Base	Type	Colour	Min (%)	Max (%)

Remarks

1. Service clearance undertaken. 2. Hand dug inspection pit excavated to 1.2m bgl prior to drilling works. 3. Dynamic sampling commenced from base of inspection pit to 3.0m bgl. 4. Rotary coring undertaken from 3.0m to 10.5m bgl. 5. Rotary open hole drilling carried out from 10.5m bgl to 30.0m bgl. 6. Void encountered between 15.4m and 16.8m bgl, suspected mine workings. 7. Groundwater strikes not encountered. 8. Void grouted with bentonite grout/ gravel mix. 9. Standpipe installed to 7.0m bgl, 4.0m plain, 3.0m slotted.

Rotary Core Log

Project Name: TRINITY ACADEMY	Client: WATERMAN I&E	Date: 30/09/2020
Location: BARNSLEY	Contractor:	Co-ords: E433454.36 N405549.28
Project No. : 20063	Crew Name:	Drilling Equipment:

Borehole Number	Hole Type	Level	Logged By	Scale	Page Number
RC104	CP+RC	140.47m AoD	CH	1:10	Sheet 5 of 15

Well	Water	Depth (m)	Type /Fl	Coring TCR	Coring SCR	Coring RQD	Diameter Recovery (SPT)	Depth (m)	Level (m)	Legend	Stratum Description
											Very weak grey SILTSTONE moderately to highly weathered with horizontal smooth to rough planar closely spaced discontinuities.
			1								*Recovered as slightly gravelly slightly clayey subangular cobbles of siltstone between 7.85m and 8.04m bgl.*
			NI								*Recovered as slightly gravelly slightly clayey angular to subangular fine to coarse gravel and cobbles of siltstone between 8.08m and 8.37m bgl.*
		7.50 - 9.00	5	87	41	0					
			NI								*Recovered as angular to subangular fine to medium gravel of siltstone between 8.68m and 8.75m bgl.*
			3								
			NI								*Recovered as angular to subangular fine to coarse gravel and cobbles of siltstone between 8.93m and 9.0m bgl.*
			NR								*NO RECOVERY between 9.0m and 9.04m bgl.*
			1								
											Recovered as angular to subangular fine to coarse gravel and cobbles of siltstone between 9.14m and 9.95m bgl.
		9.00 - 10.50	NI	97	26	20					

9

10

Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation				Drilling Flush					
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Depth Top	Depth Base	Inclination	Orientation	Depth Top	Depth Base	Type	Colour	Min (%)	Max (%)

Remarks

1. Service clearance undertaken. 2. Hand dug inspection pit excavated to 1.2m bgl prior to drilling works. 3. Dynamic sampling commenced from base of inspection pit to 3.0m bgl. 4. Rotary coring undertaken from 3.0m to 10.5m bgl. 5. Rotary open hole drilling carried out from 10.5m bgl to 30.0m bgl. 6. Void encountered between 15.4m and 16.8m bgl, suspected mine workings. 7. Groundwater strikes not encountered. 8. Void grouted with bentonite grout/ gravel mix. 9. Standpipe installed to 7.0m bgl, 4.0m plain, 3.0m slotted.

Rotary Core Log

Project Name: TRINITY ACADEMY	Client: WATERMAN I&E	Date: 30/09/2020
Location: BARNSLEY	Contractor:	Co-ords: E433454.36 N405549.28
Project No. : 20063	Crew Name:	Drilling Equipment:

Borehole Number	Hole Type	Level	Logged By	Scale	Page Number
RC104	CP+RC	140.47m AoD	CH	1:10	Sheet 6 of 15

Well	Water	Depth (m)	Type /FI	Coring TCR	Coring SCR	Coring RQD	Diameter Recovery (SPT)	Depth (m)	Level (m)	Legend	Stratum Description
			1								Very weak grey SILTSTONE moderately to highly weathered with horizontal smooth to rough planar closely spaced discontinuities.
			NI								
			1								*Recovered as angular to subangular fine to coarse gravel and cobbles of siltstone between 10.06m and 10.11m bgl.*
			NI								*Recovered as angular to subangular fine to coarse gravel and cobbles of siltstone between 10.21m and 10.37m bgl.*
			2								
								10.50	129.97		Grey SILTSTONE.

Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation				Drilling Flush					
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Depth Top	Depth Base	Inclination	Orientation	Depth Top	Depth Base	Type	Colour	Min (%)	Max (%)

Remarks

1. Service clearance undertaken. 2. Hand dug inspection pit excavated to 1.2m bgl prior to drilling works. 3. Dynamic sampling commenced from base of inspection pit to 3.0m bgl. 4. Rotary coring undertaken from 3.0m to 10.5m bgl. 5. Rotary open hole drilling carried out from 10.5m bgl to 30.0m bgl. 6. Void encountered between 15.4m and 16.8m bgl, suspected mine workings. 7. Groundwater strikes not encountered. 8. Void grouted with bentonite grout/ gravel mix. 9. Standpipe installed to 7.0m bgl, 4.0m plain, 3.0m slotted.

Rotary Core Log

Project Name: TRINITY ACADEMY	Client: WATERMAN I&E	Date: 30/09/2020
Location: BARNSLEY	Contractor:	Co-ords: E433454.36 N405549.28
Project No. : 20063	Crew Name:	Drilling Equipment:

Borehole Number	Hole Type	Level	Logged By	Scale	Page Number
RC104	CP+RC	140.47m AoD	CH	1:10	Sheet 7 of 15

Well	Water	Depth (m)	Type /FI	Coring TCR	Coring SCR	Coring RQD	Diameter Recovery (SPT)	Depth (m)	Level (m)	Legend	Stratum Description
											Grey SILTSTONE.

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Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation				Drilling Flush					
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Depth Top	Depth Base	Inclination	Orientation	Depth Top	Depth Base	Type	Colour	Min (%)	Max (%)

Remarks

1. Service clearance undertaken. 2. Hand dug inspection pit excavated to 1.2m bgl prior to drilling works. 3. Dynamic sampling commenced from base of inspection pit to 3.0m bgl. 4. Rotary coring undertaken from 3.0m to 10.5m bgl. 5. Rotary open hole drilling carried out from 10.5m bgl to 30.0m bgl. 6. Void encountered between 15.4m and 16.8m bgl, suspected mine workings. 7. Groundwater strikes not encountered. 8. Void grouted with bentonite grout/ gravel mix. 9. Standpipe installed to 7.0m bgl, 4.0m plain, 3.0m slotted.

Rotary Core Log

Project Name: TRINITY ACADEMY	Client: WATERMAN I&E	Date: 30/09/2020
Location: BARNSLEY	Contractor:	Co-ords: E433454.36 N405549.28
Project No. : 20063	Crew Name:	Drilling Equipment:

Borehole Number	Hole Type	Level	Logged By	Scale	Page Number
RC104	CP+RC	140.47m AoD	CH	1:10	Sheet 8 of 15

Well	Water	Depth (m)	Type /FI	Coring TCR	Coring SCR	Coring RQD	Diameter Recovery (SPT)	Depth (m)	Level (m)	Legend	Stratum Description
											Grey SILTSTONE.
								15.40	125.07		VOID (Suspected open mine workings).

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Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation				Drilling Flush					
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Depth Top	Depth Base	Inclination	Orientation	Depth Top	Depth Base	Type	Colour	Min (%)	Max (%)

Remarks

1. Service clearance undertaken. 2. Hand dug inspection pit excavated to 1.2m bgl prior to drilling works. 3. Dynamic sampling commenced from base of inspection pit to 3.0m bgl. 4. Rotary coring undertaken from 3.0m to 10.5m bgl. 5. Rotary open hole drilling carried out from 10.5m bgl to 30.0m bgl. 6. Void encountered between 15.4m and 16.8m bgl, suspected mine workings. 7. Groundwater strikes not encountered. 8. Void grouted with bentonite grout/ gravel mix. 9. Standpipe installed to 7.0m bgl, 4.0m plain, 3.0m slotted.

Rotary Core Log

Project Name: TRINITY ACADEMY	Client: WATERMAN I&E	Date: 30/09/2020
Location: BARNSLEY	Contractor:	Co-ords: E433454.36 N405549.28
Project No. : 20063	Crew Name:	Drilling Equipment:

Borehole Number	Hole Type	Level	Logged By	Scale	Page Number
RC104	CP+RC	140.47m AoD	CH	1:10	Sheet 9 of 15

Well	Water	Depth (m)	Type /FI	Coring TCR	Coring SCR	Coring RQD	Diameter Recovery (SPT)	Depth (m)	Level (m)	Legend	Stratum Description
											VOID (Suspected open mine workings).
								16.80	123.67		Grey SILTSTONE.

17

18

Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation				Drilling Flush					
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Depth Top	Depth Base	Inclination	Orientation	Depth Top	Depth Base	Type	Colour	Min (%)	Max (%)

Remarks

1. Service clearance undertaken. 2. Hand dug inspection pit excavated to 1.2m bgl prior to drilling works. 3. Dynamic sampling commenced from base of inspection pit to 3.0m bgl. 4. Rotary coring undertaken from 3.0m to 10.5m bgl. 5. Rotary open hole drilling carried out from 10.5m bgl to 30.0m bgl. 6. Void encountered between 15.4m and 16.8m bgl, suspected mine workings. 7. Groundwater strikes not encountered. 8. Void grouted with bentonite grout/ gravel mix. 9. Standpipe installed to 7.0m bgl, 4.0m plain, 3.0m slotted.

Rotary Core Log

Project Name: TRINITY ACADEMY	Client: WATERMAN I&E	Date: 30/09/2020
Location: BARNSLEY	Contractor:	Co-ords: E433454.36 N405549.28
Project No. : 20063	Crew Name:	Drilling Equipment:

Borehole Number	Hole Type	Level	Logged By	Scale	Page Number
RC104	CP+RC	140.47m AoD	CH	1:10	Sheet 10 of 15

Well	Water	Depth (m)	Type /FI	Coring TCR	Coring SCR	Coring RQD	Diameter Recovery (SPT)	Depth (m)	Level (m)	Legend	Stratum Description
											Grey SILTSTONE.

19

20

Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation				Drilling Flush					
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Depth Top	Depth Base	Inclination	Orientation	Depth Top	Depth Base	Type	Colour	Min (%)	Max (%)

Remarks

1. Service clearance undertaken. 2. Hand dug inspection pit excavated to 1.2m bgl prior to drilling works. 3. Dynamic sampling commenced from base of inspection pit to 3.0m bgl. 4. Rotary coring undertaken from 3.0m to 10.5m bgl. 5. Rotary open hole drilling carried out from 10.5m bgl to 30.0m bgl. 6. Void encountered between 15.4m and 16.8m bgl, suspected mine workings. 7. Groundwater strikes not encountered. 8. Void grouted with bentonite grout/ gravel mix. 9. Standpipe installed to 7.0m bgl, 4.0m plain, 3.0m slotted.

Rotary Core Log

Project Name: TRINITY ACADEMY	Client: WATERMAN I&E	Date: 30/09/2020
Location: BARNSLEY	Contractor:	Co-ords: E433454.36 N405549.28
Project No. : 20063	Crew Name:	Drilling Equipment:

Borehole Number	Hole Type	Level	Logged By	Scale	Page Number
RC104	CP+RC	140.47m AoD	CH	1:10	Sheet 11 of 15

Well	Water	Depth (m)	Type /FI	Coring TCR	Coring SCR	Coring RQD	Diameter Recovery (SPT)	Depth (m)	Level (m)	Legend	Stratum Description
											Grey SILTSTONE.

21

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Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation				Drilling Flush					
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Depth Top	Depth Base	Inclination	Orientation	Depth Top	Depth Base	Type	Colour	Min (%)	Max (%)

Remarks

1. Service clearance undertaken. 2. Hand dug inspection pit excavated to 1.2m bgl prior to drilling works. 3. Dynamic sampling commenced from base of inspection pit to 3.0m bgl. 4. Rotary coring undertaken from 3.0m to 10.5m bgl. 5. Rotary open hole drilling carried out from 10.5m bgl to 30.0m bgl. 6. Void encountered between 15.4m and 16.8m bgl, suspected mine workings. 7. Groundwater strikes not encountered. 8. Void grouted with bentonite grout/ gravel mix. 9. Standpipe installed to 7.0m bgl, 4.0m plain, 3.0m slotted.

Rotary Core Log

Project Name: TRINITY ACADEMY	Client: WATERMAN I&E	Date: 30/09/2020
Location: BARNSLEY	Contractor:	Co-ords: E433454.36 N405549.28
Project No. : 20063	Crew Name:	Drilling Equipment:

Borehole Number	Hole Type	Level	Logged By	Scale	Page Number
RC104	CP+RC	140.47m AoD	CH	1:10	Sheet 12 of 15

Well	Water	Depth (m)	Type /FI	Coring TCR	Coring SCR	Coring RQD	Diameter Recovery (SPT)	Depth (m)	Level (m)	Legend	Stratum Description
											Grey SILTSTONE.

23

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Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation				Drilling Flush					
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Depth Top	Depth Base	Inclination	Orientation	Depth Top	Depth Base	Type	Colour	Min (%)	Max (%)

Remarks

1. Service clearance undertaken. 2. Hand dug inspection pit excavated to 1.2m bgl prior to drilling works. 3. Dynamic sampling commenced from base of inspection pit to 3.0m bgl. 4. Rotary coring undertaken from 3.0m to 10.5m bgl. 5. Rotary open hole drilling carried out from 10.5m bgl to 30.0m bgl. 6. Void encountered between 15.4m and 16.8m bgl, suspected mine workings. 7. Groundwater strikes not encountered. 8. Void grouted with bentonite grout/ gravel mix. 9. Standpipe installed to 7.0m bgl, 4.0m plain, 3.0m slotted.

Rotary Core Log

GROUNDTECH CONSULTING

Project Name: TRINITY ACADEMY	Client: WATERMAN I&E	Date: 30/09/2020
Location: BARNSLEY	Contractor:	Co-ords: E433454.36 N405549.28
Project No. : 20063	Crew Name:	Drilling Equipment:

Borehole Number	Hole Type	Level	Logged By	Scale	Page Number
RC104	CP+RC	140.47m AoD	CH	1:10	Sheet 13 of 15

Well	Water	Depth (m)	Type /FI	Coring TCR	Coring SCR	Coring RQD	Diameter Recovery (SPT)	Depth (m)	Level (m)	Legend	Stratum Description
											Grey SILTSTONE.

25

26

Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation				Drilling Flush					
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Depth Top	Depth Base	Inclination	Orientation	Depth Top	Depth Base	Type	Colour	Min (%)	Max (%)

Remarks

1. Service clearance undertaken. 2. Hand dug inspection pit excavated to 1.2m bgl prior to drilling works. 3. Dynamic sampling commenced from base of inspection pit to 3.0m bgl. 4. Rotary coring undertaken from 3.0m to 10.5m bgl. 5. Rotary open hole drilling carried out from 10.5m bgl to 30.0m bgl. 6. Void encountered between 15.4m and 16.8m bgl, suspected mine workings. 7. Groundwater strikes not encountered. 8. Void grouted with bentonite grout/ gravel mix. 9. Standpipe installed to 7.0m bgl, 4.0m plain, 3.0m slotted.

Rotary Core Log

Project Name: TRINITY ACADEMY	Client: WATERMAN I&E	Date: 30/09/2020
Location: BARNSLEY	Contractor:	Co-ords: E433454.36 N405549.28
Project No. : 20063	Crew Name:	Drilling Equipment:

Borehole Number	Hole Type	Level	Logged By	Scale	Page Number
RC104	CP+RC	140.47m AoD	CH	1:10	Sheet 14 of 15

Well	Water	Depth (m)	Type /FI	Coring TCR	Coring SCR	Coring RQD	Diameter Recovery (SPT)	Depth (m)	Level (m)	Legend	Stratum Description
											Grey SILTSTONE.

27

28

Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation				Drilling Flush					
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Depth Top	Depth Base	Inclination	Orientation	Depth Top	Depth Base	Type	Colour	Min (%)	Max (%)

Remarks

1. Service clearance undertaken. 2. Hand dug inspection pit excavated to 1.2m bgl prior to drilling works. 3. Dynamic sampling commenced from base of inspection pit to 3.0m bgl. 4. Rotary coring undertaken from 3.0m to 10.5m bgl. 5. Rotary open hole drilling carried out from 10.5m bgl to 30.0m bgl. 6. Void encountered between 15.4m and 16.8m bgl, suspected mine workings. 7. Groundwater strikes not encountered. 8. Void grouted with bentonite grout/ gravel mix. 9. Standpipe installed to 7.0m bgl, 4.0m plain, 3.0m slotted.

Rotary Core Log

Project Name: TRINITY ACADEMY	Client: WATERMAN I&E	Date: 30/09/2020
Location: BARNSLEY	Contractor:	Co-ords: E433454.36 N405549.28
Project No. : 20063	Crew Name:	Drilling Equipment:

Borehole Number	Hole Type	Level	Logged By	Scale	Page Number
RC104	CP+RC	140.47m AoD	CH	1:10	Sheet 15 of 15

Well	Water	Depth (m)	Type /FI	Coring TCR	Coring SCR	Coring RQD	Diameter Recovery (SPT)	Depth (m)	Level (m)	Legend	Stratum Description
											Grey SILTSTONE.
								30.00	110.47		End of Borehole at 30.000m

29

30

Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation				Drilling Flush					
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Depth Top	Depth Base	Inclination	Orientation	Depth Top	Depth Base	Type	Colour	Min (%)	Max (%)

Remarks

1. Service clearance undertaken. 2. Hand dug inspection pit excavated to 1.2m bgl prior to drilling works. 3. Dynamic sampling commenced from base of inspection pit to 3.0m bgl. 4. Rotary coring undertaken from 3.0m to 10.5m bgl. 5. Rotary open hole drilling carried out from 10.5m bgl to 30.0m bgl. 6. Void encountered between 15.4m and 16.8m bgl, suspected mine workings. 7. Groundwater strikes not encountered. 8. Void grouted with bentonite grout/ gravel mix. 9. Standpipe installed to 7.0m bgl, 4.0m plain, 3.0m slotted.

GROUNDTECH CONSULTING

Trial Pit Log

Trialpit No **TP101**

Sheet 1 of 1

Project Name: TRINITY ACADEMY	Project No. 20063	Co-ords: 433333.93 - 405679.21 Level: 141.23	Date 24/09/2020
Location: BARNSLEY		Dimensions (m): Depth 3.80	Scale 1:25
Client: WATERMAN I&E			Logged CH

Water Strike	Samples and In Situ Testing: Depth	Type	Results	Depth (m)	Level (m)	Legend	Stratum Description
	0.10	ES	PID=0	0.23	141.00		MADE GROUND: Grass over dark grey slightly sandy slightly gravelly clayey topsoil with roots. Sand is fine to medium. Gravel is angular to subangular fine to coarse of sandstone, coal and brick.
	0.50	ES	PID=0				MADE GROUND: Firm friable grey brown slightly sandy slightly gravelly clay with low cobble content of concrete and brick. Sand is fine to medium. Gravel is angular to subrounded fine to coarse of brick, wood, concrete, coal and plastic. Redundant copper pipes present.
	1.00 1.00	B D					
	1.40 - 1.80 1.50 1.50	B D ES	HVP=90 PID=0	1.40	139.82		Stiff high strength light grey mottled orange brown slightly gravelly silty CLAY. Gravel is angular to subrounded fine to medium of coal and sandstone.
	2.50 2.50 - 3.00	D B	HVP=120				
			HVP=88				
	3.50 3.50 - 3.80	D B		3.20	138.02		Extremely to very weak brown to grey fine grained SANDSTONE highly weathered, recovered as slightly sandy slightly clayey angular to subangular fine to coarse gravel and tabular cobbles of sandstone. Sand is fine to medium.
				3.80	137.43		End of pit at 3.80 m

1 2 3 4 5

Remarks: 1. Pit sides stable. 2. No groundwater encountered.

Stability:

GROUNDTECH CONSULTING

Trial Pit Log

Trialpit No **TP102** Sheet 1 of 1

Project Name: TRINITY ACADEMY	Project No. 20063	Co-ords: 433498.46 - 405704.81 Level: 135.84	Date 24/09/2020
Location: BARNSLEY		Dimensions (m): Depth 4.00	Scale 1:25
Client: WATERMAN I&E			Logged CH

Water Strike	Samples and In Situ Testing: Depth	Type	Results	Depth (m)	Level (m)	Legend	Stratum Description
	0.10	ES	PID=0				MADE GROUND: Grass over dark brown slightly gravelly sandy clayey topsoil. Sand is fine to medium. Gravel is angular to subangular fine to coarse of ceramic, coal and sandstone.
				0.30	135.54		MADE GROUND: Soft to firm brown slightly sandy slightly gravelly clay with low cobble content of concrete and brick. Plastic bags, wood, steel bar and wellies present. Sand is fine to coarse. Gravel is angular to subrounded fine to coarse of brick, concrete, coal and sandstone.
	0.50	ES	PID=0				
	0.50 - 0.90	B					
	1.00	D					
	1.00	ES	HVP=62 PID=0				
	1.60 - 2.00	B		1.60	134.24		Stiff to very stiff high strength light brown mottled light grey slightly sandy slightly gravelly silty CLAY. Sand is fine. Gravel is angular to subangular fine to medium of siltstone and sandstone.
	1.70	ES	PID=0				
	1.80	D	HVP=95				
	2.50 - 3.00	B		2.40	133.44		Extremely weak light grey to orange brown interbedded MUDSTONE and SANDSTONE residually weathered, recovered as sandy slightly clayey angular to subangular gravel and cobbles of mudstone, fine grained sandstone and ironstone nodules. Sand is fine to medium.
	3.00	D					
	4.00	D		4.00	131.84		End of pit at 4.00 m

1 2 3 4 5

Remarks: 1. Pit sides stable. 2. No groundwater encountered.

Stability:

GROUNDTECH CONSULTING

Trial Pit Log

Trialpit No **TP103**

Sheet 1 of 1

Project Name: TRINITY ACADEMY	Project No. 20063	Co-ords: 433409.89 - 405695.23 Level: 138.95	Date 24/09/2020
Location: BARNSLEY		Dimensions (m): Depth 2.85	Scale 1:25
Client: WATERMAN I&E			Logged CH

Water Strike	Samples and In Situ Testing: Depth	Type	Results	Depth (m)	Level (m)	Legend	Stratum Description
	0.10	ES	PID=0	0.22	138.73		MADE GROUND: Grass over dark grey brown slightly gravelly sandy clayey topsoil. Sand is fine to medium. Gravel is angular to subangular fine to coarse of coal, sandstone and limestone.
	0.50	ES	HVP=112 PID=0				Stiff high strength orange brown mottled grey slightly sandy slightly gravelly silty CLAY. Sand is fine. Gravel is angular to subangular fine to medium of sandstone.
	0.50 - 1.00 0.80	B D	HVP=140				
				1.30	137.65		Extremely weak light orange brown fine grained SANDSTONE residually weathered recovered as sandy angular to subangular fine to coarse gravel. Sand is fine to medium.
	2.00 2.00 - 2.40	D B					*Clayey with stiff clay bands from 2.2m bgl.*
	2.50	D		2.45	136.50		Black anthracite COAL recovered as angular to subangular fine to coarse gravel and cobbles.
				2.85	136.10		End of pit at 2.85 m

Remarks: 1. Pit sides stable. 2. No groundwater encountered. 3. Position terminated at 2.85m bgl as excavator unable to advance through coal.

Stability:

GROUNDTECH CONSULTING

Trial Pit Log

Trialpit No **TP104** Sheet 1 of 1

Project Name: TRINITY ACADEMY	Project No. 20063	Co-ords: 433491.65 - 405721.41 Level: 134.09	Date 24/09/2020
Location: BARNSLEY		Dimensions (m): Depth 4.10	Scale 1:25
Client: WATERMAN I&E			Logged CH

Water Strike	Samples and In Situ Testing: Depth	Type	Results	Depth (m)	Level (m)	Legend	Stratum Description
	0.10	ES	PID=0	0.23	133.86		MADE GROUND: Grass over brown slightly gravelly sandy slightly clayey topsoil. Sand is fine to medium. Gravel is angular to subangular fine to coarse of sandstone and concrete.
	0.50 - 1.00	B					MADE GROUND: Stiff grey brown slightly gravelly sandy clay with moderate cobble content of brick and concrete and low boulder content of concrete. Sand is fine to medium. Gravel is angular to subangular fine to coarse of brick, concrete, sandstone, limestone and coal with plastic bags and wire.
	0.60	ES	PID=0				
			HVP=140	1.50	132.59		
	1.60	D					Very stiff high strength light brown mottled light grey slightly gravelly silty CLAY. Gravel is angular to subangular fine to coarse of siltstone.
	1.80	ES	PID=0	1.90	132.19		
	2.00 - 2.50	B					Very weak grey brown fine grained SANDSTONE highly weathered recovered as sandy angular to subangular fine to coarse gravel and tabular cobbles and boulders of sandstone with occassional ironstone nodules. Sand is fine.
	2.50	D					
	3.50	D					
				4.10	129.99		End of pit at 4.10 m

1 2 3 4 5

Remarks: 1. Pit sides stable. 2. No groundwater encountered.

Stability:

Trial Pit Log

Trialpit No **TP105**

Sheet 1 of 1

Project Name: TRINITY ACADEMY	Project No. 20063	Co-ords: 433435.07 - 405615.87 Level: 140.73	Date 24/09/2020
Location: BARNSLEY		Dimensions (m): Depth 0.90	Scale 1:25
Client: WATERMAN I&E			Logged CH

Water Strike	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
	Depth	Type	Results				
	0.10	ES	PID=0	0.20	140.53		MADE GROUND: Grass over dark grey slightly sandy slightly gravelly clayey topsoil. Sand is fine to medium. Gravel is angular to subangular fine to coarse of coal, sandstone, ceramic and limestone.
	0.40	ES	PID=0				Very weak to weak light brown to light grey fine grained SANDSTONE highly weathered recovered as slightly sandy angular to subangular gravel and tabular cobbles of sandstone. Sand is fine to medium.
	0.50	D					*Slightly clayey between 0.2m and 0.45m bgl.*
	0.50 - 0.90	B		0.90	139.83		End of pit at 0.90 m

Remarks: 1. Pit sides stable. 2. No groundwater encountered. 3. Position terminated at 0.90m bgl due to competent bedrock.

Stability:

GROUNDTECH CONSULTING

Trial Pit Log

Trialpit No
TP106
Sheet 1 of 1

Project Name: TRINITY ACADEMY	Project No. 20063	Co-ords: 433534.13 - 405650.67 Level: 134.83	Date 24/09/2020
Location: BARNSLEY		Dimensions (m): Depth 2.60	Scale 1:25
Client: WATERMAN I&E			Logged CH

Water Strike	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
	Depth	Type	Results				
	0.10	ES	PID=0	0.24	134.59		MADE GROUND: Grass over brown grey slightly gravelly sandy clayey topsoil. Sand is fine to medium. Gravel is angular to subangular fine to medium of brick, coal and limestone.
	0.60	ES	PID=0				MADE GROUND: Firm to stiff friable slightly gravelly very sandy clay. Sand is fine to medium. Gravel is angular to subrounded fine to coarse of plastic, brick, wire, concrete, coal and sandstone.
	1.00 1.00	D ES	PID=0	0.90	133.93		Stiff friable orange to yellow brown slightly gravelly sandy CLAY. Sand is fine. Gravel is subangular fine to coarse of sandstone.
	2.00	D		1.60	133.23		Very weak to weak orange brown to light grey fine grained SANDSTONE resiudally weathered recovered as sandy angular to subangular fine to coarse gravel and cobbles of sandstone.
				2.60	132.23		End of pit at 2.60 m

1
2
3
4
5

Remarks: 1. Pit sides stable. 2. No groundwater encountered. 3. Position terminated at 2.60m bgl due to competent bedrock.

Stability:

GROUNDTECH CONSULTING

Trial Pit Log

Trialpit No **TP107** Sheet 1 of 1

Project Name: TRINITY ACADEMY	Project No. 20063	Co-ords: 433476.82 - 405596.45 Level: 138.85	Date 23/09/2020
Location: BARNSLEY		Dimensions (m): Depth 4.00	Scale 1:25
Client: WATERMAN I&E			Logged CH

Water Strike	Samples and In Situ Testing: Depth	Type	Results	Depth (m)	Level (m)	Legend	Stratum Description
	0.10	ES	PID=0				MADE GROUND: Grass over dark brown grey slightly gravelly sandy slightly clayey topsoil. Sand is fine to medium. Gravel is angular to subrounded fine to coarse of brick, sandstone and concrete.
	0.30 - 0.70	B		0.23	138.62		MADE GROUND: Firm orange brown slightly sandy slightly gravelly clay with low cobble content of brick and rare boulder content of concrete. Sand is fine to medium. Gravel is angular to rounded fine to coarse of brick, concrete, sandstone and quartzite.
	0.50	ES	PID=0				
	0.80	D		0.75	138.10		Firm to stiff medium strength dark brown to orange brown slightly gravelly sandy CLAY. Sand is fine. Gravel is angular to subangular fine to medium of sandstone.
	1.00 1.00	B ES	HVP=74 PID=0				
	1.60	D		1.50	137.35		Extremely weak light grey mottled yellow brown fine grained SANDSTONE recovered as sandy clayey angular to subangular fine to coarse gravel of sandstone with low to moderate cobble content of tabular sandstone. Sand is fine to medium.
	2.50 - 3.00	B					
	3.00	D					
	4.00	D		4.00	134.85		End of pit at 4.00 m

1 2 3 4 5

Remarks: 1. Pit sides stable. 2. No groundwater encountered.

Stability:

GROUNDTECH CONSULTING

Trial Pit Log

Trialpit No **TP108**

Sheet 1 of 1

Project Name: TRINITY ACADEMY	Project No. 20063	Co-ords: 433472.09 - 405496.29 Level: 141.09	Date 23/09/2020
Location: BARNSLEY		Dimensions (m): Depth 1.85	Scale 1:25
Client: WATERMAN I&E			Logged CH

Water Strike	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
	Depth	Type	Results				
	0.10	ES	PID=0	0.23	140.86		MADE GROUND: Grass over dark grey slightly gravelly sandy clayey topsoil. Sand is fine to medium. Gravel is angular to subangular fine to coarse of brick, sandstone and glass.
	0.50 0.50	D ES	HVP=132 PID=0				Firm to stiff high strength orange brown mottled grey slightly sandy gravelly CLAY. Sand is fine. Gravel is angular to subangular fine to coarse of sandstone.
	0.50 - 1.00	B		0.80	140.29		Extremely weak orange brown mottled grey fine grained SANDSTONE residually weathered recovered as slightly sandy clayey angular to subangular fine to coarse gravel of sandstone. Sand is fine.
	1.00	D					*Becomes slightly clayey and recovered as angular tabular cobbles and gravel of sandstone from 1.20m bgl.*
	1.50 - 1.80	B					
	1.80	D		1.85	139.24		End of pit at 1.85 m

Remarks: 1. Pit sides stable. 2. No groundwater encountered. 3. Position terminated at 1.85m bgl due to competent bedrock.

Stability:

GROUNDTECH CONSULTING

Trial Pit Log

Trialpit No
TP109
Sheet 1 of 1

Project Name: TRINITY ACADEMY	Project No. 20063	Co-ords: 433503.00 - 405532.21 Level: 137.74	Date 23/09/2020
Location: BARNSLEY		Dimensions (m): Depth 2.40	Scale 1:25
Client: WATERMAN I&E			Logged CH

Water Strike	Samples and In Situ Testing: Depth	Type	Results	Depth (m)	Level (m)	Legend	Stratum Description
	0.10	ES	PID=0	0.20	137.54		MADE GROUND: Grass over grey slightly gravelly sandy clayey topsoil. Sand is fine to medium. Gravel is angular to subangular fine to coarse of sandstone, coal and brick.
	0.50	D					Stiff high strength dark grey mottled brown slightly gravelly silty CLAY. Gravel is subangular to subrounded fine to coarse of sandstone and mudstone.
	0.50	ES	HVP=140 PID=0				
	0.50 - 1.00	B	HVP=140				
	1.50	D		1.40	136.34		Extremley weak grey to brown MUDSTONE residually weathered recovered as clayey angular to subangular fine to coarse gravel of mudstone.
	2.00 - 2.40	B		2.00	135.74		Weak orange brown fine grained SANDSTONE residually weathered recovered as sandy slightly clayey angular to subangular fine to coarse gravel and tabular cobbles of sandstone with occassional ironstone nodules. Sand is fine.
	2.10	D		2.40	135.34		*Ironstone nodules present from 2.0m bgl.* End of pit at 2.40 m

Remarks: 1. Pit sides stable. 2. No groundwater encountered. 3. Position terminated at 2.4m bgl due to competent bedrock.

Stability:

GROUNDTECH CONSULTING

Trial Pit Log

Trialpit No **TP110**

Sheet 1 of 1

Project Name: TRINITY ACADEMY	Project No. 20063	Co-ords: 433343.94 - 405527.04 Level: 148.39	Date 23/09/2020
Location: BARNSLEY		Dimensions (m): Depth 3.10	Scale 1:25
Client: WATERMAN I&E			Logged CH

Water Strike	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
	Depth	Type	Results				
	0.20	ES	PID=0	0.33	148.06		MADE GROUND: Grass over grey slightly gravelly sandy slightly clayey topsoil. Sand is fine to medium. Gravel is very angular to subangular fine to coarse of ceramic and ash.
	0.50	ES	HVP=140 PID=0				MADE GROUND: Soft to firm friable dark grey to black sandy very gravelly clay with low cobble content of sandstone blocks. Sand is fine to medium. Gravel is angular to subangular fine to coarse of coal, ironstone, sandstone and ceramic. (Colliery spoil in backfilled shaft).
	0.50 - 1.00	B					*Very stiff high strength orange brown to grey slightly sandy slightly gravelly CLAY. Sand is fine. Gravel is angular to subangular fine to coarse of sandstone between 0.33m and 1.30m bgl (natural adjacent to infilled shaft).*
	1.00	D					
	1.00	ES	HVP=140 PID=0				*Weak grey fine grained SANDSTONE highly weathered recovered as sandy angular to subangular tabular gravel and cobbles of sandstone between 1.3m and 3.1m bgl (natural adjacent to infilled shaft).*
	1.50	D	PID=0				
	2.50	ES		3.10	145.29		End of pit at 3.10 m

1 2 3 4 5

Remarks: 1. Pit sides unstable and collapsing. 2. No groundwater encountered. 3. Suspected mine shaft observed with colliery spoil infilling c.2.5m wide.

Stability:

GROUNDTECH CONSULTING

Trial Pit Log

Trialpit No **TP111** Sheet 1 of 1

Project Name: TRINITY ACADEMY	Project No. 20063	Co-ords: 433311.59 - 405470.84 Level: 149.77	Date 23/09/2020
Location: BARNSLEY		Dimensions (m): Depth 1.80	Scale 1:25
Client: WATERMAN I&E			Logged CH

Water Strike	Samples and In Situ Testing: Depth	Type	Results	Depth (m)	Level (m)	Legend	Stratum Description
	0.20	ES	PID=0	0.33	149.44		MADE GROUND: Grass over dark grey slightly gravelly sandy slightly clayey topsoil. Sand is fine to medium. Gravel is angular to rounded fine to coarse of coal, quartzite and sandstone.
	0.50 0.50	D ES	HVP=140 PID=0				Very stiff high strength orange brown mottled light grey slightly gravelly CLAY. Gravel is angular to subangular fine to coarse of sandstone.
	0.50 - 1.00	B					*Becomes grey at 0.90m bgl.*
	1.00	D	HVP=140				
	1.60 - 1.80	B		1.60	148.17		Very weak dark grey brown fine grained SANDSTONE with thin bands of mudstone highly weathered, recovered as sandy slightly clayey angular to subangular gravel and tabular cobbles of sandstone and mudstone.
	1.70	D		1.80	147.97		End of pit at 1.80 m

Remarks: 1. Pit sides stable. 2. No groundwater encountered. 3. Position terminated at 1.80m bgl due to competent bedrock.

Stability:

Trial Pit Log

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Trialpit No **TP112** Sheet 1 of 1

Project Name: TRINITY ACADEMY	Project No. 20063	Co-ords: 433395.10 - 405501.01 Level: 147.09	Date 23/09/2020
Location: BARNSLEY		Dimensions (m): Depth 3.90	Scale 1:25
Client: WATERMAN I&E			Logged CH

Water Strike	Samples and In Situ Testing: Depth	Type	Results	Depth (m)	Level (m)	Legend	Stratum Description
	0.20	ES	PID=0				MADE GROUND: Grass over dark grey slightly gravelly sandy slightly clayey topsoil. Sand is fine to medium. Gravel is angular to rounded fine to coarse of ash and sandstone.
	0.50	D		0.42	146.67		
	0.50	ES	HVP=66 PID=1	0.53	146.56		MADE GROUND: Black sandy subangular to subrounded fine to coarse gravel of ash, clinker and coal. Sand is medium.
	0.50 - 1.00	B					Firm to stiff medium to high strength orange brown mottled grey slightly sandy gravelly CLAY. Sand is fine. Gravel is angular to subangular fine to coarse of sandstone.
	1.00	D					
	1.00	ES	HVP=120 PID=0				
	1.50 - 2.00	B		1.50	145.59		Extremely weak orange brown mottled light grey fine grained SANDSTONE residually weathered recovered as slightly sandy clayey angular to subangular fine to coarse gravel and tabular cobbles of sandstone with firm to stiff orange grey clay bands. Sand is fine.
	2.00	D					
	2.80	D		2.70	144.39		Extremely weak grey brown fine grained SANDSTONE interbedded with mudstone residually weathered recovered as gravelly very clayey fine to medium sand. Gravel is angular to subangular fine to coarse of sandstone.
	2.80 - 3.20	B					
	3.50	D		3.50	143.59		Extremely weak grey to orange brown interbedded MUDSTONE and SANDSTONE residually weathered recovered as angular to subangular fine to coarse gravel and cobbles of sandstone and mudstone in a stiff silty clay matrix.
				3.90	143.19		End of pit at 3.90 m

1 2 3 4 5

Remarks: 1. Pit sides stable. 2. No groundwater encountered.

Stability:

APPENDIX 4 - Interim Permanent Gas Monitoring Results

PERMANENT GROUND GAS MONITORING FORM

GROUNDTECH CONSULTING

SITE NAME:	*TRINITY ACADEMY, BARNSLEY*	***ENGINEER:***	*Joshua Turton*
CLIENT:	*WAERMAN I&E*	***DATE:***	*27/10/2020*
JOB NO:	*20063*		

Pressure Trend:	*Falling*	***Weather:***	*Raining*	***Equipment:***	*GFM 436*

Ambient:	O_2 (%v/v)	CH_4 (%v/v)	CO_2 (%v/v)	LEL	H_2S (ppm)	CO (ppm)
Start	19.1	0.0	0.0	0.0	0.0	0.0
Finish	19.1	0.0	0.0	0.0	0.0	0.0

BH Ref.	Gas Flow Rate (l/hr)		Borehole Pressure (mb)	Methane (%v/v)			Carbon Dioxide (%v/v)		Oxygen (%v/v)		Hydrogen Sulphide (ppm)		Carbon Monoxide (ppm)		Q_{hg} CO_2 (l/hr)	Q_{hg} CH_4 (l/hr)	Atmos Press (mb)	PID (ppm)	Sheen (Y/N)	Depth to Water (m bgl)
	Peak	Steady		Peak	Steady	LEL	Peak	Steady	Peak	Steady	Peak	Steady	Peak	Steady						
RC101	0.3	0.1	0.01	0.0	0.0	0.0	2.9	2.7	14.7	16.7	0.0	0.0	0.0	0.0	0.0087	0.0000	974	-	N	10.72
RC102	0.1	0.1	0.00	0.0	0.0	0.0	0.1	0.3	13.5	16.1	0.0	0.0	0.0	0.0	0.0001	0.0000	974	-	N	NGW
RC103	NA	-0.6	0.00	NA	0.0	0.0	NA	0.0	NA	16.2	NA	0.0	NA	10.0	NA	NA	974	-	N	NGW
RC104	-50.2	-50.2	-7.43	0.0	0.0	0.0	0.1	0.0	1.6	16.2	0.0	0.0	0.0	0.0	0.0001	0.0000	975	-	N	5.48

Notes: RC103 flooded above head so peak concentrations not recorded.

APPENDIX 5 - Limitations

Limitations

This contract was completed by Groundtech Consulting on the basis of a defined programme and scope of works and terms and conditions agreed with the client. This report was compiled with due skill and care, taking into consideration the project brief provided, project objectives, agreed scope of works, prevailing site conditions and budget allocation.

Other than that defined in the paragraph above, Groundtech Consulting provides no other accountability or warranty whether express or implied, is made in relation to the services. Unless otherwise agreed this report has been prepared exclusively for the use and reliance of the client in accordance with generally accepted industry practices and for the intended purposes as stated in the agreement under which this work was completed. This report may not be relied upon, or transferred to, by any other party without the written agreement of a Director of Groundtech Consulting. A third party who relies on this report, does so at their own and sole risk and no liability to such parties is provided by Groundtech Consulting.

It is the understanding of Groundtech Consulting that this report is to be used for the intended purpose as set out in the introduction. The purpose was instrumental in determining the scope and level of the services provided. Should the purpose of the report or the proposed end use of the site change, this report will no longer be directly applicable, and its validity readdressed. No reliance upon the report in the revised situation should be assumed by the client without the permission of Groundtech Consulting.

The report was written in 2020, later changes in legislation, statutory requirements and industry best practices have not been considered and this should be allowed for. Ground conditions can also change and should be investigated if there is any significant delay in acting on the findings of this report. The period of time may result in changes in site conditions, regulatory or other legal provisions, technology or economic conditions which could render the report inaccurate or unreliable. The information and conclusions in this report should not be relied upon in the future without the written confirmation from Groundtech Consulting that it is safe to do so.

The observations and conclusions outlined in this report are based exclusively on the services that were provided as set out in the agreement between the client and Groundtech Consulting.

Groundtech Consulting are not liable for the existence of any condition, the discovery of which would require additional investigation outside the agreed scope of works or core competency. The services provided are based upon Groundtech Consulting observations of existing physical conditions at the site gained from site reconnaissance together with interpretation of information including documentation, obtained from third parties and from the client on the history and usage of the site. The findings and recommendations contained in this report are based in part upon information provided by third parties, and Groundtech Consulting assume the information to be correct.

No responsibility can be accepted for errors for third party information presented in this report. Groundtech Consulting were not authorised to independently verify the accuracy or completeness of information, documentation or materials received from the client or third parties, including laboratories and information services, during the performance of the services. Groundtech Consulting are not liable for any inaccurate information, misrepresentation of data or conclusions, which may inform the scope of investigation undertaken by Groundtech Consulting and forms the contract with the client.

Where field investigations have been carried out these have been restricted to a level of detail required to achieve the stated objectives of the work. Ground conditions can also be variable due to its heterogeneous properties and as investigation exploratory locations only allow examination of the ground at discrete locations. The potential exists for ground conditions to be encountered which are different to those considered in this report, particularly between exploratory holes. The extent of the limited area depends on the soil and groundwater conditions, together with other constraints such as the position of any existing structures and underground utilities. Geo-Environmental testing was carried out for a limited number of parameters [as stipulated in the contract] based on an understanding of the available operational and historical information, and it should not be inferred that other chemical species are not present.

The groundwater conditions entered on the exploratory hole records are those observed at the time of investigation. The groundwater level often has not had time to reach equilibrium and a monitoring period is required. Furthermore, groundwater levels are subject to seasonal variation or changes in local drainage conditions and higher groundwater levels may occur at other times of the year than were recorded during this investigation.

Any site drawings provided in this report are not meant to be an accurate base plan, but are preliminary and used to present the general relative locations of features on, and surrounding, the site.

Appendix C Gas and Groundwater Monitoring Results