

Site Investigation Report for Land at Pottery Gardens, Cheadle

27.0 References

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Site Investigation Report for
Land at Pottery Gardens, Cheadle

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Site Investigation Report for
Land at Pottery Gardens, Cheadle

Appendix 1

Coal Authority Ground Stability Non-Residential Report



The Coal
Authority

Resolving the **impacts** of mining



British
Geological Survey

NATURAL ENVIRONMENT RESEARCH COUNCIL

Ground Stability Non-Residential Report



LAND AND BUILDINGS, AYR ROAD, CHEADLE, ST10 1TF

Date of enquiry:	14 August 2019
Date enquiry received:	14 August 2019
Issue date:	14 August 2019

Our reference:	61002701776001
Your reference:	NH.MA (PER70/103)

Ground Stability Non-Residential Report

This report is based on and limited to the records held by the Coal Authority and the records and geological interpretation of the British Geological Survey (BGS) at the time the report was produced.

Client name

NLIS

Enquiry address

LAND AND BUILDINGS, AYR ROAD, CHEADLE, ST10
1TF

How to contact us

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www.groundstability.com

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 /thecoalauthority

 /coalauthority



Approximate position of property



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Coal Authority Summary

Has the search report highlighted evidence or potential of		
1	Past underground coal mining	Yes
2	Present underground coal mining	No
3	Future underground coal mining	Yes
4	Mine entries	Yes
5	Coal mining geology	No
6	Past opencast coal mining	No
7	Present opencast coal mining	No
8	Future opencast coal mining	No
9	Coal mining subsidence	Yes
10	Mine gas	No
11	Hazards related to coal mining	Yes
12	Withdrawal of support	No
13	Working facilities order	No
14	Payments to owners of former copyhold land	No

Further recommended reports
Mine entry interpretive report
Mine entry plan and data sheets
Coal mining subsidence claims 50m buffer report
Coal mining subsidence claims history
Surface hazard incident report

BGS Summary

Has the search report highlighted evidence or potential of		
1	Shrinkable clay	Yes
2	Running sand	Yes
3	Deposits which could compress	Yes
4	Deposits which could collapse	No
5	Natural landslide activity	Yes
6	Soluble rocks	No

Detailed findings from the Coal Authority

1. Past underground coal mining

The property is not within a surface area that could be affected by any past recorded underground coal mining.

However the property is in an area where the Coal Authority believes there is coal at or close to the surface. This coal may have been worked at some time in the past. The potential presence of coal workings at or close to the surface should be considered, particularly prior to any site works or future development activity, as ground movement could still be a risk. Your attention is drawn to the Comments on the Coal Authority information section of the report.

2. Present underground coal mining

The property is not within a surface area that could be affected by present underground mining.

3. Future underground coal mining

The property is not in an area where the Coal Authority has received an application for, and is currently considering whether to grant a licence to remove or work coal by underground methods.

The property is not in an area where a licence has been granted to remove or otherwise work coal using underground methods.

The property is not in an area likely to be affected from any planned future underground coal mining.

However, reserves of coal exist in the local area which could be worked at some time in the future.

No notices have been given, under section 46 of the Coal Mining Subsidence Act 1991, stating that the land is at risk of subsidence.

4. Mine entries

Within, or within 20 metres of, the boundary of the property there are 3 mine entries, the approximate positions of which are shown on the enquiry boundary plot. For reasons of clarity, mine entry symbols may not be drawn to the same scale as the plan.

Our records disclose the following information:

401344-004. No treatment details.

401344-003. has been capped

401344-006. No treatment details.

This information is based on the information that the Coal Authority has at the time of this enquiry.

Based on the Coal Authority's knowledge of the mining circumstances at the time of this enquiry, there may be unrecorded mine entries in the local area that do not appear on Coal Authority records.

For an additional fee, the Coal Authority can provide a Mine Entry Interpretive Report. The report will provide a separate assessment for the mine entry/entries referred to in this report. It gives an opinion on the likelihood of mining subsidence damage caused from ground movement as a consequence of the mine entry/entries. It also gives details of the remedies available for subsidence damage where the mine entry was sunk in connection with coal mining.

Please note that it may not be possible to produce a report if the main building to the property cannot be identified from Coal Authority plans (ie for development sites and new build).

For further advice on how to order this additional information please visit www.groundstability.com.

5. Coal mining geology

The Coal Authority is not aware of any damage due to geological faults or other lines of weakness that have been affected by coal mining.

6. Past opencast coal mining

The property is not within the boundary of an opencast site from which coal has been removed by opencast methods.

7. Present opencast coal mining

The property does not lie within 200 metres of the boundary of an opencast site from which coal is being removed by opencast methods.

8. Future opencast coal mining

There are no licence requests outstanding to remove coal by opencast methods within 800 metres of the boundary.

The property is not within 800 metres of the boundary of an opencast site for which a licence to remove coal by opencast methods has been granted.

9. Coal mining subsidence

There are 1 claim(s) within 50 metres of the property boundary that do not match the property address. These are shown on the enquiry boundary plot.

There is no current Stop Notice delaying the start of remedial works or repairs to the property.

The Coal Authority is not aware of any request having been made to carry out preventive works before coal is worked under section 33 of the Coal Mining Subsidence Act 1991.

If further subsidence damage claims information is required, please visit www.groundstability.com.

10. Mine gas

The Coal Authority has no record of a mine gas emission requiring action.

11. Hazards related to coal mining

The property has been subject to remedial works, by or on behalf of the Coal Authority, under its Emergency Surface Hazard Call Out procedures.

12. Withdrawal of support

The property is not in an area where a notice to withdraw support has been given.

The property is not in an area where a notice has been given under section 41 of the Coal Industry Act 1994, cancelling the entitlement to withdraw support.

13. Working facilities order

The property is not in an area where an order has been made, under the provisions of the Mines (Working Facilities and Support) Acts 1923 and 1966 or any statutory modification or amendment thereof.

14. Payments to owners of former copyhold land

The property is not in an area where a relevant notice has been published under the Coal Industry Act 1975/Coal Industry Act 1994.

Comments on the Coal Authority information

The Coal Authority own the copyright in this report and the information used is protected by our database right.

The boundary plot shows the approximate location of the disused mine entry/entries referred to in this report. For reasons of clarity, mine entry symbols may not be drawn to the same scale as the plan.

Property owners have the benefit of statutory protection (under the Coal Mining Subsidence Act 1991*). This contains provision for the making good, to the reasonable satisfaction of the owner, of physical damage from disused coal mine workings including disused coal mine entries. A leaflet setting out the rights and obligations of either the Coal Authority or other responsible persons under the 1991 Act can be obtained by visiting www.groundstability.com.

If you wish to discuss the relevance of any of the information contained in this report, you should seek the advice of a qualified mining engineer or surveyor. If you or your advisor wish to examine the source plans from which the information has been taken, these are available to view, free of charge, at our Head Office in Mansfield. To book an appointment please ring 01623 637225. Should you or your advisor wish to carry out a physical investigation that may enter, disturb or interfere with any disused mine entry, prior permission of the owner must be sought. For coal mine entries, the owner will normally be the Coal Authority.

The Coal Authority, regardless of responsibility and in conjunction with other public bodies, provide an emergency call out facility in coalfield areas to assess the public safety implications of mining features (including disused mine entries). Our emergency telephone number is 01623 646333.

*Note, this Act does not apply where coal was worked or gotten by virtue of the grant of a gale in the Forest of Dean, or any other part of the Hundred of St. Briavels in the county of Gloucester.

In view of the mining circumstances a prudent developer would seek appropriate technical advice before any works are undertaken.

Therefore if development proposals are being considered, technical advice relating to both the

investigation of coal and former coal mines and their treatment should be obtained before beginning work on site. All proposals should apply good engineering practice developed for mining areas. No development should be undertaken that intersects, disturbs or interferes with any coal or mines of coal without the permission of the Coal Authority. Developers should be aware that the investigation of coal seams/former mines of coal may have the potential to generate and/or displace underground gases and these risks both under and adjacent to the development should be fully considered in developing any proposals. The need for effective measures to prevent gases entering into public properties either during investigation or after development also needs to be assessed and properly addressed. This is necessary due to the public safety implications of any development in these circumstances.

Detailed findings from BGS

1. Shrinkable clay

The property is in an area underlain by clay. Clay can swell or shrink if the moisture content changes.

However, the clay deposits in this area are considered to be mainly of "low plasticity". This means it is unlikely that they will cause ground movement.

2. Running sand

The property is in an area underlain by sand. Some sands, if voids are present, may flow if they come into contact with water.

However, such movement is unlikely to occur unless substantial changes are made to the ground.

3. Deposits which could compress

The property is in an area underlain by natural compressible deposits. When this material is overloaded, or dries out, it can become unstable causing ground movement.

Because of these compressible deposits, ground movement could occur.

4. Deposits which could collapse

The property is not in an area underlain by deposits which could collapse and cause ground movement.

5. Natural landslide activity

The property is in an area where the local geology and steepness of slope could combine to create the likelihood of landslide activity.

Landslide activity is unlikely to occur unless substantial changes are made to the ground and/or vegetation, including those caused by drought or excessively wet weather.

6. Soluble rocks

The property is not in an area underlain by soluble rocks.

Comments on the BGS information

These features should not necessarily give cause for concern.

Whether or not a property is affected by ground movement can depend on a number of factors such as its age, type of construction, and on its surroundings and such matters as drainage and nearby trees.

Since 1992 buildings should have been designed and constructed according to buildings regulations to ensure natural ground movement will not cause damage to a building.

However, you should consider the possible consequences before you:

- carry out any building or excavation work
- alter the ground surface or drainage of surface or ground water
- plant or remove large shrubs or trees

Ground movement can cause uneven damage or subsidence to a property.

Developers should always carry out an appropriate risk assessment before starting any work on, or around, a property.

If you own the property and it is damaged by ground movement: You should contact your insurance company and anyone else who has an interest in the property, for example, the mortgage lender.

If you are considering buying the property and BGS has identified that ground movement could occur you should tell your professional advisers.

Additional remarks

This report has been prepared in accordance with the Law Society's Guidance Notes 2018, the User Guide 2018 and the Coal Authority and the British Geological Survey's Terms and Conditions applicable at the time the report was produced. The information provided by the Coal Authority has been compiled in response to the Law Society's CON29M Coal Mining enquiries and is protected by copyright owned by the Law Society of 113 Chancery Lane, London WC2A 1PL.

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Terms and conditions

Our full terms and conditions can be found on our website – www.groundstability.com.

Enquiry boundary

Key

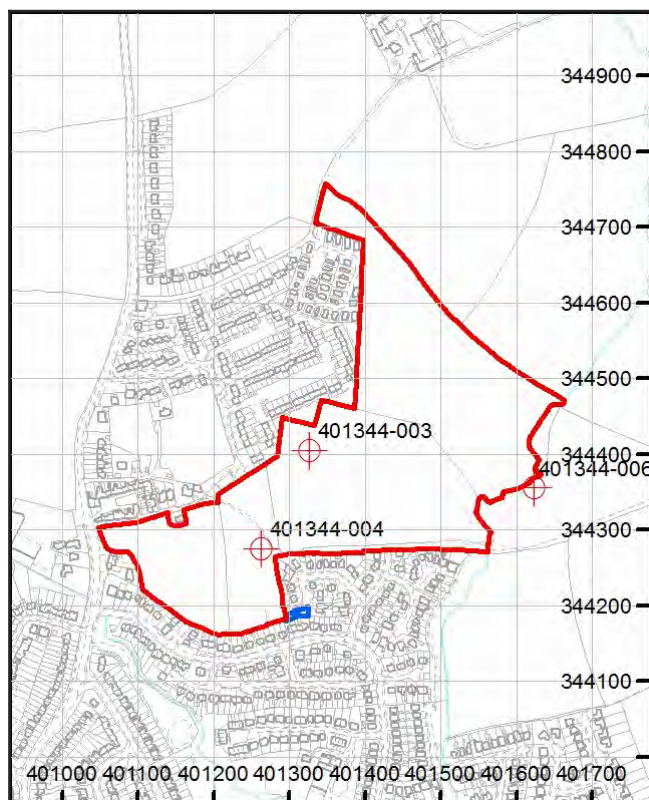
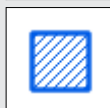
Approximate position of enquiry boundary shown



Disused mineshaft



Coal claims



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General information

This report has been prepared by the Coal Authority using the information held by the Authority, together with information supplied by the British Geological Survey (BGS).

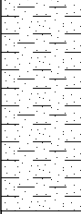
1. The Coal Authority and the British Geological Survey (BGS) are referred to in the report as the suppliers.
2. This report is confidential and has been prepared specifically for the property and for use by the owner only. It should not be relied upon by any other property or by any other third party.
3. The report is based on and limited to:
 - a. the specific features identified in the report
 - b. each suppliers interpretation of the records it holds relating to the particular features for which the report states that the supplier is responsible at the time the report is prepared
4. The records used do not represent an exhaustive or comprehensive list of all the records that may exist or may be available for the property. No physical inspection of the property has or will be carried out in the preparation of this report.
5. Information from the Coal Authority is based on records in its possession relating to coal mining activity. There may be information held by others on historical coal mining, and information on other types of mining, which is not searched for as part of this report.
6. Information from BGS relates solely to the 6 natural ground stability hazards as described in this report. It does not cover any other geological hazards or man-made hazards (such as contaminated land). BGS may hold data on other geological hazards and features that may affect the property which are not searched for as part of this report. Consequently the report should not be taken as a guarantee that there are no other geological hazards or other issues affecting the property. For a more detailed interpretation please visit the BGS's website www.bgs.as.uk
7. Information from BGS is prepared using the BGS GeoSure database which is based on 1:10,000 scale geological mapping reduced to 1:50,000 scale.

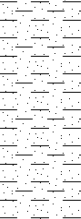
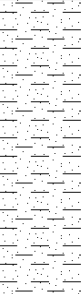
8. The information from suppliers may be derived from records from a number of disparate sources which vary in age, quantity and quality. Such records may include material donated to the suppliers from third parties, which may not have been subject to any verifications or other quality control process.
9. Raw data used to prepare this report may have been transcribed from analogue to digital format, or may have been acquired by means of automated measuring techniques. Consequently, some data may have been processed without human intervention and may contain undetected errors.
10. The records available to the suppliers are constantly being updated. The suppliers cannot be held responsible for any changes in the information on which this report is based which occur after the date the report was produced.
11. If this report is for a residential property, insurance is included. This report includes a policy and key facts summary which outline the significant features, benefits and limitations of the cover provided. Full terms and conditions are shown in the policy document.
12. The report gives an indication of whether ground movement could occur at the property. This does not necessarily mean that the property is or will be affected by ground instability. Such an assessment can only be made by inspection of the property by a qualified professional, such as a surveyor or engineer. This report does not therefore –
 - include any information or warranty relating to the actual state, or the structural or other condition, of the property
 - determine the saleability or value, or the safety, of the property
 - indicate the suitability of the property for any particular purpose (including, without limitation, its suitability for development (within the meaning of section 55 of the Town and Country Planning Act 1990 as amended) or any building, excavation or landscaping work)
 - act as a substitute for any physical inspection, specialist interpretations and/or professional advice

Site Investigation Report for
Land at Pottery Gardens, Cheadle

Appendix 2

E3P Trial Pit Logs

				Trial Pit Log			TrialPit No TP109 Sheet 1 of 1	
Project Name: Ayr Road				Project No. 11156		Co-ords: - Level:		Date 19/04/2016
Location: Cheadle, Stoke-on-Trent						Dimensions (m): 0.60		Scale 1:25
Client: Persimmon						Depth 2.40		Logged N.Sellars
Water Strike	Samples & In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
	Depth	Type	Results					
	0.10	ES		0.20			MADE GROUND: Firm dark brown sandy slightly gravelly clay (Topsoil) with rootlets. Gravel is fine to medium sub-angular to sub-rounded of brick and coal.	
	0.75		HVP=50				Firm medium strength yellow grey slightly sandy slightly gravelly CLAY. Gravel is fine to medium sub-angular to sub-rounded of sandstone.	1
	1.50		HVP=72					
	1.80		HVP=82	1.70			Stiff high strength light grey sandy slightly gravelly CLAY. Gravel is fine to medium sub-angular of sandstone.	2
				2.40			End of Pit at 2.40m	3
								4
								5
Remarks: Complete.								
Stability: Stable.								

				Trial Pit Log			TrialPit No TP110 Sheet 1 of 1	
Project Name: Ayr Road				Project No. 11156		Co-ords: - Level:		Date 19/04/2016
Location: Cheadle, Stoke-on-Trent						Dimensions (m): 0.60 2.00		Scale 1:25
Client: Persimmon						Depth 2.20		Logged N.Sellars
Water Strike	Samples & In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
	Depth	Type	Results					
				0.25			MADE GROUND: Firm dark brown sandy slightly gravelly clay (Topsoil) with rootlets. Gravel is fine to medium sub-angular to sub-rounded of brick and coal.	
	0.70 0.75	ES	HVP=68				Stiff medium strength yellow grey slightly sandy slightly gravelly CLAY. Gravel is fine to medium sub-angular to sub-rounded of sandstone.	
				1.00			Very stiff high strength light grey sandy slightly gravelly CLAY. Gravel is fine to medium sub-angular of sandstone.	1
	1.50	HP	150				Firm red brown very sandy gravelly CLAY. Gravel is fine to coarse sub-angular of sandstone bedrock.	2
				2.00				
				2.20			End of Pit at 2.20m	
								3
								4
								5

Remarks: Complete.

Stability: Stable.
 

				Trial Pit Log			TrialPit No TP111 Sheet 1 of 1	
Project Name: Ayr Road				Project No. 11156		Co-ords: - Level:		Date 19/04/2016
Location: Cheadle, Stoke-on-Trent						Dimensions (m): 0.60 2.00		Scale 1:25
Client: Persimmon						Depth 2.20		Logged N.Sellars
Water Strike	Samples & In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
	Depth	Type	Results					
	0.10	ES		0.20			MADE GROUND: Soft to firm dark brown slightly gravelly sandy clay (Topsoil) with rootlets. Gravel is fine to medium sub-angular to sub-rounded of brick, coal and siltstone.	
	0.80		HVP=72	0.90			Stiff medium strength yellow grey slightly sandy slightly gravelly CLAY. Gravel is fine to medium sub-angular to sub-rounded of sandstone.	1
	1.50		HVP=102	2.20			Stiff high strength red brown slightly sandy CLAY.	2
								3
								4
								5
End of Pit at 2.20m								
Remarks: Complete.								
Stability: Stable.								



Trial Pit Log

Trialpit No

TP201

Sheet 1 of 1

Project Name: Ayr Road

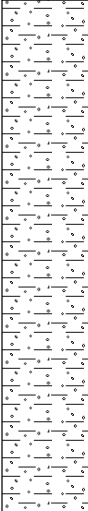
Project No.
11156Co-ords: -
Level:Date
05/10/2017

Location: Cheadle, Stoke-on-Trent

Dimensions
(m):Depth
2.30Scale
1:25

Client: Persimmon

Logged
R. Tidsey**Samples and In Situ Testing**

Depth	Type	Results	Depth (m)	Level (m)	Legend	Stratum Description
0.20	ES		0.30			MADE GROUND: Soft dark brown slightly sandy slightly gravelly clay. Gravel is fine to medium angular to sub-angular of brick, sandstone and rare coal.
						Stiff to very stiff grey brown gravelly CLAY. Gravel is fine to coarse of mudstone.
		HVP=56	2.00			Yellow SANDSTONE.
			2.30			End of pit at 2.30 m

1
2
3
4
5

Remarks: Complete.

Stability: Stable.





Trial Pit Log

Trialpit No

TP202

Sheet 1 of 1

Project Name: Ayr Road

Project No.
11156

Co-ords: -
Level:

Date
05/10/2017

Location: Cheadle, Stoke-on-Trent

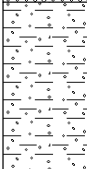
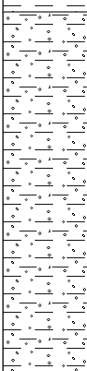
Dimensions
(m):

Depth
2.30

Scale
1:25

Client: Persimmon

Logged
R. Tidsey

Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description		
Depth	Type	Results						
2.00	ES	HVP=32	0.30			MADE GROUND: Soft dark brown slightly sandy slightly gravelly clay. Gravel is fine to medium angular to sub-angular of brick, sandstone and rare coal.	1	
						Stiff to very stiff grey brown gravelly CLAY. Gravel is fine to coarse of mudstone.		
			0.90			Stiff to very stiff black CLAY.		
			1.00			Stiff to very stiff brown gravelly CLAY. Gravel is medium to coarse angular to sub-angular of mudstone.		
			2.20			Yellow brown SANDSTONE.	2	
			2.30		End of pit at 2.30 m		3	
					4			
						5		

Remarks: Complete.

Stability: Stable.





Trial Pit Log

Trialpit No

TP203

Sheet 1 of 1

Project Name: Ayr Road

Project No.
11156Co-ords: -
Level:Date
05/10/2017

Location: Cheadle, Stoke-on-Trent

Dimensions
(m):
Depth
1.80Scale
1:25
Logged
R. Tidsey

Client: Persimmon

Samples and In Situ Testing

Depth Type Results

Depth
(m)Level
(m)

Legend

Stratum Description

0.20

ES

HVP=88

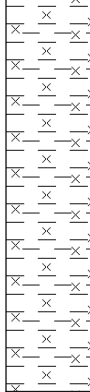
0.30

1.60

1.80



MADE GROUND: Soft dark brown slightly sandy slightly gravelly clay. Gravel is fine to medium angular to sub-angular of brick, sandstone and rare coal.



Stiff to very stiff red orange silty gravelly CLAY. Gravel is fine sub-rounded of mudstone and sandstone.



Brown orange SANDSTONE.

End of pit at 1.80 m

1

2

3

4

5

Remarks: 1. Complete. 2. Water strike encountered at 1.70m bgl.

Stability: Stable.





Trial Pit Log

Trialpit No

TP204

Sheet 1 of 1

Project Name: Ayr Road

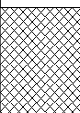
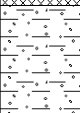
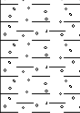
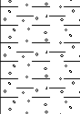
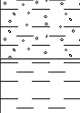
Project No.
11156Co-ords: -
Level:Date
05/10/2017

Location: Cheadle, Stoke-on-Trent

Dimensions
(m):Depth
2.70Scale
1:25

Client: Persimmon

Logged
R. Tidsey**Samples and In Situ Testing**

Depth	Type	Results	Depth (m)	Level (m)	Legend	Stratum Description	
2.00	ES	HVP=41 HVP=54 HVP=95	0.40			MADE GROUND: Soft dark brown slightly sandy slightly gravelly clay. Gravel is fine to medium angular to sub-angular of brick, sandstone and rare coal.	
						Stiff to very stiff grey brown gravelly CLAY. Gravel is fine to coarse of mudstone.	
			1.80				1
						Stiff to very stiff brown black CLAY.	
			2.60 2.70			Black SILTSTONE.	
						End of pit at 2.70 m	3
							4
							5

Remarks: Complete.

Stability: Stable.





Trial Pit Log

Trialpit No

TP205

Sheet 1 of 1

Project Name: Ayr Road

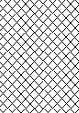
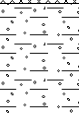
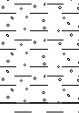
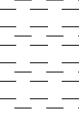
Project No.
11156Co-ords: -
Level:Date
05/10/2017

Location: Cheadle, Stoke-on-Trent

Dimensions
(m):Depth
2.00Scale
1:25

Client: Persimmon

Logged
R. Tidsey**Samples and In Situ Testing**

Depth	Type	Results	Depth (m)	Level (m)	Legend	Stratum Description
0.20	ES					MADE GROUND: Soft dark brown slightly sandy slightly gravelly clay. Gravel is fine to medium angular to sub-angular of brick, sandstone and rare coal.
		HVP=57	0.40			Stiff to very stiff grey brown gravelly CLAY. Gravel is fine to coarse of mudstone.
		HVP=113	1.10			Stiff to very stiff brown black CLAY.
			2.00			
						End of pit at 2.00 m

Remarks: Complete.

Stability: Stable.





Trial Pit Log

Trialpit No

TP206

Sheet 1 of 1

Project Name: Ayr Road

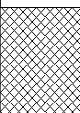
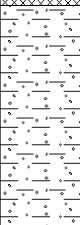
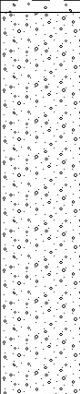
Project No.
11156Co-ords: -
Level:Date
05/10/2017

Location: Cheadle, Stoke-on-Trent

Dimensions
(m):Depth
2.50Scale
1:25

Client: Persimmon

Logged
R. Tidsey**Samples and In Situ Testing**

Depth		Type	Results	Depth (m)	Level (m)	Legend	Stratum Description	
2.00	ES	HVP=88		0.40			MADE GROUND: Soft dark brown slightly sandy slightly gravelly clay. Gravel is fine to medium angular to sub-angular of brick, sandstone and rare coal.	
				1.20			Stiff to very stiff grey brown gravelly CLAY. Gravel is fine to coarse of mudstone.	
				2.50			Red grey sandy GRAVEL. Gravel is fine to coarse sub-rounded of sandstone.	
				End of pit at 2.50 m				

Remarks: 1. Complete. 2. Water strike encountered at 2.40m bgl.

Stability: Stable.





Trial Pit Log

Trialpit No

TP207

Sheet 1 of 1

Project Name: Ayr Road

Project No.
11156Co-ords: -
Level:Date
05/10/2017

Location: Cheadle, Stoke-on-Trent

Dimensions
(m):Depth
2.10Scale
1:25

Client: Persimmon

Logged
R. Tidsey**Samples and In Situ Testing**

Depth

Type

Results

Depth
(m)Level
(m)

Legend

Stratum Description

0.50

ES

0.40

0.90

2.10

MADE GROUND: Soft dark brown slightly sandy slightly gravelly clay. Gravel is fine to medium angular to sub-angular of brick, sandstone and rare coal.

Red clayey silty SAND.

Red grey sandy GRAVEL. Gravel is fine to coarse sub-rounded of sandstone.

End of pit at 2.10 m

1

2

3

4

5

Remarks: 1. Complete. 2. Water strike encountered at 2.00m bgl.

Stability: Stable.







Trial Pit Log

Trialpit No

TP209

Sheet 1 of 1

Project Name: Ayr Road

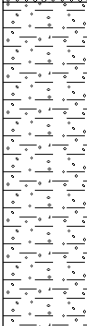
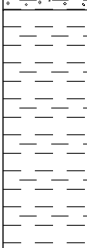
Project No.
11156Co-ords: -
Level:Date
05/10/2017

Location: Cheadle, Stoke-on-Trent

Dimensions
(m):Depth
2.20Scale
1:25

Client: Persimmon

Logged
R. Tidsey**Samples and In Situ Testing**

Depth	Type	Results	Depth (m)	Depth (m)	Legend	Stratum Description	
2.00	ES	HVP=69	0.30			MADE GROUND: Soft dark brown slightly sandy slightly gravelly clay. Gravel is fine to medium angular to sub-angular of brick, sandstone and rare coal.	1
						Stiff to very stiff grey brown gravelly CLAY. Gravel is fine to coarse of mudstone.	
		HVP=70	1.40			Stiff to very stiff brown black CLAY.	2
							
			2.20			End of pit at 2.20 m	3
							4
							5

1

2

3

4

5

Remarks: Complete.

Stability: Stable.





Trial Pit Log

Trialpit No

TP210

Sheet 1 of 1

Project Name: Ayr Road

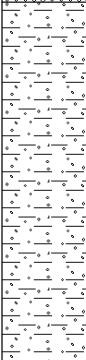
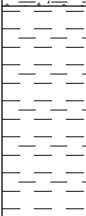
Project No.
11156Co-ords: -
Level:Date
05/10/2017

Location: Cheadle, Stoke-on-Trent

Dimensions
(m):Depth
2.20Scale
1:25

Client: Persimmon

Logged
R. Tidsey**Samples and In Situ Testing**

Depth	Type	Results	Depth (m)	Level (m)	Legend	Stratum Description
2.00	ES		0.30			MADE GROUND: Soft dark brown slightly sandy slightly gravelly clay. Gravel is fine to medium angular to sub-angular of brick, sandstone and rare coal.
			1.50			Stiff to very stiff grey brown gravelly CLAY. Gravel is fine to coarse of mudstone.
			2.20			Stiff to very stiff grey brown CLAY.
						End of pit at 2.20 m

1

2

3

4

5

Remarks: Complete.

Stability: Stable.





Trial Pit Log

Trialpit No

TP211

Sheet 1 of 1

Project Name: Ayr Road

Project No.
11156

Co-ords: -
Level:

Date
05/10/2017

Location: Cheadle, Stoke-on-Trent

Dimensions
(m):

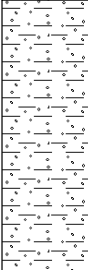
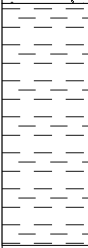
Depth
2.00

Scale
1:25

Client: Persimmon

Logged
R. Tidsey

Samples and In Situ Testing

Depth	Type	Results	Depth (m)	Level (m)	Legend	Stratum Description
0.20	ES		0.30			MADE GROUND: Soft dark brown slightly sandy slightly gravelly clay. Gravel is fine to medium angular to sub-angular of brick, sandstone and rare coal.
		HVP=70				Stiff to very stiff grey brown gravelly CLAY. Gravel is fine to coarse of mudstone.
		HVP=117	1.20			Stiff to very stiff brown black CLAY.
			2.00			End of pit at 2.00 m

Remarks: Complete.

Stability: Stable.





Trial Pit Log

Trialpit No

TP212

Sheet 1 of 1

Project Name: Ayr Road

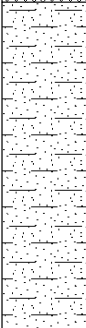
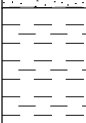
Project No.
11156Co-ords: -
Level:Date
05/10/2017

Location: Cheadle, Stoke-on-Trent

Dimensions
(m):Depth
1.80Scale
1:25

Client: Persimmon

Logged
R. Tidsey**Samples and In Situ Testing**

Depth	Type	Results	Depth (m)	Level (m)	Legend	Stratum Description
0.50	ES		0.30			MADE GROUND: Soft dark brown slightly sandy slightly gravelly clay. Gravel is fine to medium angular to sub-angular of brick, sandstone and rare coal.
						Red clayey silty SAND.
			1.40			Stiff to very stiff brown black CLAY.
			1.80			End of pit at 1.80 m

1

2

3

4

5

Remarks: Complete.

Stability: Stable.





Trial Pit Log

Trialpit No

TP213

Sheet 1 of 1

Project Name: Ayr Road

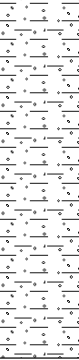
Project No.
11156Co-ords: -
Level:Date
05/10/2017

Location: Cheadle, Stoke-on-Trent

Dimensions
(m):Depth
2.10Scale
1:25

Client: Persimmon

Logged
R. Tidsey**Samples and In Situ Testing**

Depth	Type	Results	Depth (m)	Level (m)	Legend	Stratum Description	
0.20	ES		0.30			MADE GROUND: Soft dark brown slightly sandy slightly gravelly clay. Gravel is fine to medium angular to sub-angular of brick, sandstone and rare coal.	
		HVP=54				Stiff to very stiff grey brown gravelly CLAY. Gravel is fine to coarse of mudstone.	1
		HVP=70	1.50			Stiff to very stiff brown black CLAY.	2
			2.10			End of pit at 2.10 m	3
							4
							5

Remarks: 1. Complete. 2. Water strike encountered at 2.00m bgl.

Stability: Stable.





Trial Pit Log

Trialpit No

TP214

Sheet 1 of 1

Project Name: Ayr Road

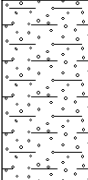
Project No.
11156Co-ords: -
Level:Date
05/10/2017

Location: Cheadle, Stoke-on-Trent

Dimensions
(m):Depth
0.90Scale
1:25

Client: Persimmon

Logged
R. Tidsey**Samples and In Situ Testing**

Depth	Type	Results	Depth (m)	Level (m)	Legend	Stratum Description
0.20	ES		0.30			MADE GROUND: Soft dark brown slightly sandy slightly gravelly clay. Gravel is fine to medium angular to sub-angular of brick, sandstone and rare coal.
0.50	ES		0.90			Light brown slightly clayey GRAVEL. Gravel is fine to coarse angular to sub-angular of sandstone.
						End of pit at 0.90 m

1

2

3

4

5

Remarks: Complete.

Stability: Stable.





Trial Pit Log

Trialpit No

TP215

Sheet 1 of 1

Project Name: Ayr Road

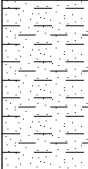
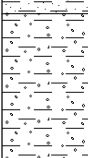
Project No.
11156Co-ords: -
Level:Date
05/10/2017

Location: Cheadle, Stoke-on-Trent

Dimensions
(m):Depth
1.40Scale
1:25

Client: Persimmon

Logged
R. Tidsey**Samples and In Situ Testing**

Depth	Type	Results	Depth (m)	Level (m)	Legend	Stratum Description
0.50	ES		0.30			MADE GROUND: Soft dark brown slightly sandy slightly gravelly clay. Gravel is fine to medium angular to sub-angular of brick, sandstone and rare coal.
						Stiff to very stiff light brown grey very sandy CLAY.
			0.90			Stiff to very stiff grey brown gravelly CLAY. Gravel is fine to coarse of mudstone.
			1.40			End of pit at 1.40 m

1

2

3

4

5

Remarks: Complete.

Stability: Stable.





Trial Pit Log

Trialpit No

TP216

Sheet 1 of 1

Project Name: Ayr Road

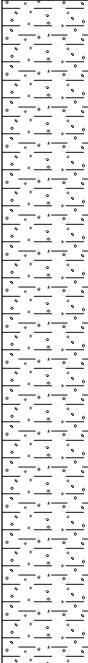
Project No.
11156Co-ords: -
Level:Date
05/10/2017

Location: Cheadle, Stoke-on-Trent

Dimensions
(m):Depth
2.50Scale
1:25

Client: Persimmon

Logged
R. Tidsey**Samples and In Situ Testing**

Depth	Type	Results	Depth (m)	Level (m)	Legend	Stratum Description
1.00	ES	HVP=32 HVP=33	0.30			MADE GROUND: Soft dark brown slightly sandy slightly gravelly clay. Gravel is fine to medium angular to sub-angular of brick, sandstone and rare coal.
						Stiff to very stiff grey brown gravelly CLAY. Gravel is fine to coarse of mudstone.
			2.50			End of pit at 2.50 m

1

2

3

4

5

Remarks: Complete.

Stability: Stable.





Trial Pit Log

Trialpit No

TP217

Sheet 1 of 1

Project Name: Ayr Road

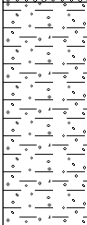
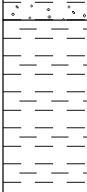
Project No.
11156Co-ords: -
Level:Date
05/10/2017

Location: Cheadle, Stoke-on-Trent

Dimensions
(m):Depth
1.70Scale
1:25

Client: Persimmon

Logged
R. Tidsey**Samples and In Situ Testing**

Depth	Type	Results	Depth (m)	Level (m)	Legend	Stratum Description
1.50	ES	HVP=60	0.30			MADE GROUND: Soft dark brown slightly sandy slightly gravelly clay. Gravel is fine to medium angular to sub-angular of brick, sandstone and rare coal.
						Stiff to very stiff grey brown gravelly CLAY. Gravel is fine to coarse of mudstone.
		HVP=92	1.10			Stiff to very stiff brown black CLAY.
						
			1.70			End of pit at 1.70 m

1

2

3

4

5

Remarks: Complete.

Stability: Stable.



Site Investigation Report for
Land at Pottery Gardens, Cheadle

Appendix 3

E3P Small Diameter Borehole Logs



Borehole Log

Borehole No.

WS113

Sheet 1 of 1

Project Name
Ayr RoadProject No.
11156

Co-ords: -

Hole Type
WS

Location: Cheadle, Stoke-on-Trent

Level:

Scale
1:50

Client: Persimmon

Dates: 19/04/2016 - 19/04/2016

Logged By
N.Sellars

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
		Depth (m)	Type	Results					
					0.20			MADE GROUND: Soft dark brown slightly sandy slightly gravelly clay (Topsoil) with rootlets. Gravel is fine to medium angular to sub-angular of brick and coal.	
		1.00	D	N=18 (5,4/4,4,5,5)	1.00			Stiff yellow grey slightly sandy slightly gravelly CLAY. Gravel is fine to medium sub-angular to sub-rounded of sandstone.	1
				N=47 (5,9/9,13,15,10)				Very stiff very high strength dark grey gravelly CLAY. Gravel is fine to coarse angular to sub-angular of weathered sandstone.	2
				50 (11,11/50 for 30mm)					3
					3.45			End of borehole at 3.45 m	4
									5
									6
									7
									8
									9
									10

Remarks

Window Sample refused on sandstone bedrock at 3.45m bgl.



Site Investigation Report for
Land at Pottery Gardens, Cheadle

Appendix 4

E3P Rotary Borehole Logs



Borehole Log

Borehole No.

RBH201

Sheet 1 of 3

Project Name: Ayr Road

Project No.
11156

Co-ords: -

Hole Type
BH

Location: Cheadle, Stoke-on-Trent

Level:

Scale
1:50

Client: Persimmon

Dates: 04/06/2018 -

Logged By

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
		Depth (m)	Type	Results					
					0.30			Brown CLAY (Topsoil).	
								Brown CLAY.	1
					1.70			Grey MUDSTONE.	2
					3.10			Dark grey black MUDSTONE traces of COAL.	3
					4.00			Grey SANDSTONE.	4
					5.30			Red MARL.	5
					5.80			Grey SANDSTONE with red MARL bands.	6
									7
									8
									9
									10

Continued on next sheet

Remarks

1. Complete. 2. Water strike encountered at 10.50m bgl.





Borehole Log

Borehole No.

RBH201

Sheet 2 of 3

Project Name: Ayr Road

Project No.
11156

Co-ords: -

Hole Type
BH

Location: Cheadle, Stoke-on-Trent

Level:

Scale
1:50

Client: Persimmon

Dates: 04/06/2018 -

Logged By

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
		Depth (m)	Type	Results					
									11
									12
									13
									14
									15
									16
					16.60			Red MARL.	
					17.10			Grey SANDSTONE.	17
					17.50			Dark grey black SILTSTONE.	
					18.00			Grey MUDSTONE.	18
								COAL.	19
					19.40 19.50			Grey SANDSTONE.	20

Continued on next sheet

Remarks

1. Complete. 2. Water strike encountered at 10.50m bgl.





Borehole Log

Borehole No.

RBH201

Sheet 3 of 3

Project Name: Ayr Road

Project No.
11156

Co-ords: -

Hole Type
BH

Location: Cheadle, Stoke-on-Trent

Level:

Scale
1:50

Client: Persimmon

Dates: 04/06/2018 -

Logged By

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
		Depth (m)	Type	Results					
					21.50				21
								Grey SILTSTONE.	22
					23.30				23
								Grey SANDSTONE with bands of MARL.	24
									25
									26
									27
									28
									29
					30.00				30

End of borehole at 30.00 m

Remarks

1. Complete. 2. Water strike encountered at 10.50m bgl.





Borehole Log

Borehole No.

RBH202

Sheet 1 of 3

Project Name: Ayr Road

Project No.
11156

Co-ords: -

Hole Type
BH

Location: Cheadle, Stoke-on-Trent

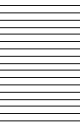
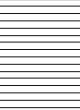
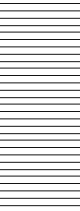
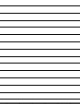
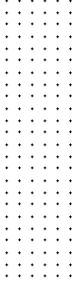
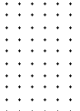
Level:

Scale
1:50

Client: Persimmon

Dates: 05/06/2018 -

Logged By

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
		Depth (m)	Type	Results					
					0.30			Brown CLAY (Topsoil).	1
								Brown grey CLAY.	
					3.10			Grey MUDSTONE.	3
							4.00		Dark grey MUDSTONE.
					4.80 5.00				Black MUDSTONE with COAL.
								Grey MUDSTONE.	6
					6.50			Red MARL.	7
							7.20		Grey SANDSTONE.
					9.20				Grey SANDSTONE.



Borehole Log

Borehole No.

RBH202

Sheet 2 of 3

Project Name: Ayr Road

Project No.
11156

Co-ords: -

Hole Type
BH

Location: Cheadle, Stoke-on-Trent

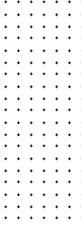
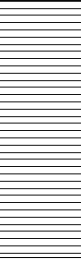
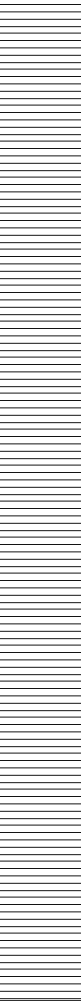
Level:

Scale
1:50

Client: Persimmon

Dates: 05/06/2018 -

Logged By

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
		Depth (m)	Type	Results					
					11.60				11
								Grey MUDSTONE.	12
					13.30			Grey SILTSTONE with MUDSTONE bands.	13
									14
									15
									16
									17
									18
									19
									20

Continued on next sheet

Remarks

1. Complete. 2. Water strike encountered at 9.70m bgl.





Borehole Log

Borehole No.

RBH202

Sheet 3 of 3

Project Name: Ayr Road

Project No.
11156

Co-ords: -

Hole Type
BH

Location: Cheadle, Stoke-on-Trent

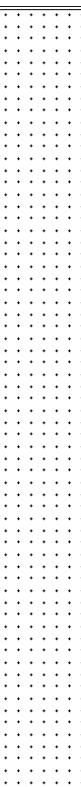
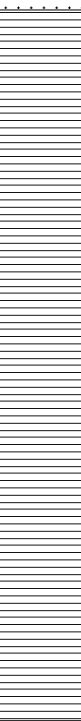
Level:

Scale
1:50

Client: Persimmon

Dates: 05/06/2018 -

Logged By

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
		Depth (m)	Type	Results					
					20.10			Grey SANDSTONE.	21
									22
									23
									24
									25
					25.30			Grey MUDSTONE.	26
									27
									28
									29
					30.00			End of borehole at 30.00 m	30

Remarks

1. Complete. 2. Water strike encountered at 9.70m bgl.





Borehole Log

Borehole No.

RBH203

Sheet 1 of 3

Project Name: Ayr Road

Project No.
11156

Co-ords: -

Hole Type
BH

Location: Cheadle, Stoke-on-Trent

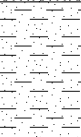
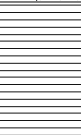
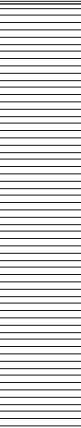
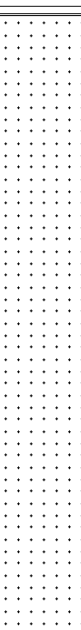
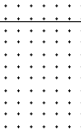
Level:

Scale
1:50

Client: Persimmon

Dates: 05/06/2018 -

Logged By

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
		Depth (m)	Type	Results					
					0.30			Brown CLAY (Topsoil).	
								Brown sandy CLAY.	1
					1.20			Grey SILTSTONE.	
					2.10			Grey SILTSTONE with SANDSTONE bands.	2
								Grey SANDSTONE.	3
					5.00				4
								Brown SANDSTONE.	5
					9.20				6
									7
									8
									9
									10

Continued on next sheet

Remarks

1. Complete. 2. Water strike encountered at 3.50m bgl.





Borehole Log

Borehole No.

RBH203

Sheet 2 of 3

Project Name: Ayr Road

Project No.
11156

Co-ords: -

Hole Type
BH

Location: Cheadle, Stoke-on-Trent

Level:

Scale
1:50

Client: Persimmon

Dates: 05/06/2018 -

Logged By

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
		Depth (m)	Type	Results					
					11.00				11
								Brown grey SANDSTONE.	12
					13.30				13
								Grey MUDSTONE.	14
									15
									16
									17
					17.60			Brown MUDSTONE with traces of COAL.	18
					17.90			Grey MUDSTONE.	19
									20

Continued on next sheet

Remarks

1. Complete. 2. Water strike encountered at 3.50m bgl.

