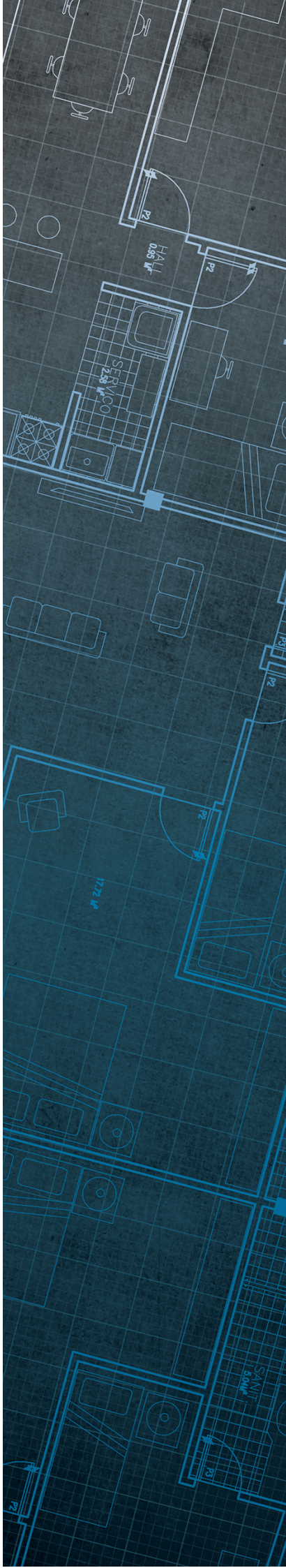
The Coal Authority

Consultants

Coal Mining Report

Cefn-Y-Parc Cemetery Road
Mwyndy
Pontyclun
Rhondda Cynon Taf
CF72 8PN

Date of enquiry:	**22 October 2024**
Date enquiry received:	**22 October 2024**
Issue date:	**22 October 2024**
Our reference:	**51003458347001**
Your reference:	**14391/LP**



Consultants
Coal Mining Report

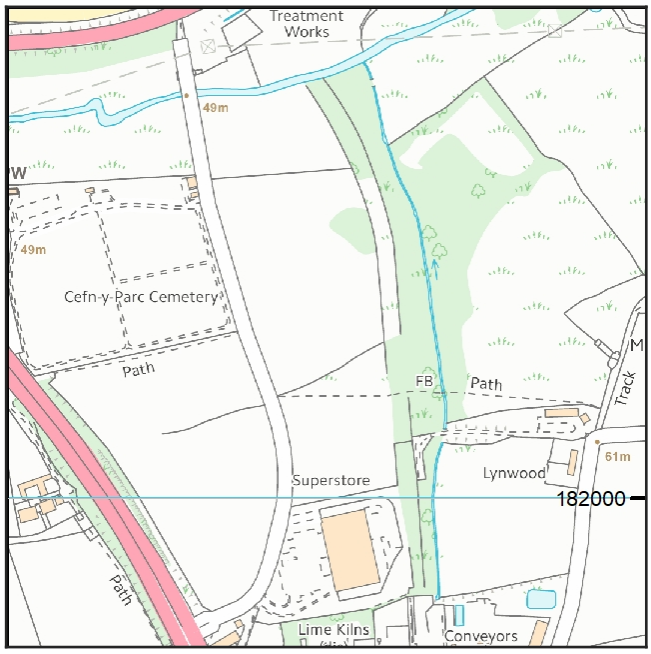
This report is based on and limited to the records held by the Coal Authority at the time the report was produced.

Client name

INTEGRAL GEOTECHNIQUE (WALES) LTD.

Enquiry address

Cefn-Y-Parc Cemetery Road
Mwyndy
Pontyclun
Rhondda Cynon Taf
CF72 8PN



Approximate position of property

Map data

How to contact us

0345 762 6848 (UK)
+44 (0)1623 637 000 (International)

200 Lichfield Lane
Mansfield
Nottinghamshire
NG18 4RG

www.groundstability.com

@coalauthority
/company/the-coal-authority
/thecoalauthority
/thecoalauthority

Section 1 – Mining activity and geology

Past underground mining
No past mining recorded.

Probable unrecorded shallow workings
None.

Spine roadways at shallow depth
No spine roadway recorded at shallow depth.

Mine entries

Entry type	Reference	Grid reference	Treatment description	Mineral	Conveyancing details
Shaft	305182-003	305469 182259		Coal	

Abandoned mine plan catalogue numbers
The following abandoned mine plan catalogue numbers intersect with some, or all, of the enquiry boundary:

PO0		

Please contact us on 0345 762 6848 to determine the exact abandoned mine plans you require based on your needs.

Outcrops

Seam name	Mineral	Seam workable	Distance to outcrop (m)	Direction to outcrop	Bearing of outcrop
BUTE	Coal	Yes	Within	N/A	269
FIVE FOOT GELLIDEG	Coal	Yes	Within	N/A	257
FOUR FOOT	Coal	Yes	Within	N/A	223
FOUR FOOT	Coal	Yes	6.0	South-West	232
GARW VEIN	Coal	No	Within	N/A	261
LOWER NINE FOOT TOP LEAF	Coal	Yes	39.2	South-East	232
SUN VEIN	Coal	No	36.2	East	251
TWO FOOT NINE	Coal	Yes	Within	N/A	229
TWO FOOT NINE	Coal	Yes	2.4	South	234
UPPER GELLIDEG	Coal	Yes	Within	N/A	81
UPPER SIX FEET	Coal	Yes	16.2	South-East	226
UPPER SIX FEET	Coal	Yes	15.0	South-East	230

Geological faults, fissures and breaklines

Please refer to the 'Summary of findings' map (on separate sheet) for details of any geological faults, fissures or breaklines either within or intersecting the enquiry boundary.

Faults under or close to the property recorded.

Opencast mines

None recorded within 500 metres of the enquiry boundary.

Coal Authority managed tips

None recorded within 500 metres of the enquiry boundary.

Section 2 – Investigative or remedial activity

Please refer to the 'Summary of findings' map (on separate sheet) for details of any activity within the area of the site boundary.

Site investigations

None recorded within 50 metres of the enquiry boundary.

Remediated sites

None recorded within 50 metres of the enquiry boundary.

Coal mining subsidence

The Coal Authority has not received a damage notice or claim for the subject property, or any property within 50 metres of the enquiry boundary, since 31 October 1994.

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.

Mine gas

None recorded within 500 metres of the enquiry boundary.

Mine water treatment schemes

None recorded within 500 metres of the enquiry boundary.

Section 3 – Licensing and future mining activity

Future underground mining
None recorded.

Coal mining licensing
None recorded within 200 metres of the enquiry boundary.

Court orders
None recorded.

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

Withdrawal of support notices
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.

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.

Section 4 – Further information

Based on the responses in this report, no further information has been highlighted.

Future development

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 specialist engineering practice required for former mining areas. No development should be undertaken that intersects, disturbs or interferes with any coal or coal mines without first obtaining the permission of the Coal Authority.

MINE GAS: Please note, if there are no recorded instances of mine gas within 500m of the enquiry boundary, this does not mean that mine gas is not present within the vicinity. The Coal Authority Mine Gas data is limited to only those sites where a Mine Gas incident has been recorded. Developers should be aware that the investigation of coal seams, mine workings or mine entries may have the potential to generate and/or displace underground gases. Associated risks both to the development site and any neighbouring land or properties should be fully considered when undertaking any ground works. The need for effective measures to prevent gases migrating onto any land or into any properties, either during investigation or remediation work, or after development must also be assessed and properly addressed. In these instances, the Coal Authority recommends that a more detailed Gas Risk Assessment is undertaken by a competent assessor.

Section 5 – Data definitions

The datasets used in this report have limitations and assumptions within their results. For more guidance on the data and the results specific to the enquiry boundary, please **call us on 0345 762 6848** or **email us at groundstability@coal.gov.uk.**

Past underground coal mining

Details of all recorded underground mining relative to the enquiry boundary. Only past underground workings where the enquiry boundary is within 0.7 times the depth of the workings (zone of likely physical influence) allowing for seam inclination, will be included.

Probable unrecorded shallow workings

Areas where the Coal Authority believes there to be unrecorded coal workings that exist at or close to the surface (less than 30 metres deep).

Spine roadways at shallow depth

Connecting roadways either, working to working, or, surface to working, both in-seam and cross measures that exist at or close to the surface (less than 30 metres deep), either within or within 10 metres of the enquiry boundary.

Mine entries

Details of any shaft or adit either within, or within 100 metres of the enquiry boundary including approximate location, brief treatment details where known, the mineral worked from the mine entry and conveyance details where the mine entry has previously been sold by the Authority or its predecessors British Coal or the National Coal Board.

Abandoned mine plan catalogue numbers

Plan numbers extracted from the abandoned mines catalogue containing details of coal and other mineral abandonment plans deposited via the Mines Inspectorate in accordance with the Coal Mines Regulation Act and Metalliferous Mines Regulation Act 1872. A maximum of 9 plan extents that intersect with the enquiry boundary will be included. This does not infer that the workings and/or mine entries shown on the abandonment plan will be relevant to the site/property boundary.

Outcrops

Details of seam outcrops will be included where the enquiry boundary intersects with a conjectured or actual seam outcrop location (derived by either the British Geological Survey or the Coal Authority) or intersects with a defined 50 metres buffer on the coal (dip) side of the outcrop. An indication of whether the Coal Authority believes the seam to be of sufficient thickness and/or quality to have been worked will also be included.

Geological faults, fissures and breaklines

Geological disturbances or fractures in the bedrock. Surface fault lines (British Geological Survey derived data) and fissures and breaklines (Coal Authority derived data) intersecting with the enquiry boundary will be included. In some circumstances faults, fissures or breaklines have been known to contribute to surface subsidence damage as a consequence of underground coal mining.

Opencast mines
Opencast coal sites from which coal has been removed in the past by opencast (surface) methods and where the enquiry boundary is within 500 metres of either the licence area, site boundary, excavation area (high wall) or coaling area.

Coal Authority managed tips
Locations of disused colliery tip sites owned and managed by the Coal Authority, located within 500 metres of the enquiry boundary.

Site investigations
Details of site investigations within 50 metres of the enquiry boundary where the Coal Authority has received information relating to coal mining risk investigation and/or remediation by third parties.

Remediated sites
Sites where the Coal Authority has undertaken remedial works either within or within 50 metres of the enquiry boundary following report of a hazard relating to coal mining under the Coal Authority's Emergency Surface Hazard Call Out procedures.

Coal mining subsidence
Details of alleged coal mining subsidence claims made since 31 October 1994 either within or within 50 metres of the enquiry boundary. Where the claim relates to the enquiry boundary confirmation of whether the claim was accepted, rejected or whether liability is still being determined will be given. Where the claim has been discharged, whether this was by repair, payment of compensation or a combination of both, the value of the claim, where known, will also be given.

Details of any current 'Stop Notice' deferring remedial works or repairs affecting the property/site, and if so the date of the notice.

Details of any request made to execute preventative works before coal is worked under section 33 of the Coal Mining Subsidence Act 1991. If yes, whether any person withheld consent or failed to comply with any request to execute preventative works.

Mine gas
Reports of alleged mine gas emissions received by the Coal Authority, either within or within 500 metres of the enquiry boundary that subsequently required investigation and action by the Coal Authority to mitigate the effects of the mine gas emission. Please note, if there are no recorded instances of mine gas reported, this does not mean that mine gas is not present within the vicinity. The Coal Authority Mine Gas data is limited to only those sites where a Mine Gas incident has been recorded.

Mine water treatment schemes
Locations where the Coal Authority has constructed or operates assets that remove pollutants from mine water prior to the treated mine water being discharged into the receiving water body.

These schemes are part of the UK's strategy to meet the requirements of the Water Framework Directive. Schemes fall into 2 basic categories: Remedial – mitigating the impact of existing pollution or Preventative – preventing a future pollution incident.

Mine water treatment schemes generally consist of one or more primary settlement lagoons and one or more reed beds for secondary treatment. A small number are more specialised process treatment plants.

Future underground mining
Details of all planned underground mining relative to the enquiry boundary. Only those future workings where the enquiry boundary is within 0.7 times the depth of the workings (zone of likely physical influence) allowing for seam inclination will be included.

Coal mining licensing
Details of all licenses issued by the Coal Authority either within or within 200 metres of the enquiry boundary in relation to the under taking of surface coal mining, underground coal mining or underground coal gasification.

Court orders
Orders in respect of the working of coal under the Mines (Working Facilities and Support) Acts of 1923 and 1966 or any statutory modification or amendment thereof.

Section 46 notices
Notice of proposals relating to underground coal mining operations that have been given under section 46 of the Coal Mining Subsidence Act 1991.

Withdrawal of support notices
Published notices of entitlement to withdraw support and the date of the notice. Details of any revocation notice withdrawing the entitlement to withdraw support given under Section 41 of the Coal Industry Act 1994.

Payment to owners of former copyhold land
Relevant notices which may affect the property and any subsequent notice of retained interests in coal and coal mines, acceptance or rejection notices and whether any compensation has been paid to a claimant.

The Coal Authority

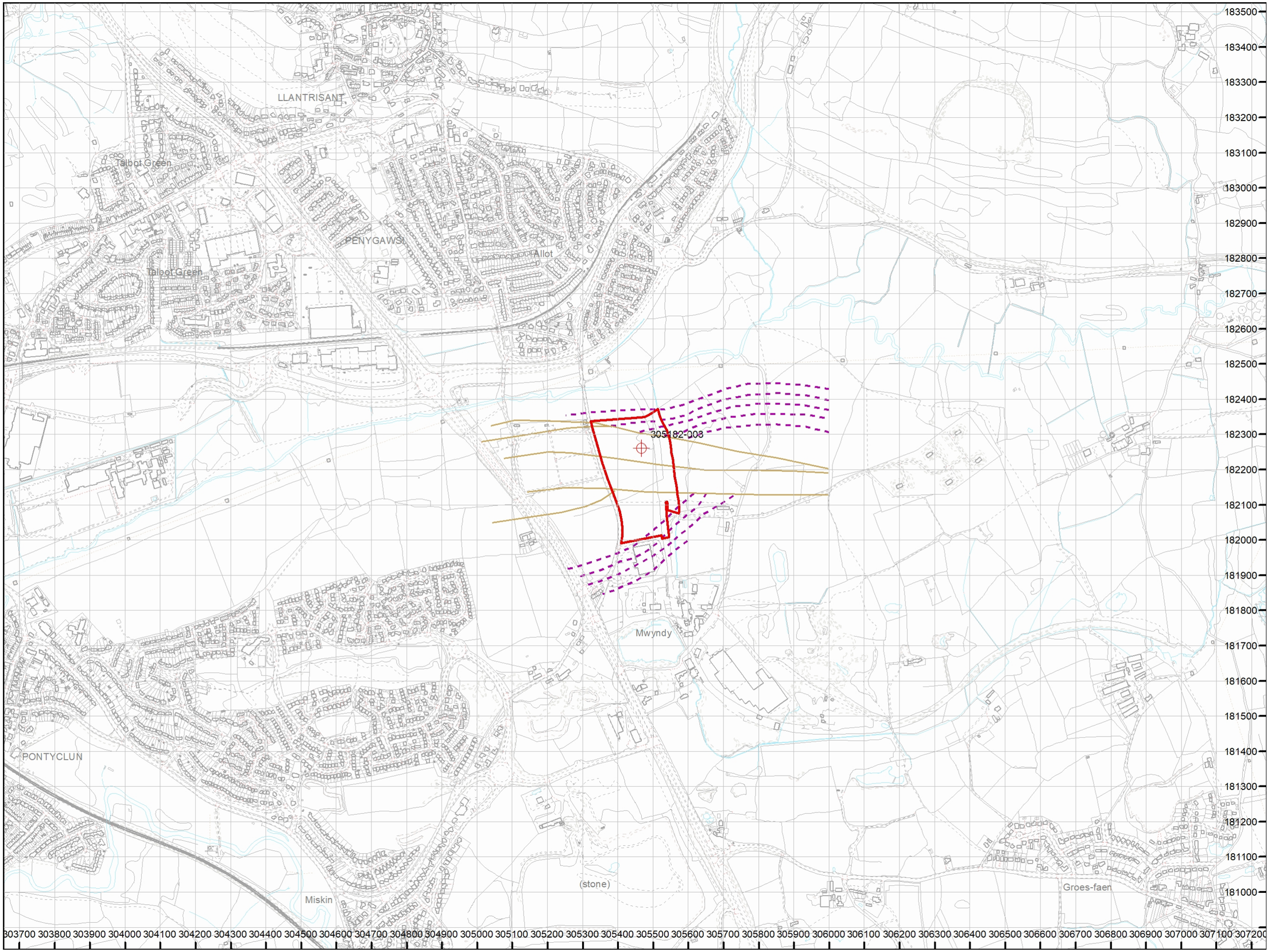
Summary of findings

Map data

The map highlights any specific surface or subsurface features within or near to the boundary of the site.

Key

- Approximate position of the enquiry boundary shown
- Disused mine shaft
- Outcrop (Conjectured)
- Geological faults



How to contact us

0345 762 6848 (UK)
+44 (0)1623 637 000 (International)
www.groundstability.com

APPENDIX D

MINE ENTRY DATA SHEET

The Coal Authority

Issued by:
The Coal Authority, Property Search Services, 200 Lichfield Lane, Berry Hill, Mansfield, Nottinghamshire, NG18 4RG
Website: www.groundstability.com Phone: 0345 762 6848

INTEGRAL GEOTECHNIQUE (WALES) LTD.
INTEGRAL HOUSE
7 BEDDAU WAY
CAERPHILLY
MID GLAMORGAN
CF83 2AX

Our reference:	**51003467169001**
Your reference:	**14391/LP**
Date of your enquiry:	**04 December 2024**
Date we received your enquiry:	**04 December 2024**
Date of issue:	**04 December 2024**

This report is for the property described in the address below and the attached plan.

Shaft Plan and Data Sheets

CEFN-Y-PARC CEMETERY ROAD, MWYNDY, PONTYCLUN, RHONDDA CYNON TAF, CF72 8PN

I refer to the enquiry dated 04 December 2024, received 04 December 2024, in connection with the above.

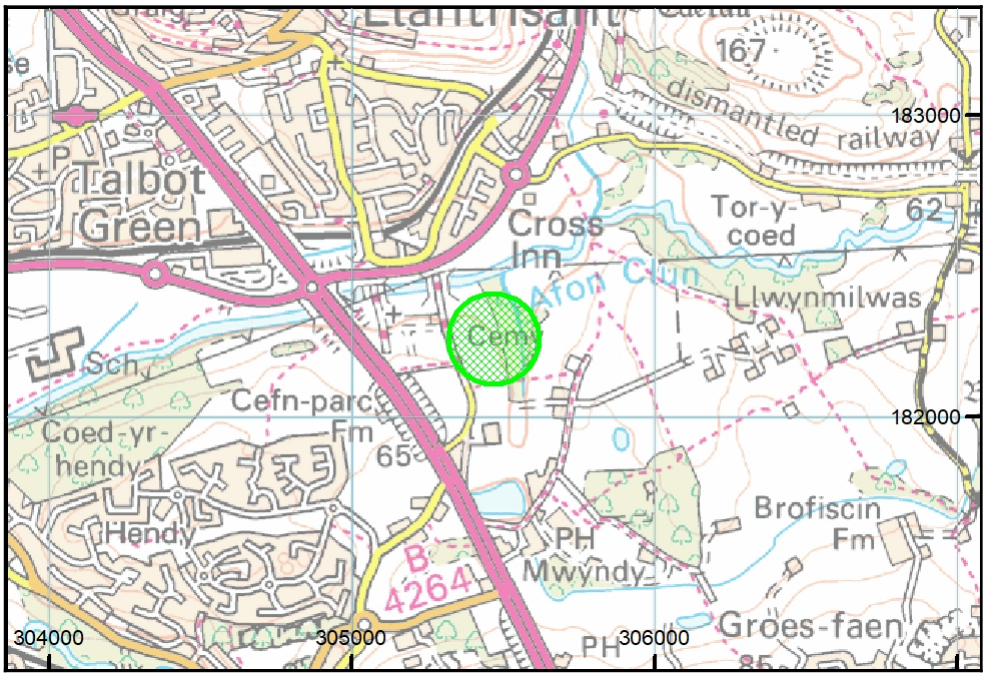
As requested I enclose the mine entry data sheet(s) held for the mine entry/entries referred to.

Mine Entry Data

Shaft/adit:	Shaft
Reference:	305182-003
Source:	OS 1:2500 Glamorgan 36/13 (1899, 1877); Geological sheet Glam 36:SW 1900 Ed,
Colliery name:	Unknown
Entry name:	Old Coal Pit
Date abandoned:	Unknown
Depth of superficial deposits (m):	Unknown
Depth of shaft (m):	Unknown
Diameter of shaft (m):	Unknown
Probable adit azimuth:	Not Applicable
Treatment details:	Unknown
Conveyance:	Not Applicable
Easting:	305469
Northing:	182259
Other information:	None

Location map

Approximate position of enquiry



This plan shows the approximate location of the disused mine entry / entries referred to in the attached mining 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.

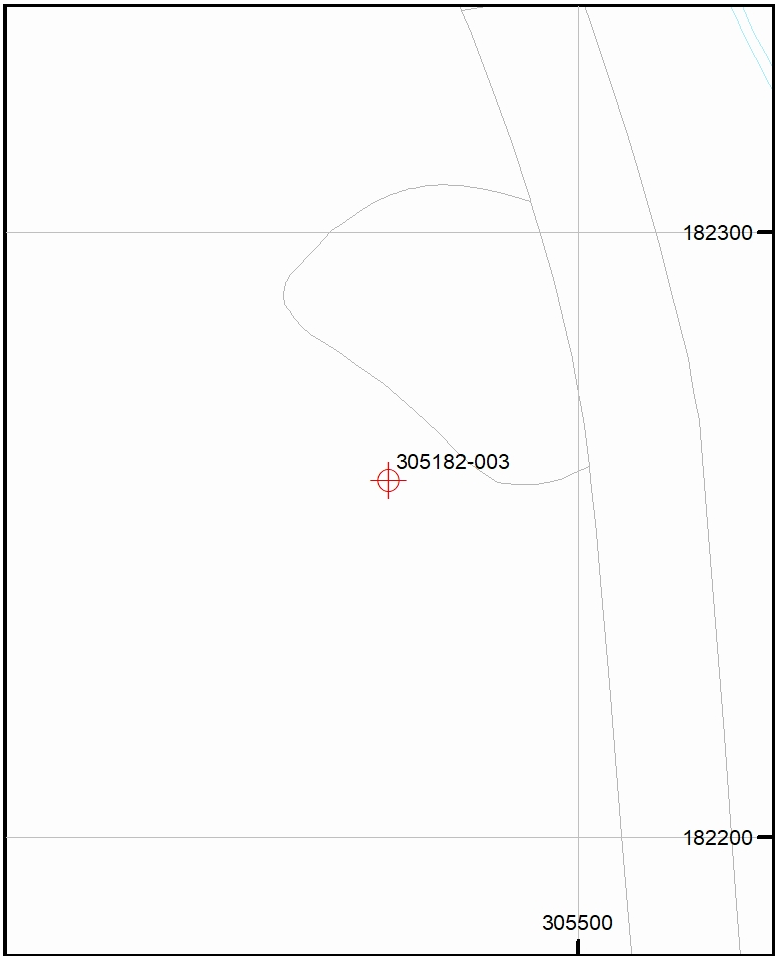
If you wish to discuss the relevance of any of the information contained in this report, you should seek the advice of a qualified mining engineer or surveyor. If you or your advisor wish to examine the source plans from which the information has been taken, these are available to view, free of charge, 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 0800 288 4242.

Key

Disused Adit or Mineshaft



Mapping sourced from Ordnance Survey

APPENDIX E

TRIAL PIT LOGS

Intégral Géotechnique
Intégral House, 7 Beddau Way
Castlegate Business Park
Caerphilly CF83 2AX
Tel. 029 20807991
Fax. 029 20862176
mail@integralgeotec.com

Project Name:	Project No.:	Trial Pit No.:
Plot 2 (Area 17), Talbot Green	**14391**	**SA01** Sheet 1 of 1

Location:	Client:	Logged By:	Scale
Talbot Green	Talbot Green Developments Limited	FM	1:25

Equipment: JCB-3CX	Coordinates:	**Dimensions** 0.70m
Date Excavated: 29/10/2024	Level:	Depth : 2.55m; 2.60m

Samples & In-situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description
Depth (m)	Type	Results				
0.10	ES					(TOPSOIL) Grass over soft brown silty slightly sandy slightly gravelly organic rich CLAY with frequent rootlets. Gravel is fine to coarse sub-angular to rounded of siltstone and sandstone.
			0.30			Soft to firm brown mottled yellowish brown silty sandy gravelly CLAY with a medium cobble content of sub-angular to rounded sandstone and occasional siltstone.
			1.40			(Loose) reddish brown silty clayey to very clayey gravelly SAND with a medium cobble and low boulder content of sub-angular to sub-rounded sandstone and dolomitic conglomerate. Gravel is fine to coarse sub-angular to rounded of sandstone siltstone dolomitic conglomerate and occasional mudstone.
			2.55			End of Trialpit at 2.55 m

1
2
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Remarks:
1. Trial pit terminated at 2.55m bgl at target depth.
2. Soil infiltration test undertaken.

Groundwater: 1. No groundwater encountered.

Stability: 1. Overbreak and spalling below 1.40m bgl.

Key:
D - Small disturbed sample
B - Bulk disturbed sample
ES - Environmental soil sample
W - Water sample

AGS

Intégral Géotechnique
Intégral House, 7 Beddau Way
Castlegate Business Park
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mail@integralgeotec.com

Project Name:	Project No.:	Trial Pit No.:
Plot 2 (Area 17), Talbot Green	**14391**	**SA02** Sheet 1 of 1

Location:	Client:	Logged By:	Scale
Talbot Green	Talbot Green Developments Limited	FM	1:25

Equipment: JCB-3CX	Coordinates:	**Dimensions** 0.80m
Date Excavated: 29/10/2024	Level:	Depth : 2.65m, 2.80m

Samples & In-situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description
Depth (m)	Type	Results				
						(TOPSOIL) Grass over soft brown silty slightly gravelly organic rich CLAY with frequent rootlets. Gravel is fine to coarse sub-angular of sandstone.
0.20	ES		0.20			Soft to firm brown silty slightly sandy slightly gravelly CLAY. Gravel is fine to coarse sub-angular to sub-rounded of sandstone.
			0.75			(Loose) brown silty clayey to very clayey gravelly SAND with a medium cobble content of platy and blocky sandstone. Gravel is fine to coarse sub-angular to sub-rounded of sandstone and occasional dolomitic conglomerate.
2.25	D		2.25			Soft reddish brown silty gravelly CLAY with a medium cobble content of sub-angular to sub-rounded sandstone. Gravel is fine to coarse sub-angular to sub-rounded of sandstone siltstone and dolomitic conglomerate.
			2.65			End of Trialpit at 2.65 m

Remarks:
1. Trial pit terminated at 2.65m bgl at target depth.
2. Soil infiltration test undertaken.

Groundwater: 1. No groundwater encountered.

Stability: 1. Unstable below 1.0m bgl.

Key:
D - Small disturbed sample
B - Bulk disturbed sample
ES - Environmental soil sample
W - Water sample

AGS

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Project Name:	Project No.:	Trial Pit No.:
Plot 2 (Area 17), Talbot Green	**14391**	**SA03** Sheet 1 of 1

Location:	Client:	Logged By:	Scale
Talbot Green	Talbot Green Developments Limited	FM	1:25

Equipment:	Coordinates:	**Dimensions**
JCB-3CX		0.70m
Date Excavated: 30/10/2024	Level:	Depth : 2.60m / 2.20m

Samples & In-situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description
Depth (m)	Type	Results				
						(TOPSOIL) Grass over soft brown silty slightly sandy slightly gravelly organic rich CLAY with frequent roots and rootlets. Gravel is fine to coarse sub-angular of sandstone.
0.30	ES		0.25			Soft to firm brown silty very sandy gravelly CLAY with a low cobble content of platy and sub-angular sandstone. Gravel is fine to coarse sub-angular to sub-rounded of sandstone.
			0.60			(Loose to medium dense) brown silty clayey gravelly SAND with a low to medium cobble content of platy and sub-angular to sub-rounded sandstone. Gravel is fine to coarse sub-angular of sandstone and rare siltstone.
1.00	D					
			1.30			Firm to stiff reddish brown locally greenish grey silty slightly gravelly CLAY. Gravel is fine to coarse sub-angular to sub-rounded of sandstone dolomitic conglomerate and occasional mudstone.
			2.60			End of Trialpit at 2.60 m

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Remarks:
1. Trial pit terminated at 2.60m bgl at target depth.
2. Soil infiltration test undertaken.

Groundwater: 1. No groundwater encountered.

Stability: 1. Trial pit generally stable in the short-term.

Key:
D - Small disturbed sample
B - Bulk disturbed sample
ES - Environmental soil sample
W - Water sample

AGS

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Project Name:	Project No.:	Trial Pit No.:
Plot 2 (Area 17), Talbot Green	**14391**	**TP01** Sheet 1 of 1

Location:	Client:	Logged By:	Scale
Talbot Green	Talbot Green Developments Limited	FM	1:25

Equipment:	Coordinates:	Dimensions
JCB-3CX		0.80m; Depth : 3.35m; 2.90m
Date Excavated: 29/10/2024	Level:	

Samples & In-situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description
Depth (m)	Type	Results				
			0.20			(TOPSOIL) Grass over soft brown silty slightly gravelly CLAY with frequent rootlets. Gravel is fine to coarse sub-angular of sandstone.
						(Loose to medium dense) brown silty clayey to very clayey gravelly SAND with a medium cobble content of platy and sub-angular sandstone. Gravel is fine to coarse sub-angular to sub-rounded of sandstone with occasional dolomitic conglomerate.
			1.55			Firm reddish brown locally mottled yellowish brown silty gravelly CLAY with a medium cobble content of platy and sub-angular to sub-rounded sandstone and mudstone. Gravel is fine to coarse sub-angular to sub-rounded of sandstone siltstone and mudstone.
			3.35			End of Trialpit at 3.35 m

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Remarks:
1. Trial pit terminated at 3.35m bgl at maximum extent of excavator.

Groundwater: 1. No groundwater encountered.

Stability: 1. Trial pit generally stable in the short-term.

Key:
D - Small disturbed sample
B - Bulk disturbed sample
ES - Environmental soil sample
W - Water sample

AGS

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Project Name:	Project No.:	Trial Pit No.:
Plot 2 (Area 17), Talbot Green	**14391**	**TP02** Sheet 1 of 1

Location:	Client:	Logged By:	Scale
Talbot Green	Talbot Green Developments Limited	FM	1:25

Equipment: JCB-3CX	Coordinates:	**Dimensions** 0.80m
Date Excavated: 29/02/2024	Level:	Depth : 3.45m, 2.95m

Samples & In-situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description
Depth (m)	Type	Results				
			0.10			(TOPSOIL) Grass over soft brown silty slightly gravelly organic rich CLAY with frequent rootlets. Gravel is fine to coarse sub-angular of sandstone. Soft brown silty very sandy gravelly CLAY with a low cobble content of platy and sub-angular sandstone. Gravel is fine to coarse sub-angular to sub-rounded of sandstone and rare angular dolomitic conglomerate.
			0.60			(Loose to medium dense) brown silty clayey to very clayey gravelly to very gravelly SAND with a medium cobble and low boulder content of platy and sub-angular sandstone and occasional dolomitic conglomerate. Gravel is fine to coarse angular to sub-rounded of dolomitic conglomerate and sandstone.
			3.45			End of Trialpit at 3.45 m

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Remarks:
1. Trial pit terminated at 3.45m bgl at maximum extent of excavator.

Groundwater: 1. No groundwater encountered.

Stability: 1. Trial pit generally stable in the short-term.

Key:
D - Small disturbed sample
B - Bulk disturbed sample
ES - Environmental soil sample
W - Water sample

AGS

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Project Name:	Project No.:	Trial Pit No.:
Plot 2 (Area 17), Talbot Green	**14391**	**TP03** Sheet 1 of 1

Location:	Client:	Logged By:	Scale
Talbot Green	Talbot Green Developments Limited	FM	1:25

Equipment: JCB-3CX	Coordinates:	**Dimensions** 0.75m
Date Excavated: 29/10/2024	Level:	Depth : 3.35m, 2.85m

Samples & In-situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description
Depth (m)	Type	Results				
						(TOPSOIL) Grass over soft brown silty slightly gravelly organic rich CLAY with frequent rootlets. Gravel is fine to coarse sub-angular of sandstone.
			0.30			Soft to firm brown silty very sandy gravelly CLAY with a low cobble content of platy and sub-angular sandstone. Gravel is fine to coarse sub-angular to sub-rounded of sandstone.
			1.00			(Loose to medium dense) brown silty clayey to very clayey gravelly to very gravelly SAND with a medium cobble and low boulder content of platy and sub-angular to sub-rounded sandstone. Gravel is fine to coarse sub-angular to sub-rounded of sandstone and siltstone.
			2.00			Soft to firm reddish brown locally mottled yellowish brown silty gravelly CLAY with a medium cobble content of sub-angular to sub-rounded sandstone and sub-angular mudstone. Gravel is fine to coarse sub-angular to sub-rounded of sandstone siltstone and mudstone.
2.30	D					
			3.35			End of Trialpit at 3.35 m

Remarks:
1. Trial pit terminated at 3.35m bgl at maximum extent of excavator.

Groundwater: 1. No groundwater encountered.

Stability: 1. Trial pit generally stable in the short-term.

Key:
D - Small disturbed sample
B - Bulk disturbed sample
ES - Environmental soil sample
W - Water sample

AGS

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mail@integralgeotec.com

Project Name:	Project No.:	Trial Pit No.:
Plot 2 (Area 17), Talbot Green	**14391**	**TP04** Sheet 1 of 1

Location:	Client:	Logged By:	Scale
Talbot Green	Talbot Green Developments Limited	FM	1:25

Equipment:	Coordinates:	**Dimensions**
JCB-3CX		2.65m
Date Excavated: 29/10/2024	Level:	Depth : 3.40m, 0.80m

Samples & In-situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description
Depth (m)	Type	Results				
			0.25			(TOPSOIL) Grass over soft brown silty slightly gravelly organic rich CLAY with frequent rootlets. Gravel is fine to coarse sub-angular of sandstone.
			0.90			Soft to firm brown silty very sandy gravelly CLAY with a low cobble content of platy and sub-angular sandstone. Gravel is fine to coarse sub-angular to sub-rounded of sandstone.
1.50	D		1.50			(Loose to medium dense) brown silty clayey to very clayey gravelly SAND with a medium cobble and low boulder content of platy and sub-angular to sub-rounded sandstone. Gravel is fine to coarse sub-angular to sub-rounded of sandstone and occasional dolomitic conglomerate.
			3.40			Firm reddish brown silty slightly gravelly CLAY. Gravel is fine to coarse sub-angular to sub-rounded of sandstone and rare mudstone.
						End of Trialpit at 3.40 m

1 2 3 4 5

Remarks:
1. Trial pit terminated at 3.40m bgl at maximum extent of excavator.

Groundwater: 1. No groundwater encountered.

Stability: 1. Trial pit generally stable in the short-term.

Key:
D - Small disturbed sample
B - Bulk disturbed sample
ES - Environmental soil sample
W - Water sample

AGS

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Project Name:	Project No.:	Trial Pit No.:
Plot 2 (Area 17), Talbot Green	**14391**	**TP05** Sheet 1 of 1

Location:	Client:	Logged By:	Scale
Talbot Green	Talbot Green Developments Limited	FM	1:25

Equipment: JCB-3CX	Coordinates:	**Dimensions** 2.85m
Date Excavated: 29/10/2024	Level:	Depth : 3.50m, 0.90m

Samples & In-situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description
Depth (m)	Type	Results				
			0.25			(TOPSOIL) Grass over soft brown silty slightly gravelly organic rich CLAY with frequent rootlets. Gravel is fine to coarse sub-angular of sandstone.
			0.70			Soft to firm brown silty very sandy gravelly CLAY with a low cobble content of platy and sub-angular sandstone. Gravel is fine to coarse sub-angular to sub-rounded of sandstone.
			2.00			Firm reddish brown mottled greenish grey and yellowish brown silty gravelly to very gravelly CLAY. Gravel is fine to coarse angular to sub-angular of sandstone and mudstone.
			3.50			Soft reddish brown mottled greenish grey and yellowish brown silty gravelly to very gravelly CLAY. Gravel is fine to coarse angular to sub-angular of sandstone and mudstone. End of Trialpit at 3.50 m

Remarks:
1. Trial pit terminated at 3.50m bgl at maximum extent of excavator.

Groundwater: 1. Seepage below 2.5m bgl.

Stability: 1. Trial pit generally stable in the short-term.

Key:
D - Small disturbed sample
B - Bulk disturbed sample
ES - Environmental soil sample
W - Water sample

AGS

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Project Name:	Project No.:	Trial Pit No.:
Plot 2 (Area 17), Talbot Green	**14391**	**TP06** Sheet 1 of 1

Location:	Client:	Logged By:	Scale
Talbot Green	Talbot Green Developments Limited	FM	1:25

Equipment:	Coordinates:	**Dimensions**
JCB-3CX		2.75m
Date Excavated: 29/10/2024	Level:	Depth : 3.35m, 0.80m

Samples & In-situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description
Depth (m)	Type	Results				
			0.30			(TOPSOIL) Grass over soft brown silty slightly gravelly organic rich CLAY with frequent rootlets. Gravel is fine to coarse sub-angular of sandstone.
						Soft brown clayey sandy gravelly SILT. Gravel is fine to coarse sub-angular to sub-rounded of sandstone.
1.00	D		0.90			(Loose to medium dense) brown silty clayey to very clayey gravelly SAND with a low cobble and boulder content of platy and sub-angular to sub-rounded sandstone and dolomitic conglomerate. Gravel is fine to coarse sub-angular to sub-rounded of sandstone.
			2.00			Firm reddish brown mottled greyish green silty slightly gravelly CLAY. Gravel is fine to coarse angular to sub-angular of sandstone and occasional mudstone.
			3.35			End of Trialpit at 3.35 m

Remarks:
1. Trial pit terminated at 3.35m bgl at maximum extent of excavator.

Groundwater: 1. No groundwater encountered.

Stability: 1. Trial pit generally stable in the short-term.

Key:
D - Small disturbed sample
B - Bulk disturbed sample
ES - Environmental soil sample
W - Water sample

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Project Name:	Project No.:	Trial Pit No.:
Plot 2 (Area 17), Talbot Green	**14391**	**TP07** Sheet 1 of 1

Location:	Client:	Logged By:	Scale
Talbot Green	Talbot Green Developments Limited	FM	1:25

Equipment: JCB-3CX	Coordinates:	**Dimensions** 2.80m
Date Excavated: 29/10/2024	Level:	Depth : 3.40m, 0.75m

Samples & In-situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description
Depth (m)	Type	Results				
			0.25			(TOPSOIL) Grass over soft brown silty slightly gravelly organic rich CLAY with frequent rootlets. Gravel is fine to coarse sub-angular of sandstone.
			0.60			Soft to firm brown silty very sandy gravelly CLAY with a low cobble content of platy sub-angular sandstone. Gravel is fine to coarse sub-angular to sub-rounded of sandstone.
			1.30			(Loose to medium dense) brown silty clayey gravelly SAND with a low to medium cobble content of platy and sub-angular to sub-rounded sandstone. Gravel is fine to coarse sub-angular to sub-rounded of sandstone and rare siltstone.
			2.00			Firm reddish brown locally mottled greenish grey silty slightly gravelly CLAY. Gravel is fine to coarse sub-rounded of sandstone dolomitic conglomerate and occasional mudstone.
			3.40			Soft reddish brown locally mottled greenish grey silty slightly gravelly CLAY. Gravel is fine to coarse sub-rounded of sandstone dolomitic conglomerate and occasional mudstone.
						End of Trialpit at 3.40 m

1 2 3 4 5

Remarks:
1. Trial pit terminated at 3.30m bgl at maximum extent of excavator.

Groundwater: 1. No groundwater encontered.

Stability: 1. Unstable below 2.0m bgl.

Key:
D - Small disturbed sample
B - Bulk disturbed sample
ES - Environmental soil sample
W - Water sample

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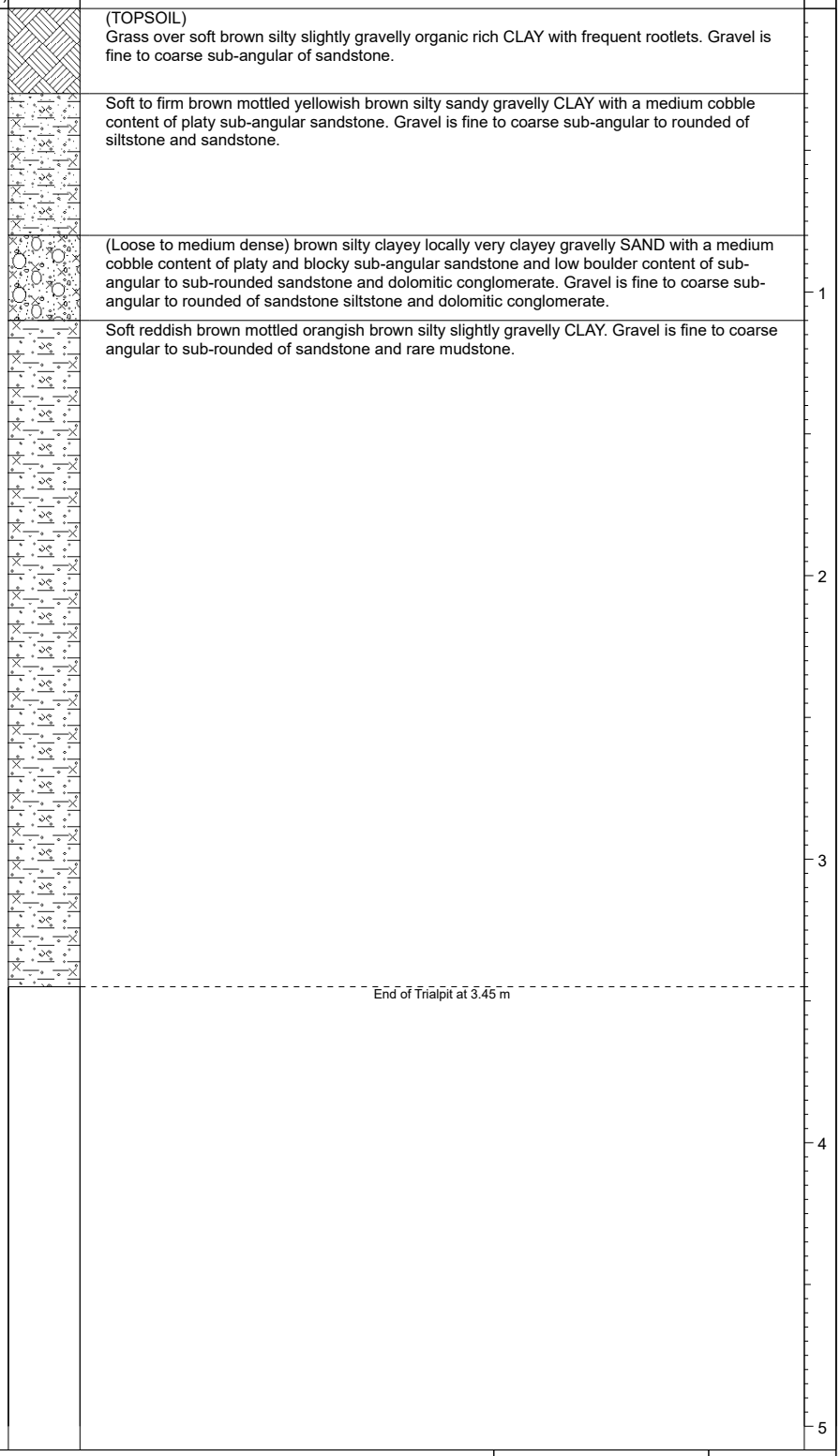
Project Name:	Project No.:	Trial Pit No.:
Plot 2 (Area 17), Talbot Green	**14391**	**TP08** Sheet 1 of 1

Location:	Client:	Logged By:	Scale
Talbot Green	Talbot Green Developments Limited	FM	1:25

Equipment: JCB-3CX	Coordinates:	**Dimensions** 2.70m
Date Excavated: 30/10/2024	Level:	Depth : 3.45m, 0.75m

Samples & In-situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description
Depth (m)	Type	Results				
						(TOPSOIL) Grass over soft brown silty slightly gravelly organic rich CLAY with frequent rootlets. Gravel is fine to coarse sub-angular of sandstone.
0.30	D		0.30			Soft to firm brown mottled yellowish brown silty sandy gravelly CLAY with a medium cobble content of platy sub-angular sandstone. Gravel is fine to coarse sub-angular to rounded of siltstone and sandstone.
			0.80			(Loose to medium dense) brown silty clayey locally very clayey gravelly SAND with a medium cobble content of platy and blocky sub-angular sandstone and low boulder content of sub-angular to sub-rounded sandstone and dolomitic conglomerate. Gravel is fine to coarse sub-angular to rounded of sandstone siltstone and dolomitic conglomerate.
1.10	D		1.10			Soft reddish brown mottled orangish brown silty slightly gravelly CLAY. Gravel is fine to coarse angular to sub-rounded of sandstone and rare mudstone.
			3.45			End of Trialpit at 3.45 m



Remarks:
1. Trial pit terminated at 3.45m bgl at maximum extent of excavator.

Groundwater: 1. Seepage below 2.5m bgl.

Stability: 1. Unstable below 2.0m bgl.

Key:
D - Small disturbed sample
B - Bulk disturbed sample
ES - Environmental soil sample
W - Water sample

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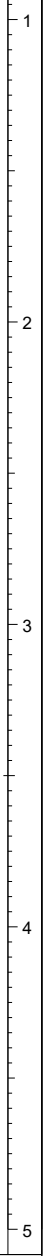
Project Name:	Project No.:	Trial Pit No.:
Plot 2 (Area 17), Talbot Green	**14391**	**TP09** Sheet 1 of 1

Location:	Client:	Logged By:	Scale
Talbot Green	Talbot Green Developments Limited	FM	1:25

Equipment: JCB-3CX	Coordinates:	**Dimensions** 2.80m
Date Excavated: 30/11/2024	Level:	Depth : 3.50m, 0.80m

Samples & In-situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description
Depth (m)	Type	Results				
						(TOPSOIL) Grass over soft brown silty slightly gravelly organic rich CLAY with frequent rootlets. Gravel is fine to coarse sub-angular of sandstone.
			0.20			Soft to firm brown silty slightly sandy slightly gravelly CLAY. Gravel is fine to coarse sub-angular to sub-rounded of sandstone.
			0.60			Firm reddish brown silty gravelly CLAY. Gravel is fine to coarse angular of mudstone and sub-angular to sub-rounded of sandstone dolomitic conglomerate and siltstone.
			3.50			End of Trialpit at 3.50 m



Remarks:
1. Trail pit terminated at 3.50m bgl at maximum extent of excavator.

Groundwater: 1. No groundwater encountered.

Stability: 1. Trial pit generally stable in the short-term.

Key:
D - Small disturbed sample
B - Bulk disturbed sample
ES - Environmental soil sample
W - Water sample

AGS

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Project Name:	Project No.:	Trial Pit No.:
Plot 2 (Area 17), Talbot Green	**14391**	**TP10** Sheet 1 of 1

Location:	Client:	Logged By:	Scale
Talbot Green	Talbot Green Developments Limited	FM	1:25

Equipment:	Coordinates:	Dimensions
JCB-3CX		4.80m; Depth : 1.90m; 0.85m
Date Excavated: 30/11/2024	Level:	

Samples & In-situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description
Depth (m)	Type	Results				
			0.15			(TOPSOIL) Soft brown silty slightly sandy gravelly organic rich CLAY with frequent rootlets. Gravel is fine to coarse sub-angular to sub-rounded of sandstone.
			0.45			Soft to firm brown silty slightly sandy slightly gravelly CLAY. Gravel is fine to coarse sub-angular to sub-rounded of sandstone.
						(Loose) brown slightly silty clayey very gravelly SAND with a medium cobble and low boulder content (0.90m x 0.80m) of blocky and platy sub-angular sandstone and dolomitic conglomerate. Gravel is fine to coarse angular to sub-rounded of sandstone and dolomitic conglomerate.
			1.70			(Dense) reddish brown silty clayey sandy GRAVEL with a medium cobble and low boulder content of dolomitic conglomerate. Gravel is fine to coarse sub-angular to sub-rounded of dolomitic conglomerate sandstone and rare quartz.
			1.90			End of Trialpit at 1.90 m

Remarks:
1. Trial pit terminated at 1.90m bgl due to slow progress of excavation within dolomitic conglomerate.

Groundwater: 1. No groundwater encountered.

Stability: 1. Trial pit generally stable in the short-term.

Key:
D - Small disturbed sample
B - Bulk disturbed sample
ES - Environmental soil sample
W - Water sample

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APPENDIX F

WINDOWLESS SAMPLE BOREHOLE LOGS

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Project Name:	Project No.:	Borehole No.:
Plot 2 (Area 17), Talbot Green	**14391**	**WS01** Sheet 1 of 1

Location:	Client:	Coordinates:	Hole Type:
Talbot Green	Talbot Green Developments Limited		WLS

Equipment:	Diameter of Casing:	Level:	Scale
DART 540			1:25

Diameter of Boring:	Depth of Casing:	Dates	Logged By:
101+86+74+63mm		31/10/2024 -	FM

Well	Water Strikes	Samples & In situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description
		Depth (m)	Type	Results				
								(TOPSOIL) Grass over soft brown silty slightly sandy organic rich CLAY with frequent roots and rootlets.
		0.25	ES		0.25			Soft to firm orange brown slightly gravelly sandy SILT/CLAY with occasional cobbles of sub-angular sandstone. Gravel is fine to coarse sub-angular to sub-rounded of sandstone.
		1.00 1.00	D S	N=5 (2,3/2,1,1,1)				
					1.30			(Medium dense) brown slightly silty clayey to very clayey gravelly SAND with rare cobbles of blocky sub-angular sandstone. Gravel is fine to coarse sub-angular to sub-rounded of sandstone and rare dolomitic conglomerate.
					1.75			Soft reddish brown silty slightly gravelly CLAY with occasional cobbles of blocky sub-angular sandstone. Gravel is fine to coarse angular to sub-angular of mudstone and sub-rounded to rounded of siltstone and sandstone.
		2.00	S	N=4 (2,2/1,1,1,1)				
		3.00	S	N=6 (1,1/2,2,1,1)				
								Locally wet between 3.30m and 3.60m bgl.
					3.60			Stiff becoming very stiff reddish brown gravelly CLAY. Gravel is fine to coarse angular to sub-angular of mudstone and occasional sandstone.
		4.00	S	N=18 (9,5/3,3,4,8)				
		4.50	S	50 (10,14/50 for 170mm)	4.50			End of Borehole at 4.50 m

Remarks:

1. Windowless sample borehole terminated at 4.50m bgl at refusal within suspected weathered bedrock.

Key:

D - Small disturbed sample
B - Bulk disturbed sample
ES - Environmental soil sample
SPT - Standard Penetration Test (split spoon)
CPT - Standard Penetration Test (solid cone)
W - Water sample
U - Undisturbed sample
TCR - Total Core Recovery
SCR - Solid Core Recovery
RQD - Rock Quality Designation

AGS

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	Project Name: **Plot 2 (Area 17), Talbot Green**	Project No.: **14391**	Borehole No.: **WS02** Sheet 1 of 1
Location: Talbot Green	Client: Talbot Green Developments Limited	Coordinates:	Hole Type: WLS
Equipment: DART 540	Diameter of Casing:	Level:	Scale 1:25
Diameter of Boring: 101+86+74+63mm	Depth of Casing:	Dates 31/10/2024 -	Logged By: FM

Well	Water Strikes	Samples & In situ Testing: Depth (m)	Type	Results	Depth (m)	Level (m AOD)	Legend	Stratum Description
		0.10	ES		0.20			(TOPSOIL) Grass over soft brown silty slightly sandy organic rich CLAY with frequent roots and rootlets.
					0.55			Firm brown silty very sandy gravelly CLAY with rare cobbles of blocky sandstone. Gravel is fine to coarse sub-angular to sub-rounded of sandstone and dolomitic conglomerate.
		1.00	S	N=21 (2,3/5,7,5,4)				Medium dense brown slightly silty clayey to very clayey gravelly SAND with rare cobbles of blocky sub-angular sandstone. Gravel is fine to coarse sub-angular to sub-rounded of sandstone and rare dolomitic conglomerate.
					1.65			Firm reddish brown locally mottled orangish brown and grey silty very sandy gravelly CLAY with occasional cobbles of blocky and platy sandstone. Gravel is fine to coarse sub-angular to sub-rounded of sandstone and mudstone.
		2.00	S	N=16 (3,4/6,4,3,3)				
		3.00	S	N=10 (2,2/3,2,3,2)				
					3.55			Stiff becoming very stiff reddish brown gravelly CLAY. Gravel is fine to coarse angular to sub-angular of mudstone and occasional sandstone. *Grading into extremely weak reddish brown clayey thinly laminated MUDSTONE.*
		4.00	S	N=50 (5,6/50 for 255mm)	4.00			End of Borehole at 4.00 m

Remarks:

1. Windowless sample borehole terminated at 4.00m bgl at refusal within suspected weathered bedrock.

Key:

D - Small disturbed sample
B - Bulk disturbed sample
ES - Environmental soil sample
SPT - Standard Penetration Test (split spoon)
CPT - Standard Penetration Test (solid cone)
W - Water sample
U - Undisturbed sample
TCR - Total Core Recovery
SCR - Solid Core Recovery
RQD - Rock Quality Designation

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	Project Name: **Plot 2 (Area 17), Talbot Green**	Project No.: **14391**	Borehole No.: **WS03** Sheet 1 of 1
Location: Talbot Green	Client: Talbot Green Developments Limited	Coordinates:	Hole Type: WLS
Equipment: DART 540	Diameter of Casing:	Level:	Scale 1:25
Diameter of Boring: 101+86+74mm	Depth of Casing:	Dates 31/10/2024 -	Logged By: FM

Well	Water Strikes	Samples & In situ Testing: Depth (m)	Type	Results	Depth (m)	Level (m AOD)	Legend	Stratum Description
					0.20			(TOPSOIL) Grass over soft brown silty slightly sandy organic rich CLAY with frequent roots and rootlets.
					0.60			Soft to firm orangish brown silty very sandy slightly gravelly CLAY. Gravel is fine to coarse sub-angular to sub-rounded of sandstone.
		1.00	S	N=10 (3,2/3,3,2,2)				Loose to medium dense brown slightly silty clayey to very clayey gravelly SAND with rare cobbles of blocky sub-angular sandstone. Gravel is fine to coarse sub-angular to sub-rounded of sandstone and rare dolomitic conglomerate.
					1.20			Soft reddish brown silty slightly gravelly CLAY. Gravel is fine to coarse sub-angular of mudstone and sandstone.
		1.50	D					
		2.00	S	N=4 (1,1/1,0,1,2)				
					2.80			Very stiff reddish brown gravelly CLAY. Gravel is fine to coarse angular to sub-angular of mudstone.
		3.00	S	N=50 (6,9/50 for 245mm)	3.00			End of Borehole at 3.00 m

Remarks:

1. Windowless sample borehole terminated at 3.00m bgl at refusal within suspected weathered bedrock.

Key:

D - Small disturbed sample
B - Bulk disturbed sample
ES - Environmental soil sample
SPT - Standard Penetration Test (split spoon)
CPT - Standard Penetration Test (solid cone)
W - Water sample
U - Undisturbed sample
TCR - Total Core Recovery
SCR - Solid Core Recovery
RQD - Rock Quality Designation

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Project Name: **Plot 2 (Area 17), Talbot Green**		Project No.: **14391**	Borehole No.: **WS04** Sheet 1 of 1
Location: Talbot Green	Client: Talbot Green Developments Limited	Coordinates:	Hole Type: WLS
Equipment: DART 540	Diameter of Casing:	Level:	Scale 1:25
Diameter of Boring: 101+86+74mm	Depth of Casing:	Dates 31/10/2024 -	Logged By: FM

Well	Water Strikes	Samples & In situ Testing: Depth (m)	Type	Results	Depth (m)	Level (m AOD)	Legend	Stratum Description
		0.30	ES		0.20			(TOPSOIL) Grass over soft brown silty slightly sandy organic rich CLAY with frequent roots and rootlets.
								Very loose dense brown silty clayey to very clayey gravelly SAND., Gravel is fine to coarse sub-angular to sub-rounded of sandstone and rare dolomitic conglomerate.
		1.00	S	N=2 (1,1/1,0,1,0)				*50% recovery recorded between 1.00m and 2.00m bgl.*
					1.50			Very loose brown clayey slightly sandy GRAVEL. Gravel is fine to coarse sub-angular of sandstone dolomitic conglomerate and rare mudstone.
	2.00 ▼	2.00	S	N=1 (1,0/0,1,0,0)				*50% recovery recorded between 2.00m and 3.00m bgl.*
		3.00	S	50 (4,4/50 for 95mm)	3.00			Stiff to very stiff reddish brown silty gravelly CLAY. Gravel is fine to coarse sub-angular of mudstone and rare sandstone.
					3.20			End of Borehole at 3.20 m

Remarks:

1. Windowless sample borehole terminated at 3.20m bgl at refusal within suspected weathered bedrock.

Key:

D - Small disturbed sample
B - Bulk disturbed sample
ES - Environmental soil sample
SPT - Standard Penetration Test (split spoon)
CPT - Standard Penetration Test (solid cone)
W - Water sample
U - Undisturbed sample
TCR - Total Core Recovery
SCR - Solid Core Recovery
RQD - Rock Quality Designation

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Project Name:	Project No.:	Borehole No.:
Plot 2 (Area 17), Talbot Green	**14391**	**WS05** Sheet 1 of 2

Location:	Client:	Coordinates:	Hole Type:
Talbot Green	Talbot Green Developments Limited		WLS

Equipment:	Diameter of Casing:	Level:	Scale
DART 540			1:25

Diameter of Boring:	Depth of Casing:	Dates	Logged By:
101+86+74+63mm		31/10/2024 -	FM

Well	Water Strikes	Samples & In situ Testing: Depth (m)	Type	Results	Depth (m)	Level (m AOD)	Legend	Stratum Description
					0.15			(TOPSOIL) Grass over soft brown silty slightly sandy organic rich CLAY with frequent roots and rootlets.. Soft becoming very soft brown silty sandy gravelly CLAY. Gravel is fine to coarse sub-angular to sub-rounded of sandstone and dolomitic conglomerate.
		1.00	S	N=0 (0,0/0,0,0,0)				
		1.10	D					
	1.50 ▼				1.50			Very loose reddish brown slightly silty clayey to very clayey gravelly to very gravelly SAND. Gravel is fine to coarse sub-angular to sub-rounded of conglomerate sandstone and mudstone.
		2.00	S	N=2 (1,0/1,0,1,0)				
		3.00	S	N=3 (1,0/1,0,1,1)				
					3.20			Very loose brown slightly silty clayey to very clayey gravelly SAND. Gravel is fine to coarse angular to sub-rounded of dolomitic conglomerate and mudstone.
		4.00	S	N=5 (1,3/1,1,2,1)				
		5.00	S	N=4 (1,2/1,1,1,1)	5.00			

Remarks:

1. Windowless sample borehole terminated at 5.00m bgl. Continuous CPT carried out from 5.00m to 5.90m bgl.
2. Weathered bedrock not encountered.

Key:

D - Small disturbed sample
B - Bulk disturbed sample
ES - Environmental soil sample
SPT - Standard Penetration Test (split spoon)
CPT - Standard Penetration Test (solid cone)
W - Water sample
U - Undisturbed sample
TCR - Total Core Recovery
SCR - Solid Core Recovery
RQD - Rock Quality Designation

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	Project Name: **Plot 2 (Area 17), Talbot Green**	Project No.: **14391**	Borehole No.: **WS05** Sheet 2 of 2
Location: Talbot Green	Client: Talbot Green Developments Limited	Coordinates:	Hole Type: WLS
Equipment: DART 540	Diameter of Casing:	Level:	Scale 1:25
Diameter of Boring: 101+86+74+63mm	Depth of Casing:	Dates 31/10/2024 -	Logged By: FM

Well	Water Strikes	Samples & In situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description
		Depth (m)	Type	Results				
		5.45	C	N=6 (1,2/2,1,2,1)				
		5.90	C	N=14 (5,4/2,3,5,4)				End of Borehole at 5.90 m

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Remarks:

1. Windowless sample borehole terminated at 5.00m bgl. Continuous CPT carried out from 5.00m to 5.90m bgl.
2. Weathered bedrock not encountered.

Key:

D - Small disturbed sample
B - Bulk disturbed sample
ES - Environmental soil sample
SPT - Standard Penetration Test (split spoon)
CPT - Standard Penetration Test (solid cone)
W - Water sample
U - Undisturbed sample
TCR - Total Core Recovery
SCR - Solid Core Recovery
RQD - Rock Quality Designation

AGS

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	Project Name: **Plot 2 (Area 17), Talbot Green**	Project No.: **14391**	Borehole No.: **WS06** Sheet 1 of 1
Location: Talbot Green	Client: Talbot Green Developments Limited	Coordinates:	Hole Type: WLS
Equipment: DART 540	Diameter of Casing:	Level:	Scale 1:25
Diameter of Boring: 101+86+74mm	Depth of Casing:	Dates 31/10/2024 -	Logged By: FM

Well	Water Strikes	Samples & In situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.15	ES		0.15			(TOPSOIL) Grass over soft brown silty slightly sandy organic rich CLAY with frequent roots and rootlets. Soft to firm orange brown slightly sandy slightly gravelly SILT/CLAY. Gravel is fine to coarse angular of sandstone.
		1.00	S	N=17 (2,3/3,6,4,4)	0.80			Firm brown silty sandy to very sandy slightly gravelly CLAY with occasional cobbles of blocky sub-angular sandstone. Gravel is fine to coarse sub-angular to sub-rounded of sandstone and dolomitic conglomerate.
		2.00	S	N=5 (1,3/2,1,1,1)	1.80			Loose orange and red brown silty gravelly SAND. Gravel is fine to coarse sub-angular to sub-rounded of dolomitic conglomerate and mudstone.
		2.90	S	50 (8,13/50 for 85mm)	2.90			End of Borehole at 2.90 m

1
2
3
4
5

Remarks:

1. Windowless sample borehole terminated at 2.90m bgl at refusal upon suspected cobble/ boulder.

Key:

D - Small disturbed sample
B - Bulk disturbed sample
ES - Environmental soil sample
SPT - Standard Penetration Test (split spoon)
CPT - Standard Penetration Test (solid cone)
W - Water sample
U - Undisturbed sample
TCR - Total Core Recovery
SCR - Solid Core Recovery
RQD - Rock Quality Designation

AGS

APPENDIX G

SOIL INFILTRATION TEST RESULTS

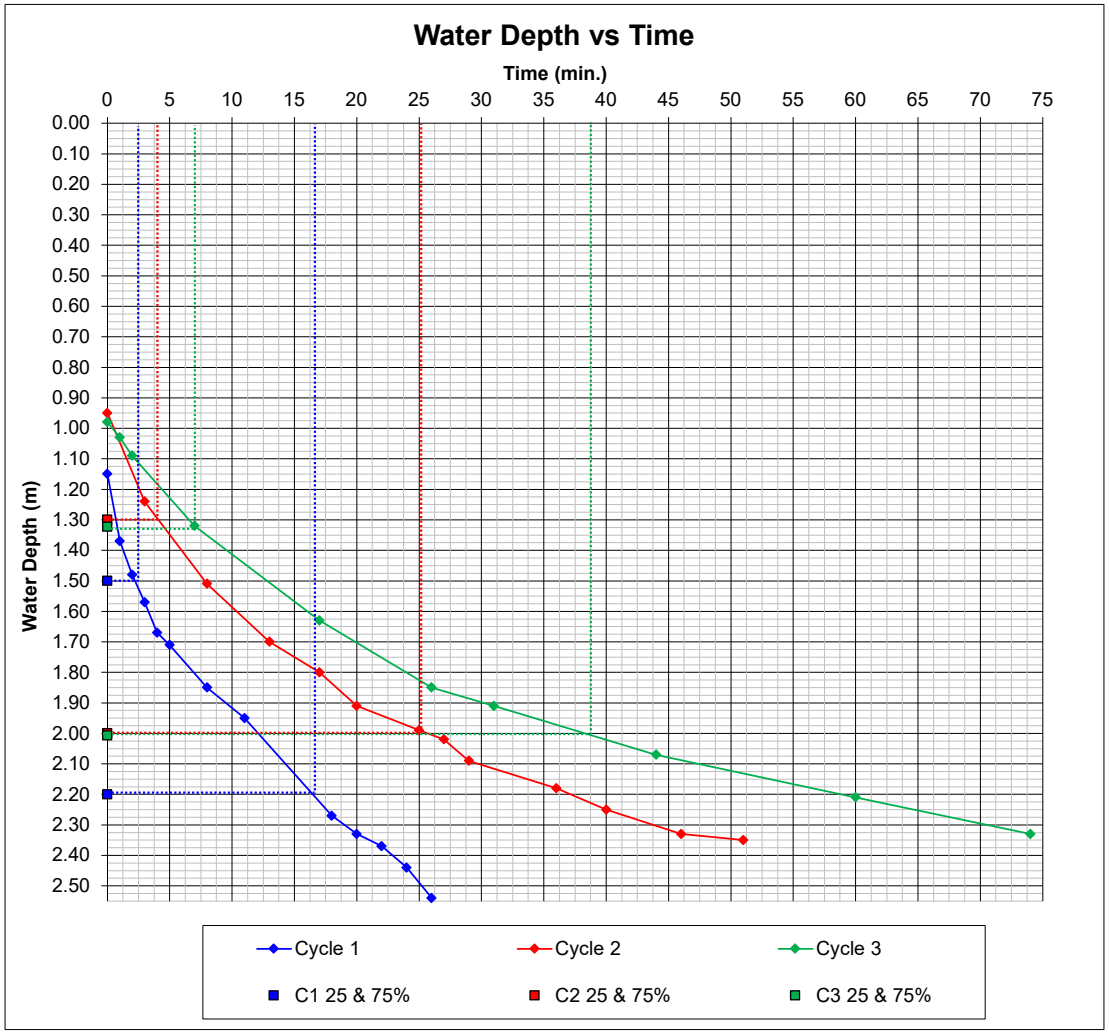
BRE365 SOIL INFILTRATION RATE TEST - SA01

14391 Plot 2 (Area 17), Talbot Green

Trial Pit Information	
Length (m)	0.70
Width (m)	2.60
Depth (m)	2.55
Groundwater	Dry
Weather Conditions	Dry
Date	29-Oct-24

Remarks

Cycle 1		Cycle 2		Cycle 3	
Time (min)	Depth (m)	Time (min)	Depth (m)	Time (min)	Depth (m)
0	1.15	0	0.95	0	0.98
1	1.37	3	1.24	1	1.03
2	1.48	8	1.51	2	1.09
3	1.57	13	1.70	7	1.32
4	1.67	17	1.80	17	1.63
5	1.71	20	1.91	26	1.85
8	1.85	25	1.99	31	1.91
11	1.95	27	2.02	44	2.07
18	2.27	29	2.09	60	2.21
20	2.33	36	2.18	74	2.33
22	2.37	40	2.25		
24	2.44	46	2.33		
26	2.54	51	2.35		



Final Excavation Depth (m)	Cycle 1	Cycle 2	Cycle 3
At end of testing cycle	2.55	2.35	2.35
Water Depths (m)			
Water depth at start of test	1.15	0.95	0.98
Water depth at end of test	2.54	2.35	2.33
Effective depth (measured)	1.39	1.40	1.35
% Effective storage depth	0.99	1.00	0.99
Effective Storage Depths (m)			
Effective storage depth (100%)	1.40	1.40	1.37
Effective storage depth (75%)	1.05	1.05	1.03
Effective storage depth (50%)	0.70	0.70	0.69
Effective storage depth (25%)	0.35	0.35	0.34
Outflow Time (min)			
Time for measured outflow	26	46	74
Time for 100% outflow	26	46	74
Time for 75-25% outflow	14	21	33
Volume of Outflow (m^3)			
Over measured effective depth	2.53	2.55	2.46
Over 100% effective depth	2.55	2.55	2.49
From 75% - 25% effective depth	1.27	1.27	1.25
Surface Area (m^2)			
For 100% effective storage	11.06	11.06	10.86
For 50% effective storage	6.44	6.44	6.34
Over measured depth	10.99	11.06	10.73
Soil Infiltration Rate (m/s)	**Cycle 1**	**Cycle 2**	**Cycle 3**
Over 100% effective depth	1.5E-04	8.3E-05	5.2E-05
Over measured depth	1.5E-04	8.3E-05	5.2E-05
Over 75% - 25% effective depth	**2.36E-04**	**1.57E-04**	**9.93E-05**

Design Soil Infiltration Rate: 9.9E-05 m/s

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BRE365 SOIL INFILTRATION RATE TEST - SA02

14391 Plot 2 (Area 17), Talbot Green

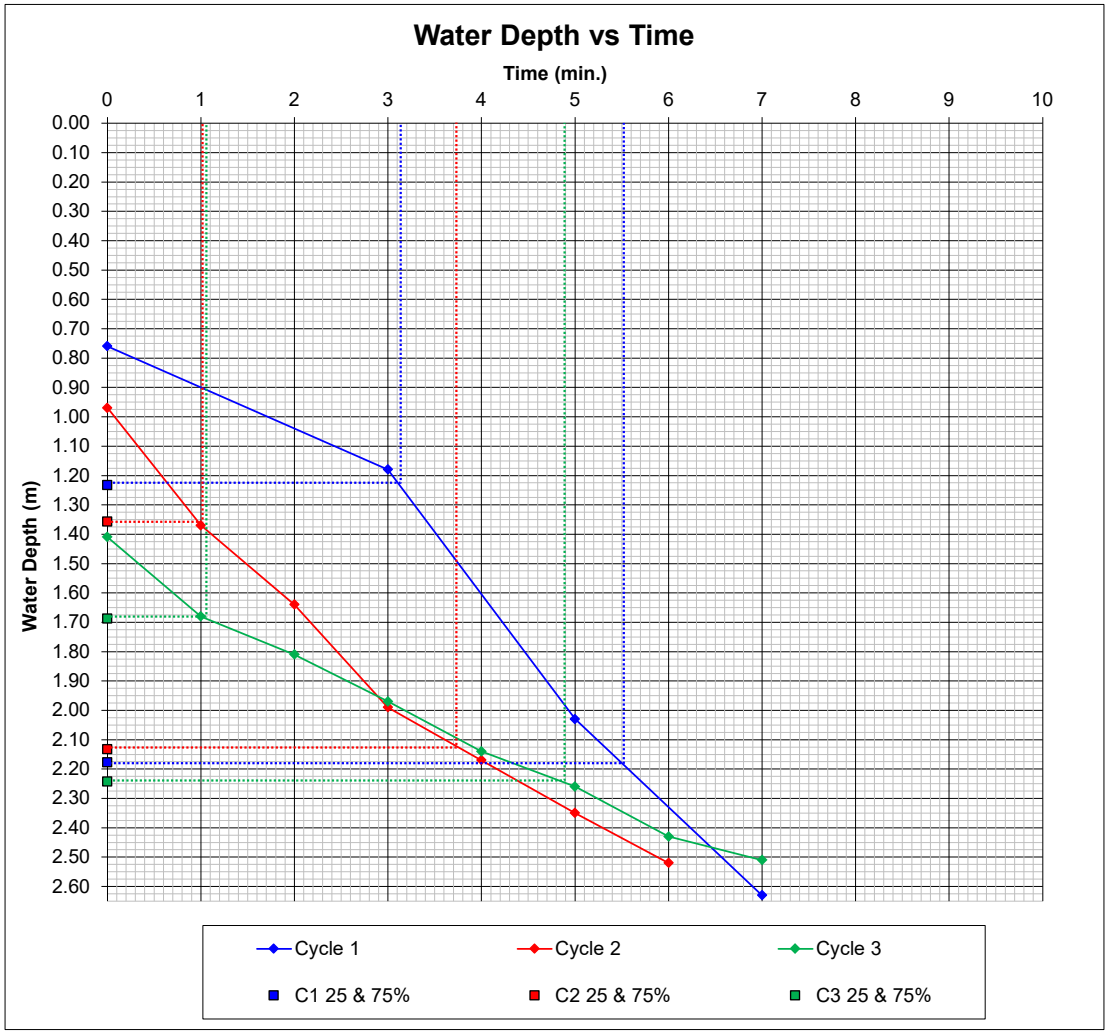
Trial Pit Information	
Length (m)	0.80
Width (m)	2.65
Depth (m)	2.65
Groundwater	Dry
Weather Conditions	Dry
Date	29-Oct-24

Remarks

1. Anomalous drainage behaviour was observed at SA02. During the first cycle of testing, a 0.3m diameter void/cavity opened up at the base of the trial pit, resulting in rapid water drainage (the water could be heard draining into what sounded like an underlying cavity).

Cycle 1		Cycle 2		Cycle 3	
Time (min)	Depth (m)	Time (min)	Depth (m)	Time (min)	Depth (m)
0	0.76	0	0.97	0	1.41
3	1.18	1	1.37	1	1.68
5	2.03	2	1.64	2	1.81
7	2.63	3	1.99	3	1.97
		4	2.17	4	2.14
		5	2.35	5	2.26
		6	2.52	6	2.43
				7	2.51

Final Excavation Depth (m)	Cycle 1	Cycle 2	Cycle 3
At end of testing cycle	2.65	2.52	2.52
Water Depths (m)			
Water depth at start of test	0.76	0.97	1.41
Water depth at end of test	2.63	2.52	2.51
Effective depth (measured)	1.87	1.55	1.10
% Effective storage depth	0.99	1.00	0.99
Effective Storage Depths (m)			
Effective storage depth (100%)	1.89	1.55	1.11
Effective storage depth (75%)	1.42	1.16	0.83
Effective storage depth (50%)	0.95	0.78	0.56
Effective storage depth (25%)	0.47	0.39	0.28
Outflow Time (min)			
Time for measured outflow	7	6	7
Time for 100% outflow	7	6	7
Time for 75-25% outflow	2	3	4
Volume of Outflow (m^3)			
Over measured effective depth	3.96	3.29	2.33
Over 100% effective depth	4.01	3.29	2.35
From 75% - 25% effective depth	2.00	1.64	1.18
Surface Area (m^2)			
For 100% effective storage	15.16	12.82	9.78
For 50% effective storage	8.64	7.47	5.95
Over measured depth	15.02	12.82	9.71
Soil Infiltration Rate (m/s)	**Cycle 1**	**Cycle 2**	**Cycle 3**
Over 100% effective depth	6.3E-04	7.1E-04	5.7E-04
Over measured depth	6.3E-04	7.1E-04	5.7E-04
Over 75% - 25% effective depth	**1.93E-03**	**1.22E-03**	**8.24E-04**



Design Soil Infiltration Rate: 8.2E-04 m/s

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BRE365 SOIL INFILTRATION RATE TEST - SA03

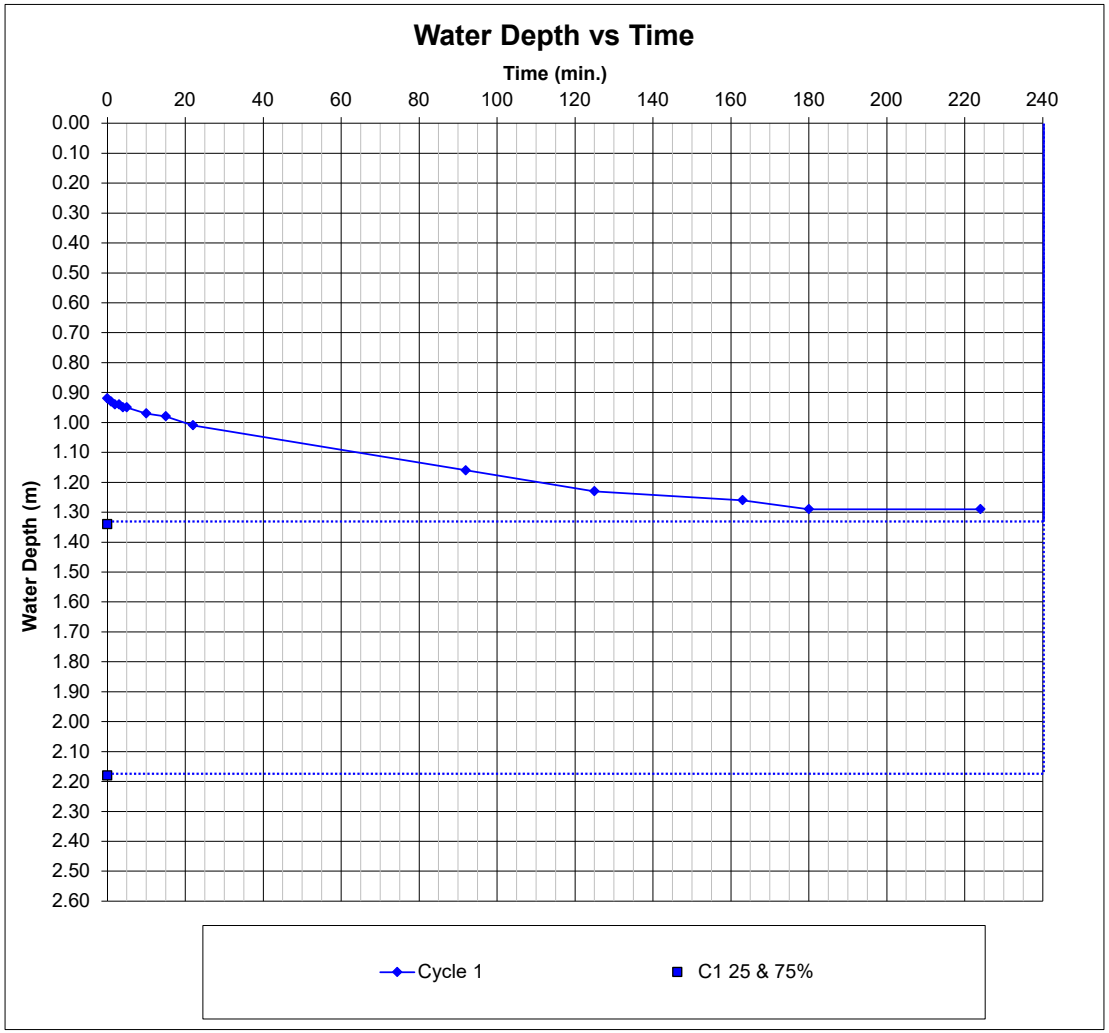
14391 Plot 2 (Area 17), Talbot Green

Trial Pit Information	
Length (m)	0.70
Width (m)	2.20
Depth (m)	2.60
Groundwater	Dry
Weather Conditions	Dry
Date	30-Oct-24

Remarks

1. Negligible infiltration. Unable to calculate soil infiltration rate.

Cycle 1		Cycle 2		Cycle 3	
Time (min)	Depth (m)	Time (min)	Depth (m)	Time (min)	Depth (m)
0	0.92				
1	0.93				
2	0.94				
3	0.94				
4	0.95				
5	0.95				
10	0.97				
15	0.98				
22	1.01				
92	1.16				
125	1.23				
163	1.26				
180	1.29				
224	1.29				



Final Excavation Depth (m)	Cycle 1	Cycle 2	Cycle 3
At end of testing cycle	2.60		
Water Depths (m)			
Water depth at start of test	0.92		
Water depth at end of test	1.29		
Effective depth (measured)	0.37		
% Effective storage depth	0.22		
Effective Storage Depths (m)			
Effective storage depth (100%)	1.68		
Effective storage depth (75%)	1.26		
Effective storage depth (50%)	0.84		
Effective storage depth (25%)	0.42		
Outflow Time (min)			
Time for measured outflow	n/a		
Time for 100% outflow	n.a		
Time for 75-25% outflow	n/a		
Volume of Outflow (m^3)			
Over measured effective depth	0.57		
Over 100% effective depth	2.59		
From 75% - 25% effective depth	1.29		
Surface Area (m^2)			
For 100% effective storage	11.28		
For 50% effective storage	6.41		
Over measured depth	3.69		
Soil Infiltration Rate (m/s)	**Cycle 1**	**Cycle 2**	**Cycle 3**
Over 100% effective depth	n/a		
Over measured depth	n/a		
Over 75% - 25% effective depth	**n/a**		

Intégral Géotechnique

APPENDIX H

LABORATORY CHEMICAL TEST RESULTS

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t: 01923 225404
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e: reception@i2analytical.com

Analytical Report Number : 24-052147

Project / Site name:	Industrial Development, Plot 2, Talbot Green	**Samples received on:**	04/11/2024
Your job number:	14391	**Samples instructed on/ Analysis started on:**	06/11/2024
Your order number:	14391-FM	**Analysis completed by:**	14/11/2024
Report Issue Number:	1	**Report issued on:**	14/11/2024
Samples Analysed:	12 soil samples		

Signed:

Anna Goc
PL Head of Reporting Team
For & on behalf of i2 Analytical Ltd.

Standard Geotechnical, Asbestos and Chemical Testing Laboratory located at: ul. Pionierów 39, 41-711 Ruda Śląska, Poland.

Accredited tests are defined within the report, opinions and interpretations expressed herein are outside the scope of accreditation.

Standard sample disposal times, unless otherwise agreed with the laboratory, are :

soils - 4 weeks from reporting
leachates - 2 weeks from reporting
waters - 2 weeks from reporting
asbestos - 6 months from reporting

Excel copies of reports are only valid when accompanied by this PDF certificate.

Any assessments of compliance with specifications are based on actual analytical results with no contribution from uncertainty of measurement.
Application of uncertainty of measurement would provide a range within which the true result lies.
An estimate of measurement uncertainty can be provided on request.

Analytical Report Number: 24-052147
Project / Site name: Industrial Development, Plot 2, Talbot Green
Your Order No: 14391-FM

Lab Sample Number				370534	370535	370536	370537	370538
Sample Reference				WS01	WS02	WS04	WS06	SA02
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.25	0.10	0.30	0.15	0.20
Date Sampled				31/10/2024	31/10/2024	31/10/2024	31/10/2024	29/10/2024
Time Taken				0900	0930	1030	1100	1000
Analytical Parameter (Soil Analysis)	**Units**	**Test Limit of detection**	**Test Accreditation Status**					
Stone Content	%	0.1	NONE	< 0.1	< 0.1	22	42.9	< 0.1
Moisture Content	%	0.01	NONE	25	26	18	15	24
Total mass of sample received	kg	0.1	NONE	0.9	0.8	0.9	0.8	0.9
Asbestos								
Asbestos in Soil Detected/Not Detected	Type	N/A	ISO 17025	Not-detected	Not-detected	Not-detected	Not-detected	Not-detected
Asbestos Analyst ID	N/A	N/A	N/A	SPU	SPU	SPU	SPU	SPU
General Inorganics								
pH (L099)	pH Units	N/A	MCERTS	5.6	5.6	7.1	6.9	6.4
Total Cyanide	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Total Sulphate as SO_4	mg/kg	50	MCERTS	890	830	1000	710	690
Water Soluble Sulphate as SO_4 16hr extraction (2:1)	mg/kg	2.5	MCERTS	16	22	48	18	19
Water Soluble SO_4 16hr extraction (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	0.00806	0.0111	0.024	0.0091	0.00924
Water Soluble SO_4 16hr extraction (2:1 Leachate Equivalent)	mg/l	1.25	MCERTS	8.06	11.1	24	9.1	9.24
Water Soluble SO_4 16hr extraction (2:1)	mg/l	1.25	MCERTS	-	-	-	-	-
Sulphide	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Total Sulphur	mg/kg	50	MCERTS	370	320	540	450	350
Total Organic Carbon (TOC) - Automated	%	0.1	MCERTS	3	3.3	1.7	1.3	2.1
Loss on Ignition @ 450°C	%	0.2	MCERTS	7.3	7.2	4.7	4	5.7
Total Phenols								
Total Phenols (monohydric)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Speciated PAHs								
Naphthalene	mg/kg	0.05	MCERTS	0.06	0.12	< 0.05	0.05	0.07
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Fluorene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Phenanthrene	mg/kg	0.05	MCERTS	0.08	0.06	< 0.05	0.07	< 0.05
Anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Fluoranthene	mg/kg	0.05	MCERTS	0.21	0.11	0.1	0.1	< 0.05
Pyrene	mg/kg	0.05	MCERTS	0.14	< 0.05	0.09	0.07	< 0.05
Benzo(a)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Chrysene	mg/kg	0.05	MCERTS	0.1	< 0.05	< 0.05	0.08	< 0.05
Benzo(b)fluoranthene	mg/kg	0.05	ISO 17025	< 0.05	< 0.05	< 0.05	0.1	< 0.05
Benzo(k)fluoranthene	mg/kg	0.05	ISO 17025	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Benzo(a)pyrene	mg/kg	0.05	MCERTS	0.08	< 0.05	< 0.05	< 0.05	< 0.05
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	0.08	< 0.05	< 0.05	< 0.05	< 0.05
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	0.06	< 0.05
Total PAH								
Speciated Total EPA-16 PAHs	mg/kg	0.8	ISO 17025	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80

Analytical Report Number: 24-052147
Project / Site name: Industrial Development, Plot 2, Talbot Green
Your Order No: 14391-FM

Lab Sample Number				370534	370535	370536	370537	370538
Sample Reference				WS01	WS02	WS04	WS06	SA02
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.25	0.10	0.30	0.15	0.20
Date Sampled				31/10/2024	31/10/2024	31/10/2024	31/10/2024	29/10/2024
Time Taken				0900	0930	1030	1100	1000
Analytical Parameter (Soil Analysis)	**Units**	**Test Limit of detection**	**Test Accreditation Status**					
Heavy Metals / Metalloids								
Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	20	17	33	25	21
Beryllium (aqua regia extractable)	mg/kg	0.06	MCERTS	0.37	0.39	0.46	0.43	0.34
Boron (water soluble)	mg/kg	0.2	MCERTS	1	1.2	0.9	0.7	0.7
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	3.6	2.6	5.2	4.4	3.8
Chromium (hexavalent)	mg/kg	1.8	MCERTS	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	20	20	20	21	18
Copper (aqua regia extractable)	mg/kg	1	MCERTS	17	14	21	17	13
Lead (aqua regia extractable)	mg/kg	1	MCERTS	260	250	820	350	290
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	11	11	20	17	12
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0	2	< 1.0	< 1.0
Vanadium (aqua regia extractable)	mg/kg	1	MCERTS	37	37	36	32	29
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	320	240	460	390	310
Petroleum Hydrocarbons								
TPHCWG - Aliphatic >EC5 - EC6 $_{HS\_1D\_AL}$	mg/kg	0.01	MCERTS	-	< 0.010	-	-	-
TPHCWG - Aliphatic >EC6 - EC8 $_{HS\_1D\_AL}$	mg/kg	0.01	MCERTS	-	< 0.010	-	-	-
TPHCWG - Aliphatic >EC8 - EC10 $_{HS\_1D\_AL}$	mg/kg	0.01	MCERTS	-	< 0.010	-	-	-
TPHCWG - Aliphatic >EC10 - EC12 $_{EH\_CU\_1D\_AL}$	mg/kg	1	MCERTS	-	< 1.0	-	-	-
TPHCWG - Aliphatic >EC12 - EC16 $_{EH\_CU\_1D\_AL}$	mg/kg	2	MCERTS	-	< 2.0	-	-	-
TPHCWG - Aliphatic >EC16 - EC21 $_{EH\_CU\_1D\_AL}$	mg/kg	8	MCERTS	-	< 8.0	-	-	-
TPHCWG - Aliphatic >EC16 - EC35 $_{EH\_CU\_1D\_AL}$	mg/kg	10	MCERTS	-	< 10	-	-	-
TPHCWG - Aliphatic >EC21 - EC35 $_{EH\_CU\_1D\_AL}$	mg/kg	8	MCERTS	-	< 8.0	-	-	-
TPHCWG - Aliphatic >EC35 - EC44 $_{EH\_CU\_1D\_AL}$	mg/kg	8.4	NONE	-	< 8.4	-	-	-
TPHCWG - Aliphatic >EC5 - EC35 $_{EH\_CU+HS\_1D\_AL}$	mg/kg	10	NONE	-	< 10	-	-	-
TPHCWG - Aliphatic >EC5 - EC44 $_{EH\_CU+HS\_1D\_AL}$	mg/kg	10	NONE	-	< 10	-	-	-
TPHCWG - Aromatic >EC5 - EC7 $_{HS\_1D\_AR}$	mg/kg	0.01	MCERTS	-	< 0.010	-	-	-
TPHCWG - Aromatic >EC7 - EC8 $_{HS\_1D\_AR}$	mg/kg	0.01	MCERTS	-	< 0.010	-	-	-
TPHCWG - Aromatic >EC8 - EC10 $_{HS\_1D\_AR}$	mg/kg	0.02	MCERTS	-	< 0.020	-	-	-
TPHCWG - Aromatic >EC10 - EC12 $_{EH\_CU\_1D\_AR}$	mg/kg	1	MCERTS	-	< 1.0	-	-	-
TPHCWG - Aromatic >EC12 - EC16 $_{EH\_CU\_1D\_AR}$	mg/kg	2	MCERTS	-	< 2.0	-	-	-
TPHCWG - Aromatic >EC16 - EC21 $_{EH\_CU\_1D\_AR}$	mg/kg	10	MCERTS	-	< 10	-	-	-
TPHCWG - Aromatic >EC21 - EC35 $_{EH\_CU\_1D\_AR}$	mg/kg	10	MCERTS	-	< 10	-	-	-
TPHCWG - Aromatic >EC35 - EC40 $_{EH\_CU\_1D\_AR}$	mg/kg	10	NONE	-	< 10	-	-	-
TPHCWG - Aromatic >EC35 - EC44 $_{EH\_CU\_1D\_AR}$	mg/kg	8.4	NONE	-	< 8.4	-	-	-
TPHCWG - Aromatic >EC5 - EC35 $_{EH\_CU+HS\_1D\_AR}$	mg/kg	10	NONE	-	< 10	-	-	-
TPHCWG - Aromatic >EC5 - EC44 $_{EH\_CU+HS\_1D\_AR}$	mg/kg	10	NONE	-	< 10	-	-	-
TPH Total >EC5 - EC44 $_{EH\_CU+HS\_1D\_TOTAL}$	mg/kg	10	NONE	-	< 10	-	-	-

U/S = Unsuitable Sample I/S = Insufficient Sample ND = Not detected

Analytical Report Number: 24-052147
Project / Site name: Industrial Development, Plot 2, Talbot Green
Your Order No: 14391-FM

Lab Sample Number				370539	370540	370541	370542	370543
Sample Reference				TP08	WS01	WS03	WS05	WS06
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.30	1.00	1.50	1.10	0.90
Date Sampled				30/10/2024	31/10/2024	31/10/2024	31/10/2024	31/10/2024
Time Taken				1200	0900	1000	1045	1100
Analytical Parameter (Soil Analysis)	**Units**	**Test Limit of detection**	**Test Accreditation Status**					
Stone Content	%	0.1	NONE	50.8	< 0.1	< 0.1	22.8	34.2
Moisture Content	%	0.01	NONE	12	14	23	16	20
Total mass of sample received	kg	0.1	NONE	0.8	0.5	0.4	0.5	0.4
Asbestos								
Asbestos in Soil Detected/Not Detected	Type	N/A	ISO 17025	Not-detected	-	-	-	-
Asbestos Analyst ID	N/A	N/A	N/A	SPU	-	-	-	-
General Inorganics								
pH (L099)	pH Units	N/A	MCERTS	6.4	-	-	-	-
Total Cyanide	mg/kg	1	MCERTS	< 1.0	-	-	-	-
Total Sulphate as SO_4	mg/kg	50	MCERTS	390	-	-	-	-
Water Soluble Sulphate as SO_4 16hr extraction (2:1)	mg/kg	2.5	MCERTS	22	33	45	24	47
Water Soluble SO_4 16hr extraction (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	0.0112	-	-	-	-
Water Soluble SO_4 16hr extraction (2:1 Leachate Equivalent)	mg/l	1.25	MCERTS	11.2	-	-	-	-
Water Soluble SO_4 16hr extraction (2:1)	mg/l	1.25	MCERTS	-	16.5	22.4	12	23.6
Sulphide	mg/kg	1	MCERTS	< 1.0	-	-	-	-
Total Sulphur	mg/kg	50	MCERTS	190	-	-	-	-
Total Organic Carbon (TOC) - Automated	%	0.1	MCERTS	0.7	-	-	-	-
Loss on Ignition @ 450°C	%	0.2	MCERTS	2.5	-	-	-	-
Total Phenols								
Total Phenols (monohydric)	mg/kg	1	MCERTS	< 1.0	-	-	-	-
Speciated PAHs								
Naphthalene	mg/kg	0.05	MCERTS	< 0.05	-	-	-	-
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	-	-	-	-
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05	-	-	-	-
Fluorene	mg/kg	0.05	MCERTS	< 0.05	-	-	-	-
Phenanthrene	mg/kg	0.05	MCERTS	< 0.05	-	-	-	-
Anthracene	mg/kg	0.05	MCERTS	< 0.05	-	-	-	-
Fluoranthene	mg/kg	0.05	MCERTS	< 0.05	-	-	-	-
Pyrene	mg/kg	0.05	MCERTS	< 0.05	-	-	-	-
Benzo(a)anthracene	mg/kg	0.05	MCERTS	< 0.05	-	-	-	-
Chrysene	mg/kg	0.05	MCERTS	< 0.05	-	-	-	-
Benzo(b)fluoranthene	mg/kg	0.05	ISO 17025	< 0.05	-	-	-	-
Benzo(k)fluoranthene	mg/kg	0.05	ISO 17025	< 0.05	-	-	-	-
Benzo(a)pyrene	mg/kg	0.05	MCERTS	< 0.05	-	-	-	-
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	< 0.05	-	-	-	-
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05	-	-	-	-
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	< 0.05	-	-	-	-
Total PAH								
Speciated Total EPA-16 PAHs	mg/kg	0.8	ISO 17025	< 0.80	-	-	-	-

Analytical Report Number: 24-052147
Project / Site name: Industrial Development, Plot 2, Talbot Green
Your Order No: 14391-FM

Lab Sample Number				370539	370540	370541	370542	370543
Sample Reference				TP08	WS01	WS03	WS05	WS06
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.30	1.00	1.50	1.10	0.90
Date Sampled				30/10/2024	31/10/2024	31/10/2024	31/10/2024	31/10/2024
Time Taken				1200	0900	1000	1045	1100
Analytical Parameter (Soil Analysis)	**Units**	**Test Limit of detection**	**Test Accreditation Status**					
Heavy Metals / Metalloids								
Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	12	-	-	-	-
Beryllium (aqua regia extractable)	mg/kg	0.06	MCERTS	0.51	-	-	-	-
Boron (water soluble)	mg/kg	0.2	MCERTS	0.5	-	-	-	-
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	0.7	-	-	-	-
Chromium (hexavalent)	mg/kg	1.8	MCERTS	< 1.8	-	-	-	-
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	15	-	-	-	-
Copper (aqua regia extractable)	mg/kg	1	MCERTS	14	-	-	-	-
Lead (aqua regia extractable)	mg/kg	1	MCERTS	61	-	-	-	-
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	-	-	-	-
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	17	-	-	-	-
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	-	-	-	-
Vanadium (aqua regia extractable)	mg/kg	1	MCERTS	20	-	-	-	-
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	110	-	-	-	-
Petroleum Hydrocarbons								
TPHCWG - Aliphatic >EC5 - EC6 $_{HS\_1D\_AL}$	mg/kg	0.01	MCERTS	< 0.010	-	-	-	-
TPHCWG - Aliphatic >EC6 - EC8 $_{HS\_1D\_AL}$	mg/kg	0.01	MCERTS	< 0.010	-	-	-	-
TPHCWG - Aliphatic >EC8 - EC10 $_{HS\_1D\_AL}$	mg/kg	0.01	MCERTS	< 0.010	-	-	-	-
TPHCWG - Aliphatic >EC10 - EC12 $_{EH\_CU\_1D\_AL}$	mg/kg	1	MCERTS	< 1.0	-	-	-	-
TPHCWG - Aliphatic >EC12 - EC16 $_{EH\_CU\_1D\_AL}$	mg/kg	2	MCERTS	< 2.0	-	-	-	-
TPHCWG - Aliphatic >EC16 - EC21 $_{EH\_CU\_1D\_AL}$	mg/kg	8	MCERTS	< 8.0	-	-	-	-
TPHCWG - Aliphatic >EC16 - EC35 $_{EH\_CU\_1D\_AL}$	mg/kg	10	MCERTS	< 10	-	-	-	-
TPHCWG - Aliphatic >EC21 - EC35 $_{EH\_CU\_1D\_AL}$	mg/kg	8	MCERTS	< 8.0	-	-	-	-
TPHCWG - Aliphatic >EC35 - EC44 $_{EH\_CU\_1D\_AL}$	mg/kg	8.4	NONE	< 8.4	-	-	-	-
TPHCWG - Aliphatic >EC5 - EC35 $_{EH\_CU+HS\_1D\_AL}$	mg/kg	10	NONE	< 10	-	-	-	-
TPHCWG - Aliphatic >EC5 - EC44 $_{EH\_CU+HS\_1D\_AL}$	mg/kg	10	NONE	< 10	-	-	-	-
TPHCWG - Aromatic >EC5 - EC7 $_{HS\_1D\_AR}$	mg/kg	0.01	MCERTS	< 0.010	-	-	-	-
TPHCWG - Aromatic >EC7 - EC8 $_{HS\_1D\_AR}$	mg/kg	0.01	MCERTS	< 0.010	-	-	-	-
TPHCWG - Aromatic >EC8 - EC10 $_{HS\_1D\_AR}$	mg/kg	0.02	MCERTS	< 0.020	-	-	-	-
TPHCWG - Aromatic >EC10 - EC12 $_{EH\_CU\_1D\_AR}$	mg/kg	1	MCERTS	< 1.0	-	-	-	-
TPHCWG - Aromatic >EC12 - EC16 $_{EH\_CU\_1D\_AR}$	mg/kg	2	MCERTS	< 2.0	-	-	-	-
TPHCWG - Aromatic >EC16 - EC21 $_{EH\_CU\_1D\_AR}$	mg/kg	10	MCERTS	< 10	-	-	-	-
TPHCWG - Aromatic >EC21 - EC35 $_{EH\_CU\_1D\_AR}$	mg/kg	10	MCERTS	< 10	-	-	-	-
TPHCWG - Aromatic >EC35 - EC40 $_{EH\_CU\_1D\_AR}$	mg/kg	10	NONE	< 10	-	-	-	-
TPHCWG - Aromatic >EC35 - EC44 $_{EH\_CU\_1D\_AR}$	mg/kg	8.4	NONE	< 8.4	-	-	-	-
TPHCWG - Aromatic >EC5 - EC35 $_{EH\_CU+HS\_1D\_AR}$	mg/kg	10	NONE	< 10	-	-	-	-
TPHCWG - Aromatic >EC5 - EC44 $_{EH\_CU+HS\_1D\_AR}$	mg/kg	10	NONE	< 10	-	-	-	-
TPH Total >EC5 - EC44 $_{EH\_CU+HS\_1D\_TOTAL}$	mg/kg	10	NONE	< 10	-	-	-	-

U/S = Unsuitable Sample I/S = Insufficient Sample ND = Not detected

Analytical Report Number: 24-052147
Project / Site name: Industrial Development, Plot 2, Talbot Green
Your Order No: 14391-FM

Lab Sample Number				370544	370545
Sample Reference				TP04	TP08
Sample Number				None Supplied	None Supplied
Depth (m)				1.50	1.10
Date Sampled				29/10/2024	30/10/2024
Time Taken				1030	1200
Analytical Parameter (Soil Analysis)	**Units**	**Test Limit of detection**	**Test Accreditation Status**		
Stone Content	%	0.1	NONE	< 0.1	24.4
Moisture Content	%	0.01	NONE	16	10
Total mass of sample received	kg	0.1	NONE	0.5	0.4
Asbestos					
Asbestos in Soil Detected/Not Detected	Type	N/A	ISO 17025	-	-
Asbestos Analyst ID	N/A	N/A	N/A	-	-
General Inorganics					
pH (L099)	pH Units	N/A	MCERTS	-	-
Total Cyanide	mg/kg	1	MCERTS	-	-
Total Sulphate as SO_4	mg/kg	50	MCERTS	-	-
Water Soluble Sulphate as SO_4 16hr extraction (2:1)	mg/kg	2.5	MCERTS	34	18
Water Soluble SO_4 16hr extraction (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	-	-
Water Soluble SO_4 16hr extraction (2:1 Leachate Equivalent)	mg/l	1.25	MCERTS	-	-
Water Soluble SO_4 16hr extraction (2:1)	mg/l	1.25	MCERTS	17.1	8.85
Sulphide	mg/kg	1	MCERTS	-	-
Total Sulphur	mg/kg	50	MCERTS	-	-
Total Organic Carbon (TOC) - Automated	%	0.1	MCERTS	-	-
Loss on Ignition @ 450°C	%	0.2	MCERTS	-	-
Total Phenols					
Total Phenols (monohydric)	mg/kg	1	MCERTS	-	-
Speciated PAHs					
Naphthalene	mg/kg	0.05	MCERTS	-	-
Acenaphthylene	mg/kg	0.05	MCERTS	-	-
Acenaphthene	mg/kg	0.05	MCERTS	-	-
Fluorene	mg/kg	0.05	MCERTS	-	-
Phenanthrene	mg/kg	0.05	MCERTS	-	-
Anthracene	mg/kg	0.05	MCERTS	-	-
Fluoranthene	mg/kg	0.05	MCERTS	-	-
Pyrene	mg/kg	0.05	MCERTS	-	-
Benzo(a)anthracene	mg/kg	0.05	MCERTS	-	-
Chrysene	mg/kg	0.05	MCERTS	-	-
Benzo(b)fluoranthene	mg/kg	0.05	ISO 17025	-	-
Benzo(k)fluoranthene	mg/kg	0.05	ISO 17025	-	-
Benzo(a)pyrene	mg/kg	0.05	MCERTS	-	-
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	-	-
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	-	-
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	-	-
Total PAH					
Speciated Total EPA-16 PAHs	mg/kg	0.8	ISO 17025	-	-

Analytical Report Number: 24-052147
Project / Site name: Industrial Development, Plot 2, Talbot Green
Your Order No: 14391-FM

Lab Sample Number				370544	370545
Sample Reference				TP04	TP08
Sample Number				None Supplied	None Supplied
Depth (m)				1.50	1.10
Date Sampled				29/10/2024	30/10/2024
Time Taken				1030	1200
Analytical Parameter (Soil Analysis)	**Units**	**Test Limit of detection**	**Test Accreditation Status**		
Heavy Metals / Metalloids					
Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	-	-
Beryllium (aqua regia extractable)	mg/kg	0.06	MCERTS	-	-
Boron (water soluble)	mg/kg	0.2	MCERTS	-	-
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	-	-
Chromium (hexavalent)	mg/kg	1.8	MCERTS	-	-
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	-	-
Copper (aqua regia extractable)	mg/kg	1	MCERTS	-	-
Lead (aqua regia extractable)	mg/kg	1	MCERTS	-	-
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	-	-
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	-	-
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	-	-
Vanadium (aqua regia extractable)	mg/kg	1	MCERTS	-	-
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	-	-
Petroleum Hydrocarbons					
TPHCWG - Aliphatic >EC5 - EC6 $_{HS\_1D\_AL}$	mg/kg	0.01	MCERTS	-	-
TPHCWG - Aliphatic >EC6 - EC8 $_{HS\_1D\_AL}$	mg/kg	0.01	MCERTS	-	-
TPHCWG - Aliphatic >EC8 - EC10 $_{HS\_1D\_AL}$	mg/kg	0.01	MCERTS	-	-
TPHCWG - Aliphatic >EC10 - EC12 $_{EH\_CU\_1D\_AL}$	mg/kg	1	MCERTS	-	-
TPHCWG - Aliphatic >EC12 - EC16 $_{EH\_CU\_1D\_AL}$	mg/kg	2	MCERTS	-	-
TPHCWG - Aliphatic >EC16 - EC21 $_{EH\_CU\_1D\_AL}$	mg/kg	8	MCERTS	-	-
TPHCWG - Aliphatic >EC16 - EC35 $_{EH\_CU\_1D\_AL}$	mg/kg	10	MCERTS	-	-
TPHCWG - Aliphatic >EC21 - EC35 $_{EH\_CU\_1D\_AL}$	mg/kg	8	MCERTS	-	-
TPHCWG - Aliphatic >EC35 - EC44 $_{EH\_CU\_1D\_AL}$	mg/kg	8.4	NONE	-	-
TPHCWG - Aliphatic >EC5 - EC35 $_{EH\_CU+HS\_1D\_AL}$	mg/kg	10	NONE	-	-
TPHCWG - Aliphatic >EC5 - EC44 $_{EH\_CU+HS\_1D\_AL}$	mg/kg	10	NONE	-	-
TPHCWG - Aromatic >EC5 - EC7 $_{HS\_1D\_AR}$	mg/kg	0.01	MCERTS	-	-
TPHCWG - Aromatic >EC7 - EC8 $_{HS\_1D\_AR}$	mg/kg	0.01	MCERTS	-	-
TPHCWG - Aromatic >EC8 - EC10 $_{HS\_1D\_AR}$	mg/kg	0.02	MCERTS	-	-
TPHCWG - Aromatic >EC10 - EC12 $_{EH\_CU\_1D\_AR}$	mg/kg	1	MCERTS	-	-
TPHCWG - Aromatic >EC12 - EC16 $_{EH\_CU\_1D\_AR}$	mg/kg	2	MCERTS	-	-
TPHCWG - Aromatic >EC16 - EC21 $_{EH\_CU\_1D\_AR}$	mg/kg	10	MCERTS	-	-
TPHCWG - Aromatic >EC21 - EC35 $_{EH\_CU\_1D\_AR}$	mg/kg	10	MCERTS	-	-
TPHCWG - Aromatic >EC35 - EC40 $_{EH\_CU\_1D\_AR}$	mg/kg	10	NONE	-	-
TPHCWG - Aromatic >EC35 - EC44 $_{EH\_CU\_1D\_AR}$	mg/kg	8.4	NONE	-	-
TPHCWG - Aromatic >EC5 - EC35 $_{EH\_CU+HS\_1D\_AR}$	mg/kg	10	NONE	-	-
TPHCWG - Aromatic >EC5 - EC44 $_{EH\_CU+HS\_1D\_AR}$	mg/kg	10	NONE	-	-
TPH Total >EC5 - EC44 $_{EH\_CU+HS\_1D\_TOTAL}$	mg/kg	10	NONE	-	-

U/S = Unsuitable Sample I/S = Insufficient Sample ND = Not detected

Analytical Report Number : 24-052147
Project / Site name: Industrial Development, Plot 2, Talbot Green

* These descriptions are only intended to act as a cross check if sample identities are questioned. The major constituent of the sample is intended to act with respect to MCERTS validation. The laboratory is accredited for sand, clay and loam (MCERTS) soil types. Data for unaccredited types of solid should be interpreted with care.

Stone content of a sample is calculated as the % weight of the stones not passing a 10 mm sieve. Results are not corrected for stone content.

Lab Sample Number	Sample Reference	Sample Number	Depth (m)	Sample Description *
370534	WS01	None Supplied	0.25	Brown loam and sand with gravel and vegetation
370535	WS02	None Supplied	0.1	Brown loam and sand with gravel and vegetation
370536	WS04	None Supplied	0.3	Brown loam and sand with gravel and vegetation
370537	WS06	None Supplied	0.15	Brown loam and sand with gravel and vegetation
370538	SA02	None Supplied	0.2	Brown loam and sand with gravel and vegetation
370539	TP08	None Supplied	0.3	Brown loam and sand with gravel and vegetation
370540	WS01	None Supplied	1	Brown loam and sand with gravel and vegetation
370541	WS03	None Supplied	1.5	Brown clay and sand
370542	WS05	None Supplied	1.1	Brown loam and gravel with vegetation and stones
370543	WS06	None Supplied	0.9	Brown loam and sand with gravel and vegetation
370544	TP04	None Supplied	1.5	Brown clay and sand with gravel
370545	TP08	None Supplied	1.1	Brown sandy clay with gravel and vegetation

Analytical Report Number : 24-052147
Project / Site name: Industrial Development, Plot 2, Talbot Green

Water matrix abbreviations:
Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Waters (PrW) Final Sewage Effluent (FSE) Landfill Leachate (LL)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Asbestos identification in Soil	Asbestos Identification with the use of polarised light microscopy in conjunction with dispersion staining techniques	In-house method based on HSG 248, 2021	A001B	D	ISO 17025
Total organic carbon (Automated) in soil	Determination of organic matter in soil by oxidising with potassium dichromate followed by titration with iron (II) sulphate (Walkley Black Method)	In-house method	L009B	D	MCERTS
Sulphide in soil	Determination of sulphide in soil by acidification and heating to liberate hydrogen sulphide, trapped in an alkaline solution then assayed by ion selective electrode	In-house method	L010-PL	D	MCERTS
Moisture Content	Moisture content, determined gravimetrically (up to 30°C)	In-house method	L019B	W	NONE
Stones content of soil	Standard preparation for all samples unless otherwise detailed. Gravimetric determination of stone > 10 mm as % dry weight	In-house method based on British Standard Methods and MCERTS requirements.	L019B	D	NONE
Metals in soil by ICP-OES	Determination of metals in soil by aqua-regia digestion followed by ICP-OES	In-house method based on MEWAM 2006 Methods for the Determination of Metals in Soil	L038B	D	MCERTS
Boron, water soluble, in soil	Determination of water soluble boron in soil by hot water extract followed by ICP-OES	In-house method based on Second Site Properties version 3	L038B	D	MCERTS
Total sulphate (as SO4 in soil)	Determination of total sulphate in soil by extraction with 10% HCl followed by ICP-OES	In-house method	L038B	D	MCERTS
Sulphate, water soluble, in soil (16hr extraction)	Sulphate, water soluble, in soil (16hr extraction)	In-house method	L038B	D	MCERTS
Total Sulphur in soil	Determination of total sulphur in soil by extraction with aqua-regia, potassium bromide/bromate followed by ICP-OES	In-house method	L038B	D	MCERTS
Loss on ignition of soil @ 450°C	Determination of loss on ignition in soil by gravimetrically with the sample being ignited in a muffle furnace	In-house method	L047-PL	D	MCERTS
Speciated PAHs and/or Semi-volatile organic compounds in soil	Determination of semi-volatile organic compounds (including PAH) in soil by extraction in dichloromethane and hexane followed by GC-MS	In-house method based on USEPA 8270	L064B	D	MCERTS
Total petroleum hydrocarbons with carbon banding by GC-FID/GC-MS HS in soil	Determination of total petroleum hydrocarbons in soil by GC-FID/GC-MS HS with carbon banding aliphatic and aromatic	In-house method	L076B/L088-PL	D/W	MCERTS
Hexavalent chromium in soil	Determination of hexavalent chromium in soil by extraction in NaOH and addition of 1,5 diphenylcarbazide followed by colorimetry	In-house method	L080-PL	W	MCERTS
Monohydric phenols in soil	Determination of phenols in soil by extraction with sodium hydroxide followed by distillation followed by colorimetry	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L080-PL	W	MCERTS

Analytical Report Number : 24-052147
Project / Site name: Industrial Development, Plot 2, Talbot Green

Water matrix abbreviations:
Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Waters (PrW) Final Sewage Effluent (FSE) Landfill Leachate (LL)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Total cyanide in soil	Determination of total cyanide by distillation followed by colorimetry	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L080-PL	W	MCERTS
pH in soil (automated)	Determination of pH in soil by addition of water followed by automated electrometric measurement	In-house method	L099-PL	D	MCERTS

For method numbers ending in 'UK' or 'A' analysis have been carried out in our laboratory in the United Kingdom (Watford).
For method numbers ending in 'F' analysis have been carried out in our laboratory in the United Kingdom (East Kilbride).
For method numbers ending in 'PL' or 'B' analysis have been carried out in our laboratory in Poland.
Soil analytical results are expressed on a dry weight basis. Where analysis is carried out on as-received the results obtained are multiplied by a moisture correction factor that is determined gravimetrically using the moisture content which is carried out at a maximum of 30oC.
Unless otherwise indicated, site information, order number, project number, sampling date, time, sample reference and depth are provided by the client. The instructed on date indicates the date on which this information was provided to the laboratory.

Information in Support of Analytical Results

List of HWOL Acronyms and Operators

Acronym	Descriptions
HS	Headspace Analysis
MS	Mass spectrometry
FID	Flame Ionisation Detector
GC	Gas Chromatography
EH	Extractable Hydrocarbons (i.e. everything extracted by the solvent(s))
CU	Clean-up - e.g. by Florisil®, silica gel
1D	GC - Single coil/column gas chromatography
2D	GC-GC - Double coil/column gas chromatography
Total	Aliphatics & Aromatics
AL	Aliphatics
AR	Aromatics
#1	EH_2D_Total but with humics mathematically subtracted
#2	EH_2D_Total but with fatty acids mathematically subtracted
_	Operator - underscore to separate acronyms (exception for +)
+	Operator to indicate cumulative e.g. EH+HS_Total or EH_CU+HS_Total

Quality control parameter failure associated with individual result applies to calculated sum of individuals.
The result for sum should be interpreted with caution

Sample Deviation Report

Analytical Report Number : 24-052147

Project / Site name: Industrial Development, Plot 2, Talbot Green

This deviation report indicates the sample and test deviations that apply to the samples submitted for analysis.Please note that the associated result(s) may be unreliable and should be interpreted with care.

Key: a - No sampling date b - Incorrect container c - Holding time d - Headspace e - Temperature

Sample ID	Other ID	Sample Type	Lab Sample Number	Sample Deviation	Test Name	Test Ref	Test Deviation
SA02	N/A	S	370538	c	Speciated PAHs and/or Semi-volatile organic compounds in soil	L064B	c
SA02	N/A	S	370538	c	Sulphide in soil	L010-PL	c
SA02	N/A	S	370538	c	Total cyanide in soil	L080-PL	c
TP08	N/A	S	370539	c	Speciated PAHs and/or Semi-volatile organic compounds in soil	L064B	c
TP08	N/A	S	370539	c	Total cyanide in soil	L080-PL	c
TP08	N/A	S	370539	c	Total petroleum hydrocarbons with carbon banding by GC-FID/GC-MS HS in soil	L076B/L088-PL	c

APPENDIX I

LABORATORY GEOTECHNICAL TEST RESULTS

Laboratory Report

UKAS TESTING 2788

GSTL GEOTECHNICAL SITE & TESTING LABORATORIES A PHENNA GROUP COMPANY

Contract Number: 75686

Client Ref: **14391**
Client PO: **14391/FM**

Date Received: **07-11-2024**
Date Completed: **13-11-2024**
Report Date: **13-11-2024**

Client: **Integral Geotechnique (Wales) Limited**

Contract Title: **Industrial Development, Plot 2, Talbot Green**
For the attention of: **Finlay Mullens**

This report has been checked and approved by:

Darren Bourne
Quality Senior Technician

Description	Qty
Moisture Content BS 1377:1990 - Part 2 : 3.2 - * UKAS	6
4 Point Liquid & Plastic Limit BS 1377:1990 - Part 2 : 4.3 & 5.3 - * UKAS	6
Disposal of samples for job	1

Notes: **Observations and Interpretations are outside the UKAS Accreditation**
*** - denotes test included in laboratory scope of accreditation**
 # - denotes test carried out by approved contractor
@ - denotes non accredited tests

Approved Signatories:
Brendan Evans (Office Administrator) - Darren Bourne (Quality Senior Technician) - Paul Evans (Director)
Richard John (Quality/Technical Manager) - Shaun Jones (Laboratory manager) - Shaun Thomas (Site Manager)
Wayne Honey (HR & HSE Manager)

GEO Site & Testing Services Ltd
Unit 3-4 Heol Aur, Dafen Ind Est, Llanelli, Carmarthenshire SA14 8QN
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GSTL
GEOTECHNICAL SITE & TESTING LABORATORIES

NATURAL MOISTURE, LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX
(BS 1377:1990 - Part 2 : 4.3 & 5.3)

Contract Number	75686
Project Name	Industrial Development, Plot 2, Talbot Green
Date Tested	13/11/2024

DESCRIPTIONS

Sample/Hole Reference	Sample Number	Sample Type	Depth (m)			Descriptions
WS01	1	D	1.00	-		Brown slightly gravelly sandy silty CLAY
TP04	1	D	1.50	-		Brown slightly gravelly sandy silty CLAY
WS03	1	D	1.50	-		Brown slightly gravelly sandy silty CLAY
WS05	1	D	1.10	-		Brown slightly gravelly sandy silty CLAY
TP08	1	D	1.10	-		Brown slightly gravelly sandy silty CLAY
WS06	1	D	0.90	-		Brown slightly gravelly sandy silty CLAY
				-		
				-		
				-		
				-		
				-		
				-		
				-		
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				-		
				-		

Operator
Aaron

GSTL GEOTECHNICAL SITE & TESTING LABORATORIES	NATURAL MOISTURE, LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX (BS 1377:1990 - Part 2 : 4.3 & 5.3)	
Contract Number	75686	
Project Name	Industrial Development, Plot 2, Talbot Green	
Date Tested	13/11/2024	

Sample/Hole Reference	Sample Number	Sample Type	Depth (m)			Moisture Content %	Liquid Limit %	Plastic Limit %	Plasticity index %	Passing 0.425mm %	Remarks
WS01	1	D	1.00	-		20	52	17	35	89	CH High Plasticity
TP04	1	D	1.50	-		19	48	17	31	91	CI Intermediate Plasticity
WS03	1	D	1.50	-		19	51	17	34	90	CH High Plasticity
WS05	1	D	1.10	-		20	52	17	35	90	CH High Plasticity
TP08	1	D	1.10	-		19	50	17	33	88	CI/H Inter/High Plasticity
WS06	1	D	0.90	-		19	50	18	32	89	CI/H Inter/High Plasticity
				-							
				-							
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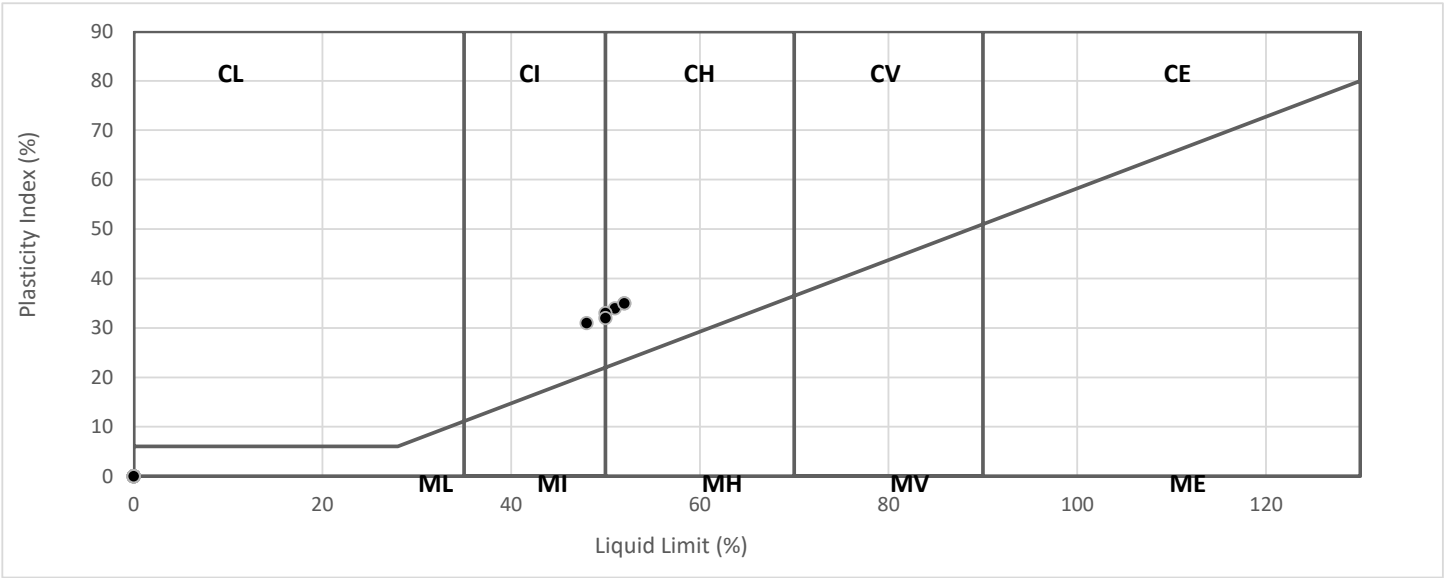
Symbols: NP : Non Plastic # : Liquid Limit and Plastic Limit Wet Sieved

PLASTICITY CHART FOR CASAGRANDE CLASSIFICATION
BS 5930:2015+A1:2020



Operator
Aaron

APPENDIX J

SUMMARY OF LABORATORY CHEMICAL TEST RESULTS

SUMMARY OF LABORATORY SOIL TEST RESULTS

Job No.: 14391

METALS AND SEMI-METALS

Site: Plot 2, Industrial Employment Development Land, Talbot Green

Soil Type: Topsoil and Subsoil

Soil Organic Matter: 1%

No.	Location	Depth (m)	Arsenic (mg/kg)	Boron (mg/kg)	Beryllium (mg/kg)	Cadmium (mg/kg)	Chromium (mg/kg)	Chromium (VI) (mg/kg)	Copper (mg/kg)	Lead (mg/kg)	Mercury (Elemental) (mg/kg)	Nickel (mg/kg)	Selenium (mg/kg)	Vanadium (mg/kg)	Zinc (mg/kg)
1	**WS01**	**0.25**	20	1	0.37	3.6	20	< 1.8	17	260	< 0.3	11	< 1.0	37	320
2	**WS02**	**0.10**	17	1.2	0.39	2.6	20	< 1.8	14	250	< 0.3	11	< 1.0	37	240
3	**WS04**	**0.30**	33	0.9	0.46	5.2	20	< 1.8	21	820	< 0.3	20	2	36	460
4	**WS06**	**0.15**	25	0.7	0.43	4.4	21	< 1.8	17	350	< 0.3	17	< 1.0	32	390
5	**SA02**	**0.20**	21	0.7	0.34	3.8	18	< 1.8	13	290	< 0.3	12	< 1.0	29	310
6	**TP08**	**0.30**	12	0.5	0.51	0.7	15	< 1.8	14	61	< 0.3	17	< 1.0	20	110
		Screening Criteria Value	**640.0**	**240000.0**	**12.0**	**190.0**	**-**	**33.0**	**68000.0**	**5370.0**	**58.0**	**980.0**	**12000.0**	**9000.0**	**730000.0**
		Source of Screening Criteria Value	S4UL	S4UL	S4UL	S4UL	-	S4UL	S4UL	GAC	S4UL	S4UL	S4UL	S4UL	S4UL

Intégral Géotechnique

SUMMARY OF LABORATORY SOIL TEST RESULTS

Job No.: 14391

INORGANIC CHEMICALS & OTHERS

Site: Plot 2, Industrial Employment Development Land, Talbot Green

Soil Type: Topsoil and Subsoil

Soil Organic Matter: 1%

No.	Location	Depth (m)	Cyanide (mg/kg)	Loss on ignition, dried solids (%)	Moisture content at 30 C (%)	Phenol (mg/kg)	pH (pH units)	Water Soluble Sulphate (g/l)	Sulphate Total as SO4 (mg/kg)	Sulphide (mg/kg)	Total Sulphur (mg/kg)	TOC by Ignition in O2 (%)	Equivalent SOM (%)	Asbestos in Soil	Asbestos Quantification (%)
1	**WS01**	**0.25**	< 1.0	7.30	25.00	< 1.0	5.60	0.008	890.00	< 1.0	370.00	3.00	5.16	Not-detected	-
2	**WS02**	**0.10**	< 1.0	7.20	26.00	< 1.0	5.60	0.011	830.00	< 1.0	320.00	3.30	5.68	Not-detected	-
3	**WS04**	**0.30**	< 1.0	4.70	18.00	< 1.0	7.10	0.024	1000.00	< 1.0	540.00	1.70	2.92	Not-detected	-
4	**WS06**	**0.15**	< 1.0	4.00	15.00	< 1.0	6.90	0.009	710.00	< 1.0	450.00	1.30	2.24	Not-detected	-
5	**SA02**	**0.20**	< 1.0	5.70	24.00	< 1.0	6.40	0.009	690.00	< 1.0	350.00	2.10	3.61	Not-detected	-
6	**TP08**	**0.30**	< 1.0	2.50	12.00	< 1.0	6.40	0.011	390.00	< 1.0	190.00	0.70	1.20	Not-detected	-
7	**WS01**	**1.00**	-	-	14.00	-	-	-	-	-	-	-	<0.1	-	-
8	**WS03**	**1.50**	-	-	23.00	-	-	-	-	-	-	-	<0.1	-	-
9	**WS05**	**1.10**	-	-	16.00	-	-	-	-	-	-	-	<0.1	-	-
10	**WS06**	**0.90**	-	-	20.00	-	-	-	-	-	-	-	<0.1	-	-
11	**TP04**	**1.50**	-	-	16.00	-	-	-	-	-	-	-	<0.1	-	-
12	**TP08**	**1.10**	-	-	10.00	-	-	-	-	-	-	-	<0.1	-	-
	Screening Criteria Value		**34.0**	**-**	**-**	**440.0**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**0.001**
	Source of Screening Criteria Value		ATRISK	-	-	S4UL	-	-	-	-	-	-	-	-	IOM

Intégral Géotechnique

SUMMARY OF LABORATORY SOIL TEST RESULTS

Job No.: 14391

POLYAROMATIC HYDROCARBONS (PAH)

Site: Plot 2, Industrial Employment Development Land, Talbot Green

Soil Type: Topsoil and Subsoil

Soil Organic Matter: 1%

No.	Location	Depth (m)	Acenaphthene (mg/kg)	Acenaphthylene (mg/kg)	Anthracene (mg/kg)	Benzo(a)anthracene (mg/kg)	Benzo(a)pyrene (mg/kg)	Benzo(b)fluoranthene (mg/kg)	Benzo(ghi)perylene (mg/kg)	Benzo(k)fluoranthene (mg/kg)	Chrysene (mg/kg)	Dibenzo(ah)anthracene (mg/kg)	Fluoranthene (mg/kg)	Fluorene (mg/kg)	Indeno(123cd)pyrene (mg/kg)	Naphthalene (mg/kg)	Phenanthrene (mg/kg)	Pyrene (mg/kg)
1	WS01	0.25	< 0.05	< 0.05	< 0.05	< 0.05	0.08	< 0.05	< 0.05	< 0.05	0.1	< 0.05	0.21	< 0.05	0.08	0.06	0.08	0.14
2	WS02	0.10	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	0.11	< 0.05	< 0.05	0.12	0.06	< 0.05
3	WS04	0.30	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	0.1	< 0.05	< 0.05	< 0.05	< 0.05	0.09
4	WS06	0.15	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	0.1	0.06	< 0.05	0.08	< 0.05	0.1	< 0.05	< 0.05	0.05	0.07	0.07
5	SA02	0.20	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	0.07	< 0.05	< 0.05
6	TP08	0.30	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
	Screening Criteria Value		84000.0	83000.0	520000.0	170.0	35.0	44.0	3900.0	1200.0	350.0	3.50	23000.0	63000.0	500.0	190.0	22000.0	54000.0
	Source of Screening Criteria Value		S4UL	S4UL	S4UL	S4UL	S4UL	S4UL	S4UL	S4UL	S4UL	S4UL	S4UL	S4UL	S4UL	S4UL	S4UL	S4UL

Intégral Géotechnique

SUMMARY OF LABORATORY SOIL TEST RESULTS

Job No.: 14391

PETROLEUM HYDROCARBONS

Site: Plot 2, Industrial Employment Development Land, Talbot Green

Soil Type: Topsoil and Subsoil

Soil Organic Matter: 1%

No.	Location	Depth (m)	Aliphatic C5-C6 (mg/kg)	Aliphatic C6-C8 (mg/kg)	Aliphatic C8-C10 (mg/kg)	Aliphatic C10-C12 EPH (mg/kg)	Aliphatic C12-C16 EPH (mg/kg)	Aliphatic C16-C35 EPH (mg/kg)	Aliphatic C35-C44 EPH (mg/kg)	Aromatic C5-C7 (mg/kg)	Aromatic C7-C8 (mg/kg)	Aromatic C8-C10 (mg/kg)	Aromatic C10-C12 EPH (mg/kg)	Aromatic C12-C16 EPH (mg/kg)	Aromatic C16-C21 EPH (mg/kg)	Aromatic C21-C35 EPH (mg/kg)	Aromatic C35-C40 EPH (mg/kg)
2	**WS02**	**0.10**	< 0.010	< 0.010	< 0.010	< 1.0	< 2.0	< 10	< 8.4	< 0.010	< 0.010	< 0.020	< 1.0	< 2.0	< 10	< 10	< 10
6	**TP08**	**0.30**	< 0.010	< 0.010	< 0.010	< 1.0	< 2.0	< 10	< 8.4	< 0.010	< 0.010	< 0.020	< 1.0	< 2.0	< 10	< 10	< 10
	Screening Criteria Value		**3200.0**	**7800.0**	**2000.0**	**9700.0**	**59000.0**	**1600000.0**	**1600000.0**	**27.0**	**56000.0**	**3500.0**	**16000.0**	**36000.0**	**28000.0**	**28000.0**	**28000.0**
	Source of Screening Criteria Value		S4UL	S4UL	S4UL	S4UL	S4UL	S4UL	S4UL	S4UL	S4UL	S4UL	S4UL	S4UL	S4UL	S4UL	S4UL

Intégral Géotechnique

FIGURES

Figure 1: Site Location

Project: Plot 2 (Area 17), Talbot Green	Job no.: 14391	**Intégral** Géotechnique	Integral House, 7 Beddau Way, Castlegate Business Park, Caerphilly, CF83 2AX. Tel: 029 2080 7991
Client: Talbot Green Developments Limited	Scale: 1:25000 at A4		