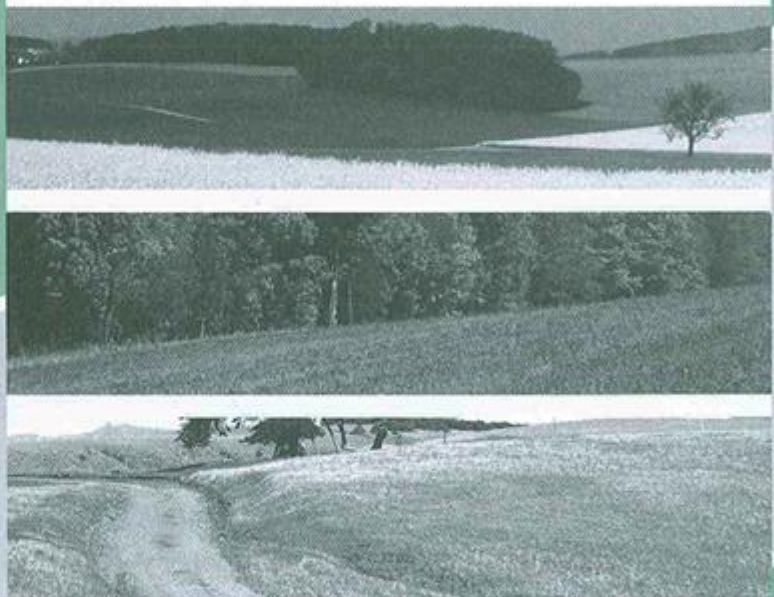


**Intrusive Coal Mining Risk Assessment
Report:** Proposed Residential
Development, Land at 15 Glyn Road,
Lower Brynaman, Ammanford

Prepared for:
**Miss Elinor Jones &
Mr Neville Staines**

March 2021

Job No: 16124-1



REPORT TITLE : **Intrusive Coal Mining Risk Assessment
Report, Proposed Residential
Development on Land at 15 Glyn Road,
Lower Brynaman, Ammanford**

REPORT STATUS : **Final**

JOB NUMBER : **16124-1**

DATE : **March 2021**

PREPARED BY : 
Mr Alan Beattie

REVIEWED BY : 
Mrs Ruth Howells

APPROVED BY : 
Dr Gwyn Lake

Executive Summary	
Site Location and Proposed Development	<i>Miss Elinor Jones and Mr Neville Staines (the Client) are proposing the construction of a single residential building with garage and associated driveway and garden areas. The site locates at 15 Glyn Road, Lower Brynaman.</i>
Site Investigation Works	<i>Four rotary boreholes, 105mm in diameter, were sunk using a Fraste XL rotary drilling rig operated by Apex Drilling Services Limited. The boreholes were terminated at a depth of 33.00m to 35.00m below the current ground level. The site works were supervised and directed by Terra Firma (Wales) Limited</i>
Ground Conditions	• Boulder CLAY / GRAVEL (Drillers Description) • Weather SILTSTONE (Drillers Description) • COAL (Drillers Description) • SILTSTONE, SANDSTONE and MUDSTONE bands (Drillers Description) • COAL (Drillers Description) • MUDSTONE (Drillers Description)
Gas Monitoring	<i>During the site investigation two gas monitoring wells were installed to quantify the risk to the proposed development from mine gases. The first round of gas monitoring has found the site to be Gas Characteristic Situation 1 and no special precautions are required for the development.</i>
Conclusions	<i>The rotary boreholes have confirmed that the bedrock is intact to a depth of 33.00m/35.00. No voids, broken ground or backfilled workings were encountered. It is therefore considered that there is negligible risk to proposed development from past underground mining and no further investigative or stabilisation works are required.</i>

TABLE OF CONTENTS

Section 1 Introduction and Proposed Development

- 1.1 Limitations and Exceptions of Investigation

Section 2 Field Investigation

- 2.1 Site Works
- 2.2 Ground Conditions
- 2.3 Gas Installations

Section 3 Assessment of the Risks from Shallow Coal Workings

- 3.1 Coal Seam Stratigraphy
- 3.2 Potential Hazards from Shallow Workings
- 3.3 Mine Gas Risk Assessment
 - 3.3.1 Gas Screening Value
 - 3.3.2 Gas Monitoring Conclusions

Section 4 Conclusions

- 4.1 Conclusions

Tables

- Table 2.1 Summary of Ground Conditions
- Table 2.2 Well Installations
- Table 3.1 Measured Gas Concentration Summary

Figures

- Figure 1.1 Proposed Site Layout
- Figure 1.2 Site Location

Annexes

- Annex A Rotary Borehole Logs
- Annex B Gas Monitoring Results

Drawings

- Drawing 01 Borehole Locations

SECTION 1 Introduction and Proposed Development

Miss Elinor Jones and Mr Neville Staines (the Client) are proposing the construction of a single residential building with garage and associated driveway and garden areas. The site locates at 15 Glyn Road, Lower Brynaman and the proposed layout can be seen below in **Figure 1.1**.

Cwm Planning and Design Limited are the Civil, Structural and Architectural Consultants for the project.



Figure 1.1 Proposed Site Layout

SECTION 1 Introduction and Proposed Development (Continued)

The development site is rectangular and centres on an approximate National Grid Reference of 270710 213660 occupying a plan area of approximately 0.09 Hectares / 900m². The site location can be seen below in **Figure 1.2**.

The southern boundary is marked by a stone wall beyond which is Glyn Road. The eastern and western boundaries are marked by the neighbouring properties. The northern boundary is marked by a fence beyond which is an area of rough vegetation.

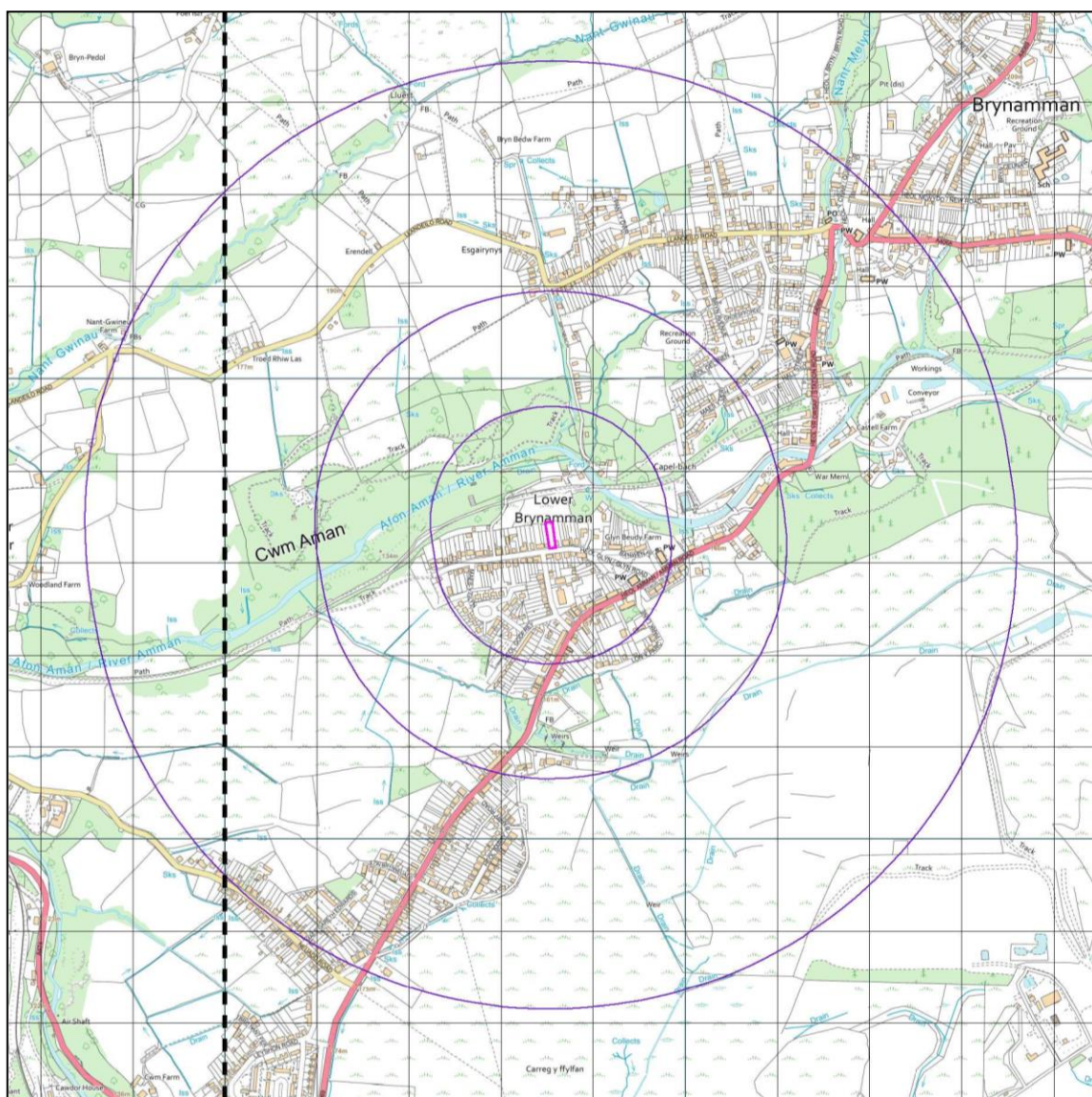


Figure 2.1 Site Location

Terra Firma (Wales) Limited undertook a Coal Mining Risk Assessment Desk Study number 16124 reported in June 2020 that concluded:

- The Coal Authority report indicates the property is not within a surface area that could be affected by any past recorded underground coal mining' but cautions that 'the Coal Authority believes there is coal at or close to the surface' and 'this coal may have been worked at some time in the past'.

SECTION 1 Introduction and Proposed Development (Continued)

- The Coal Authority viewer identifies two coal seams outcropping under the site, the northern seam is anticipated to underlie most of the site at shallow depth with the southern seam anticipated to be present under the south eastern corner only. Due to these seams the development plot falls within a development high risk area.
- To quantify the risk to development at the site from historical coal excavation it was recommended that rotary percussive boreholes were undertaken within the footprint of the proposed development to determine if coal has been excavated from shallow workings.

Terra Firma (Wales) Limited were subsequently commissioned by the Client to undertake an Intrusive Mining Risk Assessment of the site.

The main objectives of the Intrusive Mining Risk Assessment were to:

- Confirm the coal seam stratigraphy beneath the development area (within the top 30m of bedrock)
- Determine the presence or otherwise of shallow coal workings beneath the development area (within the top 30m of bedrock)
- Provide a qualitative and quantitative mining risk assessment together with any necessary remedial measures required to render the site fit for development
- Allow the installation of gas monitoring wells to quantify the risk from mine gas

In order to achieve the above objectives, Terra Firma (Wales) Limited carried out an assessment programme including a review of existing data, followed by an intrusive field investigation to confirm the shallow solid geology beneath the site.

A comprehensive review of existing site data including physical site setting, current use, history, geology and coal authority report etc is presented in the Coal Mining Risk Assessment Desk Study Report referenced on the previous page. These reports should be read in conjunction with each other.

The Client has requested that an Intrusive Mining Risk Assessment be performed in order to determine if the site is affected by past shallow underground coal mining and to determine what, if any, remedial measures are required to render the site fit for development.

1.1 Limitations and Exceptions of Investigation

The Intrusive Mining Risk Assessment was conducted, and this report has been prepared for the sole internal reliance of the Client and their design and construction team. This report shall not be relied upon or transferred to any other parties without the express written authorisation of Terra Firma (Wales) Limited. If an unauthorised third party comes into possession of this report they rely on it at their peril and the authors owe them no duty of care and skill.

The report represents the findings and opinions of experienced geotechnical consultants. Terra Firma (Wales) Limited does not provide legal advice and the advice of lawyers may be required.

1.1 Limitations and Exceptions of Investigation (Continued)

The subsurface geological profiles are generalised by necessity and have been based on the information found at the locations of the exploratory holes and depths explored. The site investigation was limited by the following site constraints:

- Existing buildings immediately adjacent the site
- Uneven area of the site

SECTION 2 Field Investigation

2.1 Site Works

The Intrusive Mining Risk Assessment was undertaken on 9th and 15th February 2021 and comprised the drilling of four rotary probe holes.

The rotary boreholes, 105mm in diameter, were sunk using a Fraste XL rotary drilling rig by Apex Drilling Services Limited. The probeholes were terminated at a depth of 35.00m below the current ground level.

The location of the boreholes was determined by Terra Firma (Wales) Limited with reference to the proposed layout. The fieldworks were supervised on a fulltime basis by a Terra Firma (Wales) Ltd engineer.

The boreholes were logged by reference to the driller's notes and based on descriptions and an examination of the returns recovered during the drilling process.

The borehole logs are presented in **Annex A** and the positions of the exploratory holes are presented in **Drawing 01**.

2.2 Ground Conditions

The ground conditions encountered by the rotary boreholes can in general be summarised as shown in **Table 2.1**. All quoted depths and stratum thicknesses are based upon the existing site topography.

Table 2.1 Summary of Ground Conditions				
Depth (m)			Thickness (m)	Stratum
0.00	-	3.00/5.00	3.00/5.00	Boulder CLAY / GRAVEL (Drillers Description)
3.00/5.00	-	5.00/8.50	1.50/3.50	Weather SILTSTONE (Drillers Description)
5.00/8.50	-	5.70/7.60	0.60/0.70	COAL (Drillers Description)
5.70/8.50	-	21.50/23.90	0.10	SILTSTONE, SANDSTONE and MUDSTONE bands (Drillers Description)
31.50/33.00	-	32.20/33.70	0.70/1.00	COAL (Drillers Description)
32.20/33.70	>33.00/35.00		-	MUDSTONE (Drillers Description)

In BH01 a shallow coal seam was not encountered. In BH03 no coal seams were encountered.

2.3 Gas Installations

Two gas monitoring installations were installed in BH02 and BH03 the details of the wells can be seen on the borehole logs present in **Annex A** and have been summarise below in **Table 2.2**.

Table 2.2 Well Installations			
Borehole	Installation Depth (m)	Pipework Description	Backfill Description
BH02	4.00	Plain Pipe = GL to 1.00m Slotted Pipe = 1.00 to 4.00m	Concrete and Top Hat Cover Bentonite Seal = 0.50 to 1.00m Gravel Backfill = 1.00 to 4.00m Bentonite Backfill: 4.00 to 35.00m
BH03	4.00	Plain Pipe = GL to 1.00m Slotted Pipe = 1.00 to 4.00m	Concrete and Top Hat Cover Bentonite Seal = 0.50 to 1.00m Gravel Backfill = 1.00 to 4.00m Bentonite Backfill: 4.00 to 33.00m

SECTION 3 Assessment of the Risk from Past Shallow Coal Workings

3.1 Coal Seam Stratigraphy

The boreholes confirm an intact sequence of mudstone to depths of 33.00m to 35.00m as described below:

- Superficial deposits
- Weathered Measures
- **Coal**
- Measures
- **Coal**
- Measures

3.2 Potential Hazards from Shallow Workings

The rotary boreholes have confirmed that the bedrock is intact to depths of 33.00m to 35.00. No voids, broken ground or backfilled workings were encountered.

It is therefore considered that there is negligible risk to the proposed development from past underground mining and no further investigative or stabilisation works are required. No potential hazards from shallow workings have been identified.

3.3 Mine Gas Risk Assessment

3.3.1 Gas Screening Value

Two gas monitoring wells were installed in BH02, and BH03 as previously described. One round of gas monitoring has been completed. The installations were tested for carbon dioxide, methane, oxygen, carbon monoxide and hydrogen sulphide using a Gas Analyser GA5000.

Recorded gas concentrations are summarised in **Table 3.1**.

Table 3.1 Measured Gas Concentrations Summary		
Gas	Minimum Concentration	Maximum Concentration
Methane (% V/V)	Not Detected	Not Detected
Carbon Dioxide (% V/V)	0.6	0.9
Oxygen (% V/V)	21.1	21.3
Carbon Monoxide (ppm)	0	26
Hydrogen Sulphide (ppm)	0	0

The gas flow rate from the boreholes was also assessed, no flow was recorded from the boreholes. Based the detection limit of the gas monitoring a flow rate of 0.1 l/hr has and the highest recorded carbon dioxide concentration of 0.9%, a gas screening value of 0.0009 l/hr is calculated, as follows:

$$(0.9/100) \times 0.1 = 0.0009 \text{ l/hr}$$

The results are presented in **Annex B**.

3.3.2 Gas Monitoring Conclusions

When this monitoring result is compared with Table 8.5 of CIRIA report C665, the site is classified as 'Gas Characteristic Situation 1' (GCS1). Table 8.6 of the same publication confirms that no special precautions are required for a GCS1 site.

Additionally, the presence of carbon monoxide needs to be considered. In the absence of guidance for residential developments the long-term workplace exposure limit (WEL) has been adopted. This is set at 30ppm and is above the measured concentration of 26ppm detected on site.

Carbon Monoxide is primarily formed in mine workings by the oxidisation of coal, and this therefore tends to occur at hazardous levels after coal has been worked and builds up when the mine is no longer operational and ventilated has ceased.

As no mine workings have been encountered it is considered that there is no reservoir of mine gas, including carbon monoxide within influencing distance of the site.

Additionally, during the drilling process the drillers used gas monitors to measure concentrations of gases at the borehole locations. No gas emissions were recorded by the drillers during the drilling works.

On completion of the gas monitoring program the above recommendations will be reviewed and if necessary amended.

Once the gas monitoring has been completed the gas wells should be removed and sealed. Once this has been undertaken it is considered that the potential risk is reduced further.

SECTION 4 Conclusions

4.1 Conclusions

As previously stated the rotary boreholes have confirmed that the bedrock is intact to depths of 33.00m and 35.00m. No voids, broken ground or backfilled workings were encountered.

It is therefore considered that there is negligible risk to the proposed development from past underground mining and no further investigative or stabilisation works are required.

The first round of gas monitoring has found the site to be Gas Characteristic Situation 1 and no special precautions are therefore required for the development.

ANNEX A
Rotary Borehole Logs

Borehole Log

Borehole No.

BH01

Sheet 1 of 2

Project Name: 15 Glyn Road

Project No: 16124

Co-ords:

Hole Type
RO

Location: Lower Brynaman

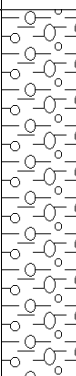
Level:

Scale
1:100

Client: Miss Elinor Jones & Mr Neville Staines

Dates: 09/02/2021 - 10/02/2021

Logged By
Apex

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Well	Legend	Stratum Description	
	Depth (m)	Type	Results						
				5.00				Boulder CLAY / GRAVEL (Drillers Description)	1
									2
									3
									4
				8.50				Weathered SILTSTONE (Drillers Description)	5
									6
									7
									8
								SILTSTONE and SANDSTONE bands with dark bands (Drillers Description)	9
									10
									11
									12
									13
									14
									15
									16
									17
									18
				19.00				SANDSTONE (Drillers Description)	19
									20

Remarks: 1. Borehole cased to 7.00m. 2. No gas recorded during drilling.

Borehole Log

Borehole No.

BH01

Sheet 2 of 2

Project Name: 15 Glyn Road

Project No: 16124

Co-ords:

Hole Type
RO

Location: Lower Brynaman

Level:

Scale
1:100

Client: Miss Elinor Jones & Mr Neville Staines

Dates: 09/02/2021 - 10/02/2021

Logged By
Apex

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Well	Legend	Stratum Description	
	Depth (m)	Type	Results						
								SANDSTONE (Drillers Description)	21
									22
									23
				24.00					24
				24.80				Dark MUDSTONE with COAL traces (Drillers Description)	25
								Silty MUDSTONE (Drillers Description)	26
									27
				28.00				Dark MUDSTONE (Drillers Description)	28
				28.60					29
								SILTSTONE and MUDSTONE bands (Drillers Description)	30
									31
				31.50				COAL (Drillers Description)	32
				32.50					33
								SILTSTONE and MUDSTONE bands (Drillers Description)	34
									35
				35.00				End of Borehole at 35.000m	36
									37
									38
									39
									40

Remarks: 1. Borehole cased to 7.00m. 2. No gas recorded during drilling.

Borehole Log

Borehole No.

BH02

Sheet 1 of 2

Project Name: 15 Glyn Road

Project No: 16124

Co-ords:

Hole Type
RO

Location: Lower Brynaman

Level:

Scale
1:100

Client: Miss Elinor Jones & Mr Neville Staines

Dates: 10/02/2021 - 11/02/2021

Logged By
Apex

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Well	Legend	Stratum Description	
	Depth (m)	Type	Results						
								Boulder CLAY / GRAVEL (Drillers Description)	1
									2
				3.50				Weathered SILTSTONE (Drillers Description)	3
									4
				5.00				COAL (Drillers Description)	5
				5.70				Silty MUDSTONE (Drillers Description)	6
									7
				7.50				Dark MUDSTONE (Drillers Description)	8
				8.00				SILTSTONE and SANDSTONE bands (Drillers Description)	9
									10
									11
									12
									13
									14
									15
									16
									17
				18.00				Dark SILTSTONE (Drillers Description)	18
				18.40				SILTSTONE (Drillers Description)	19
									20
				20.00					

Remarks: 1. Borehole cased to 6.00m. 2. No gas recorded during drilling.

Borehole Log

Borehole No.

BH02

Sheet 2 of 2

Project Name: 15 Glyn Road

Project No: 16124

Co-ords:

Hole Type
RO

Location: Lower Brynaman

Level:

Scale
1:100

Client: Miss Elinor Jones & Mr Neville Staines

Dates: 10/02/2021 - 11/02/2021

Logged By
Apex

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Well	Legend	Stratum Description	
	Depth (m)	Type	Results						
								SANDSTONE (Drillers Description)	21
									22
									23
									24
				24.70					
								SILTSTONE (Drillers Description)	25
				25.50					
				26.00				SANDSTONE (Drillers Description)	26
								SANDSTONE and SILTSTONE bands (Drillers Description)	27
									28
									29
				29.00				SILTSTONE and SANDSTONE bands (Drillers Description)	30
									31
									32
									33
				33.00				COAL (Drillers Description)	33
				33.70				SILTSTONE (Drillers Description)	34
									35
				35.00				End of Borehole at 35.000m	35
									36
									37
									38
									39
									40

Remarks: 1. Borehole cased to 6.00m. 2. No gas recorded during drilling.

Borehole Log

Borehole No.

BH03

Sheet 1 of 2

Project Name: 15 Glyn Road

Project No:
16124

Co-ords:

Hole Type
RO

Location: Lower Brynaman

Level:

Scale
1:100

Client: Miss Elinor Jones & Mr Neville Staines

Dates: 11/02/2021 - 12/02/2021

Logged By
Apex

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Well	Legend	Stratum Description	
	Depth (m)	Type	Results						
								Boulder CLAY / GRAVEL (Drillers Description)	1
				3.00				Weathered SILTSTONE (Drillers Description)	2
				5.00				SILTSTONE and MUDSTONE bands (Drillers Description)	3
									4
				9.00				Dark SILTSTONE with COAL traces (Drillers Description)	5
				9.80				SILTSTONE (Drillers Description)	6
				11.00				Dark SILTSTONE with COAL traces (Drillers Description)	7
				11.60				SANDSTONE, SILTSTONE and MUDSTONE bands (Drillers Description)	8
									9
									10
									11
									12
									13
									14
									15
									16
									17
									18
									19
				20.00					20

Remarks: 1. Borehole cased to 6.00m. 2. No gas recorded during drilling.

Borehole Log

Borehole No.

BH03

Sheet 2 of 2

Project Name: 15 Glyn Road

Project No: 16124

Co-ords:

Hole Type
RO

Location: Lower Brynaman

Level:

Scale
1:100

Client: Miss Elinor Jones & Mr Neville Staines

Dates: 11/02/2021 - 12/02/2021

Logged By
Apex

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Well	Legend	Stratum Description	
	Depth (m)	Type	Results						
							xxxxxx	SILTSTONE and SANDSTONE bands (Drillers Description)	21
							xxxxxx		22
							xxxxxx		23
							xxxxxx		24
				25.00			xxxxxx		25
								SANDSTONE (Drillers Description)	25
				26.00					26
							xxxxxx	SILTSTONE, SANDSTONE and MUDSTONE bands (Drillers Description)	26
							xxxxxx		27
							xxxxxx		28
							xxxxxx		29
							xxxxxx		30
							xxxxxx		31
							xxxxxx		32
				33.00			xxxxxx		33
								End of Borehole at 33.000m	34
									35
									36
									37
									38
									39
									40

Remarks: 1. Borehole cased to 6.00m. 2. No gas recorded during drilling.

Borehole Log

Borehole No.

BH04

Sheet 1 of 2

Project Name: 15 Glyn Road

Project No: 16124

Co-ords:

Hole Type
RO

Location: Lower Brynaman

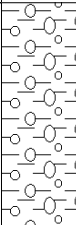
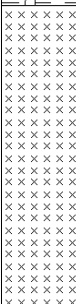
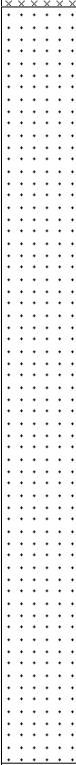
Level:

Scale
1:100

Client: Miss Elinor Jones & Mr Neville Staines

Dates: 12/02/2021 - 15/02/2021

Logged By
Apex

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Well	Legend	Stratum Description	
	Depth (m)	Type	Results						
				3.00				Boulder CLAY / GRAVEL (Drillers Description)	1
									2
								Weathered SILTSTONE (Drillers Description)	3
									4
									5
									6
				7.00				COAL (Drillers Description)	7
				7.60				SILTSTONE (Drillers Description)	8
									9
				10.00				SANDSTONE and MUDSTONE bands with dark bands (Drillers Description)	10
									11
									12
									13
									14
									15
									16
									17
									18
									19
				20.00					20

Remarks: 1. Borehole cased to 6.00m. 2. No gas recorded during drilling.

Borehole Log

Borehole No.

BH04

Sheet 2 of 2

Project Name: 15 Glyn Road

Project No: 16124

Co-ords:

Hole Type
RO

Location: Lower Brynaman

Level:

Scale
1:100

Client: Miss Elinor Jones & Mr Neville Staines

Dates: 12/02/2021 - 15/02/2021

Logged By
Apex

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Well	Legend	Stratum Description	
	Depth (m)	Type	Results						
								SANDSTONE and SILTSTONE bands (Drillers Description)	21
									22
									23
									24
									25
									26
									27
				28.20					28
								SILTSTONE and SANDSTONE bands (Drillers Description)	29
									30
									31
				31.50				COAL (Drillers Description)	32
				32.20				SILTSTONE (Drillers Description)	33
				33.50				End of Borehole at 33.500m	34
									35
									36
									37
									38
									39
									40

Remarks: 1. Borehole cased to 6.00m. 2. No gas recorded during drilling.

ANNEX B
Gas Monitoring Results

In-Situ Gas Monitoring Results

Job Number 16124

Job Name Glyn Road, Lower Brynaman



Round 1

Date: 09.03.2021

Barometric Pressure: 1004mb

Weather: Dry

Gas Monitoring Well Number	Methane (CH ₄) %	Oxygen (O ₂) %	Carbon Dioxide (CO ₂) %	Carbon Monoxide (CO) ppm	Hydrogen Sulphide (H ₂ S) %	Flow (l/hr)
BH02	N/D	21.3	0.6	N/D	N/D	No Flow
BH03	N/D	21.3	0.9	26	N/D	No Flow

Round 2 - To Be Completed

Date:

Barometric Pressure:

Weather:

Gas Monitoring Well Number	Methane (CH ₄) %	Oxygen (O ₂) %	Carbon Dioxide (CO ₂) %	Carbon Monoxide (CO) ppm	Hydrogen Sulphide (H ₂ S) %	Flow (l/hr)
BH02						
BH03						

Round 3 - To Be Completed

Date:

Barometric Pressure:

Weather:

Gas Monitoring Well Number	Methane (CH ₄) %	Oxygen (O ₂) %	Carbon Dioxide (CO ₂) %	Carbon Monoxide (CO) ppm	Hydrogen Sulphide (H ₂ S) %	Flow (l/hr)
BH02						
BH03						

Notes:

In-Situ Gas Monitoring Results

Job Number 16124

Job Name Glyn Road, Lower Brynaman



Round 4 - To Be Completed

Date:

Barometric Pressure:

Weather:

Gas Monitoring Well Number	Methane (CH ₄) %	Oxygen (O ₂) %	Carbon Dioxide (CO ₂) %	Carbon Monoxide (CO) ppm	Hydrogen Sulphide (H ₂ S) %	Flow (l/hr)
BH02						
BH03						

Round 5 - To Be Completed

Date:

Barometric Pressure:

Weather:

Gas Monitoring Well Number	Methane (CH ₄) %	Oxygen (O ₂) %	Carbon Dioxide (CO ₂) %	Carbon Monoxide (CO) ppm	Hydrogen Sulphide (H ₂ S) %	Flow (l/hr)
BH02						
BH03						

Round 6 - To Be Completed

Date:

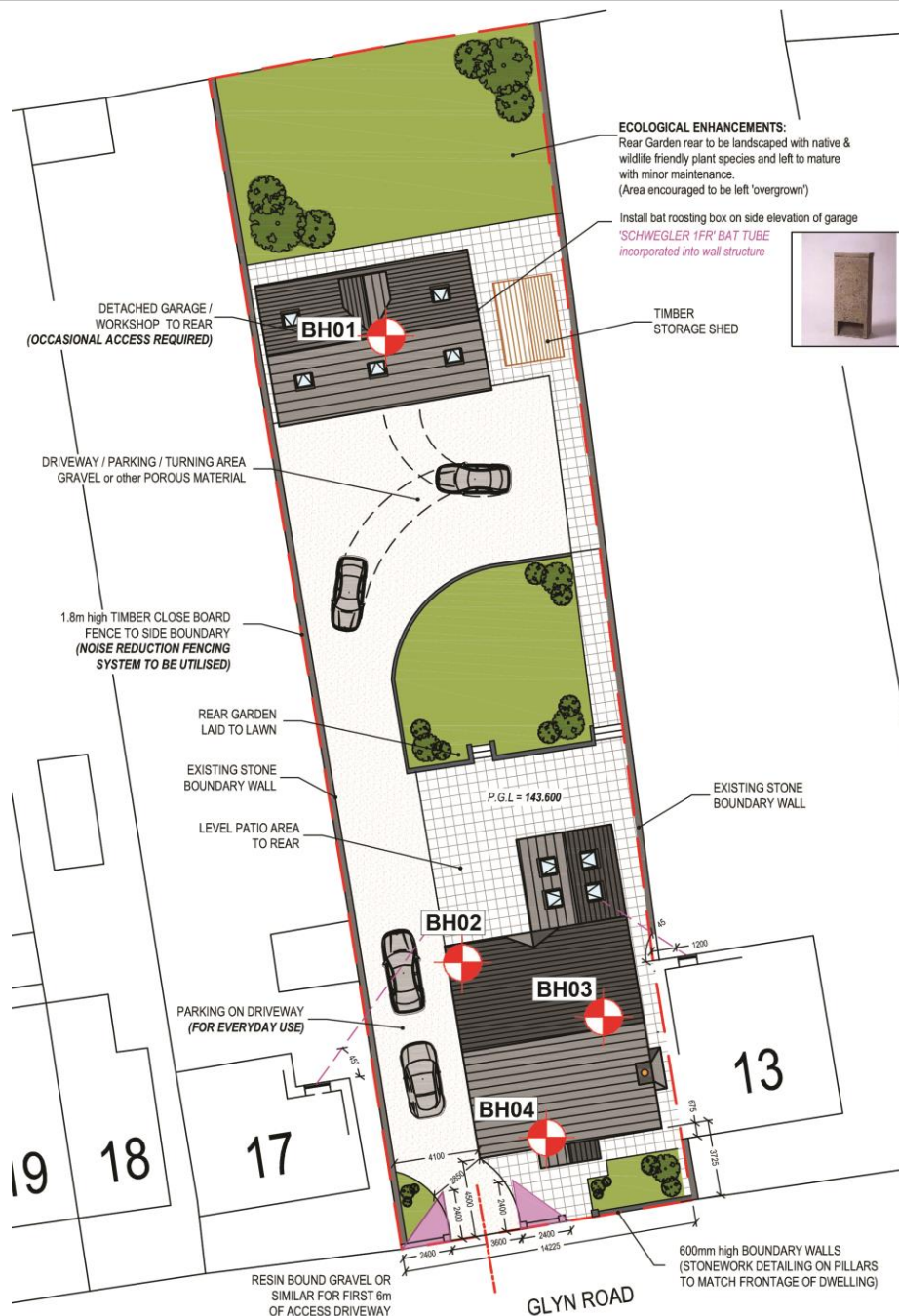
Barometric Pressure:

Weather:

Gas Monitoring Well Number	Methane (CH ₄) %	Oxygen (O ₂) %	Carbon Dioxide (CO ₂) %	Carbon Monoxide (CO) ppm	Hydrogen Sulphide (H ₂ S) %	Flow (l/hr)
BH02						
BH03						

Notes:

DRAWINGS



Job Number:

16124

Job Title:

Glyn Road, Lower Brynaman

Drawing Title:

Site Layout

Drawing Number:

01

Scale:

Not To Scale

Legend:



Approximate location of rotary borehole



Terra Firma (Wales) Ltd.

Consulting Geo-Technical & Geo-Environmental Engineers
Site Investigation Contractors

5 Deryn Court, Wharfedale Road,
Pentwyn, Cardiff CF23 7HB
Tel: 029 2073 5354 Fax: 029 2073 5433
Email: info@terrafirmawales.co.uk
www.terrafirmawales.co.uk