Our Ref C5759/26/E/8950
11th May 2026

FHH Developments (Yorkshire) Ltd
39 Wickleden Gate
Scholes
Holmfirth
West Yorkshire
HD9 1QT

**For the attention of Craig Hollingworth,**

Dear Sir,

Ref: Gas Monitoring – 274 Cumberworth Lane, Denby Dale.

Further to our report on a geo-environmental investigation (C5759/26/E/8948) which was presented in April 2026, we have now completed the gas monitoring and present our findings.

## Monitoring

Gas monitoring standpipes were installed in boreholes WS021, WS02 and WS03, the locations of which are provided on the site plan presented as Appendix 1 of the geo-environmental report. Visits were made to the site between the 20th February and the 10th April 2026. The results of this work are tabulated below.

**Table 1: Gas Monitoring**

| Location | Date | $CH_4$ (%) | $CO_2$ (%) | $O_2$ (%) | Flow | Barometric Pressure (mb) | Water Level (m) | Standpipe Depth (m) |
|---|---|---|---|---|---|---|---|---|
| WS01 | 20.02.2026 | 0.0 | 0.0 | 20.4 | 0.0 | 987↔ | - | 1.10 |
| | 27.02.2026 | 0.0 | 0.0 | 20.7 | 0.0 | 986↑ | - | |
| | 06.03.2026 | 0.1 | 0.2 | 21.7 | 0.0 | 1001↑ | - | |
| | 13.03.2026 | 0.1 | 0.6 | 21.7 | 0.0 | 970↓ | - | |
| | 02.04.2026 | 0.1 | 0.2 | 21.2 | 0.1 | 1001↔ | | |
| | 10.04.2026 | 0.1 | 0.1 | 21.4 | 0.0 | 996↓ | | |
| WS02 | 20.02.2026 | 0.0 | 0.4 | 20.1 | 0.0 | 987↔ | - | 1.10 |
| | 27.02.2026 | 0.0 | 0.5 | 20.5 | 0.0 | 986↑ | - | |
| | 06.03.2026 | 0.1 | 0.5 | 21.6 | 0.0 | 1001↑ | - | |
| | 13.03.2026 | 0.0 | 0.1 | 21.5 | 0.0 | 970↓ | - | |
| | 02.04.2026 | 0.1 | 0.4 | 21.2 | 0.0 | 1001↔ | | |
| | 10.04.2026 | 0.1 | 0.4 | 21.0 | 0.1 | 996↓ | | |
| WS03 | 20.02.2026 | 0.0 | 0.0 | 20.1 | 3.3 | 987↔ | - | 1.10 |
| | 27.02.2026 | 0.0 | 0.8 | 19.7 | 0.0 | 986↑ | - | |
| | 06.03.2026 | 0.0 | 1.3 | 21.0 | 0.0 | 1001↑ | - | |
| | 13.03.2026 | 0.1 | 1.5 | 20.2 | 0.0 | 970↓ | - | |
| | 02.04.2026 | 0.1 | 1.4 | 20.7 | 0.0 | 1001↔ | | |
| | 10.04.2026 | 0.0 | 1.5 | 19.4 | 0.0 | 996↓ | | |

↑ rising pressure ↓ falling pressure → steady pressure

The monitoring visits were undertaken using a Geotechnical Instruments (UK) Ltd. GA5000 (serial No G504785) which was last calibrated on the 19th February 2026.

## Gas Concentrations

With respect to ground gas, the results of the completed monitoring regime indicated a maximum concentration of 0.1% methane, with concentrations of carbon dioxide ranging between 0.0% and 1.5% in association with oxygen levels of between 19.4% and 21.7%. It should be appreciated that on non-contaminated sites there is generally about 20% by volume of oxygen, associated with low levels of carbon dioxide. In addition, a maximum flow rate of 0.1 litres per hour was recorded and should be employed in the any calculations.

The principal driving force for initiating the movement of gas in the ground is a change in barometric pressure. The most onerous gas condition on a site is usually observed on days of low or falling barometric pressure, preferably below 1000mb. It has been noted that measurements undertaken solely during high pressure conditions may be of lesser value. At this site the readings undertaken to date were at atmospheric pressures of between 986mb and 1001mb.

In view of the above, it may be appreciated that the continued gas monitoring has revealed no increases in methane or carbon dioxide concentrations. Moreover, the sixth visit took place during a period of known falling pressure. Therefore, the risk assessment and remediation strategy provided in the geo-environmental report should be considered with the comments below.

## Risk Assessment

In order to establish the gas screening value (GSV) for carbon dioxide or methane, the maximum gas concentration (expressed as a decimal) is multiplied by the borehole flow rate (l/hr). In this case 0.1% (0.001) methane was recorded along with 1.5% (0.015) carbon dioxide, in association with a maximum flow rate of 0.1 l/hr. This results in a GSV of 0.0001 l/hr for methane and a GSV of 0.0015 l/hr for carbon dioxide.

In accordance with Table 8.5, *Modified Wilson and Card classification* of the CIRIA report C665, *Assessing risks posed by ground gasses to building,* the site may be characterised as *Characteristic Situation Level 1*. It is therefore considered that there is a very low risk of harm to end users and site operatives and no special precautionary measures are required in accordance to Table 8.6, *Typical scope of gas protection measures,* of CIRIA report C665.

With regard to the number of monitoring visits required reference is made to Tables 5.5a and 5.5b of CIRIA report C665 (2007)[1]. Accepting that the proposed development is of high sensitivity (flats) and that the generation potential is very low, these tables suggest that 6 readings could be undertaken over a period of at least 3 months. However, C665 notes that *not all sites will require gas monitoring for the period and frequency indicated in Tables 5.5a and 5.5b.* In this case, a total of 6 monitoring visits were undertaken over a 3 month time period. In view of the above it is considered that with respect to gas monitoring, the site is fully characterised.

[1] Adapted from tables 5.5a and 5.5b of CIRIA C665, 2007, *Assessing risks posed by hazardous ground gas to buildings, p60.*

## Remediation Strategy for Ground Gas

As a consequence of the above, the site may be characterised as *Characteristic Situation Level 1*. This conclusion was provisionally considered in the geo-environmental report. However, on the basis that further monitoring would be necessary to fully characterise the site, recommendations were discussed regarding protection appropriate for *Characteristic Situation Level 2*. This was to ensure that the most onerous possible costs were considered but also to provide appropriate recommendations in case the further monitoring could not be completed. In this instance, it should be appreciated that the final monitoring regime has reinforced the characterisation of a low risk. As such, no specific remediation will be required to protect against bulk ground gases.

## References


- British Standards Institution (2013), BS 8576 Guidance on Investigations for Ground Gas – Permanent Gases and Volatile Organic Compounds.
- British Standards Institution (2015 +A1:2019) BS8485: *Code of practice for the design of protective measures for methane and carbon dioxide ground gases for new buildings,* B.S.I., London.
- CIRIA Report C665, *Assessing risks posed by ground gasses to building.*


We trust that this information is of interest and should you have any other requirements do not hesitate to contact us.

For Rogers Geotechnical Services Ltd,

Yours Faithfully,


**Rob Palmer** MSc FGS ACIEH
Engineering Director

# Post Fieldworks Discrete Well Monitoring Site Record

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Job No: | C/5759/26/E/8950 | Client: | FHH Developments (Yorkshire) Ltd. | Visit: | 1 | Of | 4 |
| Site: | 274 CumberworthLaneDenbyDale HD8 8QS | Date: | 20.02.2026 | | | | |

RGS Environmental Geotechnical Specialists

Rogers Geotechnical Services Ltd , Offices 1 & 2 Barncliffe Business Park, Shelley, Huddersfield, HD8 8LU

Tel: 01484 604 354
enquiries@rogersgeotech.co.uk

| Location ID | Methane (%) | | Carbon Dioxide (%) | | Carbon Monoxide (ppm) | | Hydrogen Sulphide (ppm) | | Oxygen (%) | | VOCs (ppm) | | Flowrate (l/hr) | | Water Depth (m) | Well Depth (m) | Installed Depth (m) | Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Steady | Peak | Steady | Peak | Steady | Peak | Steady | Peak | Steady | Minimum | Steady | Peak | Steady | Peak | | | | |
| 1 | 0.0 | 0.0 | 0.0 | 0.0 | 0 | 0 | 0 | 0 | 20.4 | 20.4 | | | 0.0 | 0.0 | DRY | | 1.16 | |
| 2 | 0.0 | 0.0 | 0.4 | 0.4 | 0 | 0 | 0 | 0 | 20.1 | 20.1 | | | 0.0 | 0.0 | DRY | | 1.09 | |
| 3 | 0.0 | 0.0 | 0.0 | 0.0 | 0 | 0 | 0 | 0 | 20.1 | 20.1 | | | 0.0 | 3.3 | DRY | | 1.10 | |
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| **Max.** | 0.0 | 0.0 | 0.4 | 0.4 | 0 | 0 | 0 | 0 | 20.4 | 20.4 | 0 | 0 | 0.0 | 3.3 | 0.00 | | | |
| **Min.** | 0.0 | 0.0 | 0.0 | 0.0 | 0 | 0 | 0 | 0 | 20.1 | 20.1 | 0 | 0 | 0.0 | 0.0 | 0.00 | | | |

ND - Not detected  DRY - No water in well  NM - Not Monitored (State Reason in comments)

| Meteorological & Site Information | |
|---|---|
| General Ground Condition | Wet |
| Precipitation | 0.2l/m2 in last 6 hours |
| Wind | 27 |
| Temperature | 5 |
| Barometric Pressure | |
| Pressure Trend | |

| Monitor Technical Specifications | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Gas Monitor Used: | GFM Series | | | | | | | |
| Serial No: | 12168 | | | | | | | |
| Monitor Gas Range | $CH_4$ | 5>60 | $CO_2$ | 5<40 | $O_2$ | 21.2 | | |
| Gas Flow Range | 0-10 l/hr | | | | | | | |
| Date of Calibration | 20.11.2025 | | | | | | | |
| PID Monitor (If used) | | | | | | | | |
| PID Monitor Serial No. | | | | | | | | |
| Calibration Date. | | | | | | | | |

| Monitoring Period Summary (All Visits) | Peak | Steady |
|---|---|---|
| Max $CH_4$ | 0.1 | 0.2 |
| Max $CO_2$ | 0.4 | 1.5 |
| Max CO | 0 | 0 |
| Max $H_2S$ | 0 | 0 |
| Max $O_2$ | 21.7 | 21.7 |
| Min $O_2$ | 21.0 | 21.6 |
| Flow rate | 0.0 | 3.3 |

| | Start | End |
|---|---|---|
| Barometric Pressure | 987 | 987 |

| | |
|---|---|
| **Operative Details.** | M.Tuck |

# Post Fieldworks Discrete Well Monitoring Site Record

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Job No: | C/5759/26/E/8950 | Client: | FHH Developments (Yorkshire) Ltd. | Visit: | 2 | Of | 4 |
| Site: | 274 CumberworthLaneDenbyDale HD8 8QS | Date: | 27.02.2026 | | | | |

Environmental Geotechnical Specialists

Rogers Geotechnical Services Ltd , Offices 1 & 2 Barncliffe Business Park, Shelley, Huddersfield, HD8 8LU

Tel: 01484 604 354
enquiries@rogersgeotech.co.uk

| Location ID | Methane (%) | | Carbon Dioxide (%) | | Carbon Monoxide (ppm) | | Hydrogen Sulphide (ppm) | | Oxygen (%) | | VOCs (ppm) | | Flowrate (l/hr) | | Water Depth (m) | Well Depth (m) | Installed Depth (m) | Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Steady | Peak | Steady | Peak | Steady | Peak | Steady | Peak | Steady | Minimum | Steady | Peak | Steady | Peak | | | | |
| 1 | 0.0 | 0.0 | 0.0 | 0.0 | 0 | 0 | 0 | 0 | 20.7 | 20.7 | | | 0.0 | 0.0 | DRY | | 1.16 | |
| 2 | 0.0 | 0.0 | 0.5 | 0.5 | 0 | 0 | 0 | 0 | 20.5 | 20.5 | | | 0.0 | 0.0 | DRY | | 1.09 | |
| 3 | 0.0 | 0.0 | 0.8 | 0.8 | 0 | 0 | 0 | 0 | 19.7 | 19.7 | | | 0.0 | 0.0 | DRY | | 1.10 | |
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| **Max.** | 0.0 | 0.0 | 0.8 | 0.8 | 0 | 0 | 0 | 0 | 20.7 | 20.7 | 0 | 0 | 0.0 | 0.0 | 0.00 | | | |
| **Min.** | 0.0 | 0.0 | 0.0 | 0.0 | 0 | 0 | 0 | 0 | 19.7 | 19.7 | 0 | 0 | 0.0 | 0.0 | 0.00 | | | |

ND - Not detected  DRY - No water in well  NM - Not Monitored (State Reason in comments)

## Meteorological & Site Information

| | |
|---|---|
| General Ground Condition | Wet |
| Precipitation | 0.2l/m2 in last 12 hours |
| Wind | 6 |
| Temperature | 10 |
| Barometric Pressure | |
| Pressure Trend | |

## Monitor Technical Specifications

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Gas Monitor Used: | GFM Series | | | | | | | |
| Serial No: | 12168 | | | | | | | |
| Monitor Gas Range | $CH_4$ | 5>60 | $CO_2$ | 5<40 | $O_2$ | 21.2 | | |
| Gas Flow Range | 0-10 l/hr | | | | | | | |
| Date of Calibration | 20.11.2025 | | | | | | | |
| PID Monitor (If used) | | | | | | | | |
| PID Monitor Serial No. | | | | | | | | |
| Calibration Date. | | | | | | | | |

## Monitoring Period Summary (All Visits)

| | Peak | Steady |
|---|---|---|
| Max $CH_4$ | 0.1 | 0.2 |
| Max $CO_2$ | 1.5 | 1.5 |
| Max CO | 0 | 0 |
| Max $H_2S$ | 0 | 0 |
| Max $O_2$ | 21.7 | 21.7 |
| Min $O_2$ | 21.0 | 21.6 |
| Flow rate | 0.0 | 0.0 |

| | Start | End |
|---|---|---|
| Barometric Pressure | 986 | 986 |

| | |
|---|---|
| **Operative Details.** | M.Tuck |

# Post Fieldworks Discrete Well Monitoring Site Record

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Job No: | C/5759/26/E/8950 | Client: | FHH Developments (Yorkshire) Ltd. | Visit: | 3 | Of | 4 |
| Site: | 274 CumberworthLaneDenbyDale HD8 8QS | Date: | 06.03.2026 | | | | |

RGS Environmental Geotechnical Specialists

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Tel: 01484 604 354
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| Location ID | Methane (%) | | Carbon Dioxide (%) | | Carbon Monoxide (ppm) | | Hydrogen Sulphide (ppm) | | Oxygen (%) | | VOCs (ppm) | | Flowrate (l/hr) | | Water Depth (m) | Well Depth (m) | Installed Depth (m) | Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Steady | Peak | Steady | Peak | Steady | Peak | Steady | Peak | Steady | Minimum | Steady | Peak | Steady | Peak | | | | |
| 1 | 0.1 | 0.1 | 0.2 | 0.2 | 0.0 | 0.0 | 0 | 0 | 21.7 | 21.7 | | | 0.0 | 0.0 | DRY | | 1.16 | |
| 2 | 0.1 | 0.1 | 0.5 | 0.5 | 0.0 | 0.0 | 0 | 0 | 21.6 | 21.6 | | | 0.0 | 0.0 | DRY | | 1.09 | |
| 3 | 0.0 | 0.1 | 1.3 | 1.3 | 0.0 | 0.0 | 0 | 0 | 21.0 | 21.6 | | | 0.0 | 0.0 | DRY | | 1.10 | |
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| **Max** | 0.1 | 0.1 | 1.3 | 1.3 | 0.0 | 0.0 | 0 | 0 | 21.7 | 21.7 | 0 | 0 | 0.0 | 0.0 | | | | |
| **Min.** | 0.0 | 0.1 | 0.2 | 0.2 | 0.0 | 0.0 | 0 | 0 | 21.0 | 21.6 | 0 | 0 | 0.0 | 0.0 | | | | |

ND - Not detected  DRY - No water in well  NM - Not Monitored (State Reason in comments)

| Meteorological & Site Information | |
|---|---|
| General Ground Condition | Wet |
| Precipitation | 6l/m2 in last 12 hours |
| Wind | 10 |
| Temperature | 5 |
| Barometric Pressure | |
| Pressure Trend | |

| Monitor Technical Specifications | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Gas Monitor Used: | GA 5000 | | | | | | | |
| Serial No: | G504785 | | | | | | | |
| Monitor Gas Range | $CH_4$ | 5>60 | $CO_2$ | 5<40 | $O_2$ | 21.2 | | |
| Gas Flow Range | 0-10 l/hr | | | | | | | |
| Date of Calibration | 19.02.2026 | | | | | | | |
| PID Monitor (If used) | | | | | | | | |
| PID Monitor Serial No. | | | | | | | | |
| Calibration Date. | | | | | | | | |

| Monitoring Period Summary (All Visits) | | |
|---|---|---|
| | Peak | Steady |
| Max $CH_4$ | 0.1 | 0.2 |
| Max $CO_2$ | 1.5 | 1.5 |
| Max CO | 0 | 0 |
| Max $H_2S$ | 0 | 0 |
| Max $O_2$ | 21.7 | 21.7 |
| Min $O_2$ | 21.0 | 21.6 |
| Flow rate | 0.0 | 0.0 |

| | Start | End |
|---|---|---|
| Barometric Pressure | 1001 | 1002 |

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|---|---|
| **Operative Details.** | M.Tuck |

# Post Fieldworks Discrete Well Monitoring Site Record

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|---|---|---|---|---|---|---|---|
| Job No: | C/5759/26/E/8950 | Client: | FHH Developments (Yorkshire) Ltd. | Visit: | 4 | Of | 4 |
| Site: | 274 CumberworthLaneDenbyDale HD8 8QS | Date: | 13.03.2026 | | | | |

RGS Environmental Geotechnical Specialists

Rogers Geotechnical Services Ltd , Offices 1 & 2 Barncliffe Business Park, Shelley, Huddersfield, HD8 8LU

Tel: 01484 604 354
enquiries@rogersgeotech.co.uk

| Location ID | Methane (%) | | Carbon Dioxide (%) | | Carbon Monoxide (ppm) | | Hydrogen Sulphide (ppm) | | Oxygen (%) | | VOCs (ppm) | | Flowrate (l/hr) | | Water Depth (m) | Well Depth (m) | Installed Depth (m) | Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Steady | Peak | Steady | Peak | Steady | Peak | Steady | Peak | Steady | Minimum | Steady | Peak | Steady | Peak | | | | |
| 1 | 0.1 | 0.1 | 0.6 | 0.6 | 0 | 0 | 0 | 0 | 21.7 | 21.7 | | | 0 | 0 | DRY | | 1.16 | |
| 2 | 0 | 0.1 | 0.1 | 0.2 | 0 | 0 | 0 | 0 | 21.5 | 21.5 | | | -0.1 | 0 | DRY | | 1.09 | |
| 3 | 0.1 | 0.2 | 1.5 | 1.5 | 0 | 0 | 0 | 0 | 20.2 | 20.2 | | | 0 | 0 | DRY | | 1.1 | |
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| **Max** | 0.1 | 0.2 | 1.5 | 1.5 | 0 | 0 | 0 | 0 | 21.7 | 21.7 | 0 | 0 | 0 | 0 | 0 | | | |
| **Min.** | 0 | 0.1 | 0.1 | 0.2 | 0 | 0 | 0 | 0 | 20.2 | 20.2 | 0 | 0 | -0.1 | 0 | 0 | | | |

ND - Not detected  DRY - No water in well  NM - Not Monitored (State Reason in comments)

## Meteorological & Site Information

| | |
|---|---|
| General Ground Condition | Wet |
| Precipitation | 12l/m2 in last 12 hours |
| Wind | 22 |
| Temperature | 4 |
| Barometric Pressure | |
| Pressure Trend | |

## Monitor Technical Specifications

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Gas Monitor Used: | GA 5000 | | | | | | | |
| Serial No: | G504785 | | | | | | | |
| Monitor Gas Range | $CH_4$ | 5>60 | $CO_2$ | 5<40 | $O_2$ | 21.2 | | |
| Gas Flow Range | 0-10 l/hr | | | | | | | |
| Date of Calibration | 19.02.2026 | | | | | | | |
| PID Monitor (If used) | | | | | | | | |
| PID Monitor Serial No. | | | | | | | | |
| Calibration Date. | | | | | | | | |

## Monitoring Period Summary (All Visits)

| | Peak | Steady |
|---|---|---|
| Max $CH_4$ | 0.1 | 0.2 |
| Max $CO_2$ | 1.5 | 1.5 |
| Max CO | 0 | 0 |
| Max $H_2S$ | 0 | 0 |
| Max $O_2$ | 21.7 | 21.7 |
| Min $O_2$ | 21.0 | 21.6 |
| Flow rate | 0.0 | 0.0 |

| | Start | End |
|---|---|---|
| Barometric Pressure | 970 | 971 |

| | |
|---|---|
| **Operative Details.** | M.Tuck |

# Post Fieldworks Discrete Well Monitoring Site Record

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Job No: | C/5759/26/E/8950 | Client: | FHH Developments (Yorkshire) Ltd. | Visit: | 5 | Of | 6 |
| Site: | 274 CumberworthLaneDenbyDale HD8 8QS | Date: | 02.04.2026 | | | | |

RGS Environmental Geotechnical Specialists

Rogers Geotechnical Services Ltd , Offices 1 & 2 Barncliffe Business Park, Shelley, Huddersfield, HD8 8LU

Tel: 01484 604 354
enquiries@rogersgeotech.co.uk

| Location ID | Methane (%) | | Carbon Dioxide (%) | | Carbon Monoxide (ppm) | | Hydrogen Sulphide (ppm) | | Oxygen (%) | | VOCs (ppm) | | Flowrate (l/hr) | | Water Depth (m) | Well Depth (m) | Installed Depth (m) | Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Steady | Peak | Steady | Peak | Steady | Peak | Steady | Peak | Steady | Minimum | Steady | Peak | Steady | Peak | | | | |
| 1 | 0.1 | 0.1 | 0.2 | 0.2 | 0 | 0 | 0 | 0 | 21.2 | 0 | | | 0.1 | 0 | DRY | | 1.16 | |
| 2 | 0.1 | 0.1 | 0.4 | 0.4 | 0 | 0 | 0 | 0 | 21.2 | 0 | | | 0 | 0 | DRY | | 1.09 | |
| 3 | 0.1 | 0.1 | 1.4 | 1.4 | 0 | 0 | 0 | 0 | 20.7 | 0 | | | 0 | 0 | DRY | | 1.1 | |
| | | | | | | | | | | | | | | | | | | |
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| **Max** | | | | | | | | | | | | | | | | | | |
| **Min.** | | | | | | | | | | | | | | | | | | |

ND - Not detected DRY - No water in well NM - Not Monitored (State Reason in comments)

| Meteorological & Site Information | |
|---|---|
| General Ground Condition | DRY |
| Precipitation | 0l/m2 in last 6 hours |
| Wind | 4 |
| Temperature | 5 |
| Barometric Pressure | |
| Pressure Trend | |

| Monitor Technical Specifications | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Gas Monitor Used: | GA 5000 | | | | | | | |
| Serial No: | G504785 | | | | | | | |
| Monitor Gas Range | $CH_4$ | 5>60 | $CO_2$ | 5<40 | $O_2$ | 21.2 | | |
| Gas Flow Range | 0-10 l/hr | | | | | | | |
| Date of Calibration | 19.02.2026 | | | | | | | |
| PID Monitor (If used) | | | | | | | | |
| PID Monitor Serial No. | | | | | | | | |
| Calibration Date. | | | | | | | | |

| Monitoring Period Summary (All Visits) | Peak | Steady |
|---|---|---|
| Max $CH_4$ | 0.1 | 0.2 |
| Max $CO_2$ | 1.5 | 1.5 |
| Max CO | 0 | 0 |
| Max $H_2S$ | 0 | 0 |
| Max $O_2$ | 21.7 | 21.7 |
| Min $O_2$ | 21.0 | 21.6 |
| Flow rate | 0.0 | 0.0 |

| | Start | End |
|---|---|---|
| Barometric Pressure | 1001 | 1001 |

| | |
|---|---|
| **Operative Details.** | M.Tuck |

# Post Fieldworks Discrete Well Monitoring Site Record

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Job No: | C/5759/26/E/8950 | Client: | FHH Developments (Yorkshire) Ltd. | Visit: | 6 | Of | 6 |
| Site: | 274 CumberworthLaneDenbyDale HD8 8QS | Date: | 10.04.2026 | | | | |

Environmental Geotechnical Specialists

Rogers Geotechnical Services Ltd , Offices 1 & 2 Barncliffe Business Park, Shelley, Huddersfield, HD8 8LU

Tel: 01484 604 354
enquiries@rogersgeotech.co.uk

| Location ID | Methane (%) | | Carbon Dioxide (%) | | Carbon Monoxide (ppm) | | Hydrogen Sulphide (ppm) | | Oxygen (%) | | VOCs (ppm) | | Flowrate (l/hr) | | Water Depth (m) | Well Depth (m) | Installed Depth (m) | Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Steady | Peak | Steady | Peak | Steady | Peak | Steady | Peak | Steady | Minimum | Steady | Peak | Steady | Peak | | | | |
| 1 | 0.1 | 0.1 | 0.1 | 0.1 | 0 | 0 | 0 | 0 | 21.4 | 21.4 | | | 0.0 | | DRY | | 1.16 | |
| 2 | 0.1 | 0.1 | 0.4 | 0.4 | 0 | 0 | 0 | 0 | 21.0 | 21.0 | | | 0.1 | | DRY | | 1.09 | |
| 3 | 0.0 | 0.0 | 1.5 | 1.5 | 0 | 0 | 0 | 0 | 19.4 | 19.4 | | | 0.0 | | DRY | | 1.10 | |
| | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | |
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| | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | |
| **Max** | | | | | | | | | | | | | | | | | | |
| **Min.** | | | | | | | | | | | | | | | | | | |

ND - Not detected DRY - No water in well NM - Not Monitored (State Reason in comments)

| Meteorological & Site Information | |
|---|---|
| General Ground Condition | Dry |
| Precipitation | 0l/m2 in last 6 hours |
| Wind | 7 |
| Temperature | 9 |
| Barometric Pressure | |
| Pressure Trend | |

| Monitor Technical Specifications | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Gas Monitor Used: | GFM Series | | | | | | | |
| Serial No: | 12168 | | | | | | | |
| Monitor Gas Range | $CH_4$ | 5>60 | $CO_2$ | 5<40 | $O_2$ | 21.2 | | |
| Gas Flow Range | 0-10 l/hr | | | | | | | |
| Date of Calibration | 20.11.2025 | | | | | | | |
| PID Monitor (If used) | | | | | | | | |
| PID Monitor Serial No. | | | | | | | | |
| Calibration Date. | | | | | | | | |

| Monitoring Period Summary (All Visits) | Peak | Steady |
|---|---|---|
| Max $CH_4$ | 0.1 | 0.2 |
| Max $CO_2$ | 1.5 | 1.5 |
| Max CO | 0 | 0 |
| Max $H_2S$ | 0 | 0 |
| Max $O_2$ | 21.7 | 21.7 |
| Min $O_2$ | 21.0 | 21.6 |
| Flow rate | 0.0 | 0.0 |

| | Start | End |
|---|---|---|
| Barometric Pressure | 996 | 995 |

| | |
|---|---|
| **Operative Details.** | M.Tuck |

# CERTIFICATION OF CALIBRATION

FJLA Calibration
No. 66916

Date Of Calibration: 19-Feb-2026

Certificate Number: G504785_10/40854

## Issued by: QED Environmental Systems Inc.

***Customer:*** **ASHTEAD TECHNOLOGY LTD**
GB927273313000 1 GATESHEAD CLOSE SUNDERLAND ROAD
SG19 1RS SANDY UNITED KINGDOM

***Description:***

***Model:*** GA5000

***Serial Number:*** G504785

**Accredited Results:**

**Methane (CH4)**

| Certified Gas (%) | Instrument Reading (%) | Uncertainty (%) |
|---|---|---|
| 5.0 | 5.0 | 0.42 |
| 15.0 | 15.1 | 0.66 |
| 60.0 | 59.8 | 1.03 |

**Carbon Dioxide (CO2)**

| Certified Gas (%) | Instrument Reading (%) | Uncertainty (%) |
|---|---|---|
| 5.0 | 4.8 | 0.43 |
| 15.0 | 14.7 | 0.71 |
| 40.0 | 40.2 | 1.19 |

**Oxygen (O2)**

| Certified Gas (%) | Instrument Reading (%) | Uncertainty (%) |
|---|---|---|
| 21.0 | 21.1 | 0.25 |

Gas cylinders are traceable and details can be provided if requested.

CH4, CO2 readings recorded at: 31.3 °C/88.4 °F

Barometric Pressure: 0977 mbar/28.84 "Hg

O2 readings recorded at: 22.2 °C/72.0 °F

Method of Test : The analyzer is calibrated in a temperature controlled chamber using a series of reference gases, in compliance with procedure ISP17.

Instrument has passed calibration as the measurement result is within the specification limit. The specification limit takes into account the measurement uncertainty.

*The reported expanded uncertainty is based on a standard uncertainty multiplied by a coverage factor of k=2, providing a level of confidence of approximately 95%. The uncertainty evaluation has been carried out in accordance with NIST requirements.*





www.qedenv.com (800) 624-2026 info@qedenv.com

QED Environmental Systems Inc. 2355 Bishop Circle West, Dexter, MI 48130

# CERTIFICATION OF CALIBRATION

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**Non Accredited results:**

| Barometer (mbar) | |
|---|---|
| **Reference** | **Instrument Reading** |
| 0977 mbar / 28.84 "Hg | 0977 mbar / 28.84 "Hg |

| Additional Gas Cells | | |
|---|---|---|
| **Gas** | **Certified Gas (ppm)** | **Instrument Reading (ppm)** |
| $CO/H_2$ COMP | 500 | 500 |
| $H_2S$ | 261 | 261 |

| Internal Flow | |
|---|---|
| **Applied** | **Measured** |
| 25.2 | 25.2 |
| 10.0 | 10.2 |
| 5.0 | 5.1 |

As received gas check readings:

| Methane (CH4) | |
|---|---|
| **Certified Gas (%)** | **Instrument Reading (%)** |
| 5.0 | 5.6 |
| 15.0 | 16.3 |
| 60.0 | 66.9 |

| Carbon Dioxide (CO2) | |
|---|---|
| **Certified Gas (%)** | **Instrument Reading (%)** |
| 5.0 | 5.6 |
| 15.0 | 16.2 |
| 40.0 | 42.2 |

| Oxygen (O2) | |
|---|---|
| **Certified Gas (%)** | **Instrument Reading (%)** |
| 21.0 | 21.2 |

As received Gas readings recorded at: 31.3 °C/88.4 °F

As received Barometric Pressure recorded at: 22.2 °C/72.0 °F





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# CERTIFICATION OF CALIBRATION

PJLA Calibration
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Date Of Calibration: 19-Feb-2026

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## Issued by: QED Environmental Systems Inc.

As received gas check readings are only recorded if the instrument is received in a working condition. Where the instrument is received damaged no reading can be taken.

**Date of Issue :** 20 Feb 2026

Approved By Signatory

Joe Nicholas
Laboratory Inspection





www.qedenv.com (800) 624-2026 info@qedenv.com

QED Environmental Systems Inc. 2355 Bishop Circle West, Dexter, MI 48130