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Our Ref:302001 L01 (00)

21 May 2018

Mr. M. Knight
Taylor Wimpey Strategic Land (Eastern)
Newton House
2 Sark Drive
Newton Leys
Milton Keynes
MK3 5SD

For the attention of Mark Knight

Dear Mark,

RE: GROUND GAS RISK ASSESSMENT – LAND NORTH OF BARKBY LANE, SYSTON, LEICESTERSHIRE

RSK Environment Limited (RSK) was commissioned by Taylor Wimpey Strategic Land (Eastern) (the client) to carry out a Phase 1 and 2 Geo-environmental assessment (ref: 302001 R01 (00), dated 5 April 2018), at a proposed residential development site referred to as North of Barkby Lane, Syston, Leicestershire. At the time of issue of the geo-environmental assessment, the programme of ground gas monitoring was incomplete and therefore a ground gas risk assessment had not been undertaken.

This letter presents and discusses relevant information with regards to ground gas, including the findings of the ground gas monitoring and a ground gas risk assessment of the available monitoring data.

This report must be read in conjunction with RSKs geo-environmental assessment.

This report is subject to the RSK service constraints included in **Appendix A**.

1. SCOPE OF WORKS

The scope of works for the ground gas risk assessment included:

- Production of a refined Conceptual Site Model following exploratory investigatory works in relation to the risk from ground gas;
- Six rounds of spot ground gas monitoring within selected monitoring wells;
- Assessment in accordance with the guidance provided in BS8576:2013, BS8485:2015 and CIRIA report C665; and
- Reporting of ground gas regime with recommendations of ground gas mitigation measures.

2. LIMITATIONS

This assessment has been based on our current understanding of the site, should the ground conditions be different to those encountered (such as if there are considerable areas of made ground) or should the



end use and foundation design differ from those specified, the recommendations made within this report may no longer apply.

3. THE SITE

The site is located to the north of Barkby Road, Syston, Leicestershire, at National Grid reference 463740, 311130 as shown on Figure 1.

The site is irregular in shape comprising open fields currently used for arable farming covering approximately 8.4 hectares and is bounded by a hedgerow. Surface elevations vary with the north-western boundary and southern boundaries at ~63m AOD which reduces towards a brook that flows through the centre of the site, flowing from the sites eastern boundary (~60mAOD) to its western boundary (~58mAOD).

RSK attended site on 22 February 2018, during which no potentially significant ground contamination or geotechnical issues were observed during the site reconnaissance.

4. GROUND CONDITIONS

The site investigation undertaken by RSK revealed that the site is generally underlain by a variable thickness of topsoil directly over Head Deposits in the south and in the central portion of the site, the Birstall Member in the north-west and the Branscombe Formation elsewhere and beneath the superficial deposits.

The ground conditions are summarised in Table 1 and the strata discussed in subsequent sections. The full field descriptions of the strata encountered, list of samples taken, field observations of groundwater, results of in-situ testing, details of monitoring well installations and notes regarding visual or olfactory evidence of contamination are included on the exploratory hole records presented in Appendix B.

Table 1: General succession of strata encountered

Stratum	Exploratory holes encountered	Depth to top of stratum (m)	Depth to base of stratum (m)
Topsoil	All exploratory holes	Ground Level	0.2-0.5
Subsoil	TP08, TP09, TP10, TP12, TP15	0.2-0.3	0.2-0.4
Head Deposits	WS04, WS07, WS08, WS11, WS12, TP05-TP09, TP14, TP15	0.2-0.6	0.4-1.9
Birstall Member	WS01, TP01, TP02	0.2-0.3	0.8-2.1
Branscombe Mudstone Formation	All exploratory holes	0.3-2.4	3.4 + (Not pen)
Note: Not pen = where the base of a stratum was not penetrated by the investigation			

5. REFINED CONCEPTUAL SITE MODEL – GROUND GAS

5.1 Sources of ground gas

Man-made and natural sources of ground gas are located within 250m of the site. The level of risk associated with different sources varies according to how much gas can potentially be generated. The

bulk gases methane and carbon dioxide are generated by the biodegradation of organic material. This can occur in any soils where organic material is present and especially in landfill waste.

Information presented within RSKs Phase 1 and 2 Geo-Environmental Site Assessment identified the following potential sources of ground gas generation. The provided ground gas potential, level of risk for onsite development and the risk of lateral migration is taken from Chartered Institute of Environmental Health: The Local Authority Guide to Ground Gas. and BS8576:2013 Guidance on Guidance on investigations for ground gas – Permanent gases and Volatile Organic Compounds (VOCs).

Table 2: Sources of ground gas and generation potential

Source	Distance and Direction	Ground Gas Generation Potential	Level of risk for on site development	Risk of lateral migration	Comment
Underlying superficial deposits	Onsite	Very low	Very low	Negligible	Natural soil strata with a high degradable organic content e.g. peat (note: gas in peat is historically generated and is trapped or adsorbed in the soil so the actual current generation rate is very low)
Historical ponds	Onsite	Very low	Very low	Negligible	Three ponds have historically been located on-site along the field boundaries but are no longer shown on later map editions (1966) and may have been backfilled. Estimated to be less than 15m diameter.
Historical ponds	50m west	Very low	Very low	Negligible	Estimated to be less than 15m diameter.
Recorded Made Ground	20m North east	Low	Low / moderate	Very Low	Made Ground (undivided) is shown on the BGS Geoindex Onshore Index adjacent to the eastern part of the northern site boundary with in filled ground beyond. This location appears to relate to the area of the historic landfill site in the environmental database report.
Historic landfill (including sludge)	<1m North east	Moderate	Moderate	Very Low	Available records indicate that the landfill consists of deposited waste including household waste and liquid sludge with a first input date of 31 December 1900 but no last input date (EA Ref. EAHLD22640).

5.2 Receptors

The following potential sensitive receptors are identified with the proposed site development:

- Future site occupants/users;
- Adjacent site users (residential housing adjacent to the western site boundary); and
- Buildings and infrastructure.

Please note that construction workers have not been identified in the conceptual model as receptors because risks are considered to be managed through health and safety procedures including CDM Regulations receptors have been considered with plausible pathways that may link them.

5.3 Summary of plausible pathways

The routes by which potential sources could plausibly come into contact with the receptors may be along natural routes such as permeable layers of sand and gravel or along faults and fissures. Man-made migration routes can be important, for example, gas can migrate along buried services and the installation of stone columns or piles to provide foundations can create a pathway through an upper impermeable layer that seals the ground gas in a lower stratum.

5.4 Potentially complete pollutant linkages

The following potentially complete pollutant linkages to proposed future end users have been identified:

1. Generation and migration of ground gases from onsite historically in-filled ponds.
2. Generation and migration of ground gases from offsite historically in-filled ponds.
3. Generation and migration of ground gases from underlying superficial deposits.
4. Generation and migration of ground gases from offsite recorded Made Ground.
5. Generation and migration of ground gases from offsite recorded historical landfill.

A preliminary assessment of the risk associated with each linkage is summarised within Table 3.

The risk classification has been undertaken in accordance with CIRIA C552 (Rudland et al 2001).

Table 3: Risk estimation for potentially complete pollutant linkages

Pollutant Linkage	Likelihood	Consequence	Risk and justification
1. Generation and migration of ground gases from onsite historically in-filled ponds.	Unlikely	Severe	Moderate/ Low – The PRA identified a number of ponds that may have been backfilled, which potentially could act as a source of ground gas. Made Ground, thought to be associated with the infill of the ponds, has not been encountered during the intrusive investigation. However this Made Ground cannot be ruled out as a potential source of contamination or ground gas as may be present in discrete pockets that were not encountered during intrusive works but may be encountered during future earthworks.
2. Generation and migration of ground gases from offsite historically in-filled ponds.	Unlikely	Severe	Moderate/ Low – Due to the size and distance of the identified initially infilled ponds located offsite, it is considered that the circumstances for the onsite migration of ground gases generated by this discrete offsite source is that it is improbable the event would occur even.
3. Generation and migration of ground gases from underlying superficial deposits.	Unlikely	Severe	Moderate/ Low - Most natural methane and carbon dioxide in organic deposits such as those encountered within the superficial deposits has already been generated and is largely trapped in the soil. These therefore represent finite sources and the likely risk depends on the volumes present in the ground and factors that could affect surface emissions such as variations in groundwater levels.
4. Generation and migration of ground gases from offsite recorded Made Ground.	Low likelihood	Severe	Moderate – Given its close proximity to the site, circumstances are possible for this area of recorded made ground may generate ground gases, but it is not certain even in the long term that an event would occur.
5. Generation and migration of ground gases from offsite recorded historical landfill.	Low likelihood	Severe	Moderate - Given its close proximity to the site, circumstances are possible for this area of recorded landfill may generate ground gases, but it is not certain even in the long term that an event would occur.

6. GROUND GAS MONITORING PROGRAMME

6.1 Monitoring well installation and location

In order to characterise the ground gas regime at the site, following the ground investigation works, twelve 50mm diameter monitoring wells were installed within selected exploratory holes.

The number and spacing of the ground gas monitoring locations are generally based on the recommendations set out within CIRIA document CIRA 150. The rationale for these locations is given in Table 4.

Table 4: Monitoring well location rationale

Exploratory hole number	Rationale
WS01, WS07, WS08, WS09, WS10, WS11, WS12	Maximise coverage across the proposed development are.
WS02, WS03, WS04, WS05, WS06	Along the boundary adjacent to the adjoining recorded historical landfill.

In line with BS8576:2013 “Guidance on investigations for ground gas. Permanent gases and Volatile Organic Compounds (VOCs)”, each monitoring well was installed with a dual tap gas bungs.

6.2 Ground gas monitoring

A monitoring programme consisting of six monitoring visits over a 2 month period was undertaken. During each monitoring visit, an infrared gas meter was used to measure gas flow, concentrations of carbon dioxide (CO₂), methane (CH₄) and oxygen (O₂) in percentage by volume, while hydrogen sulphide (H₂S) and carbon monoxide (CO) were recorded in parts per million. Initial and steady state concentrations were recorded. In addition, during the first monitoring round, all wells were screened with a PID to establish if there are any interferences and cross-sensitivity of other hydrocarbons with the infrared gas meter.

The atmospheric pressure before and during monitoring, together with the weather conditions, was recorded. All monitoring results together with the temporal conditions are contained within Appendix C and discussed below.

A summary of the completed gas monitoring undertaken to date is presented in Table 5. It should be noted that ground gas concentrations were not analysed at each monitoring well location on all visits (i.e. due to high groundwater levels).

Table 5: Ground gas monitoring programme

Monitoring well	Date of monitoring					
	08/03/2018	15/03/2018	20/03/2018	26/03/2018	05/04/2018	11/04/2018
WS01	✓	✓	✓	✓	✓	✓
WS02	✓	X	✓	✓	✓	✓
WS03	✓	✓	✓	✓	✓	✓
WS04	✓	X	✓	✓	X	X
WS05	✓	✓	✓	✓	✓	✓
WS06	✓	X	✓	✓	✓	✓
WS07 – WS10	X	X	X	X	X	X
WS11	✓	✓	✓	✓	✓	✓
WS12	✓	✓	✓	✓	X	X

✓ - Monitored, X – Not monitored due to flooded area.

The results of the ground gas monitoring are given in Appendix G. The minimum and maximum results are recorded in Table 6.

Table 6: Summary of ground gas monitoring results

Borehole	Response zone	Number of monitoring visits	Max Methane (%)	Max Carbon dioxide (%)	Min Oxygen (%)	Max Steady state flow rate (l/hr)	Atmospheric Pressure
WS01	1.0 – 3.0	6	<0.1	0.8	19.4	0.9	984 - 1012
WS02	1.0 – 2.0	5	<0.1	0.7	18.8	0.3	985 - 1011
WS03	1.0 – 2.0	6	<0.1	0.4	18.4	0.5	984 - 1010
WS04	1.0 – 5.0	3	<0.1	5.3	0.1	2.7	986 - 1012
WS05	1.0 – 2.0	6	<0.1	0.8	19.1	0.7	984 - 1011
WS06	1.0 – 2.0	5	<0.1	6.0	18.4	0.6	991 - 1012
WS11	1.0 – 2.0	6	<0.1	0.7	18.9	0.4	984 - 1012
WS12	1.0 – 3.0	4	<0.1	1.0	20.2	0.1	987 - 1012

Notes: * indicates stabilisation of flow reading was not achieved during monitoring.
bgl – below ground level

7. QUANTITATIVE RISK ASSESSMENT

CIRIA C665 identifies two types of development, termed Situation A (modified Wilson and Card method), appropriate to all development excluding traditional low-rise construction, and Situation B (National House-Building Council, NHBC) only appropriate to traditional low-rise construction with ventilated sub-floor voids.

Both methods are based on calculations of the limiting borehole gas volume flow for methane and carbon dioxide, renamed as the gas screening value (GSV). The GSV (litres of gas per hour) is calculated by multiplying borehole flow rate (litres per hour) and gas concentration (percent by volume).

In both situations, it is important to note that the GSV thresholds are guideline values and not absolute. The GSV thresholds may be exceeded in certain circumstances, if the site conceptual model indicates it is safe to do so. Similarly, consideration of additional factors such as very high concentrations of methane, should lead to consideration of the need to adopt a higher risk classification than the GSV threshold indicates.

The site is to be redeveloped with residential housing and therefore falls under Situation B. Situation B is a characterisation system developed by the NHBC (Boyle and Witherington, 2007), which relates only to low rise housing development constructed with a clear ventilated under floor void. The system provides a risk-based approach that is designed to allow an identification of the required gas protection measures for

low-rise housing by comparing the measured gas emission rates to generic “Traffic Lights”. The Traffic Lights include typical maximum concentrations that are provided for initial screening purposes and risk-based GSVs for situations where the typical maximum concentrations are exceeded. Based on the typical maximum gas concentrations and the GSVs, the appropriate Traffic Light, ranging from Green through Amber 1 and Amber 2 to Red, is determined from Table 8.7 of CIRIA C665.

The results of the monitoring have recorded a maximum steady state flow rate of 2.7/ hr (WS04). All other exploratory holes recorded methane concentrations below 0.1%. The maximum concentration of carbon dioxide of 6.0% (WS06).

The calculated GSV for methane is <0.01 l/hr and the GSV for carbon dioxide is 0.16 l/hr.

Due to lack of methane recorded within the monitoring wells, the source of the carbon dioxide may be from superficial deposits rather than migration from offsite sources.

Based upon the current understanding of the conceptual site model and the calculated GSVs the site has been characterised as **Amber 1**. This is further confirmed by the reported maximum carbon dioxide being above the NHBC (Boyle & Witherington, 2007) maximum concentration of 5 % for a Green site.

8. MITIGATION MEASURES

The results of the ground gas assessment in Section 7 indicate a potential risk from the generation and ingress of ground gases into the buildings proposed on the subject site. In order to mitigate the risk from the generation, migration and ingress of ground gases protection measures should to be incorporated into the proposed development.

Considering the anticipated development type; low rise residential dwellings with a clear ventilated sub floor void, the gas risk has been assessed using the NHBC traffic light system. Based on the current understanding of the conceptual site model and results of ground gas monitoring a risk classification of Amber 1 has been determined for the site. Therefore, in addition to a subfloor void designed to allow one air exchange per day, the installation of a proprietary ground gas membrane will be required within residential plots. The membrane should be installed to achieve complete integrity across the entire building footprint and should include the sealing of penetrations and joints. The chosen membrane should comply with the recommendations made within BS8485:2015, which in summary states that membranes should be;

- sufficiently impervious to methane and carbon dioxide;
- capable after installation of providing a complete barrier to the entry of the relevant gas.
- sufficiently durable to remain serviceable for the anticipated life of the building and duration of gas emissions;
- sufficiently strong to withstand in service stresses (e.g. due to ground settlement if placed below a floor slab);
- sufficiently strong to withstand the installation process and following construction activities until covered (e.g. penetration from steel fibres in fibre reinforced concrete, penetration of reinforcement ties, tearing due to working above it, and dropping tools); and
- chemically resistant to degradation by other contaminants that might be present.

In accordance with BS8485, a detailed design report (which this report does not constitute) should be prepared for proposed mitigation measures, and should be provided to and agreed with the local

authority and NHBC prior to construction works. As a minimum, the design report should include a combination of the following:

- Ground conditions and gas conceptualisation (severity of gas regime and sensitivity of proposed end-use)
- Building and construction related details pertinent to the design of gas mitigation system/measures including, but not limited to; foundation type, floor slab, wall construction and any complex detailing
- Gas protection system design that is sufficient to mitigate the gas risk and be practically installed given the building and construction related details. This is likely to include venting calculations (to demonstrate air exchange of one volume per day), specification details for products and components suitable for constructing the system, installation methodology and installer qualifications/experience.
- A verification plan (prepared in accordance with CIRIA C735 and as discussed below).

A verification plan in accordance with CIRIA C735 should be prepared at the design stage and included within the design report. The verification plan should clearly identify the verification tasks; the frequency that such tasks shall be undertaken and by whom; and set out any regulatory requirements and contingency plans. As specified within CIRIA C735, the verification activities required will be dependent on a number of factors in addition to the gas regime. These factors may include (but are not limited to): the qualifications/experience of the installers; the complexity of the design; and the number of plots requiring verification etc.

9. CLOSING REMARKS

We trust the above meets with your approval. Should you require further information or clarification on the above please do not hesitate to contact either of the undersigned.

Yours sincerely

FOR RSK ENVIRONMENT LTD



Kevin Holmes
Senior Geo-Environmental Engineer (Author)



Patrick Norwood
Senior Geo-Environmental Engineer (Reviewer)

Enc.

Figures

- | | |
|------------|----------------------------|
| Appendix A | Service constraints |
| Appendix B | Exploratory Hole Records |
| Appendix C | Ground gas monitoring data |

BIBLIOGRAPHY

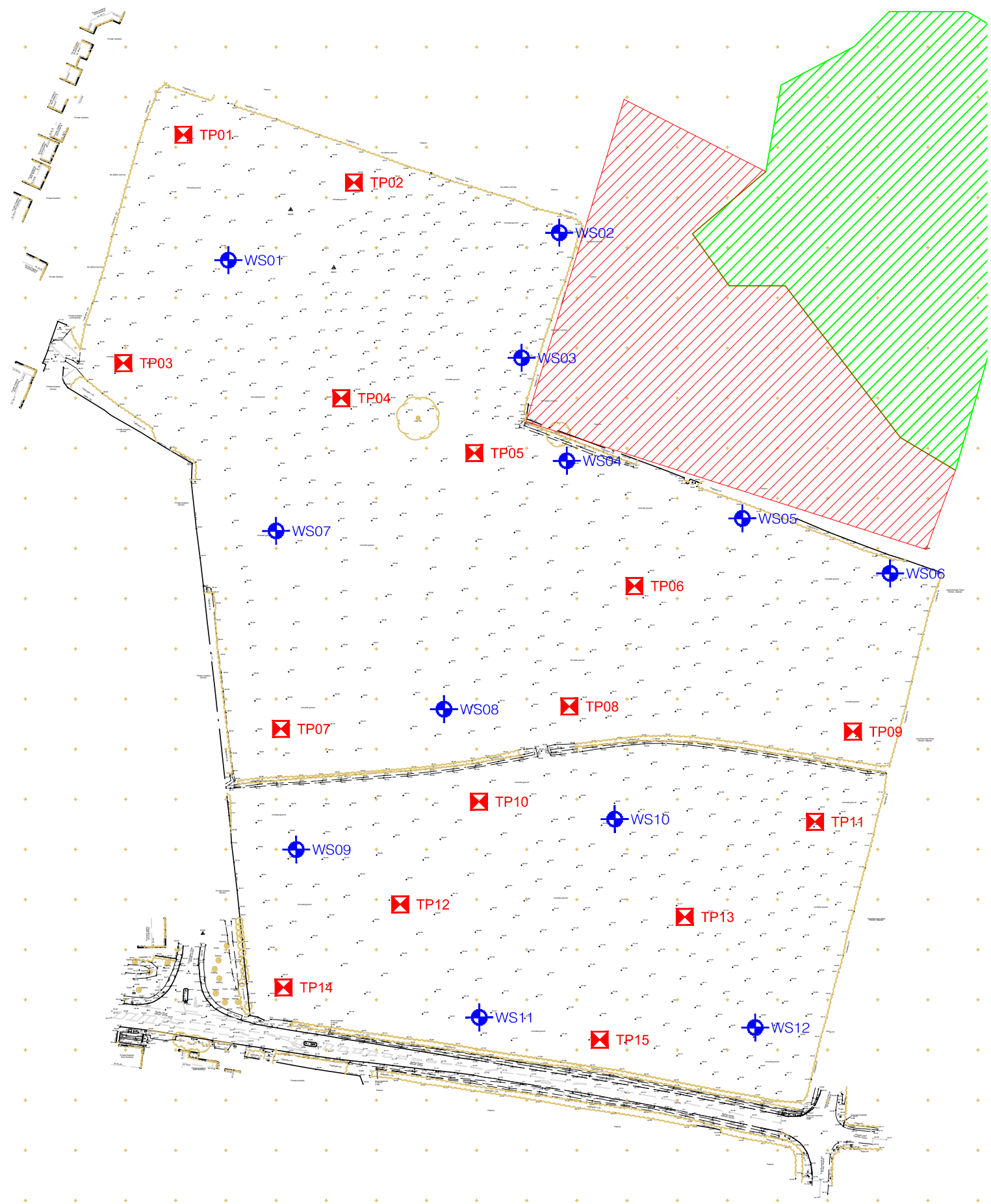
Boyle, R. A. and Witherington, P. J. (2007), 'Guidance on Evaluation of Development Proposals on Sites where Methane and Carbon Dioxide are Present', National House-Building Council and RSK Group.

RSK Environment Ltd, Land off Leicester Road, Melton Mowbray: A) Additional investigation (arsenic) around WS12, and B) Additional geotechnical investigation (Ref. T301828 L02(00)_PN; dated December 2016).

RSK Environment Ltd, Land off Leicester Road, Melton Mowbray: Geo-environmental Site Assessment (Ref. 301828-R01(01); dated October 2016).

Wilson, S., Oliver, S., Mallet, H., Hutchings, H. and Card, G. (2007), CIRIA Report C665: Assessing risks posed by hazardous ground gases to buildings (London: CIRIA).

FIGURES



- LEGEND:**
- Trial pit
 - Window sample
 - Infilled ground
 - Made ground (undivided)



Notes
 Base plan from Survey Solutions, Drawing No 21105cv-01,
 Dated 11.01.18.

REV.	DATE	DESCRIPTION	BY	CHKD.	APR.
A	26.03.18	FIRST ISSUE	AP	KH	KH

Dimensions	Projection	Scale	Orig Size
m		1:2000	A3

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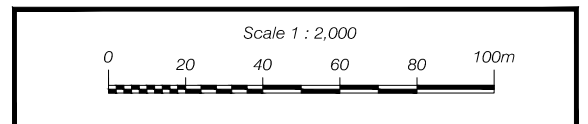
CLIENT **TAYLOR WIMPEY STRATEGIC LAND (EASTERN)**

PROJECT **LAND NORTH OF BARKBY ROAD, SYSTON**

TITLE **SITE FEATURES AND EXPLORATORY HOLE LOCATION PLAN**

JOB No.: 302001 DRAWING FILE: 302001-R01(00)D002A

BY:	DATE:	CONTRACT NO.	FIGURE NO.	REV:
AP	26.03.18		FIGURE 2	A





APPENDIX A SERVICE CONSTRAINTS

- This report and the site investigation carried out in connection with the report (together the "Services") were compiled and carried out by RSK Environment Limited (RSK) for Abbey Homes Ltd (the "client") in accordance with the terms of a contract between RSK and the "client", dated 11th March 2015. The Services were performed by RSK with the skill and care ordinarily exercised by a reasonable environmental consultant at the time the Services were performed. Further, and in particular, the Services were performed by RSK taking into account the limits of the scope of works required by the client, the time scale involved and the resources, including financial and manpower resources, agreed between RSK and the client.
- Other than that expressly contained in paragraph 1 above, RSK provides no other representation or warranty whether express or implied, in relation to the Services.
- Unless otherwise agreed in writing the Services were performed by RSK exclusively for the purposes of the client. RSK is not aware of any interest of or reliance by any party other than the client in or on the Services. Unless expressly provided in writing, RSK does not authorise, consent or condone any party other than the client relying upon the Services. Should this report or any part of this report, or otherwise details of the Services or any part of the Services be made known to any such party, and such party relies thereon that party does so wholly at its own and sole risk and RSK disclaims any liability to such parties. **Any such party would be well advised to seek independent advice from a competent environmental consultant and/or lawyer.**
- It is RSK's understanding that this report is to be used for the purpose described in the introduction to the report. That purpose was a significant factor in determining the scope and level of the Services. Should the purpose for which the report is used, or the proposed use of the site change, this report may no longer be valid and any further use of or reliance upon the report in those circumstances by the client without RSK's review and advice shall be at the client's sole and own risk. Should RSK be requested to review the report after the date of this report, RSK shall be entitled to additional payment at the then existing rates or such other terms as agreed between RSK and the client.
- The passage of time may result in changes in site conditions, regulatory or other legal provisions, technology or economic conditions which could render the report inaccurate or unreliable. The information and conclusions contained in this report should not be relied upon in the future without the written advice of RSK. In the absence of such written advice of RSK, reliance on the report in the future shall be at the client's own and sole risk. Should RSK be requested to review the report in the future, RSK shall be entitled to additional payment at the then existing rate or such other terms as may be agreed between RSK and the client.
- The observations and conclusions described in this report are based solely upon the Services which were provided pursuant to the agreement between the client and RSK. RSK has not performed any observations, investigations, studies or testing not specifically set out or required by the contract between the client and RSK. RSK is not liable for the existence of any condition, the discovery of which would require performance of services not otherwise contained in the Services. For the avoidance of doubt, unless otherwise expressly referred to in the introduction to this report, RSK did not seek to evaluate the presence on or off the site of asbestos, electromagnetic fields, lead paint, heavy metals, radon gas or other radioactive or hazardous materials.
- The Services are based upon RSK's observations of existing physical conditions at the Site gained from a walk-over survey of the site together with RSK's interpretation of information including documentation, obtained from third parties and from the client on the history and usage of the site. The Services are also based on information and/or analysis provided by independent testing and information services or laboratories upon which RSK was reasonably entitled to rely. The Services clearly are limited by the accuracy of the information, including documentation, reviewed by RSK and the observations possible at the time of the walk-over survey. Further RSK was not authorised and did not attempt to independently verify the accuracy or completeness of information, documentation or materials received from the client or third parties, including laboratories and information services, during the performance of the Services. RSK is not liable for any inaccurate information or conclusions, the discovery of which inaccuracies required the doing of any act including the gathering of any information which was not reasonably available to RSK and including the doing of any independent investigation of the information provided to RSK save as otherwise provided in the terms of the contract between the client and RSK.
- The intrusive environmental site investigation aspects of the Services is a limited sampling of the site at pre-determined borehole and soil vapour locations based on the operational configuration of the site. The conclusions given in this report are based on information gathered at the specific test locations and can only be extrapolated to an undefined limited area around those locations. The extent of the limited area depends on the soil and groundwater conditions, together with the position of any current structures and underground facilities and natural and other activities on site. In addition chemical analysis was carried out for a limited number of parameters [as stipulated in the contract between the client and RSK] [based on an understanding of the available operational and historical information], and it should not be inferred that other chemical species are not present.
- Any site drawing(s) provided in this report is (are) not meant to be an accurate base plan, but is (are) used to present the general relative locations of features on, and surrounding, the site. Features (boreholes, trial pits etc) annotated on site plans are not drawn to scale but are centred over the approximate location. Such features should not be used for setting out and should be considered indicative only.



APPENDIX B

EXPLORATORY HOLE RECORDS

Contract: Land North of Barkby Road, Syston		Client: Taylor Wimpey Strategic Land		Trial Pit: TP01
Contract Ref: 302001	Start: 23.02.18 End: 23.02.18	Ground Level: 61.86	National Grid Co-ordinate: E:463623.0 N:311325.0	Sheet: 1 of 1

Samples and In-situ Tests				Water	Backfill	Description of Strata	Depth (Thickness)	Material Graphic Legend
Depth	No	Type	Results					
0.40	1	D				Dark brown silty slightly gravelly CLAY. Gravel is fine to coarse. Fine rootlets noted. (TOPSOIL)	(0.30)	
						Orangish brown clayey slightly gravelly fine to coarse SAND. Gravel is fine to coarse subrounded to rounded quartzite, (BIRSTALL MEMBER)	0.30	
1.20	1	ES	T+V+J			... from 1.4 m, becoming reddish and damp	(1.80)	
2.00	1	B				Stiff red slightly sandy CLAY. Sand is fine. Occasional anhydrite noted. (BRANSCOMBE MUDSTONE FORMATION)	2.10	
						Trial pit terminated at 2.50 m depth.	(0.40)	
							2.50	

GINT LIBRARY v8_06.GLB LibVersion: v8_06 - Core+Logs - 002 | Log TRIAL PIT LOG - A4P | 302001.GPJ - v8_06.
 RSK Environment Ltd, 12 Royal Scot Road, Pride Park, Derby, DE24 8AJ. Tel: 01332 542740, Fax: 01332 542760, Web: www.rsk.co.uk | 03/04/18 - 16:02 | HW2 |

Plan (Not to Scale) 		General Remarks 1. Groundwater seepage at 1.90 m bgl. 2. Trial pit backfilled with arisings. 3. Sides slightly unstable during excavation down to 2.1 m. 4. Excavated using a two foot toothless bucket. 5. Clegg Hammer results at 0.50 m: test 1=3,4,4,5,6; test 2=3,4,4,5,5; test 3=3,4,5,6,7	
Method Used: Machine dug		Plant Used: Mini tracked excavator	
Logged By: KHolmes		Checked By: KHolmes	
All dimensions in metres		Scale: 1:25	



Contract: Land North of Barkby Road, Syston		Client: Taylor Wimpey Strategic Land		Trial Pit: TP03
Contract Ref: 302001	Start: 23.02.18 End: 23.02.18	Ground Level: 58.99	National Grid Co-ordinate: E:463599.1 N:311234.0	Sheet: 1 of 1

Samples and In-situ Tests				Water	Backfill	Description of Strata	Depth (Thickness)	Material Graphic Legend
Depth	No	Type	Results					
0.60		V	c _u =70/72/66		[Cross-hatched pattern]	Dark brown slightly gravelly sandy CLAY. Sand is fine. Occasional rootlets. (TOPSOIL)	(0.30)	[Dotted pattern]
						Firm brown gravelly sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse well rounded to angular flint. Rare anhydrite noted. (BRANSCOMBE MUDSTONE FORMATION)	(0.50)	[Horizontal line pattern]
						Firm to stiff pinkish brown slightly sandy CLAY. (BRANSCOMBE MUDSTONE FORMATION)	(1.20)	[Horizontal line pattern]
						Trial pit terminated at 2.00 m depth due to dense geology.	2.00	[Horizontal line pattern]

GINT LIBRARY V8_06.GLB LibVersion: v8_06 - Core+Logs - 002 | Log TRIAL PIT LOG - A4P | 302001.GPJ - v8_06.
 RSK Environment Ltd, 12 Royal Scot Road, Pride Park, Derby, DE24 8AJ. Tel: 01332 542740, Fax: 01332 542760, Web: www.rsk.co.uk | 03/04/18 - 16:02 | HW2 |

Plan (Not to Scale) 	General Remarks	
	<ol style="list-style-type: none"> Unable to complete hand vane within weathered mudstone due to friable nature of arisings. No groundwater encountered. Trial pit remained stable during excavation. Trial pit backfilled with arisings. Excavated using a two foot toothless bucket. Clegg Hammer results at 0.50 m: test 1=3,4,4,4,4; test 2=3,3,4,4,4; test 3=5,5,5,4,5 	
All dimensions in metres		Scale: 1:25
Method Used: Machine dug	Plant Used: Mini tracked excavator	Logged By: KHolmes Checked By:

Contract: Land North of Barkby Road, Syston		Client: Taylor Wimpey Strategic Land		Trial Pit: TP04	
Contract Ref: 302001	Start: 23.02.18 End: 23.02.18	Ground Level: 59.28	National Grid Co-ordinate: E:463686.0 N:311220.0	Sheet: 1 of 1	

Samples and In-situ Tests				Water	Backfill	Description of Strata	Depth (Thickness)	Material Graphic Legend
Depth	No	Type	Results					
						Dark brown silty sandy slightly gravelly CLAY. Sand is fine. Gravel is fine to coarse subangular to angular flint with rare brick and slate. (TOPSOIL)	(0.50)	
0.60		V	$c_u=102/102/120$			Firm reddish brown slightly sandy CLAY. Sand is fine. Weathered surface. (BRANSCOMBE MUDSTONE FORMATION)	0.50	
0.80	1	ES	V+J					
0.80	1	D						
1.50	2	ES	V+J					
1.50	2	D						
						Trial pit terminated at 2.00 m depth due to dense geology.	2.00	

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Plan (Not to Scale) 		General Remarks 1. Trial pit backfilled with arisings. 2. Trial pit remained stable during excavation. 3. No groundwater encountered. 4. Unable to complete hand vane tests due to friable nature of soil arising from weathered bedrock. 5. Excavated using a two foot toothless bucket. 6. Clegg Hammer results at 0.50 m: test 1=6,7,7,7,7; test 2=6,7,7,8,7; test 3=5,6,6,7,7	
All dimensions in metres		Scale: 1:25	
Method Used: Machine dug	Plant Used: Mini tracked excavator	Logged By: KHolmes	Checked By:

Contract: Land North of Barkby Road, Syston		Client: Taylor Wimpey Strategic Land		Trial Pit: TP05	
Contract Ref: 302001	Start: 23.02.18 End: 23.02.18	Ground Level: 58.54	National Grid Co-ordinate: E:463739.1 N:311198.1	Sheet: 1 of 1	

Samples and In-situ Tests				Water	Backfill	Description of Strata	Depth (Thickness)	Material Graphic Legend
Depth	No	Type	Results					
						Dark brown silty sandy slightly gravelly CLAY. Sand is fine. Gravel is fine to coarse subrounded to angular. Damp topsoil. (TOPSOIL)	(0.30)	
0.60		V	$c_u=66/68/70$			Firm brown CLAY. (HEAD DEPOSITS)	(0.70)	
0.70	1	ES	V+J					
0.70	1	D						
1.10		V	$c_u=60/52/48$			Soft to firm greenish grey CLAY. (HEAD DEPOSITS)	1.00	
1.50	2	ES	V+J					
1.50	2	D						
2.00		V	$c_u=52/58/62$. . . from 1.70 m to 1.90 m, black band of organic peat. Little plant structure evident, some fine rootlets. Organic odours noted.	(1.20)	
2.50	3	D				Weak red distinctly weathered MUDSTONE. (BRANSCOMBE MUDSTONE FORMATION)	(0.30)	
2.50						Trial pit terminated at 2.50 m depth.	2.50	

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Plan (Not to Scale) 		<h3>General Remarks</h3> <ol style="list-style-type: none"> 1. Trial pit remained stable during excavation. 2. Unable to complete hand vane test in weathered mudstone due to friable nature of soil arising. 3. Groundwater encountered 4. Trial pit backfilled with arisings. 5. Excavated using a two foot toothless bucket. 6. Clegg Hammer results at 0.50 m: test 1=3,4,4,4,4; test 2=3,3,4,4,4; test 3=6,4,4,4,4 	
Method Used: Machine dug		Plant Used: Mini tracked excavator	
Logged By: KHolmes		Checked By: KHolmes	
All dimensions in metres		Scale: 1:25	



Contract: Land North of Barkby Road, Syston		Client: Taylor Wimpey Strategic Land		Trial Pit: TP06	
Contract Ref: 302001		Start: 23.02.18 End: 23.02.18	Ground Level: 59.00	National Grid Co-ordinate: E:463802.9 N:311145.1	Sheet: 1 of 1

Samples and In-situ Tests				Water	Backfill	Description of Strata	Depth (Thickness)	Material Graphic Legend
Depth	No	Type	Results					
						Firm dark brown slightly sandy slightly gravelly CLAY. Sand is fine. Gravel is fine to coarse subrounded flint. Occasional rootlets noted. (TOPSOIL)	(0.30)	
0.60		V	$c_u=68/78/88$			Firm brown slightly sandy CLAY. Sand is fine to medium. Rare anhydrite noted. (HEAD DEPOSITS) ... from 0.60 m, becoming greenish grey with some orange sand filled partings.	(0.70)	
1.10	1	ES	V+J			Weak reddish brown distinctly weathered MUDSTONE. (BRANSCOMBE MUDSTONE FORMATION)	(1.50)	
1.10	1	D						
1.10		V	$c_u=74/70/70$					
2.00		V	$c_u=>130/112/110$					
2.30	2	D					2.50	
						Trial pit terminated at 2.50 m depth.		

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Plan (Not to Scale) 		General Remarks 1. Trial pit remained stable during excavation. 2. No groundwater encountered. 3. Trial pit backfilled with arisings. 4. Excavated using a two foot toothless bucket.	
Method Used: Machine dug		Plant Used: Mini tracked excavator	
Logged By: KHolmes		Checked By: KHolmes	
All dimensions in metres		Scale: 1:25	

Contract: Land North of Barkby Road, Syston		Client: Taylor Wimpey Strategic Land		Trial Pit: TP07	
Contract Ref: 302001		Start: 23.02.18 End: 23.02.18	Ground Level: 58.67	National Grid Co-ordinate: E:463661.9 N:311088.1	Sheet: 1 of 1

Samples and In-situ Tests				Water	Backfill	Description of Strata	Depth (Thickness)	Material Graphic Legend
Depth	No	Type	Results					
						Dark brown silty sandy slightly gravelly CLAY. Sand is fine. Gravel is fine to medium rounded flint. Rootlets noted. (TOPSOIL)	(0.30)	
0.60		V	$c_u=52/54/62$			Soft to firm greenish grey sandy slightly gravelly CLAY. Sand is fine. Gravel is fine to coarse subrounded flint. (HEAD DEPOSITS)	(1.10)	
1.00	1	ES	J+V			... from 1.10 m to 1.40 m, very sandy and very gravelly.	1.40	
1.00	1	D						
1.00	1	V	$c_u=36/42/48$					
1.80	2	ES	J+V			Weak reddish brown distinctly weathered MUDSTONE. (BRANSCOMBE MUDSTONE FORMATION)	(1.10)	
1.80	2	D						
1.80	2	V	$c_u=94/98/104$				2.50	
Trial pit terminated at 2.50 m depth.								

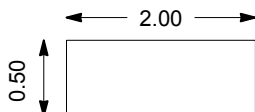
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Plan (Not to Scale) 		<h3>General Remarks</h3> <ol style="list-style-type: none"> Trial pit backfilled with arisings. Trial pit remained stable during excavation. No groundwater encountered. Excavated using a two foot toothless bucket. Unable to complete hand vane tests below 1.80 m due to friable nature of soil arising. Clegg Hammer results at 0.50 m: test 1=3,3,3,3,3; test 2=3,3,3,3,3; test 3=3,3,3,3,3 	
All dimensions in metres		Scale: 1:25	
Method Used: Machine dug	Plant Used: Mini tracked excavator	Logged By: KHolmes	Checked By:

Contract: Land North of Barkby Road, Syston		Client: Taylor Wimpey Strategic Land		Trial Pit: TP08	
Contract Ref: 302001		Start: 22.02.18 End: 22.02.18	Ground Level: 59.35	National Grid Co-ordinate: E:463777.0 N:311097.0	Sheet: 1 of 1

Samples and In-situ Tests				Water	Backfill	Description of Strata	Depth (Thickness)	Material Graphic Legend
Depth	No	Type	Results					
0.20	1	ES	c _u =58/68/78	[Cross-hatched pattern]	Firm dark brown slightly sandy slightly gravelly CLAY. Sand is fine to coarse. Gravel is fine to coarse quartzite and flint. Occasional rootlets noted. (TOPSOIL)	0.20	[Graphic Legend]	
0.50		V			Firm brown slightly sandy slightly gravelly CLAY. Sand is fine to coarse. Gravel is fine to coarse quartzite and flint. (SUBSOIL)	(0.40)	[Graphic Legend]	
0.90	1	D			Firm brown slightly sandy CLAY. Sand is fine to medium. (HEAD DEPOSITS)	0.60	[Graphic Legend]	
0.90	2	ES			(0.90)	[Graphic Legend]		
					1.50	[Graphic Legend]		
1.80	2	D	c _u =82/82/86		Firm greenish grey sandy CLAY. Sand is fine. Fissured in areas. (HEAD DEPOSITS)	(0.70)	[Graphic Legend]	
1.80	3	ES			2.20	[Graphic Legend]		
1.80		V			(0.40)	[Graphic Legend]		
2.50	3	D	c _u =66/76/86		Firm to stiff red slightly sandy CLAY. Sand is fine. (BRANSCOMBE MUDSTONE FORMATION)	2.60	[Graphic Legend]	
2.50		V			Trial pit terminated at 2.60 m depth.			

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Plan (Not to Scale) 		General Remarks 1. Trial pit backfilled with arisings. 2. Sides remained stable during excavation. 3. No groundwater encountered. 4. Excavated using a two foot toothless bucket. 5. Clegg Hammer results at 0.50 m: test 1=3,3,3,3,3; test 2=3,4,4,4,3; test 3=3,4,3,3,3	
Method Used: Machine dug		Plant Used: Mini tracked excavator	
Logged By: KHolmes		Checked By: [Signature]	
All dimensions in metres		Scale: 1:25	



Contract: Land North of Barkby Road, Syston		Client: Taylor Wimpey Strategic Land		Trial Pit: TP09	
Contract Ref: 302001		Start: 22.02.18 End: 22.02.18	Ground Level: 60.89	National Grid Co-ordinate: E:463890.1 N:311087.0	Sheet: 1 of 1

Samples and In-situ Tests				Water	Backfill	Description of Strata	Depth (Thickness)	Material Graphic Legend
Depth	No	Type	Results					
0.10	1	ES				Firm dark brown silty slightly sandy slightly gravelly CLAY. Sand is fine. Gravel is fine to coarse angular flint and quartzite. (TOPSOIL)	0.25	
						Firm brown slightly sandy slightly gravelly CLAY. Gravel is fine to coarse subangular to rounded flint and quartzite. (SUBSOIL)	(0.35)	
0.55		V	$c_u=54/66/56$			Firm reddish brown slightly sandy CLAY. Sand is fine with occasional anhydrite. (HEAD DEPOSITS)	0.60	
0.80	2	ES						
0.80	3	D						
1.20		V	$c_u=70/92/100$				(1.30)	
1.90		V	$c_u=94/88/92$			Firm greenish brown sandy CLAY. Sand is fine. Damp. (HEAD DEPOSITS)	1.90	
2.00	1	D					(0.50)	
						Weak red distinctly weathered MUDSTONE. (BRANSCOMBE MUDSTONE FORMATION)	2.40	
							(0.40)	
2.80	2	D				Trial pit terminated at 2.80 m depth.	2.80	

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Plan (Not to Scale) 		General Remarks 1. Slow water seepage at 1.90-2.40 m. 2. Trial pit backfilled with arisings. 3. Sides remained stable during excavation. 4. Excavated using a two foot toothless bucket. 5. Clegg Hammer results at 0.55 m: test 1=5,6,5,5,6	
Method Used: Machine dug		Plant Used: Mini tracked excavator	
Logged By: KHolmes		Checked By: KHolmes	
All dimensions in metres		Scale: 1:25	



Contract: Land North of Barkby Road, Syston		Client: Taylor Wimpey Strategic Land		Trial Pit: TP10	
Contract Ref: 302001		Start: 22.02.18 End: 22.02.18	Ground Level: 59.52	National Grid Co-ordinate: E:463740.9 N:311059.0	Sheet: 1 of 1

Samples and In-situ Tests				Water	Backfill	Description of Strata	Depth (Thickness)	Material Graphic Legend
Depth	No	Type	Results					
0.50		V	c _u =78/76/90		Backfill	Firm brown silty sandy CLAY. Sand is fine. Rootlets noted. (TOPSOIL)	(0.30)	
						Firm brown slightly sandy slightly gravelly CLAY. Gravel is fine to coarse subangular to rounded flint and quartzite. (SUBSOIL)	(0.40)	
1.00	1	D				Firm to stiff reddish brown slightly sandy CLAY. Sand is fine to medium. (BRANSCOMBE MUDSTONE FORMATION)	(0.80)	
						Trial pit terminated at 1.50 m depth due to dense geology.	1.50	

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Plan (Not to Scale)		General Remarks			
		<ol style="list-style-type: none"> No groundwater encountered. Trial pit remained stable during excavation. Trial pit refused at 1.50 m due to difficulty digging. Trial pit backfilled with arisings. Excavated using a two foot toothless bucket. Clegg Hammer results at 0.50 m: test 1=5,6,7,7,7; test 2=5,5,6,7,7; test 3=4,6,6,6,7 			
		All dimensions in metres		Scale: 1:25	
Method Used: Machine dug	Plant Used: Mini tracked excavator	Logged By: KHolmes	Checked By:		

Contract: Land North of Barkby Road, Syston		Client: Taylor Wimpey Strategic Land		Trial Pit: TP11	
Contract Ref: 302001	Start: 23.02.18 End: 23.02.18	Ground Level: 60.75	National Grid Co-ordinate: E:463875.0 N:311051.0	Sheet: 1 of 1	

Samples and In-situ Tests				Water	Backfill	Description of Strata	Depth (Thickness)	Material Graphic Legend
Depth	No	Type	Results					
						Firm dark brown silty sandy slightly gravelly CLAY. Sand is fine. Gravel is fine to coarse. (TOPSOIL)	(0.30)	
0.60		V	$c_u=84/96/>130$			Weak reddish brown distinctly weathered MUDSTONE. (BRANSCOMBE MUDSTONE FORMATION)	(1.70)	
1.50	1	D					2.00	
						Trial pit terminated at 2.00 m depth.		

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Plan (Not to Scale)		General Remarks			
		<ol style="list-style-type: none"> 1. Trial pit backfilled with arisings. 2. Trial pit remained stable during excavation. 3. No groundwater encountered. 4. Hard diggability through weathered mudstone. 5. Unable to complete hand vane tests in mudstone due to friable nature of soil arising. 6. Excavated using a two foot toothless bucket. 			
		All dimensions in metres		Scale: 1:25	
Method Used: Machine dug		Plant Used: Mini tracked excavator		Logged By: KHolmes	
				Checked By:	

Contract: Land North of Barkby Road, Syston		Client: Taylor Wimpey Strategic Land		Trial Pit: TP12	
Contract Ref: 302001	Start: 22.02.18 End: 22.02.18	Ground Level: 59.72	National Grid Co-ordinate: E:463709.5 N:311018.1	Sheet: 1 of 1	

Samples and In-situ Tests				Water	Backfill	Description of Strata	Depth (Thickness)	Material Graphic Legend
Depth	No	Type	Results					
0.50		V	c _v => 130 / > 130 / > 130			Firm dark brown silty slightly sandy slightly gravelly CLAY. Sand is fine. Gravel is fine to coarse subangular flint and quartzite. Fine rootlets noted. (TOPSOIL)	(0.30)	
						Firm brown slightly sandy slightly gravelly CLAY. Sand is fine to coarse. Gravel is fine to coarse subangular flint and quartzite. (SUBSOIL)	(0.40)	
1.20	1	D				Firm to stiff reddish brown slightly sandy CLAY. Sand is fine. (BRANSCOMBE MUDSTONE FORMATION)	(0.80)	
						... localised sandy lense at 1.40 m and wet.	1.50	
Trial pit terminated at 2.00 m depth.								

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Plan (Not to Scale) 		General Remarks 1. Localised water strike at 1.40 m depth. 2. Trial pit remained stable during excavation. 3. Trial pit backfilled with arisings. 4. Excavated using a two foot toothless bucket. 5. Clegg Hammer results at 0.50 m: test 1=4,6,7,7,7; test 2=6,7,7,7,7; test 3=5,6,6,7,7	
All dimensions in metres		Scale: 1:25	
Method Used: Machine dug	Plant Used: Mini tracked excavator	Logged By: KHolmes	Checked By:

Contract: Land North of Barkby Road, Syston		Client: Taylor Wimpey Strategic Land		Trial Pit: TP13
Contract Ref: 302001	Start: 23.02.18 End: 23.02.18	Ground Level: 61.36	National Grid Co-ordinate: E:463823.0 N:311013.1	Sheet: 1 of 1

Samples and In-situ Tests				Water	Backfill	Description of Strata	Depth (Thickness)	Material Graphic Legend
Depth	No	Type	Results					
1.50	1	D				Firm dark brown slightly sandy slightly gravelly CLAY. Sand is fine. Gravel is fine to coarse subrounded flint. Occasional rootlets. (TOPSOIL)	(0.40)	
						Weak reddish brown distinctly weathered MUDSTONE. (BRANSCOMBE MUDSTONE FORMATION)	0.40	
								(1.40)
						Trial pit terminated at 1.80 m depth.	1.80	

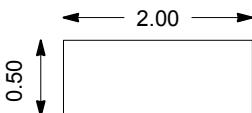
GINT LIBRARY v8_06.GLB LibVersion: v8_06 - Core+Logs - 002 | Log TRIAL PIT LOG - A4P | 302001.GPJ - v8_06.
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Plan (Not to Scale) 		<h3>General Remarks</h3> <ol style="list-style-type: none"> 1. Trial pit backfilled with arisings. 2. No groundwater encountered. 3. Trial pit remained stable during excavation. 4. Difficult diggability through weathered mudstone. 5. Unable to complete hand vane tests due to friable nature of soil arising. 6. Excavated using a two foot toothless bucket. 	
Method Used: Machine dug		Plant Used: Mini tracked excavator	
Logged By: KHolmes		Checked By: 1:25	

Contract: Land North of Barkby Road, Syston		Client: Taylor Wimpey Strategic Land		Trial Pit: TP14	
Contract Ref: 302001	Start: 22.02.18 End: 22.02.18	Ground Level: 59.79	National Grid Co-ordinate: E:463663.0 N:310985.0	Sheet: 1 of 1	

Samples and In-situ Tests				Water	Backfill	Description of Strata	Depth (Thickness)	Material Graphic Legend
Depth	No	Type	Results					
0.20	1	ES				Firm dark brown slightly silty slightly sandy slightly gravelly CLAY. Gravel is fine to coarse rounded flint. (TOPSOIL)	0.20	
0.60	1	D				Orangish brown slightly gravelly very sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse rounded to subangular. (HEAD DEPOSITS)	(0.70)	
0.60	2	ES						
1.40		V	$c_u > 130 / > 130 / > 130$			Firm pinkish brown silty slightly sandy slightly gravelly CLAY. Sand is fine. Gravel is fine to coarse angular to subrounded with rare anhydrite. (BRANSCOMBE MUDSTONE FORMATION) ... from 1.10 m, becoming stiff.	0.90	
1.50	2	D						
						Trial pit terminated at 2.00 m depth.	2.00	

Plan (Not to Scale)



General Remarks

1. No groundwater encountered.
2. Trial pit remained stable during excavation.
3. Trial pit backfilled with arisings.
4. Trial pit terminated at 2.00 m due to difficulty digging.
5. Excavated using a two foot toothless bucket.

All dimensions in metres

Scale: **1:25**

Method Used: Machine dug	Plant Used: Mini tracked excavator	Logged By: KHolmes	Checked By:	
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Contract: Land North of Barkby Road, Syston		Client: Taylor Wimpey Strategic Land		Trial Pit: TP15
Contract Ref: 302001	Start: 22.02.18 End: 22.02.18	Ground Level: 61.70	National Grid Co-ordinate: E:463789.1 N:310964.1	Sheet: 1 of 1

Samples and In-situ Tests				Water	Backfill	Description of Strata	Depth (Thickness)	Material Graphic Legend
Depth	No	Type	Results					
						Firm dark brown slightly silty slightly sandy slightly gravelly CLAY. Gravel is fine to coarse rounded flint. (TOPSOIL)	0.20	
						Firm brown slightly sandy CLAY. Sand is fine to medium. (SUBSOIL)	0.40	
						Firm orangish brown gravelly very sandy CLAY. Sand is fine to coarse. Gravel is fine to coarse angular quartzite and flint. (HEAD DEPOSITS)	(0.60)	
						Firm to stiff pinkish brown slightly sandy CLAY. Sand is fine. (BRANSCOMBE MUDSTONE FORMATION)	1.00	
1.20	1	D					(0.90)	
1.50		V	$c_u=124/102/126$				1.90	
Trial pit terminated at 1.90 m depth.								

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Plan (Not to Scale) 		General Remarks 1. No groundwater encountered. 2. Trial pit remained stable during excavation. 3. Trial pit backfilled with arisings. 4. Excavated using a two foot toothless bucket.		
Method Used: Machine dug		Plant Used: Mini tracked excavator		Logged By: KHolmes
		All dimensions in metres		Scale: 1:25
				Checked By:





WINDOW SAMPLE LOG

Contract: Land North of Barkby Road, Syston		Client: Taylor Wimpey Strategic Land		Window Sample: WS01	
Contract Ref: 302001	Start: 23.02.18 End: 23.02.18	Ground Level: 61.60	National Grid Co-ordinate: E:463641.0 N:311275.0	Sheet: 1 of 1	

Progress Window Run	Samples / Tests				Water Backfill & Instru- mentation	Description of Strata	Depth (Thick- ness)	Material Graphic Legend
	Depth	No	Type	Results				
	0.10	1	ES	TJV		Stiff brown slightly gravelly sandy CLAY. Gravel is fine to medium subangular to subrounded quartzite and flint. Sand is fine to medium. (TOPSOIL)	(0.30)	
	0.50	3	ES	TJV		Orangish brown gravelly clayey SAND. Gravel is fine to coarse subrounded to rounded quartzite. (BIRSTALL MEMBER)	(0.50)	
	0.90	2	ES	TJV		Reddish brown very gravelly clayey medium to coarse SAND. Gravel is rounded to subrounded fine to medium quartzite and flint. (BIRSTALL MEMBER)	(0.30)	
	1.20-1.65	S	SPT	N=31		Very stiff orangish brown CLAY. (BRANSCOMBE MUDSTONE FORMATION)	1.10	
	2.00-2.45	S	SPT	N=19			(2.33)	
	3.00-3.43	S	SPT	N=50		... From 2.5 m to 2.6 m, soft to firm.	3.43	
						Window sample hole refused at 3.43m depth.		

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Drilling Progress and Water Observations						General Remarks	
Date	Time	Borehole Depth (m)	Casing Depth (m)	Borehole Diameter (mm)	Water Depth (m)		
						1. No groundwater was encountered. 2. Installation: 1m plain, 2m slotted. 3. SPT hammer 110.34-2018 ($E_r = 71.00\%$) used.	
						All dimensions in metres	Scale: 1:25
Method Used:	Tracked window sampling		Plant Used:	Premier rig		Drilled By:	Geoffrey Fawcett
						Logged By:	HWarrener
						Checked By:	



WINDOW SAMPLE LOG

Contract: Land North of Barkby Road, Syston		Client: Taylor Wimpey Strategic Land		Window Sample: WS02	
Contract Ref: 302001	Start: 23.02.18 End: 23.02.18	Ground Level: 62.56	National Grid Co-ordinate: E:463773.0 N:311286.0	Sheet: 1 of 1	

Progress Window Run	Samples / Tests				Water	Backfill & Instrumentation	Description of Strata	Depth (Thickness)	Material Graphic Legend
	Depth	No	Type	Results					
	0.20	1	ES	TJV			Stiff brown slightly gravelly sandy CLAY. Gravel is fine to medium subangular to subrounded quartzite and flint. Sand is fine to medium. (TOPSOIL)	(0.30)	
	0.50		V	$c_u => 105 / > 105$			Stiff to very stiff orangish brown slightly sandy CLAY. Sand is fine to medium. Weathered bedrock. (BRANSCOMBE MUDSTONE FORMATION)	0.30	
	1.00	2	ES	TJV					
	1.20-1.65	S	SPT	N=26				(2.13)	
	2.00-2.43	s	SPT	N=50				2.43	
							Window sample hole refused at 2.43m depth.		

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Drilling Progress and Water Observations						General Remarks	
Date	Time	Borehole Depth (m)	Casing Depth (m)	Borehole Diameter (mm)	Water Depth (m)		
						1. No groundwater was encountered. 2. Installation: 1.00m plain: 1.00m slotted. 3. SPT hammer 110.34-2018 ($E_r = 71.00\%$) used.	
All dimensions in metres						Scale:	1:25
Method Used:	Tracked window sampling		Plant Used:	Premier rig		Drilled By:	Geoffrey Fawcett
						Logged By:	HWarrener
						Checked By:	



WINDOW SAMPLE LOG

Contract: Land North of Barkby Road, Syston		Client: Taylor Wimpey Strategic Land		Window Sample: WS03
Contract Ref: 302001	Start: 23.02.18 End: 23.02.18	Ground Level: 59.09	National Grid Co-ordinate: E:463757.9 N:311236.0	Sheet: 1 of 1

Progress Window Run	Samples / Tests				Water Backfill & Instru- mentation	Description of Strata	Depth (Thick- ness)	Material Graphic Legend
	Depth	No	Type	Results				
	0.20 0.20	1	ES	TJV V _c => >105 / >105 / >105		Stiff brown slightly gravelly sandy CLAY. Gravel is fine to medium subangular to subrounded quartzite and flint. Sand is fine to medium. (TOPSOIL)	(0.30) 0.30	
	1.20-1.65 1.20	S 2	SPT ES	N=35		Stiff reddish brown slightly sandy CLAY. Sand is fine to medium with localised patches of very sandy clay. Weathered mudstone. (BRANSCOMBE MUDSTONE FORMATION) ... from 1.00m, becoming orangish brown and very stiff.	(2.11)	
	2.00-2.41	S	SPT	N=50			2.41	
Window sample hole refused at 2.41m depth.								

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Drilling Progress and Water Observations						General Remarks	
Date	Time	Borehole Depth (m)	Casing Depth (m)	Borehole Diameter (mm)	Water Depth (m)		
						1. No groundwater was encountered. 2. Installation: 1.00m plain, 1.00m slotted. 3. SPT hammer 110.34-2018 ($E_r = 71.00\%$) used.	
All dimensions in metres						Scale:	1:25
Method Used:	Tracked window sampling		Plant Used:	Premier rig		Drilled By:	Geoffrey Fawcett
						Logged By:	HWarrener
						Checked By:	



WINDOW SAMPLE LOG

Contract: Land North of Barkby Road, Syston		Client: Taylor Wimpey Strategic Land		Window Sample: WS04
Contract Ref: 302001	Start: 23.02.18 End: 23.02.18	Ground Level: 58.72	National Grid Co-ordinate: E:463776.0 N:311195.0	Sheet: 1 of 1

Progress Window Run	Samples / Tests				Water Backfill & Instru- mentation	Description of Strata	Depth (Thick- ness)	Material Graphic Legend
	Depth	No	Type	Results				
	0.20	1	ES	TJV		Soft to firm brown slightly gravelly slightly sandy silty CLAY. Gravel is fine to medium subangular to rounded quartzite, flint and coal. Sand is fine to coarse. (TOPSOIL)	0.30	
	0.50 0.50	2	ES V	TJV c _v >=105/>105/>105		Firm to stiff orangish brown slightly sandy CLAY. Sand is fine to medium. (BRANSCOMBE MUDSTONE FORMATION)	(0.80)	
	1.20-1.65	S	SPT	N=15		Stiff light grey mottled orange slightly sandy CLAY. Sand is medium. (BRANSCOMBE MUDSTONE FORMATION)	(0.50)	
	1.40	3	ES	TJV		Very stiff slightly sandy CLAY with relict roots. Sand is medium to coarse. (BRANSCOMBE MUDSTONE FORMATION)	1.10	
	2.00-2.45	S	SPT	N=24			(2.60)	
	3.00-3.45	S	SPT	N=13		... from 3.5 m, becoming mottled grey.	4.20	
	4.00-4.45	S	SPT	N=9			(1.25)	
	4.50	1	D			Green mottled brown, SANDS AND GRAVEL. Sand is fine to coarse. Gravel is fine to medium angular mudstone. (BRANSCOMBE MUDSTONE FORMATION)	(1.25)	
	5.00-5.45	S	SPT	N=12		Window sample hole terminated at 5.0m depth.	5.45	

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Drilling Progress and Water Observations						General Remarks	
Date	Time	Borehole Depth (m)	Casing Depth (m)	Borehole Diameter (mm)	Water Depth (m)		
						1. No groundwater was encountered. 2. Installation: 1.00m plain, 4.00m slotted. 3. SPT hammer 110.34-2018 (E _r = 71.00%) used.	
All dimensions in metres						Scale:	1:33
Method Used:	Tracked window sampling		Plant Used:	Premier rig		Drilled By:	Geoffrey Fawcett
						Logged By:	HWarrener
						Checked By:	



WINDOW SAMPLE LOG

Contract: Land North of Barkby Road, Syston		Client: Taylor Wimpey Strategic Land		Window Sample: WS05
Contract Ref: 302001	Start: 23.02.18 End: 23.02.18	Ground Level: 59.77	National Grid Co-ordinate: E:463846.0 N:311172.0	Sheet: 1 of 1

Progress Window Run	Samples / Tests				Water Backfill & Instru- mentation	Description of Strata	Depth (Thick- ness)	Material Graphic Legend
	Depth	No	Type	Results				
	0.20	1	ES	TJV		Soft to firm, brown slightly gravelly, slightly sandy silty CLAY. Gravel is fine to medium subangular to rounded quartzite, flint and coal. Sand is fine to coarse. (TOPSOIL)	(0.30)	
	0.50		V	$c_u > 105$		Very stiff, slightly sandy CLAY. Sand is medium to coarse black and white mineral. (BRANSCOMBE MUDSTONE FORMATION)	0.30	
	1.00	2	ES	TJV		... from 1.50 m, becoming weathered mudstone.	(2.11)	
	1.20-1.65	S	SPT	N=44				
	2.00-2.41	S	SPT	N=50				
						Window sample hole refused at 2.41m depth.	2.41	

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Drilling Progress and Water Observations						General Remarks	
Date	Time	Borehole Depth (m)	Casing Depth (m)	Borehole Diameter (mm)	Water Depth (m)		
						1. No groundwater was encountered. 2. Installation: 1.00m plain, 1.00m slotted. 3. SPT hammer 110.34-2018 ($E_r = 71.00\%$) used.	
All dimensions in metres						Scale:	1:25
Method Used:	Tracked window sampling		Plant Used:	Premier rig		Drilled By:	Geoffrey Fawcett
						Logged By:	HWarrener
						Checked By:	



WINDOW SAMPLE LOG

Contract: Land North of Barkby Road, Syston		Client: Taylor Wimpey Strategic Land		Window Sample: WS06
Contract Ref: 302001	Start: 23.02.18 End: 23.02.18	Ground Level: 61.68	National Grid Co-ordinate: E:463904.9 N:311150.1	Sheet: 1 of 1

Progress	Samples / Tests				Water	Backfill & Instrumentation	Description of Strata	Depth (Thickness)	Material Graphic Legend
Window Run	Depth	No	Type	Results					
						Soft to firm brown slightly gravelly slightly sandy silty CLAY. Gravel is fine to medium subangular to rounded quartzite flint and coal. Sand is fine to coarse. (TOPSOIL)	(0.30)		
	0.60	1	ES	TJV		Very stiff, slightly sandy CLAY. Sand is medium to coarse black and white mineral. (BRANSCOMBE MUDSTONE FORMATION)	0.30		
	1.20-1.59	S	SPT	N=50		... from 1.20 m, becoming horizontally laminated.	(2.07)		
						... becoming weathered bedrock with depth.			
	2.00-2.37	S	SPT	N=50			2.37		
Window sample hole refused at 2.37m depth.									

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Drilling Progress and Water Observations						General Remarks	
Date	Time	Borehole Depth (m)	Casing Depth (m)	Borehole Diameter (mm)	Water Depth (m)		
						1. No groundwater was encountered. 2. Hand vane refused at 0.50 m. 4. Installation: 1.00m plain, 1.00m slotted. 4. SPT hammer 110.34-2018 ($E_r = 71.00\%$) used.	
All dimensions in metres						Scale:	1:25
Method Used:	Tracked window sampling		Plant Used:	Premier rig		Drilled By:	Geoffrey Fawcett
						Logged By:	HWarrener
						Checked By:	



WINDOW SAMPLE LOG

Contract: Land North of Barkby Road, Syston		Client: Taylor Wimpey Strategic Land		Window Sample: WS07	
Contract Ref: 302001	Start: 22.02.18 End: 22.02.18	Ground Level: 58.49	National Grid Co-ordinate: E:463660.0 N:311167.0	Sheet: 1 of 1	

Progress Window Run	Samples / Tests				Water Backfill & Instru- mentation	Description of Strata	Depth (Thick- ness)	Material Graphic Legend
	Depth	No	Type	Results				
						TOPSOIL: Soft to firm brown slightly gravelly slightly sandy CLAY. Gravel is fine subrounded to subangular. Sand is fine to medium. (TOPSOIL)	(0.30)	
	0.55		V	$c_u=68/69/99$		Firm to stiff orangish brown slightly gravelly slightly sandy CLAY. Gravel is fine subrounded to subangular. Sand is fine to medium. (BRANSCOMBE MUDSTONE FORMATION)	(0.40)	
						Orangish brown mottled grey slightly sandy CLAY. Sand is fine. (BRANSCOMBE MUDSTONE FORMATION)	0.70	
	1.20-1.65	S	SPT	N=8		... from 1.20 m, becoming grey mottled orange.	(1.50)	
	2.00-2.45 2.00	S 1	SPT ES	N=15		... 1.95m, band of black slight organic odour, possible relict wood.	2.20	
	3.00-3.45	S	SPT	N=50		Stiff to very stiff reddish brown mottled grey gravelly CLAY. Gravel is angular to subangular fine to coarse mudstone. (BRANSCOMBE MUDSTONE FORMATION)	(1.25)	
						Window sample hole terminated at 3.45m depth.	3.45	

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Drilling Progress and Water Observations						General Remarks	
Date	Time	Borehole Depth (m)	Casing Depth (m)	Borehole Diameter (mm)	Water Depth (m)		
						1. Water seepage from 0.35 m 2. Installation: 1.00m plain, 2.00m slotted. 3. Difficult to identify the depth of the boundary between the topsoil and the underlying soil due to a high moisture content. 4. Water encountered at 1.90 m rose to 0.80 m. 5. SPT hammer 110.34-2018 ($E_r = 71.00\%$) used.	
Method Used: Tracked window sampling						All dimensions in metres	
Plant Used: Premier rig						Scale: 1:25	
Drilled By: Geoffrey Fawcett		Logged By: HWarrener		Checked By:			



WINDOW SAMPLE LOG

Contract: Land North of Barkby Road, Syston		Client: Taylor Wimpey Strategic Land		Window Sample: WS08	
Contract Ref: 302001	Start: 22.02.18 End: 22.02.18	Ground Level: 58.87	National Grid Co-ordinate: E:463727.0 N:311095.9	Sheet: 1 of 2	

Progress Window Run	Samples / Tests				Water Backfill & Instru- mentation	Description of Strata	Depth (Thick- ness)	Material Graphic Legend	
	Depth	No	Type	Results					
	0.20	1	ES	TJV		Soft to firm brown slightly gravelly slightly sandy CLAY. Gravel is fine subrounded to subangular. Sand is fine to medium. (TOPSOIL)	(0.30)		
	0.50	V		$c_u=100 > 105/95$		Firm to stiff orangish brown slightly sandy CLAY. Sand is medium to coarse. (BRANSCOMBE MUDSTONE FORMATION)	(0.90)		
	1.00	2	ES	TJV			1.20		
	1.20-1.65	S	SPT	N=7		Firm to stiff light grey mottled orange slightly sandy CLAY. Sand is fine. (BRANSCOMBE MUDSTONE FORMATION)	(0.50)		
	1.55	3	ES	TJV		... at 1.40m becoming gravelly. Gravel is medium to coarse rounded to subrounded quartzite. ... from 1.50 m to 1.60 m, dark greyish brown slightly sandy CLAY. Sand is fine to medium.	1.70		
	1.80	4	D				1.95		
	2.00-2.45	S	SPT	N=17		Firm to stiff grey mottled orange gravelly sandy CLAY. Gravel is medium to coarse subrounded to rounded quartzite and subangular to angular flint. Sand is fine to medium. (BRANSCOMBE MUDSTONE FORMATION)			
	2.00 - 3.00 (98mm dia) 100% rec								
	3.00-3.45	S	SPT	N=26					
	3.00	S	ES					(2.50)	
	3.00 - 4.00 (98mm dia) 95% rec								
	4.00-4.45	S	SPT	N=50				4.45	
						Window sample hole refused at 4.45m depth.			

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Drilling Progress and Water Observations						General Remarks	
Date	Time	Borehole Depth (m)	Casing Depth (m)	Borehole Diameter (mm)	Water Depth (m)		
						1. Water punded at 0.5m in hand dug pit. 2. Water seepage from 0.35 m. 3. No recovery from 2.00 m to 3.00 m. 4. Installation: 1.00m plain, 3.00m slotted. 5. Difficult to identify the depth of the boundary between the topsoil and the underlying soil due to a high moisture content. 6. Cased to 3.0 m	
						All dimensions in metres	Scale: 1:28
Method Used: Tracked window sampling		Plant Used: Premier rig		Drilled By: Geoffrey Fawcett	Logged By: HWarrener	Checked By:	



WINDOW SAMPLE LOG

Contract: Land North of Barkby Road, Syston		Client: Taylor Wimpey Strategic Land		Window Sample: WS08
Contract Ref: 302001	Start: 22.02.18 End: 22.02.18	Ground Level: 58.87	National Grid Co-ordinate: E:463727.0 N:311095.9	Sheet: 2 of 2

Progress	Samples / Tests				Water Backfill & Instrumentation	Description of Strata	Depth (Thickness)	Material Graphic Legend
Window Run	Depth	No	Type	Results				

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Drilling Progress and Water Observations						General Remarks		
Date	Time	Borehole Depth (m)	Casing Depth (m)	Borehole Diameter (mm)	Water Depth (m)			
						7. SPT hammer 110.34-2018 ($E_r = 71.00\%$) used.		
Method Used: Tracked window sampling			Plant Used: Premier rig			All dimensions in metres		Scale: 1:28
Drilled By: Geoffrey Fawcett		Logged By: HWarrener		Checked By: 				



WINDOW SAMPLE LOG

Contract: Land North of Barkby Road, Syston		Client: Taylor Wimpey Strategic Land		Window Sample: WS09	
Contract Ref: 302001	Start: 22.02.18 End: 22.02.18	Ground Level: 58.89	National Grid Co-ordinate: E:463668.1 N:311040.0	Sheet: 1 of 1	

Progress Window Run	Samples / Tests				Water Backfill & Instru- mentation	Description of Strata	Depth (Thick- ness)	Material Graphic Legend
	Depth	No	Type	Results				
<p>1.20 - 2.00 (98mm dia) 80% rec</p>	0.10	1	ES	TJV		Soft brown slightly gravelly, slightly sandy silty CLAY. Gravel is fine to coarse angular to rounded quartzite and flint. Sand is fine. (TOPSOIL)	(0.35)	
						Firm to stiff orangish brown slightly gravelly CLAY. Gravel is fine to medium subangular to subrounded coal. (BRANSCOMBE MUDSTONE FORMATION)	0.35	
	1.00	2	ES	TJV				
	1.20-1.65	S	SPT	N=45				
2.00-2.40	S	SPT	N=50				2.40	
Window sample hole refused at 2.40m depth.								

Drilling Progress and Water Observations						General Remarks	
Date	Time	Borehole Depth (m)	Casing Depth (m)	Borehole Diameter (mm)	Water Depth (m)		
						1. Installation: 1.00m plain, 1.00m slotted. 2. Water seepage from 0.35 m 3. Sides remained stable throughout excavation. 4. SPT hammer 110.34-2018 ($E_r = 71.00\%$) used.	
All dimensions in metres						Scale:	1:25
Method Used:	Tracked window sampling		Plant Used:	Premier rig		Drilled By:	Geoffrey Fawcett
						Logged By:	HWarrener
						Checked By:	

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WINDOW SAMPLE LOG

Contract: Land North of Barkby Road, Syston		Client: Taylor Wimpey Strategic Land		Window Sample: WS10	
Contract Ref: 302001	Start: 22.02.18 End: 22.02.18	Ground Level: 59.97	National Grid Co-ordinate: E:463795.1 N:311052.1	Sheet: 1 of 1	

Progress Window Run	Samples / Tests				Water Backfill & Instru- mentation	Description of Strata	Depth (Thick- ness)	Material Graphic Legend
	Depth	No	Type	Results				
	0.20	1	ES	TJV		Soft brown slightly gravelly sandy silty CLAY. Gravel is fine to coarse angular to rounded. Sand is fine. (TOPSOIL)	(0.30)	
	0.45		V	$c_u=98/>105/>105$		Firm to stiff, orangish red slightly gravelly CLAY. Gravel is fine to medium subangular to subrounded coal. (BRANSCOMBE MUDSTONE FORMATION)	0.30	
	1.20-1.65 1.20	S 2	SPT ES	N=40			(2.11)	
	2.00-2.41	S	SPT	N=50			2.41	
						Window sample hole refused at 2.41m depth.		

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Drilling Progress and Water Observations						General Remarks					
Date	Time	Borehole Depth (m)	Casing Depth (m)	Borehole Diameter (mm)	Water Depth (m)						
						1. Water seepage from 0.30 m. 2. Installation: 1.00m plain, 1.00m slotted. 3. SPT hammer 110.34-2018 ($E_r = 71.00\%$) used.					
All dimensions in metres						Scale:	1:25				
Method Used:	Tracked window sampling		Plant Used:	Premier rig		Drilled By:	Geoffrey Fawcett	Logged By:	HWarrener	Checked By:	



WINDOW SAMPLE LOG

Contract: Land North of Barkby Road, Syston		Client: Taylor Wimpey Strategic Land		Window Sample: WS11
Contract Ref: 302001	Start: 22.02.18 End: 22.02.18	Ground Level: 60.84	National Grid Co-ordinate: E:463741.1 N:310973.0	Sheet: 1 of 1

Progress Window Run	Samples / Tests				Water Backfill & Instru- mentation	Description of Strata	Depth (Thick- ness)	Material Graphic Legend
	Depth	No	Type	Results				
	0.20	1	ES	TJV	Water Backfill & Instru- mentation	Brown slightly gravelly silty clayey fine to medium SAND. Gravel is fine to coarse rounded to subrounded quartzite and subrounded to subangular flint. (TOPSOIL)	(0.30)	
	0.50		V	$c_u=90/98/68/98$		Firm to stiff orangish brown slightly gravelly sandy CLAY. With patches of very sandy clay. Gravel is fine to coarse subrounded to rounded quartzite and coal with rare subangular to subrounded flint. Sand is fine to coarse. (HEAD DEPOSITS)	(0.40)	
	1.00	2	ES	TJV	Water Backfill & Instru- mentation	Stiff to very stiff reddish brown slightly gravelly CLAY. Gravel is fine subrounded to subangular flint. (BRANSCOMBE MUDSTONE FORMATION)	(1.71)	
	1.20-1.65	S	SPT	N=31		... from 1.30m, no gravel present.		
						... from 1.60m, with lamination.		
	2.00-2.41	S	SPT	N=50				
						2.41		
Window sample hole refused at 2.41m depth.								

GINT LIBRARY v8_06.GLB LibVersion: v8_06 - Core+Logs - 002 | Log WINDOW SAMPLE LOG - A4P | 302001.GPJ - v8_06.
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Drilling Progress and Water Observations						General Remarks					
Date	Time	Borehole Depth (m)	Casing Depth (m)	Borehole Diameter (mm)	Water Depth (m)						
						1. No groundwater was encountered. 2. Installation: 1.00m plain, 2.00m slotted. 3. SPT hammer 110.34-2018 ($E_r = 71.00\%$) used.					
All dimensions in metres						Scale:	1:25				
Method Used:	Tracked window sampling		Plant Used:	Premier rig		Drilled By:	Geoffrey Fawcett	Logged By:	HWarrener	Checked By:	



WINDOW SAMPLE LOG

Contract: Land North of Barkby Road, Syston		Client: Taylor Wimpey Strategic Land		Window Sample: WS12	
Contract Ref: 302001	Start: 22.02.18 End: 22.02.18	Ground Level: 62.70	National Grid Co-ordinate: E:463851.1 N:310969.0	Sheet: 1 of 1	

Progress Window Run	Samples / Tests				Water Backfill & Instru- mentation	Description of Strata	Depth (Thick- ness)	Material Graphic Legend
	Depth	No	Type	Results				
	0.20	1	ES	TJV	[Water level indicator]	Slightly gravelly silty clayey fine SAND. Gravel is fine to coarse rounded quartzite with rare angular flint. (TOPSOIL) ... localised patches of cohesive sandy silty clay.	(0.35)	[Material Legend]
	0.50 0.60	2	V ES	$c_u > 105 / > 105 / > 105$ TJV		Firm to stiff orangish brown slightly gravelly sandy CLAY. With patches of very sandy clay. Gravel is fine to coarse subrounded to rounded quartzite and coal with rare subangular to subrounded flint. Sand is fine to coarse. (HEAD DEPOSITS)	(0.55)	[Material Legend]
	1.20-1.65 1.20	3 3	SPT ES	N=19	[Water level indicator]	Stiff light grey mottled orange slightly gravelly slightly sandy CLAY, with occasional patches of sand. Gravel is fine to medium subrounded to rounded quartzite. Sand is fine to medium. (BRANSCOMBE MUDSTONE FORMATION) ... from 1.10 m, no sandy patches, gravel becomes fine and frequent black irregular limeations occur (possible relict roots).	(0.70)	[Material Legend]
	2.00-2.45 2.00	4 4	SPT ES	N=32		Firm to stiff brown mottled black slightly gravelly sandy CLAY. Gravel is fine to coarse subrounded to rounded quartzite angular flint subrounded to subangular sandstone. Sand is fine to medium. (BRANSCOMBE MUDSTONE FORMATION)	(0.50)	[Material Legend]
	2.90 3.00-3.41	5 5	ES SPT	TJV N=50	[Water level indicator]	Stiff orangish brown CLAY. (BRANSCOMBE MUDSTONE FORMATION)	(1.31)	[Material Legend]
						Window sample hole refused at 3.41m depth.		

GINT LIBRARY v8_06.GLB LibVersion: v8_06 - Core+Logs - 002 | Log WINDOW SAMPLE LOG - A4P | 302001.GPJ - v8_06.
 RSK Environment Ltd, 12 Royal Scot Road, Pride Park, Derby, DE24 8AJ. Tel: 01332 542740, Fax: 01332 542760, Web: www.rsk.co.uk | 26/03/18 - 10:32 | VP1 |

Drilling Progress and Water Observations						General Remarks	
Date	Time	Borehole Depth (m)	Casing Depth (m)	Borehole Diameter (mm)	Water Depth (m)		
						1. No groundwater was encountered. 2. Installation: 1.00m plain, 2.00m slotted. 3. SPT hammer 110.34-2018 ($E_r = 71.00\%$) used.	
All dimensions in metres						Scale:	1:25
Method Used:	Tracked window sampling		Plant Used:	Premier rig		Drilled By:	Geoffrey Fawcett
						Logged By:	HWarrener
						Checked By:	[Signature]





APPENDIX C
GROUND GAS MONITORING DATA

IN-SITU GAS MONITORING RESULTS

[Pressures]	Previous	During	Start	End	Equipment Used & Remarks
Round 1	-	Rising	983	987	GA5000 + Weather: Raining + Ground: Wet + Wind: Medium + Air Temp: 2DegC
Round 2	-	Constant	984	984	GA5000 SN-G502481 + Weather: Cloudy + Ground: Wet + Wind: Light + Air Temp: 11DegC
Round 3	-	Constant	991	991	GA5000 SN-G502481 + Weather: Cloudy + Ground: Wet + Wind: Light + Air Temp: 13DegC
Round 4	-	Constant	1012	1011	GA5000 SN-G502481 + Weather: Overcast + Ground: Dry + Wind: Medium + Air Temp: 15DegC
Round 5	-	Constant	1010	1011	GA5000 SN-G502481 + Ground: Damp + Wind: Medium + Air Temp: 7DegC
Round 6	-	Rising	1003	1005	GA5000 SN-G502481 + Ground: Wet + Wind: Medium + Air Temp: 6DegC

Exploratory Position ID	Pipe ref	Pipe diameter (mm)	Monitoring Round	Reported Installation Depth (m)	Measured Installation Depth (mbgl)	Response Zone	Date & Time of Monitoring (elapsed time)	Borehole Pressure (mb)	Atmos Pressure (mb)	Gas Flow (l/hr)	Water Depth (mbgl)	Carbon Dioxide (% / vol)	Methane (% / vol)	Oxygen (% / vol)	LEL (%)	PID (ppm)	Carbon Monoxide (ppm)	Hydrogen Sulphide (ppm)
WS01	1	50	1	3.00	3.06	1.00 to 3.00	08/03/2018 10:21:00	985	985	0.0 _(I)	3.06	0.0	0.0	20.9	0.0	13.1	0	0
WS01	1	50	1		3.06	1.00 to 3.00	15 secs	985	985	0.0 _(SS)	3.06	0.7	0.0	19.9	0.0	-	0	0
WS01	1	50	1		3.06	1.00 to 3.00	30 secs	985	985	-	3.06	0.7	0.0	19.6	0.0	-	0	0
WS01	1	50	1		3.06	1.00 to 3.00	60 secs	985	985	-	3.06	0.7	0.0	19.6	0.0	-	0	0
WS01	1	50	1		3.06	1.00 to 3.00	90 secs	985	985	-	3.06	0.7	0.0	19.6	0.0	-	0	0
WS01	1	50	1		3.06	1.00 to 3.00	120 secs	985	985	-	3.06	0.7	0.0	19.6	0.0	-	0	0
WS01	1	50	1		3.06	1.00 to 3.00	180 secs	985	985	-	3.06	0.8	0.0	19.5	0.0	-	0	0
WS01	1	50	1		3.06	1.00 to 3.00	240 secs	985	985	-	3.06	0.8	0.0	19.4	0.0	-	0	0
WS01	1	50	1		3.06	1.00 to 3.00	300 secs	985	985	-	3.06	0.8	0.0	19.4	0.0	-	0	0
WS01	1	50	2	3.00	3.05	1.00 to 3.00	15/03/2018 09:00:00	984	984	0.1 _(I)	0.97	0.1	0.0	20.9	0.0	-	0	0
WS01	1	50	2		3.05	1.00 to 3.00	15 secs	984	984	0.0 _(SS)	0.97	0.1	0.0	20.8	0.0	-	1	0
WS01	1	50	2		3.05	1.00 to 3.00	30 secs	984	984	-	0.97	0.1	0.0	20.9	0.0	-	0	0
WS01	1	50	2		3.05	1.00 to 3.00	60 secs	984	984	-	0.97	0.1	0.0	20.9	0.0	-	0	0
WS01	1	50	2		3.05	1.00 to 3.00	90 secs	984	984	-	0.97	0.1	0.0	20.9	0.0	-	0	0
WS01	1	50	2		3.05	1.00 to 3.00	120 secs	984	984	-	0.97	0.1	0.0	20.9	0.0	-	0	0
WS01	1	50	2		3.05	1.00 to 3.00	180 secs	984	984	-	0.97	0.1	0.0	20.9	0.0	-	0	0
WS01	1	50	2		3.05	1.00 to 3.00	240 secs	984	984	-	0.97	0.1	0.0	20.9	0.0	-	0	0
WS01	1	50	2		3.05	1.00 to 3.00	300 secs	984	984	-	0.97	0.1	0.0	20.9	0.0	-	0	0

Key: I = Initial, P = Peak, SS = Steady State. Note: LEL = Lower Explosive Limit = 5% v/v.


RSK Environment Ltd 12 Royal Scot Road Pride Park Derby DE24 8AJ	Compiled By	Date	Checked By	Date	Contract Ref:
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IN-SITU GAS MONITORING RESULTS

Exploratory Position ID	Pipe ref	Pipe diameter (mm)	Monitoring Round	Reported Installation Depth (m)	Measured Installation Depth (mbgl)	Response Zone	Date & Time of Monitoring (elapsed time)	Borehole Pressure (mb)	Atmos Pressure (mb)	Gas Flow (l/hr)	Water Depth (mbgl)	Carbon Dioxide (% / vol)	Methane (% / vol)	Oxygen (% / vol)	LEL (%)	PID (ppm)	Carbon Monoxide (ppm)	Hydrogen Sulphide (ppm)
WS01	1	50	3	3.00	3.05	1.00 to 3.00	20/03/2018 09:00:00	992	991	0.0 _(I)	1.08	0.1	0.0	20.9	0.0	-	0	0
WS01	1	50	3		3.05	1.00 to 3.00	15 secs	992	991	0.0 _(SS)	1.08	0.1	0.0	20.8	0.0	-	1	0
WS01	1	50	3		3.05	1.00 to 3.00	30 secs	992	991	-	1.08	0.1	0.0	20.8	0.0	-	1	0
WS01	1	50	3		3.05	1.00 to 3.00	60 secs	992	991	-	1.08	0.1	0.0	20.8	0.0	-	0	0
WS01	1	50	3		3.05	1.00 to 3.00	90 secs	992	991	-	1.08	0.1	0.0	20.8	0.0	-	0	0
WS01	1	50	3		3.05	1.00 to 3.00	120 secs	992	991	-	1.08	0.1	0.0	20.8	0.0	-	0	0
WS01	1	50	3		3.05	1.00 to 3.00	180 secs	992	991	-	1.08	0.1	0.0	20.8	0.0	-	0	0
WS01	1	50	3		3.05	1.00 to 3.00	300 secs	992	991	-	1.08	0.1	0.0	20.8	0.0	-	0	0
WS01	1	50	4	3.00	3.06	1.00 to 3.00	26/03/2018 13:25:00	1012	1012	0.0 _(I)	1.14	0.0	0.0	20.9	0.0	-	0	0
WS01	1	50	4		3.06	1.00 to 3.00	15 secs	1012	1012	0.0 _(SS)	1.14	0.2	0.0	20.7	0.0	-	1	0
WS01	1	50	4		3.06	1.00 to 3.00	30 secs	1012	1012	-	1.14	0.2	0.0	20.7	0.0	-	1	0
WS01	1	50	4		3.06	1.00 to 3.00	60 secs	1012	1012	-	1.14	0.2	0.0	20.7	0.0	-	1	0
WS01	1	50	4		3.06	1.00 to 3.00	90 secs	1012	1012	-	1.14	0.2	0.0	20.8	0.0	-	1	0
WS01	1	50	4		3.06	1.00 to 3.00	120 secs	1012	1012	-	1.14	0.2	0.0	20.7	0.0	-	1	0
WS01	1	50	4		3.06	1.00 to 3.00	180 secs	1012	1012	-	1.14	0.2	0.0	20.7	0.0	-	1	0
WS01	1	50	4		3.06	1.00 to 3.00	240 secs	1012	1012	-	1.14	0.2	0.0	20.7	0.0	-	1	0
WS01	1	50	4		3.06	1.00 to 3.00	300 secs	1012	1012	-	1.14	0.2	0.0	20.7	0.0	-	1	0
WS01	1	50	5	3.00	3.06	1.00 to 3.00	05/04/2018 10:18:00	1011	1011	7.6 _(I)	1.06	0.1	0.0	20.9	-	-	0	0
WS01	1	50	5		3.06	1.00 to 3.00	15 secs	1011	1011	0.9 _(SS)	1.06	0.5	0.0	20.8	-	-	0	0
WS01	1	50	5		3.06	1.00 to 3.00	30 secs	1011	1011	-	1.06	0.5	0.0	20.5	-	-	0	0
WS01	1	50	5		3.06	1.00 to 3.00	60 secs	1011	1011	-	1.06	0.5	0.0	20.4	-	-	0	0
WS01	1	50	5		3.06	1.00 to 3.00	90 secs	1011	1011	-	1.06	0.5	0.0	20.4	-	-	0	0
WS01	1	50	5		3.06	1.00 to 3.00	120 secs	1011	1011	-	1.06	0.5	0.0	20.4	-	-	0	0
WS01	1	50	5		3.06	1.00 to 3.00	180 secs	1011	1011	-	1.06	0.5	0.0	20.4	-	-	0	0
WS01	1	50	5		3.06	1.00 to 3.00	240 secs	1011	1011	-	1.06	0.5	0.0	20.4	-	-	0	0

Key: I = Initial, P = Peak, SS = Steady State. Note: LEL = Lower Explosive Limit = 5% v/v.


 RSK Environment Ltd 12 Royal Scot Road Pride Park Derby DE24 8AJ	Compiled By	Date	Checked By	Date	Contract Ref: 302001
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IN-SITU GAS MONITORING RESULTS

Exploratory Position ID	Pipe ref	Pipe diameter (mm)	Monitoring Round	Reported Installation Depth (m)	Measured Installation Depth (mbgl)	Response Zone	Date & Time of Monitoring (elapsed time)	Borehole Pressure (mb)	Atmos Pressure (mb)	Gas Flow (l/hr)	Water Depth (mbgl)	Carbon Dioxide (% / vol)	Methane (% / vol)	Oxygen (% / vol)	LEL (%)	PID (ppm)	Carbon Monoxide (ppm)	Hydrogen Sulphide (ppm)
WS01	1	50	5		3.06	1.00 to 3.00	300 secs	1011	1011	-	1.06	0.5	0.0	20.4	-	-	0	0
WS01	1	50	6	3.00	3.06	1.00 to 3.00	11/04/2018 10:31:00	1004	1004	0.5 _(I)	1.03	0.1	0.0	20.9	-	-	0	0
WS01	1	50	6		3.06	1.00 to 3.00	15 secs	1004	1004	0.4 _(I)	1.03	0.6	0.0	20.6	-	-	1	0
WS01	1	50	6		3.06	1.00 to 3.00	30 secs	1004	1004	-	1.03	0.6	0.0	20.0	-	-	1	0
WS01	1	50	6		3.06	1.00 to 3.00	60 secs	1004	1004	-	1.03	0.5	0.0	20.0	-	-	1	0
WS01	1	50	6		3.06	1.00 to 3.00	90 secs	1004	1004	-	1.03	0.6	0.0	20.0	-	-	1	0
WS01	1	50	6		3.06	1.00 to 3.00	102 secs	1004	1004	-	1.03	0.5	0.0	20.0	-	-	1	0
WS01	1	50	6		3.06	1.00 to 3.00	180 secs	1004	1004	-	1.03	0.4	0.0	20.3	-	-	1	0
WS01	1	50	6		3.06	1.00 to 3.00	240 secs	1004	1004	-	1.03	0.4	0.0	20.3	-	-	1	0
WS01	1	50	6		3.06	1.00 to 3.00	300 secs	1004	1004	-	1.03	0.4	0.0	20.3	-	-	1	0
WS02	1	50	1	2.00	2.11	1.00 to 2.00	08/03/2018 10:39:00	985	985	0.0 _(I)	2.11	0.0	0.0	20.9	0.0	5.0	0	0
WS02	1	50	1		2.11	1.00 to 2.00	15 secs	985	985	0.0 _(SS)	2.11	0.5	0.0	19.9	0.0	-	0	0
WS02	1	50	1		2.11	1.00 to 2.00	30 secs	985	985	-	2.11	0.5	0.0	19.5	0.0	-	0	0
WS02	1	50	1		2.11	1.00 to 2.00	60 secs	985	985	-	2.11	0.6	0.0	19.3	0.0	-	0	0
WS02	1	50	1		2.11	1.00 to 2.00	90 secs	985	985	-	2.11	0.6	0.0	19.2	0.0	-	0	0
WS02	1	50	1		2.11	1.00 to 2.00	120 secs	985	985	-	2.11	0.6	0.0	19.1	0.0	-	0	0
WS02	1	50	1		2.11	1.00 to 2.00	180 secs	985	985	-	2.11	0.6	0.0	19.0	0.0	-	0	0
WS02	1	50	1		2.11	1.00 to 2.00	240 secs	985	985	-	2.11	0.7	0.0	18.9	0.0	-	0	0
WS02	1	50	1		2.11	1.00 to 2.00	300 secs	985	985	-	2.11	0.7	0.0	18.8	0.0	-	0	0
WS02	1	50	2	2.00	2.10	1.00 to 2.00	15/03/2018 09:00:00	-	-	-	0.00	0.1	0.0	20.9	0.0	-	0	0
Remarks: Flooded. Water around BH, filled BH.																		
WS02	1	50	3	2.00	2.10	1.00 to 2.00	20/03/2018 13:45:00	991	-	3.0 _(I)	1.17	0.1	0.0	20.9	0.0	-	0	0
WS02	1	50	3		2.10	1.00 to 2.00	15 secs	991	-	0.2 _(SS)	1.17	0.2	0.0	19.9	0.0	-	4	0
WS02	1	50	3		2.10	1.00 to 2.00	30 secs	991	-	-	1.17	0.2	0.0	19.6	0.0	-	5	0

Key: I = Initial, P = Peak, SS = Steady State. Note: LEL = Lower Explosive Limit = 5% v/v.


 RSK Environment Ltd 12 Royal Scot Road Pride Park Derby DE24 8AJ	Compiled By	Date	Checked By	Date	Contract Ref: 302001
	<i>Kevin Hooley</i>	25/04/18			
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IN-SITU GAS MONITORING RESULTS

Exploratory Position ID	Pipe ref	Pipe diameter (mm)	Monitoring Round	Reported Installation Depth (m)	Measured Installation Depth (mbgl)	Response Zone	Date & Time of Monitoring (elapsed time)	Borehole Pressure (mb)	Atmos Pressure (mb)	Gas Flow (l/hr)	Water Depth (mbgl)	Carbon Dioxide (% / vol)	Methane (% / vol)	Oxygen (% / vol)	LEL (%)	PID (ppm)	Carbon Monoxide (ppm)	Hydrogen Sulphide (ppm)
WS02	1	50	3		2.10	1.00 to 2.00	60 secs	991	-	-	1.17	0.2	0.0	19.6	0.0	-	5	0
WS02	1	50	3		2.10	1.00 to 2.00	90 secs	991	-	-	1.17	0.2	0.0	19.6	0.0	-	5	0
WS02	1	50	3		2.10	1.00 to 2.00	120 secs	991	-	-	1.17	0.2	0.0	19.6	0.0	-	5	0
WS02	1	50	3		2.10	1.00 to 2.00	180 secs	991	-	-	1.17	0.2	0.0	19.6	0.0	-	5	0
WS02	1	50	3		2.10	1.00 to 2.00	240 secs	991	-	-	1.17	0.2	0.0	19.6	0.0	-	5	0
WS02	1	50	3		2.10	1.00 to 2.00	300 secs	991	-	-	1.17	0.2	0.0	19.6	0.0	-	5	0
WS02	1	50	4	2.00	2.09	1.00 to 2.00	26/03/2018 13:15:00	1011	-	0.0 _(l)	1.18	0.0	0.0	20.9	0.0	-	0	0
WS02	1	50	4		2.09	1.00 to 2.00	15 secs	1011	-	0.0 _(SS)	1.18	0.2	0.0	19.7	0.0	-	3	0
WS02	1	50	4		2.09	1.00 to 2.00	30 secs	1011	-	-	1.18	0.2	0.0	19.3	0.0	-	3	0
WS02	1	50	4		2.09	1.00 to 2.00	60 secs	1011	-	-	1.18	0.2	0.0	19.3	0.0	-	3	0
WS02	1	50	4		2.09	1.00 to 2.00	90 secs	1011	-	-	1.18	0.2	0.0	19.3	0.0	-	3	0
WS02	1	50	4		2.09	1.00 to 2.00	120 secs	1011	-	-	1.18	0.2	0.0	19.3	0.0	-	3	0
WS02	1	50	4		2.09	1.00 to 2.00	180 secs	1011	-	-	1.18	0.2	0.0	19.3	0.0	-	3	0
WS02	1	50	4		2.09	1.00 to 2.00	240 secs	1011	-	-	1.18	0.2	0.0	19.4	0.0	-	4	0
WS02	1	50	4		2.09	1.00 to 2.00	300 secs	1011	-	-	1.18	0.2	0.0	19.4	0.0	-	4	0
WS02	1	50	5	2.00	2.11	1.00 to 2.00	05/04/2018 10:03:00	1010	-	1.9 _(l)	0.86	0.1	0.0	20.9	-	-	0	0
WS02	1	50	5		2.11	1.00 to 2.00	15 secs	1010	-	0.3 _(SS)	0.86	0.2	0.0	20.5	-	-	1	0
WS02	1	50	5		2.11	1.00 to 2.00	30 secs	1010	-	-	0.86	0.2	0.0	19.9	-	-	0	0
WS02	1	50	5		2.11	1.00 to 2.00	60 secs	1010	-	-	0.86	0.2	0.0	20.2	-	-	0	0
WS02	1	50	5		2.11	1.00 to 2.00	90 secs	1010	-	-	0.86	0.1	0.0	20.5	-	-	0	0
WS02	1	50	5		2.11	1.00 to 2.00	120 secs	1010	-	-	0.86	0.1	0.0	20.5	-	-	0	0
WS02	1	50	5		2.11	1.00 to 2.00	180 secs	1010	-	-	0.86	0.1	0.0	20.5	-	-	0	0
WS02	1	50	5		2.11	1.00 to 2.00	240 secs	1010	-	-	0.86	0.1	0.0	20.5	-	-	0	0
WS02	1	50	5		2.11	1.00 to 2.00	300 secs	1010	-	-	0.86	0.1	0.0	20.5	-	-	0	0
WS02	1	50	6	2.00	2.11	1.00 to 2.00	11/04/2018 10:15:00	1006	-	2.2 _(l)	0.71	0.1	0.0	20.9	-	-	0	0

Key: l = Initial, P = Peak, SS = Steady State. Note: LEL = Lower Explosive Limit = 5% v/v.


 RSK Environment Ltd 12 Royal Scot Road Pride Park Derby DE24 8AJ	Compiled By	Date	Checked By	Date	Contract Ref: 302001
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IN-SITU GAS MONITORING RESULTS

Exploratory Position ID	Pipe ref	Pipe diameter (mm)	Monitoring Round	Reported Installation Depth (m)	Measured Installation Depth (mbgl)	Response Zone	Date & Time of Monitoring (elapsed time)	Borehole Pressure (mb)	Atmos Pressure (mb)	Gas Flow (l/hr)	Water Depth (mbgl)	Carbon Dioxide (% / vol)	Methane (% / vol)	Oxygen (% / vol)	LEL (%)	PID (ppm)	Carbon Monoxide (ppm)	Hydrogen Sulphide (ppm)
WS02	1	50	6		2.11	1.00 to 2.00	15 secs	1006	-	0.3 _(SS)	0.71	0.1	0.0	20.8	-	-	5	0
WS02	1	50	6		2.11	1.00 to 2.00	30 secs	1006	-	-	0.71	0.1	0.0	20.3	-	-	6	0
WS02	1	50	6		2.11	1.00 to 2.00	60 secs	1006	-	-	0.71	0.1	0.0	20.2	-	-	6	0
WS02	1	50	6		2.11	1.00 to 2.00	90 secs	1006	-	-	0.71	0.1	0.0	20.1	-	-	7	0
WS02	1	50	6		2.11	1.00 to 2.00	120 secs	1006	-	-	0.71	0.1	0.0	20.0	-	-	7	0
WS02	1	50	6		2.11	1.00 to 2.00	180 secs	1006	-	-	0.71	0.1	0.0	20.0	-	-	7	0
WS02	1	50	6		2.11	1.00 to 2.00	240 secs	1006	-	-	0.71	0.1	0.0	20.0	-	-	7	0
WS02	1	50	6		2.11	1.00 to 2.00	300 secs	1006	-	-	0.71	0.1	0.0	20.0	-	-	7	0
WS03	1	50	1	2.00	2.09	1.00 to 2.00	08/03/2018 10:49:00	986	-	0.0 _(I)	2.09	0.0	0.0	20.9	0.0	2.0	0	0
WS03	1	50	1		2.09	1.00 to 2.00	15 secs	986	-	0.0 _(SS)	2.09	0.4	0.0	19.8	0.0	-	0	0
WS03	1	50	1		2.09	1.00 to 2.00	30 secs	986	-	-	2.09	0.4	0.0	19.5	0.0	-	0	0
WS03	1	50	1		2.09	1.00 to 2.00	60 secs	986	-	-	2.09	0.4	0.0	19.4	0.0	-	0	0
WS03	1	50	1		2.09	1.00 to 2.00	90 secs	986	-	-	2.09	0.4	0.0	19.4	0.0	-	0	0
WS03	1	50	1		2.09	1.00 to 2.00	120 secs	986	-	-	2.09	0.4	0.0	19.4	0.0	-	0	0
WS03	1	50	1		2.09	1.00 to 2.00	180 secs	986	-	-	2.09	0.4	0.0	19.3	0.0	-	0	0
WS03	1	50	1		2.09	1.00 to 2.00	240 secs	986	-	-	2.09	0.4	0.0	19.3	0.0	-	0	0
WS03	1	50	1		2.09	1.00 to 2.00	300 secs	986	-	-	2.09	0.4	0.0	19.3	0.0	-	0	0
WS03	1	50	2	2.00	2.10	1.00 to 2.00	15/03/2018 09:00:00	991	984	3.2 _(I)	0.73	0.1	0.0	20.9	0.0	-	0	0
WS03	1	50	2		2.10	1.00 to 2.00	15 secs	991	984	0.2 _(SS)	0.73	0.4	0.0	19.0	0.0	-	2	0
WS03	1	50	2		2.10	1.00 to 2.00	30 secs	991	984	-	0.73	0.4	0.0	18.5	0.0	-	1	0
WS03	1	50	2		2.10	1.00 to 2.00	60 secs	991	984	-	0.73	0.4	0.0	18.4	0.0	-	1	0
WS03	1	50	2		2.10	1.00 to 2.00	90 secs	991	984	-	0.73	0.4	0.0	18.4	0.0	-	1	0
WS03	1	50	2		2.10	1.00 to 2.00	120 secs	991	984	-	0.73	0.4	0.0	18.4	0.0	-	1	0
WS03	1	50	2		2.10	1.00 to 2.00	180 secs	991	984	-	0.73	0.4	0.0	18.4	0.0	-	1	0

Key: I = Initial, P = Peak, SS = Steady State. Note: LEL = Lower Explosive Limit = 5% v/v.


 RSK Environment Ltd 12 Royal Scot Road Pride Park Derby DE24 8AJ	Compiled By	Date	Checked By	Date	Contract Ref: 302001
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IN-SITU GAS MONITORING RESULTS

Exploratory Position ID	Pipe ref	Pipe diameter (mm)	Monitoring Round	Reported Installation Depth (m)	Measured Installation Depth (mbgl)	Response Zone	Date & Time of Monitoring (elapsed time)	Borehole Pressure (mb)	Atmos Pressure (mb)	Gas Flow (l/hr)	Water Depth (mbgl)	Carbon Dioxide (% / vol)	Methane (% / vol)	Oxygen (% / vol)	LEL (%)	PID (ppm)	Carbon Monoxide (ppm)	Hydrogen Sulphide (ppm)
WS03	1	50	2		2.10	1.00 to 2.00	240 secs	991	984	-	0.73	0.4	0.0	18.4	0.0	-	1	0
WS03	1	50	2		2.10	1.00 to 2.00	300 secs	991	984	-	0.73	0.4	0.0	18.4	0.0	-	1	0
WS03	1	50	3	2.00	2.10	1.00 to 2.00	20/03/2018 14:00:00	991	-	3.1 _(I)	0.59	0.1	0.0	20.9	0.0	-	0	0
WS03	1	50	3		2.10	1.00 to 2.00	15 secs	991	-	0.1 _(SS)	0.59	0.1	0.0	20.0	0.0	-	3	0
WS03	1	50	3		2.10	1.00 to 2.00	30 secs	991	-	-	0.59	0.0	0.0	19.7	0.0	-	2	0
WS03	1	50	3		2.10	1.00 to 2.00	60 secs	991	-	-	0.59	0.0	0.0	19.7	0.0	-	2	0
WS03	1	50	3		2.10	1.00 to 2.00	90 secs	991	-	-	0.59	0.0	0.0	19.7	0.0	-	2	0
WS03	1	50	3		2.10	1.00 to 2.00	120 secs	991	-	-	0.59	0.0	0.0	19.7	0.0	-	2	0
WS03	1	50	3		2.10	1.00 to 2.00	180 secs	991	-	-	0.59	0.0	0.0	19.7	0.0	-	2	0
WS03	1	50	3		2.10	1.00 to 2.00	240 secs	991	-	-	0.59	0.0	0.0	19.7	0.0	-	1	0
WS03	1	50	3		2.10	1.00 to 2.00	300 secs	991	-	-	0.59	0.0	0.0	19.7	0.0	-	1	0
WS03	1	50	4	2.00	2.09	1.00 to 2.00	26/03/2018 13:07:00	1011	-	-0.2 _(I)	0.65	0.0	0.0	20.9	0.0	-	0	0
WS03	1	50	4		2.09	1.00 to 2.00	15 secs	1011	-	0.0 _(SS)	0.65	0.1	0.0	20.6	0.0	-	0	0
WS03	1	50	4		2.09	1.00 to 2.00	30 secs	1011	-	-	0.65	0.1	0.0	20.6	0.0	-	0	0
WS03	1	50	4		2.09	1.00 to 2.00	60 secs	1011	-	-	0.65	0.1	0.0	20.6	0.0	-	0	0
WS03	1	50	4		2.09	1.00 to 2.00	90 secs	1011	-	-	0.65	0.1	0.0	20.6	0.0	-	0	0
WS03	1	50	4		2.09	1.00 to 2.00	120 secs	1011	-	-	0.65	0.1	0.0	20.6	0.0	-	0	0
WS03	1	50	4		2.09	1.00 to 2.00	180 secs	1011	-	-	0.65	0.1	0.0	20.6	0.0	-	0	0
WS03	1	50	4		2.09	1.00 to 2.00	240 secs	1011	-	-	0.65	0.1	0.0	20.6	0.0	-	0	0
WS03	1	50	4		2.09	1.00 to 2.00	300 secs	1011	-	-	0.65	0.1	0.0	20.6	0.0	-	0	0
WS03	1	50	5	2.00	2.11	1.00 to 2.00	05/04/2018 09:51:00	1014	1010	1.3 _(I)	0.41	0.1	0.0	20.9	-	-	0	-
WS03	1	50	5		2.11	1.00 to 2.00	15 secs	1014	1010	0.4 _(SS)	0.41	0.1	0.0	20.8	-	-	1	-
WS03	1	50	5		2.11	1.00 to 2.00	30 secs	1014	1010	-	0.41	0.1	0.0	20.8	-	-	0	-
WS03	1	50	5		2.11	1.00 to 2.00	60 secs	1014	1010	-	0.41	0.1	0.0	20.8	-	-	0	-
WS03	1	50	5		2.11	1.00 to 2.00	90 secs	1014	1010	-	0.41	0.1	0.0	20.8	-	-	0	-

Key: I = Initial, P = Peak, SS = Steady State. Note: LEL = Lower Explosive Limit = 5% v/v.



 RSK Environment Ltd 12 Royal Scot Road Pride Park Derby DE24 8AJ	Compiled By	Date	Checked By	Date	Contract Ref: 302001
	Contract: Land North of Barkby Road, Syston				



IN-SITU GAS MONITORING RESULTS

Exploratory Position ID	Pipe ref	Pipe diameter (mm)	Monitoring Round	Reported Installation Depth (m)	Measured Installation Depth (mbgl)	Response Zone	Date & Time of Monitoring (elapsed time)	Borehole Pressure (mb)	Atmos Pressure (mb)	Gas Flow (l/hr)	Water Depth (mbgl)	Carbon Dioxide (% / vol)	Methane (% / vol)	Oxygen (% / vol)	LEL (%)	PID (ppm)	Carbon Monoxide (ppm)	Hydrogen Sulphide (ppm)
WS03	1	50	5		2.11	1.00 to 2.00	120 secs	1014	1010	-	0.41	0.1	0.0	20.8	-	-	0	-
WS03	1	50	5		2.11	1.00 to 2.00	180 secs	1014	1010	-	0.41	0.1	0.0	20.8	-	-	0	-
WS03	1	50	5		2.11	1.00 to 2.00	240 secs	1014	1010	-	0.41	0.1	0.0	20.8	-	-	0	-
WS03	1	50	5		2.11	1.00 to 2.00	300 secs	1014	1010	-	0.41	0.1	0.0	20.8	-	-	0	-
WS03	1	50	6	2.00	2.11	1.00 to 2.00	11/04/2018 10:02:00	1007	1006	3.3 _(I)	0.36	0.1	0.0	20.9	-	-	0	0
WS03	1	50	6		2.11	1.00 to 2.00	15 secs	1007	1006	0.5 _(SS)	0.36	0.1	0.0	20.9	-	-	1	0
WS03	1	50	6		2.11	1.00 to 2.00	30 secs	1007	1006	-	0.36	0.1	0.0	20.9	-	-	1	0
WS03	1	50	6		2.11	1.00 to 2.00	60 secs	1007	1006	-	0.36	0.1	0.0	20.9	-	-	1	0
WS03	1	50	6		2.11	1.00 to 2.00	90 secs	1007	1006	-	0.36	0.1	0.0	20.9	-	-	1	0
WS03	1	50	6		2.11	1.00 to 2.00	120 secs	1007	1006	-	0.36	0.1	0.0	20.9	-	-	1	0
WS03	1	50	6		2.11	1.00 to 2.00	180 secs	1007	1006	-	0.36	0.1	0.0	20.9	-	-	1	0
WS03	1	50	6		2.11	1.00 to 2.00	240 secs	1007	1006	-	0.36	0.1	0.0	20.9	-	-	1	0
WS03	1	50	6		2.11	1.00 to 2.00	300 secs	1007	1006	-	0.36	0.1	0.0	20.9	-	-	1	0
WS04	1	50	1	5.00	4.94	1.00 to 5.00	08/03/2018 11:01:00	986	-	1.3 _(I)	4.87	0.0	0.0	0.9	0.0	2.5	0	0
WS04	1	50	1		4.94	1.00 to 5.00	15 secs	986	-	2.0 _(SS)	4.87	3.9	0.0	10.1	0.0	-	1	0
WS04	1	50	1		4.94	1.00 to 5.00	30 secs	986	-	-	4.87	4.1	0.0	5.9	0.0	-	1	0
WS04	1	50	1		4.94	1.00 to 5.00	60 secs	986	-	-	4.87	4.5	0.0	4.0	0.0	-	1	0
WS04	1	50	1		4.94	1.00 to 5.00	90 secs	986	-	-	4.87	4.9	0.0	2.3	0.0	-	1	0
WS04	1	50	1		4.94	1.00 to 5.00	120 secs	986	-	-	4.87	5.2	0.0	1.1	0.0	-	1	0
WS04	1	50	1		4.94	1.00 to 5.00	180 secs	986	-	-	4.87	5.3	0.0	0.7	0.0	-	1	0
WS04	1	50	1		4.94	1.00 to 5.00	240 secs	986	-	-	4.87	5.3	0.0	0.3	0.0	-	1	0
WS04	1	50	1		4.94	1.00 to 5.00	300 secs	986	-	-	4.87	5.3	0.0	0.1	0.0	-	1	0
WS04	1	50	2	5.00	4.94	1.00 to 5.00	15/03/2018 09:00:00	-	-	-	3.26	0.1	0.0	20.9	0.0	-	0	0
Remarks: Unable to monitor due to flooded well.																		


Key: I = Initial, P = Peak, SS = Steady State. Note: LEL = Lower Explosive Limit = 5% v/v.

 RSK Environment Ltd 12 Royal Scot Road Pride Park Derby DE24 8AJ	Compiled By	Date	Checked By	Date	Contract Ref:
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IN-SITU GAS MONITORING RESULTS

Exploratory Position ID	Pipe ref	Pipe diameter (mm)	Monitoring Round	Reported Installation Depth (m)	Measured Installation Depth (mbgl)	Response Zone	Date & Time of Monitoring (elapsed time)	Borehole Pressure (mb)	Atmos Pressure (mb)	Gas Flow (l/hr)	Water Depth (mbgl)	Carbon Dioxide (% / vol)	Methane (% / vol)	Oxygen (% / vol)	LEL (%)	PID (ppm)	Carbon Monoxide (ppm)	Hydrogen Sulphide (ppm)
WS04	1	50	3	5.00	4.91	1.00 to 5.00	20/03/2018 09:00:00	991	-	2.7 _(I)	DRY	0.1	0.0	20.9	0.0	-	0	0
WS04	1	50	3		4.91	1.00 to 5.00	15 secs	991	-	2.7 _(SS)	DRY	3.3	0.0	7.8	0.0	-	1	0
WS04	1	50	3		4.91	1.00 to 5.00	30 secs	991	-	-	DRY	3.3	0.0	5.6	0.0	-	1	0
WS04	1	50	3		4.91	1.00 to 5.00	60 secs	991	-	-	DRY	3.3	0.0	5.5	0.0	-	1	0
WS04	1	50	3		4.91	1.00 to 5.00	90 secs	991	-	-	DRY	3.3	0.0	5.5	0.0	-	1	0
WS04	1	50	3		4.91	1.00 to 5.00	120 secs	991	-	-	DRY	3.3	0.0	5.4	0.0	-	1	0
WS04	1	50	3		4.91	1.00 to 5.00	180 secs	991	-	-	DRY	3.3	0.0	5.4	0.0	-	1	0
WS04	1	50	3		4.91	1.00 to 5.00	240 secs	991	-	-	DRY	3.3	0.0	5.3	0.0	-	1	0
WS04	1	50	3		4.91	1.00 to 5.00	300 secs	991	-	-	DRY	3.3	0.0	5.3	0.0	-	1	0
WS04	1	50	4	5.00	4.73	1.00 to 5.00	26/03/2018 12:57:00	1012	-	0.0 _(I)	4.67	0.0	0.0	20.9	0.0	-	0	0
WS04	1	50	4		4.73	1.00 to 5.00	15 secs	1012	-	0.0 _(SS)	4.67	2.8	0.0	9.6	0.0	-	0	0
WS04	1	50	4		4.73	1.00 to 5.00	30 secs	1012	-	-	4.67	2.9	0.0	8.0	0.0	-	0	0
WS04	1	50	4		4.73	1.00 to 5.00	60 secs	1012	-	-	4.67	3.0	0.0	7.7	0.0	-	0	0
WS04	1	50	4		4.73	1.00 to 5.00	90 secs	1012	-	-	4.67	3.0	0.0	7.5	0.0	-	0	0
WS04	1	50	4		4.73	1.00 to 5.00	120 secs	1012	-	-	4.67	3.1	0.0	7.1	0.0	-	0	0
WS04	1	50	4		4.73	1.00 to 5.00	180 secs	1012	-	-	4.67	3.2	0.0	6.7	0.0	-	0	0
WS04	1	50	4		4.73	1.00 to 5.00	240 secs	1012	-	-	4.67	3.3	0.0	6.1	0.0	-	0	0
WS04	1	50	4		4.73	1.00 to 5.00	300 secs	1012	-	-	4.67	3.4	0.0	5.7	0.0	-	0	0
WS05	1	50	1	2.00	2.10	1.00 to 2.00	08/03/2018 11:13:00	987	987	0.0 _(I)	2.10	0.0	0.0	20.9	0.0	34.8	0	0
WS05	1	50	1		2.10	1.00 to 2.00	15 secs	987	987	0.0 _(SS)	2.10	0.6	0.0	19.3	0.0	-	1	0
WS05	1	50	1		2.10	1.00 to 2.00	30 secs	987	987	-	2.10	0.5	0.0	19.2	0.0	-	1	0
WS05	1	50	1		2.10	1.00 to 2.00	60 secs	987	987	-	2.10	0.5	0.0	19.2	0.0	-	1	0
WS05	1	50	1		2.10	1.00 to 2.00	90 secs	987	987	-	2.10	0.5	0.0	19.2	0.0	-	1	0
WS05	1	50	1		2.10	1.00 to 2.00	120 secs	987	987	-	2.10	0.5	0.0	19.2	0.0	-	1	0

Key: I = Initial, P = Peak, SS = Steady State. Note: LEL = Lower Explosive Limit = 5% v/v.


 RSK Environment Ltd 12 Royal Scot Road Pride Park Derby DE24 8AJ	Compiled By	Date	Checked By	Date	Contract Ref: 302001
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IN-SITU GAS MONITORING RESULTS

Exploratory Position ID	Pipe ref	Pipe diameter (mm)	Monitoring Round	Reported Installation Depth (m)	Measured Installation Depth (mbgl)	Response Zone	Date & Time of Monitoring (elapsed time)	Borehole Pressure (mb)	Atmos Pressure (mb)	Gas Flow (l/hr)	Water Depth (mbgl)	Carbon Dioxide (% / vol)	Methane (% / vol)	Oxygen (% / vol)	LEL (%)	PID (ppm)	Carbon Monoxide (ppm)	Hydrogen Sulphide (ppm)
WS05	1	50	1		2.10	1.00 to 2.00	180 secs	987	987	-	2.10	0.5	0.0	19.1	0.0	-	1	0
WS05	1	50	1		2.10	1.00 to 2.00	240 secs	987	987	-	2.10	0.5	0.0	19.0	0.0	-	1	0
WS05	1	50	1		2.10	1.00 to 2.00	300 secs	987	987	-	2.10	0.5	0.0	19.0	0.0	-	1	0
WS05	1	50	2	2.00	2.06	1.00 to 2.00	15/03/2018 09:00:00	981	984	-0.2 _(I)	1.76	0.1	0.0	20.9	0.0	-	0	0
WS05	1	50	2		2.06	1.00 to 2.00	15 secs	981	984	-0.2 _(SS)	1.76	0.4	0.0	20.3	0.0	-	4	0
WS05	1	50	2		2.06	1.00 to 2.00	30 secs	981	984	-	1.76	0.4	0.0	20.2	0.0	-	2	0
WS05	1	50	2		2.06	1.00 to 2.00	60 secs	981	984	-	1.76	0.5	0.0	20.2	0.0	-	1	0
WS05	1	50	2		2.06	1.00 to 2.00	90 secs	981	984	-	1.76	0.5	0.0	20.2	0.0	-	1	0
WS05	1	50	2		2.06	1.00 to 2.00	120 secs	981	984	-	1.76	0.5	0.0	20.2	0.0	-	1	0
WS05	1	50	2		2.06	1.00 to 2.00	180 secs	981	984	-	1.76	0.5	0.0	20.2	0.0	-	1	0
WS05	1	50	2		2.06	1.00 to 2.00	240 secs	981	984	-	1.76	0.5	0.0	20.3	0.0	-	1	0
WS05	1	50	2		2.06	1.00 to 2.00	300 secs	981	984	-	1.76	0.5	0.0	20.3	0.0	-	1	0
WS05	1	50	3	2.00	2.08	1.00 to 2.00	20/03/2018 14:30:00	1005	991	0.0 _(I)	1.72	0.1	0.0	20.9	0.0	-	0	0
WS05	1	50	3		2.08	1.00 to 2.00	15 secs	1005	991	0.0 _(SS)	1.72	0.6	0.0	20.2	0.0	-	1	0
WS05	1	50	3		2.08	1.00 to 2.00	30 secs	1005	991	-	1.72	0.6	0.0	19.9	0.0	-	0	0
WS05	1	50	3		2.08	1.00 to 2.00	60 secs	1005	991	-	1.72	0.6	0.0	19.9	0.0	-	0	0
WS05	1	50	3		2.08	1.00 to 2.00	90 secs	1005	991	-	1.72	0.6	0.0	18.8	0.0	-	0	0
WS05	1	50	3		2.08	1.00 to 2.00	120 secs	1005	991	-	1.72	0.6	0.0	19.8	0.0	-	0	0
WS05	1	50	3		2.08	1.00 to 2.00	180 secs	1005	991	-	1.72	0.6	0.0	19.8	0.0	-	0	0
WS05	1	50	4	2.00	2.05	1.00 to 2.00	26/03/2018 12:49:00	1011	1011	0.0 _(I)	1.69	0.0	0.0	20.9	0.0	-	0	0
WS05	1	50	4		2.05	1.00 to 2.00	15 secs	1011	1011	0.0 _(SS)	1.69	0.7	0.0	20.0	0.0	-	0	0
WS05	1	50	4		2.05	1.00 to 2.00	30 secs	1011	1011	-	1.69	0.7	0.0	19.8	0.0	-	0	0
WS05	1	50	4		2.05	1.00 to 2.00	60 secs	1011	1011	-	1.69	0.7	0.0	19.7	0.0	-	0	0
WS05	1	50	4		2.05	1.00 to 2.00	90 secs	1011	1011	-	1.69	0.7	0.0	19.7	0.0	-	0	0
WS05	1	50	4		2.05	1.00 to 2.00	120 secs	1011	1011	-	1.69	0.7	0.0	19.7	0.0	-	0	0

Key: I = Initial, P = Peak, SS = Steady State. Note: LEL = Lower Explosive Limit = 5% v/v.


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IN-SITU GAS MONITORING RESULTS

Exploratory Position ID	Pipe ref	Pipe diameter (mm)	Monitoring Round	Reported Installation Depth (m)	Measured Installation Depth (mbgl)	Response Zone	Date & Time of Monitoring (elapsed time)	Borehole Pressure (mb)	Atmos Pressure (mb)	Gas Flow (l/hr)	Water Depth (mbgl)	Carbon Dioxide (% / vol)	Methane (% / vol)	Oxygen (% / vol)	LEL (%)	PID (ppm)	Carbon Monoxide (ppm)	Hydrogen Sulphide (ppm)
WS05	1	50	4		2.05	1.00 to 2.00	180 secs	1011	1011	-	1.69	0.7	0.0	19.6	0.0	-	0	0
WS05	1	50	4		2.05	1.00 to 2.00	240 secs	1011	1011	-	1.69	0.7	0.0	19.6	0.0	-	0	0
WS05	1	50	4		2.05	1.00 to 2.00	300 secs	1011	1011	-	1.69	0.7	0.0	19.6	0.0	-	0	0
WS05	1	50	5	2.00	2.09	1.00 to 2.00	05/04/2018 11:06:00	1011	1011	3.2 _(l)	1.58	0.1	0.0	20.9	-	-	0	-
WS05	1	50	5		2.09	1.00 to 2.00	15 secs	1011	1011	0.7 _(SS)	1.58	0.7	0.0	20.4	-	-	0	-
WS05	1	50	5		2.09	1.00 to 2.00	30 secs	1011	1011	-	1.58	0.7	0.0	19.5	-	-	0	-
WS05	1	50	5		2.09	1.00 to 2.00	60 secs	1011	1011	-	1.58	0.7	0.0	19.4	-	-	0	-
WS05	1	50	5		2.09	1.00 to 2.00	90 secs	1011	1011	-	1.58	0.7	0.0	19.4	-	-	0	-
WS05	1	50	5		2.09	1.00 to 2.00	120 secs	1011	1011	-	1.58	0.7	0.0	19.3	-	-	0	-
WS05	1	50	5		2.09	1.00 to 2.00	180 secs	1011	1011	-	1.58	0.7	0.0	19.3	-	-	0	-
WS05	1	50	5		2.09	1.00 to 2.00	240 secs	1011	1011	-	1.58	0.7	0.0	19.3	-	-	0	-
WS05	1	50	5		2.09	1.00 to 2.00	300 secs	1011	1011	-	1.58	0.7	0.0	19.3	-	-	0	-
WS05	1	50	6	2.00	2.09	1.00 to 2.00	11/04/2018 09:43:00	1005	1005	3.2 _(l)	1.41	0.1	0.0	20.9	-	-	0	0
WS05	1	50	6		2.09	1.00 to 2.00	15 secs	1005	1005	0.2 _(SS)	1.41	0.8	0.0	20.2	-	-	0	0
WS05	1	50	6		2.09	1.00 to 2.00	30 secs	1005	1005	-	1.41	0.8	0.0	19.6	-	-	0	0
WS05	1	50	6		2.09	1.00 to 2.00	60 secs	1005	1005	-	1.41	0.8	0.0	19.5	-	-	0	0
WS05	1	50	6		2.09	1.00 to 2.00	90 secs	1005	1005	-	1.41	0.8	0.0	19.5	-	-	0	0
WS05	1	50	6		2.09	1.00 to 2.00	120 secs	1005	1005	-	1.41	0.8	0.0	19.5	-	-	0	0
WS05	1	50	6		2.09	1.00 to 2.00	180 secs	1005	1005	-	1.41	0.8	0.0	19.5	-	-	0	0
WS05	1	50	6		2.09	1.00 to 2.00	240 secs	1005	1005	-	1.41	0.8	0.0	19.5	-	-	0	0
WS05	1	50	6		2.09	1.00 to 2.00	300 secs	1005	1005	-	1.41	0.8	0.0	19.5	-	-	0	0
WS06	1	50	1	2.00	2.08	1.00 to 2.00	08/03/2018 11:22:00	987	987	0.0 _(l)	2.08	0.0	0.0	20.9	0.0	23.6	0	0
WS06	1	50	1		2.08	1.00 to 2.00	15 secs	987	987	0.0 _(SS)	2.08	0.4	0.0	20.6	0.0	-	0	0
WS06	1	50	1		2.08	1.00 to 2.00	30 secs	987	987	-	2.08	0.4	0.0	20.5	0.0	-	0	0


Key: l = Initial, P = Peak, SS = Steady State. Note: LEL = Lower Explosive Limit = 5% v/v.

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IN-SITU GAS MONITORING RESULTS

Exploratory Position ID	Pipe ref	Pipe diameter (mm)	Monitoring Round	Reported Installation Depth (m)	Measured Installation Depth (mbgl)	Response Zone	Date & Time of Monitoring (elapsed time)	Borehole Pressure (mb)	Atmos Pressure (mb)	Gas Flow (l/hr)	Water Depth (mbgl)	Carbon Dioxide (% / vol)	Methane (% / vol)	Oxygen (% / vol)	LEL (%)	PID (ppm)	Carbon Monoxide (ppm)	Hydrogen Sulphide (ppm)
WS06	1	50	1		2.08	1.00 to 2.00	60 secs	987	987	-	2.08	0.5	0.0	20.5	0.0	-	0	0
WS06	1	50	1		2.08	1.00 to 2.00	90 secs	987	987	-	2.08	0.5	0.0	20.5	0.0	-	0	0
WS06	1	50	1		2.08	1.00 to 2.00	120 secs	987	987	-	2.08	0.5	0.0	20.5	0.0	-	0	0
WS06	1	50	1		2.08	1.00 to 2.00	180 secs	987	987	-	2.08	0.5	0.0	20.4	0.0	-	0	0
WS06	1	50	1		2.08	1.00 to 2.00	240 secs	987	987	-	2.08	0.5	0.0	20.4	0.0	-	0	0
WS06	1	50	1		2.08	1.00 to 2.00	300 secs	987	987	-	2.08	0.5	0.0	20.4	0.0	-	0	0
WS06	1	50	2	2.00	2.10	1.00 to 2.00	15/03/2018 09:00:00	-	-	-	0.00	-	-	-	-	-	-	-
Remarks: Flooded around monitoring well																		
WS06	1	50	3	2.00	2.08	1.00 to 2.00	20/03/2018 14:45:00	991	991	0.0 _(I)	1.69	0.1	0.0	20.9	0.0	-	0	0
WS06	1	50	3		2.08	1.00 to 2.00	15 secs	991	991	0.0 _(SS)	1.69	0.7	0.0	19.6	0.0	-	1	0
WS06	1	50	3		2.08	1.00 to 2.00	30 secs	991	991	-	1.69	0.7	0.0	18.5	0.0	-	0	0
WS06	1	50	3		2.08	1.00 to 2.00	60 secs	991	991	-	1.69	0.7	0.0	18.5	0.0	-	0	0
WS06	1	50	3		2.08	1.00 to 2.00	90 secs	991	991	-	1.69	0.7	0.0	18.5	0.0	-	0	0
WS06	1	50	3		2.08	1.00 to 2.00	120 secs	991	991	-	1.69	0.7	0.0	18.4	0.0	-	0	0
WS06	1	50	3		2.08	1.00 to 2.00	180 secs	991	991	-	1.69	0.7	0.0	18.4	0.0	-	0	0
WS06	1	50	3		2.08	1.00 to 2.00	240 secs	991	991	-	1.69	0.7	0.0	18.4	0.0	-	0	0
WS06	1	50	3		2.08	1.00 to 2.00	300 secs	991	991	-	1.69	0.7	0.0	18.4	0.0	-	0	0
WS06	1	50	4	2.00	2.08	1.00 to 2.00	26/03/2018 12:40:00	1012	1012	0.0 _(I)	1.72	0.0	0.0	20.9	0.0	-	0	0
WS06	1	50	4		2.08	1.00 to 2.00	15 secs	1012	1012	0.0 _(SS)	1.72	0.6	0.0	19.4	0.0	-	0	0
WS06	1	50	4		2.08	1.00 to 2.00	30 secs	1012	1012	-	1.72	0.7	0.0	19.0	0.0	-	0	0
WS06	1	50	4		2.08	1.00 to 2.00	60 secs	1012	1012	-	1.72	0.7	0.0	18.9	0.0	-	0	0
WS06	1	50	4		2.08	1.00 to 2.00	90 secs	1012	1012	-	1.72	0.7	0.0	18.9	0.0	-	0	0
WS06	1	50	4		2.08	1.00 to 2.00	120 secs	1012	1012	-	1.72	0.7	0.0	18.9	0.0	-	0	0
WS06	1	50	4		2.08	1.00 to 2.00	180 secs	1012	1012	-	1.72	0.7	0.0	18.8	0.0	-	0	0
WS06	1	50	4		2.08	1.00 to 2.00	240 secs	1012	1012	-	1.72	0.7	0.0	18.8	0.0	-	0	0

Key: I = Initial, P = Peak, SS = Steady State. Note: LEL = Lower Explosive Limit = 5% v/v.


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Exploratory Position ID	Pipe ref	Pipe diameter (mm)	Monitoring Round	Reported Installation Depth (m)	Measured Installation Depth (mbgl)	Response Zone	Date & Time of Monitoring (elapsed time)	Borehole Pressure (mb)	Atmos Pressure (mb)	Gas Flow (l/hr)	Water Depth (mbgl)	Carbon Dioxide (% / vol)	Methane (% / vol)	Oxygen (% / vol)	LEL (%)	PID (ppm)	Carbon Monoxide (ppm)	Hydrogen Sulphide (ppm)
WS06	1	50	4		2.08	1.00 to 2.00	300 secs	1012	1012	-	1.72	0.7	0.0	18.8	0.0	-	0	0
WS06	1	50	5	2.00	2.09	1.00 to 2.00	05/04/2018 09:30:00	1010	1010	3.3 _(I)	1.16	0.1	0.0	20.9	-	-	0	0
WS06	1	50	5		2.09	1.00 to 2.00	15 secs	1010	1010	0.4 _(SS)	1.16	0.8	0.0	20.5	-	-	0	0
WS06	1	50	5		2.09	1.00 to 2.00	30 secs	1010	1010	-	1.16	0.8	0.0	19.0	-	-	0	0
WS06	1	50	5		2.09	1.00 to 2.00	60 secs	1010	1010	-	1.16	0.8	0.0	18.7	-	-	0	0
WS06	1	50	5		2.09	1.00 to 2.00	90 secs	1010	1010	-	1.16	0.8	0.0	18.7	-	-	0	0
WS06	1	50	5		2.09	1.00 to 2.00	120 secs	1010	1010	-	1.16	0.8	0.0	18.7	-	-	0	0
WS06	1	50	5		2.09	1.00 to 2.00	180 secs	1010	1010	-	1.16	0.8	0.0	18.7	-	-	0	0
WS06	1	50	5		2.09	1.00 to 2.00	240 secs	1010	1010	-	1.16	0.8	0.0	18.7	-	-	0	0
WS06	1	50	5		2.09	1.00 to 2.00	300 secs	1010	1010	-	1.16	0.8	0.0	18.7	-	-	0	0
WS06	1	50	6	2.00	1.86	1.00 to 2.00	11/04/2018 09:30:00	1003	1003	10.3 _(I)	0.90	0.1	0.0	20.9	-	-	0	0
WS06	1	50	6		1.86	1.00 to 2.00	15 secs	1003	1003	0.6 _(SS)	0.90	6.0	0.0	20.4	-	-	0	0
WS06	1	50	6		1.86	1.00 to 2.00	30 secs	1003	1003	-	0.90	6.0	0.0	19.4	-	-	0	0
WS06	1	50	6		1.86	1.00 to 2.00	60 secs	1003	1003	-	0.90	6.0	0.0	19.2	-	-	0	0
WS06	1	50	6		1.86	1.00 to 2.00	90 secs	1003	1003	-	0.90	6.0	0.0	19.2	-	-	0	0
WS06	1	50	6		1.86	1.00 to 2.00	120 secs	1003	1003	-	0.90	6.0	0.0	19.2	-	-	0	0
WS06	1	50	6		1.86	1.00 to 2.00	180 secs	1003	1003	-	0.90	6.0	0.0	19.2	-	-	0	0
WS06	1	50	6		1.86	1.00 to 2.00	240 secs	1003	1003	-	0.90	6.0	0.0	19.2	-	-	0	0
WS06	1	50	6		1.86	1.00 to 2.00	300 secs	1003	1003	-	0.90	6.0	0.0	19.2	-	-	0	0
WS07	1	50	1	3.00	3.05	1.00 to 3.00	08/03/2018 09:00:00	-	-	-	0.13	-	-	-	-	-	-	-
			Remarks: Flooded.															
WS07	1	50	2	3.00	3.02	1.00 to 3.00	15/03/2018 09:00:00	-	-	-	0.00	-	-	-	-	-	-	-
			Remarks: Flooded.															
WS07	1	50	3	3.00	3.00	1.00 to 3.00	20/03/2018 13:15:00	-	-	-	0.00	-	-	-	-	-	-	-


Key: I = Initial, P = Peak, SS = Steady State. Note: LEL = Lower Explosive Limit = 5% v/v.

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Exploratory Position ID	Pipe ref	Pipe diameter (mm)	Monitoring Round	Reported Installation Depth (m)	Measured Installation Depth (mbgl)	Response Zone	Date & Time of Monitoring (elapsed time)	Borehole Pressure (mb)	Atmos Pressure (mb)	Gas Flow (l/hr)	Water Depth (mbgl)	Carbon Dioxide (% / vol)	Methane (% / vol)	Oxygen (% / vol)	LEL (%)	PID (ppm)	Carbon Monoxide (ppm)	Hydrogen Sulphide (ppm)
	Remarks: Flooded.																	
WS07	1	50	4	3.00	2.78	1.00 to 3.00	26/03/2018 13:32:00	-	-	-	-0.13	-	-	-	-	-	-	-
	Remarks: Flooded.																	
WS07	1	50	5	3.00	---	1.00 to 3.00	05/04/2018 09:30:00	-	-	-	0.12	-	-	-	-	-	-	-
	Remarks: Flooded.																	
WS07	1	50	6	3.00	---	1.00 to 3.00	11/04/2018 09:30:00	-	-	-	0.12	-	-	-	-	-	-	-
	Remarks: Flooded.																	
WS08	1	50	2	4.00	3.88	1.00 to 4.00	15/03/2018	-	-	-	0.00	-	-	-	-	-	-	-
	Remarks: Flooded.																	
WS08	1	50	1	4.00	4.02	1.00 to 4.00	08/03/2018	-	-	-	0.14	-	-	-	-	-	-	-
	Remarks: Flooded.																	
WS08	1	50	3	4.00	3.00	1.00 to 4.00	20/03/2018	-	-	-	0.00	-	-	-	-	-	-	-
	Remarks: Flooded.																	
WS08	1	50	4	4.00	3.04	1.00 to 4.00	26/03/2018	-	-	-	0.13	-	-	-	-	-	-	-
	Remarks: Flooded.																	
WS08	1	50	5	4.00	3.00	1.00 to 4.00	05/04/2018	-	-	-	0.00	-	-	-	-	-	-	-
	Remarks: Flooded.																	
WS08	1	50	6	4.00	3.00	1.00 to 4.00	11/04/2018	-	-	-	0.00	-	-	-	-	-	-	-
	Remarks: Flooded.																	
WS09	1	50	1	2.00	1.86	1.00 to 2.00	08/03/2018	-	-	-	0.13	-	-	-	-	-	-	-
	Remarks: Flooded.																	
WS09	1	50	2	2.00	1.88	1.00 to 2.00	15/03/2018	-	-	-	0.00	-	-	-	-	-	-	-
	Remarks: Flooded.																	
WS09	1	50	3	2.00	1.85	1.00 to 2.00	20/03/2018	-	-	-	0.13	-	-	-	-	-	-	-
	Remarks: Flooded.																	

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 RSK Environment Ltd 12 Royal Scot Road Pride Park Derby DE24 8AJ	Compiled By	Date	Checked By	Date	Contract Ref: 302001
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IN-SITU GAS MONITORING RESULTS

Exploratory Position ID	Pipe ref	Pipe diameter (mm)	Monitoring Round	Reported Installation Depth (m)	Measured Installation Depth (mbgl)	Response Zone	Date & Time of Monitoring (elapsed time)	Borehole Pressure (mb)	Atmos Pressure (mb)	Gas Flow (l/hr)	Water Depth (mbgl)	Carbon Dioxide (% / vol)	Methane (% / vol)	Oxygen (% / vol)	LEL (%)	PID (ppm)	Carbon Monoxide (ppm)	Hydrogen Sulphide (ppm)
WS09	1	50	4	2.00	1.87	1.00 to 2.00	26/03/2018	-	-	-	0.19	-	-	-	-	-	-	-
Remarks: Flooded.																		
WS09	1	50	5	2.00	---	1.00 to 2.00	05/04/2018	-	-	-	-	-	-	-	-	-	-	-
Remarks: Flooded.																		
WS09	1	50	6	2.00	---	1.00 to 2.00	11/04/2018	-	-	-	-	-	-	-	-	-	-	-
Remarks: Flooded.																		
WS10	1	50	1	2.00	2.10	1.00 to 2.00	08/03/2018 09:56:00	983	983	0.0 _(I)	0.14	0.0	0.0	20.9	0.0	1.3	0	0
WS10	1	50	1		2.10	1.00 to 2.00	15 secs	983	983	0.0 _(SS)	0.14	0.1	0.0	20.9	0.0	-	0	0
WS10	1	50	1		2.10	1.00 to 2.00	30 secs	983	983	-	0.14	0.1	0.0	20.9	0.0	-	0	0
WS10	1	50	1		2.10	1.00 to 2.00	60 secs	983	983	-	0.14	0.1	0.0	20.7	0.0	-	0	0
WS10	1	50	1		2.10	1.00 to 2.00	90 secs	983	983	-	0.14	0.1	0.0	20.8	0.0	-	0	0
WS10	1	50	1		2.10	1.00 to 2.00	120 secs	983	983	-	0.14	0.1	0.0	20.8	0.0	-	0	0
WS10	1	50	1		2.10	1.00 to 2.00	180 secs	983	983	-	0.14	0.1	0.0	20.8	0.0	-	0	0
WS10	1	50	1		2.10	1.00 to 2.00	240 secs	983	983	-	0.14	0.1	0.0	20.8	0.0	-	0	0
WS10	1	50	1		2.10	1.00 to 2.00	300 secs	983	983	-	0.14	0.1	0.0	20.8	0.0	-	0	0
WS10	1	50	2	2.00	2.13	1.00 to 2.00	15/03/2018 09:00:00	-	-	-	0.00	-	-	-	-	-	-	-
Remarks: Flooded.																		
WS10	1	50	3	2.00	2.13	1.00 to 2.00	20/03/2018	-	-	-	0.00	-	-	-	-	-	-	-
Remarks: Flooded.																		
WS10	1	50	4	2.00	2.13	1.00 to 2.00	26/03/2018	-	-	-	0.00	-	-	-	-	-	-	-
Remarks: Flooded.																		
WS10	1	50	5	2.00	2.13	1.00 to 2.00	05/04/2018	-	-	-	0.00	-	-	-	-	-	-	-
Remarks: Flooded.																		
WS10	1	50	6	2.00	2.13	1.00 to 2.00	11/04/2018	-	-	-	0.00	-	-	-	-	-	-	-
Remarks: Flooded.																		

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IN-SITU GAS MONITORING RESULTS

Exploratory Position ID	Pipe ref	Pipe diameter (mm)	Monitoring Round	Reported Installation Depth (m)	Measured Installation Depth (mbgl)	Response Zone	Date & Time of Monitoring (elapsed time)	Borehole Pressure (mb)	Atmos Pressure (mb)	Gas Flow (l/hr)	Water Depth (mbgl)	Carbon Dioxide (% / vol)	Methane (% / vol)	Oxygen (% / vol)	LEL (%)	PID (ppm)	Carbon Monoxide (ppm)	Hydrogen Sulphide (ppm)
WS11	1	50	1	2.00	2.07	1.00 to 2.00	08/03/2018 11:41:00	987	987	0.0 _(I)	2.07	0.0	0.0	20.9	0.0	14.6	0	0
WS11	1	50	1		2.07	1.00 to 2.00	15 secs	987	987	0.0 _(SS)	2.07	0.7	0.0	20.2	0.0	-	0	0
WS11	1	50	1		2.07	1.00 to 2.00	30 secs	987	987	-	2.07	0.7	0.0	19.9	0.0	-	0	0
WS11	1	50	1		2.07	1.00 to 2.00	60 secs	987	987	-	2.07	0.7	0.0	19.9	0.0	-	0	0
WS11	1	50	1		2.07	1.00 to 2.00	90 secs	987	987	-	2.07	0.7	0.0	19.8	0.0	-	0	0
WS11	1	50	1		2.07	1.00 to 2.00	120 secs	987	987	-	2.07	0.7	0.0	19.8	0.0	-	0	0
WS11	1	50	1		2.07	1.00 to 2.00	180 secs	987	987	-	2.07	0.7	0.0	19.7	0.0	-	0	0
WS11	1	50	1		2.07	1.00 to 2.00	240 secs	987	987	-	2.07	0.7	0.0	19.6	0.0	-	0	0
WS11	1	50	1		2.07	1.00 to 2.00	300 secs	987	987	-	2.07	0.7	0.0	19.6	0.0	-	0	0
WS11	1	50	2	2.00	2.08	1.00 to 2.00	15/03/2018 12:15:00	984	984	0.0 _(I)	1.62	0.1	0.0	20.9	0.0	-	0	0
WS11	1	50	2		2.08	1.00 to 2.00	15 secs	984	984	0.0 _(SS)	1.62	0.7	0.0	19.6	0.0	-	0	0
WS11	1	50	2		2.08	1.00 to 2.00	30 secs	984	984	-	1.62	0.7	0.0	18.9	0.0	-	0	0
WS11	1	50	2		2.08	1.00 to 2.00	60 secs	984	984	-	1.62	0.7	0.0	19.0	0.0	-	0	0
WS11	1	50	2		2.08	1.00 to 2.00	90 secs	984	984	-	1.62	0.7	0.0	19.0	0.0	-	0	0
WS11	1	50	2		2.08	1.00 to 2.00	120 secs	984	984	-	1.62	0.7	0.0	19.1	0.0	-	0	0
WS11	1	50	2		2.08	1.00 to 2.00	180 secs	984	984	-	1.62	0.7	0.0	19.1	0.0	-	0	0
WS11	1	50	2		2.08	1.00 to 2.00	240 secs	984	984	-	1.62	0.7	0.0	19.2	0.0	-	0	0
WS11	1	50	2		2.08	1.00 to 2.00	300 secs	984	984	-	1.62	0.7	0.0	19.2	0.0	-	0	0
WS11	1	50	3	2.00	2.06	1.00 to 2.00	20/03/2018 12:15:00	991	991	0.1 _(I)	0.87	0.1	0.0	20.9	0.0	-	0	0
WS11	1	50	3		2.06	1.00 to 2.00	15 secs	991	991	0.1 _(SS)	0.87	0.7	0.0	20.1	0.0	-	0	0
WS11	1	50	3		2.06	1.00 to 2.00	30 secs	991	991	-	0.87	0.7	0.0	19.5	0.0	-	0	0
WS11	1	50	3		2.06	1.00 to 2.00	60 secs	991	991	-	0.87	0.7	0.0	19.6	0.0	-	0	0
WS11	1	50	3		2.06	1.00 to 2.00	90 secs	991	991	-	0.87	0.6	0.0	19.6	0.0	-	0	0
WS11	1	50	3		2.06	1.00 to 2.00	120 secs	991	991	-	0.87	0.6	0.0	19.7	0.0	-	0	0
WS11	1	50	3		2.06	1.00 to 2.00	180 secs	991	991	-	0.87	0.6	0.0	19.7	0.0	-	0	0

Key: I = Initial, P = Peak, SS = Steady State. Note: LEL = Lower Explosive Limit = 5% v/v.


 RSK Environment Ltd 12 Royal Scot Road Pride Park Derby DE24 8AJ	Compiled By	Date	Checked By	Date	Contract Ref: 302001
	<i>Kevin Hooley</i>	25/04/18			
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IN-SITU GAS MONITORING RESULTS

Exploratory Position ID	Pipe ref	Pipe diameter (mm)	Monitoring Round	Reported Installation Depth (m)	Measured Installation Depth (mbgl)	Response Zone	Date & Time of Monitoring (elapsed time)	Borehole Pressure (mb)	Atmos Pressure (mb)	Gas Flow (l/hr)	Water Depth (mbgl)	Carbon Dioxide (% / vol)	Methane (% / vol)	Oxygen (% / vol)	LEL (%)	PID (ppm)	Carbon Monoxide (ppm)	Hydrogen Sulphide (ppm)
WS11	1	50	3		2.06	1.00 to 2.00	240 secs	991	991	-	0.87	0.6	0.0	19.7	0.0	-	0	0
WS11	1	50	3		2.06	1.00 to 2.00	300 secs	991	991	-	0.87	0.6	0.0	19.8	0.0	-	0	0
WS11	1	50	4	2.00	2.07	1.00 to 2.00	26/03/2018 13:44:00	1012	1012	0.0 _(I)	0.95	0.0	0.0	20.9	0.0	-	0	0
WS11	1	50	4		2.07	1.00 to 2.00	15 secs	1012	1012	0.0 _(SS)	0.95	0.5	0.0	20.0	0.0	-	1	0
WS11	1	50	4		2.07	1.00 to 2.00	30 secs	1012	1012	-	0.95	0.5	0.0	19.8	0.0	-	1	0
WS11	1	50	4		2.07	1.00 to 2.00	60 secs	1012	1012	-	0.95	0.5	0.0	19.8	0.0	-	1	0
WS11	1	50	4		2.07	1.00 to 2.00	90 secs	1012	1012	-	0.95	0.5	0.0	19.8	0.0	-	1	0
WS11	1	50	4		2.07	1.00 to 2.00	120 secs	1012	1012	-	0.95	0.5	0.0	19.8	0.0	-	2	0
WS11	1	50	4		2.07	1.00 to 2.00	180 secs	1012	1012	-	0.95	0.5	0.0	19.8	0.0	-	2	0
WS11	1	50	4		2.07	1.00 to 2.00	240 secs	1012	1012	-	0.95	0.5	0.0	19.9	0.0	-	2	0
WS11	1	50	4		2.07	1.00 to 2.00	300 secs	1012	1012	-	0.95	0.5	0.0	19.9	0.0	-	2	0
WS11	1	50	5	2.00	2.09	1.00 to 2.00	05/04/2018 10:41:00	1011	1011	0.3 _(I)	0.60	0.1	0.0	20.9	-	-	0	0
WS11	1	50	5		2.09	1.00 to 2.00	15 secs	1011	1011	0.4 _(SS)	0.60	0.4	0.0	20.7	-	-	1	0
WS11	1	50	5		2.09	1.00 to 2.00	30 secs	1011	1011	-	0.60	0.4	0.0	20.4	-	-	1	0
WS11	1	50	5		2.09	1.00 to 2.00	60 secs	1011	1011	-	0.60	0.4	0.0	20.4	-	-	1	0
WS11	1	50	5		2.09	1.00 to 2.00	90 secs	1011	1011	-	0.60	0.4	0.0	20.4	-	-	0	0
WS11	1	50	5		2.09	1.00 to 2.00	120 secs	1011	1011	-	0.60	0.4	0.0	20.4	-	-	0	0
WS11	1	50	5		2.09	1.00 to 2.00	180 secs	1011	1011	-	0.60	0.4	0.0	20.4	-	-	0	0
WS11	1	50	5		2.09	1.00 to 2.00	240 secs	1011	1011	-	0.60	0.4	0.0	20.4	-	-	0	0
WS11	1	50	5		2.09	1.00 to 2.00	300 secs	1011	1011	-	0.60	0.4	0.0	20.4	-	-	0	0
WS11	1	50	6	2.00	2.08	1.00 to 2.00	11/04/2018 10:52:00	1005	1005	2.8 _(I)	0.62	0.1	0.0	20.9	-	-	0	0
WS11	1	50	6		2.08	1.00 to 2.00	15 secs	1005	1005	0.3 _(SS)	0.62	0.2	0.0	20.8	-	-	1	0
WS11	1	50	6		2.08	1.00 to 2.00	30 secs	1005	1005	-	0.62	0.2	0.0	20.7	-	-	0	0
WS11	1	50	6		2.08	1.00 to 2.00	60 secs	1005	1005	-	0.62	0.2	0.0	20.8	-	-	0	0
WS11	1	50	6		2.08	1.00 to 2.00	90 secs	1005	1005	-	0.62	0.1	0.0	20.9	-	-	0	0

Key: I = Initial, P = Peak, SS = Steady State. Note: LEL = Lower Explosive Limit = 5% v/v.


 RSK Environment Ltd 12 Royal Scot Road Pride Park Derby DE24 8AJ	Compiled By	Date	Checked By	Date	Contract Ref: 302001
	Contract: Land North of Barkby Road, Syston				



IN-SITU GAS MONITORING RESULTS

Exploratory Position ID	Pipe ref	Pipe diameter (mm)	Monitoring Round	Reported Installation Depth (m)	Measured Installation Depth (mbgl)	Response Zone	Date & Time of Monitoring (elapsed time)	Borehole Pressure (mb)	Atmos Pressure (mb)	Gas Flow (l/hr)	Water Depth (mbgl)	Carbon Dioxide (% / vol)	Methane (% / vol)	Oxygen (% / vol)	LEL (%)	PID (ppm)	Carbon Monoxide (ppm)	Hydrogen Sulphide (ppm)
WS11	1	50	6		2.08	1.00 to 2.00	120 secs	1005	1005	-	0.62	0.1	0.0	20.9	-	-	0	0
WS11	1	50	6		2.08	1.00 to 2.00	180 secs	1005	1005	-	0.62	0.1	0.0	20.9	-	-	0	0
WS11	1	50	6		2.08	1.00 to 2.00	240 secs	1005	1005	-	0.62	0.1	0.0	20.9	-	-	0	0
WS11	1	50	6		2.08	1.00 to 2.00	300 secs	1005	1005	-	0.62	0.1	0.0	20.9	-	-	0	0
WS12	1	50	1	3.00	3.04	1.00 to 3.00	08/03/2018 11:33:00	987	987	0.0 _(I)	3.04	0.0	0.0	20.9	0.0	3.4	0	0
WS12	1	50	1		3.04	1.00 to 3.00	15 secs	987	987	0.0 _(SS)	3.04	0.4	0.0	20.5	0.0	-	0	0
WS12	1	50	1		3.04	1.00 to 3.00	30 secs	987	987	-	3.04	0.4	0.0	20.3	0.0	-	0	0
WS12	1	50	1		3.04	1.00 to 3.00	60 secs	987	987	-	3.04	0.4	0.0	20.3	0.0	-	0	0
WS12	1	50	1		3.04	1.00 to 3.00	90 secs	987	987	-	3.04	0.5	0.0	20.3	0.0	-	0	0
WS12	1	50	1		3.04	1.00 to 3.00	120 secs	987	987	-	3.04	0.5	0.0	20.2	0.0	-	0	0
WS12	1	50	1		3.04	1.00 to 3.00	180 secs	987	987	-	3.04	0.5	0.0	20.2	0.0	-	0	0
WS12	1	50	1		3.04	1.00 to 3.00	240 secs	987	987	-	3.04	0.5	0.0	20.2	0.0	-	0	0
WS12	1	50	1		3.04	1.00 to 3.00	300 secs	987	987	-	3.04	0.5	0.0	20.2	0.0	-	0	0
WS12	1	50	2	3.00	3.04	1.00 to 3.00	15/03/2018 09:00:00	1017	984	8.7 _(I)	0.40	0.1	0.0	20.9	0.0	-	0	0
WS12	1	50	2		3.04	1.00 to 3.00	15 secs	1017	984	0.1 _(SS)	0.40	0.5	0.0	20.4	0.0	-	0	0
WS12	1	50	2		3.04	1.00 to 3.00	30 secs	1017	984	-	0.40	0.5	0.0	20.3	0.0	-	0	0
WS12	1	50	2		3.04	1.00 to 3.00	60 secs	1017	984	-	0.40	0.5	0.0	20.2	0.0	-	0	0
WS12	1	50	2		3.04	1.00 to 3.00	90 secs	1017	984	-	0.40	0.5	0.0	20.2	0.0	-	0	0
WS12	1	50	2		3.04	1.00 to 3.00	120 secs	1017	984	-	0.40	0.5	0.0	20.2	0.0	-	0	0
WS12	1	50	2		3.04	1.00 to 3.00	180 secs	1017	984	-	0.40	0.5	0.0	20.3	0.0	-	0	0
WS12	1	50	2		3.04	1.00 to 3.00	240 secs	1017	984	-	0.40	0.5	0.0	20.3	0.0	-	0	0
WS12	1	50	2		3.04	1.00 to 3.00	300 secs	1017	984	-	0.40	0.5	0.0	20.3	0.0	-	0	0
WS12	1	50	3	3.00	3.05	1.00 to 3.00	20/03/2018 09:00:00	969	991	-7.4 _(I)	0.47	0.1	0.0	20.9	0.0	-	0	0
WS12	1	50	3		3.05	1.00 to 3.00	15 secs	969	991	-0.1 _(I)	0.47	0.8	0.0	20.5	0.0	-	0	0

Key: I = Initial, P = Peak, SS = Steady State. Note: LEL = Lower Explosive Limit = 5% v/v.


 RSK Environment Ltd 12 Royal Scot Road Pride Park Derby DE24 8AJ	Compiled By	Date	Checked By	Date	Contract Ref: 302001
	<i>Kevin Hooley</i>	25/04/18			
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IN-SITU GAS MONITORING RESULTS

Exploratory Position ID	Pipe ref	Pipe diameter (mm)	Monitoring Round	Reported Installation Depth (m)	Measured Installation Depth (mbgl)	Response Zone	Date & Time of Monitoring (elapsed time)	Borehole Pressure (mb)	Atmos Pressure (mb)	Gas Flow (l/hr)	Water Depth (mbgl)	Carbon Dioxide (% / vol)	Methane (% / vol)	Oxygen (% / vol)	LEL (%)	PID (ppm)	Carbon Monoxide (ppm)	Hydrogen Sulphide (ppm)
WS12	1	50	3		3.05	1.00 to 3.00	30 secs	969	991	-	0.47	0.9	0.0	20.3	0.0	-	0	0
WS12	1	50	3		3.05	1.00 to 3.00	60 secs	969	991	-	0.47	0.9	0.0	20.3	0.0	-	0	0
WS12	1	50	3		3.05	1.00 to 3.00	90 secs	969	991	-	0.47	1.0	0.0	20.2	0.0	-	0	0
WS12	1	50	3		3.05	1.00 to 3.00	120 secs	969	991	-	0.47	1.0	0.0	20.2	0.0	-	0	0
WS12	1	50	3		3.05	1.00 to 3.00	180 secs	969	991	-	0.47	1.0	0.0	20.2	0.0	-	0	0
WS12	1	50	3		3.05	1.00 to 3.00	240 secs	969	991	-	0.47	1.0	0.0	20.2	0.0	-	0	0
WS12	1	50	3		3.05	1.00 to 3.00	300 secs	969	991	-	0.47	1.0	0.0	20.2	0.0	-	0	0
WS12	1	50	4	3.00	3.04	1.00 to 3.00	26/03/2018 13:52:00	1012	1012	0.0 _(I)	0.91	0.0	0.0	20.9	0.0	-	0	0
WS12	1	50	4		2.92	1.00 to 3.00	15 secs	1012	1012	0.0 _(SS)	0.79	0.2	0.0	20.9	0.0	-	0	0
WS12	1	50	4		2.92	1.00 to 3.00	30 secs	1012	1012	-	0.79	0.2	0.0	20.9	0.0	-	0	0
WS12	1	50	4		2.92	1.00 to 3.00	60 secs	1012	1012	-	0.79	0.2	0.0	20.8	0.0	-	0	0
WS12	1	50	4		2.92	1.00 to 3.00	90 secs	1012	1012	-	0.79	0.2	0.0	20.8	0.0	-	0	0
WS12	1	50	4		2.92	1.00 to 3.00	120 secs	1012	1012	-	0.79	0.2	0.0	20.8	0.0	-	0	0
WS12	1	50	4		2.92	1.00 to 3.00	180 secs	1012	1012	-	0.79	0.2	0.0	20.8	0.0	-	0	0
WS12	1	50	4		2.92	1.00 to 3.00	240 secs	1012	1012	-	0.79	0.2	0.0	20.8	0.0	-	0	0
WS12	1	50	4		2.92	1.00 to 3.00	300 secs	1012	1012	-	0.79	0.2	0.0	20.8	0.0	-	0	0

Key: I = Initial, P = Peak, SS = Steady State. Note: LEL = Lower Explosive Limit = 5% v/v.

 RSK Environment Ltd 12 Royal Scot Road Pride Park Derby DE24 8AJ	Compiled By	Date	Checked By	Date	Contract Ref: 302001
	Contract: Land North of Barkby Road, Syston				

