

Ref: J26-089-R01 V1

Date: 27th April 2026

Mr Robinson

Mill Farm, Mill Lane
Itchingfield
RH13 0NP

Dear Mark,

Re: Itchingfield, Nr Horsham – Technical Note

It is understood that in 2004 a property was developed at the site and as a result gas monitoring was required by West Sussex County Council to assess and determine if the property was at risk from migrating gas originating from the old Baystone Farm Landfill Site (closed down & restored in 1985/6), located some 180m to the south-west.

A letter (see attached) was produced in 2004 detailing the works and the conclusion was that it is very unlikely that gas, originating from the old Landfill, would be able to migrate towards the site.

The general findings of the works in 2004 were:

- No significant levels of landfill gas were measured in the installed monitoring wells.
- Underlying geology encountered in the drilled boreholes comprised mainly clay soils, which will prevent migration of gas.

GCC were commissioned by Mr Robinson, in April 2026, to review previous gas monitoring and associated works undertaken in 2004 in relation to a new development on-site.

The British Geological Survey maps indicate that the site directly overlies the Horsham Stone Member (sandstone), a Member of the Weald Clay Formation, near the boundary with the Weald Clay Formation (mudstone), which underlies the majority of the closed landfill. As the previous investigation works in 2004 encountered clay adjacent to the site buildings, it is assumed that the mapped boundary is inaccurate and the site overlies the Weald Clay Formation (mudstone). No superficial deposits are mapped on the site or between the site and the closed landfill.

While the Horsham Stone Member has the potential to act as a ground gas migration pathway, if it is fractured, the proven clay beneath the site and the mapped Weald Clay Formation (mudstone) beneath the closed landfill are anticipated to significantly limit the migration of ground gas into the Horsham Stone Member, in the first instance, and then from the Horsham Stone Member onto the study site.

Furthermore, it is noted to the ground between the closed landfill and the site comprises an undeveloped field over the Horsham Stone Member, giving any laterally migrating ground gas ample opportunity to vent to atmosphere before reaching the study site.

The landfill itself is understood to include ground gas management features, which were noted in the 2004 report to be in the process of being upgraded in 2004. These management features were presumably intended to prevent ground gas migration.

It is also noted that it has been some 40 years since the landfill was closed and restored. The majority of any degradable material within the landfill is therefore likely to have already degraded over this period. Therefore, while significant concentrations of ground gas may still remain within the landfill, the anticipated reduced ground gas generation rate would reduce the driver mechanism for the off-site ground gas migration.

Based on the findings of the previous works and assessment and considering the conceptual model of the site in relation to the closed landfill, GCC concur that it is very unlikely that gas originating from the closed landfill will significantly impact the site and new property.



Yours sincerely

A handwritten signature in black ink, appearing to read 'Antony Platt', with a stylized, flowing script.

ANTONY PLATT

Director

For Ground Condition Consultants Ltd

A handwritten signature in black ink, appearing to read 'Rasmus Palmgren', with a stylized, flowing script.

RASMUS PALMGREN

Director

For Ground Condition Consultants Ltd

Enclosure: Methane Management Letter Report (2004)

Our ref:KFW/gen/403

11 December 2004

Mr C Woodley
Baystone House
Mill Lane
Itchingfield
Nr Horsham
West Sussex
RH13 0NP

Dear Mr Woodley

I thank you for your instructions to carryout gas tests at Baystone Farm and I have pleasure in submitting our report as follows;

Methane Management Ltd have been commissioned by Mr C Woodley of Baystone Farm, Mill Lane, Itchingfield, to carryout tests to ascertain whether any gas from the old Baystone Farm Landfill Site is migrating towards the property that is the subject of planning application number I/18/01.

The old (closed) Landfill Site lays approximately 250 metres to the south-southwest of the property in question. The landfill took various type of waste, including household, commercial and industrial, from the early 1960's until closure in 1981. It then continued as a CA and transfer station for non-toxic household waste until 1985. It was finally restored in 1985/6. It is thought to hold approximately 1,000,000 m³ of waste and West Sussex County Council currently monitors landfill gas production within the site.

At the time of our inspection, the County Council were in the process of carrying out various works on the site to upgrade the control of both gas and leachate.

To test for gas within the ground in the vicinity of the property that is the subject of the planning application, two gas-monitoring probes were installed in the ground at the locations marked on the accompanying drawing. These probes were installed to a depth of 4.5 metres in boreholes drilled by rotary auger and consist of a perforated HDPE tube installed from 0.5m below ground level to the base of the borehole. The section of tubing from g/l to -0.5m is solid tube set in a bentonite seal to stop air ingress. The tubes were fitted with gas valves c/w 6mm hose tails. The probes were installed on Tuesday the 7th December.

Cont/...



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On Friday the 10th December the tubes were tested by portable infra-red gas analyser (Gas Data LMS, serial No 1566, Calibration Certificate No 1031 dated 17/11/04) and the results are as follows;

Probe No 1.

Methane 0.0%v/v, carbon dioxide 0.3%v/v, oxygen 19.6%v/v.

Probe No 2

Methane 0.0%v/v, carbon dioxide 0.2%v/v, oxygen 19.9%v/v.

At the time of the tests the weather was dry and overcast with no wind. The atmospheric pressure was 1026mb and stable.

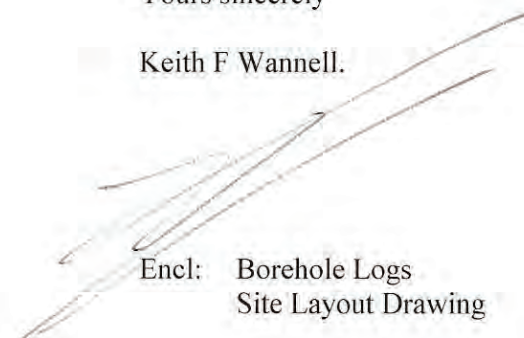
In addition to the above tests, the boreholes were also checked with a Flame Ionization detector to test for other hydrocarbons however, all readings were less than 10 parts per million.

It should also be mentioned that the drilling logs indicate that the ground in the vicinity of the proposed building is predominantly clay and, as such, it is very unlikely that gas from the site would be able to migrate more than a few metres, if that.

I trust the above is helpful to you and should you need any further information please do not hesitate to contact me.

Yours sincerely

Keith F Wannell.



Encl: Borehole Logs
Site Layout Drawing

2 Arundel rd, Poling, Arundel. BN18 9PW

Borehole Drilling Log

Client: Mr C Woodley

Borehole number: 1

Project: Gas Investigation

Borehole diameter: 100mm

Site: Baystone Farm

Coordinates: _____

Start Date: 7-Dec-04

Strata:

Soil, with grass cover.

Clay, yellow/grey colour, moist.

**Depth
From:**

**Depth
To:**

0.0

0.1

0.1

4.5

Installation Details:

Well Screen Diameter: 32mm

Top Cap Type: A

Solid screen depth: 0.5

Cover type: N/A

Slotted screen depth: 4.5

Depth to Liquid: Dry

Notes:

All depths in meters from ground level.

Top Cap Type: A = Gas Valve & Bung, B = Plain Push-on Cap

Cover Type: F = Flush Cover with locking screw P = Pedestal Cover with locking facility

Client: **Mr C Woodley**

Project: **Gas Investigation**

Baystone Farm Landfill Site
approximately 250m



 P1 Approximate Probe Locations

Methane Management Ltd
2 Arundel Road, Poling,
Arundel, W. Sx. BN18 9PW

Tel: 01903 882280
Fax: 01903 885027

Baystone Farm General Site Layout

Job No **gen/401**

Date **Dec 04**

Fig No **1**

Methane Management Ltd

2 Arundel rd, Poling, Arundel. BN18 9PW

Borehole Drilling Log

Client: Mr C Woodley

Borehole number: 2

Project: Gas Investigation

Borehole diameter: 100mm

Site: Baystone Farm

Coordinates:

Start Date: 7-Dec-04

Strata:

Soil, with grass cover.

Clay, yellow/grey colour, moist.

Depth
From:

0.0

0.1

Depth
To:

0.1

4.5

Installation Details:

Well Screen Diameter: 32mm

Top Cap Type: A

Solid screen depth: 0.5

Cover type: N/A

Slotted screen depth: 4.5

Depth to Liquid: Dry

Notes:

All depths in meters from ground level.

Top Cap Type: A = Gas Valve & Bung, B = Plain Push-on Cap

Cover Type: F = Flush Cover with locking screw P = Pedestal Cover with locking facility



181.28 m

River Arun