Location (Depth Range of Test)	Test No.	Strata*	Effective Depth Reached	Time (mins)	Infiltration Rate (m/s)
IT43 (0.55-2.00m)	1	RBD/LCF	105%	267	N/A

N/A = not applicable
* RTD=River Terrace Deposits; RBD=Raised Beach Deposits; LCF=London Clay Formation

As shown in Table 3, the water levels in IT41 and IT42 showed very little infiltration and rose (due to groundwater ingress) in IT43 and consequently no infiltration rates could be calculated.

6.1.10 Gas and Groundwater Monitoring

6.1.10.1 Rationale for Gas Monitoring

The ground conditions encountered in the exploratory holes confirmed natural ground across the majority of the site. However, there is a landfill 40m north west. This is considered consistent with the low to moderate gas generation potential identified in the Preliminary Ground Gas Assessment (Section 5.4). Consequently, in accordance with Figure 6 of BS8576:2013, gas monitoring is not necessarily a requirement; however, 3 No. initial visits were undertaken for confirmatory purposes, as detailed below.

6.1.11 Monitoring Programme

Monthly gas and groundwater monitoring was undertaken targeting periods of falling atmospheric pressure where possible. Monitoring has been undertaken on 14th November and 18th December 2019 and 29th January 2020. The standpipes were monitored for methane, carbon dioxide, oxygen, hydrogen sulphide and the borehole flow rate using a GA2000 gas analyser. Atmospheric pressure and trend was also recorded.

Table 4. Gas Monitoring Results

Borehole	Date	Atmospheric Pressure (mb)	Atmospheric Pressure Trend	Methane (% Vol.)	Carbon Dioxide (% Vol.)	Oxygen (% Vol.)	Hydrogen Sulphide (ppm)	Borehole Flow (l/hr)
WS01	14/11/19	987	Falling	0.0	0.6	20.2	0	0.0
	18/12/19	1006	Falling	0.1	0.1	21.2	0	0.0
	29/01/20	1004	Falling	0.0	0.3	20.9	0	0.0
WS05	14/11/19	987	Falling	0.0	4.1	14.2	0	0.0
	18/12/19	Borehole Location Flooded						
	29/01/20	1004	Falling	0.2	0.8	21.0	0	0.0
WS09	14/11/19	988	Falling	0.0	2.2	19.0	0	0.0
	18/12/19	1008	Falling	0.2	2.6	16.8	0	0.0
	29/01/20	1004	Falling	0.0	2.8	16.4	0	0.0

The gas monitoring recorded methane concentrations of 0.0% to 0.1% and carbon dioxide concentrations of 0.6% to 4.1% with a maximum borehole flow rate 0.0 l/hr.

The water levels were monitored using a dip meter; results are presented in Section 6.4.6.

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