

17 FEB 2016



Your ref: DP3733BK

Our ref: 14739/3505/CBH/RHT/VKR/AREA 2 GAS

14<sup>th</sup> January 2016

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**Attn: Mr David Willey**

Dear David

**RE: DP3733BK - DOCKSWAY DISPOSAL SITE. LATEST AREA 2 GAS MONITORING RESULTS, ROUNDS 140 TO 142.**

We write to provide the latest quarterly gas monitoring report for Area 2 of Docksway Disposal Site. The report includes comment on the Area 2 gas monitoring results collected to date. Gas monitoring is required on a monthly basis at Area 2 of Docksway Disposal Site and the results of the monitoring are reported to the EA on a quarterly basis.

We enclose with this report three data sheets showing the results collected between October and December 2015 (i.e. Rounds 140 to 142).

Gas monitoring wells are installed at approximately 100m intervals around the Area 2 landfill perimeter and there are currently thirteen available monitoring wells. Twelve wells were monitored during Rounds 140 and 141 (GP05\_22 reported as flooded), and eleven wells were monitored in Round 142 (GP05\_20 and GP05\_22 are reported to have been flooded).

#### Trigger Levels

Trigger Levels for all the Area 2 wells are shown on the attached data tables.

#### Results Summary

The methane and carbon dioxide concentrations recorded at each of the gas monitoring wells between October and December 2015 are summarised on the attached data sheets.

The concentrations of methane and carbon dioxide did not exceed the well specific trigger levels at any of the Area 2 wells monitored during rounds 140 to 142 with the exception of GP05\_16 (8.6% carbon dioxide in October – trigger of 7.7%), and GP09\_18 (3.7% peak and 2.4% steady methane in October – trigger of 1%).

J:\14739\075-Interim Reporting\075I 2015 - 2016\Reports Area 2\R142 - Dec 2015\DP3733BK Area 2 Gas Report.docx

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The attached data sheets summarise the methane and carbon dioxide concentrations recorded during the last three rounds of monitoring.

Concluding Remarks

In general it is considered that the results obtained from the three rounds of gas monitoring are within the range of results obtained since commencement of monitoring.

NCC will continue to undertake Area 2 perimeter gas monitoring on a monthly basis and PBA will continue to provide factual and interpretative reports to the EA on a quarterly basis.

Yours sincerely

**Kate Riley**  
For and on behalf of  
**PETER BRETT ASSOCIATES LLP**

Cc. Gwyn Jones – NCC (Docksway Disposal Site)

Enc. Gas Monitoring Data Tables  
Figure A – Monitoring Point Location Plan

Weather Conditions: N/A

Date Sampled: 30th October 2015

Borehole	Barometric Pressure (mBars)	Differential Pressure (mBars)	Steady State Methane (% Volume)	Peak Methane (% Volume)	Carbon Dioxide (% Volume)	Oxygen (% Volume)	Gas flow (l/hr)
GP06_24	1018	59.9	89.9	89.9	5.9	0.2	14.9
GP06_25	1019	2.4	42.3	74.7	3.1	10.4	-1.1
GP03_06	1018	-0.1	0.0	0.7	1.0	20.2	-2.4
GP05_14	1019	0.0	0.0	0.3	0.2	21.1	-0.2
GP05_15	1018	-0.1	0.0	0.1	8.0	13.0	-0.2
GP05_16	1018	0.0	0.0	0.0	8.6	8.1	-0.1
GP05_17	1018	-0.1	0.0	0.0	10.8	7.4	0.0
GP09_18	1018	-0.1	2.4	3.7	2.3	18.7	-0.2
GP05_20	1018	-1.5	0.0	0.2	2.2	19.8	-8.6
GP05_21	1018	0.3	0.0	0.0	0.8	19.5	-5.8
GP05_22				n/a			
GP12_23	1018	-0.1	0.0	0.0	0.2	21.0	-0.1
GP06_8a	1018	0.0	0.1	0.1	2.1	18.7	0.2

Equipment Used: GASDATA LMSXi and GF60 flow meter

- Key:
- LEL Lower Explosive Limit
  - xx Methane Concentration above Well Specific Trigger Level
  - xx Carbon Dioxide Concentration above Well Specific Trigger Level
  - N/D Not determined
  - <<<<< Gas Flow outside limit of LMSX Instrument

Triggers

	GP03_06	GP06_08A	GP05_14	GP05_15	GP05_16	GP05_17	GP09_18
Methane (%)	1	1	1	1	1	1	1
Carbon Dioxide (%)	6.1	2.4	2.2	10.4	7.7	13.5	19
Methane (%)	GP05_20	GP05_21	GP05_22	GP12_23	GP06_24	GP06_25	
	1.5	1.5	1	1	Not Required	Not Required	
Carbon Dioxide (%)	Not Required	Not Required	8.3	5.5	Not Required	Not Required	

Weather Conditions: N/A

Date Sampled: 11th November 2015

Borehole	Barometric Pressure (mBars)	Differential Pressure (mBars)	Steady State Methane (% Volume)	Peak Methane (% Volume)	Carbon Dioxide (% Volume)	Oxygen (% Volume)	Gas flow - Initial (l/hr)
GP06_24	1015	65.2	87.7	88.2	5.4	0.5	11.2
GP06_25	1015	0.4	24.5	40	1.7	14.8	-0.1
GP03_06	1015	-0.1	0.0	0	1.2	19.9	-2.6
GP05_14	1015	0.0	0.0	0	0.2	20.9	0.1
GP05_15	1015	-0.1	0.0	0	5.5	14.6	0.0
GP05_16	1015	0.0	0.0	0	3.0	17.2	0.0
GP05_17	1014	-0.1	0.0	0	7.6	11.4	-0.1
GP09_18	1014	-0.2	0.5	0.7	1.7	19.2	-4.1
GP05_20	1014	-0.4	0.0	0	2.4	18.5	5.1
GP05_21	1015	-1.5	0.0	0	2.2	13.1	-3.2
GP05_22	N/A						
GP12_23	1015	-0.6	0.0	0.0	0.5	20.1	-0.1
GP06_8a	1015	-0.5	0.0	0.0	1.2	19.7	-0.5

Equipment Used: GASDATA LMSxi and GF60 flow meter

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Triggers

Methane (%)	GP03_06 1	GP06_08A 1	GP05_14 1	GP05_15 1	GP05_16 1	GP05_17 1	GP09_18 1
Carbon Dioxide (%)	6.1	2.4	2.2	10.4	7.7	13.5	19
Methane (%)	GP05_20 1.5	GP05_21 1.5	GP05_22 1	GP12_23 1	GP06_24 Not Required	GP06_25 Not Required	
Carbon Dioxide (%)	Not Required	Not Required	8.3	5.5	Not Required	Not Required	

Weather Conditions: N/A

Date Sampled: 18th December 2015

Borehole	Barometric Pressure (mBars)	Differential Pressure (mBars)	Steady State Methane (% Volume)	Peak Methane (% Volume)	Carbon Dioxide (% Volume)	Oxygen (% Volume)	Gas flow - Initial (l/hr)
GP06_24	1017	121.3	90.7	90.7	6.0	0.3	16.6
GP06_25	1018	-0.1	30.2	50.3	2.4	13.7	-0.1
GP03_06	1018	-0.1	0.1	0.8	0.5	21	0.0
GP05_14	1018	0.0	0.1	0.4	0.3	21.4	-0.1
GP05_15	1018	-0.1	0.1	0.4	3.8	15.0	0.0
GP05_16	1017	-0.1	0.1	0.1	1.5	20.1	-0.2
GP05_17	1010	-0.1	0.1	0.1	8.8	14.1	0.2
GP09_18	1017	0.0	0.2	0.3	2.6	19.4	-3.6
GP05_20					Flooded		
GP05_21	1018	-8.2	0.1	0.1	1.1	20.1	-6.6
GP05_22					Flooded		
GP12_23	1018	0.0	0.1	0.1	0.3	21.0	0.2
GP06_8a	1018	-6.0	0.1	0.1	1.2	19.8	-10.1

Equipment Used: GASDATA LMSxi and GF60 flow meter

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  - N/D Not determined
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Triggers

Methane (%)	GP03_06 1	GP06_08A 1	GP05_14 1	GP05_15 1	GP05_16 1	GP05_17 1	GP09_18 1
Carbon Dioxide (%)	6.1	2.4	2.2	10.4	7.7	13.5	19
Methane (%)	GP05_20 1.5	GP05_21 1.5	GP05_22 1	GP12_23 1	GP06_24 Not Required	GP06_25 Not Required	
Carbon Dioxide (%)	Not Required	Not Required	8.3	5.5	Not Required	Not Required	

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