



Your Ref: DP3733BK
Our Ref: 49428/3501/CBH/VKR/NC/AREA 2 GAS

22nd February 2021

PPC Team
Natural Resources Wales
Rivers House
Fortrain Road
St Mellons Business Park
Cardiff
CF3 0EY

Attn: Tyrone Ward

Dear Tyrone,

Re: DP3733BK – Docksway Disposal Site. Latest Area 2 Gas Monitoring Report, Round 202, December 2020.

We write to provide the latest gas monitoring report for Area 2 of Docksway Disposal Site. Gas monitoring is required on a quarterly basis at Area 2 of Docksway Disposal Site, in accordance with the Environmental Permit EPR/DP3733BK.

We enclose with this report a data sheet showing the results collected in December 2020 (Round 202).

Gas monitoring wells are installed at approximately 100m intervals around the Area 2 landfill perimeter and there are currently fifteen available monitoring wells. All of the fifteen wells were monitored during Round 202.

Trigger Levels

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

Results Summary

The methane and carbon dioxide concentrations recorded at each of the gas monitoring wells in December 2020 are summarised on the attached data sheet.

The concentrations of methane and carbon dioxide did not exceed the well specific trigger levels at the majority of the Area 2 wells monitored during Round 202. The exceptions to this are exploratory wells GP05_20 (7.1% v/v), and GP09_18, 18A, 18B & 18C.

Monitoring wells GP09_18, and GP18_18A, 18B & 18C indicate elevated concentrations of methane, at significantly varying concentrations (up to 89.6% v/v) with corresponding depleted oxygen, and at the same time none of these locations recorded exceedances of carbon dioxide (above the trigger level set for GP09_18). GP09_18 started recording significantly elevated concentrations of methane in late 2016

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and additional wells GP18_18A, B and C were installed in early 2018 around the original monitoring well. The cause of the elevated methane at this location is currently unknown.

Monitoring well GP05_20 recorded concentrations of methane at 7.1% compared to a trigger level of 1.5% v/v. This is a decrease compared to the previous monitoring round undertaken in September 2020 when a concentration of 16% v/v was recorded at this location.

Concluding Remarks

In general, it is considered that the results obtained from this round of gas monitoring are within the range of results obtained since commencement of monitoring with the exception of GP05_20, GP09_18, and GP18_18A, B and C. At GP05_20 the recorded concentration of methane exceeded the trigger level - however the concentration recorded has reduced since the previous monitoring round. At GP09_18, and GP18_18A,B and C, elevated methane concentrations have been recorded within this area since March 2016.

NCC will continue to undertake Area 2 perimeter gas monitoring on a quarterly basis and Stantec will continue to provide factual reports to NRW on a quarterly basis.

Yours sincerely



Kate Riley
Associate
on behalf of Stantec UK Ltd

Encls: Gas Monitoring Report Table

CC: Silvia Gonzalez-Lopez – Newport City Council
Robert Hughes – NCC (Docksway Disposal Site)
Luke Embrey NCC

Docksway Disposal Site - DP3733BK

Job No.

49428

Weather Conditions: calm and cloudy

Date Sampled:

14/12/2020

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	well destroyed by site activities						
GP06_25	997.00	0.10	52.90	67.80	4.60	6.30	-4.30
GP03_06	998.00	0.20	0.00	1.00	0.80	18.70	-8.10
GP05_14	998.00	-0.10	0.00	0.10	0.60	20.80	-1.00
GP05_15	998.00	-0.12	0.00	0.00	6.50	8.90	-0.10
GP05_16	998.00	-0.12	0.00	0.00	0.10	21.30	0.00
GP05_17	998.00	-0.10	0.00	0.00	2.90	11.60	-0.10
GP09_18	998.00	0.55	18.9	19.4	9.30	4.20	-4.40
GP09_18A*	998.00	1.27	36.2	36.3	12.80	1.50	-6.10
GP09_18B*	998.00	17.47	85.5	89.6	7.10	1.60	-9.00
GP09_18C*	998.00	0.26	70.6	70.7	5.30	4.30	-2.60
GP05_20	998.00	16.39	7.1	7.1	2.90	1.00	-3.50
GP05_21	998.00	-2.20	0.00	0.40	1.50	19.60	-8.90
GP05_22	998.00	0.12	0.00	0.00	1.90	19.60	-5.90
GP12_23	998.00	-0.10	0.00	0.00	0.10	21.70	0.00
GP06_8a	998.00	0.50	0.00	0.00	1.20	20.00	-13.60

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
 * Trigger levels not available

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

	GP05_20	GP05_21		GP05_22	GP12_23	GP06_24	GP06_25
Methane (%)	1.5	1.5		1	1	Not Required	Not Required
Carbon Dioxide (%)	Not Required	Not Required		8.3	5.5	Not Required	Not Required