

Operator: CWM Environmental Ltd
Permit: CP3735PB

Installation: Nantycaws Landfill Site
Form: Gas sampling Q4 2020

Reporting of gas sampling for the period

01-Oct-2020 to 31-Dec-2020

Monitoring location	Substance / parameter ⁽⁶⁾	Test method ⁽²⁾	Date ⁽³⁾	Compliance limit ⁽⁷⁾	Result ^{(1) (4)}	Unit ⁽⁵⁾
BH3/1	Air temperature	Field	07-Oct-2020		12.9	°C
			09-Nov-2020		13.4	°C
			14-Dec-2020		7.1	°C
	Carbon dioxide		07-Oct-2020	<3.5% v/v	1	%
			09-Nov-2020	<3.5% v/v	0.2	%
			14-Dec-2020	<3.5% v/v	0.7	%
	Methane		07-Oct-2020	<1% v/v above background	0	%
			09-Nov-2020	<1% v/v above background	0	%
			14-Dec-2020	<1% v/v above background	0	%
BH3/10	Oxygen		07-Oct-2020		21	%
			09-Nov-2020		21	%
			14-Dec-2020		21.4	%
	Air temperature		07-Oct-2020		12.2	°C
			09-Nov-2020		11.8	°C
			14-Dec-2020		8.2	°C
	Carbon dioxide		07-Oct-2020	<3.5% v/v	1.1	%
			09-Nov-2020	<3.5% v/v	0.7	%
			14-Dec-2020	<3.5% v/v	0.6	%
	Methane		07-Oct-2020	<1% v/v above background	0	%
			09-Nov-2020	<1% v/v above background	0	%
			14-Dec-2020	<1% v/v above background	0	%
	Oxygen		07-Oct-2020		20.7	%

Monitoring location	Substance / parameter ⁽⁶⁾	Test method ⁽²⁾	Date ⁽³⁾	Compliance limit ⁽⁷⁾	Result ⁽¹⁾ ⁽⁴⁾	Unit ⁽⁵⁾
BH3/10	Oxygen	Field	09-Nov-2020		21.2	%
			14-Dec-2020		21.1	%
			07-Oct-2020		10.9	°C
BH3/11	Air temperature		09-Nov-2020		11.7	°C
			14-Dec-2020		7.4	°C
			07-Oct-2020			
	Carbon dioxide		07-Oct-2020	<3.5% v/v	0.5	%
			09-Nov-2020	<3.5% v/v	3.2	%
			14-Dec-2020	<3.5% v/v	3.2	%
	Methane		07-Oct-2020	<1% v/v above background	0	%
			09-Nov-2020	<1% v/v above background	0	%
			14-Dec-2020	<1% v/v above background	0	%
	Oxygen		07-Oct-2020		21.1	%
			09-Nov-2020		19.9	%
			14-Dec-2020		18.6	%
	Air temperature		07-Oct-2020		11.8	°C
			09-Nov-2020		11.2	°C
			14-Dec-2020		7.4	°C
BH3/2	Carbon dioxide		07-Oct-2020	<3.5% v/v	0.8	%
			09-Nov-2020	<3.5% v/v	0.3	%
			14-Dec-2020	<3.5% v/v	0.7	%
	Methane		07-Oct-2020	<1% v/v above background	0	%
			09-Nov-2020	<1% v/v above background	0	%
			14-Dec-2020	<1% v/v above background	0	%
	Oxygen		07-Oct-2020		20.3	%
			09-Nov-2020		21.3	%
			14-Dec-2020		21	%
	Air temperature		07-Oct-2020		11.7	°C
			09-Nov-2020		12.7	°C

Monitoring location	Substance / parameter ⁽⁶⁾	Test method ⁽²⁾	Date ⁽³⁾	Compliance limit ⁽⁷⁾	Result ⁽¹⁾ ⁽⁴⁾	Unit ⁽⁵⁾
BH3/4	Air temperature	Field	14-Dec-2020		8.2	°C
	Carbon dioxide		07-Oct-2020	<3.5% v/v	1.7	%
			09-Nov-2020	<3.5% v/v	2.4	%
			14-Dec-2020	<3.5% v/v	2	%
	Methane		07-Oct-2020	<1% v/v above background	0	%
			09-Nov-2020	<1% v/v above background	0	%
			14-Dec-2020	<1% v/v above background	0	%
	Oxygen		07-Oct-2020		20.6	%
			09-Nov-2020		18.9	%
			14-Dec-2020		20.4	%
	Air temperature		07-Oct-2020		12.9	°C
			09-Nov-2020		13	°C
BH3/5		Field	14-Dec-2020		8.3	°C
	Carbon dioxide		07-Oct-2020	<3.5% v/v	2.1	%
			09-Nov-2020	<3.5% v/v	2.3	%
			14-Dec-2020	<3.5% v/v	0.2	%
	Methane		07-Oct-2020	<1% v/v above background	0	%
			09-Nov-2020	<1% v/v above background	0	%
			14-Dec-2020	<1% v/v above background	0	%
	Oxygen		07-Oct-2020		21.1	%
			09-Nov-2020		17.7	%
			14-Dec-2020		21.8	%
	Air temperature		07-Oct-2020		12.1	°C
			09-Nov-2020		13.1	°C
BH3/6		Field	14-Dec-2020		8.2	°C
	Carbon dioxide		07-Oct-2020	<3.5% v/v	0.1	%
			09-Nov-2020	<3.5% v/v	0.3	%
			14-Dec-2020	<3.5% v/v	0.2	%
	Methane		07-Oct-2020	<1% v/v above background	0	%

Monitoring location	Substance / parameter ⁽⁶⁾	Test method ⁽²⁾	Date ⁽³⁾	Compliance limit ⁽⁷⁾	Result ⁽¹⁾ ⁽⁴⁾	Unit ⁽⁵⁾
BH3/6	Methane	Field	09-Nov-2020	<1% v/v above background	0	%
			14-Dec-2020	<1% v/v above background	0	%
	Oxygen		07-Oct-2020		21.6	%
			09-Nov-2020		21.1	%
			14-Dec-2020		21.8	%
BH3/8	Air temperature	07-Oct-2020		11.4	°C	
		09-Nov-2020		13.3	°C	
		14-Dec-2020		8.1	°C	
	Carbon dioxide	07-Oct-2020	<3.5% v/v	1.7	%	
		09-Nov-2020	<3.5% v/v	2.7	%	
		14-Dec-2020	<3.5% v/v	3.4	%	
	Methane	07-Oct-2020	<1% v/v above background	0	%	
		09-Nov-2020	<1% v/v above background	0	%	
		14-Dec-2020	<1% v/v above background	0	%	
	Oxygen	07-Oct-2020		20.7	%	
		09-Nov-2020		18.2	%	
		14-Dec-2020		13.2	%	
BH3/9	Air temperature	07-Oct-2020		12.4	°C	
		09-Nov-2020		12.5	°C	
		14-Dec-2020		7.9	°C	
	Carbon dioxide	07-Oct-2020	<3.5% v/v	0.9	%	
		09-Nov-2020	<3.5% v/v	0.1	%	
		14-Dec-2020	<3.5% v/v	0.4	%	
	Methane	07-Oct-2020	<1% v/v above background	0	%	
		09-Nov-2020	<1% v/v above background	0	%	
		14-Dec-2020	<1% v/v above background	0	%	
	Oxygen	07-Oct-2020		18.8	%	
		09-Nov-2020		21.5	%	
		14-Dec-2020		21.3	%	

Monitoring location	Substance / parameter ⁽⁶⁾	Test method ⁽²⁾	Date ⁽³⁾	Compliance limit ⁽⁷⁾	Result ⁽¹⁾ ⁽⁴⁾	Unit ⁽⁵⁾
NACW201	Air temperature	Field	07-Oct-2020		13.2	°C
			09-Nov-2020		12.1	°C
			14-Dec-2020		7.2	°C
	Carbon dioxide		07-Oct-2020	<3.5% v/v	3.2	%
			09-Nov-2020	<3.5% v/v	2.2	%
			14-Dec-2020	<3.5% v/v	2	%
	Methane		07-Oct-2020	<1% v/v above background	0	%
			09-Nov-2020	<1% v/v above background	0	%
			14-Dec-2020	<1% v/v above background	0	%
	Oxygen		07-Oct-2020		19.7	%
			09-Nov-2020		19.5	%
			14-Dec-2020		19.7	%
NACW202	Air temperature		07-Oct-2020		10.1	°C
			09-Nov-2020		11	°C
			14-Dec-2020		7.2	°C
	Carbon dioxide		07-Oct-2020	<3.5% v/v	2.9	%
			09-Nov-2020	<3.5% v/v	1.8	%
			14-Dec-2020	<3.5% v/v	2.6	%
	Methane		07-Oct-2020	<1% v/v above background	0	%
			09-Nov-2020	<1% v/v above background	0	%
			14-Dec-2020	<1% v/v above background	0	%
	Oxygen		07-Oct-2020		19.7	%
			09-Nov-2020		19.1	%
			14-Dec-2020		20.3	%
NACW203	Air temperature		07-Oct-2020		10.3	°C
			09-Nov-2020		13.4	°C
			14-Dec-2020		7.6	°C
	Carbon dioxide		07-Oct-2020	<3.5% v/v	0.2	%
			09-Nov-2020	<3.5% v/v	0.1	%

Monitoring location	Substance / parameter ⁽⁶⁾	Test method ⁽²⁾	Date ⁽³⁾	Compliance limit ⁽⁷⁾	Result ^{(1) (4)}	Unit ⁽⁵⁾
NACW203	Carbon dioxide	Field	14-Dec-2020	<3.5% v/v	0.2	%
	Methane		07-Oct-2020	<1% v/v above background	0	%
			09-Nov-2020	<1% v/v above background	0	%
			14-Dec-2020	<1% v/v above background	0	%
	Oxygen		07-Oct-2020		20.7	%
			09-Nov-2020		21.1	%
			14-Dec-2020		21.9	%
	Air temperature		07-Oct-2020		10.2	°C
			09-Nov-2020		12.5	°C
NACW204			14-Dec-2020		8	°C
	Carbon dioxide		07-Oct-2020	<3.5% v/v	0.2	%
			09-Nov-2020	<3.5% v/v	0.1	%
			14-Dec-2020	<3.5% v/v	0.2	%
	Methane		07-Oct-2020	<1% v/v above background	0	%
			09-Nov-2020	<1% v/v above background	0	%
			14-Dec-2020	<1% v/v above background	0	%
	Oxygen		07-Oct-2020		20.9	%
			09-Nov-2020		21.2	%
			14-Dec-2020		22	%
	Air temperature		07-Oct-2020		10	°C
			09-Nov-2020		11.7	°C
			14-Dec-2020		7.8	°C
	Carbon dioxide		07-Oct-2020	<3.5% v/v	1.6	%
			09-Nov-2020	<3.5% v/v	1.6	%
NACW205			14-Dec-2020	<3.5% v/v	0.5	%
	Methane		07-Oct-2020	<1% v/v above background	0	%
			09-Nov-2020	<1% v/v above background	0	%
			14-Dec-2020	<1% v/v above background	0	%
	Oxygen		07-Oct-2020		20.4	%

Monitoring location	Substance / parameter ⁽⁶⁾	Test method ⁽²⁾	Date ⁽³⁾	Compliance limit ⁽⁷⁾	Result ⁽¹⁾ ⁽⁴⁾	Unit ⁽⁵⁾
NACW205	Oxygen	Field	09-Nov-2020		18.4	%
			14-Dec-2020		21.2	%
NACW212	Air temperature		07-Oct-2020		11.8	°C
			09-Nov-2020		11.8	°C
			14-Dec-2020		7.8	°C
	Carbon dioxide		07-Oct-2020	<3.5% v/v	1.9	%
			09-Nov-2020	<3.5% v/v	1.5	%
			14-Dec-2020	<3.5% v/v	0.9	%
	Methane		07-Oct-2020	<1% v/v above background	0	%
			09-Nov-2020	<1% v/v above background	0	%
			14-Dec-2020	<1% v/v above background	0	%
	Oxygen		07-Oct-2020		19.2	%
			09-Nov-2020		18.2	%
			14-Dec-2020		20.8	%
	Air temperature		07-Oct-2020		9.7	°C
			09-Nov-2020		12.2	°C
			14-Dec-2020		8	°C
NACW213	Carbon dioxide		07-Oct-2020	<3.5% v/v	0.4	%
			09-Nov-2020	<3.5% v/v	2.3	%
			14-Dec-2020	<3.5% v/v	2.4	%
	Methane		07-Oct-2020	<1% v/v above background	0	%
			09-Nov-2020	<1% v/v above background	0	%
			14-Dec-2020	<1% v/v above background	0	%
	Oxygen		07-Oct-2020		21.3	%
			09-Nov-2020		17.6	%
			14-Dec-2020		20.4	%
	Air temperature		07-Oct-2020		11.7	°C
			09-Nov-2020		14.6	°C
			14-Dec-2020		7.9	°C

Monitoring location	Substance / parameter ⁽⁶⁾	Test method ⁽²⁾	Date ⁽³⁾	Compliance limit ⁽⁷⁾	Result ⁽¹⁾ ⁽⁴⁾	Unit ⁽⁵⁾
NACW215	Carbon dioxide	Field	07-Oct-2020	<3.5% v/v	0.7	%
			09-Nov-2020	<3.5% v/v	3.2	%
			14-Dec-2020	<3.5% v/v	2.8	%
	Methane		07-Oct-2020	<1% v/v above background	0	%
			09-Nov-2020	<1% v/v above background	0	%
			14-Dec-2020	<1% v/v above background	0	%
	Oxygen		07-Oct-2020		20.2	%
			09-Nov-2020		17.6	%
			14-Dec-2020		19.7	%
NACW216	Air temperature		07-Oct-2020		11.2	°C
			09-Nov-2020		12.6	°C
			14-Dec-2020		7.8	°C
	Carbon dioxide		07-Oct-2020	<3.5% v/v	1.1	%
			09-Nov-2020	<3.5% v/v	0.6	%
			14-Dec-2020	<3.5% v/v	0.7	%
	Methane		07-Oct-2020	<1% v/v above background	0	%
			09-Nov-2020	<1% v/v above background	0	%
			14-Dec-2020	<1% v/v above background	0	%
	Oxygen		07-Oct-2020		20.1	%
			09-Nov-2020		20.8	%
			14-Dec-2020		20.1	%
	Air temperature		07-Oct-2020		12.7	°C
			09-Nov-2020		11.4	°C
			14-Dec-2020		7.2	°C
NACW219	Carbon dioxide		07-Oct-2020	<3.5% v/v	1.9	%
			09-Nov-2020	<3.5% v/v	2.8	%
			14-Dec-2020	<3.5% v/v	0.2	%
	Methane		07-Oct-2020	<1% v/v above background	0	%
			09-Nov-2020	<1% v/v above background	0	%

Monitoring location	Substance / parameter ⁽⁶⁾	Test method ⁽²⁾	Date ⁽³⁾	Compliance limit ⁽⁷⁾	Result ⁽¹⁾ ⁽⁴⁾	Unit ⁽⁵⁾
NACW219	Methane	Field	14-Dec-2020	<1% v/v above background	0	%
	Oxygen		07-Oct-2020		19.4	%
			09-Nov-2020		19.2	%
			14-Dec-2020		21.3	%
NACW227	Air temperature		07-Oct-2020		11.9	°C
			09-Nov-2020		11.8	°C
			14-Dec-2020		8.1	°C
	Carbon dioxide		07-Oct-2020	<3.5% v/v	2.9	%
			09-Nov-2020	<3.5% v/v	2.2	%
			14-Dec-2020	<3.5% v/v	1.2	%
	Methane		07-Oct-2020	<1% v/v above background	0	%
			09-Nov-2020	<1% v/v above background	0	%
			14-Dec-2020	<1% v/v above background	0	%
	Oxygen		07-Oct-2020		18.4	%
			09-Nov-2020		18.7	%
			14-Dec-2020		19.1	%
NACW228	Air temperature		07-Oct-2020		12.4	°C
			09-Nov-2020		11.9	°C
			14-Dec-2020		8.3	°C
	Carbon dioxide		07-Oct-2020	<3.5% v/v	3.2	%
			09-Nov-2020	<3.5% v/v	2.4	%
			14-Dec-2020	<3.5% v/v	1.2	%
	Methane		07-Oct-2020	<1% v/v above background	0	%
			09-Nov-2020	<1% v/v above background	0	%
			14-Dec-2020	<1% v/v above background	0	%
	Oxygen		07-Oct-2020		20.1	%
			09-Nov-2020		19.8	%
			14-Dec-2020		21.1	%
NACW229	Air temperature		07-Oct-2020		12.8	°C

Monitoring location	Substance / parameter ⁽⁶⁾	Test method ⁽²⁾	Date ⁽³⁾	Compliance limit ⁽⁷⁾	Result ⁽¹⁾ ⁽⁴⁾	Unit ⁽⁵⁾
NACW229	Air temperature	Field	09-Nov-2020		13.6	°C
			14-Dec-2020		10.4	°C
	Carbon dioxide		07-Oct-2020	<3.5% v/v	0.2	%
			09-Nov-2020	<3.5% v/v	0.3	%
			14-Dec-2020	<3.5% v/v	0.1	%
	Methane		07-Oct-2020	<1% v/v above background	0	%
			09-Nov-2020	<1% v/v above background	0	%
			14-Dec-2020	<1% v/v above background	0	%
	Oxygen		07-Oct-2020		21.2	%
			09-Nov-2020		21.1	%
			14-Dec-2020		21.4	%
NACW230	Air temperature		07-Oct-2020		12.5	°C
			09-Nov-2020		13.9	°C
			14-Dec-2020		10	°C
	Carbon dioxide		07-Oct-2020	<3.5% v/v	0.4	%
			09-Nov-2020	<3.5% v/v	0.4	%
			14-Dec-2020	<3.5% v/v	0.3	%
	Methane		07-Oct-2020	<1% v/v above background	0	%
			09-Nov-2020	<1% v/v above background	0	%
			14-Dec-2020	<1% v/v above background	0	%
	Oxygen		07-Oct-2020		21.2	%
			09-Nov-2020		21.1	%
			14-Dec-2020		21.6	%

Monitoring location	Substance / parameter ⁽⁶⁾	Test method ⁽²⁾	Date ⁽³⁾	Compliance limit ⁽⁷⁾	Result ⁽¹⁾ ⁽⁴⁾	Unit ⁽⁵⁾
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- (1) The result given is the maximum value (or the minimum value in the case of a limit that is expressed as a minimum) obtained during the reporting period, expressed in the same terms as the emission limit value. Where the emission limit value is expressed as a range, the result is given as the 'minimum – maximum' measured values.
- (2) Where an internationally recognised standard test method is used the reference number is given. Where another method that has been formally agreed with the Agency is used, then the appropriate identifier is given. In other cases the principal technique is stated, e.g. gas chromatography.
- (3) For non-continuous measurements the date and time of the sample that produced the result is given. For continuous measurements the percentage of the process operating time covered by the result is given.
- (4) The uncertainty associated with the quoted result at the 95% confidence interval, unless otherwise stated; refer to laboratory data sheets for specific uncertainty.
- (5) Depths reported as metres (m) are metres below ground level.
- (6) For details of the sampling method, frequency and parameters measured / analysed for, refer to the site Environmental Monitoring Management Plan (EMMP).
- (7) Where blank, there is no defined compliance limit specified for the monitoring location / parameter.

Signature:.....

Date: 26 January 2021

(Authorised to sign as representative of
Operator)