

Annex G2

Landfill Gas Monitoring Results

Table G2.1 Landfill Gas Monitoring Results at Perimeter LFG Monitoring Wells (January 2022)

Location	Water Level (mPD)	Methane (% (v/v))	Carbon Dioxide (% (v/v))	Oxygen (% (v/v))
LFG1	2.33	0.0	0.0	20.4
LFG2	2.22	0.0	0.0	20.4
LFG3	2.38	0.0	0.1	20.2
LFG4	2.2	0.0	0.0	20.2
LFG5	2.49	0.0	0.2	10.9
LFG6	2.16	0.0	0.0	20.3
LFG7	2.29	0.0	0.0	20.2
LFG8	2.25	0.0	0.0	20.2
LFG9	2.22	0.0	0.0	20.3
LFG10	1.94	0.0	0.0	20.3
LFG11	2.06	0.0	0.3	11.8
LFG12	2.02	0.0	0.0	20.0
LFG13	1.86	17.4	0.3	0.4
LFG14	1.63	0.0	0.0	19.8
LFG15	1.87	0.0	0.1	19.5
LFG16	1.9	0.0	0.1	19.6
LFG17	2.08	0.0	0.0	20.1
LFG18	2.21	0.0	0.1	20.1
LFG19	2.27	0.0	0.0	20.1
LFG20	2.37	0.0	2.5	13.6
LFG21	2.53	0.0	2.3	12.5
LFG22	2.21	0.0	1.4	15.6
LFG23	11.65	0.0	2.1	18.3
LFG24	5.99	0.0	0.7	19.4
GP1	Probe bent	0.0	0.1	19.9
GP2 (shallow)	Probe bent	0.1	0.1	20.0
GP2 (deep)	Probe bent	0.1	0.1	20.0
GP3 (shallow)	Probe bent	0.0	0.1	20.1
GP3 (deep)	Probe bent	0.0	0.1	20.1
GP4 (shallow)	Probe bent	0.0	0.2	20.2
GP4 (deep)	Probe bent	0.0	0.1	20.2
GP5 (shallow)	Probe bent	0.0	0.1	20.2
GP5 (deep)	37.47	0.0	0.1	20.2
GP6	36.70	0.0	6.5	14.4
GP7	35.48	0.0	0.1	20.1
GP12	Dry	0.0	0.6	19.4
GP15	2.28	0.0	0.0	20.4
P7	2.26	0.0	0.0	20.3
P8	2.38	0.0	0.0	20.4
P9	2.25	0.0	0.0	20.4

Table G2.2 Landfill Gas Monitoring Results at Perimeter LFG Monitoring Wells (February 2022)

Location	Water Level (mPD)	Methane (% (v/v))	Carbon Dioxide (% (v/v))	Oxygen (% (v/v))
LFG1	2.33	0.0	0.1	20.9
LFG2	2.27	0.0	0.1	20.9
LFG3	2.31	0.0	0.9	19.6
LFG4	2.23	0.0	0.1	20.9
LFG5	2.49	0.0	0.3	11.9
LFG6	2.18	0.0	0.1	20.8
LFG7	2.30	0.0	0.1	20.9
LFG8	2.24	0.0	0.1	21.0
LFG9	2.24	0.0	0.1	20.9
LFG10	1.97	0.0	0.1	20.7
LFG11	1.97	0.0	0.2	13.9
LFG12	1.86	0.0	0.1	20.1
LFG13	1.90	6.2	0.9	0.9
LFG14	1.67	0.0	0.1	20.6
LFG15	1.93	0.0	0.3	18.9
LFG16	1.98	0.0	0.1	20.5
LFG17	2.04	0.0	0.1	20.9
LFG18	3.13	0.0	0.1	20.6
LFG19	3.15	0.0	0.1	20.8
LFG20	2.05	0.0	0.7	19.2
LFG21	2.24	0.0	2.1	13.3
LFG22	2.15	0.0	1.8	12.6
LFG23	12.41	0.0	0.9	20.0
LFG24	5.76	0.0	0.8	19.8
GP1	Probe bent	0.0	0.1	20.5
GP2 (shallow)	Probe bent	0.0	0.1	20.6
GP2 (deep)	Probe bent	0.0	0.1	20.6
GP3 (shallow)	Probe bent	0.0	0.1	20.7
GP3 (deep)	Probe bent	0.0	0.7	19.4
GP4 (shallow)	Probe bent	0.0	0.2	20.7
GP4 (deep)	Probe bent	0.0	0.1	20.7
GP5 (shallow)	Probe bent	0.0	0.1	20.8
GP5 (deep)	38.03	0.0	0.1	20.8
GP6	35.98	0.0	6.7	15.2
GP7	35.86	0.0	0.2	20.9
GP12	1.60	0.0	0.2	20.9
GP15	2.34	0.0	0.1	20.9
P7	2.18	0.0	0.1	20.9
P8	2.37	0.0	0.1	20.9
P9	2.24	0.0	0.1	20.9

Table G2.3 Landfill Gas Monitoring Results at Perimeter LFG Monitoring Wells (March 2022)

Location	Water Level (mPD)	Methane (% (v/v))	Carbon Dioxide (% (v/v))	Oxygen (% (v/v))
LFG1	2.05	0.0	0.1	19.1
LFG2	1.96	0.0	0.4	19.3
LFG3	2.1	0.0	0.0	20.5
LFG4	2.06	0.0	0.0	20.6
LFG5	2.45	0.0	0.0	20.5
LFG6	1.96	0.0	0.0	20.4
LFG7	2.38	0.0	0.0	20.4
LFG8	2.24	0.0	0.0	20.5
LFG9	2.17	0.0	0.0	20.4
LFG10	1.93	0.0	0.0	20.4
LFG11	2.25	0.0	0.0	20.3
LFG12	2.19	0.0	0.0	20.2
LFG13	2.05	0.0	0.0	19.7
LFG14	1.81	0.0	0.0	20.1
LFG15	2	0.0	0.0	20.2
LFG16	2.1	0.0	0.0	20.0
LFG17	2.28	0.0	0.0	20.0
LFG18	2.45	0.0	0.1	19.2
LFG19	2.52	0.0	0.0	19.7
LFG20	2.54	0.0	0.4	18.5
LFG21	2.69	0.0	2.0	7.5
LFG22	2.38	0.0	0.5	18.2
LFG23	12.53	0.0	1.4	18.4
LFG24	5.96	0.0	0.8	18.4
GP1	Probe bent	0.0	3.1	15.8
GP2 (shallow)	Probe bent	0.0	0.1	20.2
GP2 (deep)	Probe bent	0.0	0.1	20.2
GP3 (shallow)	Probe bent	0.0	3.3	17.3
GP3 (deep)	Probe bent	0.0	0.1	20.3
GP4 (shallow)	Probe bent	0.0	0.2	20.3
GP4 (deep)	Probe bent	0.0	0.1	21.5
GP5 (shallow)	Probe bent	0.0	0.1	20.4
GP5 (deep)	38	0.0	0.1	20.4
GP6	36.15	0.0	0.4	19.9
GP7	35.89	0.0	0.1	19.9
GP12	1.48	0.0	0.6	18.7
GP15	2.03	0.0	0.0	20.5
P7	1.99	0.0	0.0	20.4
P8	2.11	0.0	0.0	20.4
P9	1.99	0.0	0.0	20.5

Table G2.4 Landfill Gas Monitoring Results at Service Voids, Utilities Pits and Manholes (January 2022)

Location	Methane (% (v/v))	Carbon Dioxide (% (v/v))	Oxygen (% (v/v))
UU01	0.1	0.0	20.6
UU02	0.1	0.0	20.7
UU03	0.2	0.0	20.6
UU04	0.2	0.0	20.3
UU05	0.2	0.0	20.2
UU06	0.2	0.0	20.1
UU07	0.1	0.0	20.7
UU08	0.3	0.0	20.2
UU09	0.0	0.0	20.6
UU10	0.0	0.0	20.7
UU11	0.0	0.0	20.6
UU12	Voided due to latest site programme and on-going operation work		
UU13	0.0	0.0	20.4
UU14	0.0	0.0	20.5
UU15	0.0	0.0	20.3
UU16	0.0	0.0	20.0
UU17	Voided due to latest site programme and on-going operation work		
UU18	0.0	0.0	20.0
UU19	0.1	0.0	20.6
UU20	0.0	0.0	20.0
UU21	0.0	0.0	19.2
UU22	0.0	0.1	19.9
UU23	0.0	0.1	19.5
UU24	0.0	0.0	19.6
UU25	0.0	0.0	19.7
UU26	Inaccessible due to on-going construction work		
UU27	0.1	0.0	20.3
UU28	0.0	0.0	19.9

Table G2.5 Landfill Gas Monitoring Results at Service Voids, Utilities Pits and Manholes (February 2022)

Location	Methane (% (v/v))	Carbon Dioxide (% (v/v))	Oxygen (% (v/v))
UU01	0.0	0.0	21.0
UU02	0.0	0.0	20.9
UU03	0.0	0.0	21.2
UU04	0.0	0.0	21.3
UU05	0.1	0.0	20.8
UU06	0.1	0.0	20.8
UU07	0.0	0.0	21.1
UU08	0.1	0.0	20.9
UU09	0.0	0.0	20.4
UU10	0.0	0.0	20.5
UU11	0.0	0.0	20.8
UU12	Voided due to latest site programme and on-going operation work		
UU13	0.0	0.0	19.9
UU14	0.0	0.0	20.4
UU15	0.0	0.0	20.9
UU16	0.0	0.0	20.3
UU17	Voided due to latest site programme and on-going operation work		
UU18	0.0	0.0	21.0
UU19	0.0	0.0	21.2
UU20	0.0	0.1	20.4
UU21	0.0	0.1	20.4
UU22	0.0	0.1	20.4
UU23	0.0	0.1	20.1
UU24	0.0	0.1	20.0
UU25	0.0	0.0	20.0
UU26	0.2	0.0	21.0
UU27	0.0	0.0	20.1
UU28	0.0	0.0	19.9

Table G2.6 Landfill Gas Monitoring Results at Service Voids, Utilities Pits and Manholes (March 2022)

Location	Methane (% (v/v))	Carbon Dioxide (% (v/v))	Oxygen (% (v/v))
UU01	0.0	0.0	20.7
UU02	0.0	0.0	20.9
UU03	0.1	0.0	20.2
UU04	0.1	0.0	20.2
UU05	0.0	0.0	20.8
UU06	0.0	0.0	20.9
UU07	0.3	0.0	20.7
UU08	0.0	0.0	20.3
UU09	0.0	0.0	20.6
UU10	0.0	0.0	20.3
UU11	0.0	0.0	20.2
UU12	Voided due to latest site programme and on-going operation work		
UU13	0.0	0.0	20.0
UU14	0.0	0.0	19.6
UU15	0.0	0.0	19.8
UU16	0.0	0.0	19.7
UU17	Voided due to latest site programme and on-going operation work		
UU18	0.0	0.0	20.4
UU19	0.2	0.0	20.4
UU20	0.0	0.0	19.8
UU21	0.0	0.0	19.7
UU22	0.0	0.1	19.8
UU23	0.0	0.1	20.0
UU24	0.0	0.0	20.3
UU25	0.0	0.0	20.2
UU26	0.0	0.0	19.7
UU27	0.0	0.0	19.4
UU28	0.0	0.0	19.5

Table G2.7 Landfill Gas Bulk Gas Sampling Monitoring Results

Parameters	LFG14	LFG15
Methane (% (v/v))	0.0	0.0
Carbon Dioxide (% (v/v))	0.119	0.110
Oxygen (% (v/v))	10.2	20.1
Nitrogen (% (v/v))	90.5	80.3
Carbon Monoxide (% (v/v))	<0.020	<0.020
Hydrogen (% (v/v))	<0.020	<0.020
Ethane (ppmv)	<1.0	<1.0
Propane (ppmv)	<1.0	<1.0
Butane (ppmv)	<1.0	<1.0

Table G2.8 Flammable Gas Surface Emission Monitoring Results

Time	GPS Coordinates	Longitude (E)	Weather Condition	Temperature (°C)	Wind Direction (Deg)	Wind Speed (m/s)	Monitoring Results (ppm)
14:40	22°16'36"	114°16'36"	Sunny	18.8	161	3.6	3
14:50	22°16'24"	114°16'36"	Sunny	21.0	155	3.6	6