



LLANDDULAS LANDFILL SITE

PPC PERMIT BU0800IZ

QUARTERLY ENVIRONMENTAL MONITORING REPORT

1st May to 31st July 2018 inclusive

June 2018

**FCC Environment
Llanddulas Landfill Site
Llanddulas
Conwy
LL22 8HP**

1.0 Introduction

This report has been produced in accordance with the requirements of the PPC permit (BU0800IZ) and subsequent variation notices (BP3734XX) issued on the 25th July 2008 and EPRBU0800IZ/V011 issued on 10th June 2016 and outlines the results of environmental monitoring undertaken between the 1st May 2018 and 31st July 2018 at Llanddulas Landfill Site.

2.0 Off Waste Landfill Gas Monitoring

Monitoring for the presence of landfill gas in perimeter boreholes has been undertaken on a weekly or fortnightly basis throughout the review period, in accordance with Table S4.5 of the current site Permit Variation issued on 10th June 2016.

Monitoring of perimeter boreholes has been reduced in the most recent variation to fortnightly for the boreholes in the higher risk (of migration) area of site and monthly for all perimeter boreholes.

Revised background concentration levels of landfill gases were agreed as part of the improvement programme requirements (IC13) included in the variation (table S1.3.12). Following the review, Methane compliance and action limits plus Carbon Dioxide (action levels only) were approved by Natural Resources Wales (CAR form RDR/121105BU0800IZ), for all perimeter boreholes.

During this reporting period there were no readings in excess of the compliance level for methane.

Borehole 40 has a compliance limit of 2.5% (with an action limit of 1.5%) and is not situated at the site perimeter.

A summary of the borehole readings is attached with this report in Appendix 2.

3.0 Water Quality

Water quality is currently measured from 17 groundwater monitoring boreholes, the Dulas spring, W1 (discharge point) and the Afon Dulas upstream/downstream as shown on ESID 13B for Phases 1 and 3 of the application. Monthly suites of surface water samples were taken during May and June 2018 with a quarterly set of samples collected for analysis during July 2018.

3.1 Groundwater Quality

Water quality and level is scheduled to be measured quarterly at all of the groundwater monitoring boreholes on site, in accordance with Table S4.10 of the current site Permit variation issued on 10th June 2016, in which groundwater monitoring was reduced from monthly to quarterly.

3.2 Surface Water Quality

Surface water sampling is carried out in accordance with Tables S4.3 and S4.9 of the current site Permit.

Surface water from the Dulas Spring is sampled weekly and the Upstream and Downstream points of the Afon Dulas along with the Spring and surface water emission point W1 monthly. Generally, analyses of samples from these surface water points, suggests the water is of a good quality with no signs of any deterioration.

All analytical data obtained is attached with this report in Appendix 9.

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3.3 Surface Water Discharge Quality

Sampling of surface water discharge point W1, as shown on ESID 13B for phases 1 and 3 of the Permit Application, recommenced during September 2010, at the request of EA Wales (continuing on a Monthly basis) having not been sampled for some time due to there being no discharge of surface water from this point of the site, as is still the case.

4.0 Leachate Monitoring

4.1 Leachate Quality

Leachate sampling was carried out at 6 of the leachate collection points on site and at the revised frequency of quarterly, as agreed with NRW.

Results of the quarterly analyses of leachate samples are attached in Appendix 7.

4.2 Leachate Levels

Leachate levels are monitored on a monthly basis in accordance with Table S4.1 of the current site Permit variation (EPR/BU0800IZ/V011).

There were no breaches of permitted leachate levels throughout the review period.

Data is attached with this report in Appendix 6.

Leachate levels are generally closely managed at the site with pumps checked on a daily basis with all leachate processed by the treatment plant and discharged to sewer.

5.0 Landfill Gas Management

Landfill gas is currently extracted and utilised at the site from Phases 1, 2, 3 and 3A. The LFG utilisation plant, located on site, comprises of two Jenbacher engines both capable of producing 2 x 1000kW which are running at full capacity.

The total flaring capacity on site consists of one 2000m³ high temperature flare and one 1000m³ high temperature flare commissioned in September 2008. These are capable of sufficient gas control in the event of the engines being unavailable.

5.1 Flare/Gas Engine Emissions

Monitoring of the flare and gas engine emissions was undertaken during December 2017 in accordance with the IPPC permit and the results submitted to Natural Resources Wales.

5.2 In Waste Gas Quality

Monitoring at the gas control collection wells is carried out in accordance with condition 3.6.1 and Table S4.7 of the permit variation.

Table S4.7 states that an assessment of air ingress into the extraction system must be carried out if the following control limits are exceeded;

- Oxygen Concentration >5%
- The addition of carbon dioxide and methane percentages <80%
- Carbon monoxide concentration >100ppm requires additional investigation

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During the review period a total of 871 gas well readings obtained, with fortnightly gas field balancing taking place across Phase 3A.

Oxygen concentrations in excess of 5% were recorded on 134 occasions and total Carbon Dioxide and Methane concentrations of less than 80% recorded on 442 occasions. In the majority of the cases above, gas wells have their valves either closed, or closed post-monitoring or partially open to aid odour control or gas migration.

Investigations and remediations are carried out in relation to air ingress and other parameter breaches on a continual basis by our gas contractors.

Of the 871 gas well readings there were no readings of Carbon Monoxide concentrations in excess of 100ppm.

6.0 Ambient air monitoring

Ambient air monitoring is carried out in accordance with the requirements specified in Table S4.11 and Condition 3.6.1 of the Permit Variation.

A monthly regime of TDL and FID surveys are carried out as per Permit requirements both on site and at the site perimeter paying particular attention to temporarily capped or uncapped areas, with follow-up remediations carried out as soon as practicable in a maintained effort to avoid the escape of any fugitive emissions/odours.

Monthly perimeter FID survey readings are presented below in Appendix 5.

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APPENDIX 1

Field Logs

Field log report



Llanddulas

Llanddulas - Field Log - May to July 2018 inclusive

10-May-2018

Equipment 01 Calibration Due	21/09/2018
Equipment 01 Last Calibration	21/03/2018
Equipment 01 Serial No.	GM10556
Equipment 01 Type	GM2000+
Personnel 01	J Crawford
Time OFF	14:40
Time ON	09:40
Weather	Sunny

Field log report



Llanddulas

Llanddulas - Field Log - May to July 2018 inclusive

18-May-2018

Personnel 01	O Jarratt
Time OFF	09:30
Time ON	06:30
Weather	Sunny

Field log report



Llanddulas

Llanddulas - Field Log - May to July 2018 inclusive

23-May-2018

Equipment 01 Calibration Due	13/09/2018
Equipment 01 Last Calibration	13/03/2018
Equipment 01 Serial No.	G500691
Equipment 01 Type	GA5000
Personnel 01	O Jarratt
Time OFF	10:00
Time ON	06:30
Weather	Sunny

Field log report



Llanddulas

Llanddulas - Field Log - May to July 2018 inclusive

31-May-2018

Equipment 01 Serial No.	150m GWDT
Equipment 01 Type	GW Dip Tape
Personnel 01	O Jarratt
Personnel 02	P Mullineaux
Time OFF	13:40
Time ON	07:00
Weather	Sunny

Field log report



Llanddulas

Llanddulas - Field Log - May to July 2018 inclusive

07-June-2018

Personnel 01	J Crawford
Time OFF	12:30
Time ON	11:00
Weather	Sunny

Field log report



Llanddulas

Llanddulas - Field Log - May to July 2018 inclusive

13-June-2018

Equipment 01 Calibration Due	13/09/2018
Equipment 01 Last Calibration	13/03/2018
Equipment 01 Serial No.	G500691
Equipment 01 Type	GA5000
Personnel 01	J Crawford, O Jarratt
Time OFF	12:00
Time ON	07:15
Weather	Sunny

Field log report



Llanddulas

Llanddulas - Field Log - May to July 2018 inclusive

19-June-2018

Equipment 01 Serial No.	150m GWDT
Equipment 01 Type	GW Dip Tape
Personnel 01	J Crawford
Personnel 02	P Mullineaux
Time OFF	13:30
Time ON	08:00
Weather	Cloudy

Field log report



Llanddulas

Llanddulas - Field Log - May to July 2018 inclusive

27-June-2018

Equipment 01 Calibration Due	21/09/2018
Equipment 01 Last Calibration	21/03/2018
Equipment 01 Serial No.	GM10556
Equipment 01 Type	GM2000+
Personnel 01	J Crawford
Time OFF	14:00
Time ON	10:30
Weather	Sunny

Field log report



Llanddulas

Llanddulas - Field Log - May to July 2018 inclusive

03-July-2018

Equipment 01 Calibration Due	21/09/2018
Equipment 01 Last Calibration	21/03/2018
Equipment 01 Serial No.	GM10556
Equipment 01 Type	GA2000+
Personnel 01	J Crawford
Time OFF	14:15
Time ON	10:30
Weather	Sunny

Field log report



Llanddulas

Llanddulas - Field Log - May to July 2018 inclusive

11-July-2018

Equipment 01 Serial No.	150m GWDT
Equipment 01 Type	GW Dip Tape
Personnel 01	J Crawford
Personnel 02	P Mullineaux
Time OFF	14:10
Time ON	07:50
Weather	Sunny

Field log report



Llanddulas

Llanddulas - Field Log - May to July 2018 inclusive

12-July-2018

Equipment 01 Serial No.	150m GWDT
Equipment 01 Type	GW Dip Tape
Personnel 01	J Crawford
Personnel 02	P Mullineaux
Time OFF	14:00
Time ON	08:15
Weather	Sunny

Field log report



Llanddulas

Llanddulas - Field Log - May to July 2018 inclusive

18-July-2018

Equipment 01 Serial No.	150m GWDT
Equipment 01 Type	GW Dip Tape
Personnel 01	J Crawford
Personnel 02	P Mullineaux
Time OFF	13:40
Time ON	08:20
Weather	Overcast

Field log report



Llanddulas

Llanddulas - Field Log - May to July 2018 inclusive

19-July-2018

Equipment 01 Calibration Due	21/09/2018
Equipment 01 Last Calibration	21/03/2018
Equipment 01 Serial No.	GM10556
Equipment 01 Type	GM2000+
Personnel 01	J Crawford
Time OFF	13:45
Time ON	10:15
Weather	Sunny

Field log report



Llanddulas

Llanddulas - Field Log - May to July 2018 inclusive

20-July-2018

Personnel 01	J Crawford
Time OFF	14:00
Time ON	11:00
Weather	19

Field log report



Llanddulas

Llanddulas - Field Log - May to July 2018 inclusive

26-July-2018

Personnel 01	J Crawford
Time OFF	14:40
Time ON	09:50
Weather	Sunny

Field log report



Llanddulas

Llanddulas - Field Log - May to July 2018 inclusive

31-July-2018

Personnel 01	J Crawford
Time OFF	14:00
Time ON	10:30
Weather	Sunny intervals

APPENDIX 2

Perimeter Borehole Gas Data

LLANDDULAS

Perimeter Borehole Results

Llanddulas - Perimeter Borehole Report - May to July 2018 inclusive



From : 10/05/2018

To : 19/07/2018

Sample Point & Date	Atmospheric Pressure (mBar)	CH4 (%v/v) (%)	CO (ppm)	CO2 (%v/v) (%)	H2S (ppm)	O2 (%v/v)	Relative Pressure (mBar)
BH001 10/05/2018	1002	0	0	0	0	20.8	0.36
	23/05/2018	1014	0.1	0	0.1	20.6	0.1
	13/06/2018	1005	0	0	0.2	20.6	-0.12
	27/06/2018	1012	0	0	0	20.6	0.06
	03/07/2018	1006	0	0	0.7	20.3	-0.02
	19/07/2018	1008	0	0	0	20.5	0.32
BH002 10/05/2018	1003	0	0	0.5	0	20.6	0.36
	23/05/2018	1012	0.1	1	1.4	20.6	-0.03
	13/06/2018	1004	0	0	2.2	20.4	-0.02
	27/06/2018	1012	0	0	0	20.6	0.05
	03/07/2018	1007	0	0	2	19.3	-0.03
	19/07/2018	1008	0	0	0.7	20.2	0.29
BH003 10/05/2018	1003	0	0	0	0	20.7	0.33
	23/05/2018	1012	0.1	0	0.6	19.2	0.16
	13/06/2018	1004	0	0	2.4	18.4	0
	27/06/2018	1012	0	0	1.9	19.3	0.03
	03/07/2018	1006	0	0	1.8	19.4	-0.02
	19/07/2018	1008	0	0	0.5	20.2	0.29
BH004 10/05/2018	1002	0	0	0.1	0	20.8	0.34
	23/05/2018	1013	0.1	0	0.6	20.3	0.14
	13/06/2018	1004	0	0	0.3	18.2	-0.14
	27/06/2018	1012	0	0	0.2	20.3	0.01
	03/07/2018	1006	0	0	1.1	20.1	-0.02
	19/07/2018	1008	0	0	0.2	20.1	0.29
BH005 10/05/2018	1002	0	0	0.1	0	20.7	0.01
	23/05/2018	1013	0.1	1	1.1	20.5	0.07
	13/06/2018	1004	0	0	1.1	20.4	0
	27/06/2018	1012	0	0	1.1	18.5	0
	03/07/2018	1006	0	0	1.9	18.2	-0.08

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Perimeter Borehole Results

Llanddulas - Perimeter Borehole Report - May to July 2018 inclusive



From : 10/05/2018

To : 19/07/2018

		Atmospheric Pressure (mBar)	CH4 (%v/v) (%)	CO (ppm)	CO2 (%v/v) (%)	H2S (ppm)	O2 (%v/v)	Relative Pressure (mBar)
BH005	19/07/2018	1007	0	0	1.2	0	19.5	0.26
BH006	10/05/2018	1002	0	0	0.3	0	20.4	-0.02
	23/05/2018	1013	0	0	1.1	0	19.7	-0.02
	13/06/2018	1003	0	0	0.9	0	19.9	-0.09
	27/06/2018	1012	0	0	0.3	0	20.1	-0.04
	03/07/2018	1006	0	0	1.4	0	19.4	-0.08
	19/07/2018	1007	0	0	0.2	0	20.2	0.26
BH007	10/05/2018	1002	0	0	0.7	0	20.3	0
	23/05/2018	1012	0.1	1	1.2	0	19.7	0.16
	13/06/2018	1004	0	0	0.6	0	20.3	-0.07
	27/06/2018	1011	0	0	0.4	0	19.9	-0.07
	03/07/2018	1006	0	0	2	0	19.2	-0.11
	19/07/2018	1007	0	0	0.2	0	20.3	0.23
BH008	10/05/2018	1002	0	0	2.1	0	17.6	-0.03
	23/05/2018	1012	0	1	1.3	0	19.8	0.19
	13/06/2018	1004	0	0	1.2	0	20.2	0.07
	27/06/2018	1011	0	0	0.8	0	19.6	-0.05
	03/07/2018	1006	0	0	1.5	0	19.6	-0.13
	19/07/2018	1007	0	0	1.1	0	19.5	0.23
BH009	10/05/2018	1002	0	0	0	0	20.6	-0.03
	23/05/2018	1012	0.1	0	0.4	0	19.8	0.36
	13/06/2018	1004	0	0	0.4	0	19.6	-0.03
	27/06/2018	1011	0	0	0.2	0	20.1	-0.08
	03/07/2018	1006	0	0	0.8	0	19.9	-0.14
	19/07/2018	1007	0	0	0.3	0	20	0
BH010	10/05/2018	1002	0	0	0.1	0	20.6	-0.03
	23/05/2018	1013	0.1	0	0.6	0	20.6	0.07
	13/06/2018	1004	0	0	0.9	0	20.3	-0.16
	27/06/2018	1011	0	0	0.4	0	19.9	-0.12

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Perimeter Borehole Results

Llanddulas - Perimeter Borehole Report - May to July 2018 inclusive



From : 10/05/2018

To : 19/07/2018

		Atmospheric Pressure (mBar)	CH4 (%v/v) (%)	CO (ppm)	CO2 (%v/v) (%)	H2S (ppm)	O2 (%v/v)	Relative Pressure (mBar)
BH010	03/07/2018	1006	0	0	1.5	0	19.1	-0.16
	19/07/2018	1007	0	0	0.4	0	19.9	-0.01
BH011	10/05/2018	1002	0	0	0	0	20.6	-0.03
	23/05/2018	1012	0.1	0	0.1	0	20.5	0.17
	13/06/2018	1004	0	0	0.2	0	20.1	-0.1
	27/06/2018	1011	0	0	0.2	0	20	-0.11
	03/07/2018	1005	0	0	0.1	0	20.5	-0.17
	19/07/2018	1007	0	0	0	0	20.3	-0.05
BH012	10/05/2018	1002	0	0	0.1	0	20.6	-0.04
	23/05/2018	1012	0.1	0	1.1	0	20.8	0.24
	13/06/2018	1004	0	0	0.5	0	20.5	-0.03
	27/06/2018	1011	0	0	0.1	0	20.2	-0.15
	03/07/2018	1005	0	0	0.3	0	20.3	-0.2
	19/07/2018	1006	0	0	0.2	0	20	-0.06
BH013	10/05/2018	1001	0	0	0.1	0	20.6	-0.05
	23/05/2018	1012	0.1	0	0.4	0	20.7	0.09
	13/06/2018	1004	0	0	0.5	0	20.4	-0.03
	27/06/2018	1011	0	0	0.3	0	20.1	-0.16
	03/07/2018	1005	0	0	0.7	0	20	-0.17
	19/07/2018	1006	0	0	0.4	0	19.9	-0.08
BH014	10/05/2018	1001	0	0	0.1	0	20.6	-0.06
	23/05/2018	1012	0	0	1.7	0	20.6	0
	13/06/2018	1003	0	0	2.6	0	20.1	-0.09
	27/06/2018	1010	0	0	1.3	0	19.4	-0.18
	03/07/2018	1005	0	0	2.8	0	18.6	-0.23
	19/07/2018	1006	0	0	1.4	0	19.4	-0.1
BH015	10/05/2018	1001	0	0	0.1	0	20.6	-0.05
	23/05/2018	1012	0	0	0.3	0	20	0.21
	13/06/2018	1004	0	0	0.8	0	18.6	-0.1

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Perimeter Borehole Results

Llanddulas - Perimeter Borehole Report - May to July 2018 inclusive



From : 10/05/2018

To : 19/07/2018

		Atmospheric Pressure (mBar)	CH4 (%v/v) (%)	CO (ppm)	CO2 (%v/v) (%)	H2S (ppm)	O2 (%v/v)	Relative Pressure (mBar)
BH015	27/06/2018	1010	0	0	0.2	0	20.3	0
	03/07/2018	1005	0	0	0.9	0	19.6	-0.2
	19/07/2018	1006	0	0	0.3	0	20.1	-0.12
BH016	10/05/2018	1001	0	0	0.1	0	20.7	-0.07
	23/05/2018	1012	0	0	1.3	0	20.6	0.31
	13/06/2018	1004	0	1	1.3	0	20.2	-0.07
	27/06/2018	1010	0	0	0.4	0	20.3	-0.01
	03/07/2018	1005	0	0	1.3	0	19.5	-0.22
BH017	19/07/2018	1006	0	0	0.4	0	20.1	-0.15
	10/05/2018	1001	0	0	0.1	0	20.7	-0.09
	23/05/2018	1012	0	0	0.5	0	20.2	0.22
	13/06/2018	1004	0	0	0.9	0	20	-0.12
	27/06/2018	1010	0	0	0.1	0	20.4	-0.03
	03/07/2018	1005	0	0	0.9	0	19.7	-0.24
	19/07/2018	1006	0	0	0.2	0	20.2	-0.16
	10/05/2018	1001	0	0	0.1	0	20.8	-0.07
BH018	23/05/2018	1011	0	0	0.6	0	20.6	0.19
	13/06/2018	1003	0	0	0.9	0	20	1.42
	27/06/2018	1010	0	0	0.2	0	20.4	-0.04
	03/07/2018	1004	0	0	0.8	0	19.8	-0.23
	19/07/2018	1006	0	0	0.2	0	20.3	-0.15
	10/05/2018	1001	0	0	0.5	0	20.6	-0.07
BH019	23/05/2018	1012	0	0	2.4	0	20.5	-0.45
	13/06/2018	1003	0	0	2.3	0	19.7	-0.02
	27/06/2018	1010	0	0	1.3	0	19.4	-0.06
	03/07/2018	1004	0	0	2	0	18.8	-0.27
	19/07/2018	1005	0	0	1.9	0	18.9	-0.18
	10/05/2018	1001	0	0	0.1	0	20.7	-0.1
	23/05/2018	1012	0	1	0.8	0	20.7	0.14

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Perimeter Borehole Results

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From : 10/05/2018

To : 19/07/2018

		Atmospheric Pressure (mBar)	CH4 (%v/v) (%)	CO (ppm)	CO2 (%v/v) (%)	H2S (ppm)	O2 (%v/v)	Relative Pressure (mBar)
BH020	13/06/2018	1003	0	0	2.3	0	19.2	-0.05
	27/06/2018	1010	0	0	0.5	0	20	-0.05
	03/07/2018	1004	0	0	1.7	0	19.2	-0.29
	19/07/2018	1005	0	0	0.5	0	20.1	-0.22
BH021	10/05/2018	1001	0	0	0.1	0	20.7	-0.12
	23/05/2018	1012	0	0	0.4	0	20.6	0.12
	13/06/2018	1003	0	0	0.1	0	19.2	-0.43
	27/06/2018	1009	0	0	0	0	20.5	-0.07
	03/07/2018	1004	0	0	0.5	0	20	-0.3
	19/07/2018	1005	0	0	0	0	20.6	-0.22
BH022	10/05/2018	1001	0	0	0.1	0	20.7	-0.12
	23/05/2018	1012	0	0	0.4	0	20.9	0.24
	13/06/2018	1003	0	0	1	0	20.4	0.09
	27/06/2018	1009	0	0	0.3	0	20.2	-0.08
	03/07/2018	1004	0	0	0.4	0	20.1	-0.3
	19/07/2018	1005	0	0	0.2	0	20.4	-0.24
BH023	10/05/2018	1001	0	0	0	0	20.6	-0.22
	23/05/2018	1012	0	0	0.4	0	20.9	0.17
	13/06/2018	1003	0	0	2.1	0	19.9	-0.02
	27/06/2018	1009	0	0	0.7	0	20	-0.1
	03/07/2018	1004	0	0	1	0	19.8	-0.32
	19/07/2018	1005	0	0	0.7	0	20.1	-0.26
BH024	10/05/2018	1000	0	0	0	0	20.6	-0.3
	23/05/2018	1012	0	0	1.4	0	20.9	0.14
	13/06/2018	1003	0	0	1.9	0	19.2	0.12
	27/06/2018	1009	0	0	0.8	0	19.9	-0.12
	03/07/2018	1004	0	0	1	0	19.8	-0.33
	19/07/2018	1005	0	0	0.6	0	20.1	-0.3
BH025	10/05/2018	1000	0	0	1.1	0	19	-0.07

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Perimeter Borehole Results

Llanddulas - Perimeter Borehole Report - May to July 2018 inclusive



From : 10/05/2018

To : 19/07/2018

		Atmospheric Pressure (mBar)	CH4 (%v/v) (%)	CO (ppm)	CO2 (%v/v) (%)	H2S (ppm)	O2 (%v/v)	Relative Pressure (mBar)
BH025	23/05/2018	1011	0	0	0.6	0	20.1	0.03
	13/06/2018	1003	0	0	0.8	0	19.6	0.31
	27/06/2018	1009	0	0	0.8	0	20	-0.02
	03/07/2018	1004	0	0	0.9	0	19.9	-0.25
	19/07/2018	1005	0	0	1.3	0	19.4	-0.23
BH026	10/05/2018	1000	0	0	0.2	0	20.7	-0.2
	23/05/2018	1011	0.1	0	1.9	0	20.5	0.05
	13/06/2018	1003	0	0	2.9	0	19.7	0.03
	27/06/2018	1009	0	0	1	0	19.7	-0.16
	03/07/2018	1004	0	0	1.8	0	19.2	-0.35
BH027	19/07/2018	1005	0	0	0.9	0	19.9	-0.34
	10/05/2018	1000	0	0	1.5	0	19.8	-0.2
	23/05/2018	1011	0	0	3.5	0	19.2	0.09
	13/06/2018	1003	0	0	3.5	0	18.2	0.1
	27/06/2018	1009	0	0	2.5	0	18.2	-0.18
BH028	03/07/2018	1003	0	0	2.6	0	18.5	-0.32
	19/07/2018	1005	0	0	2	0	18.8	0.03
	10/05/2018	1000	0	0	0	0	20.8	-0.24
	23/05/2018	1011	0	0	3.3	0	18.9	0.09
	13/06/2018	1003	0	0	3.3	0	16.7	0.07
BH029	27/06/2018	1009	0	0	2.5	0	18.3	-0.18
	03/07/2018	1004	0	0	2.1	0	19.1	-0.39
	19/07/2018	1004	0	0	2.6	0	18.6	-0.38
	10/05/2018	1000	0	0	1.9	0	19.4	-0.21
	23/05/2018	1012	0	0	1	0	19.5	-0.05
	13/06/2018	1003	0.1	0	0.5	0	18.8	0.05
	27/06/2018	1009	0	0	0.2	0	20.2	-0.19
	03/07/2018	1003	0	0	1.7	0	19.2	-0.4
	19/07/2018	1005	0	0	0	0	20.6	-0.41

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		Atmospheric Pressure (mBar)	CH4 (%v/v) (%)	CO (ppm)	CO2 (%v/v) (%)	H2S (ppm)	O2 (%v/v)	Relative Pressure (mBar)
BH030	10/05/2018	1000	0	0	0.4	0	20.6	-0.19
	23/05/2018	1012	0	0	1.1	0	20.3	0.14
	13/06/2018	1004	0	0	2.1	0	20.5	-0.02
	27/06/2018	1009	0	0	1.2	0	19.7	-0.24
	03/07/2018	1003	0	0	1.4	0	19.8	-0.44
	19/07/2018	1005	0	0	0.9	0	20	-0.44
BH031	10/05/2018	1000	0	0	0.3	0	20.8	-0.17
	23/05/2018	1012	0	0	1.2	0	20.7	0.1
	13/06/2018	1003	0	0	1.3	0	19	0.02
	03/07/2018	1003	0	0	0.4	0	20.4	-0.5
BH032	10/05/2018	1000	0	0	0.1	0	20.4	-0.27
	23/05/2018	1012	0	0	0.3	0	20.5	-0.1
	13/06/2018	1003	0	0	1	0	19.8	0.02
	03/07/2018	1003	0	0	0.3	0	20.5	0
BH033	10/05/2018	1001	0	0	0.4	0	20.6	-0.07
	23/05/2018	1012	0	0	0.1	0	21.1	0.05
	13/06/2018	1003	0	0	0.2	0	20.2	0.02
	03/07/2018	1003	0	0	0	0	20.9	-0.57
BH034	10/05/2018	1001	0	0	0.2	0	20.5	-0.09
	23/05/2018	1012	0	1	0.1	0	21.1	0.03
	13/06/2018	1003	0	0	0.1	0	20.4	0.12
	03/07/2018	1003	0	0	0	0	20.7	-0.59
BH035	10/05/2018	1001	0	0	0.3	0	20.7	-0.08
	23/05/2018	1011	0	1	1	0	21	0.19
	13/06/2018	1003	0	0	0.1	0	17.6	0.05
	03/07/2018	1002	0	0	3.1	0	18.7	-0.6
BH036	10/05/2018	1001	0	0	0.1	0	20.9	-0.09
	23/05/2018	1011	0	0	4.4	0	19.8	0.07
	13/06/2018	1003	0	0	4	0	19.9	0.1

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		Atmospheric Pressure (mBar)	CH4 (%v/v) (%)	CO (ppm)	CO2 (%v/v) (%)	H2S (ppm)	O2 (%v/v)	Relative Pressure (mBar)
BH036	03/07/2018	1002	0	0	0.1	0	20.9	0
BH037	10/05/2018	1001	0	0	0.8	0	20.6	-0.14
	23/05/2018	1011	0	0	0.3	0	17.8	1.16
	13/06/2018	1003	0	0	0.4	0	20.1	0.14
	03/07/2018	1002	0	0	0	0	20.3	0
BH038	10/05/2018	1000	0	0	0.8	0	20.5	-0.11
	23/05/2018	1011	0	0	1	0	20.1	0.03
	13/06/2018	1003	0	0	0.5	0	19.5	-0.07
	03/07/2018	1002	0	0	0	0	20.8	0
BH039	10/05/2018	1000	0	0	1.2	0	19.5	-0.14
	23/05/2018	1011	0	0	0.9	0	20.2	0.22
	13/06/2018	1002	0	0	1.1	0	20.2	0.07
	03/07/2018	1002	0	0	0.2	0	20.8	0
BH040	10/05/2018	1000	0	0	0.7	0	20.5	-0.37
	23/05/2018	1014	0.1	0	1.7	0	19.5	0.12
	13/06/2018	1004	0	0	1.3	0	20.8	-0.16
	27/06/2018	1013	0	0	2	0	19.3	-0.02
	03/07/2018	1002	0	0	1.1	0	20.4	0.01
	19/07/2018	1004	0	0	1	0	19.8	-0.35
BH041	10/05/2018	1004	0	0	0.1	0	20.6	-0.32
	23/05/2018	1015	0.1	1	0.1	0	19.8	0.95
	13/06/2018	1002	0	0	0.8	0	20.6	0.14
	27/06/2018	1010	0	0	0.4	0	20.4	-0.26
	03/07/2018	1005	0	0	2	0	19.1	-0.38
	19/07/2018	1006	0	0	0	0	20.9	-0.34
BH042	10/05/2018	1005	0	0	0.3	0	20.8	-0.39
	23/05/2018	1012	0	1	0.7	0	20.4	0.33
	13/06/2018	1005	0	0	0.1	0	19.7	-0.16
	27/06/2018	1013	0	0	0.1	0	20.8	0.04

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		Atmospheric Pressure (mBar)	CH4 (%v/v) (%)	CO (ppm)	CO2 (%v/v) (%)	H2S (ppm)	O2 (%v/v)	Relative Pressure (mBar)
BH042	03/07/2018	1006	0	0	0	0	20.3	0
	19/07/2018	1005	0	0	0.6	0	20.4	-0.38
BH047	10/05/2018	1000	0	0	0	0	20.7	-0.16
	23/05/2018	1010	0	0	0.3	0	20.3	0.16
	13/06/2018	1001	0	0	0.2	0	20.5	0.03
	03/07/2018	1002	0	0	2	0	18.5	-0.03
BH048	10/05/2018	1000	0	0	0.9	0	20.1	-0.1
	23/05/2018	1010	0	0	6	0	20.1	0.22
	13/06/2018	1001	0	0	0.2	0	18.8	-0.02
	03/07/2018	1001	0	0	1.2	0	19	-0.46
BH049	10/05/2018	999	0	0	1.3	0	20.6	-0.22
	23/05/2018	1010	0	0	0.9	0	18.8	0.28
	13/06/2018	1001	0	0	1.3	0	18.9	0.02
	03/07/2018	1001	0	0	1.6	0	19.3	-0.5
BH050	10/05/2018	999	0	0	3.4	0	17	-0.19
	23/05/2018	1010	0	0	2.1	0	19.8	-0.07
	13/06/2018	1001	0	0	1.1	0	20.3	0.07
	03/07/2018	1001	0	0	1.6	0	19.4	-0.05
BH051	10/05/2018	999	0	0	1.3	0	19.5	-0.18
	23/05/2018	1009	0	0	0.4	0	19	-0.14
	13/06/2018	1001	0	0	0.2	0	20.5	0.12
	03/07/2018	1001	0	0	0.1	0	20.8	-0.03
BH052	10/05/2018	999	0	0	1.1	0	20.1	-0.15
	23/05/2018	1010	0	0	1	0	20.8	0.14
	13/06/2018	1001	0	0	0.1	0	20.5	0
	03/07/2018	1001	0	0	0.2	0	20.7	-0.06
BH053	10/05/2018	999	0	0	1.2	0	19.8	-0.24
	23/05/2018	1009	0	0	1	0	20.5	0.05
	13/06/2018	1001	0	0	0.2	0	18.8	0

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		Atmospheric Pressure (mBar)	CH4 (%v/v) (%)	CO (ppm)	CO2 (%v/v) (%)	H2S (ppm)	O2 (%v/v)	Relative Pressure (mBar)
BH053	03/07/2018	1001	0	0	0	0	20.4	-0.05
BH054	10/05/2018	999	0	0	2.9	0	17.4	-0.23
	23/05/2018	1009	0	0	2.9	0	20	0.05
	13/06/2018	1001	0	0	3.4	0	16.4	-0.02
	03/07/2018	1001	0	0	2.2	0	19.4	-0.01
BH055	10/05/2018	999	0	0	3.3	0	16.8	-0.21
	23/05/2018	1010	0	0	3.4	0	19.3	-0.03
	13/06/2018	1003	0	1	4.3	0	20.1	0.02
	03/07/2018	1001	0	0	4.7	0	16.4	-0.65
BH056	10/05/2018	998	0	0	1.1	0	20	-0.17
	23/05/2018	1009	0	0	0.4	0	18.5	0.07
	13/06/2018	1003	0	1	0.1	0	20.5	0.07
	03/07/2018	1000	0	0	0	0	20.2	-0.05
BH057	10/05/2018	999	0	0	0.2	0	20.4	-0.19
	23/05/2018	1009	0	0	0.1	0	20.9	0.17
	13/06/2018	1001	0	0	0.1	0	20.5	0.02
	03/07/2018	1001	0	0	0	0	20.8	-0.72
BH100	10/05/2018	1000	0	0	4.2	0	14.7	0.66
	23/05/2018	1011	0	0	4.8	0	19.3	0.21
	13/06/2018	1002	0	0	0.1	0	18.8	0.12
	03/07/2018	1001	0	0	0.7	0	19.8	0
BH101	10/05/2018	999	0	0	2.2	0	18.4	0.16
	23/05/2018	1011	0	0	1	0	19	0.31
	13/06/2018	1002	0	0	2.1	0	20.5	0.22
	03/07/2018	1001	0	0	0.9	0	20.4	0
BH102	10/05/2018	999	0	0	0.7	0	20.4	-0.33
	23/05/2018	1010	0	0	1.7	0	19.2	0.31
	13/06/2018	1003	0	0	0.1	0	20.7	-0.05
	03/07/2018	1001	0	0	1	0	20.4	-0.5

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		Atmospheric Pressure (mBar)	CH4 (%v/v) (%)	CO (ppm)	CO2 (%v/v) (%)	H2S (ppm)	O2 (%v/v)	Relative Pressure (mBar)
BH103	10/05/2018	999	0	0	0.1	0	20.7	-0.4
	23/05/2018	1009	0	1	0.2	0	20.1	0.21
	13/06/2018	1002	0	0	0.1	0	20.7	0.07
	03/07/2018	1001	0	0	0.7	0	20.7	-0.44
BH104	10/05/2018	998	0	0	0.3	0	20.3	0.25
	23/05/2018	1010	0	0	1	0	20.2	0.4
	13/06/2018	1002	0	0	0.1	0	20.6	-0.03
	03/07/2018	1001	0	0	0.1	0	20.5	-0.47
BH105	10/05/2018	998	0	0	0.3	0	20.7	-0.41
	23/05/2018	1009	0	1	1.5	0	19	0.31
	13/06/2018	1001	0	0	0.1	0	19.6	0.16
	03/07/2018	1000	0	0	1.4	0	20.5	-0.5
BH106	10/05/2018	998	0	0	0.4	0	20.5	-0.44
	23/05/2018	1008	0	0	1.3	0	19.1	0.16
	13/06/2018	1000	0	0	1.6	0	19.2	0.24
	03/07/2018	1000	0	0	2	0	20.4	-0.13
BH107	10/05/2018	998	0	0	1.7	0	18.5	-0.25
	23/05/2018	1009	0	0	0.8	0	19.7	1.47
	13/06/2018	1001	0	0	1.5	0	20.2	-0.02
	03/07/2018	1000	0	0	3.4	0	17.4	0
BH108	10/05/2018	998	0	0	0.1	0	20.8	-0.09
	23/05/2018	1008	0	1	0.5	0	20.3	0.26
	13/06/2018	1001	0	0	1.3	0	19.8	0.09
	03/07/2018	1000	0	0	0.8	0	20.4	-0.05
BH109	10/05/2018	998	0	0	0	0	20.8	-0.48
	23/05/2018	1008	0	0	0.1	0	20.3	0.54
	13/06/2018	1001	0	1	0.5	0	20.4	-0.02
	03/07/2018	1000	0	0	0	0	20.6	-0.05
BH110	10/05/2018	998	0	0	1.6	0	16.6	-0.46

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		Atmospheric Pressure (mBar)	CH4 (%v/v) (%)	CO (ppm)	CO2 (%v/v) (%)	H2S (ppm)	O2 (%v/v)	Relative Pressure (mBar)
BH110	23/05/2018	1009	0	0	0.1	0	20.4	0.26
	13/06/2018	1001	0	1	0.1	0	16.6	0.12
	03/07/2018	1000	0	0	0.5	0	20.6	-0.01
BH111	10/05/2018	998	0	0	0.5	0	20.1	-0.5
	23/05/2018	1009	0	0	0.1	0	20.4	0.26
	13/06/2018	1001	0	0	4.2	0	19.8	0.12
BH112	03/07/2018	1000	0	0	1.4	0	18.6	-0.05
	10/05/2018	997	0	0	0	0	20.7	-0.5
	23/05/2018	1010	0	1	0.2	0	20.1	0.28
BH113	13/06/2018	1000	0	0	0.1	0	14	0.1
	03/07/2018	1000	0	0	0.5	0	20.8	0
	10/05/2018	997	0	0	0.8	0	19	-0.52
BH114	23/05/2018	1008	0	0	4.1	0	19.4	0.24
	13/06/2018	1000	0	0	4.7	0	18.3	0.16
	03/07/2018	999	0	0	0.3	0	20.5	0.02
BH115	10/05/2018	996	0	0	0.7	0	19.8	-0.5
	23/05/2018	1008	0	1	0.8	0	20.3	0.33
	13/06/2018	1000	0	0	0.9	0	20.4	3.7
BH116	03/07/2018	999	0	0	0.4	0	19.9	0.02
	10/05/2018	996	0	0	0	0	20.9	-0.51
	23/05/2018	1007	0	1	0.2	0	19.3	0.14
BH117	13/06/2018	1000	0	0	0.1	0	20.6	0.12
	03/07/2018	999	0	0	1.2	0	20.2	0
	10/05/2018	996	0	0	1.4	0	20.4	-0.5
BH118	23/05/2018	1007	0	1	0.9	0	20.3	0.31
	13/06/2018	1000	0	0	0.1	0	20.6	-0.05
	03/07/2018	999	0	0	1.2	0	19.6	-0.05
BH119	10/05/2018	996	0	0	0	0	20.7	-0.5
	23/05/2018	1007	0	0	0.1	0	19.6	0.22

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		Atmospheric Pressure (mBar)	CH4 (%v/v) (%)	CO (ppm)	CO2 (%v/v) (%)	H2S (ppm)	O2 (%v/v)	Relative Pressure (mBar)
BH117	13/06/2018	999	0	0	0.1	0	20.6	0.24
	03/07/2018	999	0	0	0	0	20.4	0.01
BH118	10/05/2018	996	0	0	1.8	0	18.6	-0.51
	23/05/2018	1007	0	1	1	0	19.8	0.16
	13/06/2018	1000	0	0	0.9	0	19.9	-0.14
	03/07/2018	999	0	0	0.9	0	20.3	0
BH119	10/05/2018	996	0	0	0.7	0	19.9	-0.53
	23/05/2018	1007	0	1	0.8	0	20.5	0.12
	13/06/2018	999	0	0	0.9	0	20.4	0
	03/07/2018	999	0	0	0.2	0	20.2	0.01
BH120	10/05/2018	996	0	0	0.8	0	18.8	-0.57
	23/05/2018	1010	0	3	0.2	0	20.7	0.38
	13/06/2018	1001	0	1	0.1	0	20.6	0.07
	03/07/2018	999	0	0	0	0	20.8	0
BH2003/1	10/05/2018	996	0	0	0.3	0	20.2	-0.61
BH2003/2	10/05/2018	996	0	0	0.4	0	20.2	-0.61

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APPENDIX 3

Landfill Gas Field Extraction and Balancing Data

Asset ID	Reading Taken On	CH4 (%)	CO2 (%)	O2 (%)	Balance Gas (%)	Vacuum (mbar)	Atm Pressure (mbar)	CO (ppm)	H2S (ppm)	Residual N2 (%)	CH4/CO2 ratio (%)	CH4 + CO2 (%)	Original Valve (%)	Depart valve (%)	Comment
LLARA025	01/05/2018 09:31	16.9	11.9	0.4	70.8	-0.28	997	1	0	69.3	1.42	28.8	0	0 1. OK	
LLAWA204	01/05/2018 09:33	21.7	16.8	0.4	61.1	-0.61	994	1	0	59.6	1.29	38.5	5	5 1. OK	
LLAWA203	01/05/2018 09:36	26.6	16.5	0.4	56.5	-3.43	994	1	0	55	1.61	43.1	5	5 1. OK	
LLAWA001	01/05/2018 09:39	19.3	11.9	0.5	68.3	-0.62	993	1	0	66.42	1.62	31.2	0	0 1. OK	
LLAWA032	01/05/2018 09:41	0	2.3	19.2	78.5	-0.4	995	0	0	6.31	0	2.3	0	0 1. OK	
LLAWA01A	01/05/2018 09:44	11.1	11.2	0.4	77.3	-0.17	993	1	0	75.8	0.99	22.3	0	0 1. OK	
LLAWA002	01/05/2018 09:46	14.1	13.1	0.5	72.3	-0.16	995	1	0	70.42	1.08	27.2	0	0 1. OK	
LLAWA003	01/05/2018 09:48	18.3	14.6	0.3	66.8	-0.28	995	1	0	65.67	1.25	32.9	0	0 1. OK	
LLAWA033	01/05/2018 09:50	13.1	13.1	1.4	72.4	-0.67	995	0	0	67.14	1	26.2	0	0 1. OK	
LLAWA004	01/05/2018 09:53	18.4	15	0.5	66.1	-0.1	995	8	0	64.22	1.23	33.4	0	0 1. OK	
LLAWA027	01/05/2018 09:58	23.3	14.7	0.3	61.7	-0.09	995	1	0	60.57	1.59	38	0	0 1. OK	
LLAWA026	01/05/2018 10:00	28.3	16.2	0.3	55.2	-0.16	994	1	0	54.07	1.75	44.5	0	0 1. OK	
LLAWA005	01/05/2018 10:05	4.7	14.2	1.3	79.8	-0.28	994	34	0	74.91	0.33	18.9	0	0 1. OK	
LLAWA006	01/05/2018 10:07	17.4	17.7	0.5	64.4	-0.24	994	1	0	62.52	0.98	35.1	0	0 1. OK	
LLAWA130	01/05/2018 10:10	13.5	15.4	0.9	70.2	-2.67	992	1	0	66.82	0.88	28.9	5	5 1. OK	
LLAWA131	01/05/2018 10:13	5.4	15.6	0.7	78.3	-0.83	993	1	0	75.67	0.35	21	5	5 1. OK	
LLAWA030	01/05/2018 10:16	28.2	22.1	0.3	49.4	-0.42	992	2	0	48.27	1.28	50.3	5	5 1. OK	
LLAWA132	01/05/2018 10:18	15.8	18.9	0.5	64.8	-3.44	993	1	0	62.92	0.84	34.7	5	5 1. OK	
LLARA010	01/05/2018 10:21	16.5	18.9	0.3	64.3	-0.64	993	1	0	63.17	0.87	35.4	5	5 1. OK	
LLAWA011	01/05/2018 10:23	13.4	18.4	0.3	67.9	-0.69	992	1	0	66.77	0.73	31.8	5	5 1. OK	
LLARA012	01/05/2018 10:26	16.7	20.6	0.3	62.4	-1.83	992	1	0	61.27	0.81	37.3	5	5 1. OK	
LLARA028	01/05/2018 10:28	27.9	21.7	0.3	50.1	-8.06	993	1	0	48.97	1.29	49.6	5	5 1. OK	
LLARA015	01/05/2018 10:31	31.7	21.4	0.3	46.6	-0.38	992	1	0	45.47	1.48	53.1	0	0 1. OK	
LLAWA016	01/05/2018 10:34	27	21	0.2	51.8	-0.17	993	1	0	51.05	1.29	48	0	0 1. OK	
LLARA014	01/05/2018 10:37	28.8	15.9	0.3	55	-0.24	993	1	0	53.87	1.81	44.7	0	0 1. OK	
LLAWA031	01/05/2018 10:40	0.7	2.8	18.7	77.8	-0.22	991	0	0	7.49	0.25	3.5	0	0 1. OK	
LLAWA029	01/05/2018 10:42	34.3	24	0.4	41.3	-4.19	993	1	0	39.8	1.43	58.3	5	5 1. OK	
LLAWB083	01/05/2018 10:48	63.5	31.8	0.4	4.3	-78.48	991	1	0	2.8	2	95.3	5	5 1. OK	
LLARB072	01/05/2018 10:53	49.7	30.3	1.4	18.6	-5.83	991	1	0	13.34	1.64	80	5	5 1. OK	
LLAWB082	01/05/2018 10:56	64.5	33.3	0.5	1.7	-66.71	991	1	0	0	1.94	97.8	5	5 1. OK	
LLAWB081	01/05/2018 10:59	0.2	2.5	20.9	75.4	-1.14	991	4	0	0	0.08	2.7	0	0 3. Investigation required	
LLAWB079	01/05/2018 11:02	0	0.9	20.9	76.5	-77.41	990	1	0	0	0	0.9	10	10 2. Rebalance	
LLAWB079	01/05/2018 11:04	0	0.6	20.9	77	-73.86	990	0	0	0	0	0.6	0	0 3. Investigation required	
LLAWB116	01/05/2018 11:13	69	30.4	0.4	0.2	-1.04	990	1	0	0	2.27	99.4	0	0 1. OK	
LLAWB116	01/05/2018 11:15	66.4	33.3	0.2	0.1	-0.36	990	1	1	0	1.99	99.7	0	5 2. Rebalance	
LLAWB116	01/05/2018 11:17	66.2	33.6	0.2	0	-0.48	990	1	1	0	1.97	99.8	5	5 1. OK	
LLAWB115	01/05/2018 11:22	27.7	25	3.7	43.6	-30.11	990	2	0	29.69	1.11	52.7	5	5 2. Rebalance	
LLAWB115	01/05/2018 11:23	26.7	24	4.5	44.8	-26.39	990	2	0	27.88	1.11	50.7	0	0 3. Investigation required	
LLAWB114	01/05/2018 11:27	36.3	31.3	2.1	30.3	-7.22	991	1	0	22.4	1.16	67.6	5	5 1. OK	
LLAWB113	01/05/2018 11:30	26.7	25.3	4.9	43.1	-1.04	992	2	0	24.68	1.06	52	0	0 3. Investigation required	
LLAWB112	01/05/2018 13:13	43.3	33.5	0.6	22.6	-2.82	992	2	1	20.34	1.29	76.8	0	0 1. OK	
LLAWB112	01/05/2018 13:15	39.3	32.8	0.5	27.4	-3.03	992	2	1	25.52	1.2	72.1	0	5 2. Rebalance	
LLAWB112	01/05/2018 13:16	42.9	34.5	0.5	22.1	-3.1	992	2	1	20.22	1.24	77.4	5	5 1. OK	
LLAWB097	01/05/2018 13:18	0.2	1.8	19.8	78.2	-7.49	992	0	1	3.75	0.11	2	5	5 2. Rebalance	
LLAWB097	01/05/2018 13:20	11.2	7.3	14.9	66.6	-3.39	992	1	1	10.58	1.53	18.5	0	0 3. Investigation required	
LLAWB111	01/05/2018 13:32	53.8	31	1	14.2	-2.65	992	2	1	10.44	1.74	84.8	100	100 1. OK	
LLAWB096	01/05/2018 13:38	0.3	1.4	20.2	78.1	-0.5	991	0	0	2.15	0.21	1.7	5	5 2. Rebalance	

Asset ID	Reading Taken On	CH4 (%)	CO2 (%)	O2 (%)	Balance Gas (%)	Vacuum (mbar)	Atm Pressure (mbar)	CO (ppm)	H2S (ppm)	Residual N2 (%)	CH4/CO2 ratio (%)	CH4 + CO2 (%)	Original Valve (%)	Depart valve (%)	Comment
LLAWB096	01/05/2018 13:39	0.4	1	20.4	78.2	-1.94	991	0	0	1.5	0.4	1.4	0	0	3. Investigation required
LLAWB095	01/05/2018 13:42	34.1	27.1	0.4	38.4	-0.9	991	2	1	36.9	1.26	61.2	5	5	1. OK
LLAWB120	01/05/2018 13:46	32.3	28.4	0.4	38.9	-0.85	990	2	0	37.4	1.14	60.7	5	5	1. OK
LLAWB119	01/05/2018 13:49	36	32.7	0.3	31	-0.85	991	5	0	29.87	1.1	68.7	5	5	1. OK
LLAWB117	01/05/2018 13:52	38.9	31.3	0.4	29.4	-11.85	991	2	0	27.9	1.24	70.2	5	5	1. OK
LLAWC147	01/05/2018 14:22	35.9	26.7	0.6	36.8	-52.37	990	2	0	34.54	1.34	62.6	10	10	1. OK
LLAWC148	01/05/2018 14:25	58.5	40.5	0.5	0.5	-0.02	991	2	0	0	1.44	99	0	0	3. Investigation required
LLAWC144	01/05/2018 14:28	59.4	40.5	0.3	0	-0.5	990	3	0	0	1.47	99.9	0	0	3. Investigation required
LLAWC143	01/05/2018 14:30	41.9	33.1	0.3	24.7	-58.7	991	1	5	23.57	1.27	75	10	10	1. OK
LLAWC140	01/05/2018 14:33	46.2	37.6	0.4	15.8	-0.81	990	2	0	14.3	1.23	83.8	10	10	1. OK
LLAWC142	01/05/2018 14:35	57.6	42.2	0.4	0	-7.86	990	3	1	0	1.36	99.8	0	0	1. OK
LLAWC142	01/05/2018 14:37	53.7	41.6	1.2	3.5	-4.48	990	2	5	0	1.29	95.3	0	5	2. Rebalance
LLAWC142	01/05/2018 14:39	52.1	40.2	1.7	6	-7.6	990	1	7	0	1.3	92.3	5	5	1. OK
LLAWC141	01/05/2018 14:42	58.4	42	0.3	0	-0.07	990	1	0	0	1.39	100.4	0	0	3. Investigation required
LLAWC145	01/05/2018 14:44	48.3	37.3	0.2	14.2	-4.79	990	3	0	13.45	1.29	85.6	10	10	1. OK
LLAWC146	01/05/2018 14:47	17.6	13.8	10.3	58.3	-4.52	991	0	0	19.57	1.28	31.4	0	0	3. Investigation required
LLAWC249	01/05/2018 14:50	33.3	26.7	0.3	39.7	-43.16	991	1	0	38.57	1.25	60	10	10	1. OK
LLAWC132	01/05/2018 14:54	40.8	31.4	0.3	27.5	-69.24	991	1	0	26.37	1.3	72.2	10	10	1. OK
LLAWC250	01/05/2018 14:56	30.9	23.4	0.6	45.1	-31.31	992	1	0	42.84	1.32	54.3	0	0	3. Investigation required
LLAWC251	01/05/2018 14:58	32.9	28.2	0.3	38.6	-44.51	992	1	0	37.47	1.17	61.1	5	5	1. OK
LLAWC133	01/05/2018 15:00	37.6	31.7	0.6	30.1	-80.28	992	1	0	27.84	1.19	69.3	10	10	1. OK
LLAWC152	01/05/2018 15:03	0.1	2.1	20.9	76.9	-32.38	992	0	0	0	0.05	2.2	0	0	3. Investigation required
LLAWC134	01/05/2018 15:06	3.7	3.4	17.6	75.3	-0.85	993	0	0	9.12	1.09	7.1	0	0	3. Investigation required
LLAWC154	01/05/2018 15:10	0.2	2	20.9	76.9	-18.93	992	0	0	0	0.1	2.2	0	0	3. Investigation required
LLAWC135	01/05/2018 15:12	58.8	32.7	1.3	7.2	-3.62	991	2	0	2.31	1.8	91.5	5	5	1. OK
LLAWC136	01/05/2018 15:15	45	34.6	1.3	19.1	-35.96	992	1	0	14.21	1.3	79.6	5	5	1. OK
LLAWC137	01/05/2018 15:21	41.9	34.7	0.7	22.7	-10.24	992	1	0	20.07	1.21	76.6	5	5	1. OK
LLAWD231	02/05/2018 09:52	38.5	30	0.4	31.1	-36.46	986	5	1	29.6	1.28	68.5	10	10	1. OK
LLAWD222	02/05/2018 09:56	61.3	40.3	0.3	0	-0.36	988	4	1	0	1.52	101.6	10	10	20 Adjustment valve feels blocked restricting suction
LLARD207	02/05/2018 09:59	63.1	37.7	0.4	0	-83.33	988	7	1	0	1.67	100.8	10	10	1. OK
LLAWD219	02/05/2018 10:01	30.9	21.6	9.6	37.9	-84.42	988	3	1	1.8	1.43	52.5	0	0	3. Investigation required
LLAWD210	02/05/2018 10:10	62.6	38.6	0.4	0	-0.64	987	3	1	0	1.62	101.2	0	0	1. OK
LLAWD210	02/05/2018 10:12	60.4	39.5	0.5	0	-4.53	987	3	1	0	1.53	99.9	0	10	2. Rebalance
LLAWD210	02/05/2018 10:14	59.8	38.9	0.7	0.6	-9.05	987	3	1	0	1.54	98.7	10	10	1. OK
LLAWD233	02/05/2018 10:17	63.8	37.4	0.3	0	-79.38	987	2	0	0	1.71	101.2	10	10	1. OK
LLAWD227	02/05/2018 10:20	0.2	2.2	20.2	77.4	-46.97	986	0	0	1.45	0.09	2.4	0	0	3. Investigation required
LLAWD225	02/05/2018 10:23	60.9	39.5	0.5	0	-84.69	986	2	0	0	1.54	100.4	10	10	1. OK
LLAWD297	02/05/2018 10:26	57.2	37.8	0.4	4.6	-68.36	986	3	1	3.1	1.51	95	10	10	1. OK
LLAWD308	02/05/2018 10:28	43.1	34.5	1.3	21.1	-8.38	986	5	0	16.21	1.25	77.6	5	5	1. OK
LLAWD309	02/05/2018 10:31	60.3	38.6	0.4	0.7	-72.04	988	4	3	0	1.56	98.9	10	10	1. OK
LLAWD234	02/05/2018 10:34	57.5	36.7	0.6	5.2	-34.91	987	5	4	2.94	1.57	94.2	5	5	1. OK
LLAWD237	02/05/2018 10:37	34.1	27.3	5.5	33.1	-47.35	988	1	0	12.42	1.25	61.4	5	5	1. OK
LLAWD237	02/05/2018 10:41	35	29.1	4	31.9	-27.26	988	2	0	16.86	1.2	64.1	5	0	2. Rebalance
LLAWD237	02/05/2018 10:42	24.2	21.1	9.5	45.2	-26.91	988	2	1	9.48	1.15	45.3	0	0	3. Investigation required
LLAWD310	02/05/2018 10:45	61.1	40.2	0.3	0	-85.63	987	3	0	0	1.52	101.3	10	10	1. OK
LLAWD311	02/05/2018 10:48	62.1	39.4	0.3	0	-82.5	987	3	0	0	1.58	101.5	10	10	1. OK

Asset ID	Reading Taken On	CH4 (%)	CO2 (%)	O2 (%)	Balance Gas (%)	Vacuum (mbar)	Atm Pressure (mbar)	CO (ppm)	H2S (ppm)	Residual N2 (%)	CH4/CO2 ratio (%)	CH4 + CO2 (%)	Original Valve (%)	Depart valve (%)	Comment
LLAWD232	02/05/2018 10:51	48	36.2	0.5	15.3	-53.09	988	5	0	13.42	1.33	84.2	10	10 1. OK	
LLAWD312	02/05/2018 10:54	60.8	40.7	0.3	0	-84.12	987	2	0	0	1.49	101.5	20	20 1. OK	
LLAWD230	02/05/2018 10:57	39	32.7	0.5	27.8	-45.24	988	3	0	25.92	1.19	71.7	10	10 1. OK	
LLAWD313	02/05/2018 11:00	45.1	36.4	0.9	17.6	-67.89	986	3	0	14.22	1.24	81.5	20	20 1. OK	
LLAWD314	02/05/2018 11:03	54.5	39.8	0.3	5.4	-37.67	988	6	1	4.27	1.37	94.3	20	20 1. OK	
LLAWD302	02/05/2018 11:07	61.1	40.5	0.3	0	-71.77	988	4	0	0	1.51	101.6	20	20 1. OK	
LLAWD301	02/05/2018 11:13	61.5	40.5	0.2	0	-0.57	988	3	0	0	1.52	102	90	90 20 Valve open 90% but vacuum is low	
LLAWD300	02/05/2018 11:27	62.9	38.7	0.4	0	-84.49	987	3	1	0	1.63	101.6	20	20 1. OK	
LLAWD299	02/05/2018 11:30	53.7	37.8	2.1	6.4	-43.94	988	3	0	0	1.42	91.5	10	10 1. OK	
LLAWD298	02/05/2018 11:37	61.2	40.3	0.3	0	-82.25	988	2	0	0	1.52	101.5	20	20 1. OK	
LLAWD306	02/05/2018 11:41	59	42.5	0.2	0	-66.19	988	3	0	0	1.39	101.5	10	10 1. OK	
LLAWD307	02/05/2018 13:15	64.4	37.6	0.3	0	-80.16	989	1	0	0	1.71	102	10	10 1. OK	
LLAWD315	02/05/2018 13:17	64.8	37.1	0.3	0	-83.53	988	3	0	0	1.75	101.9	10	10 1. OK	
LLAWD266	02/05/2018 13:20	63.2	38.6	0.3	0	-1.8	989	1	0	0	1.64	101.8	0	0 1. OK	
LLAWD266	02/05/2018 13:21	62.2	39.6	0.2	0	-14.92	989	1	0	0	1.57	101.8	0	5 2. Rebalance	
LLAWD266	02/05/2018 13:23	62.1	39.6	0.1	0	-49.01	989	1	0	0	1.57	101.7	5	5 1. OK	
LLAWD265	02/05/2018 13:25	65.8	36	0.2	0	-3.03	990	1	0	0	1.83	101.8	0	0 1. OK	
LLAWD265	02/05/2018 13:26	63.9	36.6	0.3	0	-16.35	990	1	0	0	1.75	100.5	0	5 2. Rebalance	
LLAWD265	02/05/2018 13:28	60.5	35.2	1.1	3.2	-58.98	990	1	0	0	1.72	95.7	5	5 1. OK	
LLAWD264	02/05/2018 13:31	60.7	40.4	0.2	0	-86.35	988	2	0	0	1.5	101.1	5	5 1. OK	
LLAWD262	02/05/2018 13:33	62.5	38.7	0.2	0	-25.77	990	2	0	0	1.61	101.2	0	0 1. OK	
LLAWD262	02/05/2018 13:35	60.8	38.9	0.3	0	-67.87	990	2	0	0	1.56	99.7	0	5 2. Rebalance	
LLAWD262	02/05/2018 13:36	58.7	38	0.8	2.5	-87.89	990	1	0	0	1.54	96.7	5	5 1. OK	
LLAWD261	02/05/2018 13:38	60.5	38.5	0.5	0.5	-87.84	991	3	0	0	1.57	99	20	20 1. OK	
LLAWD256	02/05/2018 13:41	15.6	10.1	15.5	58.8	-86.56	991	0	0	0.52	1.54	25.7	5	5 1. OK	
LLAWD250	02/05/2018 13:44	63.7	36.6	0.3	0	-89.21	990	2	0	0	1.74	100.3	10	10 1. OK	
LLAWD255	02/05/2018 13:46	62.4	38	0.2	0	-0.24	991	3	1	0	1.64	100.4	0	0 1. OK	
LLAWD255	02/05/2018 13:49	36.4	25.8	7.1	30.7	-4.31	991	1	1	4	1.41	62.2	0	5 2. Rebalance	
LLAWD255	02/05/2018 13:50	61.3	38.7	0.2	0	-4.6	991	2	1	0	1.58	100	5	0 3. Investigation required	
LLAWD258	02/05/2018 13:54	61.7	38.4	0.2	0	-86.79	990	3	0	0	1.61	100.1	10	10 1. OK	
LLAWD270	02/05/2018 13:58	57.1	40.7	0.6	1.6	-86.68	991	7	1	0	1.4	97.8	10	10 1. OK	
LLAWD283	02/05/2018 14:03	55.7	44.1	0.2	0	-85.78	992	19	1	0	1.26	99.8	20	20 1. OK	
LLAWD305	02/05/2018 14:08	47.8	36.9	2.7	12.6	-70.76	990	4	0	2.45	1.3	84.7	10	10 3. Investigation required	
LLAWD304	02/05/2018 14:11	58.5	40.9	0.3	0.3	-40.98	991	4	0	0	1.43	99.4	5	5 1. OK	
LLAWD293	02/05/2018 14:16	55.3	37	0.3	7.4	-76.46	991	3	0	6.27	1.49	92.3	10	10 1. OK	
LLAWD281	02/05/2018 14:20	55.8	41.2	0.7	2.3	-82.63	992	10	1	0	1.35	97	5	5 1. OK	
LLAWD254	02/05/2018 14:25	62.2	37.1	0.3	0.4	-76.04	992	2	0	0	1.68	99.3	10	10 1. OK	
LLAWD280	02/05/2018 14:31	62.9	36.9	0.3	0	-5.43	992	2	7	0	1.7	99.8	0	0 1. OK	
LLAWD280	02/05/2018 14:33	58.2	37.5	0.8	3.5	-24.47	992	3	0	0.49	1.55	95.7	0	5 2. Rebalance	
LLAWD280	02/05/2018 14:36	55.1	35.9	1.7	7.3	-53.4	992	2	0	0.91	1.53	91	5	5 1. OK	
LLAWD279	02/05/2018 14:42	58.6	36.1	1.2	4.1	-71.87	993	3	0	0	1.62	94.7	5	5 1. OK	
LLAWD286	02/05/2018 14:46	58	35.3	0.9	5.8	-85.23	992	3	0	2.42	1.64	93.3	30	30 1. OK	
LLAWD278	02/05/2018 14:49	62.7	36.9	0.3	0.1	-82.5	993	5	0	0	1.7	99.6	10	10 1. OK	
LLAWD287	02/05/2018 14:53	53.9	38.4	0.9	6.8	-83.95	993	2	0	3.42	1.4	92.3	5	5 1. OK	

Asset ID	Reading Taken On	CH4 (%)	CO2 (%)	O2 (%)	Balance Gas (%)	Vacuum (mbar)	Atm Pressure (mbar)	CO (ppm)	H2S (ppm)	Residual N2 (%)	CH4/CO2 ratio (%)	CH4 + CO2 (%)	Original Valve (%)	Depart valve (%)	Comment
LLAWD219	03/05/2018 12:56	11.4	7.9	16.9	63.8	-17.5	1004	2	0	0.26	1.44	19.3	0	0 1. OK	
LLAWD219	03/05/2018 12:57	11.3	8.1	16.8	63.8	-87.17	1004	2	0	0.63	1.4	19.4	0	10 2. Rebalance	
LLAWD219	03/05/2018 12:59	10	6.8	17.4	65.8	-61.97	1004	3	1	0.38	1.47	16.8	10	0 1. OK	
LLAWD227	03/05/2018 13:18	0.1	0.9	20.8	78.2	-2.49	1005	0	0	0	0.11	1	0	0 1. OK	
LLAWD227	03/05/2018 13:21	0.2	0.6	20.9	77.2	-65.03	1005	0	1	0	0.33	0.8	0	10 2. Rebalance	
LLAWD227	03/05/2018 13:22	0.1	0.5	20.9	78.5	-51.12	1005	0	0	0	0.2	0.6	10	0 1. OK	
LLAWD308	03/05/2018 13:27	44.5	33	1.3	21.2	-7.25	1003	6	1	16.31	1.35	77.5	5	5 1. OK	
LLAWD234	03/05/2018 13:36	28.9	19.1	10.8	41.2	-9.97	1003	3	7	0.59	1.51	48	5	5 2. Rebalance	
LLAWD234	03/05/2018 13:38	34.7	24.3	8.4	32.6	-9.74	1003	5	20	1.02	1.43	59	0	0 1. OK	
LLAWD237	03/05/2018 13:51	10.6	7.1	17.5	64.8	-0.48	1005	2	0	0	1.49	17.7	0	0 1. OK	
LLAWD232	03/05/2018 13:57	43.4	33.4	1.5	21.7	-23.54	1003	5	0	16.06	1.3	76.8	5	5 1. OK	
LLAWD256	03/05/2018 14:29	19.7	12.4	14.7	53.2	-83.76	1003	0	0	0	1.59	32.1	5	5 1. OK	
LLAWD262	03/05/2018 14:33	30	19.5	10.9	39.6	-87.91	1003	1	0	0	1.54	49.5	5	5 2. Rebalance	
LLAWD262	03/05/2018 14:35	26.1	16.4	12.5	45	-44.3	1003	1	0	0	1.59	42.5	0	0 1. OK	
LLAWC146	11/05/2018 12:24	9.3	6.7	15	69	-4.14	995	1	0	12.6	1.39	16	0	0 1. OK	
LLAWC146	11/05/2018 12:26	19.3	13.8	9.3	57.6	-35.84	995	1	0	22.63	1.4	33.1	0	5 2. Rebalance	
LLAWC146	11/05/2018 12:28	23.9	17.6	6.6	51.9	-9.43	995	2	0	27.08	1.36	41.5	5	0 1. OK	
LLAWC142	11/05/2018 12:46	29	25	4.9	41.1	-3.34	995	2	0	22.68	1.16	54	0	0 1. OK	
LLAWC142	11/05/2018 12:48	35.6	32.2	1.6	30.6	-14.31	995	2	1	24.58	1.11	67.8	0	5 2. Rebalance	
LLAWC142	11/05/2018 12:49	42.7	35.6	1.5	20.2	-32.79	995	2	3	14.56	1.2	78.3	5	5 1. OK	
LLAWB081	11/05/2018 13:40	0.3	1.6	19.5	78.6	-0.31	994	4	0	5.28	0.19	1.9	0	0 1. OK	
LLAWB081	11/05/2018 13:42	0.3	1.3	19.5	78.9	-70.33	994	4	0	5.58	0.23	1.6	0	5 2. Rebalance	
LLAWB081	11/05/2018 13:43	0.1	0.9	19.9	79.1	-23.69	994	2	0	4.28	0.11	1	5	0 1. OK	
LLAWB079	11/05/2018 13:55	18.1	8.7	14.7	58.5	-70.1	995	2	0	3.23	2.08	26.8	0	0 1. OK	
LLAWB079	11/05/2018 14:05	57.5	29.2	2	11.3	-86.94	995	1	0	3.78	1.97	86.7	0	5 2. Rebalance	
LLAWB079	11/05/2018 14:06	57.8	29.3	1.8	11.1	-84.28	995	2	0	4.33	1.97	87.1	5	5 1. OK	
LLAWB116	11/05/2018 14:14	32.1	24.1	1	42.8	-0.16	993	2	0	39.04	1.33	56.2	5	5 1. OK	
LLAWB114	11/05/2018 14:25	37.8	31.4	1.8	29	-13.76	995	3	0	22.23	1.2	69.2	5	5 1. OK	
LLAWC250	11/05/2018 15:23	0.2	1.4	19.8	78.6	-36.27	995	1	0	4.15	0.14	1.6	0	0 1. OK	
LLAWC250	11/05/2018 15:27	32.7	23.8	1.7	41.8	-37.76	995	2	0	35.41	1.37	56.5	0	10 2. Rebalance	
LLAWC250	11/05/2018 15:28	32.5	24.3	1.4	41.8	-42.43	995	2	0	36.54	1.34	56.8	10	10 1. OK	
LLAWD265	11/05/2018 15:48	23.1	12.2	13.5	51.2	-4.98	994	1	0	0.44	1.89	35.3	0	0 1. OK	
LLAWD265	11/05/2018 15:50	33.6	20.1	9.4	36.9	-84.97	994	2	0	1.56	1.67	53.7	0	10 2. Rebalance	
LLAWD265	11/05/2018 15:52	26.2	15.5	12.1	46.2	-79.57	994	2	0	0.7	1.69	41.7	10	0 1. OK	
LLAWD266	11/05/2018 16:03	36	23.8	8.2	32	-71.13	995	3	0	1.17	1.51	59.8	5	5 1. OK	
LLAWD266	11/05/2018 16:04	40.3	27.3	6.6	25.8	-57.45	995	3	0	0.98	1.48	67.6	5	0 2. Rebalance	
LLAWD266	11/05/2018 16:06	41.1	27.9	6.3	24.7	-43.38	995	3	0	1.01	1.47	69	0	0 1. OK	
LLAWD210	11/05/2018 16:12	54.6	35.4	1.5	8.5	-43.16	995	4	0	2.86	1.54	90	10	10 1. OK	
LLARA025	14/05/2018 09:58	4.9	10.6	6	78.5	-0.36	1010	2	1	55.94	0.46	15.5	0	0 1. OK	
LLAWA204	14/05/2018 10:00	26.1	16.7	0.4	56.8	-0.83	1013	2	1	55.3	1.56	42.8	5	5 1. OK	
LLAWA203	14/05/2018 10:02	28.1	15.5	0.5	55.9	-2.34	1012	1	1	54.02	1.81	43.6	5	5 1. OK	
LLAWA001	14/05/2018 10:05	17	10.8	2.5	69.7	-0.17	1010	2	1	60.3	1.57	27.8	0	0 1. OK	
LLAWA032	14/05/2018 10:07	0.1	1.6	19	79.3	-1.25	1012	1	1	7.86	0.06	1.7	0	0 1. OK	
LLAWA01A	14/05/2018 10:10	13.3	11.5	0.4	74.8	-0.69	1012	1	1	73.3	1.16	24.8	0	0 1. OK	
LLAWA002	14/05/2018 10:12	8.9	10.3	4.3	76.5	-0.42	1012	1	1	60.33	0.86	19.2	0	0 1. OK	
LLAWA003	14/05/2018 10:15	8.7	12.6	0.3	78.4	-0.07	1012	2	1	77.27	0.69	21.3	0	0 1. OK	
LLAWA033	14/05/2018 10:17	7.9	8.5	6.7	76.9	-0.02	1012	2	1	51.71	0.93	16.4	0	0 1. OK	

Asset ID	Reading Taken On	CH4 (%)	CO2 (%)	O2 (%)	Balance Gas (%)	Vacuum (mbar)	Atm Pressure (mbar)	CO (ppm)	H2S (ppm)	Residual N2 (%)	CH4/CO2 ratio (%)	CH4 + CO2 (%)	Original Valve (%)	Depart valve (%)	Comment
LLAWA004	14/05/2018 10:20	14.6	13.5	1.8	70.1	-0.69	1011	34	1	63.33	1.08	28.1	0	0 1. OK	
LLAWA027	14/05/2018 10:23	16.3	14.3	0.2	69.2	-0.1	1012	3	1	68.45	1.14	30.6	0	0 1. OK	
LLAWA026	14/05/2018 10:26	30.3	16.9	0.2	52.6	0	1008	3	0	51.85	1.79	47.2	0	0 1. OK	
LLAWA005	14/05/2018 10:29	7	15.7	2.4	74.9	-0.02	1010	39	1	65.88	0.45	22.7	0	0 1. OK	
LLAWA006	14/05/2018 10:31	9.9	12.2	5.2	72.7	-0.05	1013	4	0	53.15	0.81	22.1	0	0 1. OK	
LLAWA130	14/05/2018 10:34	10.3	11.8	5.4	72.5	-1.12	1010	2	0	52.2	0.87	22.1	5	5 1. OK	
LLAWA131	14/05/2018 10:55	3.4	13.6	2	81	-0.19	1011	3	0	73.48	0.25	17	5	5 1. OK	
LLAWA030	14/05/2018 10:58	22.5	20	0.4	57.1	-0.1	1010	3	0	55.6	1.13	42.5	5	5 1. OK	
LLAWA030	14/05/2018 10:59	22.2	20.6	0.3	56.9	-0.36	1010	4	0	55.77	1.08	42.8	5	0 2. Rebalance	
LLAWA030	14/05/2018 11:01	22.2	20.7	0.2	56.9	-0.17	1010	4	0	56.15	1.07	42.9	0	0 1. OK	
LLAWA132	14/05/2018 11:03	11.2	17	0.8	71	-2.63	1011	3	0	67.99	0.66	28.2	5	5 1. OK	
LLARA010	14/05/2018 11:05	11.1	17.7	0.3	70.9	-1.38	1010	2	0	69.77	0.63	28.8	5	5 1. OK	
LLAWA011	14/05/2018 11:08	9.4	17	0.3	73.3	-1.14	1010	3	0	72.17	0.55	26.4	5	5 1. OK	
LLARA012	14/05/2018 11:11	11	18.6	0.4	70	-0.93	1010	2	0	68.5	0.59	29.6	5	5 1. OK	
LLARA028	14/05/2018 11:14	25.9	21.9	0.8	51.4	-7.39	1010	2	0	48.39	1.18	47.8	5	5 1. OK	
LLARA015	14/05/2018 11:17	31.5	20.8	0.3	47.4	-0.76	1010	3	0	46.27	1.51	52.3	0	0 1. OK	
LLAWA016	14/05/2018 11:20	31.2	20	0.3	48.5	-0.03	1011	2	0	47.37	1.56	51.2	0	0 1. OK	
LLAWA031	14/05/2018 11:23	0	1.5	19.9	78.6	-0.1	1009	2	0	3.78	0	1.5	0	0 1. OK	
LLAWA029	14/05/2018 11:25	30.8	22.4	0.6	46.2	-2.73	1010	2	0	43.94	1.38	53.2	5	5 1. OK	
LLAWB083	14/05/2018 13:16	66	30.7	0.5	2.8	-84.88	1010	3	0	0.92	2.15	96.7	5	5 1. OK	
LLARB072	14/05/2018 13:20	46.1	28.2	2.1	23.6	-4.55	1011	4	0	15.7	1.63	74.3	5	5 1. OK	
LLARA014	14/05/2018 13:25	33.3	15.5	0.4	50.8	-0.14	1011	4	0	49.3	2.15	48.8	0	0 1. OK	
LLARA014	14/05/2018 13:28	32.9	16.4	0.3	50.4	-0.12	1011	3	0	49.27	2.01	49.3	0	5 2. Rebalance	
LLARA014	14/05/2018 13:29	32.8	16.5	0.3	50.4	-0.22	1011	4	0	49.27	1.99	49.3	5	5 1. OK	
LLAWB082	14/05/2018 13:41	65.3	32.4	0.6	1.7	-72.68	1011	3	0	0	2.02	97.7	5	5 1. OK	
LLAWB081	14/05/2018 13:44	0.3	1.8	20.5	77.4	-0.1	1011	5	0	0.32	0.17	2.1	0	0 1. OK	
LLAWB079	14/05/2018 13:46	56.6	28.3	1.4	13.7	-83.5	1009	3	0	8.44	2	84.9	5	5 1. OK	
LLAWB116	14/05/2018 13:49	23.4	20.9	2.2	53.5	-0.14	1011	4	0	45.23	1.12	44.3	5	5 1. OK	
LLAWB116	14/05/2018 13:50	23.2	21.5	2.1	53.2	-0.35	1011	3	0	45.3	1.08	44.7	5	0 2. Rebalance	
LLAWB116	14/05/2018 13:52	23.2	21.4	2	53.4	-0.31	1011	3	0	45.88	1.08	44.6	0	0 1. OK	
LLAWB120	14/05/2018 13:54	24.3	25.3	0.5	49.9	-0.59	1011	3	0	48.02	0.96	49.6	5	5 1. OK	
LLAWB120	14/05/2018 13:56	24.2	26.3	0.5	49	-0.87	1011	2	0	47.12	0.92	50.5	5	0 2. Rebalance	
LLAWB120	14/05/2018 13:58	24.2	26.2	0.4	49.2	-0.73	1011	2	0	47.7	0.92	50.4	0	0 3. Investigation required	
LLAWB119	14/05/2018 14:00	35.7	31.3	0.4	32.6	-1.42	1011	6	0	31.1	1.14	67	5	5 1. OK	
LLAWB117	14/05/2018 14:03	37.7	30.4	0.5	31.4	-14.42	1011	4	0	29.52	1.24	68.1	5	5 1. OK	
LLAWB115	14/05/2018 14:07	27.5	22.8	4.1	45.6	-9.99	1010	3	0	30.18	1.21	50.3	5	5 1. OK	
LLAWB115	14/05/2018 14:09	27.7	24	3.8	44.5	-7.65	1010	3	0	30.21	1.15	51.7	5	0 2. Rebalance	
LLAWB115	14/05/2018 14:10	28	24.3	3.5	44.2	-5.11	1010	3	0	31.04	1.15	52.3	0	0 1. OK	
LLAWB114	14/05/2018 14:12	8.2	6.8	16.4	68.6	-14.42	1011	2	0	6.94	1.21	15	5	5 1. OK	
LLAWB114	14/05/2018 14:14	25.9	22.8	5.5	45.8	-2.56	1011	4	0	25.12	1.14	48.7	5	0 2. Rebalance	
LLAWB114	14/05/2018 14:16	27.6	24.9	4.2	43.3	-1.44	1011	3	0	27.51	1.11	52.5	0	0 1. OK	
LLAWB113	14/05/2018 14:19	27.1	24.9	4.9	43.1	-0.12	1011	3	0	24.68	1.09	52	0	0 1. OK	
LLAWB113	14/05/2018 14:20	19.3	21.1	5.7	53.9	-4.5	1011	3	0	32.47	0.91	40.4	0	5 2. Rebalance	
LLAWB113	14/05/2018 14:22	19.1	20.9	5.4	54.6	-3.86	1011	3	0	34.3	0.91	40	0	0 3. Investigation required	
LLAWB112	14/05/2018 14:24	39.6	33.6	0.5	26.3	-2.23	1011	4	0	24.42	1.18	73.2	5	5 1. OK	
LLAWB097	14/05/2018 14:28	31.9	22.4	9.2	36.5	-0.16	1011	3	0	1.91	1.42	54.3	0	0 3. Investigation required	
LLAWB111	14/05/2018 14:30	51.8	33.6	1.1	13.5	-2.06	1011	3	0	9.36	1.54	85.4	100	100 1. OK	

Asset ID	Reading Taken On	CH4 (%)	CO2 (%)	O2 (%)	Balance Gas (%)	Vacuum (mbar)	Atm Pressure (mbar)	CO (ppm)	H2S (ppm)	Residual N2 (%)	CH4/CO2 ratio (%)	CH4 + CO2 (%)	Original Valve (%)	Depart valve (%)	Comment
LLAWB096	14/05/2018 14:33	43.4	31	2.1	23.5	-1.71	1011	3	0	15.6	1.4	74.4	0	0 1. OK	
LLAWB096	14/05/2018 14:35	22.6	15.7	9.2	52.5	-1.73	1011	5	0	17.91	1.44	38.3	0	5 2. Rebalance	
LLAWB096	14/05/2018 14:37	31.7	22.6	6.7	39	-1.75	1011	4	0	13.81	1.4	54.3	0	0 3. Investigation required	
LLAWB095	14/05/2018 14:39	30.1	26.4	0.3	43.2	-2.08	1011	3	0	42.07	1.14	56.5	5	5 1. OK	
LLAWC147	14/05/2018 15:03	29.1	25	1.6	44.3	-63.68	1010	4	0	38.28	1.16	54.1	10	10 1. OK	
LLAWC148	14/05/2018 15:05	20.8	13.1	11.9	54.2	-0.1	1011	3	0	9.46	1.59	33.9	0	0 3. Investigation required	
LLAWC144	14/05/2018 15:08	58.2	39.6	0.3	1.9	-0.87	1010	4	0	0.77	1.47	97.8	0	0 1. OK	
LLAWC144	14/05/2018 15:10	49.2	36.2	2.6	12	-3.6	1010	4	0	2.22	1.36	85.4	0	5 2. Rebalance	
LLAWC144	14/05/2018 15:12	44.1	32.3	4.4	19.2	-0.73	1010	4	0	2.66	1.37	76.4	5	0 3. Investigation required	
LLAWC143	14/05/2018 15:14	34.4	30	0.4	35.2	-79.78	1011	4	0	33.7	1.15	64.4	10	10 1. OK	
LLAWC142	14/05/2018 15:16	30.4	25	6.2	38.4	-10.38	1011	3	0	15.09	1.22	55.4	5	5 1. OK	
LLAWC142	14/05/2018 15:17	30.4	26	5.9	37.7	-5.66	1011	3	0	15.52	1.17	56.4	5	0 2. Rebalance	
LLAWC142	14/05/2018 15:20	32.4	27.6	5.2	34.8	-0.21	1011	2	0	15.25	1.17	60	0	0 1. OK	
LLAWC140	14/05/2018 15:22	38.8	33.7	0.7	26.8	-0.17	1010	5	0	24.17	1.15	72.5	10	10 1. OK	
LLAWC141	14/05/2018 15:25	48.2	36.1	2.7	13	-0.03	1012	3	0	2.85	1.34	84.3	0	0 3. Investigation required	
LLAWC145	14/05/2018 15:29	42.8	35.1	0.3	21.8	-8.17	1010	4	0	20.67	1.22	77.9	10	10 1. OK	
LLAWC146	14/05/2018 15:31	0	1.9	20.9	77.2	-4.31	1013	1	0	0	0	1.9	0	0 1. OK	
LLAWC249	14/05/2018 15:49	28	27.7	0.3	44	-56.54	1011	3	0	42.87	1.01	55.7	10	10 1. OK	
LLAWC132	14/05/2018 15:51	41.6	30.8	0.3	27.3	-79.38	1012	3	0	26.17	1.35	72.4	10	10 1. OK	
LLAWC250	14/05/2018 15:54	27.3	23.7	0.4	48.6	-60.57	1013	3	0	47.1	1.15	51	10	10 1. OK	
LLARD207	16/05/2018 10:07	0	1.8	19.8	78.3	-0.37	1013	1	0	3.85	0	1.8	10.51	16.02 1. OK	
LLAWD231	18/05/2018 09:49	48.4	33.1	0.4	18.1	-19.94	1011	7	448	16.6	1.46	81.5	10	10 1. OK	
LLAWD231	18/05/2018 09:51	47.9	32.7	0.2	19.2	-25.7	1011	8	409	18.45	1.46	80.6	10	20 2. Rebalance	
LLAWD231	18/05/2018 09:53	47.8	32.7	0.2	19.3	-27.22	1011	9	402	18.55	1.46	80.5	20	20 500. Routine H2S monitoring sweep	
LLAWD222	18/05/2018 10:00	62.6	41.2	0.3	0	-3.41	1012	14	310	0	1.52	103.8	10	10 1. OK	
LLAWD222	18/05/2018 10:04	61.8	41.8	0.3	0	-23.95	1012	16	302	0	1.48	103.6	10	60 2. Rebalance	
LLAWD222	18/05/2018 10:05	61.5	42.1	0.3	0	-49.08	1012	18	302	0	1.46	103.6	60	60 500. Routine H2S monitoring sweep	
LLARD207	18/05/2018 10:08	63.9	38.5	0.3	0	-78.45	1010	15	56	0	1.66	102.4	10	10 1. OK	
LLARD207	18/05/2018 10:10	64	38.4	0.2	0	-81.56	1010	14	60	0	1.67	102.4	10	20 2. Rebalance	
LLARD207	18/05/2018 10:11	64.2	38.4	0.2	0	-82.11	1010	14	59	0	1.67	102.6	20	20 500. Routine H2S monitoring sweep	
LLAWD219	18/05/2018 10:14	21.2	15.6	12.3	50.9	-75.9	1014	9	0	4.65	1.36	36.8	0	0 1. OK	
LLAWD219	18/05/2018 10:15	20	14.7	12.7	52.6	-85.14	1014	9	1	4.85	1.36	34.7	0	20 2. Rebalance	
LLAWD219	18/05/2018 10:17	20.9	15.4	12.6	51.1	-84.14	1014	9	1	3.72	1.36	36.3	20	0 500. Routine H2S monitoring sweep	
LLAWD210	18/05/2018 10:31	53.8	34.6	1.7	9.9	-31.25	1012	11	41	3.51	1.55	88.4	10	10 1. OK	
LLAWD210	18/05/2018 10:32	54.5	35	1.4	9.1	-36.5	1012	11	43	3.84	1.56	89.5	10	20 2. Rebalance	
LLAWD210	18/05/2018 10:34	54.6	35.1	1.3	9	-37.62	1012	12	42	4.11	1.56	89.7	20	20 500. Routine H2S monitoring sweep	
LLAWD233	18/05/2018 10:36	59.2	36.1	0.8	3.9	-76.77	1013	11	125	0.89	1.64	95.3	10	10 1. OK	
LLAWD233	18/05/2018 10:38	59.4	36.2	0.8	3.6	-80.56	1013	11	115	0.59	1.64	95.6	10	20 2. Rebalance	
LLAWD233	18/05/2018 10:40	60	36.6	0.6	2.8	-81.54	1013	11	112	0.54	1.64	96.6	20	20 500. Routine H2S monitoring sweep	
LLAWD227	18/05/2018 10:42	0.1	0.2	20.1	79.6	-26.15	1012	8	1	4.02	0.5	0.3	0	0 500. Routine H2S monitoring sweep	
LLAWD225	18/05/2018 11:56	57.8	40.1	0.9	1.2	-84.07	1013	11	333	0	1.44	97.9	10	10 1. OK	
LLAWD225	18/05/2018 11:58	58.5	40.2	0.7	0.6	-85.23	1013	13	319	0	1.46	98.7	10	20 2. Rebalance	
LLAWD225	18/05/2018 11:59	58	39.9	0.8	1.3	-85.49	1013	13	312	0	1.45	97.9	20	20 500. Routine H2S monitoring sweep	
LLAWD297	18/05/2018 12:02	62.3	39.1	0.3	0	-50.38	1013	16	486	0	1.59	101.4	10	10 1. OK	
LLAWD297	18/05/2018 12:03	62.5	39.1	0.3	0	-50.83	1013	16	485	0	1.6	101.6	10	20 2. Rebalance	
LLAWD297	18/05/2018 12:05	62.7	39.1	0.2	0	-56.73	1013	16	489	0	1.6	101.8	20	20 500. Routine H2S monitoring sweep	

Asset ID	Reading Taken On	CH4 (%)	CO2 (%)	O2 (%)	Balance Gas (%)	Vacuum (mbar)	Atm Pressure (mbar)	CO (ppm)	H2S (ppm)	Residual N2 (%)	CH4/CO2 ratio (%)	CH4 + CO2 (%)	Original Valve (%)	Depart valve (%)	Comment
LLAWD308	18/05/2018 12:07	59.2	39.8	0.3	0.7	-2.2	1012	18	570	0	1.49	99	5	5	1. OK
LLAWD308	18/05/2018 12:13	56.7	38.5	0.8	4	-3.65	1012	12	159	0.99	1.47	95.2	5	10	2. Rebalance
LLAWD308	18/05/2018 12:15	58.9	39.6	0.2	1.3	-5.42	1012	18	487	0.55	1.49	98.5	10	10	500. Routine H2S monitoring sweep
LLAWD309	18/05/2018 12:18	58.9	38.2	0.8	2.1	-32.14	1014	19	360	0	1.54	97.1	10	10	1. OK
LLAWD309	18/05/2018 12:20	59	38.1	0.9	2	-40.08	1014	20	369	0	1.55	97.1	10	20	2. Rebalance
LLAWD309	18/05/2018 12:21	58.1	37.7	1.1	3.1	-49.16	1014	20	374	0	1.54	95.8	20	20	500. Routine H2S monitoring sweep
LLAWD234	18/05/2018 12:24	60.1	42.7	0.3	0	-0.16	1012	24	Off upper s	0	1.41	102.8	5	5	500. Routine H2S monitoring sweep
LLAWD237	18/05/2018 12:31	61.7	40.2	0.3	0	-0.19	1011	20	781	0	1.53	101.9	0	0	1. OK
LLAWD237	18/05/2018 12:34	61.6	40.3	0.2	0	-3.17	1012	21	762	0	1.53	101.9	0	5	2. Rebalance
LLAWD237	18/05/2018 12:35	61.8	40.3	0.2	0	-6.71	1012	21	693	0	1.53	102.1	5	5	500. Routine H2S monitoring sweep
LLAWD310	18/05/2018 12:38	55.6	37.7	0.9	5.8	-62.56	1013	19	405	2.42	1.47	93.3	10	10	1. OK
LLAWD310	18/05/2018 12:39	61.2	39.5	0.5	0	-75.05	1013	20	397	0	1.55	100.7	10	20	2. Rebalance
LLAWD310	18/05/2018 12:41	61.1	39.5	0.5	0	-79.02	1013	20	394	0	1.55	100.6	20	20	500. Routine H2S monitoring sweep
LLAWD232	18/05/2018 12:43	53.2	33.1	2.9	10.8	-43.09	1013	21	258	0	1.61	86.3	10	10	1. OK
LLAWD232	18/05/2018 12:45	49.9	31.2	4	14.9	-21.06	1013	20	140	0	1.6	81.1	10	0	2. Rebalance
LLAWD232	18/05/2018 12:47	53	32.9	3	11.1	-1	1013	20	69	0	1.61	85.9	0	0	500. Routine H2S monitoring sweep
LLAWD311	18/05/2018 12:50	62.7	39.9	0.2	0	-74.36	1013	20	376	0	1.57	102.6	10	10	1. OK
LLAWD311	18/05/2018 12:52	62.7	39.9	0.1	0	-79.05	1013	20	375	0	1.57	102.6	10	20	2. Rebalance
LLAWD311	18/05/2018 12:54	62.8	40	0.1	0	-81.44	1013	20	375	0	1.57	102.8	20	20	500. Routine H2S monitoring sweep
LLAWD312	18/05/2018 12:56	61.8	40.1	0.2	0	-80.56	1013	21	574	0	1.54	101.9	20	20	500. Routine H2S monitoring sweep
LLAWD230	18/05/2018 12:59	41.5	33	0.9	24.6	-31.24	1012	20	137	21.22	1.26	74.5	10	10	500. Routine H2S monitoring sweep
LLAWD313	18/05/2018 14:42	50.1	36.2	0.7	13	-58.34	1011	14	229	10.37	1.38	86.3	20	20	500. Routine H2S monitoring sweep
LLAWD314	18/05/2018 14:46	63.8	40.4	0.3	0	-0.17	1013	21	642	0	1.58	104.2	20	30	2. Rebalance
LLAWD314	18/05/2018 14:47	64.4	41.1	0.2	0	-7.72	1013	23	626	0	1.57	105.5	30	30	500. Routine H2S monitoring sweep
LLAWD302	18/05/2018 14:51	63.2	40.2	0.3	0	-75.45	1013	18	286	0	1.57	103.4	20	20	500. Routine H2S monitoring sweep
LLAWD301	18/05/2018 14:54	64.6	39.3	0.3	0	-0.69	1014	17	329	0	1.64	103.9	90	90	500. Routine H2S monitoring sweep
LLAWD300	18/05/2018 14:58	63.1	40	0.2	0	-80.4	1013	16	307	0	1.58	103.1	20	20	500. Routine H2S monitoring sweep
LLAWD299	18/05/2018 15:01	54.8	36.6	2.2	6.4	-4.22	1013	16	77	0	1.5	91.4	10	10	500. Routine H2S monitoring sweep
LLAWD298	18/05/2018 15:06	62.6	40.4	0.3	0	-78.15	1014	18	502	0	1.55	103	20	20	500. Routine H2S monitoring sweep
LLAWD306	18/05/2018 15:10	60.6	42	0.3	0	-62.21	1012	18	336	0	1.44	102.6	10	20	2. Rebalance
LLAWD306	18/05/2018 15:12	60.8	42.1	0.2	0	-63.04	1012	19	335	0	1.44	102.9	20	20	500. Routine H2S monitoring sweep
LLAWD307	18/05/2018 15:14	63.8	38.5	0.2	0	-75.37	1014	16	184	0	1.66	102.3	10	20	2. Rebalance
LLAWD307	18/05/2018 15:16	63.6	38.4	0.2	0	-80.97	1014	17	187	0	1.66	102	20	20	500. Routine H2S monitoring sweep
LLAWD315	18/05/2018 15:30	62.4	37.7	0.6	0	-70.35	1013	18	145	0	1.66	100.1	10	20	2. Rebalance
LLAWD315	18/05/2018 15:32	62.7	37.9	0.4	0	-77.13	1013	19	175	0	1.65	100.6	20	20	500. Routine H2S monitoring sweep
LLAWD266	18/05/2018 15:47	60.9	39.9	0.2	0	-2.68	1013	14	203	0	1.53	100.8	5	5	500. Routine H2S monitoring sweep
LLAWD265	25/05/2018 11:15	66	36.5	0.4	0	-0.38	1006	7	304	0	1.81	102.5	5	5	1. OK
LLAWD265	25/05/2018 11:18	58.2	32.9	2.1	6.8	-40.74	1006	7	247	0	1.77	91.1	5	0	2. Rebalance
LLAWD265	25/05/2018 11:20	43.7	26	5.9	24.4	-16.01	1006	6	197	2.22	1.68	69.7	0	0	3. Investigation required
LLAWD264	25/05/2018 11:21	59.6	38.8	0.8	0.8	-88.57	1008	9	601	0	1.54	98.4	5	5	1. OK
LLAWD262	25/05/2018 11:24	63	39	0.3	0	-0.45	1009	10	Off upper s	0	1.62	102	5	5	1. OK
LLAWD262	25/05/2018 11:26	55.4	35.1	2.1	7.4	-36.17	1009	10	Off upper s	0	1.58	90.5	5	0	2. Rebalance
LLAWD262	25/05/2018 11:28	32.5	21.1	9.2	37.2	-65.55	1009	7	684	2.61	1.54	53.6	0	0	3. Investigation required
LLAWD256	25/05/2018 11:30	62.6	39	0.3	0	-0.28	1009	7	197	0	1.61	101.6	5	5	1. OK
LLAWD261	25/05/2018 11:32	60.2	39.1	0.7	0	-86.15	1008	10	152	0	1.54	99.3	20	20	1. OK
LLAWD250	25/05/2018 11:34	62.3	37.7	0.5	0	-88.67	1008	9	209	0	1.65	100	10	10	1. OK
LLAWD255	25/05/2018 11:36	61.6	39.7	0.2	0	-0.73	1008	7	160	0	1.55	101.3	0	0	1. OK

Asset ID	Reading Taken On	CH4 (%)	CO2 (%)	O2 (%)	Balance Gas (%)	Vacuum (mbar)	Atm Pressure (mbar)	CO (ppm)	H2S (ppm)	Residual N2 (%)	CH4/CO2 ratio (%)	CH4 + CO2 (%)	Original Valve (%)	Depart valve (%)	Comment
LLAWD255	25/05/2018 11:38	59.2	38.4	0.8	1.6	-60.5	1008	8	153	0	1.54	97.6	0	5 2. Rebalance	
LLAWD255	25/05/2018 11:39	58.7	38.2	0.9	2.2	-74.97	1008	8	151	0	1.54	96.9	5	5 1. OK	
LLAWD258	25/05/2018 11:42	62.8	39.1	0.2	0	-86.73	1009	10	220	0	1.61	101.9	10	10 1. OK	
LLAWD270	25/05/2018 11:45	55.8	40.1	1.6	2.5	-88.41	1009	18	165	0	1.39	95.9	10	10 1. OK	
LLAWD305	25/05/2018 11:47	59.6	41	0.6	0	-79.14	1008	15	889	0	1.45	100.6	10	10 1. OK	
LLAWD304	25/05/2018 11:50	26.1	20.1	11	42.8	-75.3	1007	8	196	1.44	1.3	46.2	5	0 2. Rebalance	
LLAWD304	25/05/2018 11:51	43.4	30.5	6	20.1	-56.28	1007	10	277	0	1.42	73.9	0	0 3. Investigation required	
LLAWD293	25/05/2018 11:54	53.7	36.7	0.7	8.9	-70.83	1008	10	25	6.27	1.46	90.4	10	10 1. OK	
LLAWD281	25/05/2018 11:57	61.5	41.6	0.7	0	-85.82	1009	27	415	0	1.48	103.1	5	5 1. OK	
LLAWD283	25/05/2018 11:59	61.6	44.1	0.3	0	-88.66	1007	39	352	0	1.4	105.7	20	20 1. OK	
LLAWD254	25/05/2018 12:32	63.6	37.9	0.2	0	-69.95	1009	14	190	0	1.68	101.5	10	10 1. OK	
LLAWD280	25/05/2018 12:36	49.6	31.6	3.8	15	-86.98	1008	11	45	0.71	1.57	81.2	5	0 2. Rebalance	
LLAWD280	25/05/2018 12:37	48.5	31.1	4	16.4	-81.42	1008	11	44	1.36	1.56	79.6	0	0 1. OK	
LLAWD279	25/05/2018 12:40	50.1	32.8	3.8	13.3	-21.68	1008	12	209	0	1.53	82.9	5	0 2. Rebalance	
LLAWD279	25/05/2018 12:42	54.6	35.3	2.2	7.9	-0.47	1008	13	226	0	1.55	89.9	0	0 1. OK	
LLAWD286	25/05/2018 12:44	62.1	35.6	0.8	1.5	-85.85	1009	16	251	0	1.74	97.7	30	30 1. OK	
LLAWD278	25/05/2018 12:46	63.1	38	0.2	0	-78.69	1009	14	147	0	1.66	101.1	10	10 1. OK	
LLAWD287	25/05/2018 12:48	58.4	38.4	0.9	2.3	-86.75	1009	17	110	0	1.52	96.8	5	5 1. OK	
LLAWC251	25/05/2018 14:32	27.5	26.8	0.4	45.3	-57.73	1009	7	75	43.8	1.03	54.3	5	5 1. OK	
LLAWC133	25/05/2018 14:34	33.3	29.7	1.6	35.4	-74.74	1011	6	16	29.38	1.12	63	10	10 1. OK	
LLAWC152	25/05/2018 14:36	0.3	0.3	20.3	79.1	-40.62	1011	5	14	2.77	1	0.6	0	0 3. Investigation required	
LLAWC134	25/05/2018 14:38	0.8	0.9	19.6	78.7	-2.67	1011	5	13	5	0.89	1.7	0	0 3. Investigation required	
LLAWC154	25/05/2018 14:42	0.2	0.1	20.5	79.2	-25.59	1010	5	13	2.12	2	0.3	0	0 3. Investigation required	
LLAWC135	25/05/2018 14:44	39.1	26.5	3.7	30.7	-4.93	1003	6	13	16.79	1.48	65.6	5	0 2. Rebalance	
LLAWC135	25/05/2018 14:45	39.9	27.8	3	29.2	-4.87	1003	2	17	17.92	1.44	67.7	0	0 1. OK	
LLAWC136	25/05/2018 14:46	41	33.7	1.2	24.1	-47.99	1010	7	83	19.59	1.22	74.7	5	5 1. OK	
LLAWC137	25/05/2018 14:48	36.9	31	1	31.1	-12.88	1011	7	10	27.34	1.19	67.9	5	5 1. OK	
LLAWD231	31/05/2018 10:36	42	30.6	0.3	27.1	-30.87	1000	5	0	25.97	1.37	72.6	20	30 2. Rebalance	
LLAWD231	31/05/2018 10:37	41.1	32.1	0.2	26.6	-34.56	1000	4	0	25.85	1.28	73.2	30	30 1. OK	
LLARD207	31/05/2018 10:41	59.4	36.3	0.3	4	-82.44	1002	7	0	2.87	1.64	95.7	20	30 2. Rebalance	
LLARD207	31/05/2018 10:43	58.4	37.5	0.1	4	-83.78	1002	4	0	3.62	1.56	95.9	30	30 1. OK	
LLAWD210	31/05/2018 10:56	43.1	29.2	4.2	23.5	-40.23	1003	1	0	7.71	1.48	72.3	20	0 2. Rebalance	
LLAWD210	31/05/2018 10:58	38.4	27	5.8	28.8	-23.53	1003	2	0	6.99	1.42	65.4	0	0 1. OK	
LLAWD233	31/05/2018 11:02	59.5	36.2	0.3	4	-86.1	1003	1	0	2.87	1.64	95.7	20	30 2. Rebalance	
LLAWD233	31/05/2018 11:04	58.2	36.2	0.6	5	-86.05	1003	1	0	2.74	1.61	94.4	30	30 1. OK	
LLAWD225	31/05/2018 11:07	57.8	39.5	0.3	2.4	-85.76	1003	2	0	1.27	1.46	97.3	20	30 2. Rebalance	
LLAWD225	31/05/2018 11:09	57.5	39.8	0.1	2.6	-86.31	1003	1	0	2.22	1.44	97.3	30	30 1. OK	
LLAWD297	31/05/2018 11:12	50.4	35.7	0.7	13.2	-74.21	1002	1	0	10.57	1.41	86.1	20	30 2. Rebalance	
LLAWD297	31/05/2018 11:14	51.4	37.1	0.1	11.4	-75.24	1002	1	0	11.02	1.39	88.5	30	30 1. OK	
LLAWD308	31/05/2018 11:16	39	31.6	1.3	28.1	-7.89	1002	3	0	23.21	1.23	70.6	10	20 2. Rebalance	
LLAWD308	31/05/2018 11:18	38	32.4	1.3	28.3	-9.59	1002	3	0	23.41	1.17	70.4	20	20 1. OK	
LLAWD309	31/05/2018 11:21	56.4	37.5	0.6	5.5	-71.46	1002	1	0	3.24	1.5	93.9	20	30 2. Rebalance	
LLAWD309	31/05/2018 11:23	56.4	38.4	0.4	4.8	-75.12	1002	2	0	3.3	1.47	94.8	30	30 1. OK	
LLAWD310	31/05/2018 11:27	54.9	38.3	0.7	6.1	-82.95	1002	1	0	3.47	1.43	93.2	20	30 2. Rebalance	

Asset ID	Reading Taken On	CH4 (%)	CO2 (%)	O2 (%)	Balance Gas (%)	Vacuum (mbar)	Atm Pressure (mbar)	CO (ppm)	H2S (ppm)	Residual N2 (%)	CH4/CO2 ratio (%)	CH4 + CO2 (%)	Original Valve (%)	Depart valve (%)	Comment
LLAWD310	31/05/2018 11:29	56.2	39	0.6	4.2	-84.09	1002	1	0	1.94	1.44	95.2	30	30 1. OK	
LLAWD311	31/05/2018 11:33	0.1	2.7	20.3	76.9	-83.13	1002	0	0	0.57	0.04	2.8	20	10 2. Rebalance	
LLAWD311	31/05/2018 12:11	57.5	38.6	0.6	3.3	-21.02	1001	1	0	1.04	1.49	96.1	10	10 1. OK	
LLAWD312	31/05/2018 13:52	60.1	37.8	0.3	1.8	-83.52	1000	3	0	0.67	1.59	97.9	20	30 2. Rebalance	
LLAWD312	31/05/2018 13:53	59.1	39	0.1	1.8	-84.05	1000	2	0	1.42	1.52	98.1	30	30 1. OK	
LLAWD230	31/05/2018 13:57	38	31.7	0.8	29.5	-32.52	1002	2	0	26.49	1.2	69.7	10	20 2. Rebalance	
LLAWD230	31/05/2018 13:58	36.9	32.4	0.9	29.8	-40.39	1002	2	0	26.42	1.14	69.3	20	20 1. OK	
LLAWD313	31/05/2018 14:02	46.6	35.8	0.4	17.2	-60.36	1002	2	0	15.7	1.3	82.4	20	30 2. Rebalance	
LLAWD313	31/05/2018 14:04	46.8	36.8	0.3	16.1	-64.69	1002	2	0	14.97	1.27	83.6	30	30 1. OK	
LLAWD314	31/05/2018 14:07	54.8	37.8	1.2	6.2	-57.62	1002	3	0	1.69	1.45	92.6	30	40 2. Rebalance	
LLAWD314	31/05/2018 14:09	53.9	38.5	1.2	6.4	-59.32	1002	2	0	1.89	1.4	92.4	40	40 1. OK	
LLAWD302	31/05/2018 14:12	59.1	39.5	0.2	1.2	-76.46	1002	2	0	0.45	1.5	98.6	20	30 2. Rebalance	
LLAWD302	31/05/2018 14:13	58.9	40	0.1	1	-76.79	1002	2	0	0.62	1.47	98.9	30	30 1. OK	
LLAWD300	31/05/2018 14:16	60.2	38.6	0.2	1	-82.56	1001	2	0	0.25	1.56	98.8	20	30 2. Rebalance	
LLAWD300	31/05/2018 14:18	59.3	39.7	0.1	0.9	-84.02	1001	2	0	0.52	1.49	99	30	30 1. OK	
LLAWD298	31/05/2018 14:22	59.3	39.8	0.1	0.8	-81.7	1002	2	0	0.42	1.49	99.1	20	30 2. Rebalance	
LLAWD298	31/05/2018 14:23	59.2	40.1	0.1	0.6	-81.65	1002	2	0	0.22	1.48	99.3	30	30 1. OK	
LLAWD306	31/05/2018 14:26	58.9	40.1	0.1	0.9	-85.77	1002	2	0	0.52	1.47	99	20	30 2. Rebalance	
LLAWD306	31/05/2018 14:28	57.4	41.6	0.1	0.9	-86.53	1002	2	0	0.52	1.38	99	30	30 1. OK	
LLAWD307	31/05/2018 14:30	62.3	36.9	0.1	0.7	-82.73	1002	1	0	0.32	1.69	99.2	20	30 2. Rebalance	
LLAWD307	31/05/2018 14:32	61.1	38.1	0	0.8	-84.64	1002	2	0	0.8	1.6	99.2	30	30 1. OK	
LLAWD315	31/05/2018 14:35	62.3	36.7	0.1	0.9	-83.64	1002	3	0	0.52	1.7	99	20	30 2. Rebalance	
LLAWD315	31/05/2018 14:37	61.1	37.8	0	1.1	-85.33	1002	3	0	1.1	1.62	98.9	30	30 1. OK	
LLARA025	13/06/2018 09:24	15.8	11.3	0.3	72.6	-0.02	1005	1	0	71.47	1.4	27.1	0	0 1. OK	
LLAWA204	13/06/2018 09:27	30.8	17.1	0.2	51.9	-0.29	1006	1	0	51.15	1.8	47.9	5	5 1. OK	
LLAWA203	13/06/2018 09:30	33.9	15.8	0.4	49.9	-0.69	1007	1	0	48.4	2.15	49.7	5	5 1. OK	
LLAWA001	13/06/2018 09:34	30.4	12.1	0.2	57.3	-0.15	1006	1	0	56.55	2.51	42.5	0	0 1. OK	
LLAWA032	13/06/2018 09:36	11.2	10.7	2.2	75.9	-0.05	1004	1	0	67.63	1.05	21.9	0	0 1. OK	
LLAWA01A	13/06/2018 09:39	3.1	9.4	0.3	87.2	-0.1	1006	0	0	86.07	0.33	12.5	0	0 1. OK	
LLAWA002	13/06/2018 09:43	12.1	12.5	0.2	75.2	-0.05	1006	1	0	74.45	0.97	24.6	0	0 1. OK	
LLAWA003	13/06/2018 09:45	13	12.2	0.2	74.6	-0.09	1007	1	0	73.85	1.07	25.2	0	0 1. OK	
LLAWA033	13/06/2018 09:48	25	13.1	0.2	61.7	-0.07	1006	1	0	60.95	1.91	38.1	0	0 1. OK	
LLAWA004	13/06/2018 09:50	24.6	14.7	0.2	60.5	-0.05	1006	1	0	59.75	1.67	39.3	0	0 1. OK	
LLAWD250	13/06/2018 09:52	63.8	35.4	0.5	0.3	-85.3	1003	1	1	0	1.8	99.2	20	20 1. OK	
LLAWA027	13/06/2018 09:53	41.4	20.2	0.2	38.2	-0.09	1005	1	0	37.45	2.05	61.6	0	0 1. OK	
LLAWA027	13/06/2018 09:55	42	21.7	0.1	36.2	-0.15	1005	1	0	35.82	1.94	63.7	0	5 2. Rebalance	
LLAWA027	13/06/2018 09:56	41.8	21.8	0.1	36.3	-0.07	1005	1	0	35.92	1.92	63.6	5	5 1. OK	
LLAWD255	13/06/2018 09:57	60.3	38.5	0.4	0.8	-82.71	1005	0	0	0	1.57	98.8	10	10 1. OK	
LLAWA005	13/06/2018 09:59	13.4	18.2	0.3	68.1	-0.22	1006	0	0	66.97	0.74	31.6	0	0 1. OK	
LLAWD254	13/06/2018 10:01	62.8	37.4	0.2	0	-80.95	1005	2	1	0	1.68	100.2	10	10 1. OK	
LLAWA026	13/06/2018 10:02	32.2	17.9	0.2	49.7	-0.05	1005	1	0	48.95	1.8	50.1	0	0 1. OK	
LLAWA026	13/06/2018 10:05	31.5	20.4	0.1	48	-0.22	1005	2	0	47.62	1.54	51.9	0	5 2. Rebalance	
LLAWA026	13/06/2018 10:06	31.3	20.2	0.1	48.4	-0.03	1005	2	0	48.02	1.55	51.5	5	5 1. OK	
LLAWD280	13/06/2018 10:06	46.6	30.1	4.5	18.8	-83.44	1004	3	1	1.88	1.55	76.7	10	0 2. Rebalance	
LLAWD280	13/06/2018 10:08	44.8	29.5	4.9	20.8	-76.77	1004	2	1	2.38	1.52	74.3	0	0 3. Investigation required	
LLAWA006	13/06/2018 10:09	15.6	16.9	0.3	67.2	-0.15	1006	1	0	66.07	0.92	32.5	0	0 1. OK	
LLAWD279	13/06/2018 10:12	50.8	33.6	2.7	12.9	-74.35	1005	2	3	2.75	1.51	84.4	5	5 1. OK	

Asset ID	Reading Taken On	CH4 (%)	CO2 (%)	O2 (%)	Balance Gas (%)	Vacuum (mbar)	Atm Pressure (mbar)	CO (ppm)	H2S (ppm)	Residual N2 (%)	CH4/CO2 ratio (%)	CH4 + CO2 (%)	Original Valve (%)	Depart valve (%)	Comment
LLAWD286	13/06/2018 10:14	58.1	33	1.5	7.4	-86.06	1005	2	0	1.76	1.76	91.1	50	50	1. OK
LLAWD278	13/06/2018 10:16	57.7	37.7	0.2	4.4	-75.2	1005	4	0	3.65	1.53	95.4	10	10	1. OK
LLAWD293	13/06/2018 10:20	53	37.1	0.2	9.7	-68.58	1004	3	0	8.95	1.43	90.1	20	20	1. OK
LLAWD303	13/06/2018 10:23	57.2	40.6	0.4	1.8	-68.83	1004	3	0	0.3	1.41	97.8	20	20	1. OK
LLAWA130	13/06/2018 10:25	16.5	15.1	1.6	66.8	-0.07	1004	1	0	60.78	1.09	31.6	5	5	1. OK
LLAWA131	13/06/2018 10:27	10.4	14.8	1.2	73.6	-0.14	1005	2	0	69.09	0.7	25.2	5	5	1. OK
LLAWD304	13/06/2018 10:30	46.3	33.7	3.8	16.2	-63.83	1004	5	1	1.91	1.37	80	10	5	2. Rebalance
LLAWA030	13/06/2018 10:32	56.7	25.3	0.2	17.8	-0.07	1003	4	0	17.05	2.24	82	0	0	1. OK
LLAWD304	13/06/2018 10:34	47.4	34.5	3.5	14.6	-56.7	1004	6	2	1.44	1.37	81.9	5	5	1. OK
LLAWA030	13/06/2018 10:35	50.4	25.5	0.1	24	-1.01	1003	4	0	23.62	1.98	75.9	0	5	2. Rebalance
LLAWA030	13/06/2018 10:36	49.9	25.4	0.1	24.6	-0.77	1003	4	0	24.22	1.96	75.3	5	5	1. OK
LLAWD281	13/06/2018 10:37	57.1	41	0.5	1.4	-83.97	1004	12	4	0	1.39	98.1	10	10	1. OK
LLAWA132	13/06/2018 10:39	19	18.6	0.3	62.1	-3.02	1005	2	0	60.97	1.02	37.6	5	5	1. OK
LLAWD283	13/06/2018 10:40	55.3	44.3	0.1	0.3	-77.55	1004	21	1	0	1.25	99.6	20	20	1. OK
LLARA010	13/06/2018 10:41	18.6	18.3	0.2	62.9	-0.03	1002	1	0	62.15	1.02	36.9	5	5	1. OK
LLAWA011	13/06/2018 10:45	15	17.3	0.2	67.5	-0.12	1003	1	0	66.75	0.87	32.3	5	5	1. OK
LLAWD270	13/06/2018 10:48	18.7	14.3	13.8	53.2	-77.77	1004	3	0	1.31	1.31	33	10	0	3. Investigation required
LLARA012	13/06/2018 10:49	15.5	19	0.2	65.3	-0.14	1003	0	0	64.55	0.82	34.5	5	5	1. OK
LLAWD270	13/06/2018 10:52	17.4	13.2	14.3	55.1	0.35	1004	3	0	1.33	1.32	30.6	0	0	3. Investigation required
LLARA028	13/06/2018 10:53	26.5	21.2	0.4	51.9	-14.68	1003	1	0	50.4	1.25	47.7	5	5	1. OK
LLAWD305	13/06/2018 10:57	51.5	39.3	1.8	7.4	-75.73	1004	7	0	0.63	1.31	90.8	20	20	1. OK
LLARA015	13/06/2018 10:58	33	20.8	0.2	46	-0.12	1004	1	0	45.25	1.59	53.8	0	0	1. OK
LLAWD306	13/06/2018 10:59	55.5	43.4	0.1	1	-79.21	1004	6	0	0.62	1.28	98.9	30	30	1. OK
LLARA015	13/06/2018 11:00	33.5	21.3	0.1	45.1	-2.8	1004	1	0	44.72	1.57	54.8	0	5	2. Rebalance
LLARA015	13/06/2018 11:02	33.7	21.2	0.1	45	-5.65	1004	1	0	44.62	1.59	54.9	5	5	1. OK
LLAWD261	13/06/2018 11:02	58.3	38	0.6	3.1	-78	1004	5	0	0.84	1.53	96.3	20	20	1. OK
LLAWD258	13/06/2018 11:04	60.8	38.1	0.1	1	-83.97	1004	4	0	0.62	1.6	98.9	10	10	1. OK
LLAWA016	13/06/2018 11:05	42.2	21.4	0.1	36.3	-0.05	1004	1	0	35.92	1.97	63.6	0	0	1. OK
LLAWA016	13/06/2018 11:07	37.5	21.6	0	40.9	-2.65	1004	1	0	40.9	1.74	59.1	0	10	2. Rebalance
LLAWA016	13/06/2018 11:12	35	21.2	0	43.8	-2.47	1004	1	0	43.8	1.65	56.2	10	10	1. OK
LLARA014	13/06/2018 11:14	9.4	13.9	0.2	76.5	-0.03	1004	1	0	75.75	0.68	23.3	5	0	2. Rebalance
LLARA014	13/06/2018 11:17	9.4	14.7	0.1	75.8	-0.14	1004	1	0	75.42	0.64	24.1	0	0	1. OK
LLAWA031	13/06/2018 11:21	0	1.3	20.4	78.3	-0.05	1003	0	0	1.6	0	1.3	0	0	1. OK
LLAWA029	13/06/2018 11:23	34.9	23	0.3	41.8	-3.14	1004	1	0	40.67	1.52	57.9	5	5	1. OK
LLAWB083	13/06/2018 13:28	66.5	29.4	0.5	3.6	-85.41	1002	2	0	1.72	2.26	95.9	5	5	1. OK
LLAWB082	13/06/2018 13:34	65.1	32	0.4	2.5	-68.66	1004	1	0	1	2.03	97.1	5	5	1. OK
LLAWB081	13/06/2018 13:37	0.3	2.1	20.2	77.4	-0.09	1003	5	0	1.45	0.14	2.4	0	0	1. OK
LLAWB079	13/06/2018 13:40	67.2	28.8	0.6	3.4	-87.8	1003	1	0	1.14	2.33	96	5	5	1. OK
LLAWB116	13/06/2018 13:42	67.8	30.5	0.2	1.5	-0.07	1002	2	0	0.75	2.22	98.3	0	0	1. OK
LLAWB116	13/06/2018 13:44	66.7	31.8	0.1	1.4	-0.24	1002	1	0	1.02	2.1	98.5	0	5	2. Rebalance
LLAWB116	13/06/2018 13:45	66.8	31.8	0.1	1.3	-0.27	1002	1	0	0.92	2.1	98.6	5	5	1. OK
LLARB072	13/06/2018 13:58	45.5	23.6	5.2	25.7	-0.05	1001	1	0	6.15	1.93	69.1	5	0	3. Investigation required
LLAWB096	13/06/2018 14:04	58.4	39	0.4	2.2	-0.09	1002	2	0	0.7	1.5	97.4	0	0	1. OK
LLAWB096	13/06/2018 14:05	57.8	39.7	0.3	2.2	-0.41	1002	1	0	1.07	1.46	97.5	0	5	2. Rebalance
LLAWB096	13/06/2018 14:07	57.8	39.7	0.2	2.3	-0.22	1002	2	0	1.55	1.46	97.5	5	5	1. OK
LLAWB095	13/06/2018 14:10	49.6	31.9	0.2	18.3	-0.03	1003	1	0	17.55	1.55	81.5	5	5	1. OK
LLAWB111	13/06/2018 14:13	59.7	37.6	0.2	2.5	-0.15	1001	1	0	1.75	1.59	97.3	100	100	1. OK

Asset ID	Reading Taken On	CH4 (%)	CO2 (%)	O2 (%)	Balance Gas (%)	Vacuum (mbar)	Atm Pressure (mbar)	CO (ppm)	H2S (ppm)	Residual N2 (%)	CH4/CO2 ratio (%)	CH4 + CO2 (%)	Original Valve (%)	Depart valve (%)	Comment
LLAWB097	13/06/2018 14:16	57.8	40.9	0.2	1.1	-1.7	1002	2	0	0.35	1.41	98.7	0	0 1. OK	
LLAWB097	13/06/2018 14:19	4.3	13.7	15.9	66.1	-10.21	1002	0	0	6.32	0.31	18	0	5 2. Rebalance	
LLAWB097	13/06/2018 14:20	57.2	39.7	0.4	2.7	-0.91	1002	3	1	1.2	1.44	96.9	5	0 1. OK	
LLAWB112	13/06/2018 14:23	58.4	39.6	0.2	1.8	-0.1	1000	1	0	1.05	1.47	98	5	5 1. OK	
LLAWB113	13/06/2018 14:26	57.6	40.9	0.2	1.3	-1.67	1002	3	0	0.55	1.41	98.5	0	0 1. OK	
LLAWB113	13/06/2018 14:28	57.3	41.2	0.1	1.4	-1.46	1002	2	0	1.02	1.39	98.5	0	5 2. Rebalance	
LLAWB113	13/06/2018 14:29	57.3	41.1	0.1	1.5	-4.52	1002	2	0	1.12	1.39	98.4	5	5 1. OK	
LLAWB114	13/06/2018 14:32	58.4	40.1	0.1	1.4	-0.03	1002	2	0	1.02	1.46	98.5	0	0 1. OK	
LLAWB114	13/06/2018 14:34	53.1	37.9	1.5	7.5	-4.04	1002	2	0	1.86	1.4	91	0	5 2. Rebalance	
LLAWB114	13/06/2018 14:36	55.1	39.5	0.8	4.6	-4.79	1002	2	0	1.59	1.39	94.6	5	5 1. OK	
LLAWB115	13/06/2018 14:38	51.8	32.2	1.1	14.9	-1.87	1002	1	0	10.76	1.61	84	0	0 1. OK	
LLAWB115	13/06/2018 14:40	51.6	33.6	1.1	13.7	-32.33	1002	1	0	9.56	1.54	85.2	0	5 2. Rebalance	
LLAWB115	13/06/2018 14:41	50.7	31.6	1	16.7	-57.06	1002	0	0	12.94	1.6	82.3	5	5 1. OK	
LLAWB120	13/06/2018 14:44	84.1	13.6	0.1	2.2	-0.09	1001	2	8	1.82	6.18	97.7	0	0 1. OK	
LLAWB120	13/06/2018 14:46	59.8	38.9	0	1.3	-3.25	1001	2	13	1.3	1.54	98.7	0	5 2. Rebalance	
LLAWB120	13/06/2018 14:48	58.9	39.9	0	1.2	-1.15	1001	2	25	1.2	1.48	98.8	5	5 1. OK	
LLAWB119	13/06/2018 14:50	55.7	37.3	0.1	6.9	-0.21	1001	2	0	6.52	1.49	93	5	5 1. OK	
LLAWB117	13/06/2018 14:55	56.1	37.3	0.1	6.5	-3.25	1001	2	0	6.12	1.5	93.4	5	5 1. OK	
LLAWC147	13/06/2018 15:31	36.7	27	0.5	35.8	-51.13	1000	2	0	33.92	1.36	63.7	10	10 1. OK	
LLAWC148	13/06/2018 15:33	58.7	37.6	0.5	3.2	-0.14	1001	2	0	1.32	1.56	96.3	0	0 1. OK	
LLAWC144	13/06/2018 15:37	58.2	40.2	0.2	1.4	-1.94	1000	2	0	0.65	1.45	98.4	0	0 1. OK	
LLAWC144	13/06/2018 15:39	52.6	38	1.6	7.8	-12.55	1000	2	0	1.78	1.38	90.6	0	5 2. Rebalance	
LLAWC144	13/06/2018 15:40	52.4	37.9	1.6	8.1	-38.03	1000	2	0	2.08	1.38	90.3	5	5 1. OK	
LLAWC143	13/06/2018 15:43	38.7	31.6	0.3	29.4	-76.05	1001	1	0	28.27	1.22	70.3	10	10 1. OK	
LLAWC142	14/06/2018 12:51	58.1	40.7	0.3	0.9	-0.14	996	3	1	0	1.43	98.8	0	0 1. OK	
LLAWC142	14/06/2018 12:54	51.8	38.9	1.6	7.7	-1.36	996	2	4	1.68	1.33	90.7	0	5 2. Rebalance	
LLAWC142	14/06/2018 12:55	49.9	37.6	2.3	10.2	-14.3	996	2	4	1.55	1.33	87.5	5	0 1. OK	
LLAWC140	14/06/2018 12:58	45.1	34.7	0.3	19.9	-1.89	997	2	1	18.77	1.3	79.8	10	20 2. Rebalance	
LLAWC140	14/06/2018 12:59	44.4	36	0.2	19.4	-5.77	997	1	2	18.65	1.23	80.4	20	20 1. OK	
LLAWC141	14/06/2018 13:05	55.2	40	0.9	3.9	-0.53	997	1	0	0.52	1.38	95.2	0	0 1. OK	
LLAWC141	14/06/2018 13:07	36.7	28.9	6.9	27.5	-0.65	997	1	0	1.56	1.27	65.6	0	5 2. Rebalance	
LLAWC141	14/06/2018 13:09	53	39.5	1.2	6.3	-0.77	997	2	0	1.79	1.34	92.5	5	0 1. OK	
LLAWC145	14/06/2018 13:15	55.2	39.2	0.1	5.5	-6.86	996	1	0	5.12	1.41	94.4	10	10 1. OK	
LLAWC146	14/06/2018 13:17	20.9	14.1	10.8	54.2	-7.97	998	0	0	13.59	1.48	35	0	0 1. OK	
LLAWC249	14/06/2018 13:20	36.7	28.1	0.2	35	-56.9	997	1	0	34.25	1.31	64.8	10	10 1. OK	
LLAWC132	14/06/2018 13:22	37.9	29.7	0.2	32.2	-67.11	993	0	0	31.45	1.28	67.6	10	10 1. OK	
LLAWC250	14/06/2018 13:24	25.3	23.9	0.1	50.7	-43.51	999	0	0	50.32	1.06	49.2	10	0 2. Rebalance	
LLAWC250	14/06/2018 13:26	25.2	24.2	0.1	50.5	-45.34	999	0	0	50.12	1.04	49.4	0	0 1. OK	
LLAWC251	14/06/2018 13:28	27.6	26.7	0.2	45.5	-57.42	999	1	0	44.75	1.03	54.3	5	0 2. Rebalance	
LLAWC251	14/06/2018 13:29	27.4	27.5	0.1	45	-50.39	999	1	0	44.62	1	54.9	0	0 1. OK	
LLAWC133	14/06/2018 13:37	32.3	29.8	2.2	35.7	-75.51	998	0	0	27.43	1.08	62.1	10	5 2. Rebalance	
LLAWC133	14/06/2018 13:39	33.1	30.3	2.1	34.5	-64.98	998	1	0	26.6	1.09	63.4	5	5 1. OK	
LLAWC152	14/06/2018 13:41	0	2.4	20.6	77	-37.88	999	0	0	0	0	2.4	0	0 1. OK	
LLAWC134	14/06/2018 13:44	0	1	20.9	78.1	-2.23	999	0	0	0	0	1	0	0 1. OK	
LLAWC134	14/06/2018 13:45	10.3	9	10.3	70.4	-3.08	999	1	0	31.67	1.14	19.3	0	5 2. Rebalance	
LLAWC134	14/06/2018 13:47	10.6	13.7	9.9	65.8	-3.42	999	0	0	28.58	0.77	24.3	5	0 1. OK	
LLAWC154	14/06/2018 13:52	0	1.3	20.9	77.8	-24.83	999	0	0	0	0	1.3	0	0 1. OK	

Asset ID	Reading Taken On	CH4 (%)	CO2 (%)	O2 (%)	Balance Gas (%)	Vacuum (mbar)	Atm Pressure (mbar)	CO (ppm)	H2S (ppm)	Residual N2 (%)	CH4/CO2 ratio (%)	CH4 + CO2 (%)	Original Valve (%)	Depart valve (%)	Comment
LLAWC135	14/06/2018 13:54	59.7	33.2	0.7	6.4	-4.16	999	1	0	3.77	1.8	92.9	0	0 1. OK	
LLAWC135	14/06/2018 13:56	54	33.2	1	11.8	-31.79	999	2	0	8.04	1.63	87.2	0	5 2. Rebalance	
LLAWC135	14/06/2018 14:00	47.3	31.2	1.9	19.6	-50.08	999	2	0	12.46	1.52	78.5	5	5 1. OK	
LLAWC136	14/06/2018 14:03	37.7	31.5	1.9	28.9	-54.8	998	1	0	21.76	1.2	69.2	5	5 1. OK	
LLAWC137	14/06/2018 14:06	31.6	30.1	1.2	37.1	-17.1	998	1	0	32.59	1.05	61.7	5	5 1. OK	
LLAWD231	14/06/2018 14:42	37.3	28.7	0.3	33.7	-41.09	996	5	0	32.57	1.3	66	30	30 1. OK	
LLAWD222	14/06/2018 14:45	57.6	39	0.2	3.2	-84.73	997	4	0	2.45	1.48	96.6	60	60 1. OK	
LLARD207	14/06/2018 14:48	59	36.7	0.3	4	-85.48	997	6	0	2.87	1.61	95.7	20	20 1. OK	
LLAWD219	14/06/2018 14:52	50.3	35.7	2.1	11.9	-83.95	997	2	0	4	1.41	86	0	0 1. OK	
LLAWD210	14/06/2018 15:03	55.3	37.2	1.1	6.4	-0.14	997	3	0	2.26	1.49	92.5	0	0 1. OK	
LLAWD210	14/06/2018 15:05	54.3	36.9	1.4	7.4	-7.75	997	3	0	2.14	1.47	91.2	0	10 2. Rebalance	
LLAWD210	14/06/2018 15:06	54.1	36.8	1.4	7.7	-11.63	997	3	0	2.44	1.47	90.9	10	10 1. OK	
LLAWD233	14/06/2018 15:09	60.1	36.3	0.4	3.2	-83.3	998	2	0	1.7	1.66	96.4	20	20 1. OK	
LLAWD227	14/06/2018 15:12	0.1	2.1	20.9	76.9	-25.07	997	1	0	0	0.05	2.2	0	0 1. OK	
LLAWD225	14/06/2018 15:16	58.5	38.7	0.3	2.5	-86.22	998	3	0	1.37	1.51	97.2	30	40 2. Rebalance	
LLAWD225	14/06/2018 15:18	57.2	40.1	0.2	2.5	-86.55	998	2	0	1.75	1.43	97.3	40	40 1. OK	
LLAWD297	14/06/2018 15:20	50	35.2	0.2	14.6	-81.7	997	2	0	13.85	1.42	85.2	20	20 1. OK	
LLAWD308	14/06/2018 15:23	28.4	25.3	3.7	42.6	-13.61	997	5	0	28.69	1.12	53.7	10	5 2. Rebalance	
LLAWD308	14/06/2018 15:24	28.6	26.7	3.5	41.2	-11.57	997	5	0	28.04	1.07	55.3	5	0 2. Rebalance	
LLAWD308	14/06/2018 15:27	28.7	26.7	3.4	41.2	-7.15	997	6	0	28.42	1.07	55.4	0	0 1. OK	
LLAWD309	14/06/2018 15:29	54.8	38.8	0.2	6.2	-60.1	998	4	0	5.45	1.41	93.6	30	30 1. OK	
LLAWD234	14/06/2018 15:33	42.8	32.5	0.3	24.4	-39.78	999	2	0	23.27	1.32	75.3	5	5 1. OK	
LLAWD237	14/06/2018 15:35	43	32.7	0.2	24.1	-71.82	999	2	0	23.35	1.31	75.7	5	5 1. OK	
LLAWD310	14/06/2018 15:37	57	38.1	0.6	4.3	-84.73	998	3	0	2.04	1.5	95.1	30	30 1. OK	
LLAWD232	14/06/2018 15:41	30.9	21.5	9.4	38.2	-0.7	997	3	0	2.86	1.44	52.4	0	0 1. OK	
LLAWD311	14/06/2018 15:44	58.6	39.1	0.2	2.1	-8.2	997	2	0	1.35	1.5	97.7	10	10 1. OK	
LLAWD312	14/06/2018 15:48	57.7	39.8	0.2	2.3	-84.71	999	2	0	1.55	1.45	97.5	30	30 1. OK	
LLAWD230	14/06/2018 15:54	31.1	30.4	1.7	36.8	-43.72	998	1	0	30.41	1.02	61.5	20	20 1. OK	
LLAWD256	15/06/2018 14:21	61.6	38.5	0	0	91.54	1003	2	9	0	1.6	100.1	0	5 2. Rebalance	
LLAWD256	15/06/2018 14:23	58.1	37.6	0.7	3.6	-15.68	1003	3	8	0.97	1.55	95.7	5	5 1. OK	
LLAWD262	15/06/2018 14:26	60.7	39.1	0	0.2	5.09	1003	4	3	0.2	1.55	99.8	0	5 2. Rebalance	
LLAWD262	15/06/2018 14:28	52.8	35.4	1.9	9.9	-67.29	1003	4	1	2.76	1.49	88.2	5	5 1. OK	
LLAWD264	15/06/2018 14:30	60.2	39.4	0	0.4	50.33	1002	3	1	0.4	1.53	99.6	0	5 2. Rebalance	
LLAWD264	15/06/2018 14:31	59.7	39.4	0	0.9	-11.95	1002	4	2	0.9	1.52	99.1	5	5 1. OK	
LLAWD265	15/06/2018 14:34	61.6	34.6	0.8	3	-66.7	1003	3	1	0	1.78	96.2	5	5 1. OK	
LLAWD266	15/06/2018 14:36	59.4	38.4	0.2	2	-86.15	1003	3	0	1.25	1.55	97.8	5	5 1. OK	
LLAWD315	15/06/2018 14:39	61.6	38.3	0	0.1	-77.88	1003	3	0	0.1	1.61	99.9	50	50 1. OK	
LLAWD298	15/06/2018 14:43	58.7	41	0	0.3	-75.94	1003	2	0	0.3	1.43	99.7	10	10 1. OK	
LLAWD299	15/06/2018 14:47	59.4	40.3	0	0.3	-42.18	1002	2	1	0.3	1.47	99.7	10	15 1. OK	
LLAWD299	15/06/2018 14:49	58.8	40.8	0	0.4	-52.71	1002	3	9	0.4	1.44	99.6	15	15 1. OK	
LLAWD300	15/06/2018 14:55	52.1	36.4	1.8	9.7	-78.46	1002	3	1	2.93	1.43	88.5	50	50 1. OK	
LLAWD301	15/06/2018 14:59	56	38.4	0.8	4.8	-65.16	1002	3	0	1.79	1.46	94.4	80	80 1. OK	
LLAWD314	15/06/2018 15:02	56.1	40.5	0.5	2.9	-62.07	1001	5	0	1.02	1.39	96.6	50	50 1. OK	
LLAWD313	15/06/2018 15:05	45.7	37.2	0.3	16.8	-64.73	1002	7	0	15.67	1.23	82.9	50	50 1. OK	
LLAWD302	15/06/2018 15:21	59.1	40.7	0	0.2	-71.8	1002	0	0	0.2	1.45	99.8	75	75 1. OK	
LLAWD287	15/06/2018 15:25	53.5	36.9	1.3	8.3	-79.52	1002	3	0	3.41	1.45	90.4	5	5 1. OK	

Asset ID	Reading Taken On	CH4 (%)	CO2 (%)	O2 (%)	Balance Gas (%)	Vacuum (mbar)	Atm Pressure (mbar)	CO (ppm)	H2S (ppm)	Residual N2 (%)	CH4/CO2 ratio (%)	CH4 + CO2 (%)	Original Valve (%)	Depart valve (%)	Comment
LLAWD259	15/06/2018 16:33	56.3	37.1	0.9	5.7	-74.16	1001	3	0	2.32	1.52	93.4	20	20	1. OK
LLAWD307	15/06/2018 16:37	60.6	38.5	0	0.9	-76.46	1003	3	0	0.9	1.57	99.1	50	50	1. OK
LLAWD309	22/06/2018 11:25	57.3	38.9	0.1	3.7	-41	1018	2	0	3.32	1.47	96.2	10	15	1. OK
LLAWD309	22/06/2018 11:27	57	39.7	0	3.3	-51.55	1018	0	0	3.3	1.44	96.7	15	15	1. OK
LLAWD308	22/06/2018 11:36	59.2	37.1	0.4	3.3	-0.24	1018	1	0	1.8	1.6	96.3	0	5	1. OK
LLAWD308	22/06/2018 11:38	58.3	40.9	0	0.8	-1.93	1018	0	1	0.8	1.43	99.2	5	5	1. OK
LLAWD227	22/06/2018 11:42	0	2.7	19.9	77.4	-2.99	1019	9	0	2.58	0	2.7	0	3	3. Investigation required
LLAWD225	22/06/2018 11:45	57.4	41.3	0	1.3	-87.89	1019	0	0	1.3	1.39	98.7	10	10	1. OK
LLAWD297	22/06/2018 11:47	55.6	38.3	0.9	5.2	-84.01	1019	0	0	1.82	1.45	93.9	10	10	1. OK
LLAWD298	22/06/2018 11:50	58.5	40.7	0	0.8	-75.15	1019	0	0	0.8	1.44	99.2	10	10	1. OK
LLAWD299	22/06/2018 11:52	57.3	40.3	0.2	2.2	-65.49	1019	15	0	1.45	1.42	97.6	15	15	1. OK
LLAWD234	22/06/2018 12:07	47.9	34.3	0	17.8	-30.9	1020	3	0	17.8	1.4	82.2	10	10	1. OK
LLAWD211	22/06/2018 12:09	60.7	37.9	0	1.4	-0.12	1020	5	0	1.4	1.6	98.6	0	5	1. OK
LLAWD211	22/06/2018 12:10	59.4	38	0	2.6	-23.26	1020	9	0	2.6	1.56	97.4	5	5	1. OK
LLAWD210	22/06/2018 12:13	51	34.4	1.6	13	-15.41	1021	6	0	6.98	1.48	85.4	10	10	1. OK
LLAWD233	22/06/2018 12:15	60.1	37.5	0	2.4	-80.57	1020	2	0	2.4	1.6	97.6	20	20	1. OK
LLAWD237	22/06/2018 12:19	48	33.5	0.8	17.7	-43.66	1018	2	0	14.69	1.43	81.5	10	15	1. OK
LLAWD237	22/06/2018 12:21	48.4	34.7	0.5	16.4	-48.96	1018	2	0	14.52	1.39	83.1	15	15	1. OK
LLAWD310	22/06/2018 12:24	58.5	40.5	0	1	-47.7	1020	1	3	1	1.44	99	15	15	1. OK
LLAWD311	22/06/2018 12:38	58.4	39.8	0	1.8	-48.83	1020	0	1	1.8	1.47	98.2	15	15	1. OK
LLAWD232	22/06/2018 12:41	58	40.3	0	1.7	0.92	1021	4	0	1.7	1.44	98.3	0	5	1. OK
LLAWD232	22/06/2018 12:44	52.5	38.1	1.3	8.1	-12.42	1021	4	29	3.21	1.38	90.6	5	5	1. OK
LLAWD219	22/06/2018 12:48	52.1	37.7	1.3	8.9	-77.37	1021	5	0	4.01	1.38	89.8	10	10	1. OK
LLARD207	22/06/2018 12:50	58.5	37.2	0	4.3	-80.76	1019	4	0	4.3	1.57	95.7	20	20	1. OK
LLAWD222	22/06/2018 12:52	57.4	40.3	0	2.3	-81.04	1020	2	0	2.3	1.42	97.7	20	20	1. OK
LLAWD231	22/06/2018 12:55	33.9	30.5	0	35.6	-38.05	1021	8	0	35.6	1.11	64.4	30	30	1. OK
LLAWD230	22/06/2018 12:58	40.4	33.4	0.4	25.8	-42.47	1020	3	0	24.3	1.21	73.8	20	20	1. OK
LLAWD312	22/06/2018 13:01	58.6	39.9	0	1.5	-78.6	1020	1	4	1.5	1.47	98.5	20	20	1. OK
LLAWD301	22/06/2018 13:10	59	39	0	2	-55.98	1019	2	2	2	1.51	98	75	75	1. OK
LLAWD313	22/06/2018 13:15	58.4	40.1	0	1.5	-30.17	1020	2	0	1.5	1.46	98.5	20	20	1. OK
LLAWD314	22/06/2018 13:17	57.5	40.7	0	1.8	-9.27	1020	0	2	1.8	1.41	98.2	20	20	1. OK
LLAWD302	22/06/2018 13:20	58.5	40.1	0	1.4	-73.49	1020	3	0	1.4	1.46	98.6	20	20	1. OK
LLAWD304	22/06/2018 13:34	45.3	32.3	3.6	18.8	-38.22	1020	9	0	5.26	1.4	77.6	5	5	1. OK
LLAWD305	22/06/2018 13:37	51.3	38.8	1.5	8.4	-80.19	1020	4	0	2.76	1.32	90.1	15	15	1. OK
LLAWB117	10/07/2018 11:43	50.4	37.5	0	12.1	-2.16	1012	5	0	12.1	1.34	87.9	5	5	1. OK
LLAWB119	10/07/2018 11:48	27.3	29.2	0.3	43.2	-2.32	1012	7	0	42.07	0.93	56.5	5	5	1. OK
LLAWB120	10/07/2018 11:59	9.6	19.8	0.8	69.8	-4.79	1012	3	0	66.79	0.48	29.4	5	1	1. OK
LLAWB120	10/07/2018 12:00	9.7	21	0.7	68.6	-1.92	1012	3	0	65.97	0.46	30.7	1	1	1. OK
LLARA014	10/07/2018 12:10	3.7	11	4.5	80.8	0.26	1011	10	0	63.88	0.34	14.7	0	0	1. OK
LLAWA016	10/07/2018 12:12	7.7	17.1	0	75.2	-2.49	1013	3	0	75.2	0.45	24.8	10	5	1. OK
LLAWA016	10/07/2018 12:14	8.4	17.8	0	73.8	-1.77	1013	2	0	73.8	0.47	26.2	5	5	1. OK
LLARA015	10/07/2018 12:16	12.8	18	0.1	69.1	-6.66	1013	3	0	68.72	0.71	30.8	5	1	1. OK
LLARA015	10/07/2018 12:19	12.7	18.5	0	68.8	-5.78	1013	2	0	68.8	0.69	31.2	1	1	1. OK
LLAWA029	10/07/2018 12:21	31.8	24.8	0.1	43.3	-3.41	1013	3	0	42.92	1.28	56.6	5	5	1. OK
LLAWA031	10/07/2018 12:24	0	1.2	20.6	78.2	0.35	1013	1	0	0.74	0	1.2	0	0	3. Investigation required
LLARA025	10/07/2018 13:47	8.1	11.5	0.9	79.5	0.19	1013	4	0	76.12	0.7	19.6	0	0	1. OK

Asset ID	Reading Taken On	CH4 (%)	CO2 (%)	O2 (%)	Balance Gas (%)	Vacuum (mbar)	Atm Pressure (mbar)	CO (ppm)	H2S (ppm)	Residual N2 (%)	CH4/CO2 ratio (%)	CH4 + CO2 (%)	Original Valve (%)	Depart valve (%)	Comment
LLAWA130	10/07/2018 13:51	15.6	14.7	3.5	66.2	-0.66	1013	2	0	53.04	1.06	30.3	5	5 1. OK	
LLAWA006	10/07/2018 13:53	0.3	11.8	6.9	81	0.29	1013	2	0	55.06	0.03	12.1	0	0 3. Investigation required	
LLAWA005	10/07/2018 13:56	10.6	17.2	3	69.2	0.4	1013	20	0	57.92	0.62	27.8	0	0 1. OK	
LLAWA026	10/07/2018 13:58	15.2	17.7	0	67.1	0.14	1013	3	0	67.1	0.86	32.9	5	5 1. OK	
LLAWA027	10/07/2018 14:00	16.2	16.3	0	67.5	-0.16	1014	3	0	67.5	0.99	32.5	0	0 1. OK	
LLAWA004	10/07/2018 14:03	20.8	15.5	0.7	63	0.33	1014	25	0	60.37	1.34	36.3	0	0 1. OK	
LLAWA033	10/07/2018 14:06	12.8	10.6	2.1	74.5	0.33	1014	2	0	66.6	1.21	23.4	0	0 1. OK	
LLAWA003	10/07/2018 14:09	9.1	14.3	0	76.6	0.43	1014	2	0	76.6	0.64	23.4	0	0 1. OK	
LLAWA002	10/07/2018 14:11	11.8	13.4	0	74.8	0.33	1014	2	0	74.8	0.88	25.2	0	0 1. OK	
LLAWA01A	10/07/2018 14:13	4.2	11.7	0.1	84	0.26	1014	3	0	83.62	0.36	15.9	0	0 1. OK	
LLAWA032	10/07/2018 14:17	3.3	8.7	3.5	84.5	0.42	1014	1	0	71.34	0.38	12	0	0 1. OK	
LLAWA001	10/07/2018 14:19	26	11.6	0	62.4	0.33	1014	2	0	62.4	2.24	37.6	0	0 1. OK	
LLAWA203	10/07/2018 14:23	33.1	16	0.4	50.5	-4.66	1014	2	0	49	2.07	49.1	5	5 1. OK	
LLAWA204	10/07/2018 14:25	23	16.6	0.2	60.2	-5.94	1014	2	0	59.45	1.39	39.6	5	5 1. OK	
LLAWA131	10/07/2018 14:45	5.4	14.1	2.4	78.1	-0.14	1011	6	0	69.08	0.38	19.5	5	5 1. OK	
LLAWA030	10/07/2018 14:47	26.1	20.5	0	53.4	-0.03	1011	4	0	53.4	1.27	46.6	5	5 1. OK	
LLAWA132	10/07/2018 14:49	11.7	15.8	1.7	70.8	-2.8	1012	4	0	64.41	0.74	27.5	5	5 1. OK	
LLARA010	10/07/2018 14:52	15	18.9	0	66.1	-0.45	1012	3	0	66.1	0.79	33.9	5	5 1. OK	
LLAWA011	10/07/2018 14:54	12.6	18.5	0	68.9	-0.14	1012	2	0	68.9	0.68	31.1	5	5 1. OK	
LLARA012	10/07/2018 14:57	12.7	19.4	0.2	67.7	-0.21	1012	3	0	66.95	0.65	32.1	5	5 1. OK	
LLARA028	10/07/2018 14:59	21.8	21.3	0.1	56.8	-17.06	1012	3	0	56.42	1.02	43.1	5	5 1. OK	
LLAWB083	10/07/2018 15:18	62	32.2	0	5.8	-83.29	1011	2	0	5.8	1.93	94.2	5	5 1. OK	
LLARB072	10/07/2018 15:24	50.9	29.5	1.5	18.1	-8.31	1012	3	0	12.46	1.73	80.4	5	5 1. OK	
LLAWB082	10/07/2018 15:27	63.5	34.7	0	1.8	-67.11	1012	3	0	1.8	1.83	98.2	5	5 1. OK	
LLAWB081	10/07/2018 15:31	0.2	2.7	19.8	77.3	0.29	1012	7	0	2.85	0.07	2.9	0	0 3. Investigation required	
LLAWB079	10/07/2018 15:38	48.8	26.9	0.2	24.1	-86.61	1011	3	0	23.35	1.81	75.7	5	5 1. OK	
LLAWB116	10/07/2018 15:40	13.1	17.7	3.9	65.3	-0.09	1011	3	0	50.64	0.74	30.8	1	5 1. OK	
LLAWB116	10/07/2018 15:42	13.6	18.3	3.6	64.5	-2.63	1011	3	0	50.96	0.74	31.9	5	0 3. Investigation required	
LLAWB116	10/07/2018 15:44	13.1	18.1	3.7	65.1	-0.74	1011	3	0	51.19	0.72	31.2	0	0 1. OK	
LLAWB115	10/07/2018 15:46	23.1	24.7	1.9	50.3	-55.81	1011	3	0	43.16	0.94	47.8	5	5 1. OK	
LLAWB114	10/07/2018 15:49	35.6	30.2	1.7	32.5	-8.19	1011	3	0	26.11	1.18	65.8	5	5 1. OK	
LLAWB113	10/07/2018 15:51	34.5	31	0	34.5	-3.2	1011	4	0	34.5	1.11	65.5	5	5 1. OK	
LLAWB112	10/07/2018 15:54	57.7	42.2	0	0.1	-0.05	1011	6	0	0.1	1.37	99.9	5	5 1. OK	
LLAWB097	10/07/2018 15:56	58.3	41.6	0	0.1	0.07	1011	7	2	0.1	1.4	99.9	0	5 1. OK	
LLAWB097	10/07/2018 15:59	56.4	39.5	0.3	3.8	-9.43	1010	7	5	2.67	1.43	95.9	5	5 1. OK	
LLAWB111	10/07/2018 16:01	53.1	38.1	0.5	8.3	-0.17	1011	6	0	6.42	1.39	91.2	100	100 1. OK	
LLAWB096	10/07/2018 16:04	0.1	2.1	20.9	76.7	-0.09	1012	3	0	0	0.05	2.2	0	0 1. OK	
LLAWB095	10/07/2018 16:08	34.4	28.5	0	37.1	-0.64	1011	6	0	37.1	1.21	62.9	5	5 1. OK	
LLAWD250	13/07/2018 10:15	61.5	36.4	0.3	1.8	-67.82	1007	5	0	0.67	1.69	97.9	5	5 1. OK	
LLAWD255	13/07/2018 10:17	58.4	38.7	0.4	2.5	-79.4	1006	5	0	1	1.51	97.1	10	10 1. OK	
LLAWD258	13/07/2018 10:20	61	38	0	1	-80.26	1008	6	0	1	1.61	99	10	10 1. OK	
LLAWD261	13/07/2018 10:23	60.9	35.3	0.7	3.1	-84.16	1008	7	1	0.47	1.73	96.2	10	10 1. OK	
LLAWD259	13/07/2018 10:26	59.5	37.9	0.4	2.2	-79.41	1008	9	1	0.7	1.57	97.4	10	10 1. OK	
LLAWD270	13/07/2018 10:29	16	20.9	10.6	52.5	-0.55	1006	14	0	12.64	0.77	36.9	0	0 3. Investigation required	
LLAWD254	13/07/2018 10:39	61	36.1	0.4	2.5	-69.36	1008	6	0	1	1.69	97.1	10	10 1. OK	
LLAWD280	13/07/2018 10:43	51.5	33.4	2.6	12.5	-87.55	1009	4	0	2.72	1.54	84.9	5	5 1. OK	
LLAWD279	13/07/2018 10:45	55.2	36.5	1.4	6.9	-74.72	1009	7	0	1.64	1.51	91.7	5	5 1. OK	

Asset ID	Reading Taken On	CH4 (%)	CO2 (%)	O2 (%)	Balance Gas (%)	Vacuum (mbar)	Atm Pressure (mbar)	CO (ppm)	H2S (ppm)	Residual N2 (%)	CH4/CO2 ratio (%)	CH4 + CO2 (%)	Original Valve (%)	Depart valve (%)	Comment
LLAWD286	13/07/2018 10:48	56.5	34.1	1.2	8.2	-86.53	1009	7	0	3.69	1.66	90.6	10	10 1. OK	
LLAWD278	13/07/2018 10:50	47.3	34.9	0.3	17.5	-55.55	1009	6	0	16.37	1.36	82.2	10	10 1. OK	
LLAWD287	13/07/2018 10:52	51.3	35.8	1.3	11.6	-76.21	1009	8	0	6.71	1.43	87.1	5	5 1. OK	
LLAWD293	13/07/2018 10:55	44.9	32.5	2.1	20.5	-67.32	1009	6	0	12.6	1.38	77.4	10	5 1. OK	
LLAWD293	13/07/2018 10:57	44	32.5	2.3	21.2	-43.3	1009	6	0	12.55	1.35	76.5	5	5 1. OK	
LLAWD303	13/07/2018 11:00	56	40.4	0.5	3.1	-71.9	1008	9	0	1.22	1.39	96.4	10	10 1. OK	
LLAWD304	13/07/2018 11:02	58.6	41.6	0	0	4.17	1008	12	0	0	1.41	100.2	5	10 1. OK	
LLAWD304	13/07/2018 11:04	58.4	42.2	0	0	-5.52	1008	12	1	0	1.38	100.6	10	10 1. OK	
LLAWD306	13/07/2018 11:09	57.4	42.4	0	0.2	-68.74	1006	9	0	0.2	1.35	99.8	10	10 1. OK	
LLAWD307	13/07/2018 11:11	61.3	38.5	0	0.2	-86.53	1008	7	0	0.2	1.59	99.8	20	20 1. OK	
LLAWD315	13/07/2018 11:13	61.6	38.4	0	0	-87.25	1008	8	0	0	1.6	100	20	20 1. OK	
LLAWD266	13/07/2018 11:16	37.1	24.8	7.6	30.5	-87.76	1008	5	0	1.92	1.5	61.9	10	10 1. OK	
LLAWD265	13/07/2018 11:20	63.5	35	0.2	1.3	-89.07	1000	6	0	0.55	1.81	98.5	10	10 1. OK	
LLAWD264	13/07/2018 11:22	60.4	39.5	0	0.1	-88.57	1009	7	0	0.1	1.53	99.9	10	1 1. OK	
LLAWD262	13/07/2018 11:24	25	17.4	11.8	45.8	-88.83	1008	5	0	1.43	1.44	42.4	5	0 3. Investigation required	
LLAWD262	13/07/2018 11:26	22	14.7	13.1	50.2	-0.26	1008	4	0	0.94	1.5	36.7	0	0 3. Investigation required	
LLAWD256	13/07/2018 11:29	59.1	35.5	0.9	4.5	-86.18	1009	7	0	1.12	1.66	94.6	10	10 1. OK	
LLAWD227	13/07/2018 12:36	0.1	2.3	19	78.6	-14.57	1006	1	0	7.16	0.04	2.4	0	3 3. Investigation required	
LLAWD225	13/07/2018 12:38	60.9	39.6	0	0	-85.25	1007	6	0	0	1.54	100.5	10	10 1. OK	
LLAWD308	13/07/2018 12:48	42.7	33.7	0.7	22.9	-6.11	1007	7	0	20.27	1.27	76.4	10	10 1. OK	
LLAWD297	13/07/2018 12:50	52.2	37.4	0	10.4	-80.87	1008	7	0	10.4	1.4	89.6	1	10 1. OK	
LLAWD298	13/07/2018 12:52	59.6	40.9	0	0	-80.78	1008	9	0	0	1.46	100.5	20	20 1. OK	
LLAWD309	13/07/2018 12:54	52.3	36.8	0	10.9	-80.5	1008	9	0	10.9	1.42	89.1	10	10 1. OK	
LLAWD234	13/07/2018 12:57	36.1	30.8	0	33.1	-44.03	1008	5	0	33.1	1.17	66.9	20	20 1. OK	
LLAWD211	13/07/2018 13:00	30.3	22.1	8.1	39.5	-37.12	1009	15	0	9.04	1.37	52.4	10	5 1. OK	
LLAWD211	13/07/2018 13:02	30.3	22.5	8	39.2	-7.93	1009	14	0	9.12	1.35	52.8	0	0 3. Investigation required	
LLAWD210	13/07/2018 13:08	52.1	33.6	2.1	12.2	-18.67	1009	5	0	4.3	1.55	85.7	10	10 1. OK	
LLAWD233	13/07/2018 13:10	60.1	37.7	0	2.2	-84.94	1008	5	0	2.2	1.59	97.8	20	20 1. OK	
LLAWD299	13/07/2018 13:17	57.6	39.5	0.3	2.6	-59.79	1007	9	1	1.47	1.46	97.1	10	10 1. OK	
LLAWD300	13/07/2018 13:19	59.8	40.6	0	0	-84.07	1007	10	0	0	1.47	100.4	20	20 1. OK	
LLAWD301	13/07/2018 13:21	58.6	39.2	0.4	1.8	-56.59	1008	10	0	0.3	1.49	97.8	80	80 1. OK	
LLAWD302	13/07/2018 13:26	58.6	41.1	0	0.3	-78.64	1008	12	0	0.3	1.43	99.7	50	50 1. OK	
LLAWD314	13/07/2018 13:29	58.9	41	0	0.1	-23.48	1007	20	0	0.1	1.44	99.9	10	10 1. OK	
LLAWD314	13/07/2018 13:30	58.6	41.2	0.1	0.1	-41.65	1007	21	0	0	1.42	99.8	20	20 1. OK	
LLAWD313	13/07/2018 13:32	59.4	41	0	0	-8.34	1007	11	0	0	1.45	100.4	10	20 1. OK	
LLAWD313	13/07/2018 13:34	58.9	41.3	0	0	-10.12	1007	11	0	0	1.43	100.2	20	20 1. OK	
LLAWD230	13/07/2018 13:36	36.7	33.7	0.4	29.2	-76.78	1007	11	0	27.7	1.09	70.4	50	50 1. OK	
LLAWD312	13/07/2018 13:39	59.9	40.1	0	0	-84.59	1007	10	0	0	1.49	100	20	20 1. OK	
LLAWD231	13/07/2018 13:42	32.9	30.2	0	36.9	-43.54	1008	12	0	36.9	1.09	63.1	20	20 1. OK	
LLAWD222	13/07/2018 13:44	58.7	40.4	0	0.9	-86.82	1008	11	0	0.9	1.45	99.1	20	20 1. OK	
LLARD207	13/07/2018 13:47	59.4	38.4	0	2.2	-85.14	1008	12	1	2.2	1.55	97.8	20	20 1. OK	
LLAWD219	13/07/2018 13:49	30.5	23.2	8.7	37.6	-86.44	1009	9	0	4.89	1.31	53.7	10	0 3. Investigation required	
LLAWD219	13/07/2018 13:51	34.2	26.9	7	31.9	-0.14	1009	10	0	5.58	1.27	61.1	0	0 3. Investigation required	
LLAWD232	13/07/2018 13:55	49.6	34.4	2	14	-39.92	1008	11	0	6.48	1.44	84	10	10 1. OK	
LLAWD311	13/07/2018 13:57	59.8	39.9	0	0.3	-81.98	1008	9	0	0.3	1.5	99.7	10	10 1. OK	
LLAWD310	13/07/2018 13:59	58.2	39.8	0.1	1.9	-84.57	1008	10	0	1.52	1.46	98	10	10 1. OK	
LLAWD237	13/07/2018 14:01	31.1	29	0.1	39.8	-73.2	1008	6	0	39.42	1.07	60.1	10	10 1. OK	

Asset ID	Reading Taken On	CH4 (%)	CO2 (%)	O2 (%)	Balance Gas (%)	Vacuum (mbar)	Atm Pressure (mbar)	CO (ppm)	H2S (ppm)	Residual N2 (%)	CH4/CO2 ratio (%)	CH4 + CO2 (%)	Original Valve (%)	Depart valve (%)	Comment
LLAWC146	13/07/2018 15:14	0.8	2.5	19.6	77.1	-13.86	1007	3	0	3.4	0.32	3.3	0	0	3. Investigation required
LLAWC145	13/07/2018 15:16	45.9	36	0	18.1	-8.5	1008	5	0	18.1	1.28	81.9	20	20	1. OK
LLAWC141	13/07/2018 15:19	57.6	42.1	0	0.3	0	1002	5	0	0.3	1.37	99.7	0	5	1. OK
LLAWC141	13/07/2018 15:20	50.6	38.2	1.8	9.4	-0.45	1002	6	2	2.63	1.32	88.8	5	5	1. OK
LLAWC142	13/07/2018 15:23	57.1	42.5	0	0.4	4.52	1008	6	0	0.4	1.34	99.6	0	5	1. OK
LLAWC142	13/07/2018 15:25	55.9	42.8	0	1.3	-0.19	1008	6	0	1.3	1.31	98.7	5	5	1. OK
LLAWC140	13/07/2018 15:27	39	35.2	0	25.8	-0.76	1008	6	0	25.8	1.11	74.2	5	5	1. OK
LLAWC143	13/07/2018 15:30	34.2	30.6	0	35.2	-71.11	1008	4	0	35.2	1.12	64.8	10	10	1. OK
LLAWC144	13/07/2018 15:33	44.7	34.3	1.2	19.8	-44.01	1008	5	0	15.29	1.3	79	20	20	1. OK
LLAWC148	13/07/2018 15:35	0	1.6	20.2	78.2	-0.31	1008	2	0	2.25	0	1.6	0	3	3. Investigation required
LLAWC147	13/07/2018 15:38	27.9	26.5	0.1	45.5	-44.35	1008	4	0	45.12	1.05	54.4	10	10	1. OK
LLAWC249	13/07/2018 15:41	32.7	28.5	0	38.8	-51.38	1009	4	0	38.8	1.15	61.2	20	20	1. OK
LLAWC250	13/07/2018 15:44	28.4	22.8	3.1	45.7	-26.01	1010	3	0	34.04	1.25	51.2	0	5	1. OK
LLAWC250	13/07/2018 15:45	34.2	29.2	0	36.6	-28.23	1010	4	0	36.6	1.17	63.4	5	5	1. OK
LLAWC132	13/07/2018 15:48	39.1	31.1	0	29.8	-53.02	1010	4	0	29.8	1.26	70.2	10	10	1. OK
LLAWC251	13/07/2018 15:51	51.6	37.6	1.5	9.3	-17.74	1010	4	0	3.66	1.37	89.2	5	5	1. OK
LLAWC152	13/07/2018 15:53	35.7	29.2	0	35.1	-23.66	1010	4	0	35.1	1.22	64.9	0	5	1. OK
LLAWC152	13/07/2018 15:55	35.6	30	0	34.4	-24.52	1010	4	0	34.4	1.19	65.6	5	5	1. OK
LLAWC133	13/07/2018 15:57	39.7	32.8	1.5	26	-45.18	1009	5	0	20.36	1.21	72.5	10	1	1. OK
LLAWC134	13/07/2018 16:03	1	2.6	19.4	77	-0.48	1008	2	0	4.06	0.38	3.6	0	0	1. OK
LLAWC154	13/07/2018 16:08	0	1.6	20.5	77.9	-18.12	1009	2	0	0.82	0	1.6	0	5	1. OK
LLAWC154	13/07/2018 16:11	18.3	21	1.6	59.1	-29.47	1009	4	0	53.08	0.87	39.3	5	5	1. OK
LLAWC135	13/07/2018 16:13	15	18	6	61	-46.03	1009	4	0	38.44	0.83	33	5	0	1. OK
LLAWC135	13/07/2018 16:15	12.9	15.9	8.1	63.1	-35.86	1009	4	0	32.64	0.81	28.8	0	0	3. Investigation required
LLAWC136	13/07/2018 16:18	37.3	31.9	1.2	29.6	-54.06	1009	5	0	25.09	1.17	69.2	5	5	1. OK
LLAWC137	13/07/2018 16:22	29.4	28.2	1.1	41.3	-18.38	1009	4	0	37.16	1.04	57.6	10	10	1. OK
LLAWD305	13/07/2018 16:32	58.1	40.6	0	1.3	-15.63	1008	12	0	1.3	1.43	98.7	10	10	1. OK
LLAWD283	13/07/2018 17:28	55.6	44.4	0	0	-80.78	1001	36	4	0	1.25	100	20	20	1. OK
LLAWD281	13/07/2018 17:31	59.1	41.4	0	0	-86.22	1008	26	8	0	1.43	100.5	10	10	1. OK
LLARA025	24/07/2018 09:48	6	9.6	5.1	79.3	0	1001	2	0	60.12	0.63	15.6	0	0	1. OK
LLAWA204	24/07/2018 09:50	13.2	16.3	0	70.5	-10.04	1003	1	0	70.5	0.81	29.5	5	5	1. OK
LLAWA203	24/07/2018 09:52	23.6	15.9	0.1	60.4	-11.17	1004	0	0	60.02	1.48	39.5	5	5	1. OK
LLAWA001	24/07/2018 09:55	18.4	10.7	1.6	69.3	-0.1	1002	1	0	63.28	1.72	29.1	0	0	1. OK
LLAWA032	24/07/2018 09:57	0.1	1.8	20.8	77.3	-0.09	1003	0	0	0	0.06	1.9	0	0	1. OK
LLAWA01A	24/07/2018 09:59	5.2	11.3	0.5	83	-0.1	1003	1	0	81.12	0.46	16.5	0	0	1. OK
LLAWA002	24/07/2018 10:02	13.5	12.5	0.4	73.6	-0.1	1002	1	0	72.1	1.08	26	0	0	1. OK
LLAWA003	24/07/2018 10:04	2.7	12.9	2.2	82.2	-0.57	1003	1	0	73.93	0.21	15.6	0	0	1. OK
LLAWA033	24/07/2018 10:06	0.1	1.8	20.9	77.2	-0.09	1002	0	0	0	0.06	1.9	0	0	1. OK
LLAWA004	24/07/2018 10:09	20.2	13.2	2.2	64.4	0	1001	30	0	56.13	1.53	33.4	0	0	1. OK
LLAWA027	24/07/2018 10:12	22.3	13.5	0	64.2	-0.1	1002	1	0	64.2	1.65	35.8	0	0	1. OK
LLAWA026	24/07/2018 10:14	16.8	15.6	0	67.6	-0.15	1002	1	0	67.6	1.08	32.4	5	0	2. Rebalance
LLAWA026	24/07/2018 10:16	16.9	16.6	0	66.5	-0.46	1002	1	0	66.5	1.02	33.5	0	0	1. OK
LLAWA005	24/07/2018 10:18	4	7	12.9	76.1	-0.17	1002	7	0	27.6	0.57	11	0	0	1. OK
LLAWA006	24/07/2018 10:21	0.2	6.7	13.4	79.7	-0.14	1002	1	0	29.32	0.03	6.9	0	0	1. OK
LLAWA130	24/07/2018 10:24	11.3	9.9	8	70.8	-2.41	1000	1	0	40.72	1.14	21.2	5	5	1. OK
LLAWA131	24/07/2018 13:06	3	10	6.7	80.3	-2.42	1003	6	0	55.11	0.3	13	5	5	1. OK

Asset ID	Reading Taken On	CH4 (%)	CO2 (%)	O2 (%)	Balance Gas (%)	Vacuum (mbar)	Atm Pressure (mbar)	CO (ppm)	H2S (ppm)	Residual N2 (%)	CH4/CO2 ratio (%)	CH4 + CO2 (%)	Original Valve (%)	Depart valve (%)	Comment
LLAWA030	24/07/2018 13:09	24.3	20.5	0	55.2	-0.46	1002	2	0	55.2	1.19	44.8	5	5 1. OK	
LLAWA132	24/07/2018 13:11	11.3	16.8	1	70.9	-3.82	1003	2	0	67.14	0.67	28.1	5	5 1. OK	
LLARA010	24/07/2018 13:14	13.8	18.4	0	67.8	-0.12	1002	1	0	67.8	0.75	32.2	5	5 1. OK	
LLAWA011	24/07/2018 13:16	11.8	17.3	0	70.9	-0.12	1001	1	0	70.9	0.68	29.1	5	5 1. OK	
LLARA012	24/07/2018 13:20	9.2	18	0.5	72.3	-1.12	1001	1	0	70.42	0.51	27.2	5	5 1. OK	
LLARA028	24/07/2018 13:22	21.2	20.2	0.3	58.3	-17.86	1002	1	0	57.17	1.05	41.4	5	5 1. OK	
LLARA015	24/07/2018 13:25	14.3	17.6	0.3	67.8	-5.02	1002	0	0	66.67	0.81	31.9	5	0 2. Rebalance	
LLARA015	24/07/2018 13:27	13.7	18.1	0.9	67.3	-4.74	1002	0	0	63.92	0.76	31.8	0	0 1. OK	
LLAWA016	24/07/2018 13:29	10.6	17.1	0	72.3	-0.62	1003	0	0	72.3	0.62	27.7	5	0 2. Rebalance	
LLAWA016	24/07/2018 13:31	10.6	18	0	71.4	-0.45	1003	0	0	71.4	0.59	28.6	0	0 1. OK	
LLARA014	24/07/2018 13:35	12.6	14.4	0.7	72.3	-0.24	1003	9	0	69.67	0.88	27	0	0 1. OK	
LLAWA031	24/07/2018 14:23	0.1	1.3	20.9	77.4	-0.81	1001	1	0	0	0.08	1.4	0	0 1. OK	
LLAWA029	24/07/2018 14:25	32	23	0.3	44.7	-2.53	1002	1	0	43.57	1.39	55	5	5 1. OK	
LLAWB083	24/07/2018 14:41	61	31.9	0.2	6.9	-87.61	1001	1	0	6.15	1.91	92.9	5	5 1. OK	
LLARB072	24/07/2018 14:45	41.1	29.7	2	27.2	-7.06	1001	0	0	19.68	1.38	70.8	5	5 1. OK	
LLAWB082	24/07/2018 14:49	62.3	34.7	0.2	2.8	-69.83	1001	0	0	2.05	1.8	97	5	5 1. OK	
LLAWB081	24/07/2018 14:52	0.3	2.6	20.2	76.9	-2.94	1000	3	0	0.95	0.12	2.9	0	0 1. OK	
LLAWB081	24/07/2018 14:54	0.3	1.5	20.4	77.8	-88.39	1000	4	0	1.1	0.2	1.8	0	10 2. Rebalance	
LLAWB081	24/07/2018 14:56	0.1	1	20.8	78.1	-41.64	1000	2	0	0	0.1	1.1	10	0 1. OK	
LLAWB079	24/07/2018 14:59	54.8	27.5	0.4	17.3	-88.21	1000	0	0	15.8	1.99	82.3	10	10 1. OK	
LLAWB116	24/07/2018 15:02	65.8	32.3	0	1.9	-0.09	1000	1	0	1.9	2.04	98.1	0	0 1. OK	
LLAWB116	24/07/2018 15:03	63.4	33.1	0	3.5	-0.62	1000	1	0	3.5	1.92	96.5	0	5 2. Rebalance	
LLAWB116	24/07/2018 15:05	58.2	32.6	0	9.2	-1.12	1000	1	0	9.2	1.79	90.8	5	5 1. OK	
LLAWB120	24/07/2018 15:13	27	28.1	0	44.9	-0.26	1002	0	0	44.9	0.96	55.1	5	5 1. OK	
LLAWB119	24/07/2018 15:15	33	31.1	0.1	35.8	-2.29	1002	2	0	35.42	1.06	64.1	5	5 1. OK	
LLAWB117	24/07/2018 15:18	49.2	37	0	13.8	-2.78	1002	1	0	13.8	1.33	86.2	5	5 1. OK	
LLAWD250	27/07/2018 10:53	60.9	37.5	0	1.6	-79.22	996	1	0	1.6	1.62	98.4	5	5 1. OK	
LLAWD255	27/07/2018 10:55	57.6	38.5	0.4	3.5	-88.07	996	1	0	2	1.5	96.1	10	10 1. OK	
LLAWD258	27/07/2018 10:57	58.5	38	0.2	3.3	-88.6	994	2	0	2.55	1.54	96.5	20	20 1. OK	
LLAWD261	27/07/2018 11:00	57.1	37.5	0.6	4.8	-92.62	995	3	0	2.54	1.52	94.6	20	20 1. OK	
LLAWD306	27/07/2018 11:02	54.5	41.3	0.5	3.7	-67.49	996	3	0	1.82	1.32	95.8	10	10 1. OK	
LLAWD305	27/07/2018 11:06	54.6	41.2	0.4	3.8	-77.36	996	4	0	2.3	1.33	95.8	20	20 1. OK	
LLAWD270	27/07/2018 11:08	15.3	20.5	9.7	54.5	-2.23	997	14	0	18.03	0.75	35.8	0	0 3. Investigation required	
LLAWD283	27/07/2018 11:17	51.9	43.1	0.5	4.5	-72.73	996	20	0	2.62	1.2	95	20	20 1. OK	
LLAWD281	27/07/2018 11:19	51.8	38.9	1.4	7.9	-72.3	997	7	0	2.64	1.33	90.7	10	10 1. OK	
LLAWD304	27/07/2018 11:24	47.4	36.3	2.7	13.6	-28.61	996	4	0	3.45	1.31	83.7	10	15 1. OK	
LLAWD304	27/07/2018 11:26	46.6	36	2.9	14.5	-44.37	996	4	0	3.6	1.29	82.6	15	15 1. OK	
LLAWD293	27/07/2018 11:30	47.9	32.5	2.7	16.9	-36.76	997	4	0	6.75	1.47	80.4	5	5 1. OK	
LLAWD278	27/07/2018 11:32	50.1	36.3	0.3	13.3	-61.05	997	3	0	12.17	1.38	86.4	10	10 1. OK	
LLAWD287	27/07/2018 11:35	49.2	35	1.8	14	-88.55	997	4	0	7.23	1.41	84.2	5	5 1. OK	
LLAWD286	27/07/2018 11:37	52.3	32.9	2.2	12.6	-87.62	997	3	0	4.33	1.59	85.2	10	10 1. OK	
LLAWD279	27/07/2018 11:41	53.1	36.6	1.5	8.8	-65.64	997	3	0	3.16	1.45	89.7	5	1 1. OK	
LLAWD280	27/07/2018 11:43	47.7	31.8	3.5	17	-88.02	997	1	0	3.84	1.5	79.5	5	5 1. OK	
LLAWD254	27/07/2018 11:46	57.6	35.7	0.7	6	-74.48	996	2	0	3.37	1.61	93.3	10	10 1. OK	
LLAWD259	27/07/2018 11:49	55.6	34.8	1.3	8.3	-81.65	996	4	0	3.41	1.6	90.4	10	10 1. OK	
LLAWD256	27/07/2018 12:03	55.3	33.5	1.6	9.6	-86.7	996	2	0	3.58	1.65	88.8	10	10 1. OK	

Asset ID	Reading Taken On	CH4 (%)	CO2 (%)	O2 (%)	Balance Gas (%)	Vacuum (mbar)	Atm Pressure (mbar)	CO (ppm)	H2S (ppm)	Residual N2 (%)	CH4/CO2 ratio (%)	CH4 + CO2 (%)	Original Valve (%)	Depart valve (%)	Comment
LLAWD262	27/07/2018 12:06	59	39.4	0	1.6	6.16	996	3	0	1.6	1.5	98.4	0	5 1. OK	
LLAWD262	27/07/2018 12:08	53	36.8	1.4	8.8	-61.05	996	3	0	3.54	1.44	89.8	5	5 1. OK	
LLAWD264	27/07/2018 12:10	49.5	34.6	2.5	13.4	-88.31	996	3	0	4	1.43	84.1	10	10 1. OK	
LLAWD265	27/07/2018 12:12	56.2	33.8	1.4	8.6	-88.6	996	2	0	3.34	1.66	90	10	10 1. OK	
LLAWD266	27/07/2018 12:15	31	20.5	9.6	38.9	-87.96	996	2	0	2.8	1.51	51.5	10	0 3. Investigation required	
LLAWD266	27/07/2018 12:16	26.9	18.2	11.1	43.8	-70.36	996	1	0	2.06	1.48	45.1	0	0 3. Investigation required	
LLAWD315	27/07/2018 12:19	55.2	36.1	1.2	7.5	-87.76	996	4	0	2.99	1.53	91.3	50	50 1. OK	
LLAWD307	27/07/2018 12:21	56.6	36.9	0.9	5.6	-86.91	995	3	0	2.22	1.53	93.5	20	20 1. OK	
LLAWD308	27/07/2018 13:31	48.3	36.9	0.1	14.7	-3.86	993	3	0	14.32	1.31	85.2	10	15 1. OK	
LLAWD308	27/07/2018 13:33	46.7	37	0.4	15.9	-6.3	993	3	0	14.4	1.26	83.7	15	15 1. OK	
LLAWD309	27/07/2018 13:35	55.5	39.5	0.2	4.8	-33.26	994	5	0	4.05	1.41	95	5	10 1. OK	
LLAWD309	27/07/2018 13:37	55.1	39.6	0.2	5.1	-36.13	994	3	0	4.35	1.39	94.7	15	15 1. OK	
LLAWD234	27/07/2018 13:40	48.4	35.2	0.3	16.1	-27	993	2	0	14.97	1.38	83.6	20	20 1. OK	
LLAWD234	27/07/2018 13:42	48.2	35.7	0.2	15.9	-38.09	993	2	0	15.15	1.35	83.9	25	25 1. OK	
LLAWD237	27/07/2018 13:44	36.8	30.3	1.4	31.5	-67.91	994	2	0	26.24	1.21	67.1	20	20 1. OK	
LLAWD310	27/07/2018 13:46	47.5	34	3.1	15.4	-83.88	994	3	0	3.74	1.4	81.5	20	20 1. OK	
LLAWD311	27/07/2018 13:49	49.7	34	3.2	13.1	-81.87	994	2	0	1.07	1.46	83.7	20	10 1. OK	
LLAWD311	27/07/2018 13:51	53.2	37.8	1.3	7.7	-73.34	994	2	0	2.81	1.41	91	10	10 1. OK	
LLAWD232	27/07/2018 13:53	47.9	34.6	2.3	15.2	-33.45	994	4	0	6.55	1.38	82.5	10	10 1. OK	
LLAWD312	27/07/2018 13:58	51.6	35.9	2	10.5	-84.12	994	3	0	2.98	1.44	87.5	10	10 1. OK	
LLAWD230	27/07/2018 14:00	36	31.7	2.4	29.9	-75.87	994	3	0	20.88	1.14	67.7	50	30 1. OK	
LLAWD230	27/07/2018 14:02	36.5	33	2	28.5	-69.97	994	2	0	20.98	1.11	69.5	30	30 1. OK	
LLAWD231	27/07/2018 14:06	34.8	30.6	0.7	33.9	-43.45	994	7	0	31.27	1.14	65.4	20	20 1. OK	
LLAWD222	27/07/2018 14:08	53.7	38.9	1.2	6.2	-84.83	994	4	0	1.69	1.38	92.6	20	20 1. OK	
LLARD207	27/07/2018 14:11	55.4	37.4	0.9	6.3	-85.78	995	7	0	2.92	1.48	92.8	25	25 1. OK	
LLAWD219	27/07/2018 14:14	46.6	35.8	2.7	14.9	-89.83	995	3	0	4.75	1.3	82.4	10	10 1. OK	
LLAWD211	27/07/2018 14:17	58	40.4	0	1.6	0.33	995	14	0	1.6	1.44	98.4	0	5 1. OK	
LLAWD211	27/07/2018 14:19	51.8	37.3	1.6	9.3	-8.89	995	19	0	3.28	1.39	89.1	5	5 1. OK	
LLAWD210	27/07/2018 14:21	56	38.2	0.5	5.3	-13.08	995	2	0	3.42	1.47	94.2	10	10 1. OK	
LLAWD233	27/07/2018 14:24	58.1	38.8	0	3.1	-86.63	995	2	0	3.1	1.5	96.9	20	20 1. OK	
LLAWD227	27/07/2018 14:27	0	2.1	19.9	78	-15.37	994	0	0	3.18	0	2.1	0	0 3. Investigation required	
LLAWD225	27/07/2018 14:31	56.4	40.5	0.3	2.8	-87.53	995	3	0	1.67	1.39	96.9	20	20 1. OK	
LLAWD297	27/07/2018 14:34	53	38.5	0.2	8.3	-82.08	993	3	0	7.55	1.38	91.5	50	50 1. OK	
LLAWD298	27/07/2018 14:36	54.8	39.7	0.6	4.9	-81.23	994	4	0	2.64	1.38	94.5	20	20 1. OK	
LLAWD299	27/07/2018 14:41	54.3	40.2	0.6	4.9	-69.74	994	4	0	2.64	1.35	94.5	10	10 1. OK	
LLAWD300	27/07/2018 14:43	55.4	39.6	0.7	4.3	-85.26	994	3	0	1.67	1.4	95	20	20 1. OK	
LLAWD301	27/07/2018 14:45	56.6	40.1	0.4	2.9	-49.56	994	4	0	1.4	1.41	96.7	80	80 1. OK	
LLAWD302	27/07/2018 14:50	54.7	41.2	0.3	3.8	-69.88	994	2	0	2.67	1.33	95.9	50	50 1. OK	
LLAWD314	27/07/2018 14:52	52.7	39.5	1.3	6.5	-58.35	994	5	0	1.61	1.33	92.2	20	20 1. OK	
LLAWD313	27/07/2018 14:55	57	41.4	0	1.6	-9.34	994	4	0	1.6	1.38	98.4	20	20 1. OK	
LLAWB115	27/07/2018 15:14	26.3	25.7	1.4	46.6	-43.04	993	3	0	41.34	1.02	52	20	20 1. OK	
LLAWB114	27/07/2018 15:16	39.4	33.9	0	26.7	-8.5	994	2	0	26.7	1.16	73.3	5	5 1. OK	
LLAWB113	27/07/2018 15:19	31.2	30.7	0	38.1	-2.56	994	2	0	38.1	1.02	61.9	5	5 1. OK	
LLAWB112	27/07/2018 15:22	56.1	42.1	0	1.8	-0.28	993	3	0	1.8	1.33	98.2	5	5 1. OK	
LLAWB097	27/07/2018 15:24	7	7.4	17.4	68.2	-8.77	994	1	0	2.78	0.95	14.4	5	0 3. Investigation required	
LLAWB097	27/07/2018 15:27	40.5	33.1	1.3	25.1	-1.09	994	2	0	20.21	1.22	73.6	1	1 1. OK	
LLAWB111	27/07/2018 15:29	48.1	35.9	0.4	15.6	-0.05	994	2	0	14.1	1.34	84	100	100 1. OK	

Asset ID	Reading Taken On	CH4 (%)	CO2 (%)	O2 (%)	Balance Gas (%)	Vacuum (mbar)	Atm Pressure (mbar)	CO (ppm)	H2S (ppm)	Residual N2 (%)	CH4/CO2 ratio (%)	CH4 + CO2 (%)	Original Valve (%)	Depart valve (%)	Comment
LLAWB096	27/07/2018 15:31	44.6	33.5	3.3	18.6	0.12	993	4	0	6.19	1.33	78.1	0	0	3. Investigation required
LLAWB095	27/07/2018 15:42	28	29.2	0	42.8	-0.47	993	2	0	42.8	0.96	57.2	5	5	1. OK
LLAWC146	31/07/2018 09:10	29.4	21.1	3.9	45.6	-5.14	996	1	0	30.94	1.39	50.5	5	5	1. OK
LLAWC147	31/07/2018 09:12	28.6	26.5	0.6	44.3	-45.41	997	0	0	42.04	1.08	55.1	10	10	1. OK
LLAWC148	31/07/2018 09:15	0	1.4	19.5	79.1	-0.24	997	0	0	5.78	0	1.4	0	3	3. Investigation required
LLAWC143	31/07/2018 09:18	33.9	31.2	0.1	34.8	-68.29	997	1	0	34.42	1.09	65.1	10	10	1. OK
LLAWC144	31/07/2018 09:21	43.9	34.4	1.3	20.4	-45.24	997	1	0	15.51	1.28	78.3	10	10	1. OK
LLAWC145	31/07/2018 09:23	38.7	35.6	0	25.7	-10.35	998	3	0	25.7	1.09	74.3	30	30	1. OK
LLAWC141	31/07/2018 09:26	49.6	40.5	0.1	9.8	-1.68	998	2	0	9.42	1.22	90.1	1	1	1. OK
LLAWC142	31/07/2018 09:29	47.8	39.9	0.5	11.8	-3.56	997	2	0	9.92	1.2	87.7	1	1	1. OK
LLAWC140	31/07/2018 09:32	37.2	35.5	0	27.3	-0.24	998	2	0	27.3	1.05	72.7	5	5	1. OK
LLAWC137	31/07/2018 09:34	27.2	28.7	1.4	42.7	-21.35	999	0	0	37.44	0.95	55.9	10	10	1. OK
LLAWC136	31/07/2018 09:37	35	33.5	0.4	31.1	-64.48	999	1	0	29.6	1.04	68.5	10	10	1. OK
LLAWC135	31/07/2018 09:39	14.4	9.9	14.5	61.2	-12.82	999	0	0	6.68	1.45	24.3	0	0	3. Investigation required
LLAWC154	31/07/2018 09:44	14.4	19.3	2.7	63.6	-66.35	1000	0	0	53.45	0.75	33.7	10	5	1. OK
LLAWC154	31/07/2018 09:47	14.3	19.9	2.5	63.3	-46.1	1000	1	0	53.9	0.72	34.2	1	1	1. OK
LLAWC134	31/07/2018 09:54	7.7	10.1	11	71.2	-3.82	1000	0	0	29.84	0.76	17.8	0	0	3. Investigation required
LLAWC152	31/07/2018 09:57	20.1	21.1	5.4	53.4	-48.58	1000	0	0	33.1	0.95	41.2	5	1	1. OK
LLAWC152	31/07/2018 10:00	11.6	11.1	12.2	65.1	-0.1	1000	0	0	19.23	1.05	22.7	0	0	3. Investigation required
LLAWC133	31/07/2018 10:02	35.5	32.1	2.2	30.2	-61.05	1000	1	0	21.93	1.11	67.6	5	1	1. OK
LLAWC133	31/07/2018 10:04	35.9	33.1	2	29	-56.71	1000	1	0	21.48	1.08	69	1	1	1. OK
LLAWC251	31/07/2018 10:06	29.5	29.7	0.8	40	-51.47	1000	1	0	36.99	0.99	59.2	5	5	1. OK
LLAWC250	31/07/2018 10:08	22	24.4	0	53.6	-52.64	1000	0	0	53.6	0.9	46.4	5	5	1. OK
LLAWC132	31/07/2018 10:11	34.9	30.3	0.2	34.6	-74.57	1000	1	0	33.85	1.15	65.2	5	5	1. OK
LLAWC249	31/07/2018 10:13	28.4	28.8	0	42.8	-62.39	1000	1	0	42.8	0.99	57.2	20	20	1. OK

APPENDIX 4

Gas Compound Inputs

Asset ID	Reading Taken On	CH4 (%)	CO2 (%)	O2 (%)	Balance Gas (%)	Vacuum (mbar)	CO (ppm)	H2S (ppm)	Flow (M3 / H)	Engine output (kW)	Comment
Llanddulas GUP	01/05/2018 09:01	43.2	31.9	1.7	23.2	-70.78	3	1	727	800	1. OK
Llanddulas GUP	01/05/2018 15:37	43.7	33.1	1.6	21.6	-89.59	2	0	865	1451	1. OK
Llanddulas GUP	02/05/2018 09:33	45	32	1.5	21.5	-88.14	2	1	803	1364	1. OK
Llanddulas GUP	02/05/2018 16:11	43.4	32	1.5	23.1	-90.61	3	0	815	1380	1. OK
Llanddulas GUP	03/05/2018 08:55	42.5	31.7	1.7	24.1	-89.21	2	1	815	1362	1. OK
Llanddulas GUP	03/05/2018 15:33	43.3	32.3	1.6	22.8	-87.1	2	0	849	1393	1. OK
Llanddulas GUP	11/05/2018 09:40	43.9	31.8	1.7	22.6	-88.83	4	1	852	1428	1. OK
Llanddulas GUP	11/05/2018 16:26	42.8	32.4	1.7	23.1	-89.11	4	0	878	1450	1. OK
Llanddulas GUP	14/05/2018 09:09	42.4	31.3	1.8	24.5	-87.63	4	1	871	1356	1. OK
Llanddulas GUP	14/05/2018 16:02	41	31.4	1.8	25.8	-87.6	5	0	826	1334	1. OK
Llanddulas GUP	16/05/2018 09:07	42.9	31.7	1.7	23.7	-88.24	4	1	827	1303	1. OK
Llanddulas GUP	16/05/2018 17:15	42	30.6	2	25.4	-88.47	4	1	779	1257	1. OK
Llanddulas GUP	18/05/2018 09:07	44.3	31.1	1.9	22.7	-88.93	4	1	803	1270	1. OK
Llanddulas GUP	18/05/2018 16:18	44.1	30.6	1.6	23.7	-87.46	12	22	817	1402	1. OK
Llanddulas GUP	22/05/2018 09:10	43.3	31.3	1.9	23.5	-87.98	2	2	789	1281	1. OK
Llanddulas GUP	22/05/2018 15:20	43.5	31.7	1.9	22.9	-87.36	4	1	718	1167	1. OK
Llanddulas GUP	25/05/2018 10:24	45.2	31.8	1.8	21.2	-88.78	3	2	759	1270	1. OK
Llanddulas GUP	25/05/2018 15:23	44.7	31.8	1.9	21.6	-89.02	7	10	779	1310	1. OK
Llanddulas GUP	31/05/2018 09:54	45.2	33	1.5	20.3	-87.54	2	0	789	1328	1. OK
Llanddulas GUP	31/05/2018 15:18	44.4	32.2	1.7	21.7	-88.44	3	0	788	1313	1. OK
Llanddulas GUP	13/06/2018 08:32	42.9	31.9	2.2	23	-89.86	3	0	847	1368	1. OK
Llanddulas GUP	13/06/2018 16:08	43.9	31.6	1.6	22.9	-89.78	2	0	909	1508	1. OK
Llanddulas GUP	14/06/2018 12:25	44.5	31.5	1.5	22.5	-86.63	3	0	892	1504	1. OK
Llanddulas GUP	14/06/2018 16:28	43.2	31.4	1.7	23.7	-88.61	3	0	846	1408	1. OK
Llanddulas GUP	15/06/2018 14:12	41.1	31.5	1.7	25.7	-88.26	3	1	880	1400	1. OK
Llanddulas GUP	15/06/2018 15:48	42.3	32.5	1.4	23.8	-70.52	2	0	950	800	1. OK
Llanddulas GUP	22/06/2018 11:23	40.6	29.6	1.8	28	-88.22	0	0	840	1250	1. OK
Llanddulas GUP	22/06/2018 14:57	41	32	1.3	25.7	-90.4	0	0	915	1440	1. OK
Llanddulas GUP	28/06/2018 09:18	38.8	32.2	1.5	27.5	-88.36	10	2	920	1300	1. OK
Llanddulas GUP	10/07/2018 08:32	39.1	30.3	1.8	28.8	-90.33	4	0	950	1300	1. OK
Llanddulas GUP	10/07/2018 16:31	39.5	30.7	1.5	28.3	-88.76	6	0	955	1350	1. OK
Llanddulas GUP	13/07/2018 10:03	38.7	30.4	1.7	29.2	-68.75	4	0	790	1100	1. OK
Llanddulas GUP	13/07/2018 16:41	38.7	30.5	1.6	29.2	-88.9	7	0	970	1350	1. OK
Llanddulas GUP	24/07/2018 09:03	38.3	30.7	1.7	29.3	-88.73	2	0	911	1333	1. OK
Llanddulas GUP	24/07/2018 15:48	38.6	31.3	1.8	28.3	-90.4	2	0	907	1358	1. OK
Llanddulas GUP	27/07/2018 10:42	39.3	31.2	1.6	27.9	-89.69	2	0	910	1330	1. OK
Llanddulas GUP	27/07/2018 15:58	39.3	31.9	1.3	27.5	-89.82	4	0	951	1400	1. OK

APPENDIX 5

Emissions/Ambient Air Monitoring

FID SURVEY		
LLANDDULAS, ABERGELE, LL22 8HP		

Date	Time On	Time Off
18/05/2018	07:00	09:30

Personnel	Equipment Type	Equipment Serial No.	Equipment Last Calibration
O Jarratt	Gas-Tec FID	10365 2618	08/01/2018

Equipment Calibration Due	Weather	Temperature °C	Wind Direction & Speed
08/07/2018	Sunny	12	NNW - 6 mph

Location reading taken	Reading (ppm)	Comment
Landfill Perimeter (North, East & South)		
Borehole 41	0	
Borehole 40	0	
Borehole 42	0	
Between B42 and N Gates	0	
Northern Perimeter Gate	0	
Borehole 1	0	
Borehole 3	0	
Borehole 5	0	
Borehole 7	0	
Borehole 09	0	
Borehole 11	0	
Borehole 13	0	
Borehole 15	0	
Borehole 17	0	
Borehole 19	0	
Borehole 21	0	
Borehole 23	0	
Borehole 25	0	
Borehole 27	0	
Borehole 29	0	
Borehole 31	0	
East Perimeter Gates	0	
Borehole 33	3	Source landfill, waste odour
Borehole 34	3	Source landfill, waste odour
Borehole 36	3	Source landfill, waste odour
Groundwater Borehole 6R	3	Source landfill, waste odour
Borehole 39	3	Source landfill, waste odour
Borehole 48	3	Source landfill, waste odour
Groundwater Borehole 36	3	Source landfill, waste odour
Borehole 50	3	Source landfill, waste odour
Borehole 52	3	Source landfill, waste odour
Borehole 54	3	Source landfill, waste odour
Borehole 56	4	Source compost pad, compost odour
Borehole 57	4	Source compost pad, compost odour
Groundwater Borehole 35	4	Source compost pad, compost odour
Groundwater Borehole 34	0	
Area between tip and compost pad		
Tip entrance	0	
Haul road to tip from comp area	0	
New compost area entrance	2	Source compost pad, compost odour
Location reading taken	Reading (ppm)	Comment

Compost Pad		
N end of compost pad	2	Source compost pad, compost odour
Compost pad entrance	2	Source compost pad, compost odour
Eastern flank of compost pad	2	Source compost pad, compost odour
SE flank of compost pad	5	Source compost pad, compost odour
SE corner of compost pad	5	Source compost pad, compost odour
Southern perimeter of pad	5	Source compost pad, compost odour
SW corner of compost pad	5	Source compost pad, compost odour
W flank of compost pad	3	Source compost pad, compost odour
NW corner of compost pad	2	Source compost pad, compost odour
Landfill Perimeter (West)		
Above redundant leachate tank	0	Old tank number 1
Borehole 124	5	Source compost pad, compost odour
Borehole 122	0	
Groundwater Borehole 33	0	
Borehole 121	0	
Borehole 120	0	
Borehole 118	0	
Borehole 116	0	
Borehole 114	0	
Borehole 112	0	
Groundwater Borehole 1	0	
Borehole 110	0	
Borehole 108	0	
Borehole 106	0	
Borehole 104	0	
Borehole 102	0	
Borehole 100	0	
Groundwater Borehole 32	0	Above gas utilisation compound
Track leading to perimeter fence	0	

FID SURVEY		
LLANDDULAS, ABERGELE, LL22 8HP		

Date	Time On	Time Off
28/06/2018	11:00	14:00

Personnel	Equipment Type	Equipment Serial No.	Equipment Last Calibration
J Crawford	Gas-Tec FID	10365 2618	08/01/2018

Equipment Calibration Due	Weather	Temperature °C	Wind Direction & Speed
08/07/2018	Sunny	28	NNW - 7 mph

Location reading taken	Reading (ppm)	Comment
Landfill Perimeter (North, East & South)		
Borehole 41	0	
Borehole 40	0	
Borehole 42	0	
Between B42 and N Gates	0	
Northern Perimeter Gate	0	
Borehole 1	0	
Borehole 3	0	
Borehole 5	0	
Borehole 7	0	
Borehole 09	0	
Borehole 11	0	
Borehole 13	0	
Borehole 15	0	
Borehole 17	0	
Borehole 19	0	
Borehole 21	0	
Borehole 23	0	
Borehole 25	0	
Borehole 27	0	
Borehole 29	0	
Borehole 31	0	
East Perimeter Gates	0	
Borehole 33	1	Source landfill, waste odour
Borehole 34	8	Source landfill, waste/compost odour
Borehole 36	2	Source landfill, waste odour
Groundwater Borehole 6R	0	
Borehole 39	1	Source landfill, waste odour
Borehole 48	0	
Groundwater Borehole 36	0	
Borehole 50	0	
Borehole 52	1	Source landfill, waste odour
Borehole 54	0	
Borehole 56	1	Source compost pad, compost odour
Borehole 57	2	Source compost pad, compost odour
Groundwater Borehole 35	1	Source compost pad, compost odour
Groundwater Borehole 34	0	
Area between tip and compost pad		
Tip entrance	0	
Haul road to tip from comp area	0	
New compost area entrance	1	Source compost pad, compost odour
Location reading taken	Reading (ppm)	Comment

Compost Pad		
N end of compost pad	0	
Compost pad entrance	2	Source compost pad, compost odour
Eastern flank of compost pad	0	
SE flank of compost pad	8	Source compost pad, compost odour
SE corner of compost pad	9	Source compost pad, compost odour
Southern perimeter of pad	4	Source compost pad, compost odour
SW corner of compost pad	6	Source compost pad, compost odour
W flank of compost pad	0	
NW corner of compost pad	0	
Landfill Perimeter (West)		
Above redundant leachate tank	0	Old tank number 1
Borehole 124	0	
Borehole 122	0	
Groundwater Borehole 33	0	
Borehole 121	0	
Borehole 120	0	
Borehole 118	0	
Borehole 116	0	
Borehole 114	0	
Borehole 112	0	
Groundwater Borehole 1	0	
Borehole 110	0	
Borehole 108	0	
Borehole 106	0	
Borehole 104	0	
Borehole 102	0	
Borehole 100	0	
Groundwater Borehole 32	0	Above gas utilisation compound
Track leading to perimeter fence	0	

FID SURVEY		
LLANDDULAS, ABERGELE, LL22 8HP		

Date	Time On	Time Off
31/07/2018	10:30	14:00

Personnel	Equipment Type	Equipment Serial No.	Equipment Last Calibration
J Crawford	Gas-Tec FID	8132	17/05/2018

Equipment Calibration Due	Weather	Temperature °C	Wind Direction & Speed
17/11/2018	1013mb	18 to 20	SW - 8 mph

Location reading taken	Reading (ppm)	Comment
Landfill Perimeter (North, East & South)		
Borehole 41	0	
Borehole 40	0	
Borehole 42	0	
Between B42 and N Gates	0	
Northern Perimeter Gate	0	
Borehole 1	0	
Borehole 3	0	
Borehole 5	0	
Borehole 7	0	
Borehole 09	0	
Borehole 11	0	
Borehole 13	0	
Borehole 15	0	
Borehole 17	0	
Borehole 19	0	
Borehole 21	0	
Borehole 23	0	
Borehole 25	0	
Borehole 27	0	
Borehole 29	0	
Borehole 31	0	
East Perimeter Gates	0	
Borehole 33	0	
Borehole 34	0	
Borehole 36	0	
Groundwater Borehole 6R	0	
Borehole 39	0	
Borehole 48	0	
Groundwater Borehole 36	0	
Borehole 50	0	
Borehole 52	0	
Borehole 54	0	
Borehole 56	0	
Borehole 57	0	
Groundwater Borehole 35	0	
Groundwater Borehole 34	0	
Area between tip and compost pad		
Tip entrance	0	
Haul road to tip from comp area	0	
New compost area entrance	0	
Location reading taken	Reading (ppm)	Comment

Compost Pad		
N end of compost pad	1	Generally from compost - compost odour
Compost pad entrance	0	
Eastern flank of compost pad	0	
SE flank of compost pad	0	
SE corner of compost pad	0	
Southern perimeter of pad	1	Generally from compost - compost odour
SW corner of compost pad	1	Generally from compost - compost odour
W flank of compost pad	0	
NW corner of compost pad	1	Generally from compost - compost odour
Landfill Perimeter (West)		
Above redundant leachate tank	0	Old tank number 1
Borehole 124	0	
Borehole 122	0	Compost odour
Groundwater Borehole 33	0	Compost odour
Borehole 121	3	Generally from borehole
Borehole 120	4	Generally from borehole
Borehole 118	5	Generally from borehole
Borehole 116	0	
Borehole 114	1	Generally from borehole
Borehole 112	0	
Groundwater Borehole 1	0	
Borehole 110	0	
Borehole 108	0	
Borehole 106	0	
Borehole 104	0	
Borehole 102	0	
Borehole 100	0	
Groundwater Borehole 32	0	Above gas utilisation compound
Track leading to perimeter fence	0	

JEROME SURVEY		
LLANDDULAS, ABERGELE, LL22 8HP		

Date	Time On	Time Off
July	09:00	14:00

Personnel	Equipment Type	Equipment Serial No.	Equipment Last Calibration
J Crawford	Jerome	613 - 2404	09/04/2018

Equipment Calibration Due	Weather	Temperature °C	Wind Direction & Speed
09/04/2019	Cloudy/dry	18	NW - 9mph

Location reading taken	Reading (ppb)	Comment
Landfill Perimeter (North, East & South)		
Borehole 41	0	
Borehole 40	0	
Borehole 42	0	
Between B42 and N Gates	0	
Northern Perimeter Gate	0	
Borehole 1	0	
Borehole 3	0	
Borehole 5	0	
Borehole 7	0	
Borehole 09	0	
Borehole 11	0	
Borehole 13	0	
Borehole 15	0	
Borehole 17	0	
Borehole 19	0	
Borehole 21	0	
Borehole 23	0	
Borehole 25	0	
Borehole 27	0	
Borehole 29	0	
Borehole 31	0	
East Perimeter Gates	0	
Borehole 33	0	
Borehole 34	0	
Borehole 36	0	
Groundwater Borehole 6R	0	
Borehole 39	0	
Borehole 48	0	
Groundwater Borehole 36	0	
Borehole 50	0	
Borehole 52	0	
Borehole 54	0	
Borehole 56	0	
Borehole 57	0	
Groundwater Borehole 35	0	
Groundwater Borehole 34	0	

Area between tip and compost pad		
Tip entrance	0	
Haul road to tip from comp area	0	
New compost area entrance	0	
Location reading taken	Reading (ppb)	Comment
Compost Pad		
N end of compost pad	0	
Compost pad entrance	0	
SE flank of compost pad	0	
SE corner of compost pad	0	
Southern perimeter of pad	1	
SW corner of compost pad	1	
W flank of compost pad	0	
NW corner of compost pad	0	
Landfill Perimeter (West)		
Above redundant leachate tank	0	Old tank number 1
Borehole 124	0	
Borehole 122	0	
Groundwater Borehole 33	0	
Borehole 121	0	
Borehole 120	0	
Borehole 118	0	
Borehole 116	0	
Borehole 114	0	
Borehole 112	0	
Groundwater Borehole 1	0	
Borehole 110	0	
Borehole 108	0	
Borehole 106	0	
Borehole 104	0	
Borehole 102	0	
Borehole 100	0	
Groundwater Borehole 32	0	Above gas utilisation compound
Track leading to perimeter fence	0	

	2017											2018						FCC Comments		
	Reporting Quarter			Reporting Quarter			Reporting Quarter			Reporting Quarter			Reporting Quarter			Reporting Quarter				
Well/Phase	Feb	March	April	May	June	July	August	September	October	November	December	January	Feb	March	April	May	June	July		
D225						2800														
D232												20000				20000				
D254																	2680			
D258					2500		20000	20000	17800											
D259														5690		20000		8400	Reading from top of well and Geo-Boot	
D261		14800	19140	7000	1,700	2770	10050	4140												
D262		18000	18900	12800	10700		6220			4300										
D264								3300												
D265															1600					
D266					8970	7100		4800		1880							1133			
D270										1043										
D279												20000								
D281	5,000	5300			4000	5080	20000	15800	20000					20000		20000	4250			
D297		4400		8550	4800	20000		2200												
D298			14890	9,320	1200			20000						2865	6000					
D299				2,000	20000									2418				7890	Reading from Top of Well and Boot seal	
D300			20,000		20000	20000	8296	4940	6330											
D301		4500	20,000		20000	20000	2580										20000			
D302					14800			15640				5058								
D303				1,900	14000	14860	4200	8600	13080						17000		1006			
D304					8900	2981			20000						2000	20000				
D305		10330		15,000			20000	1140								20000				
D306					2100	3200	2400								3000	4000				
D307					1330			3182												
D309																				
D310															5000	20000				
D311								18065				4010			14000					
D313												20000								
D314						1200		15050						20000	2000		2300			
WC144															10000	4000				
LCP3A					4100										1500		12605			
LC2BR									20000					20000	20000					
LC2BR2																	2708			
LC2AR2															2000		4469			
LC2CR								12900		4400					2000					
LC3															20000					
LMP3/2																	20000			
LMP5																	20000			
Sump 450 Side)															4500					
Fault Sump	5000																			
Tot Breaches	2	6	5	7	16	11	9	15	6	4	1	5	Missed	6	16	8	11			

</=1000ppm
1001 to 5000ppm
5001 to 10000ppm
10001ppm+

APPENDIX 6

Leachate Level Data

LLANDDULAS

Leachate Levels

Llanddulas - Leachate Level Report - May to July 2018 inclusive

From : 21/05/2018

To : 31/07/2018



Sample Point & Date	Depth of Liquid (m)	Dip to Water (m)	Leachate Field Head (m)	Leachate Head (m)	Total Depth (m)	Water Level (mAOD)
LCP2Ar2 21/05/2018	0.60	45.05	0.61		45.66	89.10
25/06/2018	0.50	45.15	0.51		45.66	89.00
31/07/2018	1.21	44.44	1.22		45.66	89.71
LCP2Br2 21/05/2018	-2.60	53.01	1.35		54.36	84.70
25/06/2018	-3.44	53.85	0.51		54.36	83.86
31/07/2018	-1.99	52.4	1.96		54.36	85.31
LCP2Cr 21/05/2018	-0.06	50.07	1.94		52.01	85.89
25/06/2018	-0.07	50.08	1.93		52.01	85.88
31/07/2018	-0.08	50.09	1.92		52.01	85.87
LCP3 21/05/2018	2.28	22.23	1.92		24.15	99.09
25/06/2018	2.19	22.32	1.83		24.15	99.00
31/07/2018	2.20	22.31	1.84		24.15	99.01
LCP3A 21/05/2018	-1.58	49.3	0.6	-1.58	49.9	88.34
25/06/2018	-1.08	48.8	1.1	-1.08	49.9	88.84
31/07/2018	-0.66	48.38	1.52	-0.66	49.9	89.26
LLALCP1AR 21/05/2018	0.92	23.77	0.66		24.43	99.37
25/06/2018	0.92	23.77	0.66		24.43	99.37
31/07/2018	0.92	23.77	0.66		24.43	99.37
LLALCP1C 21/05/2018	0.37	42.08	0.56		42.64	89.61
25/06/2018	0.37	42.08	0.56		42.64	89.61
31/07/2018	0.38	42.07	0.57		42.64	89.62
LLALMP01 21/05/2018	1.05	19.17	0.43		19.6	99.65
25/06/2018	1.04	19.18	0.42		19.6	99.64
31/07/2018	1.04	19.18	0.42		19.6	99.64
LLALMP02 21/05/2018	0.14	29.01	0.61		29.62	101.20
25/06/2018	0.14	29.01	0.61		29.62	101.20
31/07/2018	0.14	29.01	0.61		29.62	101.20
LLALMP03 21/05/2018	0.99	36.36	0.61		36.97	96.59
25/06/2018	0.99	36.36	0.61		36.97	96.59

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LLANDDULAS

Leachate Levels

Llanddulas - Leachate Level Report - May to July 2018 inclusive

From : 21/05/2018

To : 31/07/2018



		Depth of Liquid (m)	Dip to Water (m)	Leachate Field Head (m)	Leachate Head (m)	Total Depth (m)	Water Level (mAOD)
LLALMP03	31/07/2018	0.99	36.36	0.61		36.97	96.59
LLALMP04	21/05/2018	1.09	41.4	1.22		42.62	96.36
	25/06/2018	1.09	41.4	1.22		42.62	96.36
	31/07/2018	1.27	41.22	1.4		42.62	96.54
LLALMP05	21/05/2018	-1.00	45.68	1.02		46.7	94.60
	25/06/2018	-1.00	45.68	1.02		46.7	94.60
	31/07/2018	-0.75	45.43	1.27		46.7	94.85
LLALMP3/1	21/05/2018	0.97	25.13	0.41		25.54	99.20
	25/06/2018	0.97	25.13	0.41		25.54	99.20
	31/07/2018	1.20	24.9	0.64		25.54	99.43
LLALMP3/2	21/05/2018	0.36	40.4	0.31		40.71	90.36
	25/06/2018	0.86	39.9	0.81		40.71	90.86
	31/07/2018	1.39	39.37	1.34		40.71	91.39

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APPENDIX 7

Leachate Quality Data

LLANDDULAS

Leachate Quality

Llanddulas - Leachate Quality - May to July 2018 inclusive

From : 26/07/2018

To : 26/07/2018



Sample Point & Date	Alkalinity (CaCO3:mg/l)	Ammoniacal Nitrogen (N:mg/l)	BOD (mg/l)	Calcium (Diss) (mg/l)	Chloride (mg/l)	COD (mg/l)	Conductivity (Field) (uS / cm)
LCP1C 26/07/2018	5960	1200	63.5	64	3070	1600	
LCP2AR 26/07/2018	8410	1040	123.0	68	2270	2960	Or
LCP2BR 26/07/2018	11500	1480	264.6	48	2860	5160	Or
LCP2C1 26/07/2018	12500	1730	456.5	38	3140	5310	Or
LCP3 26/07/2018	9310	1130	144.4	52	1670	3320	Or
LCP3A 26/07/2018	14100	1900	3406.2	56	2250	8730	Or
LLALCP1C 26/07/2018	5960	1200	63.5	64	3070	1600	18070
Sample Point & Date	Conductivity (uS / cm)	Lead (Diss) (mg/l)	Magnesium (Diss) (mg/l)	MCP (Mecoprop) (UG/L)	Mercury (mg/l)	pH (Field)	pH (Lab)
LCP1C 26/07/2018		<0.01	57	69.2	<0.00005		
LCP2AR 26/07/2018	22900	<0.01	68	61.3	<0.00005	7.7	7.9
LCP2BR 26/07/2018	28700	<0.01	58	97.8	<0.00005	7.8	8
LCP2C1 26/07/2018	30500	<0.01	59	94.8	<0.00005	8	7.9
LCP3 26/07/2018	21700	<0.01	48	56.3	<0.00005	7.8	7.7
LCP3A 26/07/2018	31200	<0.01	73	110	<0.00005	7.9	7.9
LLALCP1C 26/07/2018	19000	<0.01	57	69.2	<0.00005	8	7.8
Sample Point & Date	Potassium (Diss) (mg/l)	Sodium (Diss) (mg/l)	Total Organic Carbon (mg/l)	Total Oxidised Nitrogen (mg/l)	Total Sulphur (Diss) (SO4:mg/l)		
LCP1C 26/07/2018	742	2480	540	<0.2	75		
LCP2AR 26/07/2018	901	2610	1000	<2.0	229		
LCP2BR 26/07/2018	1120	3270	1800	<2.0	215		
LCP2C1 26/07/2018	1000	2800	1900	<2.0	159		
LCP3 26/07/2018	834	1860	1200	<2.0	131		
LCP3A 26/07/2018	1170	2730	3400	65.9	245		
LLALCP1C 26/07/2018	742	2480	540	<0.2	75		

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APPENDIX 8

Groundwater Quality Data

LLANDDULAS

Groundwater Levels

Llanddulas - Groundwater Level Report - May to July 2018 inclusive



From : 31/05/2018

To : 18/07/2018

Sample Point & Date	Dip to Water (m)	Total Depth (m)	Water Level (mAOD)
GWBH01	19/06/2018	98.67	98.67
	12/07/2018	97.22	44.67
GWBH02	19/06/2018	68.22	100.94
	12/07/2018	68.92	100.1
GWBH04	11/07/2018	18.75	30.82
GWBH06R	31/05/2018	98.38	100.08
	19/06/2018	98.91	99.85
	12/07/2018		99.85
GWBH07	11/07/2018	8.16	25.88
GWBH22	11/07/2018	8.91	35.7
GWBH23	11/07/2018	0	26.2
GWBH24	11/07/2018	4.09	18.07
GWBH25	11/07/2018		42.18
GWBH26B	31/05/2018	48.56	49.96
	19/06/2018	48.92	49.95
	11/07/2018		49.96
GWBH27B	11/07/2018	16.49	31.04
GWBH28	11/07/2018	33.2	44.96
GWBH32	19/06/2018	98.05	108.51
	12/07/2018	128.38	128.92
	18/07/2018	98.89	108.51
GWBH33	19/06/2018	109.42	133.3
	18/07/2018	111.1	132.18
GWBH34	19/06/2018	129.86	138.65
	12/07/2018	129.78	138.78
GWBH35	19/06/2018	127.61	127.61
GWBH36	31/05/2018	93.08	120.16
	19/06/2018	93.08	120.16
	18/07/2018	102.89	120.16

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LLANDDULAS

Groundwater Quality

Llanddulas - Groundwater Quality Report - May to July 2018 inclusive



From : 19/06/2018

To : 18/07/2018

Sample Point & Date	Alkalinity (CaCO ₃ :mg/l)	Ammoniacal Nitrogen (N:mg/l)	Cadmium (Diss) (mg/l)	Calcium (Diss) (mg/l)	CH ₄ (Diss) (mg/l)	Chloride (mg/l)	Chromium (Diss) (mg/l)
GW032 18/07/2018	422	0.3	<0.0001	156	<0.02	39	<0.001
GW033 18/07/2018	242	0.03	<0.0001	117	<0.02	33	<0.001
GW036 18/07/2018	337	0.08	<0.0001	190	<0.02	67	<0.001
GWBH02 19/06/2018	169	0.02	<0.0001	88	<0.02	18	0.001
12/07/2018	155	0.02	<0.0001	74	<0.02	14	<0.001
GWBH04 11/07/2018	201	3.6	<0.0001	98	0.26	27	<0.001
GWBH07 11/07/2018	190	0.03	<0.0001	85	<0.02	95	<0.001
GWBH22 11/07/2018	271	1.3	<0.0001	127	<0.02	76	<0.001
GWBH23 11/07/2018	296	0.11	<0.0001	150	<0.02	76	<0.001
GWBH24 11/07/2018	256	0.1	<0.0001	130	<0.02	119	<0.001
GWBH27B 11/07/2018	351	0.16	<0.0001	164	<0.02	32	<0.001
GWBH28 11/07/2018	225	0.02	<0.0001	117	<0.02	36	<0.001
GWBH32 19/06/2018	345	0.04	<0.0001	137	<0.02	36	<0.001
GWBH33 19/06/2018	246	0.01	<0.0001	122	<0.02	25	0.001
GWBH34 19/06/2018		0.6				22	
11/07/2018			<0.0001	178	<0.02	21	<0.001
12/07/2018	311	0.05		178			<0.001

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LLANDDULAS

Groundwater Quality

Llanddulas - Groundwater Quality Report - May to July 2018 inclusive



From : 19/06/2018

To : 18/07/2018

Sample Point & Date	Conductivity (Field) (uS / cm)	Conductivity (uS / cm)	Copper (Diss) (mg/l)	Cresols (mg/l)	Dimethylphenols (mg/l) (mg/l)	Iron (Diss) (mg/l)	Lead (Diss) (mg/l)
GW032 18/07/2018		821	0.002	<0.0005	<0.0005	0.21	
GW033 18/07/2018		548	<0.001	<0.0005	<0.0005	0.15	
GW036 18/07/2018		937	0.003	<0.0005	<0.0005	0.2	<0.001
GWBH02 19/06/2018	489	448	0.002	<0.0005	<0.0005	0.12	
12/07/2018	543		0.001	<0.0005	<0.0005	0.2	<0.001
GWBH04 11/07/2018	619		0.008	<0.0005	<0.0005	0.21	<0.001
GWBH07 11/07/2018	656		0.002	<0.0005	<0.0005	0.13	<0.001
GWBH22 11/07/2018	807		<0.001	<0.0005	<0.0005	0.29	<0.001
GWBH23 11/07/2018	932		<0.001	<0.0005	<0.0005	0.19	<0.001
GWBH24 11/07/2018	996		<0.001	<0.0005	<0.0005	0.22	<0.001
GWBH27B 11/07/2018	799		<0.001	<0.0005	<0.0005	0.2	<0.001
GWBH28 11/07/2018	611		<0.001	<0.0005	<0.0005	0.18	<0.001
GWBH32 19/06/2018	889	792	<0.001	<0.0005	<0.0005	0.19	
18/07/2018	945						
GWBH33 19/06/2018	616	588	0.002	<0.0005	<0.0005	0.18	
18/07/2018	727						
GWBH34 19/06/2018	833	828		<0.0005	<0.0005		
11/07/2018			0.003	<0.0005	<0.0005	0.24	<0.001
12/07/2018	877		0.003	<0.0005	<0.0005	0.24	<0.001
GWBH36 18/07/2018	1088						

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LLANDDULAS

Groundwater Quality

Llanddulas - Groundwater Quality Report - May to July 2018 inclusive



From : 19/06/2018

To : 18/07/2018

Sample Point & Date	Magnesium (Diss) (mg/l)	Manganese (Diss) (mg/l)	MCP (Mecoprop) (UG/L)	Mercury (mg/l)	Nickel (Diss) (mg/l)	pH (Field)	pH (Lab)
GW032 18/07/2018	22	0.343	< 0.02	<0.0001	0.002		7.2
GW033 18/07/2018	5	<0.002	< 0.02	<0.0001	<0.001		7.5
GW036 18/07/2018	12	0.01	< 0.02	<0.0001	0.003		7.4
GWBH02 19/06/2018	4	<0.002	<0.02	<0.0001	0.001	8.5	7.8
12/07/2018	5	<0.002	<0.02	<0.000005	0.002	7.8	
GWBH04 11/07/2018	6	0.064	<0.02	0.00003	<0.001	8.1	
GWBH07 11/07/2018	14	<0.002	<0.02	<0.000005	<0.001	8.8	
GWBH22 11/07/2018	9	2.849	<0.02	0.000006	0.001	7.8	
GWBH23 11/07/2018	16	0.604	<0.02	<0.000005	<0.001	7.6	
GWBH24 11/07/2018	16	0.003	<0.02	<0.000005	<0.001	8.3	
GWBH27B 11/07/2018	9	<0.002	<0.02	<0.000005	<0.001	7.7	
GWBH28 11/07/2018	5	<0.002	<0.02	<0.000005	<0.001	7.9	
GWBH32 19/06/2018	19	0.139	<0.02	<0.0001	0.002	7.9	7.5
18/07/2018						7.5	
GWBH33 19/06/2018	4	<0.002	<0.02	<0.0001	0.001	8.5	7.5
18/07/2018						8.7	
GWBH34 19/06/2018			<0.02	<0.0001		8	7.3
11/07/2018	7	<0.002	<0.02		0.001		
12/07/2018	7	<0.002		<0.000005	0.001	7.6	
GWBH36 18/07/2018						8.6	

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Groundwater Quality

Llanddulas - Groundwater Quality Report - May to July 2018 inclusive



From : 19/06/2018

To : 18/07/2018

Sample Point & Date	Phenol (mg/l)	Potassium (Diss) (mg/l)	Sodium (Diss) (mg/l)	Total Organic Carbon (mg/l)	Total Oxidised Nitrogen (mg/l)	Total Sulphur (Diss) (SO4:mg/l)	Tributyl Tin (mg/l)
GW032 18/07/2018	<0.0005	3	24	3.5	<0.2	11	<0.00004
GW033 18/07/2018	<0.0005	2	19	0.43	4.2	15	<0.00002
GW036 18/07/2018	<0.0005	9	27	2.8	21.4	41	<0.00002
GWBH02 19/06/2018	<0.0005	2	10	0.77	3.0	13	<20
12/07/2018	<0.0005	2	9	0.7	1.6	15	<0.00002
GWBH04 11/07/2018	<0.0005	9	15	18	0.4	26	<0.00002
GWBH07 11/07/2018	<0.0005	5	58	2.5	<0.2	34	<0.00002
GWBH22 11/07/2018	<0.0005	5	55	2.9	<0.2	40	<0.00004
GWBH23 11/07/2018	<0.0005	2	48	0.27	<0.2	73	<0.00002
GWBH24 11/07/2018	<0.0005	4	78	1	5.7	34	<0.00002
GWBH27B 11/07/2018	0.0014	3	22	0.52	4.1	18	<0.00002
GWBH28 11/07/2018	<0.0005	<1	22	0.25	2.8	23	<0.00002
GWBH32 19/06/2018	<0.0005	3	33	1.4	<0.2	13	<20
GWBH33 19/06/2018	<0.0005	3	15	0.73	5.0	15	<20
GWBH34 19/06/2018	<0.0005	4					<20
11/07/2018		4			15.8		<0.00002
12/07/2018	<0.0005	4	14	2		21	

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Sample Point & Date	Trifluralin (ng/l)	Trimethylphenols (mg/l)	Zinc (Diss) (mg/l)
GW032 18/07/2018	<20	0.0028	<0.002
GW033 18/07/2018	<20	<0.0005	0.01
GW036 18/07/2018	<20	<0.0005	<0.002
GWBH02 19/06/2018	< 0.06	<0.0005	0.008
12/07/2018	<20	<0.0005	0.009
GWBH04 11/07/2018	<20	<0.0005	0.046
GWBH07 11/07/2018	<20	<0.0005	0.006
GWBH22 11/07/2018	<20	<0.0005	0.004
GWBH23 11/07/2018	<20	<0.0005	0.003
GWBH24 11/07/2018	<20	<0.0005	<0.002
GWBH27B 11/07/2018	<20	<0.0005	0.005
GWBH28 11/07/2018	<20	<0.0005	0.006
GWBH32 19/06/2018	< 0.06	<0.0005	0.006
GWBH33 19/06/2018	< 0.06	<0.0005	0.007
GWBH34 19/06/2018	< 0.06	<0.0005	
11/07/2018	<200		0.006
12/07/2018		<0.0005	0.006

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APPENDIX 9

Surface Water Quality Data

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Surface Water Quality

Llanddulas - Surface Water Quality Report - May to July 2018 inclusive



From : 10/05/2018

To : 31/07/2018

Sample Point & Date	Ammoniacal Nitrogen (N:mg/l)	BOD (mg/l)	Chloride (mg/l)	COD (mg/l)	Conductivity (Field) (uS / cm)	Conductivity (uS / cm)	Lead (Diss) (mg/l)
LLA000W1	10/05/2018	0.08					
	13/06/2018	0.06				618	
	27/07/2018	0.17				520	
LLADOWNSTREA M	10/05/2018	0.04	107			300	
	13/06/2018	0.03	27		375	367	
	20/07/2018	0.19	38	10	505		<0.001
LLASPRING	10/05/2018	0.02	59.4		813	813	<0.001
	18/05/2018	<0.015	59.6		795		
	23/05/2018				967	967	
	31/05/2018	<0.015	53.1		972		
	07/06/2018	<0.015	56.4		785		
	13/06/2018	<0.01	59		811	792	<0.001
	19/06/2018	<0.015	57.9		799		
	27/06/2018	<0.015	57.6		782		
	03/07/2018	<0.015	54.5		843		
	12/07/2018	<0.015	52.2		776		
	20/07/2018	0.02	52		768	705	<0.001
	26/07/2018	<0.015	57		725		
LLAUPSTREAM	31/07/2018	<0.015	51.9		761		
	10/05/2018	0.04	27			306	
	13/06/2018	0.03	28		345	332	
	20/07/2018	0.2	36	10	465		<0.001

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Surface Water Quality

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From : 10/05/2018

To : 31/07/2018

Sample Point & Date	MCP (Mecoprop) (UG/L)	Mercury (mg/l)	pH (Field)	pH (Lab)	Suspended Solids (mg/l)
LLA000W1					
10/05/2018				8	16
13/06/2018				7.6	<5
27/07/2018				7.9	13
LLADOWNSTREA M					
10/05/2018				7.4	
13/06/2018			8.9	7.5	
20/07/2018	<0.02	<0.0001	8.9		
LLASPRING					
10/05/2018	<0.02	<0.000005	8.3	7.4	
18/05/2018			8.4		
23/05/2018			8.7		
31/05/2018			8.6		
07/06/2018			8.4		
13/06/2018	< 0.02	<0.000005	8.5	7.2	
19/06/2018			8.4		
27/06/2018			8.3		
03/07/2018			8.1		
12/07/2018			8.2		
20/07/2018	<0.02		8.5	7.5	
26/07/2018			8.7		
31/07/2018			8.5		
LLAUPSTREAM					
10/05/2018				7.3	
13/06/2018			9	7.3	
20/07/2018	<0.02	<0.0001	9		

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