



LLANDDULAS LANDFILL SITE

PPC PERMIT BU0800IZ

QUARTERLY ENVIRONMENTAL MONITORING REPORT

1st November 2017 to 31st January 2018 inclusive

March 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 November 2017 and 31st January 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 (of the 354 perimeter gas readings taken) 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 November and December 2017 with an annual set of samples collected for analysis during January 2018.

3.1 Groundwater Quality

Water quality and level was measured monthly 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.

There was insufficient liquid for a sample to be retrieved from boreholes GWBH06R and GWBH26b in this quarter.

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.

Author	Approved By	Subject	Date	Status	Page
PB		Llanddulas Quarterly Review	01/03/18	Issue	2

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

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. LCP03 & LCP2BR were reported as down to level and not pumping when sample collection was attempted.

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%

Author	Approved By	Subject	Date	Status	Page
PB		Llanddulas Quarterly Review	01/03/18	Issue	3

- Carbon monoxide concentration >100ppm requires additional investigation

During the review period a total of 935 gas well readings obtained, with weekly gas field balancing taking place across Phase 3A.

Oxygen concentrations in excess of 5% were recorded on 169 occasions and total Carbon Dioxide and Methane concentrations of less than 80% recorded on 524 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 935 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.

Author	Approved By	Subject	Date	Status	Page
PB		Llanddulas Quarterly Review	01/03/18	Issue	4



Anthony Roberts,
Natural Resources Wales,
Chester Road,
Buckley,
Flintshire.
CH7 3AJ

28th May 2017

Dear Tony,

Environmental Monitoring Report, 1st November 2017 to 31st January 2018.

Please find enclosed the quarterly report for routine environmental monitoring undertaken at Llanddulas Landfill Site during the period 1st November 2017 to 31st January 2018 inclusive.

We trust this is satisfactory, please do not hesitate to contact us should you require further clarification.

**Yours sincerely,
for FCC ENVIRONMENT.**

A handwritten signature in black ink, appearing to be 'PB' or similar initials, written in a cursive style.

Phil Birchall

Compliance Advisor

APPENDIX 1

Field Logs

Field log report

Llanddulas

15-November-2017

Equipment 01 Calibration Due	26/12/2017
Equipment 01 Last Calibration	07/11/2017
Equipment 01 Serial No.	LT1
Equipment 01 Type	Hannah Instruments HI98130
Personnel 01	L.Terrace
Time OFF	15:38
Time ON	08:47
Weather	Overcast

Issued By:

Signed By :

Name :

Field log report

Llanddulas

23-November-2017

Equipment 01 Calibration Due	N/A
Equipment 01 Last Calibration	N/A
Equipment 01 Serial No.	82065/16
Equipment 01 Type	Geotech Atex dipmeter
Personnel 01	L.Terrace
Time OFF	13:50
Time ON	12:15
Weather	Raining

Issued By:

Signed By :

Name :

Field log report

Llanddulas

29-November-2017

Equipment 01 Calibration Due	26/12/2017
Equipment 01 Last Calibration	07/11/2017
Equipment 01 Serial No.	LT1
Equipment 01 Type	Hannah Instruments HI98130
Equipment 02 Last Calibration	07/11/2017
Equipment 02 Serial No.	Hannah Instruments HI98130
Equipment 02 Type	PH/EC Meter
Personnel 01	L.Terrace
Time OFF	09:22
Time ON	09:12
Weather	Sunny

Issued By:

Signed By :

Name :

Field log report

Llanddulas

06-December-2017

Equipment 01 Last Calibration	06/12/2017
Equipment 01 Serial No.	LT1
Equipment 01 Type	Hannah Instruments HI98130
Personnel 01	L.Terrace
Time OFF	09:14
Time ON	08:55
Weather	Light Rain

Issued By:

Signed By :

Name :

Field log report

Llanddulas

12-December-2017

Equipment 01 Calibration Due	26/12/2017
Equipment 01 Last Calibration	26/06/2017
Equipment 01 Serial No.	GA11581
Equipment 01 Type	GA2000+
Equipment 02 Last Calibration	06/12/2017
Equipment 02 Serial No.	Hannah Instruments HI98130
Equipment 02 Type	PH/EC Meter
Personnel 01	L.Terrace
Time OFF	15:58
Time ON	09:08
Weather	Overcast

Issued By:

Signed By :

Name :

Field log report

Llanddulas

20-December-2017

Equipment 01 Calibration Due	26/12/2017
Equipment 01 Last Calibration	06/12/2017
Equipment 01 Serial No.	LT1
Equipment 01 Type	Hannah Instruments HI98130
Personnel 01	L.Terrace
Time OFF	09:15
Time ON	09:03
Weather	Sunny

Issued By:

Signed By :

Name :

Field log report

Llanddulas

03-January-2018

Equipment 01 Calibration Due	01/03/2018
Equipment 01 Last Calibration	03/01/2018
Equipment 01 Serial No.	LT1
Equipment 01 Type	Hannah Instruments HI98130
Equipment 02 Last Calibration	03/01/2018
Equipment 02 Serial No.	Hannah Instruments HI98130
Equipment 02 Type	PH/EC Meter
Personnel 01	L.Terrace
Time OFF	16:22
Time ON	16:10
Weather	Storm

Issued By:

Signed By :

Name :

Field log report

Llanddulas

11-January-2018

Equipment 01 Last Calibration	03/01/2018
Equipment 01 Serial No.	LT1
Equipment 01 Type	Hannah Instruments HI98130
Personnel 01	L.Terrace
Time OFF	09:12
Time ON	08:58
Weather	Overcast

Issued By:

Signed By :

Name :

Field log report

Llanddulas

15-January-2018

Equipment 01 Last Calibration	03/01/2018
Equipment 01 Serial No.	LT1
Equipment 01 Type	Hannah Instruments HI98130
Equipment 02 Last Calibration	N/A
Equipment 02 Serial No.	31270
Equipment 02 Type	In Situ Rugged Level Tape 100
Personnel 01	L.Terrace
Time OFF	18:26
Time ON	09:08
Weather	Sleet / Rain

Issued By:

Signed By :

Name :

Field log report

Llanddulas

16-January-2018

Equipment 01 Calibration Due	01/03/2018
Equipment 01 Last Calibration	01/09/2017
Equipment 01 Serial No.	GA12569
Equipment 01 Type	GA2000
Equipment 02 Last Calibration	03/01/2018
Equipment 02 Serial No.	Hannah Instruments HI98130
Equipment 02 Type	PH/EC Meter
Personnel 01	L.Terrace
Time OFF	15:57
Time ON	09:03

Issued By:

Signed By :

Name :

Field log report

Llanddulas

24-January-2018

Equipment 01 Calibration Due	01/03/2018
Equipment 01 Last Calibration	03/01/2018
Equipment 01 Serial No.	LT1
Equipment 01 Type	Hannah Instruments HI98130
Personnel 01	L.Terrace
Time OFF	09:15
Time ON	08:53
Weather	Overcast

Issued By:

Signed By :

Name :

APPENDIX 2

Perimeter Borehole Gas Data

Llanddulas - Perimeter Borehole Report - Q4



From : 15/11/2017
To : 24/01/2018

15/11/2017

Sample Point	AtPress (mBar)	C0 (ppm)	CH4 (%v/v) (%)	CO2 (%v/v) (%)	H2S (ppm)
BH001	1010	0	0	0	0
BH002	1010	0	0	0.6	0
BH003	1010	0	0	0.1	0
BH004	1010	0	0	0.1	0
BH005	1010	0	0	1.2	0
BH006	1010	0	0	0.2	0
BH007	1010	0	0	0.2	0
BH008	1010	0	0	2.5	0
BH009	1010	0	0	0.1	0
BH010	1010	0	0	0.2	0
BH011	1010	0	0	0.1	0
BH012	1010	0	0	0.6	0
BH013	1010	0	0	0.3	0
BH014	1010	0	0	0.3	0
BH015	1010	0	0	0.2	0
BH016	1010	0	0	0.8	0
BH017	1010	0	0	0.3	0
BH018	1009	0	0	0.8	0
BH019	1009	0	0	2.9	0
BH020	1009	0	0	0.9	0
BH021	1009	0	0	0.6	0
BH022	1009	0	0	0.4	0
BH023	1009	0	0	1.2	0
BH024	1009	0	0	1.3	0
BH025	1009	0	0	0.9	0
BH026	1009	0	0	1.1	0
BH027	1009	0	0	2.9	0
BH028	1009	0	0	0.5	0
BH029	1009	0	0	1.4	0
BH030	1009	0	0	1.9	0
BH031	1010	0	0	0.8	0
BH032	1009	0	0	0.4	0
BH033	1010	0	0	0	0
BH034	1010	0	0	0.1	0
BH035	1009	0	0	0.3	0
BH036	1009	0	0	2.6	0
BH037	1009	0	0	0.3	0
BH038	1009	0	0	1.1	0
BH039	1008	0	0	0.9	0
BH040	1013	0	0	1.6	0
BH041	1008	0	0	1.1	0
BH042	1013	0	0	0	0
BH047	1008	0	0	1.7	0
BH048	1008	0	0	8.2	0
BH049	1007	0	0	1.1	0
BH050	1007	0	0	4.5	0
BH051	1007	0	0	2.9	0
BH052	1007	0	0	1.8	0
BH053	1007	0	0	1.2	0
BH054	1007	0	0	4.3	0
BH055	1007	0	0	5.9	0

Issued By:

From : 15/11/2017

To : 24/01/2018

15/11/2017

	AtPress (mBar)	C0 (ppm)	CH4 (%v/v) (%)	CO2 (%v/v) (%)	H2S (ppm)
BH056	1007	0	0	1.1	0
BH057	1007	0	0	0.7	0
BH100	1008	0	0	4.8	0
BH101	1007	0	0	0.7	0
BH102	1007	0	0	0.1	0
BH103	1007	0	0	0.4	0
BH104	1007	0	0	0.4	0
BH105	1006	0	0	0.1	0
BH106	1006	0	0	0.8	0
BH107	1006	0	0	0.5	0
BH108	1006	0	0	1	0
BH109	1006	0	0	1.5	0
BH110	1006	0	0	1.4	0
BH111	1006	0	0	1.7	0
BH112	1006	0	0	6.9	0
BH113	1005	0	0	1	0
BH114	1005	0	0	0.6	0
BH115	1005	0	0	0.1	0
BH116	1005	0	0	0.8	0
BH117	1004	0	0	0.1	0
BH118	1004	0	0	1.6	0
BH119	1004	0	0	1.2	0
BH120	1004	0	0	0.9	0

Issued By:

From : 15/11/2017

To : 24/01/2018

15/11/2017

Sample Point	O2 (%v/v)	Rel Press (mBar)
BH001	20.1	0.03
BH002	19.7	0.05
BH003	20.2	0.05
BH004	20.2	0.07
BH005	17.9	0.08
BH006	19.9	0.09
BH007	20.1	0.09
BH008	17	0.1
BH009	20.3	0.12
BH010	20.2	0.13
BH011	20.3	0.12
BH012	19.5	0.12
BH013	20.2	0.13
BH014	20.2	-0.14
BH015	20.3	0.14
BH016	19.6	0.14
BH017	20.3	0.23
BH018	19.9	0.15
BH019	18.1	0.15
BH020	19.6	0.72
BH021	20	0.17
BH022	20.1	0.17
BH023	19.2	0.16
BH024	18.2	0.16
BH025	19.7	0.24
BH026	19.3	0.14
BH027	17.4	0.15
BH028	20.3	0.18
BH029	19.3	0.16
BH030	19.2	0.15
BH031	19.9	0.15
BH032	20	0.16
BH033	20.6	0.06
BH034	20.5	-0.14
BH035	20.4	-0.18
BH036	18.9	-0.14
BH037	20.3	-0.19
BH038	19.9	-0.16
BH039	19.9	-0.16
BH040	17.9	-0.03
BH041	19	-0.16
BH042	19.9	-0.07
BH047	17.5	-0.19
BH048	13.9	-0.2
BH049	19.7	-0.16
BH050	16.7	-0.17
BH051	18.6	-0.22
BH052	19.4	-0.17
BH053	19.9	-0.17
BH054	16.9	-0.18
BH055	15.8	-0.24

Issued By:

From : 15/11/2017

To : 24/01/2018

15/11/2017

	O2 (%v/v)	Rel Press (mBar)
BH056	20	-0.17
BH057	20	-0.17
BH100	16.1	-0.11
BH101	19.7	-0.08
BH102	19.9	-0.07
BH103	19.7	-0.05
BH104	19.7	-0.01
BH105	20	0
BH106	19.5	0
BH107	19.4	0.02
BH108	18.8	0.05
BH109	18.1	0.02
BH110	11.9	0.06
BH111	18.6	0.04
BH112	10.1	0.04
BH113	19.1	0.01
BH114	19.9	0.02
BH115	20.4	0.02
BH116	18.5	0.03
BH117	20.5	0
BH118	18.8	0.02
BH119	19.4	0
BH120	20	0

Issued By:

From : 15/11/2017

To : 24/01/2018

29/11/2017

Sample Point	AtPress (mBar)	C0 (ppm)	CH4 (%v/v) (%)	CO2 (%v/v) (%)	H2S (ppm)
BH001	1001	0	0	0	0
BH002	1001	0	0	6.1	0
BH003	1002	0	0	2.4	0
BH004	1002	0	0	0.5	0
BH005	1002	0	0	2.6	0
BH006	1002	0	0	0.6	0
BH007	1002	0	0	0.9	0
BH008	1001	0	0	2.7	0
BH009	1001	0	0	0.3	0
BH010	1001	0	0	1.5	0
BH011	1001	0	0	1.8	0
BH012	1001	0	0	1.9	0
BH013	1001	0	0	2.7	0
BH014	1001	0	0	2.1	0
BH015	1001	0	0	1.2	0
BH016	1001	0	0	2.3	0
BH017	1001	0	0	2.6	0
BH018	1001	0	0	5	0
BH019	1001	0	0	4.2	0
BH020	1001	0	0	3.6	0
BH021	1000	0	0	3.6	0
BH022	1000	0	0	3	0
BH023	1000	0	0	4.1	0
BH024	1000	0	0	3.1	0
BH025	1001	0	0	0.8	0
BH026	1000	0	0	2.9	0
BH027	1000	0	0	4.2	0
BH028	1000	0	0	4.1	0
BH029	1001	0	0	4.7	0
BH030	1001	0	0	4.4	0
BH040	1003	0	0	3.3	0
BH041	1003	0	0	2.8	0
BH042	1004	0	0	0	0

Issued By:

From : 15/11/2017

To : 24/01/2018

29/11/2017

Sample Point	O2 (%v/v)	Rel Press (mBar)
BH001	20.1	0.12
BH002	11	0.13
BH003	16.1	0.13
BH004	20	0.06
BH005	14.8	0.04
BH006	19.2	0.06
BH007	19.6	0.05
BH008	15.8	0.15
BH009	20.2	0.06
BH010	19.7	0.1
BH011	19	0.06
BH012	18.8	0.08
BH013	16.5	0.07
BH014	14	0.12
BH015	18.5	0.04
BH016	18.8	0.07
BH017	17.4	0.06
BH018	14	0.11
BH019	15.7	0.08
BH020	15.2	0.65
BH021	16.1	0.07
BH022	14.8	0.05
BH023	15.4	0.05
BH024	13.2	0.05
BH025	20.1	0.35
BH026	16.1	0.02
BH027	15.3	0.21
BH028	16.7	0.02
BH029	13.9	0.09
BH030	15.8	0.02
BH040	16.4	0.09
BH041	15.9	0.07
BH042	20.2	0.11

Issued By:

From : 15/11/2017

To : 24/01/2018

12/12/2017

Sample Point	AtPress (mBar)	C0 (ppm)	CH4 (%v/v) (%)	CO2 (%v/v) (%)	H2S (ppm)
BH001	991	0	0	0	0
BH002	992	0	0	0.7	0
BH003	992	0	0	0.1	0
BH004	992	0	0	0	0
BH005	992	0	0	1	0
BH006	992	0	0	0.1	0
BH007	992	0	0	0.2	0
BH008	992	0	0	1.8	0
BH009	992	0	0	0.1	0
BH010	992	0	0	0.2	0
BH011	992	0	0	0.1	0
BH012	992	0	0	0.6	0
BH013	992	0	0	1.2	0
BH014	992	0	0	1.8	0
BH015	992	0	0	0.3	0
BH016	992	0	0	2.3	0
BH017	991	0	0	2.9	0
BH018	991	0	0	2.2	0
BH019	991	0	0	4.5	0
BH020	991	0	0	5.4	0
BH021	991	0	0	4.7	0
BH022	991	0	0	2.6	0
BH023	991	0	0	3.3	0
BH024	991	0	0	3.2	0
BH025	991	0	0	1.1	0
BH026	991	0	0	0.8	0
BH027	991	0	0	3.3	0
BH028	991	0	0	0.2	0
BH029	991	0	0	4.6	0
BH030	991	0	0	4.5	0
BH040	995	0	0	2	0
BH041	991	0	0	1.4	0
BH042	995	0	0	0	0

Issued By:

From : 15/11/2017

To : 24/01/2018

12/12/2017

Sample Point	O2 (%v/v)	Rel Press (mBar)
BH001	19.9	0.06
BH002	19.3	0.06
BH003	20	0.08
BH004	20.1	0.07
BH005	18.6	0.12
BH006	20.2	0.11
BH007	20.1	0.13
BH008	18.3	0.15
BH009	20.3	0.15
BH010	20.3	0.11
BH011	20.5	0.06
BH012	19.9	0.07
BH013	19	0.09
BH014	13.8	0.06
BH015	20.4	0.08
BH016	18.7	0.08
BH017	17	0.05
BH018	19	0.04
BH019	15.2	0.01
BH020	11.3	0.02
BH021	15.3	0.05
BH022	17.3	-0.02
BH023	16.3	0
BH024	13.5	-0.03
BH025	19.4	0.06
BH026	20	-0.09
BH027	16.5	-0.05
BH028	20.7	-0.09
BH029	14.7	-0.08
BH030	16.4	-0.04
BH040	17.5	-0.02
BH041	18.4	0
BH042	19.8	-0.07

Issued By:

From : 15/11/2017

To : 24/01/2018

20/12/2017

Sample Point	AtPress (mBar)	C0 (ppm)	CH4 (%v/v) (%)	CO2 (%v/v) (%)	H2S (ppm)
BH001	1017	0	0	0	0
BH002	1017	0	0	0.6	0
BH003	1017	0	0	0	0
BH004	1017	0	0	0	0
BH005	1017	0	0	1.6	0
BH006	1017	0	0	0.1	0
BH007	1017	0	0	0.3	0
BH008	1017	0	0	1.6	0
BH009	1017	0	0	0	0
BH010	1017	0	0	0	0
BH011	1017	0	0	0.2	0
BH012	1017	0	0	0.3	0
BH013	1017	0	0	0.1	0
BH014	1017	0	0	0.1	0
BH015	1017	0	0	0.1	0
BH016	1017	0	0	0.4	0
BH017	1017	0	0	0.2	0
BH018	1017	0	0	0.9	0
BH019	1017	0	0	2.5	0
BH020	1017	0	0	0.5	0
BH021	1017	0	0	0.1	0
BH022	1017	0	0	0.4	0
BH023	1017	0	0	1.1	0
BH024	1017	0	0	0.5	0
BH025	1017	0	0	0.6	0
BH026	1017	0	0	1	0
BH027	1017	0	0	2.6	0
BH028	1017	0	0	0.9	0
BH029	1017	0	0	1.5	0
BH030	1017	0	0	3.3	0
BH031	1017	0	0	0.6	0
BH032	1017	0	0	0.3	0
BH033	1016	0	0	0	0
BH034	1017	0	0	1.7	0
BH035	1017	0	0	1	0
BH036	1017	0	0	2.3	0
BH037	1017	0	0	0.3	0
BH038	1017	0	0	0.8	0
BH039	1017	0	0	0.6	0
BH040	1017	0	0	1.5	0
BH041	1017	0	0	0.3	0
BH042	1016	0	0	0	0
BH047	1017	0	0	1.9	0
BH048	1017	0	0	7.9	0
BH049	1017	0	0	1	0
BH050	1017	0	0	2.8	0
BH051	1017	0	0	3.7	0
BH052	1017	0	0	1.4	0
BH053	1017	0	0	0.9	0
BH054	1017	0	0	2.5	0
BH055	1017	0	0	2	0

Issued By:

From : 15/11/2017

To : 24/01/2018

20/12/2017

	AtPress (mBar)	C0 (ppm)	CH4 (%v/v) (%)	CO2 (%v/v) (%)	H2S (ppm)
BH056	1017	0	0	0.9	0
BH057	1017	0	0	0.5	0
BH100	1017	0	0	3.3	0
BH101	1017	0	0	0.5	0
BH102	1017	0	0	0.2	0
BH103	1017	0	0	0.1	0
BH104	1017	0	0	0.4	0
BH105	1017	0	0	0	0
BH106	1017	0	0	0.3	0
BH107	1016	0	0	0.8	0
BH108	1016	0	0	1.3	0
BH109	1017	0	0	0.5	0
BH110	1017	0	0	0.6	0
BH111	1017	0	0	0.5	0
BH112	1017	0	0	5.5	0
BH113	1016	0	0	0	0
BH114	1016	0	0	0.6	0
BH115	1016	0	0	0.1	0
BH116	1016	0	0	0.5	0
BH117	1015	0	0	0.1	0
BH118	1015	0	0	0.3	0
BH119	1015	0	0	0.8	0
BH120	1015	0	0	0.5	0

Issued By:

From : 15/11/2017

To : 24/01/2018

20/12/2017

Sample Point	O2 (%v/v)	Rel Press (mBar)
BH001	20	0.34
BH002	18.9	0.35
BH003	20.2	0.36
BH004	20.3	0.44
BH005	15.4	0.48
BH006	20	0
BH007	19.3	0.01
BH008	18.5	0.01
BH009	20.5	0
BH010	20.4	0.05
BH011	20.1	0.06
BH012	20.2	0.08
BH013	20.3	0.04
BH014	20.3	0.05
BH015	20.3	0.06
BH016	20.2	0.07
BH017	20.1	0.06
BH018	19.5	0.03
BH019	18.1	0.05
BH020	19.7	1.01
BH021	20.3	0.11
BH022	20.1	0.03
BH023	19.2	0.04
BH024	19.6	0.04
BH025	19.9	0.18
BH026	19.5	0.02
BH027	16.8	0.1
BH028	19.5	0.03
BH029	18.9	0.02
BH030	17	0.04
BH031	20	0
BH032	20.4	0
BH033	20.6	-0.01
BH034	19	-0.02
BH035	19.8	-0.02
BH036	19.5	-0.03
BH037	20.5	-0.05
BH038	20	0.01
BH039	20.3	-0.02
BH040	17.3	0.48
BH041	19.7	0.39
BH042	20.6	0.33
BH047	16.3	-0.03
BH048	14.9	-0.09
BH049	19.7	0
BH050	19.1	-0.05
BH051	19	-0.03
BH052	19.6	-0.01
BH053	20	-0.05
BH054	19	-0.07
BH055	19.6	-0.05

Issued By:

From : 15/11/2017

To : 24/01/2018

20/12/2017

	O2 (%v/v)	Rel Press (mBar)
BH056	20.2	-0.09
BH057	20.3	-0.1
BH100	18.8	-0.31
BH101	20.3	-0.28
BH102	20.1	-0.34
BH103	20.5	-0.22
BH104	20.3	-0.23
BH105	20.6	-0.28
BH106	20.4	-0.18
BH107	19.7	-0.1
BH108	17.3	-0.19
BH109	19.9	-0.16
BH110	15.1	-0.08
BH111	20	-0.12
BH112	6.9	-0.23
BH113	20.6	-0.25
BH114	19.4	-0.21
BH115	20.4	-0.17
BH116	19.5	-0.15
BH117	20.5	-0.24
BH118	20.4	-0.19
BH119	19.9	-0.23
BH120	20	-0.19

Issued By:

From : 15/11/2017

To : 24/01/2018

03/01/2018

Sample Point	AtPress (mBar)	C0 (ppm)	CH4 (%v/v) (%)	CO2 (%v/v) (%)	H2S (ppm)
BH001	981	0	0	0	0
BH002	982	0	0	0	0
BH003	981	0	0	0.1	0
BH004	982	0	0	0	0
BH005	982	0	0	0	0
BH006	981	0	0	0	0
BH007	981	0	0	0	0
BH008	982	0	0	1.1	0
BH009	981	0	0	0	0
BH010	981	0	0	0	0
BH011	981	0	0	0	0
BH012	981	0	0	0	0
BH013	982	0	0	0	0
BH014	982	0	0	0	0
BH015	981	0	0	0	0
BH016	981	0	0	0.1	0
BH017	981	0	0	0	0
BH018	981	0	0	0	0
BH019	981	0	0	0.1	0
BH020	981	0	0	0.1	0
BH021	981	0	0	0.5	0
BH022	981	0	0	0.3	0
BH023	981	0	0	2.1	0
BH024	981	0	0	0.1	0
BH025	981	0	0	0.6	0
BH026	981	0	0	0.1	0
BH027	981	0	0	0.8	0
BH028	981	0	0	0.1	0
BH029	981	0	0	0.4	0
BH030	981	0	0	4.9	0
BH040	984	0	0	0.2	0
BH041	982	0	0	2	0
BH042	984	0	0	0.1	0

Issued By:

From : 15/11/2017

To : 24/01/2018

03/01/2018

Sample Point	O2 (%v/v)	Rel Press (mBar)
BH001	20.2	0.2
BH002	20.3	0.13
BH003	20.3	0.09
BH004	20.5	0.2
BH005	20.5	0.37
BH006	20.6	0.4
BH007	20.6	0.23
BH008	19.9	0.27
BH009	20.7	0.32
BH010	20.7	0.02
BH011	20.7	0.19
BH012	20.8	0.18
BH013	20.8	0.14
BH014	20.7	0.34
BH015	20.8	0.26
BH016	20.8	0.27
BH017	20.9	0.28
BH018	20.9	0.17
BH019	20.8	0.17
BH020	20.7	1.21
BH021	20.4	0.24
BH022	20.5	0.36
BH023	17.3	0.26
BH024	20.8	0.18
BH025	20.4	0.21
BH026	20.9	0.17
BH027	20.3	-0.28
BH028	20.8	0.24
BH029	20.6	0.28
BH030	16.1	0.34
BH040	20.3	0.14
BH041	17.3	0.22
BH042	20.3	0.25

Issued By:

From : 15/11/2017

To : 24/01/2018

16/01/2018

Sample Point	AtPress (mBar)	C0 (ppm)	CH4 (%v/v) (%)	CO2 (%v/v) (%)	H2S (ppm)
BH001	978	0	0	0	0
BH002	979	0	0	0.1	0
BH003	978	0	0.1	2.4	0
BH004	978	0	0	0	0
BH005	978	0	0	0.1	0
BH006	978	0	0	0	0
BH007	978	0	0	0.2	0
BH008	978	0	0	5.2	0
BH009	978	0	0	0	0
BH010	978	0	0	0.1	0
BH011	978	0	0	0.2	0
BH012	978	0	0.1	0.4	0
BH013	978	0	0	0.1	0
BH014	978	0	0	3.3	0
BH015	978	0	0	0	0
BH016	978	0	0	0.1	0
BH017	978	0	0	0	0
BH018	977	0	0.2	0.5	0
BH019	977	0	0	4	0
BH020	977	0	0	1.3	0
BH021	977	0	0	4.4	0
BH022	977	0	0	0.4	0
BH023	977	0	0	2.2	0
BH024	977	0	0	1.9	0
BH025	977	0	0	3.3	0
BH026	977	0	0	0.1	0
BH027	977	0	0	0.9	0
BH028	977	0	0	0.3	0
BH029	977	0	0	1.5	0
BH030	977	0	0	5.4	0
BH040	983	0	0	0.3	0
BH041	979	0	0	2.6	0
BH042	983	0	0	0	0

Issued By:

From : 15/11/2017

To : 24/01/2018

16/01/2018

Sample Point	O2 (%v/v)	Rel Press (mBar)
BH001	20.8	-0.14
BH002	20.8	-0.02
BH003	16.6	0
BH004	20.8	-0.07
BH005	20.8	0.11
BH006	20.8	0.03
BH007	20.7	-0.03
BH008	10.2	-0.01
BH009	20.8	0.02
BH010	20.7	-0.03
BH011	20.6	0.02
BH012	20.6	-0.01
BH013	20.9	0.06
BH014	12.3	-0.07
BH015	20.8	0
BH016	20.7	-0.03
BH017	20.7	-0.05
BH018	20.2	-0.04
BH019	17.4	-0.09
BH020	19.5	0.87
BH021	12.3	-0.02
BH022	20.3	-0.09
BH023	17.8	-0.05
BH024	19.2	-0.1
BH025	15.3	-0.02
BH026	20.7	-0.22
BH027	20.2	-0.12
BH028	20.7	-0.1
BH029	19.1	-0.08
BH030	14.9	0
BH040	19.6	-0.02
BH041	16.8	0.06
BH042	19.6	0.14

Issued By:

From : 15/11/2017

To : 24/01/2018

24/01/2018

Sample Point	AtPress (mBar)	C0 (ppm)	CH4 (%v/v) (%)	CO2 (%v/v) (%)	H2S (ppm)
BH001	985	0	0	0	0
BH002	984	0	0	0.2	0
BH003	984	0	0	0.4	0
BH004	984	0	0	0	0
BH005	984	0	0	0.1	0
BH006	984	0	0	0	0
BH007	984	0	0	0	0
BH008	984	0	0	0	0
BH009	984	0	0	0	0
BH010	983	0	0	0.1	0
BH011	983	0	0	0.1	0
BH012	984	0	0	0	0
BH013	983	0	0	0.2	0
BH014	983	0	0	0	0
BH015	983	0	0	0	0
BH016	983	0	0	0.1	0
BH017	983	0	0	0.1	0
BH018	983	0	0	1.1	0
BH019	983	0	0	0.6	0
BH020	983	0	0	0.1	0
BH021	983	0	0	0.2	0
BH022	983	0	0	0.1	0
BH023	983	0	0	0.7	0
BH024	983	0	0	0.1	0
BH025	983	0	0	3.7	0
BH026	983	0	0	0.1	0
BH027	983	0	0	0.1	0
BH028	983	0	0	0	0
BH029	983	0	0	0.5	0
BH030	983	0	0	3.8	0
BH031	983	0	0	0.2	0
BH032	983	0	0	0.3	0
BH033	983	0	0	0	0
BH034	983	0	0	1.6	0
BH035	983	0	0	1.5	0
BH036	983	0	0	0.3	0
BH037	983	0	0	0.3	0
BH038	983	0	0	1.9	0
BH039	983	0	0	0.9	0
BH040	986	0	0	0.9	0
BH041	983	0	0	2	0
BH042	986	0	0	0	0
BH047	982	0	0	1.2	0
BH048	982	0	0	6.2	0
BH049	982	0	0	1	0
BH050	982	0	0	3.5	0
BH051	982	0	0	4.6	0
BH052	982	0	0	1.3	0
BH053	982	0	0	1.1	0
BH054	981	0	0	2.2	0
BH055	982	0	0	3.7	0

Issued By:

From : 15/11/2017

To : 24/01/2018

24/01/2018

	AtPress (mBar)	C0 (ppm)	CH4 (%v/v) (%)	CO2 (%v/v) (%)	H2S (ppm)
BH056	982	0	0	0.3	0
BH057	982	0	0	0	0
BH100	984	0	0	3.5	0
BH101	982	0	0	2.3	0
BH102	982	0	0	0.1	0
BH103	982	0	0	0	0
BH104	982	0	0	0.9	0
BH105	981	0	0	0.2	0
BH106	981	0	0	1.2	0
BH107	981	0	0	1	0
BH108	981	0	0	1.7	0
BH109	981	0	0	0.9	0
BH110	981	0	0	0.9	0
BH111	981	0	0	0.7	0
BH112	981	0	0	5.8	0
BH113	981	0	0	3.7	0
BH114	981	0	0	0.4	0
BH115	980	0	0	0.1	0
BH116	980	0	0	0.2	0
BH117	980	0	0	0.1	0
BH118	979	0	0	1.2	0
BH119	980	0	0	0.8	0
BH120	980	0	0	0.9	0

Issued By:

From : 15/11/2017
To : 24/01/2018

24/01/2018

Sample Point	O2 (%v/v)	Rel Press (mBar)
BH001	20.9	-0.15
BH002	20.7	-0.14
BH003	20.6	-0.04
BH004	20.8	-0.12
BH005	20.6	-0.08
BH006	20.8	-0.14
BH007	20.8	-0.05
BH008	20.9	-0.27
BH009	20.9	-0.05
BH010	20.9	-0.08
BH011	20.6	-0.07
BH012	20.7	-0.13
BH013	20.6	-0.11
BH014	20.8	-0.08
BH015	20.8	-0.05
BH016	20.7	-0.06
BH017	20.8	-0.08
BH018	20.5	-0.08
BH019	20.7	-0.13
BH020	20.8	0.76
BH021	20.8	-0.08
BH022	20.8	-0.17
BH023	19.7	-0.46
BH024	20.9	-0.13
BH025	16	0
BH026	20.8	-0.09
BH027	20.8	0.37
BH028	20.9	-0.12
BH029	20.4	-0.04
BH030	18	-0.08
BH031	20.8	-0.07
BH032	20.2	-0.12
BH033	20.8	-0.02
BH034	19.6	-0.06
BH035	20.1	-0.03
BH036	20.6	-0.06
BH037	20.6	-0.09
BH038	19.9	0
BH039	20.1	-0.05
BH040	19.6	-0.13
BH041	17.7	-0.3
BH042	20.8	-0.12
BH047	19.1	-0.14
BH048	16.1	-0.15
BH049	19.8	-0.06
BH050	17.8	-0.15
BH051	17.6	-0.13
BH052	19.9	-0.12
BH053	20.1	-0.17
BH054	19.6	-0.16
BH055	18.3	-0.31

Issued By:

From : 15/11/2017

To : 24/01/2018

24/01/2018

	O2 (%v/v)	Rel Press (mBar)
BH056	20.6	-0.05
BH057	20.7	-0.11
BH100	18.3	-0.23
BH101	18.2	-0.24
BH102	20.2	-0.18
BH103	20.2	0.21
BH104	19.3	-0.21
BH105	20.1	-0.19
BH106	19.4	-0.22
BH107	19.1	-0.2
BH108	18	-0.19
BH109	19.5	-0.17
BH110	15.4	-0.06
BH111	19.9	-0.16
BH112	11.6	-0.15
BH113	13.4	-0.16
BH114	20	-0.15
BH115	20.4	-0.15
BH116	20	-0.14
BH117	20.4	-0.23
BH118	19.6	-0.18
BH119	19.8	-0.15
BH120	19.6	-0.13

Issued By:

APPENDIX 3

Landfill Gas Field Extraction and Balancing Data

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	02/11/2017 09:34	41.7	32.1	1.3	24.9	-81.53	1	4	1124	1769 1. OK	
Llanddulas GUP	02/11/2017 15:06	41	32.8	1.2	25	-81.78	3	1	1127	1769 1. OK	
Llanddulas GUP	03/11/2017 09:13	41.4	32.5	1.4	24.7	-82.36	0	3	1123	1736 1. OK	
Llanddulas GUP	03/11/2017 14:27	42.2	33.1	1.3	23.4	-81.23	1	2	1131	1810 1. OK	
Llanddulas GUP	03/11/2017 14:30	60	39.9	0	0.1	174.34	0	2	60	40 1. OK	
Llanddulas GUP	13/11/2017 11:15	39.7	31.8	2.2	26.3	-83.99	6	0	1054	1784 1. OK	
Llanddulas GUP	20/11/2017 10:23	47.9	34.6	1.5	16	-51.24	1	1	998	1484 1. OK	
Llanddulas GUP	20/11/2017 14:40	43	32.7	1.7	22.6	-81.28	0	1	1005	1714 1. OK	
Llanddulas GUP	24/11/2017 14:29	43.6	34.2	1.4	20.8	-82.67	4	5	950	1736 1. OK	
Llanddulas GUP	30/11/2017 09:17	45.7	32.7	2.2	19.4	-84.18	7	0	973	1731 1. OK	
Llanddulas GUP	30/11/2017 11:36	45.8	32.4	2	19.8	-84.13	7	9	965	1744 1. OK	
Llanddulas GUP	13/12/2017 09:49	48.7	33.3	1	17	-83.47	7	1	885	1712 1. OK	
Llanddulas GUP	13/12/2017 14:05	48.5	35.3	0.7	15.5	-82.62	16	153	921	1769 500. Routine H2S monitoring sweep	
Llanddulas GUP	14/12/2017 08:47	47.2	31.3	1.9	19.6	-81.7	0	0	912	1740 1. OK	
Llanddulas GUP	14/12/2017 13:54	46.4	34	2.1	17.5	-83.07	0	0	916	1705 1. OK	
Llanddulas GUP	15/12/2017 12:18	45	33.6	2.1	19.3	-83.14	0	0	870	1593 1. OK	
Llanddulas GUP	22/12/2017 08:58	43.3	32.6	1.6	22.5	-82.98	0	0	865	1580 1. OK	
Llanddulas GUP	22/12/2017 12:15	43.2	33.3	1.6	21.9	-84.28	0	0	861	1578 1. OK	
Llanddulas GUP	27/12/2017 09:05	46.1	33.5	2.1	18.3	-82.03	0	0	842	1545 1. OK	
Llanddulas GUP	05/01/2018 09:49	44.3	30.5	2.2	23	-82.48	0	1	871	1605 1. OK	
Llanddulas GUP	05/01/2018 13:15	47.2	33.8	1.4	17.6	-79.48	0	15	855	1646 1. OK	
Llanddulas GUP	08/01/2018 09:20	43.6	30	2.3	24.1	-82.7	0	0	866	1615 1. OK	
Llanddulas GUP	08/01/2018 13:54	45.6	32.7	1.6	20.1	-76.87	0	1	850	1634 1. OK	
Llanddulas GUP	12/01/2018 11:21	43.8	32	1.1	23.1	-81.75	3	1	883	1664 1. OK	
Llanddulas GUP	12/01/2018 13:08	43.3	33.3	1.3	22.1	-81.04	4	0	885	1647 1. OK	
Llanddulas GUP	19/01/2018 09:38	43.4	33	1.4	22.2	-81.35	3	102	876	1624 1. OK	
Llanddulas GUP	19/01/2018 11:59	43.4	33.9	1.1	21.6	-81.91	0	0	872	1630 1. OK	
Llanddulas GUP	26/01/2018 10:08	44.6	32.2	1.2	22	-82.75	3	0	1000	1540 1. OK	
Llanddulas GUP	26/01/2018 16:06	41.6	34.4	1.3	22.7	-82.37	2	0	990	1600 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 (%)
LLAWD315	02/11/2017 09:36	62.6	36.9	0	0.5	-62.42	1008	4	2	0.5	1.7	99.5	30	30
LLAWD266	02/11/2017 09:40	63.3	37.2	0	0	-67.79	1008	1	2	0	1.7	100.5	5	5
LLAWD265	02/11/2017 09:42	63.5	37.5	0	0	23.34	1006	3	1	0	1.69	101	0	0
LLAWD265	02/11/2017 09:44	58.7	35.6	1	4.7	-60.97	1006	2	1	0.94	1.65	94.3	0	1
LLAWD265	02/11/2017 09:46	56.1	34.5	1.6	7.8	-55.38	1006	3	1	1.78	1.63	90.6	1	1
LLAWD264	02/11/2017 09:49	49.8	30.4	3.7	16.1	-1.51	1007	4	1	2.19	1.64	80.2	1	1
LLAWD262	02/11/2017 09:52	59.9	39.5	0	0.6	6.89	1007	4	1	0.6	1.52	99.4	1	1
LLAWD262	02/11/2017 09:54	54.3	36.9	1.6	7.2	-67.5	1007	5	0	1.18	1.47	91.2	1	5
LLAWD262	02/11/2017 09:57	53.7	36.5	1.8	8	-71.04	1007	4	0	1.23	1.47	90.2	1	1
LLAWD258	02/11/2017 10:00	40.2	26.1	6.8	26.9	-25.25	1006	2	0	1.33	1.54	66.3	5	5
LLAWD258	02/11/2017 10:02	43.8	28.8	5.5	21.9	-79.75	1006	2	0	1.22	1.52	72.6	5	10
LLAWD258	02/11/2017 10:04	43.9	29	5.2	21.9	-80.59	1006	2	0	2.35	1.51	72.9	10	5
LLAWD258	02/11/2017 10:05	44.1	28.9	5.3	21.7	-79.63	1006	1	0	1.77	1.53	73	5	5
LLAWD261	02/11/2017 10:09	61.3	39.1	0	0	-63.38	1006	4	0	0	1.57	100.4	20	20
LLAWD250	02/11/2017 10:12	60.8	37.9	0.1	1.2	-72.19	1006	2	0	0.82	1.6	98.7	20	20
LLAWD255	02/11/2017 10:15	60.1	39.5	0	0.4	-67.67	1006	2	0	0.4	1.52	99.6	20	20
LLAWD259	02/11/2017 10:18	59.8	40.6	0	0	-48.42	1007	6	0	0	1.47	100.4	20	20
LLAWD254	02/11/2017 10:24	60.6	38.3	0	1.1	-62.06	1006	4	0	1.1	1.58	98.9	20	20
LLAWD281	02/11/2017 10:32	60.1	39.6	0.1	0.2	-63.61	1006	13	0	0	1.52	99.7	10	10
LLAWD280	02/11/2017 10:37	57.5	39.1	0.7	2.7	-63.59	1007	0	0	0.07	1.47	96.6	10	10
LLAWD279	02/11/2017 10:42	57.2	37.9	0.7	4.2	-47.99	1007	3	0	1.57	1.51	95.1	10	10
LLAWD286	02/11/2017 10:46	62.8	37.5	0	0	-78.43	1007	2	0	0	1.67	100.3	20	20
LLAWD278	02/11/2017 10:50	53.6	37.1	0	9.3	-50.02	1007	2	0	9.3	1.44	90.7	10	10
LLAWD287	02/11/2017 10:52	53.3	37.6	0.4	8.7	-79.46	1007	2	0	7.2	1.42	90.9	20	20
LLAWD293	02/11/2017 10:56	55.6	37.9	0	6.5	-67.02	1007	2	0	6.5	1.47	93.5	10	10
LLAWD303	02/11/2017 11:05	58.2	41.8	0	0	-54.65	1007	3	0	0	1.39	100	20	20
LLAWD305	02/11/2017 11:12	49.1	37.2	2.4	11.3	-51.58	1005	3	0	2.28	1.32	86.3	5	5
LLAWD283	02/11/2017 11:14	55	44.9	0	0.1	-76.66	1006	21	1	0.1	1.22	99.9	10	10
LLAWD270	02/11/2017 11:27	23.1	26	10.5	40.4	-1.75	1006	10	0	0.92	0.89	49.1	0	0
LLAWD270	02/11/2017 11:29	6.1	7.1	18.5	68.3	-79.18	1006	3	0	0	0.86	13.2	0	5
LLAWD270	02/11/2017 11:32	4.1	4.8	19.6	71.5	-66.71	1006	1	1	0	0.85	8.9	5	0
LLAWD306	02/11/2017 11:35	57.4	42.9	0	0	-50.21	1006	5	1	0	1.34	100.3	20	20
LLAWD298	02/11/2017 11:37	58.8	41.1	0	0.1	-74.78	1006	5	1	0.1	1.43	99.9	20	20
LLAWD309	02/11/2017 11:40	41.6	35.6	0	22.8	-31.9	1005	4	1	22.8	1.17	77.2	15	15
LLAWD310	02/11/2017 11:44	53.5	39.1	0.4	7	-73.99	1005	5	1	5.5	1.37	92.6	25	25
LLAWD311	02/11/2017 11:50	58.8	41.4	0	0	-53.13	1005	3	1	0	1.42	100.2	25	25
LLAWD300	02/11/2017 11:55	55.9	42.3	0	1.8	-69.19	1005	3	0	1.8	1.32	98.2	20	20
LLAWD299	02/11/2017 11:58	46.3	34.6	3.4	15.7	-27.84	1006	2	1	2.92	1.34	80.9	20	20
LLAWD304	02/11/2017 12:05	58.2	41.2	0	0.6	-50.33	1005	4	1	0.6	1.41	99.4	30	30
LLAWD302	02/11/2017 12:08	57.8	42.3	0	0	-77.07	1005	5	3	0	1.37	100.1	30	30
LLAWD301	02/11/2017 12:13	58.6	41.7	0	0	-61.13	1005	4	0	0	1.41	100.3	15	15
LLAWD314	02/11/2017 12:16	40	38.1	0	21.9	-26.25	1004	4	0	21.9	1.05	78.1	20	20
LLAWD313	02/11/2017 12:19	44.8	38.2	0	17	-33.94	1005	3	0	17	1.17	83	20	20
LLAWD312	02/11/2017 12:21	59.3	40.8	0	0	-62.59	1005	3	0	0	1.45	100.1	25	25
LLAWD230	02/11/2017 12:24	27.8	20	10.9	41.3	-2.73	1005	0	1	0.32	1.39	47.8	0	0
LLAWD230	02/11/2017 12:26	27.2	19.5	11.2	42.1	-2.3	1005	1	1	0	1.39	46.7	0	5
LLAWD230	02/11/2017 12:27	27.8	19.7	11	41.5	-2.27	1005	1	1	0.14	1.41	47.5	5	0
LLAWD231	02/11/2017 12:31	40.2	36.3	0	23.5	-27.43	1005	4	1	23.5	1.11	76.5	10	10
LLAWD222	02/11/2017 12:34	58.6	41.3	0	0.1	-55.55	1005	4	1	0.1	1.42	99.9	20	20
LLARD207	02/11/2017 12:37	55.4	39.1	0	5.5	-68.65	1006	6	1	5.5	1.42	94.5	20	20
LLAWD219	02/11/2017 12:39	51.1	38.8	0	10.1	-73.75	1006	1	1	10.1	1.32	89.9	20	20
LLAWD232	02/11/2017 12:42	56.9	40	0	3.1	-4.29	1005	5	1	3.1	1.42	96.9	5	5
LLAWD232	02/11/2017 12:44	52.5	38	1	8.5	-13.21	1005	4	1	4.74	1.38	90.5	5	10
LLAWD232	02/11/2017 12:46	44.6	34.5	2.7	18.2	-3.54	1005	18	1	8.05	1.29	79.1	10	5
LLAWD237	02/11/2017 12:49	42.3	34.6	0	23.1	-47.41	1006	3	1	23.1	1.22	76.9	20	20
LLAWD234	02/11/2017 12:52	19.2	18.5	6.9	55.4	-11.25	1007	5	1	29.46	1.04	37.7	0	0
LLAWD210	02/11/2017 12:55	36.5	29.7	1.9	31.9	-48.09	1006	3	1	24.76	1.23	66.2	15	15
LLAWD233	02/11/2017 12:57	57.2	36.9	0	5.9	-77.96	1006	2	1	5.9	1.55	94.1	25	25
LLAWD227	02/11/2017 13:00	0.4	3.3	20.4	75.9	-21.01	1005	0	0	0	0.12	3.7	0	0
LLAWD227	02/11/2017 13:02	0.3	1.7	20.9	76.9	-60.58	1005	0	1	0	0.18	2	0	5
LLAWD227	02/11/2017 13:04	0.3	1.9	20.9	76.8	-71.37	1005	1	1	0	0.16	2.2	5	0
LLAWD225	02/11/2017 13:07	62.1	36	0.2	1.7	-78.12	1005	4	1	0.95	1.73	98.1	25	25
LLAWC146	02/11/2017 13:42	0.3	2.3	19.3	78.1	-3.47	1006	0	2	5.53	0.13	2.6	0	0
LLAWC146	02/11/2017 13:44	13.8	16.8	10.6	58.8	-9.17	1006	4	3	18.94	0.82	30.6	0	5
LLAWC146	02/11/2017 13:46	34.7	25.3	3.2	36.8	-44.5	1006	2	3	24.77	1.37	60	5	5
LLAWC147	02/11/2017 13:50	39	32.1	0	28.9	-49.54	1005	1	3	28.9	1.21	71.1	10	10
LLAWC148	02/11/2017 13:53	45.2	35.5	2.5	16.8	-0.64	1005	1	2	7.4	1.27	80.7	0	0
LLAWC144	02/11/2017 13:56	48	35	3	14	-5.87	1006	2	2	2.72	1.37	83	5	5
LLAWC145	02/11/2017 13:58	30.2	26.9	7.4	35.5	-5.32	1006	2	2	7.68	1.12	57.1	5	5
LLAWC145	02/11/2017 14:00	35.1	29.1	5.5	30.3	-3.4	1006	2	2	9.62	1.21	64.2	5	1
LLAWC145	02/11/2017 14:03	35.7	29.7	5.4	29.2	-4.43	1006	2	2	8.9	1.2	65.4	1	1
LLAWC141	02/11/2017 14:06	29.5	29.4	1	40.1	-3.52	1006	1	2	36.34	1	58.9	5	5
LLAWC142	02/11/2017 14:08	21.4	21.9	7.9	48.8	-24.99	1005	1	1	19.1	0.98	43.3	5	5
LLAWC142	02/11/2017 14:10	22.9	22.7	7.3	47.1	-16.33	1005	1	1	19.65	1.01	45.6	5	0
LLAWC142	02/11/2017 14:13	19.2	19.4	9.2	52.2	-12.95	1005	0	1	17.61	0.99	38.6	0	0
LLAWC143	02/11/2017 14:16	42.7	35.1	0	22.2	-33.92	1006	2	2	22.2	1.22	77.8	20	20
LLAWA029	02/11/2017 14:20	25.1	24.7	0.2	50	-10.12	1005	0	1	49.25	1.02	49.8	5	5
LLAWA031	02/11/2017 14:23	0.1	1.3	20.9	77.2	0.12	1006	0	1	0	0.08	1.4	0	0
LLAWA031	02/11/2017 14:24	0.2	1	20.9	77.3	-0.34	1006	0	2	0	0.2	1.2	0	5
LLAWA031	02/11/2017 14:26	0.1	1	20.9	77.4	-0.31	1006	0	2	0	0.1	1.1	5	0
LLARA014	02/11/2017 14:28	21.6	15.5	0	62.9	-0.15	1007	1	2	62.9	1.39	37.1	0	0
LLARA014	02/11/2017 14:30	21.3	17.4	0	61.3	-0.53	1007	1	2	61.3	1.22	38.7	0	1
LLARA014	02/11/2017 14:32	21.2	17.5	0	61.3	-0.02	1007	1	2	61.3	1.21	38.7	1	1
LLAWA016	02/11/2017 14:35	17.9	20.5	0	61.6	-0.55	1006	1	2	61.6	0.87	38.4	5	5
LLARA015	02/11/2017 14:37	20.5	21.2	0	58.3	-6.65	1007	1	2	58.3	0.97	41.7	5	5
LLARA028	02/11/2017 14:40	27.3	25.7	0	47	-16.76	1005	0	1	47	1.06	53	5	5
LLARA012	02/11/2017 14:43	23.2	25.3	0	51.5	-0.55	1006	2	1	51.5	0.92	48.5	5	5
LLAWA011	02/11/2017 14:47	15.5	20.7	0	63.8	-0.96	1005	0	1	63.8</				

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 (%)
LLARB072	03/11/2017 09:40	48.5	31.7	1	18.8	-6.29	1002	0	1	15.04	1.53	80.2	10	5
LLAWB082	03/11/2017 09:43	64.5	35.2	0	0.3	-75.39	1003	0	1	0.3	1.83	99.7	5	5
LLAWB081	03/11/2017 09:46	0.5	2.2	20.5	76.8	-1.19	1003	4	2	0	0.23	2.7	0	0
LLAWB079	03/11/2017 09:49	62.3	32.4	0	5.3	-62.07	1000	0	1	5.3	1.92	94.7	5	5
LLAWB115	03/11/2017 09:53	24.7	26.8	1	47.5	-26.45	1001	0	1	43.74	0.92	51.5	15	15
LLAWB114	03/11/2017 09:55	48.8	39.3	0.1	11.8	-3.81	1002	1	1	11.42	1.24	88.1	10	10
LLAWB113	03/11/2017 09:58	30.1	30.2	1.9	37.8	-1.48	1001	0	1	30.66	1	60.3	10	10
LLAWB112	03/11/2017 10:02	40.7	35.8	0	23.5	-1.86	1001	0	1	23.5	1.14	76.5	15	15
LLAWB111	03/11/2017 10:07	52.6	38	0	9.4	-1.58	1001	0	1	9.4	1.38	90.6	5	5
LLAWB096	03/11/2017 10:10	49.8	37.5	1.6	11.1	-1.24	1001	0	1	5.08	1.33	87.3	0	0
LLAWB117	03/11/2017 10:17	36.9	30.4	0	32.7	-6.36	1001	0	1	32.7	1.21	67.3	10	10
LLAWB119	03/11/2017 10:20	20.2	26.7	0.3	52.8	-3.97	1002	0	1	51.67	0.76	46.9	5	5
LLAWB120	03/11/2017 10:23	14	24.1	0.2	61.7	-2.68	1002	0	1	60.95	0.58	38.1	5	5
LLAWB116	03/11/2017 10:28	13.7	19.3	3.7	63.3	-2.42	1001	0	1	49.39	0.71	33	1	1
LLAWC134	03/11/2017 10:56	20.7	23	4.2	52.1	-1.58	1004	0	1	36.31	0.9	43.7	1	1
LLAWC134	03/11/2017 10:58	25.8	26.6	2.8	44.8	-4.48	1004	0	1	34.27	0.97	52.4	1	5
LLAWC134	03/11/2017 11:00	24.5	26	3	46.5	-8.64	1004	0	1	35.22	0.94	50.5	5	5
LLAWC152	03/11/2017 11:02	2.4	2.9	20.2	74.5	-31.96	1004	0	0	0	0.83	5.3	1	1
LLAWC152	03/11/2017 11:04	2.5	3.2	19.4	74.9	-33.49	1004	0	0	1.96	0.78	5.7	1	0
LLAWC152	03/11/2017 11:06	2.2	3	20.2	74.6	-33.46	1004	0	1	0	0.73	5.2	0	0
LLAWC133	03/11/2017 11:09	40.3	34.8	0.2	24.7	-63.65	999	0	1	23.95	1.16	75.1	5	5
LLAWC251	03/11/2017 11:13	33.7	31.3	0	35	-38.96	1003	0	4	35	1.08	65	10	10
LLAWC250	03/11/2017 11:16	35.1	31.3	0	33.6	-27.33	1002	0	1	33.6	1.12	66.4	5	5
LLAWC132	03/11/2017 11:19	44.1	33.2	0	22.7	-62.71	1002	0	2	22.7	1.33	77.3	5	5
LLAWC249	03/11/2017 11:22	37.3	32.5	0	30.2	-42.84	1002	0	1	30.2	1.15	69.8	20	20
LLAWC154	03/11/2017 11:25	23.4	26.3	0	50.3	-21.08	1002	1	1	50.3	0.89	49.7	5	5
LLAWA006	03/11/2017 11:29	10.2	18.7	0	71.1	-0.02	1003	0	1	71.1	0.55	28.9	0	0
LLAWA005	03/11/2017 11:32	0.7	14	5.1	80.2	-0.65	1002	0	1	61.02	0.05	14.7	0	0
LLAWA005	03/11/2017 11:34	2.6	16.3	2	79.1	-2.32	1002	0	1	71.58	0.16	18.9	0	5
LLAWA005	03/11/2017 11:37	2.4	16.2	2	79.4	-0.02	1002	0	1	71.88	0.15	18.6	5	0
LLAWA004	03/11/2017 11:40	4.1	11.1	6.1	78.7	-0.1	1004	0	1	55.76	0.37	15.2	0	0
LLAWA004	03/11/2017 11:41	7.5	12.6	5.3	74.6	-5.6	1004	0	1	54.67	0.6	20.1	0	5
LLAWA004	03/11/2017 11:44	7.6	12.7	5.5	74.2	-1.08	1004	0	1	53.52	0.6	20.3	5	0
LLAWA003	03/11/2017 11:46	2.8	14.6	0	82.6	-0.53	1003	0	1	82.6	0.19	17.4	0	0
LLAWA002	03/11/2017 11:48	15.5	15.3	0	69.2	0.05	1002	0	1	69.2	1.01	30.8	0	0
LLAWA01A	03/11/2017 11:50	8.5	14.1	0	77.4	-2.42	1002	0	1	77.4	0.6	22.6	0	0
LLAWA01A	03/11/2017 11:52	8.7	13.7	0.5	77.1	-4.05	1002	0	1	75.22	0.64	22.4	0	5
LLAWA01A	03/11/2017 11:54	8.1	13.2	0.9	77.8	-1.29	1002	0	1	74.42	0.61	21.3	0	0
LLAWA032	03/11/2017 11:56	0.4	3	18.2	78.4	-0.14	1002	0	1	9.97	0.13	3.4	0	0
LLAWA001	03/11/2017 11:59	18.7	13	0	68.3	-0.12	1003	0	1	68.3	1.44	31.7	0	0
LLAWA033	03/11/2017 12:01	9.1	16	0.2	74.7	-0.7	1002	0	1	73.95	0.57	25.1	1	1
LLAWA033	03/11/2017 12:03	9.2	16.1	0.2	74.5	-0.07	1002	0	1	73.75	0.57	25.3	1	0
LLAWA033	03/11/2017 12:05	9.3	16.1	0.1	74.5	-0.33	1002	0	1	74.12	0.58	25.4	0	0
LLAWA027	03/11/2017 12:07	27.9	15.6	0	56.5	-0.05	1002	0	1	56.5	1.79	43.5	0	0
LLAWA203	03/11/2017 12:09	25.8	18.4	0	55.8	-10.87	1003	0	1	55.8	1.4	44.2	5	5
LLAWA204	03/11/2017 12:11	20.2	19.3	0	60.5	-2.47	1003	0	1	60.5	1.05	39.5	5	5
LLAWA026	03/11/2017 12:13	22.3	18	0	59.7	-0.03	1003	0	1	59.7	1.24	40.3	0	0
LLAWA130	03/11/2017 12:16	16.8	16	2.5	64.7	-0.33	1002	0	1	55.3	1.05	32.8	0	0
LLARA025	03/11/2017 12:19	19	13.6	0	67.4	0.19	1003	0	0	67.4	1.4	32.6	0	0
LLAWC140	03/11/2017 12:23	50.9	37.6	0.1	11.4	-0.22	1002	0	1	11.02	1.35	88.5	5	5
LLAWC135	03/11/2017 12:35	35.3	31.9	1.5	31.3	-30.56	1001	0	1	25.66	1.11	67.2	5	5
LLAWC136	03/11/2017 12:38	40.7	35.2	0.4	23.7	-51.8	1002	0	1	22.2	1.16	75.9	5	5
LLAWC137	03/11/2017 12:42	34.5	32.1	0.1	33.3	-17.66	1002	0	1	32.92	1.07	66.6	10	10
LLAWD297	03/11/2017 13:59	60	38.2	0.1	1.7	-69.56	1000	3	3	1.32	1.57	98.2	20	20
LLAWD307	03/11/2017 14:02	61.9	38	0	0.1	-75.04	1001	2	3	0.1	1.63	99.9	30	30
LLAWD308	03/11/2017 14:05	56.9	40.8	0	2.3	-4.28	1001	11	3	2.3	1.39	97.7	10	10
LLAWD308	03/11/2017 14:07	55.9	40.9	0	3.2	-7.25	1001	10	3	3.2	1.37	96.8	10	15
LLAWD308	03/11/2017 14:10	55.6	40.8	0	3.6	-10.32	1001	9	2	3.6	1.36	96.4	15	15
LLAWD315	13/11/2017 09:25	62.5	38.8	0.1	0	-68.67	1016	6	2	0	1.61	101.3	30	30
LLAWD307	13/11/2017 09:28	61.3	39.9	0	0	-66.85	1016	5	2	0	1.54	101.2	30	30
LLAWD266	13/11/2017 09:30	62.4	39.4	0	0	-64.67	1016	6	2	0	1.58	101.8	5	5
LLAWD265	13/11/2017 09:33	52.9	34	2.5	10.6	-60.2	1015	4	2	1.2	1.56	86.9	1	1
LLAWD264	13/11/2017 09:36	61.3	36	0.4	2.3	-8.42	1016	11	2	0.8	1.7	97.3	1	1
LLAWD262	13/11/2017 09:38	54.1	37.4	0.1	8.4	-5.74	1016	11	9	8.02	1.45	91.5	1	1
LLAWD256	13/11/2017 09:42	18.8	11.7	14.9	54.6	-69.05	1016	3	2	0	1.61	30.5	0	0
LLAWD250	13/11/2017 09:45	63.4	37.2	0.1	0	-73.38	1015	7	1	0	1.7	100.6	20	20
LLAWD255	13/11/2017 09:48	61.5	37.6	0.6	0.3	-69.37	1017	6	1	0	1.64	99.1	20	20
LLAWD261	13/11/2017 09:50	61	40	0	0	-79.2	1016	10	1	0	1.53	101	20	20
LLAWD259	13/11/2017 09:52	61.4	40.8	0	0	-47.3	1016	11	1	0	1.5	102.2	20	20
LLAWD254	13/11/2017 09:55	56.7	35.6	1.5	6.2	-57.54	1016	10	1	0.56	1.59	92.3	20	20
LLAWD270	13/11/2017 09:57	20.6	25.5	11	42.9	-15.51	1016	16	1	1.54	0.81	46.1	0	0
LLAWD270	13/11/2017 09:59	20.5	25.2	11.2	43.1	-77.05	1016	17	1	0.99	0.81	45.7	0	5
LLAWD270	13/11/2017 10:02	20.5	25	11.3	43.2	-72.33	1016	16	1	0.71	0.82	45.5	5	0
LLAWD283	13/11/2017 10:15	56.2	45.2	0	0	-78.37	1017	31	3	0	1.24	101.4	10	10
LLAWD281	13/11/2017 10:19	51.5	40.2	1.7	6.6	-67.93	1016	22	2	0.21	1.28	91.7	10	10
LLAWD293	13/11/2017 10:22	56.1	38.4	0	5.5	-66.88	1017	10	1	5.5	1.46	94.5	10	10
LLAWD279	13/11/2017 10:26	56.6	38.4	1.2	3.8	-45.24	1017	8	1	0	1.47	95	10	10
LLAWD287	13/11/2017 10:29	53	36.8	0.9	9.3	-79.06	1017	7	1	5.92	1.44	89.8	20	20
LLAWD286	13/11/2017 10:33	62.6	38	0	0	-77.52	1017	5	3	0	1.65	100.6	20	20
LLAWD280	13/11/2017 10:39	59.5	37.6	0.6	2.3	-69.12	1017	5	1	0.04	1.58	97.1	10	10
LLAWD304	13/11/2017 10:43	59.1	44	0	0	-73.62	1016	9	1	0	1.34	103.1	30	30
LLAWD303	13/11/2017 10:45	57.8	40.9	0.3	1	-60.12	1016	8	1	0	1.41	98.7	20	20
LLAWD305	13/11/2017 10:47	55.7	40.4	0.7	3.2	-39.38	1016	11	1	0.57	1.38	96.1	20	20
LLAWD306	13/11/2017 10:51	58.5	41.7	0	0	-48.68	1017	10	1	0	1.4	100.2	20	20
LLAWD297	13/11/2017 10:54	51.1	38.3	0	10.6	-72.5	1015	6	0	10.6	1.33	89.4	20	30
LLAWD308	13/11/2017 10:56	32.6	29.2	3.5	34.7	-18.69	1017	17	0	21.54	1.12	61.8	15	15
LLAWD308	13/11/2017 10:59	33.6	29.5	3.5	33.4	-12.42	1017	17	0	20.24	1.14	63.1	15	10
LLAWD308	13/11/2017 11:01	35.2	30.4	3.1	31.3									

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 (%)
LLAWA004	20/11/2017 10:59	21.2	17.5	0.3	61	-0.05	1000	0	1	59.87	1.21	38.7	5	0
LLAWA003	20/11/2017 11:02	12.7	15.4	0.2	71.7	-0.03	1002	0	1	70.95	0.82	28.1	0	0
LLAWA003	20/11/2017 11:05	12.1	15	0.1	72.8	-6.53	1002	0	1	72.42	0.81	27.1	0	5
LLAWA003	20/11/2017 11:07	12.4	15.8	0	71.8	-0.3	1002	0	1	71.8	0.78	28.2	5	0
LLAWA002	20/11/2017 11:11	15.8	14	1.4	68.8	-0.05	1002	0	1	63.54	1.13	29.8	0	0
LLAWA002	20/11/2017 11:12	5.6	7.3	9.8	77.3	-4.6	1002	0	1	40.45	0.77	12.9	0	5
LLAWA002	20/11/2017 11:14	13.1	12.8	1.7	72.4	-0.1	1002	0	1	66.01	1.02	25.9	5	0
LLAWA01A	20/11/2017 11:23	14.1	13.4	0	72.5	-0.03	1001	0	1	72.5	1.05	27.5	0	0
LLAWA032	20/11/2017 11:27	0.2	2.2	20.9	76.6	-0.03	1002	0	1	0	0.09	2.4	0	0
LLAWA001	20/11/2017 11:32	22.9	11.5	0	65.6	-0.02	1002	0	3	65.6	1.99	34.4	0	0
LLAWA001	20/11/2017 11:34	19.4	13	0	67.6	-3.09	1002	0	3	67.6	1.49	32.4	0	5
LLAWA001	20/11/2017 11:36	18.9	13.1	0	68	-0.02	1002	0	2	68	1.44	32	5	0
LLAWA033	20/11/2017 11:39	38.3	16.1	0.1	45.5	0.05	1001	2	1	45.12	2.38	54.4	0	0
LLAWA033	20/11/2017 11:41	41.5	17.4	0	41.1	-0.03	1001	3	1	41.1	2.39	58.9	0	1
LLAWA033	20/11/2017 11:43	42.3	17.5	0	40.2	-0.15	1001	3	1	40.2	2.42	59.8	1	1
LLAWA027	20/11/2017 11:46	30.9	15.7	0.1	53.3	-0.09	1001	0	0	52.92	1.97	46.6	0	0
LLAWA027	20/11/2017 11:48	30.7	16.1	0	53.2	-0.07	1001	0	1	53.2	1.91	46.8	0	1
LLAWA027	20/11/2017 11:51	17.8	16.4	0	65.8	-0.02	1001	0	0	65.8	1.09	34.2	1	0
LLAWA026	20/11/2017 11:55	21.4	18.9	0	59.7	-0.03	1000	0	1	59.7	1.13	40.3	0	0
LLARA025	20/11/2017 11:59	21.8	14.7	0	63.5	0.02	1000	0	0	63.5	1.48	36.5	0	0
LLAWA130	20/11/2017 12:04	20.5	17.4	0	62.1	-0.07	1000	0	0	62.1	1.18	37.9	0	0
LLAWA130	20/11/2017 12:06	18.8	17.6	0.1	63.5	-0.67	1000	0	0	63.12	1.07	36.4	0	5
LLAWA130	20/11/2017 12:08	18.6	17.5	0.2	63.7	-0.03	1000	0	0	62.95	1.06	36.1	5	0
LLAWA204	20/11/2017 12:14	19.5	18.2	0	62.3	-0.46	1001	0	0	62.3	1.07	37.7	5	5
LLAWA203	20/11/2017 12:19	27	16.7	0	56.3	-1.1	1003	0	0	56.3	1.62	43.7	5	5
LLAWC132	20/11/2017 13:27	45.5	30.2	0.5	23.8	-61.64	1001	0	2	21.92	1.51	75.7	5	5
LLAWC249	20/11/2017 13:30	40.6	31.3	0	28.1	-38.17	1001	0	4	28.1	1.3	71.9	20	20
LLAWC250	20/11/2017 13:34	35.5	29	0	35.5	-36.1	1000	0	2	35.5	1.22	64.5	5	5
LLAWC251	20/11/2017 13:41	36.8	31.3	0	31.9	-38.56	1001	0	2	31.9	1.18	68.1	10	10
LLAWC152	20/11/2017 13:44	0.2	1.4	20.9	77.1	-31.78	1002	0	1	0	0.14	1.6	0	0
LLAWC152	20/11/2017 13:46	0.2	0.8	20.9	77.5	-30.75	1002	0	1	0	0.25	1	0	5
LLAWC152	20/11/2017 13:50	0.1	0.6	20.9	77.8	-34.76	1002	0	1	0	0.17	0.7	5	0
LLAWC133	20/11/2017 13:53	40.3	31.1	0.5	28.1	-69.08	1000	0	2	26.22	1.3	71.4	5	5
LLAWC134	20/11/2017 13:57	19.9	20	5.8	54.3	-8.04	1002	0	1	32.49	1	39.9	5	5
LLAWC134	20/11/2017 13:59	20	20	5.9	54.1	-2.39	1002	0	1	31.92	1	40	5	1
LLAWC134	20/11/2017 14:00	19.7	19.8	6	54.5	-1.08	1002	0	1	31.94	0.99	39.5	1	1
LLAWC154	20/11/2017 14:04	25.6	27.2	0	47.2	-20.78	1001	0	1	47.2	0.94	52.8	5	5
LLAWC135	20/11/2017 14:07	35.6	31.3	1.5	31.6	-33.65	1001	0	1	25.96	1.14	66.9	5	5
LLAWC136	20/11/2017 14:12	41.1	35.1	0.8	23	-52.61	1001	0	1	19.99	1.17	76.2	5	5
LLAWC137	20/11/2017 14:17	34.5	32.2	0.2	33.1	-18.67	1000	0	1	32.35	1.07	66.7	10	10
LLAWC146	24/11/2017 09:25	0.4	2.8	18.1	78.7	-67.04	1000	0	3	10.64	0.14	3.2	5	5
LLAWC146	24/11/2017 09:27	0.3	1.1	19.6	79	-61.16	1000	0	3	5.3	0.27	1.4	5	0
LLAWC146	24/11/2017 09:29	0.3	1	19.7	79	-59.36	1000	0	3	4.93	0.3	1.3	0	0
LLAWC147	24/11/2017 09:32	46.7	32.6	0.1	20.6	-44.35	998	0	3	20.22	1.43	79.3	10	10
LLAWC148	24/11/2017 09:36	2.5	4.1	17.9	75.5	-0.14	998	0	2	8.2	0.61	6.6	0	0
LLAWC144	24/11/2017 09:39	57.8	41.8	0	0.4	-10.34	1000	1	2	0.4	1.38	99.6	5	5
LLAWC145	24/11/2017 09:41	43.1	34.8	2.9	19.2	-4.88	999	0	2	8.3	1.24	77.9	1	1
LLAWC141	24/11/2017 09:45	53.7	43.3	0.6	2.4	-0.24	1000	0	2	0.14	1.24	97	5	5
LLAWC142	24/11/2017 09:49	33.9	30.8	4.5	30.8	-8.69	1001	0	2	13.88	1.1	64.7	0	0
LLAWC142	24/11/2017 09:52	34.1	31.5	3.9	30.5	-7.9	1001	0	2	15.84	1.08	65.6	0	1
LLAWC142	24/11/2017 09:54	34.3	31.3	4.2	30.2	-4.48	1001	0	2	14.41	1.1	65.6	1	1
LLAWC140	24/11/2017 09:57	50.8	41	0	8.2	-1.22	999	1	2	8.2	1.24	91.8	5	5
LLAWC143	24/11/2017 10:00	44.6	35.8	0	19.6	-35.74	999	0	1	19.6	1.25	80.4	20	20
LLARA028	24/11/2017 10:03	32.9	26.3	0.1	40.7	-4.45	1001	0	1	40.32	1.25	59.2	5	5
LLARA015	24/11/2017 10:06	22.5	22.2	0	55.3	-5.55	1000	0	1	55.3	1.01	44.7	5	5
LLAWA016	24/11/2017 10:09	17.1	20.6	0	62.3	-0.21	1001	0	2	62.3	0.83	37.7	5	5
LLARA014	24/11/2017 10:12	15.7	16.5	0	67.8	-0.05	1002	0	1	67.8	0.95	32.2	1	1
LLARA012	24/11/2017 10:15	20	25.1	0	54.9	-0.29	999	0	1	54.9	0.8	45.1	5	5
LLAWA011	24/11/2017 10:19	14.8	20.7	0	64.5	-0.4	1002	0	1	64.5	0.71	35.5	5	5
LLAWA010	24/11/2017 10:25	12.4	20.3	0	67.3	-0.27	1002	0	1	67.3	0.61	32.7	5	5
LLAWA032	24/11/2017 10:28	15.8	20.6	0	63.6	-1.27	1000	0	1	63.6	0.77	36.4	5	5
LLAWA030	24/11/2017 10:32	25.3	23.6	0	51.1	-1.06	1002	0	1	51.1	1.07	48.9	5	5
LLAWA131	24/11/2017 10:37	9.4	18.5	0	72.1	-2.35	1000	0	1	72.1	0.51	27.9	1	1
LLAWB116	24/11/2017 10:41	19.5	22.4	1.8	56.3	-1.17	1001	0	1	49.53	0.87	41.9	1	1
LLAWB116	24/11/2017 10:43	19.4	22.6	1.9	56.1	-0.98	1001	0	1	48.96	0.86	42	1	5
LLAWB116	24/11/2017 10:45	19.4	22.6	1.9	56.1	-0.7	1001	0	1	48.96	0.86	42	5	1
LLAWB120	24/11/2017 10:48	38.6	34.3	0	27.1	-0.93	999	0	1	27.1	1.13	72.9	5	5
LLAWD230	24/11/2017 10:50	20.4	17.4	13.1	49.1	-2.59	999	2	1	0	1.17	37.8	0	0
LLAWD230	24/11/2017 10:53	20.9	17.6	13	48.5	-2.49	999	3	1	0	1.19	38.5	0	5
LLAWD230	24/11/2017 11:07	20.4	17.6	12.9	49.1	-2.36	999	0	1	0.6	1.16	38	5	0
LLAWD313	24/11/2017 11:50	47	37.3	0.2	15.5	-34.71	1002	6	2	14.75	1.26	84.3	20	20
LLAWD313	24/11/2017 11:52	46.8	38.1	0.1	15	-38.87	1002	8	2	14.62	1.23	84.9	20	25
LLAWD313	24/11/2017 11:55	46.5	38	0	15.5	-40.84	1002	7	2	15.5	1.22	84.5	25	25
LLAWD314	24/11/2017 11:58	43.5	39	0	17.5	-25.71	1000	10	2	17.5	1.12	82.5	20	20
LLAWD302	24/11/2017 12:00	57.8	43.2	0	0	-78.79	998	13	1	0	1.34	101	30	30
LLAWD302	24/11/2017 12:02	57.7	42.9	0	0	-69.91	998	13	1	0	1.34	100.6	30	25
LLAWD302	24/11/2017 12:04	57.6	43.1	0	0	-66.14	998	12	1	0	1.34	100.7	25	25
LLAWD301	24/11/2017 12:07	46.6	34.9	3.5	15	-34.32	1002	7	1	1.84	1.34	81.5	15	15
LLAWD301	24/11/2017 12:09	48.8	36.1	2.9	12.2	-17.64	1002	7	1	1.3	1.35	84.9	15	10
LLAWD301	24/11/2017 12:11	51.8	37.9	1.9	8.4	-8.06	1002	8	1	1.26	1.37	89.7	10	10
LLAWD300	24/11/2017 12:14	58	40.9	0	1.1	-64.27	1001	8	1	1.1	1.42	98.9	20	20
LLAWD299	24/11/2017 12:18	29	23.7	10.7	36.6	-22.38	1002	4	1	0	1.22	52.7	10	10
LLAWD299	24/11/2017 12:20	41.1	32.6	5.2	21.1	-8.18	1002	5	1	1.55	1.26	73.7	10	5
LLAWD299	24/11/2017 12:22	51.3	40.1	1.4	7.2	-0.96	1002	6	1	1.94	1.28	91.4	5	5
LLAWD312	24/11/2017 12:32	57.4	41.8	0	0.8	-67.45	999	4	1	0.8	1.37	99.2	25	25
LLAWD311	24/11/2017 12:34	58.7	41.9	0	0	-47.11	999	5	1	0	1.4	100.6	25	25
LLAWD310	24/11/2017 12:41	55.8	40.5	0.4	3.3	-64.05	1001	8	1	1.8	1.38	96.3	25	25
LLAWD234	24/11/2017 12:46	20.2	23	4.2	52.6	-14.07	1001	4	1	36.				

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 (%)
LLAWD222	24/11/2017 13:15	58	42.1	0	0	-76.14	1000	8	2	0	1.38	100.1	20	20
LLAWD231	24/11/2017 13:18	39	36.6	0	24.4	-29.46	1002	6	1	24.4	1.07	75.6	10	10
LLAWB119	24/11/2017 13:22	28.2	31.1	0	40.7	-2.87	1000	2	1	40.7	0.91	59.3	5	5
LLAWB117	24/11/2017 13:25	44.6	34.3	0	21.1	-3.66	1001	2	1	21.1	1.3	78.9	10	10
LLAWB095	24/11/2017 13:28	40.5	30.7	0	28.8	-0.98	999	1	1	28.8	1.32	71.2	5	5
LLAWB096	24/11/2017 13:31	53.2	40.1	0	6.7	-0.09	1001	2	1	6.7	1.33	93.3	0	0
LLAWB096	24/11/2017 13:33	29.9	21.2	0	48.9	-0.82	1001	1	1	48.9	1.41	51.1	0	1
LLAWB096	24/11/2017 13:35	53	40.4	0	6.6	-0.91	1001	1	0	6.6	1.31	93.4	1	0
LLAWB111	24/11/2017 13:37	54.6	40	0	5.4	-0.86	1000	0	0	5.4	1.37	94.6	5	5
LLAWB112	24/11/2017 13:43	44.7	38.7	0	16.6	-1.53	999	1	1	16.6	1.16	83.4	15	15
LLAWB113	24/11/2017 13:46	33.8	33.3	1.4	31.5	-0.96	999	1	0	26.24	1.02	67.1	10	10
LLAWB114	24/11/2017 13:49	45.5	40.2	0	14.3	-2.95	1001	2	1	14.3	1.13	85.7	10	10
LLAWB115	24/11/2017 13:52	33.8	30.3	0	35.9	-27.79	999	0	0	35.9	1.12	64.1	15	15
LLAWB079	24/11/2017 13:57	55.2	30.9	0.9	13	-66.04	1001	0	1	9.62	1.79	86.1	5	5
LLAWB083	24/11/2017 14:00	0.7	3.7	20.3	75.3	0.17	999	4	0	0	0.19	4.4	0	0
LLAWB083	24/11/2017 14:02	0.2	1.5	20.9	76.7	-1.96	999	0	1	0	0.13	1.7	0	5
LLAWB083	24/11/2017 14:06	0.2	0.7	20.9	77.2	-0.12	999	0	1	0	0.29	0.9	5	0
LLAWB082	24/11/2017 14:11	63.1	34.7	0.1	2.1	-76.43	999	0	1	1.72	1.82	97.8	5	5
LLAWB081	24/11/2017 14:16	63.9	34.6	0	1.5	-81.36	999	0	1	1.5	1.85	98.5	5	5
LLARB072	24/11/2017 14:24	54.6	33.8	0	11.6	-4.67	1000	0	1	11.6	1.62	88.4	5	5
LLAWD266	30/11/2017 09:20	65.4	39.1	0.1	0	-69.83	999	9	1	0	1.67	104.5	5	5
LLAWD265	30/11/2017 09:23	63.6	36.7	1	0	-79.86	1001	9	1	0	1.73	100.3	1	1
LLAWD264	30/11/2017 09:26	33.9	20.4	9.3	36.4	-65.03	1000	8	1	1.43	1.66	54.3	1	1
LLAWD264	30/11/2017 09:28	27.4	16.6	11.8	44.2	-36.31	1000	7	1	0	1.65	44	1	0
LLAWD264	30/11/2017 09:30	32.4	19.4	10.5	37.7	-12.75	1000	7	1	0	1.67	51.8	0	0
LLAWD262	30/11/2017 09:33	38.7	26.2	7.6	27.5	-82.41	1000	9	1	0	1.48	64.9	1	1
LLAWD262	30/11/2017 09:36	43.9	29.5	5.6	21	-54.33	1000	9	1	0	1.49	73.4	1	0
LLAWD262	30/11/2017 09:39	42.8	28.9	6.2	22.1	-30.63	1000	9	2	0	1.48	71.7	0	0
LLAWD256	30/11/2017 09:41	14.7	10.2	16.2	58.9	-67.29	998	3	0	0	1.44	24.9	0	0
LLAWD256	30/11/2017 09:43	15.4	10	16	58.6	-82.36	998	3	0	0	1.54	25.4	0	5
LLAWD256	30/11/2017 09:46	17	11	15.9	56.1	-71.5	998	3	0	0	1.55	28	5	0
LLAWD250	30/11/2017 09:49	66.1	37.7	0.3	0	-69.83	1000	9	1	0	1.75	103.8	20	20
LLAWD255	30/11/2017 09:52	65.7	37.1	0.2	0	-60.81	1001	9	1	0	1.77	102.8	20	20
LLAWD259	30/11/2017 09:55	64.3	39.8	0	0	-58.04	1001	12	3	0	1.62	104.1	20	20
LLAWD270	30/11/2017 09:57	32	24.9	9.2	33.9	-58.12	1000	13	2	0	1.29	56.9	0	0
LLAWD270	30/11/2017 09:59	31.8	24.5	9.7	34	-82.77	1000	13	3	0	1.3	56.3	0	5
LLAWD270	30/11/2017 10:02	32	24.5	9.7	33.8	-69.49	1000	14	4	0	1.31	56.5	5	0
LLAWD227	30/11/2017 10:11	0	0.2	20.9	78.9	-41.81	1003	0	0	0.32	0	0.2	0	0
LLAWD227	30/11/2017 10:13	0.2	0.2	20.9	78.5	-80.49	1003	1	0	0	1	0.4	5	5
LLAWD283	30/11/2017 10:13	60.1	50.1	0	0	-61.26	1002	34	11	0	1.2	110.2	10	10
LLAWD227	30/11/2017 10:14	0.1	0.2	20.9	78.5	-78.42	1003	1	0	0	0.5	0.3	0	0
LLAWD225	30/11/2017 10:16	61.3	39.1	0.5	0	-77.62	1003	5	0	0	1.57	100.4	5	5
LLAWD281	30/11/2017 10:16	50.8	37.2	3.1	8.9	-61.31	1000	25	24	0	1.37	88	10	10
LLAWD297	30/11/2017 10:19	57	37.6	0.7	4.7	-70.53	1003	7	6	2.07	1.52	94.6	25	25
LLAWD308	30/11/2017 10:22	54.8	37.9	0.5	6.8	-5.04	998	14	0	4.92	1.45	92.7	5	5
LLAWD308	30/11/2017 10:23	52.1	38.5	0.4	9	-9.29	998	15	0	7.5	1.35	90.6	10	10
LLAWD303	30/11/2017 10:25	60.8	41	0.5	0	-64.82	1001	15	48	0	1.48	101.8	20	20
LLAWD309	30/11/2017 10:26	42.7	34.5	0.3	22.5	-52.54	1002	7	0	21.37	1.24	77.2	10	10
LLAWD293	30/11/2017 10:27	48.6	40.4	0	11	-68.98	1001	12	3	11	1.2	89	10	10
LLAWD298	30/11/2017 10:29	62.6	38.2	0.5	0	-79.73	1001	9	79	0	1.64	100.8	10	10
LLAWD278	30/11/2017 10:31	56.5	36.4	0	7.1	-54.81	1002	9	2	7.1	1.55	92.9	10	10
LLAWD237	30/11/2017 10:32	37.4	31.9	0.3	30.4	-55	1001	6	1	29.27	1.17	69.3	5	5
LLAWD287	30/11/2017 10:33	52.6	35.3	1.7	10.4	-67.65	1002	10	4	4.01	1.49	87.9	20	20
LLAWD286	30/11/2017 10:37	68.1	36.3	0.4	0	-61.83	1002	7	2	0	1.88	104.4	20	20
LLAWD279	30/11/2017 10:40	56.7	36.8	1.4	5.1	-44.26	1002	10	4	0	1.54	93.5	10	10
LLAWD293	30/11/2017 10:40	47.8	33.4	0.4	18.4	-69.55	1002	8	0	16.9	1.43	81.2	10	10
LLAWD280	30/11/2017 10:44	59.7	36.3	1.3	2.7	-69.78	1010	9	10	0	1.64	96	10	10
LLAWD303	30/11/2017 10:44	58.4	40.9	0.7	0	-74.85	1002	8	0	0	1.43	99.3	10	10
LLAWD304	30/11/2017 10:46	59.4	41	0.5	0	-30.99	1001	9	0	0	1.45	100.4	5	5
LLAWD254	30/11/2017 10:47	65	36.3	0.2	0	-69	1002	10	4	0	1.79	101.3	20	20
LLAWD304	30/11/2017 10:48	59.1	41.3	0.4	0	-38.94	1001	9	0	0	1.43	100.4	10	10
LLAWD261	30/11/2017 10:52	64.3	39.4	0.3	0	-61.85	1002	10	9	0	1.63	103.7	20	20
LLAWD305	30/11/2017 10:52	54.8	39.6	1.6	4	-65.47	1001	12	1	0	1.38	94.4	10	10
LLAWD306	30/11/2017 10:55	57.9	44.2	0.1	0	-29.09	1000	9	0	0	1.31	102.1	5	5
LLAWD306	30/11/2017 10:56	57.8	44.1	0.1	0	-38.28	1000	10	0	0	1.31	101.9	10	10
LLAWD307	30/11/2017 10:59	64	39.7	0.2	0	-74.93	1001	9	4	0	1.61	103.7	10	10
LLAWD307	30/11/2017 11:00	62.4	40	0.1	0	-68.58	1001	8	6	0	1.56	102.4	5	5
LLAWD315	30/11/2017 11:03	66.9	38.8	0	0	-71.71	998	9	2	0	1.72	105.7	10	10
LLAWD315	30/11/2017 11:04	62.9	39.4	0.1	0	-69.86	998	8	0	0	1.6	102.3	5	5
LLAWA029	30/11/2017 11:19	32	25.8	0.4	41.8	-23.25	1002	3	0	40.3	1.24	57.8	10	10
LLAWA031	30/11/2017 11:24	0.1	2.3	20.9	75.9	-0.02	1001	1	0	0	0.04	2.4	0	0
LLAWA031	30/11/2017 11:26	0.2	1	20.9	77.1	-3.33	1001	1	0	0	0.2	1.2	5	5
LLAWA031	30/11/2017 11:28	0.3	0.8	20.9	77.2	-0.41	1001	1	0	0	0.38	1.1	0	0
LLAWA132	30/11/2017 11:46	47	32.3	0.6	20.1	-67.71	1001	4	0	17.84	1.46	79.3	5	5
LLARA025	13/12/2017 09:37	0	0.1	20.6	79.3	-79.25	979	0	0	1.84	0	0.1	0	0
LLAWA026	13/12/2017 09:40	21.6	18.7	0.3	59.4	0.4	979	0	0	58.27	1.16	40.3	0	0
LLAWA027	13/12/2017 09:43	26.5	15.6	0.2	57.7	-0.31	978	0	0	56.95	1.7	42.1	0	0
LLAWA033	13/12/2017 09:45	14.2	16.1	0.2	69.5	-80.54	979	0	0	68.75	0.88	30.3	5	0
LLAWA004	13/12/2017 09:48	25.2	18.2	0.2	56.4	-0.12	979	1	0	55.65	1.38	43.4	0	0
LLAWA003	13/12/2017 09:51	4	14.3	0.2	81.5	-0.16	979	0	1	80.75	0.28	18.3	0	0
LLAWA002	13/12/2017 09:54	16.1	15.2	0.2	68.5	-0.13	979	0	0	67.75	1.06	31.3	0	0
LLAWA01A	13/12/2017 09:58	9.6	14.2	0.2	76	-0.16	979	0	0	75.25	0.68	23.8	0	0
LLAWD308	13/12/2017 10:00	52.7	38.2	0	9.1	-8.12	977	28	237	9.1	1.38	90.9	10	10
LLAWA032	13/12/2017 10:01	3.7	8.2	8.7	79.4	-0.05	979	0	0	46.69	0.45	11.9	0	0
LLAWA001	13/12/2017 10:03	31.8	12.8	0.2	55.2	-0.57	979	0	0	54.45	2.48	44.6	0	0
LLAWD309	13/12/2017 10:03	54.2	39	0	0	-22.3	978	24	350	0	1.39	93.2	10	10
LLAWD309	13/12/2017 10:06	54.1	39.6	0	6.3	-24.13	978	24	358	6.3	1.37	93.7	10	15
LLAWA203	13/12/2017 10:07	28.3	18.1	0.2	53.4	-2.33	980	0	2	52.65	1.56	46.4	10	10
LLAWD309	13/12/2017 10:08													

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 (%)
LLAWD311	13/12/2017 10:18	64.2	42.6	0	0	-66.56	977	16	403	0	1.51	106.8	25	25
LLAWA130	13/12/2017 10:20	28.2	19.4	0.2	52.2	1.05	978	0	13	51.45	1.45	47.6	5	5
LLAWD312	13/12/2017 10:21	60.3	48.7	0.8	0	-66.23	978	17	623	0	1.24	109	25	25
LLAWD230	13/12/2017 10:23	44.1	32.1	4.9	18.9	-1.37	977	15	36	0.48	1.37	76.2	0	0
LLAWD230	13/12/2017 10:25	45.6	33	4.6	16.8	-1.39	977	16	38	0	1.38	78.6	0	5
LLAWA131	13/12/2017 10:27	16.4	19.3	0.2	64.1	0.49	978	0	2	63.35	0.85	35.7	5	5
LLAWD230	13/12/2017 10:27	45	32.3	4.6	18.1	-1.47	977	16	37	0.8	1.39	77.3	5	0
LLAWA132	13/12/2017 10:30	20.3	20.9	0.4	58.4	-0.4	978	0	5	56.9	0.97	41.2	5	5
LLAWD231	13/12/2017 10:30	43.8	36	0	20.2	-30.16	977	16	239	20.2	1.22	79.8	10	10
LLAWA030	13/12/2017 10:32	37.6	25.1	0.1	37.2	-0.05	977	0	5	36.82	1.5	62.7	5	5
LLAWD222	13/12/2017 10:33	60.5	41.3	0	0	-61.62	977	18	279	0	1.46	101.8	20	20
LLARA010	13/12/2017 10:35	22.6	22.4	0.2	54.8	-0.01	977	0	2	54.05	1.01	45	5	5
LLARD07	13/12/2017 10:36	60.8	39.6	0.5	0	-68.69	977	17	93	0	1.54	100.4	20	20
LLAWA011	13/12/2017 10:38	33.2	23.7	0.2	42.9	-1.09	977	0	7	42.15	1.4	56.9	5	5
LLAWD219	13/12/2017 10:40	60.4	41.2	0.6	0	-65.73	977	18	133	0	1.47	101.6	20	20
LLARA012	13/12/2017 10:41	35	27.1	0.2	37.7	-0.04	977	0	6	36.95	1.29	62.1	5	5
LLARA028	13/12/2017 10:43	46.7	28.7	0.1	24.5	-2.02	977	0	15	24.12	1.63	75.4	10	10
LLAWD234	13/12/2017 10:44	28.1	27.5	0.8	43.6	-28.86	977	18	59	40.59	1.02	55.6	5	5
LLARA015	13/12/2017 10:46	26.7	22.3	0.2	50.8	-4.11	977	0	12	50.05	1.2	49	5	5
LLAWD210	13/12/2017 10:47	58.4	38.4	0	3.2	-37.44	978	15	52	3.2	1.52	96.8	15	15
LLAWA016	13/12/2017 10:49	24.3	22	0.1	53.6	-0.35	977	0	19	53.22	1.1	46.3	0	0
LLARA014	13/12/2017 10:51	18.2	17.5	0.2	64.1	-0.37	977	0	7	63.35	1.04	35.7	5	0
LLAWD233	13/12/2017 10:51	61.7	38.6	0.2	0	-64.58	977	13	119	0	1.6	100.3	25	25
LLAWD227	13/12/2017 10:54	1.2	1.6	20.9	76	-0.45	977	9	2	0	0.75	2.8	0	0
LLAWA029	13/12/2017 10:58	38.9	27.8	0.2	33.1	-47.03	977	0	0	32.35	1.4	66.7	20	20
LLAWD225	13/12/2017 10:58	59.2	41.5	0	0	-52.08	977	15	322	0	1.43	100.7	25	25
LLAWA031	13/12/2017 11:00	6.3	5	16.4	72.3	0.6	976	0	0	10.64	1.26	11.3	0	0
LLAWD297	13/12/2017 11:00	57.9	40.6	0	0	-60.51	976	18	485	0	1.43	98.5	25	25
LLAWD298	13/12/2017 11:04	60.6	40.1	0.1	0	-76.57	976	15	518	0	1.51	100.7	10	10
LLAWC143	13/12/2017 11:05	50.9	39.1	2.8	7.2	-2.91	976	0	118	0	1.3	90	0	0
LLAWC140	13/12/2017 11:08	55.1	41.9	0.2	2.8	-0.08	976	3	139	2.05	1.32	97	50	50
LLAWD299	13/12/2017 11:09	54.7	39.8	0.8	4.7	-49.81	976	15	75	1.69	1.37	94.5	5	5
LLAWC141	13/12/2017 11:11	34.4	32.5	0.1	33	-2.57	977	1	55	32.62	1.06	66.9	10	10
LLAWD300	13/12/2017 11:12	60.4	41.6	0	0	-63.65	976	19	326	0	1.45	102	20	20
LLAWC145	13/12/2017 11:13	43.1	34.3	1	21.6	-3.38	976	2	93	17.84	1.26	77.4	10	10
LLAWD301	13/12/2017 11:15	59.2	40.5	0	0.3	-58.16	976	20	239	0.3	1.46	99.7	20	20
LLAWC146	13/12/2017 11:16	0.3	0.4	20.9	78.2	-55.23	977	0	1	0	0.75	0.7	0	0
LLAWC147	13/12/2017 11:18	49.7	34.6	0.5	15.2	-44.67	977	0	32	13.32	1.44	84.3	10	10
LLAWD313	13/12/2017 11:19	52.8	39	0	1	-35.17	976	17	238	1	1.35	91.8	20	20
LLAWC148	13/12/2017 11:20	31.6	23.6	9.7	35.1	0.51	976	0	18	0	1.34	55.2	0	0
LLAWD314	13/12/2017 11:21	50.4	40.1	0	0.3	-23.94	975	21	194	0.3	1.26	90.5	20	20
LLAWC144	13/12/2017 11:23	61.3	42.3	0.3	0	-0.06	976	0	148	0	1.45	103.6	10	10
LLAWD302	13/12/2017 11:24	60.3	42.5	0	0.5	-67.89	976	22	291	0.5	1.42	102.8	30	30
LLAWD304	13/12/2017 11:27	60.1	41.8	0.2	0	-48.44	977	18	367	0	1.44	101.9	10	10
LLAWD303	13/12/2017 11:30	59.7	42.2	0	0	-71.57	976	20	237	0	1.41	101.9	20	20
LLAWD293	13/12/2017 11:34	54.6	36.8	0	1.3	-68.85	977	15	29	1.3	1.48	91.4	10	10
LLAWD286	13/12/2017 11:38	64.8	33.4	0	1.8	-80.94	977	12	135	1.8	1.94	98.2	20	20
LLAWD279	13/12/2017 11:41	61.6	38.5	0	0	-67.1	979	14	113	0	1.6	100.1	10	10
LLAWD287	13/12/2017 11:44	54.1	36.4	1	8.5	-81.28	978	14	107	4.74	1.49	90.5	20	20
LLAWD286	13/12/2017 11:48	64.5	33.3	0	2.2	-80.92	978	12	132	2.2	1.94	97.8	20	20
LLAWD281	13/12/2017 11:52	58.2	41.4	0.4	0	-63.46	977	33	332	0	1.41	99.6	10	10
LLAWD283	13/12/2017 11:54	59.6	45.3	0	0.4	-80.99	977	44	417	0.4	1.32	104.9	10	10
LLAWD305	13/12/2017 11:59	55	39.6	1	4.4	-28.81	974	22	46	0.64	1.39	94.6	5	5
LLAWB116	13/12/2017 13:05	70.2	33.9	0.2	0	-0.03	974	1	38	0	2.07	104.1	10	10
LLAWB120	13/12/2017 13:10	54.1	37	0	8.9	-1.44	975	0	189	8.9	1.46	91.1	0	0
LLAWD315	13/12/2017 13:10	61	39.1	0	0	-53.76	976	25	126	0	1.56	100.1	5	5
LLAWD307	13/12/2017 13:12	61.1	39.5	0	0.2	-75.79	976	25	174	0.2	1.55	100.6	30	30
LLAWB119	13/12/2017 13:13	36.6	32.2	0.2	31	-1.1	975	2	27	30.25	1.14	68.8	5	5
LLAWD306	13/12/2017 13:15	57.5	43.5	0	3.2	-57.55	977	29	315	3.2	1.32	101	10	10
LLAWB117	13/12/2017 13:16	56.8	38.1	0.1	5	-0.64	975	0	49	4.62	1.49	94.9	5	5
LLAWD270	13/12/2017 13:18	29.8	23.2	9.6	37.4	-13.79	977	29	11	1.3	1.28	53	0	0
LLAWB096	13/12/2017 13:22	44.9	32.7	3.3	19.1	1	975	0	273	6.69	1.37	77.6	5	5
LLAWB111	13/12/2017 13:25	61.1	41.2	0.1	0	0.67	976	1	62	0	1.48	102.3	70	70
LLAWD254	13/12/2017 13:26	63.3	37.6	0	0	-64.34	978	25	225	0	1.68	100.9	20	20
LLAWB112	13/12/2017 13:27	59.3	41.6	0.1	0	0.23	975	2	104	0	1.43	100.9	10	10
LLAWD255	13/12/2017 13:28	52.9	32	2.8	12.3	-76.95	978	21	187	1.77	1.65	84.9	20	20
LLAWB113	13/12/2017 13:29	49.9	38.3	0.1	11.7	0.76	976	1	174	11.32	1.3	88.2	5	5
LLAWD259	13/12/2017 13:31	62	39.9	0	0	-59.23	977	25	295	0	1.55	101.9	20	20
LLAWB114	13/12/2017 13:32	60.1	42.3	0.1	0	-2.29	975	3	123	0	1.42	102.4	5	5
LLAWD261	13/12/2017 13:33	61.6	40.1	0	0.1	-69.64	977	23	153	0.1	1.54	101.7	20	20
LLAWB115	13/12/2017 13:34	43.2	31.2	0.1	25.5	-30.8	976	0	39	25.12	1.38	74.4	5	5
LLAWD250	13/12/2017 13:35	63	38	0	0	16.82	979	20	217	0	1.66	101	5	5
LLAWB079	13/12/2017 13:37	64.7	31.8	0.7	2.8	-78.6	975	0	12	0.17	2.03	96.5	5	5
LLAWD250	13/12/2017 13:37	63.1	38.2	0	0	-51.97	979	21	226	0	1.65	101.3	5	10
LLAWD250	13/12/2017 13:40	63.4	38.1	0	0.2	-62.11	979	20	224	0.2	1.66	101.5	10	10
LLAWB081	13/12/2017 13:42	0.6	1.3	20.5	77.6	2.91	976	4	0	0.52	0.46	1.9	0	0
LLAWD256	13/12/2017 13:42	57.3	36.2	1	5.5	-78.17	977	17	255	1.74	1.58	93.5	0	0
LLAWD262	13/12/2017 13:44	59.5	38.3	0.1	2.1	-46.1	977	21	Off upper s	1.72	1.55	97.8	0	0
LLAWB082	13/12/2017 13:45	67.8	36.3	0.4	0	-74.81	976	0	7	0	1.87	104.1	10	10
LLAWD264	13/12/2017 13:46	60.5	35.3	0.6	3.6	-15.11	978	21	633	1.34	1.71	95.8	0	0
LLAWD264	13/12/2017 13:48	62.5	36.2	0.1	1.2	-34.65	978	21	640	0.82	1.73	98.7	0	1
LLAWB083	13/12/2017 13:50	69.3	35.3	0.2	0	-78.28	976	0	12	0	1.96	104.6	10	10
LLAWD264	13/12/2017 13:50	63.6	36.6	0	0	-6.55	978	21	645	0	1.74	100.2	1	1
LLAWD265	13/12/2017 13:53	62.7	37.4	0	0	-80.69	977	18	257	0	1.68	100.1	1	1
LLARB072	13/12/2017 13:54	62.3	35.3	0.2	2.2	-1.3	976	0	14	1.45	1.76	97.6	10	10
LLAWD266	13/12/2017 13:57	61.6	39.2	0	0	-64.91	977	18	231	0	1.57	100.8	5	5
LLAWC249	14/12/2017 11:19	46.7	33.2	0.4	19.7	-41.25	974	0	18	18.2	1.41	79.9	20	20
LLAWC250	14/12/2017 11:21	44.4	29.9	0.2										

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 (%)
LLAWC133	14/12/2017 11:44	47.3	37.7	0.2	14.8	-66.56	973	0	78	14.05	1.25	85	10	10
LLAWC132	14/12/2017 11:47	48.7	33.7	1	16.6	-66.41	973	0	51	12.84	1.45	82.4	10	10
LLAWD299	15/12/2017 10:58	53.6	39.1	1.7	5.6	-66.52	988	0	0	0	1.37	92.7	5	5
LLAWD308	15/12/2017 11:01	54.7	39.4	0.5	5.4	-7.48	989	0	0	3.52	1.39	94.1	10	10
LLARB072	15/12/2017 11:33	58.1	33.5	0.1	8.3	-2.6	990	0	0	7.92	1.73	91.6	1	1
LLARB072	15/12/2017 11:35	57.7	33.4	0.2	8.7	-3.12	990	0	0	7.95	1.73	91.1	1	5
LLARB072	15/12/2017 11:37	57.7	33.5	0.1	8.7	-4.87	990	0	0	8.32	1.72	91.2	5	5
LLAWB083	15/12/2017 11:39	67.7	32.2	0.3	0	-66.82	990	0	0	0	2.1	99.9	5	5
LLAWB082	15/12/2017 11:42	62.5	32.6	1.2	3.7	-69.9	991	0	0	0	1.92	95.1	5	5
LLAWB117	15/12/2017 11:53	53.4	36.6	0.1	9.9	-2.65	991	0	0	9.52	1.46	90	5	5
LLAWB119	15/12/2017 11:55	34.8	30.5	0.6	34.1	-2.36	991	0	0	31.84	1.14	65.3	5	5
LLAWB120	15/12/2017 11:58	21	24.4	0.6	54	-5.04	991	0	0	51.74	0.86	45.4	5	5
LLAWB116	15/12/2017 12:01	19.8	21.7	3.4	55.1	-2.93	989	0	0	42.32	0.91	41.5	10	10
LLAWB116	15/12/2017 12:03	20.4	21.9	3.4	54.3	-1.65	989	0	0	41.52	0.93	42.3	10	5
LLAWB116	15/12/2017 12:05	20.4	21.9	3.4	54.3	-1.33	989	0	0	41.52	0.93	42.3	5	0
LLAWB079	15/12/2017 12:09	61.1	31.4	1.1	6.4	-69.75	989	0	0	2.26	1.95	92.5	5	5
LLAWB081	15/12/2017 12:14	1.2	4.1	20.6	74.1	0	991	0	0	0	0.29	5.3	0	0
LLAWB081	15/12/2017 12:59	57.9	39.2	0	2.9	190.29	991	0	0	2.9	1.48	97.1	60	40
LLAWD308	22/12/2017 09:04	56.8	40	0	3.2	-4.21	1019	5	0	3.2	1.42	96.8	10	10
LLAWD309	22/12/2017 09:07	37.9	32.8	0.6	28.7	-52.65	1019	0	0	26.44	1.16	70.7	15	15
LLAWD310	22/12/2017 09:10	55.4	38.9	0.6	5.1	-56.91	1020	1	0	2.84	1.42	94.3	25	25
LLAWD237	22/12/2017 09:13	35.7	31.7	0	32.6	-52.7	1021	0	38	32.6	1.13	67.4	5	5
LLAWD232	22/12/2017 09:16	46.5	34	2.9	16.6	-39.32	1021	2	0	5.7	1.37	80.5	5	5
LLAWD232	22/12/2017 09:18	50.5	36.5	1.5	11.5	-39.39	1021	3	0	5.86	1.38	87	5	1
LLAWD232	22/12/2017 09:21	50.5	31.8	1.5	16.2	-60.79	1021	3	0	10.56	1.59	82.3	1	1
LLAWD311	22/12/2017 09:24	57.7	40.7	0	1.6	-68.69	1020	0	0	1.6	1.42	98.4	25	25
LLAWD312	22/12/2017 09:26	57.7	40.6	0	1.7	-62.26	1020	0	1	1.7	1.42	98.3	25	25
LLAWD230	22/12/2017 09:29	43.6	33.4	4.4	18.6	-0.21	1020	0	0	2.06	1.31	77	0	0
LLAWD230	22/12/2017 09:31	43	33	4.6	19.4	-0.28	1020	0	0	2.1	1.3	76	0	5
LLAWD230	22/12/2017 09:33	42.8	33.1	4.5	19.6	-0.59	1020	0	0	2.68	1.29	75.9	5	0
LLAWD313	22/12/2017 09:35	52.3	37.8	0	9.9	-31.39	1020	0	0	9.9	1.38	90.1	20	20
LLAWD314	22/12/2017 09:38	46.8	38.9	0.1	14.2	-24.58	1020	1	0	13.82	1.2	85.7	20	20
LLAWD302	22/12/2017 09:41	56.5	40.5	0.2	2.8	-67.22	1020	0	0	2.05	1.4	97	30	30
LLAWD301	22/12/2017 09:44	56.9	40.1	0.2	2.8	-59.58	1020	0	0	2.05	1.42	97	20	20
LLAWD300	22/12/2017 09:56	57.6	40.7	0	1.7	-66.94	1020	0	0	1.7	1.42	98.3	20	20
LLAWD299	22/12/2017 10:03	51.7	37	1.8	9.5	-59.28	1021	1	1	2.73	1.4	88.7	5	5
LLAWD298	22/12/2017 10:09	57.1	38.2	0.8	3.9	-65.97	1020	0	0	0.89	1.49	95.3	10	10
LLAWD297	22/12/2017 10:12	57.3	39.9	0.1	2.7	-52.63	1020	0	0	2.32	1.44	97.2	25	25
LLAWD225	22/12/2017 10:15	56	39.5	0.5	4	-64.64	1020	0	0	2.12	1.42	95.5	25	25
LLAWD227	22/12/2017 10:18	0.3	2.4	20.9	76	-32.4	1022	0	0	0	0.13	2.7	0	0
LLAWD315	22/12/2017 10:20	57.4	36	1	5.6	-65.81	1020	1	0	1.84	1.59	93.4	5	5
LLAWD307	22/12/2017 10:24	59.4	38.4	0.1	2.1	-69.25	1022	0	0	1.72	1.55	97.8	30	30
LLAWD306	22/12/2017 10:26	56.2	41.2	0	2.6	-45.96	1021	0	0	2.6	1.36	97.4	10	10
LLAWD305	22/12/2017 10:28	46.2	34.4	3.5	15.9	-57.93	1021	0	0	2.74	1.34	80.6	5	5
LLAWD305	22/12/2017 10:31	43.8	34.4	3.8	18	-52.49	1021	1	0	3.71	1.27	78.2	5	1
LLAWD305	22/12/2017 10:34	45.3	34.3	3.6	16.8	-49.08	1021	1	0	3.26	1.32	79.6	1	1
LLAWD270	22/12/2017 10:36	4.4	10.4	18.5	66.7	-13.7	1021	0	0	0	0.42	14.8	0	0
LLAWD283	22/12/2017 10:41	55.1	42	0.4	2.5	-58.24	1021	18	0	1	1.31	97.1	10	10
LLAWD281	22/12/2017 10:43	51.3	39.8	1.4	7.5	-65.33	1022	7	3	2.24	1.29	91.1	10	10
LLAWD304	22/12/2017 10:46	56.1	40.3	0.3	3.3	-51.83	1021	0	0	2.17	1.39	96.4	10	10
LLAWD303	22/12/2017 10:50	50.8	37.5	1.9	9.8	-69.54	1021	0	0	2.66	1.35	88.3	20	20
LLAWD293	22/12/2017 10:53	55	33.8	0.5	10.7	-47.35	1022	0	0	8.82	1.63	88.8	10	10
LLAWD286	22/12/2017 10:56	64	32.4	0.4	3.2	-69.28	1022	0	0	1.7	1.98	96.4	20	20
LLAWD278	22/12/2017 10:59	55	36.6	0	8.4	-45.15	1022	0	0	8.4	1.5	91.6	15	15
LLAWD287	22/12/2017 11:04	50.2	35.2	1.7	12.9	-68.67	1022	0	0	6.51	1.43	85.4	20	20
LLAWD259	22/12/2017 11:06	59.5	38.9	0	1.6	-61.01	1022	0	0	1.6	1.53	98.4	20	20
LLAWD255	22/12/2017 11:09	60.1	36.1	0.4	3.4	-67.86	1023	0	0	1.9	1.66	96.2	20	20
LLAWD261	22/12/2017 11:12	58.5	39.4	0	2.1	-69.54	1023	0	0	2.1	1.48	97.9	20	20
LLAWD250	22/12/2017 11:14	59.8	37.4	0.2	2.6	-66.95	1022	0	0	1.85	1.6	97.2	10	10
LLAWD256	22/12/2017 11:16	35.8	24.6	7.9	31.7	-57.01	1022	0	0	2	1.46	60.4	0	0
LLAWD262	22/12/2017 11:18	59.9	38.7	0	1.4	1.04	1021	1	22	1.4	1.55	98.6	0	0
LLAWD264	22/12/2017 11:20	62	36.5	0	1.5	-45.19	1021	0	0	1.5	1.7	98.5	0	0
LLAWD265	22/12/2017 11:22	35.6	23.9	8.1	32.4	-56.29	1021	0	0	1.94	1.49	59.5	1	1
LLAWD266	22/12/2017 11:25	58.9	36.5	0.3	4.3	-64.9	1021	0	0	3.17	1.61	95.4	5	5
LLAWC142	22/12/2017 11:35	55.1	43.4	0	1.5	5.37	1023	0	0	1.5	1.27	98.5	1	1
LLARA025	27/12/2017 09:13	22.2	14.5	0.4	62.9	0.5	981	0	0	61.4	1.53	36.7	0	0
LLAWA026	27/12/2017 09:16	27.6	17.9	1	53.5	-0.27	981	0	0	49.74	1.54	45.5	0	0
LLAWA027	27/12/2017 09:18	16.6	16	0.1	67.3	-0.04	981	0	0	66.92	1.04	32.6	0	0
LLAWA033	27/12/2017 09:22	28.5	14.3	3	54.2	-81.05	982	0	0	42.92	1.99	42.8	5	5
LLAWA004	27/12/2017 09:24	19.2	18.7	0.1	62	-0.18	982	0	0	61.62	1.03	37.9	0	0
LLAWA002	27/12/2017 09:30	3.9	14.4	0.4	81.3	-0.17	982	0	0	79.8	0.27	18.3	0	0
LLAWA01A	27/12/2017 09:32	3	13.9	0.4	82.7	-0.14	982	0	0	81.2	0.22	16.9	0	0
LLAWA032	27/12/2017 09:35	4.3	7.5	11.5	76.7	-0.01	982	0	0	33.46	0.57	11.8	0	0
LLAWA001	27/12/2017 09:37	30.8	13.7	0.2	55.3	-0.17	982	0	0	54.55	2.25	44.5	0	0
LLAWA001	27/12/2017 09:39	30.4	13.6	0.3	55.7	-2.22	983	0	0	54.57	2.24	44	0	10
LLAWA001	27/12/2017 09:41	29.9	13.7	0.2	56.2	-2.28	983	0	0	55.45	2.18	43.6	5	5
LLAWA203	27/12/2017 09:45	30.5	17.9	0.3	51.3	-5.18	983	0	0	50.17	1.7	48.4	10	10
LLAWA204	27/12/2017 09:47	23.9	19.3	0.3	56.5	-0.98	983	0	0	55.37	1.24	43.2	5	5
LLAWA005	27/12/2017 09:51	1	14.4	3.4	81.2	-0.17	983	0	0	68.42	0.07	15.4	0	0
LLAWA006	27/12/2017 09:53	2.7	12.9	1.3	83.1	0.29	982	0	0	78.21	0.21	15.6	0	0
LLAWA130	27/12/2017 09:56	33.5	19.9	0.5	46.1	0.51	982	0	1	44.22	1.68	53.4	5	5
LLAWA131	27/12/2017 10:03	19.2	19.1	0.4	61.3	-81.02	982	0	0	59.8	1.01	38.3	5	5
LLAWA132	27/12/2017 10:05	20.2	21.3	0.2	58.3	-0.73	982	0	0	57.55	0.95	41.5	5	5
LLAWA030	27/12/2017 10:08	32.1	24.6	0.3	43	-0.51	982	0	0	41.87	1.3	56.7	5	5
LLARA010	27/12/2017 10:10	15.4	21.2	0.3	63.1	-0.27	981	0	0	61.97	0.73	36.6	5	5
LLAWA011	27/12/2017 10:13	13.6	20.5	0.2	65.7	-1.64	982	0	0	64.95	0.66	34.1	5	0
LLARA012	27/12/2017 10:16	25.2	25.7	0.3	48.8	-0.36	982	0	0	47.67	0.98	50.9	5	5
LLARA028	27/12/2017 10:18	44.4	27.5</											

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 (%)
LLAWC140	27/12/2017 10:43	49.4	40.4	0.3	9.9	-0.46	981	0	0	8.77	1.22	89.8	30	30
LLAWD233	27/12/2017 10:43	58.1	31.6	1.8	8.5	-76.91	985	2	0	1.73	1.84	89.7	20	20
LLAWC141	27/12/2017 10:45	32.8	31.2	0.5	35.5	-2.66	982	0	0	33.62	1.05	64	10	10
LLAWD210	27/12/2017 10:46	53.6	36.4	1.7	8.3	-45.8	986	4	0	1.91	1.47	90	20	20
LLAWC145	27/12/2017 10:48	44.2	35.7	1.8	18.3	-5.88	981	0	0	11.53	1.24	79.9	10	10
LLAWC144	27/12/2017 10:50	56.4	40.7	0.8	2.1	-9.62	981	0	0	0	1.39	97.1	10	10
LLAWD211	27/12/2017 10:50	5.7	5.1	19.9	69.3	-7.94	987	1	0	0	1.12	10.8	0	5
LLAWD211	27/12/2017 10:52	57.1	39.4	0.8	2.7	-24.99	987	14	0	0	1.45	96.5	5	5
LLAWC146	27/12/2017 10:53	32.7	21.9	7.5	37.9	-12.8	981	0	0	9.7	1.49	54.6	0	10
LLAWC146	27/12/2017 10:55	45.2	24.3	3.9	26.6	-59.94	982	0	0	11.94	1.86	69.5	10	10
LLAWD234	27/12/2017 10:55	27.2	26.4	3.8	42.6	-32.74	986	5	0	28.31	1.03	53.6	10	5
LLAWD234	27/12/2017 10:57	27	27.3	3.9	41.8	-27.14	986	5	0	27.14	0.99	54.3	5	0
LLAWC147	27/12/2017 10:58	50.6	34.6	0.4	14.4	-48.03	982	0	0	12.9	1.46	85.2	10	10
LLAWC148	27/12/2017 11:00	0.3	1.4	20.9	77.3	-0.11	982	0	0	0	0.21	1.7	0	0
LLAWD219	27/12/2017 11:03	0.9	2.9	20.9	74.1	-81.36	986	0	0	0	0.31	3.8	10	0
LLAWD219	27/12/2017 11:05	1	1.8	20.9	74.8	-0.02	986	1	0	0	0.56	2.8	0	0
LLARD207	27/12/2017 11:07	59.8	39.8	0.3	0.1	-62.93	986	7	0	0	1.5	99.6	20	20
LLAWC249	27/12/2017 11:10	42.8	32.5	0.4	24.3	-45.12	983	0	0	22.8	1.32	75.3	20	20
LLAWD232	27/12/2017 11:10	51.5	36.6	2.8	9.1	-11.7	986	7	22	0	1.41	88.1	20	20
LLAWC250	27/12/2017 11:12	40.1	29.2	0.4	30.3	-47.2	983	0	0	28.8	1.37	69.3	10	10
LLAWD222	27/12/2017 11:12	36.2	27.9	8.3	27.6	-71.94	985	3	0	0	1.3	64.1	10	0
LLAWD222	27/12/2017 11:14	39	30.6	6.9	23.5	-69.45	985	3	0	0	1.27	69.6	0	0
LLAWC251	27/12/2017 11:15	34.8	30.2	0.4	34.6	-56.93	983	0	0	33.1	1.15	65	10	10
LLAWD231	27/12/2017 11:17	56.9	39.9	0	3.2	-13.35	985	5	0	3.2	1.43	96.8	30	35
LLAWC152	27/12/2017 11:18	35.3	28.9	3.5	32.3	-39.72	983	0	0	19.14	1.22	64.2	5	5
LLAWD231	27/12/2017 11:19	56.1	40.8	0	3.1	-18.87	985	5	1	3.1	1.38	96.9	35	35
LLAWB116	27/12/2017 11:21	68.5	31.7	0.3	0	0.24	984	2	0	0	2.16	100.2	0	5
LLAWC154	27/12/2017 11:22	23.3	25.8	0.5	50.4	-28.22	983	0	0	48.52	0.9	49.1	10	0
LLAWB116	27/12/2017 11:23	65.6	36	0	0	-0.26	984	2	0	0	1.82	101.6	5	5
LLAWC135	27/12/2017 11:24	27.7	26.5	4.9	40.9	-44.16	983	0	0	22.48	1.05	54.2	10	0
LLAWB115	27/12/2017 11:26	50.8	35	0	14.2	-32.96	985	1	0	14.2	1.45	85.8	5	5
LLAWC136	27/12/2017 11:26	49.1	37.5	1.1	12.3	-56.2	983	0	0	8.16	1.31	86.6	10	10
LLAWB114	27/12/2017 11:28	57.7	42.9	0	0	-3.18	985	3	0	0	1.34	100.6	5	5
LLAWC137	27/12/2017 11:29	56	40.7	0.4	2.9	-8.24	983	0	0	1.4	1.38	96.7	10	10
LLAWB113	27/12/2017 11:31	57.3	44.3	0	0	0.36	985	3	0	0	1.29	101.6	0	5
LLAWB113	27/12/2017 11:32	56.4	45.3	0	0	-0.34	985	3	0	0	1.25	101.7	5	5
LLAWC134	27/12/2017 11:32	12.1	14	13	60.9	-1.02	984	0	0	12.02	0.86	26.1	0	0
LLAWC133	27/12/2017 11:34	44.2	37.1	0.4	18.3	-67.68	984	0	0	16.8	1.19	81.3	10	10
LLAWB112	27/12/2017 11:35	56.6	43	0	0.4	-0.5	985	3	0	0.4	1.32	99.6	5	5
LLAWC132	27/12/2017 11:36	46	33.3	1.1	19.6	-69.21	984	0	0	15.46	1.38	79.3	10	10
LLAWB111	27/12/2017 11:42	57.6	42.9	0	0	-2.37	985	2	0	0	1.34	100.5	5	5
LLAWB095	27/12/2017 11:44	48.5	34.1	0	17.4	-0.19	985	1	0	17.4	1.42	82.6	5	5
LLAWB096	27/12/2017 11:47	56.7	43.1	1.3	0	0.05	985	2	0	0	1.32	99.8	0	5
LLAWB096	27/12/2017 11:48	56.1	44.7	0	0	-0.91	985	2	21	0	1.26	100.8	5	5
LLARB072	27/12/2017 11:50	59	35.8	0.6	4.6	-3.75	985	1	0	2.34	1.65	94.8	5	5
LLAWB083	27/12/2017 11:53	65.1	35.9	0	0	-71.9	986	1	0	0	1.81	101	5	5
LLAWB082	27/12/2017 11:55	63.9	36.4	0.2	0	-51.04	985	0	0	0	1.76	100.3	5	5
LLAWB081	27/12/2017 11:57	0.5	3.1	20.9	75.1	0.38	985	6	0	0	0.16	3.6	0	5
LLAWB081	27/12/2017 11:59	0.4	2.5	20.9	75.7	-36.14	985	6	0	0	0.16	2.9	5	0
LLAWB081	27/12/2017 12:00	0.4	2	20.9	76	0.02	985	5	0	0	0.2	2.4	0	0
LLAWB079	27/12/2017 12:02	63.1	30.6	1	5.3	-55.15	985	1	0	1.54	2.06	93.7	5	5
LLAWA003	27/12/2017 13:10	13.8	15.3	0.2	70.7	-0.07	982	0	0	69.95	0.9	29.1	0	0
LLAWC143	27/12/2017 13:18	46.3	35.7	0.3	17.7	-35.95	983	0	0	16.57	1.3	82	10	10
LLAWB093	27/12/2017 13:20	0	0.3	20.9	78.5	0.19	985	1	0	0	0	0.3 -	-	
LLARD220	27/12/2017 13:23	0	0.2	20.9	78.6	0.17	986	0	0	0.02	0	0.2 -	-	
LLAWB120	27/12/2017 13:24	55.4	38.9	0.1	5.6	0.54	980	0	0	5.22	1.42	94.3	5	5
LLAWB119	27/12/2017 13:27	47.3	36	0.2	16.5	-0.56	981	0	0	15.75	1.31	83.3	5	5
LLAWB117	27/12/2017 13:30	54	37.3	0.2	8.5	-1.98	981	0	0	7.75	1.45	91.3	5	5
LLAWD258	27/12/2017 13:43	0	1.8	20.9	76.9	0.07	986	1	0	0	0	1.8 -	-	
LLAWD254	27/12/2017 13:46	63.3	37.2	0.1	0	-66.2	987	4	3	0	1.7	100.5	20	20
LLAWD253	27/12/2017 13:47	0.9	7.9	20.1	71.1	0.58	987	1	0	0	0.11	8.8 -	-	
LLAWD284	27/12/2017 13:49	56.7	36.4	1.5	5.4	-63.91	987	2	0	0	1.56	93.1	5	5
LLAWD285	27/12/2017 13:55	5.8	9	19.9	65.3	-0.1	988	0	0	0	0.64	14.8 -	-	
LLAWD279	27/12/2017 13:59	62	39.6	0.1	0	6.39	988	3	0	0	1.57	101.6	0	5
LLAWD279	27/12/2017 14:00	52.4	37.3	2.4	7.9	-58.29	988	2	0	0	1.4	89.7	5	5
LLAWD280	27/12/2017 14:08	33.9	24.1	9.6	32.4	-49.92	986	2	0	0	1.41	58	5	0
LLAWD299	05/01/2018 09:58	53.1	34.9	1.8	10.2	-21.83	977	0	0	3.43	1.52	88	5	5
LLAWD300	05/01/2018 10:08	56.1	40.6	0.2	3.1	-60.04	976	0	0	2.35	1.38	96.7	20	20
LLAWD301	05/01/2018 10:11	56.6	43.1	0.1	0.2	-59.16	976	0	0	0	1.31	99.7	20	20
LLAWD302	05/01/2018 10:18	55.5	42.1	0.2	2.2	-69.92	977	0	0	1.45	1.32	97.6	30	30
LLAWD314	05/01/2018 10:21	46.9	39.6	0.2	13.3	-26.57	976	0	0	12.55	1.18	86.5	20	20
LLAWD313	05/01/2018 10:25	53.2	39.1	0.1	7.6	-33.85	977	0	0	7.22	1.36	92.3	20	20
LLAWD230	05/01/2018 10:27	31.7	24.6	9.5	34.2	0.23	976	0	0	0	1.29	56.3	0	0
LLAWD230	05/01/2018 10:29	32.2	25.2	9.1	33.5	-1.4	976	0	0	0	1.28	57.4	0	5
LLAWD230	05/01/2018 10:31	31.1	24.5	9.5	34.9	-1.44	976	0	0	0	1.27	55.6	5	0
LLAWD312	05/01/2018 10:36	57.2	41	0.1	1.7	-61.34	976	0	0	1.32	1.4	98.2	25	25
LLAWD311	05/01/2018 10:38	56.5	40.9	0.2	2.4	-67.42	976	0	8	1.65	1.38	97.4	25	25
LLAWD310	05/01/2018 10:45	54.5	39.9	0.8	4.8	-67.93	976	0	0	1.79	1.37	94.4	25	25
LLAWD298	05/01/2018 10:48	58.6	38.9	0.3	2.2	-66.61	977	0	0	1.07	1.51	97.5	10	10
LLAWD297	05/01/2018 10:51	56.7	40.8	0.1	2.4	-55.25	977	0	0	2.02	1.39	97.5	25	25
LLAWD225	05/01/2018 10:54	56.5	41.6	0.1	1.8	-65.55	971	0	0	1.42	1.36	98.1	25	25
LLAWD227	05/01/2018 10:59	0.8	9	19.5	70.7	-25.86	979	0	0	0	0.09	9.8	0	0
LLAWD227	05/01/2018 11:01	0.3	7.2	20.5	72	-74.2	979	0	0	0	0.04	7.5	0	5
LLAWD227	05/01/2018 11:03	0.4	5.6	20.5	73.5	-0.03	979	0	0	0	0.07	6	5	0
LLAWD315	05/01/2018 11:07	61.2	36.7	0.3	1.8	-62.04	976	0	0	0.67	1.67	97.9	5	5
LLAWD307	05/01/2018 11:10	58.4	39.9	0	1.7	-68.43	976	0	0	1.7	1.46	98.3	30	30
LLAWD306	05/01/2018 11:13	56.3	41.6	0.1	2	-47.24	977	0	0	1.62	1.35	97.9	10	10
LLAWD305	05/01/2018 11:16	56.1	40.7	0.3	2.9	-17.77	976	0	5	1.77	1.38	96.8	5	5
LLAWD305	05/01/2018 11:21	55	41	0.4	3.6	-16.18	977	0	1</					

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 (%)
LLAWC154	05/01/2018 12:34	24.8	27.9	0	47.3	-25.62	979	0	0	47.3	0.89	52.7	0	0
LLAWC134	05/01/2018 12:40	14.8	16.7	10.9	57.6	-0.52	979	0	0	16.62	0.89	31.5	0	0
LLAWC134	05/01/2018 12:43	21.4	20.8	8	49.8	-4.05	979	0	0	19.72	1.03	42.2	0	5
LLAWC134	05/01/2018 12:45	21.3	21	7.9	49.8	-2.31	979	0	0	20.1	1.01	42.3	5	0
LLAWC152	05/01/2018 12:48	39.4	32.7	0.2	27.7	-37.99	980	0	0	26.95	1.2	72.1	5	5
LLAWC152	05/01/2018 12:50	39.1	32.4	0.2	28.3	-38.48	980	0	0	27.55	1.21	71.5	5	10
LLAWC152	05/01/2018 12:53	38.7	32.5	0.2	28.6	-39.19	980	0	0	27.85	1.19	71.2	10	10
LLAWC133	05/01/2018 12:55	42.7	37.2	0	20.1	-67.98	973	0	0	20.1	1.15	79.9	10	10
LLAWC251	05/01/2018 12:58	34.1	30.6	0	35.3	-55.61	979	0	0	35.3	1.11	64.7	10	10
LLAWD250	05/01/2018 13:01	40.9	29.5	0	29.6	-43.67	979	0	0	29.6	1.39	70.4	10	10
LLAWC132	05/01/2018 13:04	44.3	32.6	1.3	21.8	-69.83	979	0	0	16.91	1.36	76.9	10	10
LLAWC249	05/01/2018 13:08	41	32.7	0.2	26.1	-44.59	979	0	0	25.35	1.25	73.7	20	20
LLARA025	08/01/2018 09:46	10.1	13.6	0.2	76.1	-0.14	1012	0	0	75.35	0.74	23.7	0	0
LLARA025	08/01/2018 09:48	7.7	12.2	0.4	79.7	-0.85	1012	0	0	78.2	0.63	19.9	0	5
LLARA025	08/01/2018 09:50	6.1	11.6	0.8	81.5	-2.08	1012	0	0	78.49	0.53	17.7	5	0
LLAWA026	08/01/2018 09:52	24	17.6	0.1	58.3	0.28	1011	0	0	57.92	1.36	41.6	0	0
LLAWA026	08/01/2018 09:54	19.5	19.5	0	61	-0.45	1011	0	0	61	1	39	0	5
LLAWA026	08/01/2018 09:56	18.9	19.4	0.2	61.5	-1.42	1011	0	0	60.75	0.97	38.3	5	0
LLAWA027	08/01/2018 09:58	22.1	17	0	60.9	-0.83	1011	0	0	60.9	1.3	39.1	0	0
LLAWA027	08/01/2018 10:00	14.3	16.1	0	69.6	-0.99	1011	0	0	69.6	0.89	30.4	0	5
LLAWA027	08/01/2018 10:02	13.5	16.1	0	70.4	-0.38	1011	0	0	70.4	0.84	29.6	5	0
LLAWA204	08/01/2018 10:04	22.2	18.7	0	59.1	-1.21	1012	0	0	59.1	1.19	40.9	5	5
LLAWA203	08/01/2018 10:07	28.5	17.8	0	53.7	-11.09	1012	0	0	53.7	1.6	46.3	5	5
LLAWA033	08/01/2018 10:09	11.6	15.3	0.4	72.7	-0.49	1011	0	0	71.2	0.76	26.9	0	0
LLAWA003	08/01/2018 10:11	2.1	14.6	2.1	81.2	-0.54	1011	0	0	73.3	0.14	16.7	0	0
LLAWA001	08/01/2018 10:14	24.7	14.2	0	61.1	-0.61	1011	0	0	61.1	1.74	38.9	0	0
LLAWA032	08/01/2018 10:16	1.5	9.5	10.3	78.7	-0.34	1012	0	0	39.97	0.16	11	0	0
LLAWA01A	08/01/2018 10:19	3.7	13.9	1	81.4	-0.73	1011	0	0	77.64	0.27	17.6	0	0
LLAWA002	08/01/2018 10:22	9.9	14.9	0	75.2	-0.05	1011	0	0	75.2	0.66	24.8	0	0
LLAWA004	08/01/2018 10:25	21.4	17.4	0	61.2	-0.19	1011	0	0	61.2	1.23	38.8	0	0
LLAWA005	08/01/2018 10:28	0.3	15.3	3.6	80.8	-0.28	1011	0	0	67.26	0.02	15.6	0	0
LLAWA006	08/01/2018 10:30	2.4	13.4	4.6	79.6	-0.73	1011	0	0	62.3	0.18	15.8	5	5
LLAWA006	08/01/2018 10:33	2.5	12.9	4.7	79.9	-0.35	1011	0	0	62.23	0.19	15.4	5	0
LLAWA006	08/01/2018 10:36	2.4	13.5	4.7	79.4	-0.14	1011	0	0	61.73	0.18	15.9	0	0
LLAWC146	08/01/2018 11:04	27.7	25	3	44.3	-34.8	1009	0	0	33.02	1.11	52.7	10	10
LLAWC146	08/01/2018 11:07	27.4	25.2	3.2	44.2	-23.54	1009	0	0	32.17	1.09	52.6	10	5
LLAWC146	08/01/2018 11:09	27.3	25.1	3.4	44.2	-20.91	1009	0	0	31.42	1.09	52.4	5	5
LLAWC147	08/01/2018 11:12	42	32	0.3	25.7	-48.11	1009	0	0	24.57	1.31	74	10	10
LLAWC148	08/01/2018 11:14	12.4	11.3	16.4	59.9	-0.64	1008	0	0	0	1.1	23.7	0	0
LLAWC148	08/01/2018 11:17	7.8	8	18.2	66	-18.59	1008	0	0	0	0.98	15.8	0	5
LLAWC148	08/01/2018 11:20	18.1	12.3	15.3	54.3	-0.16	1008	0	0	0	1.47	30.4	5	0
LLAWC144	08/01/2018 11:22	46.1	38.1	3.5	12.3	-6.2	1008	0	0	0	1.21	84.2	5	5
LLAWC145	08/01/2018 11:25	41.2	35.4	0.8	22.6	-4.95	1008	0	2	19.59	1.16	76.6	5	5
LLAWC141	08/01/2018 11:28	27.5	31.4	0.4	40.7	-2.2	1009	0	0	39.2	0.88	58.9	5	5
LLAWC142	08/01/2018 11:30	34.9	31.6	2.5	31	-7.69	1008	0	0	21.6	1.1	66.5	1	1
LLAWC140	08/01/2018 11:34	47.2	39	0.2	13.6	-1.18	1007	0	0	12.85	1.21	86.2	5	5
LLAWC143	08/01/2018 11:36	38.1	35.2	0	26.7	-43.28	1008	0	0	26.7	1.08	73.3	20	20
LLAWA029	08/01/2018 11:40	32.3	26.7	0	41	-59.2	1008	0	0	41	1.21	59	5	5
LLAWA031	08/01/2018 11:42	0.2	2.4	20.9	75.5	-0.42	1000	0	0	0	0.08	2.6	0	0
LLAWA031	08/01/2018 11:44	0.3	2.7	20.9	75.2	-4.3	1000	0	0	0	0.11	3	0	5
LLAWA031	08/01/2018 11:46	0.2	1.8	20.9	75.8	-8.77	1000	0	0	0	0.11	2	0	0
LLARA015	08/01/2018 11:49	25.1	20.9	0	54	-3.5	1009	0	0	54	1.2	46	5	5
LLAWA016	08/01/2018 11:51	41.3	28.6	0	30.1	0.12	1008	0	0	30.1	1.44	69.9	0	0
LLAWA016	08/01/2018 11:53	16.7	17.8	1.4	64.1	-0.69	1008	0	0	58.84	0.94	34.5	0	1
LLAWA016	08/01/2018 11:56	22.1	20.8	0	57.1	-0.52	1008	0	4	57.1	1.06	42.9	1	1
LLARA014	08/01/2018 11:59	15.6	18	0	66.4	0.19	1008	0	0	66.4	0.87	33.6	0	0
LLARA014	08/01/2018 12:01	15.5	17.5	0	67	-4.5	1008	0	0	67	0.89	33	0	5
LLARA014	08/01/2018 12:04	15.5	17.5	0	67	-2.46	1008	0	0	67	0.89	33	5	0
LLARA028	08/01/2018 12:07	51.3	29	0	19.7	0.5	1008	0	1	19.7	1.77	80.3	5	5
LLARA028	08/01/2018 12:10	52.1	29.8	0	18.1	0.69	1008	0	4	18.1	1.75	81.9	-	-
LLARA012	08/01/2018 12:12	22.6	24.1	0	53.3	-0.07	1008	0	0	53.3	0.94	46.7	5	5
LLAWA011	08/01/2018 12:15	40.1	25.6	0	34.3	-2.86	1008	0	0	34.3	1.57	65.7	1	1
LLARA010	08/01/2018 12:18	14	20.7	0	65.3	-0.76	1008	0	0	65.3	0.68	34.7	5	5
LLAWA132	08/01/2018 12:20	14	18.4	0.1	67.5	-0.09	1009	0	0	67.12	0.76	32.4	-	-
LLAWA030	08/01/2018 12:23	27.7	22.6	0	49.7	-0.78	1003	0	0	49.7	1.23	50.3	5	5
LLAWA131	08/01/2018 12:26	13.4	18.7	0	67.9	-0.24	1008	0	0	67.9	0.72	32.1	1	1
LLAWB083	08/01/2018 12:46	67.5	30.8	0.3	1.4	-67.56	1008	0	0	0.27	2.19	98.3	5	5
LLARB072	08/01/2018 12:50	51.8	30.2	2.7	15.3	-2.75	1007	0	0	5.15	1.72	82	5	5
LLAWB082	08/01/2018 12:53	64.6	33.5	0.3	1.6	-58.3	1008	0	0	0.47	1.93	98.1	5	5
LLAWB079	08/01/2018 12:56	60.7	31.9	0.2	7.2	-61.76	1007	0	0	6.45	1.9	92.6	5	5
LLAWB115	08/01/2018 12:59	36.3	30.8	0.2	32.7	-30.96	1007	0	0	31.95	1.18	67.1	15	15
LLAWB114	08/01/2018 13:02	54.2	39.6	0	6.2	-2.11	1006	0	0	6.2	1.37	93.8	10	10
LLAWB113	08/01/2018 13:05	39.7	34.7	0	25.6	-1.4	1006	0	0	25.6	1.14	74.4	10	10
LLAWB112	08/01/2018 13:07	54.6	40.1	0	5.3	-0.05	1006	0	0	5.3	1.36	94.7	0	0
LLAWB112	08/01/2018 13:09	50.3	38.3	0	11.4	-3.01	1006	0	0	11.4	1.31	88.6	0	5
LLAWB112	08/01/2018 13:11	50.2	37.8	0	12	-3.33	1006	0	0	12	1.33	88	5	5
LLAWB111	08/01/2018 13:14	51.8	32.4	0	15.8	-0.09	1007	0	0	15.8	1.6	84.2	5	5
LLAWB096	08/01/2018 13:17	56	41.8	0.2	2	0.14	1006	0	3	1.25	1.34	97.8	-	-
LLAWB095	08/01/2018 13:20	53	35.2	0	11.8	-0.24	1006	0	0	11.8	1.51	88.2	5	5
LLAWB117	08/01/2018 13:29	53	37	0	10	-5.42	1006	0	2	10	1.43	90	10	10
LLAWB119	08/01/2018 13:32	22.1	25.9	1.5	50.5	-0.31	1007	7	0	44.86	0.85	48	5	5
LLAWB120	08/01/2018 13:35	21	24.4	0.5	54.1	-4.12	1007	1	0	52.22	0.86	45.4	5	5
LLAWB116	08/01/2018 13:39	23.1	22.6	0.4	53.9	-1.65	1006	0	0	52.4	1.02	45.7	5	5
LLAWB081	08/01/2018 13:43	0.2	2.6	20.9	75.6	-0.1	1008	0	0	0	0.08	2.8	0	0
LLAWD256	09/01/2018 09:28	47.7	30.8	3.6	17.9	-2.22	991	0	0	4.36	1.55	78.5	0	0
LLAWD256	09/01/2018 09:31	39.3	26.6	5.8	28.3	-49.08	991	0	0	6.49	1.48	65.9	0	5
LLAWD256	09/01/2018 09:33	32.4	22	8.8	36.8	-41.4	991	0	0	3.71	1.47	54.4	5	0
LLAWD250	09/01/2018 09:35	61	37.4	0	1.6	-69.49	991	0	0	1.6	1.63	98.4	10	10
LLAWD255														

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 (%)
LLAWD281	09/01/2018 10:05	53.3	41.5	0.7	4.5	-51.33	990	10	13	1.87	1.28	94.8	10	10
LLAWD303	09/01/2018 10:08	53.4	39.7	0.9	6	-60.37	991	4	31	2.62	1.35	93.1	20	20
LLAWD293	09/01/2018 10:11	52.9	37.3	0	9.8	-54.59	992	0	0	9.8	1.42	90.2	10	10
LLAWD279	09/01/2018 10:14	47	30.6	4.2	18.2	-60.01	992	0	0	2.41	1.54	77.6	5	5
LLAWD279	09/01/2018 10:16	44.4	29	4.9	21.7	-50.72	992	0	0	3.28	1.53	73.4	5	1
LLAWD279	09/01/2018 10:18	53.9	34.8	2	9.3	-15.09	992	1	0	1.78	1.55	88.7	1	0
LLAWD279	09/01/2018 10:21	55.5	36.1	1	7.4	-31.41	992	0	0	3.64	1.54	91.6	0	0
LLAWD286	09/01/2018 10:24	64.8	30.1	0	5.1	-67.29	990	0	2	5.1	2.15	94.9	20	20
LLAWD278	09/01/2018 10:27	59.5	37.5	0	3	-62.38	988	1	0	3	1.59	97	15	15
LLAWD287	09/01/2018 10:30	50.1	35.2	1.8	12.9	-62.76	991	1	0	6.13	1.42	85.3	20	20
LLAWD285	09/01/2018 10:32	64.6	33.2	0	2.2	-36.41	991	0	0	2.2	1.95	97.8	10	10
LLAWD280	09/01/2018 10:34	59	38.2	0	2.8	54.97	992	0	0	2.8	1.54	97.2	0	0
LLAWD280	09/01/2018 10:36	59.9	39.4	0	0.7	-16.65	992	0	18	0.7	1.52	99.3	0	5
LLAWD280	09/01/2018 10:39	59.9	38.6	0	1.5	-35.24	992	0	16	1.5	1.55	98.5	5	5
LLAWD261	09/01/2018 10:42	58	40.5	0	1.5	-69.92	992	1	0	1.5	1.43	98.5	20	20
LLAWD262	09/01/2018 10:44	35.6	25.5	8	30.9	-0.87	991	0	12	0.82	1.4	61.1	0	0
LLAWD262	09/01/2018 10:46	34.3	24.9	8.1	32.7	-1.78	991	0	9	2.24	1.38	59.2	0	5
LLAWD262	09/01/2018 10:48	31.7	22.7	9.6	36	-0.87	991	0	9	0	1.4	54.4	5	0
LLAWD264	09/01/2018 10:51	61.6	35.5	0.2	2.7	-66.65	990	0	0	1.95	1.74	97.1	5	5
LLAWD265	09/01/2018 10:54	63.6	37.8	0	0	17.34	989	0	0	0	1.68	101.4	0	0
LLAWD265	09/01/2018 10:56	60.2	36.8	0	3	-4.45	989	0	0	3	1.64	97	0	1
LLAWD265	09/01/2018 10:58	58.6	36.3	0.3	4.8	-15.12	989	0	0	3.67	1.61	94.9	1	1
LLAWD233	09/01/2018 11:02	60.2	35	0.3	4.5	-65.43	991	0	0	3.37	1.72	95.2	20	20
LLAWD210	09/01/2018 11:05	56.5	37.5	0.3	5.7	-37.37	990	0	0	4.57	1.51	94	10	10
LLAWD234	09/01/2018 11:08	32.6	28.4	1.3	37.7	-11.23	989	2	0	32.81	1.15	61	0	0
LLAWD234	09/01/2018 11:10	32.1	28.7	1.6	37.6	-15.05	989	3	0	31.58	1.12	60.8	0	1
LLAWD234	09/01/2018 11:13	32	29	1.4	37.6	-22.09	989	2	0	32.34	1.1	61	1	1
LLAWD237	09/01/2018 11:15	43	35.4	0	21.6	-53.29	989	1	0	21.6	1.21	78.4	5	5
LLAWD231	09/01/2018 11:19	49.6	34.9	2.7	12.8	-12.3	988	4	1	2.65	1.42	84.5	5	5
LLAWD232	09/01/2018 11:22	45.9	37.2	0	16.9	-20.6	988	2	0	16.9	1.23	83.1	35	35
LLAWD222	09/01/2018 11:25	54	39	0	7	91.53	989	1	0	7	1.38	93	0	0
LLAWD222	09/01/2018 11:30	56.6	42.8	0	0.6	-11.57	989	1	0	0.6	1.32	99.4	0	5
LLAWD222	09/01/2018 11:33	56.3	42.8	0	0.9	-25.83	989	2	0	0.9	1.32	99.1	5	5
LLARD207	09/01/2018 11:36	58.2	39.9	0	1.9	-49.74	989	2	0	1.9	1.46	98.1	20	20
LLAWD219	09/01/2018 11:39	48	35.5	2.8	13.7	-3.85	989	0	0	3.17	1.35	83.5	0	0
LLAWD219	09/01/2018 11:41	56.2	40.7	0.1	3	-60.91	989	2	0	2.62	1.38	96.9	0	5
LLAWD219	09/01/2018 11:44	55.8	40.7	0	3.5	-60.06	989	2	0	3.5	1.37	96.5	5	5
LLAWD309	09/01/2018 11:46	42.2	35.1	0	22.7	-43.24	988	0	0	22.7	1.2	77.3	10	10
LLAWD308	09/01/2018 11:49	56.4	39.9	0	3.7	-2.11	988	3	0	3.7	1.41	96.3	10	10
LLAWD266	09/01/2018 11:53	49.7	34.2	2.7	13.4	-46.91	989	0	0	3.25	1.45	83.9	5	5
LLAWC135	09/01/2018 12:26	56.7	37.3	0.4	5.6	-3.76	990	0	0	4.1	1.52	94	10	10
LLAWC136	09/01/2018 12:30	36.8	33.8	0.5	28.9	-58.12	989	0	0	27.02	1.09	70.6	10	10
LLAWC250	09/01/2018 12:35	37.5	28.7	0	33.8	-35.95	991	0	0	33.8	1.31	66.2	10	10
LLAWA130	09/01/2018 12:44	30.5	20	0	49.5	0.12	989	0	0	49.5	1.53	50.5	5	5
LLAWD305	12/01/2018 11:27	49.8	36.9	1.5	11.8	-69.64	1009	9	0	6.16	1.35	86.7	10	10
LLAWD270	12/01/2018 11:33	19.8	17.6	12.7	49.9	-8.44	1011	4	0	2.15	1.13	37.4	0	0
LLAWD270	12/01/2018 11:37	19.7	17.9	12.9	49.5	-78.04	1011	6	2	1	1.1	37.6	0	5
LLAWD270	12/01/2018 11:40	19.6	17.8	12.9	49.7	-79.48	1011	5	1	1.2	1.1	37.4	5	0
LLAWD303	12/01/2018 11:46	52.3	38.3	1.3	8.1	-34.16	1009	8	0	3.21	1.37	90.6	20	20
LLAWD301	12/01/2018 11:52	53.9	39	0.7	6.4	-59.73	1009	8	0	3.77	1.38	92.9	20	20
LLAWD230	12/01/2018 11:57	31.5	24.6	8.8	35.1	-1.14	1008	3	0	2.01	1.28	56.1	0	0
LLAWD230	12/01/2018 12:00	30.2	23.7	9.4	36.7	-1.16	1008	3	0	1.36	1.27	53.9	0	5
LLAWD230	12/01/2018 12:02	28	22.1	9.5	40.4	-1.07	1008	2	0	4.68	1.27	50.1	5	0
LLAWD299	12/01/2018 12:10	50.7	37.5	1.8	10	-63.32	1008	5	0	3.23	1.35	88.2	5	5
LLAWD227	12/01/2018 12:16	0.3	2.2	20.9	76.2	-3.76	1010	0	0	0	0.14	2.5	0	0
LLAWD227	12/01/2018 12:19	0.5	0.9	20.9	76.7	-67.81	1010	0	0	0	0.56	1.4	0	5
LLAWD227	12/01/2018 12:21	0.2	0.9	20.9	77.1	-0.64	1010	0	0	0	0.22	1.1	5	0
LLAWB097	12/01/2018 12:28	43.3	34.6	0.3	21.8	-2.86	1008	2	0	20.67	1.25	77.9	1	1
LLAWD262	12/01/2018 12:33	59.9	37.9	0.1	2.1	0.5	1010	6	3	1.72	1.58	97.8	0	0
LLAWD262	12/01/2018 12:35	44.5	31.4	4.3	19.8	-30.75	1010	5	5	3.63	1.42	75.9	0	1
LLAWD262	12/01/2018 12:38	39.5	28.2	6	26.3	-78.98	1010	6	6	3.74	1.4	67.7	1	1
LLAWD262	12/01/2018 12:43	30.7	22.2	7.5	39.6	-0.07	1010	3	1	11.4	1.38	52.9	1	0
LLAWD297	19/01/2018 09:49	57	38.7	0	4.3	-69.47	992	0	0	4.3	1.47	95.7	25	25
LLAWD308	19/01/2018 09:55	54.1	38.5	0	7.4	-4.8	992	2	0	7.4	1.41	92.6	10	10
LLAWD309	19/01/2018 10:04	38.1	33.1	0.8	28	-42.86	993	0	0	24.99	1.15	71.2	10	10
LLAWD299	19/01/2018 10:09	50.1	37.4	1.8	10.7	-58.61	991	1	0	3.93	1.34	87.5	5	5
LLAWD310	19/01/2018 10:13	54.4	39.7	0.5	5.4	-65.48	992	0	0	3.52	1.37	94.1	25	25
LLAWD311	19/01/2018 10:22	57.1	40.9	0	2	-66.82	992	0	0	2	1.4	98	25	25
LLAWD312	19/01/2018 10:23	57.5	40.2	0	2.3	-61.86	992	0	0	2.3	1.43	97.7	25	25
LLAWD230	19/01/2018 10:25	44.9	35.2	3.5	16.4	-0.66	992	0	0	3.24	1.28	80.1	0	0
LLAWD230	19/01/2018 10:27	38.8	30.8	5.8	24.6	-1.2	992	0	0	2.79	1.26	69.6	0	5
LLAWD230	19/01/2018 10:29	44.1	34.2	4	17.7	-1.13	992	0	0	2.66	1.29	78.3	5	0
LLAWD231	19/01/2018 10:32	46.5	36.8	0	16.7	-23.06	992	0	0	16.7	1.26	83.3	5	5
LLAWD222	19/01/2018 10:36	56.7	41	0	2.3	-67.33	992	1	0	2.3	1.38	97.7	5	5
LLAWD219	19/01/2018 10:38	3.1	5.4	20.4	71.1	-69.53	992	0	0	0	0.57	8.5	5	5
LLAWD219	19/01/2018 10:40	3	2.9	20.9	73	-68.62	992	0	0	0	1.03	5.9	5	0
LLAWD219	19/01/2018 10:42	3	2.9	20.9	73	-64.72	992	0	0	0	1.03	5.9	0	0
LLARD207	19/01/2018 10:45	57.4	38.9	0	3.7	-60.37	992	2	0	3.7	1.48	96.3	20	20
LLAWD232	19/01/2018 10:47	57.8	40.9	0	1.3	-1.89	992	2	309	1.3	1.41	98.7	35	35
LLAWD313	19/01/2018 10:50	51.2	38	0	10.8	-43.12	991	0	0	10.8	1.35	89.2	20	20
LLAWD302	19/01/2018 10:53	55.4	41.3	0	3.3	-56.2	992	0	0	3.3	1.34	96.7	30	30
LLAWD301	19/01/2018 10:57	56.4	41.3	0	2.3	-57.81	991	0	0	2.3	1.37	97.7	20	20
LLAWD298	19/01/2018 11:01	58	40.6	0	1.4	-69.78	991	0	0	1.4	1.43	98.6	10	10
LLAWD225	19/01/2018 11:05	55.3	40.3	0.2	4.2	-63.87	992	0	73	3.45	1.37	95.6	25	25
LLAWD227	19/01/2018 11:11	2.1	2.7	20.9	73.8	-0.21	992	0	0	0	0.78	4.8	0	0
LLAWD315	19/01/2018 11:15	60.7	37.3	0.1	1.9	-64.34	992	1	0	1.52	1.63	98	5	5
LLAWD307	19/01/2018 11:18	59.6	38.4	0	2	-69.14	993	0	0	2	1.55	98	30	30
LLAWD306	19/01/2018 11:20	56.3	41.7	0	2	-46.74	993	0	0	2	1.35	98	10	10
LLAWD264	19/01/2018 11:22	60												

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 (%)
LLAWB120	19/01/2018 11:49	32.8	31.3	0	35.9	-1.99	991	0	0	35.9	1.05	64.1	5	5
LLAWB116	19/01/2018 11:50	18	22.7	3.2	56.1	-2.48	991	0	0	44.07	0.79	40.7	5	5
LLAWB116	19/01/2018 11:52	17.8	21.9	3.4	56.9	-1.56	991	0	0	44.12	0.81	39.7	5	0
LLAWB116	19/01/2018 11:55	17.5	21.9	3.4	57.2	-0.87	991	0	0	44.42	0.8	39.4	0	0
LLAWC249	26/01/2018 10:14	37.3	29.3	0.1	33.3	-47.09	1012	2	0	32.92	1.27	66.6	20	25
LLAWC249	26/01/2018 10:17	36.4	31.6	0	32	-50.04	1012	2	0	32	1.15	68	25	25
LLAWC250	26/01/2018 10:20	39.2	28.5	0	32.3	-50.78	1012	1	0	32.3	1.38	67.7	20	25
LLAWC250	26/01/2018 10:22	38.6	29.3	0	32.1	-51.68	1012	1	0	32.1	1.32	67.9	25	25
LLAWC132	26/01/2018 10:27	44.3	31.9	0.8	23	-72.78	1011	1	0	19.99	1.39	76.2	10	10
LLAWC251	26/01/2018 10:31	33.4	30.5	0	36.1	-60.32	1012	1	0	36.1	1.1	63.9	10	10
LLAWC152	26/01/2018 10:34	0	1.4	20.9	77.1	-42.86	1012	0	0	0	0	1.4	0	5
LLAWC152	26/01/2018 10:37	0.1	0.7	20.9	77.6	-43.2	1012	0	0	0	0.14	0.8	5	0
LLAWC152	26/01/2018 10:38	1.2	0.7	20.9	77.1	-46.32	1012	0	0	0	1.71	1.9	0	0
LLAWC133	26/01/2018 10:41	40.3	35.1	0.2	24.4	-71.92	1011	1	0	23.65	1.15	75.4	10	10
LLAWC134	26/01/2018 10:43	7.8	9.3	15.9	67	-1.67	1013	0	0	7.22	0.84	17.1	0	5
LLAWC134	26/01/2018 10:46	12.1	14.2	13.5	60.2	-8.76	1013	0	0	9.44	0.85	26.3	5	0
LLAWC134	26/01/2018 10:47	11.9	13.9	13.7	60.5	0.45	1013	0	0	8.99	0.86	25.8	0	0
LLAWC154	26/01/2018 10:52	17.7	24	0.2	58.1	-28.51	1012	1	0	57.35	0.74	41.7	0	5
LLAWC154	26/01/2018 10:53	17.9	24.8	0	57.3	-35.45	1012	1	0	57.3	0.72	42.7	5	0
LLAWC154	26/01/2018 10:55	18.5	24.8	0.1	56.6	0.41	1012	1	0	56.22	0.75	43.3	0	0
LLAWC135	26/01/2018 11:01	42.9	28.2	4.6	24.3	-8.92	1013	0	0	7	1.52	71.1	0	5
LLAWC135	26/01/2018 11:02	51.5	39.8	0.5	8.2	-27.43	1013	1	0	6.32	1.29	91.3	5	5
LLAWC136	26/01/2018 11:04	34.1	32.4	1.1	32.4	-67.8	1013	1	0	28.26	1.05	66.5	10	10
LLAWC137	26/01/2018 11:07	41	36.7	0.2	22.1	-12.67	1013	2	0	21.35	1.12	77.7	10	10
LLAWC143	26/01/2018 11:10	38.1	32.6	1	28.3	-47.52	1012	1	0	24.54	1.17	70.7	10	10
LLAWC140	26/01/2018 11:13	46.4	39.3	0	14.3	-0.31	1012	2	0	14.3	1.18	85.7	5	5
LLAWC141	26/01/2018 11:15	46.2	39.7	0	14.1	-1.15	1012	2	0	14.1	1.16	85.9	10	10
LLAWC142	26/01/2018 11:18	43.3	35.9	2.9	17.9	-2.78	1012	0	0	7	1.21	79.2	5	5
LLAWC141	26/01/2018 11:21	27.4	30.3	0.7	41.6	-3.85	1011	1	0	38.97	0.9	57.7	5	5
LLAWC144	26/01/2018 11:24	57.3	41.6	0.4	0.7	-2.53	1012	1	0	0	1.38	98.9	0	5
LLAWC144	26/01/2018 11:25	55.7	42.6	0.5	1.2	-10.67	1012	1	0	0	1.31	98.3	5	5
LLAWC145	26/01/2018 11:32	47.1	38.7	0	14.2	-7.51	1012	1	0	14.2	1.22	85.8	5	5
LLAWC146	26/01/2018 11:35	35.4	27.6	2.1	34.9	-19.4	1012	0	0	27	1.28	63	5	5
LLAWC147	26/01/2018 11:38	45.7	33.6	0	20.7	-54.65	1012	0	0	20.7	1.36	79.3	10	10
LLARA010	26/01/2018 11:42	11	20.5	0	68.5	-1.27	1012	0	0	68.5	0.54	31.5	5	5
LLAWA132	26/01/2018 11:46	17.1	19.6	0	63.3	-4.33	1012	1	0	63.3	0.87	36.7	5	5
LLAWA030	26/01/2018 11:48	23.5	22.3	0	54.2	-0.1	1012	2	0	54.2	1.05	45.8	5	5
LLAWA131	26/01/2018 11:51	13.3	18.3	0	68.4	-0.72	1013	1	0	68.4	0.73	31.6	5	5
LLARA025	26/01/2018 13:31	0	2.5	19	78.5	0.57	1013	0	0	7.06	0	2.5	0	5
LLARA025	26/01/2018 13:33	0	2.4	18.8	78.8	-0.81	1013	0	0	8.11	0	2.4	5	0
LLARA025	26/01/2018 13:36	0	2.5	18.8	78.7	0.22	1013	0	0	8.01	0	2.5	0	0
LLAWA026	26/01/2018 13:37	26.4	16.7	0.1	56.8	0.43	1014	1	0	56.42	1.58	43.1	0	5
LLAWA026	26/01/2018 13:40	22.9	19.6	0	57.5	-0.12	1014	2	0	57.5	1.17	42.5	0	0
LLAWA026	26/01/2018 13:41	22.9	19.7	0	57.4	0.27	1014	2	0	57.4	1.16	42.6	0	0
LLAWA027	26/01/2018 13:43	27	15.5	0	57.5	0.58	1014	2	0	57.5	1.74	42.5	0	0
LLAWA204	26/01/2018 13:45	23.8	17.5	0	58.7	0.38	1014	1	0	58.7	1.36	41.3	0	5
LLAWA204	26/01/2018 13:47	23.5	18.5	0	58	-8.13	1014	1	0	58	1.27	42	5	5
LLAWA203	26/01/2018 13:49	27.9	16.1	0	56	-10.28	1015	1	0	56	1.73	44	5	5
LLAWA033	26/01/2018 13:51	11.3	12.8	0.3	75.6	0.46	1014	1	0	74.47	0.88	24.1	0	0
LLAWA032	26/01/2018 13:54	2.2	6.9	8	82.9	0.21	1014	1	0	52.82	0.32	9.1	0	0
LLAWA001	26/01/2018 13:56	20.4	12.5	0	67.1	0.57	1014	1	0	67.1	1.63	32.9	0	0
LLAWA01A	26/01/2018 13:58	0.8	11.4	7.5	80.3	0.55	1014	1	0	52.1	0.07	12.2	0	0
LLAWA002	26/01/2018 14:00	2.1	4.3	15.5	78.1	0.6	1014	1	0	19.82	0.49	6.4	0	0
LLAWA003	26/01/2018 14:02	0.3	11.5	3.6	84.6	0.53	1014	1	0	71.06	0.03	11.8	0	0
LLAWA004	26/01/2018 14:05	21.3	16.6	0.8	61.3	0.58	1014	8	0	58.29	1.28	37.9	0	0
LLAWA005	26/01/2018 14:07	6	14.5	2.1	77.4	0.67	1014	3	0	69.5	0.41	20.5	0	0
LLAWA006	26/01/2018 14:09	16.9	17.8	0	65.3	0.57	1014	1	0	65.3	0.95	34.7	0	0
LLAWA130	26/01/2018 14:12	32.9	17.7	0.1	49.3	0.58	1013	1	0	48.92	1.86	50.6	0	5
LLAWA130	26/01/2018 14:14	32.5	19.1	0	48.4	-1.65	1013	1	0	48.4	1.7	51.6	5	5
LLAWA029	26/01/2018 14:25	17.1	21.6	0.5	60.8	-52.02	1013	1	0	58.92	0.79	38.7	5	5
LLAWA031	26/01/2018 14:27	0	2	20.9	75.8	0.57	1012	1	0	0	0	2	0	3
LLARA015	26/01/2018 14:31	20	21.1	0	58.9	-4	1012	0	0	58.9	0.95	41.1	0	0
LLARA028	26/01/2018 14:33	17.1	22	0.6	60.3	-41.09	1013	2	0	58.04	0.78	39.1	5	5
LLAWA011	26/01/2018 14:36	10.6	19.5	0	69.9	-2.35	1013	1	0	69.9	0.54	30.1	5	5
LLARA012	26/01/2018 14:38	8.9	20.1	0	71	-0.38	1013	3	0	71	0.44	29	5	5
LLARA014	26/01/2018 14:41	22.6	16.7	0	60.7	0.36	1013	0	0	60.7	1.35	39.3	0	0
LLAWA016	26/01/2018 14:43	42.2	25.8	0	32	0.27	1013	0	0	32	1.64	68	0	0
LLAWB079	26/01/2018 14:55	56	30.5	0.8	12.7	-72.66	1011	1	0	9.69	1.84	86.5	5	5
LLAWB081	26/01/2018 14:58	0.4	2.4	20.9	75.5	-13.94	1013	6	0	0	0.17	2.8	0	0
LLAWB082	26/01/2018 15:00	65.4	33.8	0.1	0.7	-69.17	1012	1	0	0.32	1.93	99.2	5	5
LLAWB083	26/01/2018 15:03	66.1	33.8	0	0.1	-70.38	1013	1	0	0.1	1.96	99.9	5	5
LLARB072	26/01/2018 15:05	56.7	34.5	0	8.8	-2.84	1013	1	0	8.8	1.64	91.2	10	10
LLAWB096	26/01/2018 15:08	53.5	38.4	1	7.1	-1.91	1012	1	0	3.34	1.39	91.9	5	5
LLAWB095	26/01/2018 15:10	35.4	30.3	0	34.3	-2.01	1013	1	0	34.3	1.17	65.7	5	5
LLAWB111	26/01/2018 15:12	56.7	38.2	0.1	5	-3.63	1013	1	0	4.62	1.48	94.9	100	100
LLAWB097	26/01/2018 15:15	36.8	32.3	0.1	30.8	-5.21	1012	1	0	30.42	1.14	69.1	10	10
LLAWB112	26/01/2018 15:20	37	31.9	0.6	30.5	-4.66	1013	2	0	28.24	1.16	68.9	5	5
LLAWB113	26/01/2018 15:22	22.8	25.9	4.4	46.9	-2.63	1012	1	0	30.36	0.88	48.7	5	5
LLAWB114	26/01/2018 15:24	41.8	37.1	0.1	21	-2.99	1012	2	0	20.62	1.13	78.9	5	5
LLAWB115	26/01/2018 15:26	44.7	33.3	0.1	21.9	-33.32	1012	1	0	21.52	1.34	78	5	5

APPENDIX 5

Emissions/Ambient Air Monitoring

	2017												2018	FCC Comments
	Reporting Quarter			Reporting Quarter			Reporting Quarter			Reporting Quarter				
Atmos Press	1002mb	1008mb	1017mb	1015mb	1010mb	1015mb	1019mb							
Well/Phase	Feb	March	April	May	June	July	August	September	October	November	December	January		
D225						2800								
D230														
D232												20000		From base of well
D258					2500		20000	20000	17800					
D261		14800	19140	7000	1,700	2770	10050	4140						
D262		18000	18900	12800	10700		6220			4300				
D264								3300						
D266					8970	7100		4800		1880				
D270										1043				
D279												20000		From top of well and around base
D281	5,000	5300			4000	5080	20000	15800	20000					
D297		4400		8550	4800	20000		2200						
D298			14890	9,320	1200			20000						
D299				2,000	20000									
D300			20,000		20000	20000	8296	4940	6330					
D301		4500	20,000		20000	20000	2580							
D302					14800			15640				5058		Base of well and surrounding cracked ground
D303				1,900	14000	14860	4200	8600	13080					
D304					8900	2981			20000					
D305		10330		15,000			20000	1140						
D306					2100	3200	2400							
D307					1330			3182						
D309														
D310														
D311								18065				4010		From bentonite seal at base of well
D313												20000		From base of well
D314						1200		15050						
LCP3A					4100									
LC2BR									20000					
LC2CR								12900		4400				
Fault Sump	5000													
Tot Breaches	2	6	5	7	16	11	9	15	6	4	1			

</=1000ppm

1001 to 5000ppm

5001 to 10000ppm

10001ppm+

JEROME SURVEY		
LLANDDULAS, ABERGELE, LL22 8HP		

Date	Time On	Time Off
07/11/2017	09:12	15:38

Personnel	Equipment Type	Equipment Serial No.	Equipment Last Calibration
L Terrace	Jerome	X6310009	15/03/2017

Equipment Calibration Due	Weather	Temperature °C	Wind Direction & Speed
14/03/2018	Light Rain	8	NW 8mph

Location reading taken	Reading (ppb)	Comment
Landfill Perimeter (North, East & South)		
Borehole 41	1	
Borehole 40	1	
Borehole 42	1	
Between B42 and N Gates	0	
Northern Perimeter Gate	0	
Borehole 1	1	
Borehole 3	1	
Borehole 5	1	
Borehole 7	2	
Borehole 09	1	
Borehole 11	1	
Borehole 13	1	
Borehole 15	1	
Borehole 17	1	
Borehole 19	1	
Borehole 21	1	
Borehole 23	1	
Borehole 25	1	
Borehole 27	1	
Borehole 29	0	
Borehole 31	0	
East Perimeter Gates	0	
Borehole 33	1	
Borehole 34	0	
Borehole 36	0	
Groundwater Borehole 6R	0	
Borehole 39	0	
Borehole 48	0	
Groundwater Borehole 36	1	
Borehole 50	2	
Borehole 52	2	
Borehole 54	0	
Borehole 56	2	
Borehole 57	2	
Groundwater Borehole 35	0	

Groundwater Borehole 34	1	
Area between tip and compost pad		
Tip entrance	3	
Haul road to tip from comp area	1	
New compost area entrance	2	
Location reading taken	Reading (ppb)	Comment
Compost Pad		
N end of compost pad	2	
Compost pad entrance	2	
SE flank of compost pad	3	
SE corner of compost pad	3	
Southern perimeter of pad	3	
SW corner of compost pad	2	
W flank of compost pad	3	
NW corner of compost pad	2	
Landfill Perimeter (West)		
Above redundant leachate tank	1	Old tank number 1
Borehole 124	2	
Borehole 122	2	
Groundwater Borehole 33	1	
Borehole 121	1	
Borehole 120	0	
Borehole 118	0	
Borehole 116	0	
Borehole 114	0	
Borehole 112	1	
Groundwater Borehole 1	1	
Borehole 110	1	
Borehole 108	1	
Borehole 106	1	
Borehole 104	1	
Borehole 102	1	
Borehole 100	1	
Groundwater Borehole 32	1	Above gas utilisation compound
Track leading to perimeter fence	1	

FID SURVEY		
LLANDDULAS, ABERGELE, LL22 8HP		

Date	Time On	Time Off
07/11/2017	09:12	15:38

Personnel	Equipment Type	Equipment Serial No.	Equipment Last Calibration
L Terrace	GasTec FID	8301	14/06/2017

Equipment Calibration Due	Weather	Temperature °C	Wind Direction & Speed
14/12/2017	Light Rain	8	NW 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	2	
Borehole 19	1	
Borehole 21	1	
Borehole 23	0	
Borehole 25	0	
Borehole 27	0	
Borehole 29	0	
Borehole 31	1	
East Perimeter Gates	1	
Borehole 33	0	
Borehole 34	0	
Borehole 36	0	
Groundwater Borehole 6R	1	
Borehole 39	2	
Borehole 48	2	
Groundwater Borehole 36	1	
Borehole 50	1	
Borehole 52	2	
Borehole 54	1	
Borehole 56	1	
Borehole 57	0	
Groundwater Borehole 35	0	
Groundwater Borehole 34	0	
Area between tip and compost pad		
Tip entrance	2	
Haul road to tip from comp area	0	
New compost area entrance	1	

Location reading taken	Reading (ppm)	Comment
Compost Pad		
N end of compost pad	1	
Compost pad entrance	1	
Eastern flank of compost pad	2	
SE flank of compost pad	3	
SE corner of compost pad	4	
Southern perimeter of pad	3	
SW corner of compost pad	3	
W flank of compost pad	3	
NW corner of compost pad	3	
Landfill Perimeter (West)		
Above redundant leachate tank	1	Old tank number 1
Borehole 124	1	
Borehole 122	1	
Groundwater Borehole 33	0	
Borehole 121	0	
Borehole 120	2	
Borehole 118	1	
Borehole 116	1	
Borehole 114	0	
Borehole 112	1	
Groundwater Borehole 1	2	
Borehole 110	2	
Borehole 108	1	
Borehole 106	1	
Borehole 104	1	
Borehole 102	2	
Borehole 100	2	
Groundwater Borehole 32	1	Above gas utilisation compound
Track leading to perimeter fence	1	

FID SURVEY

LLANDDULAS, ABERGELE, LL22 8HP

Date	Time On	Time Off
12/12/2017	13:40	15:22

Personnel	Equipment Type	Equipment Serial No.	Equipment Last Calibration
L Terrace	GasTec FID	8301	14/06/2017

Equipment Calibration Due	Weather	Temperature °C	Wind Direction & Speed
14/12/2017	Overcast	3	15ph SSW

Location reading taken	Reading (ppm)	Comment
Landfill Perimeter (North, East & South)		
Borehole 41	1	
Borehole 40	0	
Borehole 42	0	
Between B42 and N Gates	0	
Northern Perimeter Gate	0	
Borehole 1	0	
Borehole 3	0	
Borehole 5	1	
Borehole 7	1	
Borehole 09	0	
Borehole 11	0	
Borehole 13	0	
Borehole 15	0	
Borehole 17	0	
Borehole 19	0	
Borehole 21	0	
Borehole 23	1	
Borehole 25	1	
Borehole 27	1	
Borehole 29	1	
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	1	
Borehole 52	2	
Borehole 54	2	
Borehole 56	0	
Borehole 57	1	
Groundwater Borehole 35	1	

Groundwater Borehole 34	0	
Area between tip and compost pad		
Tip entrance	2	
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	0	
Compost pad entrance	0	
Eastern flank of compost pad	1	
SE flank of compost pad	1	
SE corner of compost pad	2	
Southern perimeter of pad	2	
SW corner of compost pad	3	
W flank of compost pad	2	
NW corner of compost pad	2	
Landfill Perimeter (West)		
Above redundant leachate tank	2	Old tank number 1
Borehole 124	2	
Borehole 122	1	
Groundwater Borehole 33	1	
Borehole 121	0	
Borehole 120	1	
Borehole 118	2	
Borehole 116	1	
Borehole 114	0	
Borehole 112	1	
Groundwater Borehole 1	1	
Borehole 110	0	
Borehole 108	0	
Borehole 106	2	
Borehole 104	0	
Borehole 102	1	
Borehole 100	1	
Groundwater Borehole 32	1	Above gas utilisation compound
Track leading to perimeter fence	1	

JEROME SURVEY		
LLANDDULAS, ABERGELE, LL22 8HP		

Date	Time On	Time Off
12/12/2017	13:40	15:22

Personnel	Equipment Type	Equipment Serial No.	Equipment Last Calibration
L Terrace	Jerome	X6310009	15/03/2017

Equipment Calibration Due	Weather	Temperature °C	Wind Direction & Speed
14/03/2018	Overcast	3	15mph SSW

Location reading taken	Reading (ppb)	Comment
Landfill Perimeter (North, East & South)		
Borehole 41	0	
Borehole 40	1	
Borehole 42	1	
Between B42 and N Gates	1	
Northern Perimeter Gate	1	
Borehole 1	0	
Borehole 3	1	
Borehole 5	1	
Borehole 7	1	
Borehole 09	1	
Borehole 11	2	
Borehole 13	0	
Borehole 15	1	
Borehole 17	0	
Borehole 19	1	
Borehole 21	1	
Borehole 23	1	
Borehole 25	1	
Borehole 27	1	
Borehole 29	1	
Borehole 31	0	
East Perimeter Gates	0	
Borehole 33	1	
Borehole 34	2	
Borehole 36	1	
Groundwater Borehole 6R	1	
Borehole 39	1	
Borehole 48	1	
Groundwater Borehole 36	1	
Borehole 50	0	
Borehole 52	1	
Borehole 54	2	
Borehole 56	2	
Borehole 57	2	
Groundwater Borehole 35	1	

Groundwater Borehole 34	1	
Area between tip and compost pad		
Tip entrance	3	
Haul road to tip from comp area	1	
New compost area entrance	1	
Location reading taken	Reading (ppb)	Comment
Compost Pad		
N end of compost pad	1	
Compost pad entrance	1	
SE flank of compost pad	2	
SE corner of compost pad	3	
Southern perimeter of pad	3	
SW corner of compost pad	4	
W flank of compost pad	2	
NW corner of compost pad	2	
Landfill Perimeter (West)		
Above redundant leachate tank	1	Old tank number 1
Borehole 124	1	
Borehole 122	2	
Groundwater Borehole 33	1	
Borehole 121	2	
Borehole 120	2	
Borehole 118	2	
Borehole 116	1	
Borehole 114	1	
Borehole 112	1	
Groundwater Borehole 1	0	
Borehole 110	1	
Borehole 108	0	
Borehole 106	1	
Borehole 104	1	
Borehole 102	1	
Borehole 100	0	
Groundwater Borehole 32	1	Above gas utilisation compound
Track leading to perimeter fence	1	

APPENDIX 6

Leachate Level Data

Llanddulas - Leachate Level Report - Q4



From : 23/11/2017

To : 24/01/2018

23/11/2017

Sample Point	Depth of Liq (m)	Dip to Water (m)	Leachate Head (m)	LeachateHead Fld (m)	PulseCount
LCP2Ar2	1.65	44		1.56	501778
LCP2Br2	-1.17	51.58		0.42	450940
LCP2Cr	-0.09	50.1		0.39	
LCP3	1.91	22.6		0.89	
LCP3A	0.63	47.09	0.63	0.74	943660
LLALCP1AR	0.86	23.83		0.6	122953
LLALCP1C	1.35	41.1		1.54	
LLALMP01	1.32	18.9		0.7	
LLALMP02	0.15	29		0.62	31029
LLALMP03	0.60	36.75		0.22	661003
LLALMP04	1.11	41.38		1.24	45135
LLALMP05	-1.02	45.7		1	89973
LLALMP3/1	0.98	25.12		0.42	
LLALMP3/2	0.56	40.2		0.51	

Sample Point	TD (m)	Water Level (mAOD)
LCP2Ar2	45.56	90.15
LCP2Br2	52	86.13
LCP2Cr	50.49	85.86
LCP3	23.49	98.72
LCP3A	47.83	90.55
LLALCP1AR	24.43	99.31
LLALCP1C	42.64	90.59
LLALMP01	19.6	99.92
LLALMP02	29.62	101.21
LLALMP03	36.97	96.20
LLALMP04	42.62	96.38
LLALMP05	46.7	94.58
LLALMP3/1	25.54	99.21
LLALMP3/2	40.71	90.56

Issued By:

Llanddulas - Leachate Level Report - Q4



From : 23/11/2017

To : 24/01/2018

20/12/2017

Sample Point	Depth of Liq (m)	Dip to Water (m)	Leachate Head (m)	LeachateHead Fld (m)	PulseCount
LCP2Ar2	0.36	45.29		0.27	501778
LCP2Br2	-1.03	51.44		0.56	450940
LCP2Cr	-0.07	50.08		0.41	
LCP3	1.89	22.62		0.87	
LCP3A	1.70	46.02	1.70	1.81	943660
LLALCP1AR	0.87	23.82		0.61	122953
LLALCP1C	1.37	41.08		1.56	
LLALMP01	1.33	18.89		0.71	
LLALMP02	0.17	28.98		0.64	31029
LLALMP03	0.66	36.69		0.28	661003
LLALMP04	1.13	41.36		1.26	45135
LLALMP05	-0.98	45.66		1.04	89973
LLALMP3/1	1.00	25.1		0.44	
LLALMP3/2	0.58	40.17		0.54	

Sample Point	TD (m)	Water Level (mAOD)
LCP2Ar2	45.56	88.86
LCP2Br2	52	86.27
LCP2Cr	50.49	85.88
LCP3	23.49	98.70
LCP3A	47.83	91.62
LLALCP1AR	24.43	99.32
LLALCP1C	42.64	90.61
LLALMP01	19.6	99.93
LLALMP02	29.62	101.23
LLALMP03	36.97	96.26
LLALMP04	42.62	96.40
LLALMP05	46.7	94.62
LLALMP3/1	25.54	99.23
LLALMP3/2	40.71	90.59

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Llanddulas - Leachate Level Report - Q4



From : 23/11/2017
To : 24/01/2018

24/01/2018

Sample Point	Depth of Liq (m)	Dip to Water (m)	Leachate Head (m)	LeachateHead Fld (m)	PulseCount
LCP2Ar2	0.54	45.11		0.45	501778
LCP2Br2	-0.20	50.61		1.39	450940
LCP2Cr	-0.04	50.05		0.44	
LCP3	2.02	22.49		1	
LCP3A	1.61	46.11	1.61	1.72	943660
LLALCP1AR	0.88	23.81		0.62	122953
LLALCP1C	0.42	42.03		0.61	
LLALMP01	1.36	18.86		0.74	
LLALMP02	1.02	28.13		1.49	31029
LLALMP03	1.88	35.47		1.5	661003
LLALMP04	1.10	41.39		1.23	45135
LLALMP05	-1.02	45.7		1	89973
LLALMP3/1	0.99	25.11		0.43	
LLALMP3/2	0.96	39.8		0.91	

Sample Point	TD (m)	Water Level (mAOD)
LCP2Ar2	45.56	89.04
LCP2Br2	52	87.10
LCP2Cr	50.49	85.91
LCP3	23.49	98.83
LCP3A	47.83	91.53
LLALCP1AR	24.43	99.33
LLALCP1C	42.64	89.66
LLALMP01	19.6	99.96
LLALMP02	29.62	102.08
LLALMP03	36.97	97.48
LLALMP04	42.62	96.37
LLALMP05	46.7	94.58
LLALMP3/1	25.54	99.22
LLALMP3/2	40.71	90.96

Issued By:

APPENDIX 7

Leachate Quality Data

From : 16/01/2018

To : 16/01/2018

16/01/2018

Sample Point	Alk (CaCO ₃ :mg/l)	Amm-N (N:mg/l)	BOD (mg/l)	Ca(D) (mg/l)	Chloride (mg/l)
LCP1Ar	1710	179	<14.3	180	386
LCP1C	2480	387	46.7	72	1380
LCP2AR	8470	1470	<95.0	78	2510
LCP2C1	12700	2170	638.8	43	3530
LCP3A	15800	2170	2348.82	73	2490

Sample Point	COD (mg/l)	Cond(Fld) (uS / cm)	MCPD (UG/L)	Mg(D) (mg/l)	Pb(D) (mg/l)
LCP1Ar	255		<10	50	<0.01
LCP1C	610		32.2	38	<0.01
LCP2AR	3010	>20000	48.4	67	<0.01
LCP2C1	5310	>20000	116	68	<0.01
LCP3A	12200	>20000	103	90	<0.01
LLALCP1AR		7760			
LLALCP1C		18800			

Sample Point	Hg (mg/l)	K(D) (mg/l)	Na(D) (mg/l)	pH(Fld)	TOC (mg/l)
LCP1Ar	<0.000005	124	357		87
LCP1C	<0.000005	280	820		200
LCP2AR	<0.00003	834	2270	7.48	950
LCP2C1	<0.00005	1150	3140	7.74	1600
LCP3A	<0.00005	1390	3240	7.75	4800
LLALCP1AR				7.35	
LLALCP1C				7.44	

Sample Point	TON (mg/l)	Total S(D) SO ₄ :mg/l
LCP1Ar	0.4	35
LCP1C	<0.2	53
LCP2AR	<2	111
LCP2C1	<2	175
LCP3A	<2	705

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APPENDIX 8

Groundwater Quality Data

From : 15/01/2018

To : 15/01/2018

15/01/2018

Sample Point	Alk (CaCO3:mg/l)	Amm-N (N:mg/l)	Ca(D) (mg/l)	Cd(D) (mg/l)	CH4(Diss) (mg/l)
GWBH01	246	0.13	121	<0.0001	<0.02
GWBH02	153	0.11	74	<0.0001	<0.02
GWBH04	202	0.10	98	<0.0001	<0.02
GWBH07	196	0.13	80	<0.0001	<0.02
GWBH22	291	0.23	125	<0.0001	<0.02
GWBH23	258	0.17	156	<0.0001	<0.02
GWBH24	229	0.02	114	<0.0001	<0.02
GWBH25	305	0.06	113	<0.0001	<0.02
GWBH27B	226	0.07	149	<0.0001	<0.02
GWBH28	226	0.06	121	<0.0001	<0.02
GWBH32	485	0.07	154	<0.0001	0.66
GWBH33	273	<0.01	120	<0.0001	<0.02
GWBH34	407	<0.01	171	<0.0001	<0.02
GWBH35	328	0.09	50	<0.0001	<0.02
GWBH36	283	0.17	172	<0.0001	<0.02

Sample Point	Chloride (mg/l)	Cond(Fld) (uS / cm)	Cr(D) (mg/l)	Cresols (mg/l)	Cu(D) (mg/l)
GWBH01	29	591	<0.001	<0.0005	<0.001
GWBH02	16	370	<0.001	<0.0005	<0.001
GWBH04	40	519	<0.001	<0.0005	0.007
GWBH07	66	586	0.002	<0.0005	<0.001
GWBH22	73	680	<0.001	<0.0005	<0.001
GWBH23	83	863	<0.001	<0.0005	<0.001
GWBH24	119	845	<0.001	<0.0005	<0.001
GWBH25	18	512	<0.001	<0.0005	<0.001
GWBH27B	38	701	<0.001	0.0031	<0.001
GWBH28	51	605	<0.001	<0.0005	<0.001
GWBH32	39	790	<0.001	<0.0005	<0.001
GWBH33	35	611	<0.001	<0.0005	<0.001
GWBH34	19	777	<0.001	<0.0005	0.002
GWBH35	16	515	<0.001	<0.0005	0.001
GWBH36	65	979	<0.001	<0.0005	0.003

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From : 15/01/2018

To : 15/01/2018

15/01/2018

Sample Point	Dimethylphenols (mg/	Dip to Water (m)	Fe(D) (mg/l)	Mg(D) (mg/l)	Pb(D) (mg/l)
GWBH01	<0.0005	89.69	0.14	12	<0.001
GWBH02	<0.0005	66.4	0.12	4	<0.001
GWBH04	<0.0005	11.23	0.14	6	<0.001
GWBH06R		98.2			
GWBH07	<0.0005	3.46	0.12	14	<0.001
GWBH22	<0.0005	8.9	0.18	19	<0.001
GWBH23	<0.0005	0	0.16	15	<0.001
GWBH24	<0.0005	3.52	0.15	15	<0.001
GWBH25	<0.0005	40.38	0.14	5	<0.001
GWBH26B		48.51			
GWBH27B	<0.0005	15.9	0.17	8	<0.001
GWBH28	<0.0005	32.55	0.15	5	<0.001
GWBH32	<0.0005	94.25	0.02	21	<0.001
GWBH33	<0.0005	103.19	<0.01	4	<0.001
GWBH34	<0.0005	128.89	0.01	7	<0.001
GWBH35	<0.0005	125.9	0.09	7	<0.001
GWBH36	<0.0005	75.73	0.18	12	0.004

Sample Point	Hg (mg/l)	MCPP (UG/L)	Mn(D) (mg/l)	Ni(D) (mg/l)	pH(Fld)
GWBH01	<0.000005	<0.02	0.002	<0.001	7.4
GWBH02	<0.000005	<0.02	<0.002	<0.001	7.74
GWBH04	0.000009	<0.02	<0.002	<0.001	7.47
GWBH07	<0.000005	<0.02	<0.002	0.001	7.43
GWBH22	<0.000005	<0.02	0.006	<0.001	7.18
GWBH23	<0.000005	<0.02	0.54	<0.001	7.16
GWBH24	<0.000005	<0.02	0.008	<0.001	7.29
GWBH25	<0.000005	<0.02	<0.002	<0.001	7.48
GWBH27B	<0.000005	<0.02	0.006	<0.001	7.08
GWBH28	0.000006	<0.02	<0.002	<0.001	7.46
GWBH32	<0.000005	<0.02	0.33	<0.001	7.14
GWBH33	<0.000005	<0.02	<0.002	<0.001	7.4
GWBH34	<0.000005	<0.02	<0.002	<0.001	7.1
GWBH35	<0.000005	<0.02	<0.002	<0.001	7.56
GWBH36	<0.000005	<0.02	<0.002	0.001	6.8

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From : 15/01/2018

To : 15/01/2018

15/01/2018

Sample Point	K(D) (mg/l)	Na(D) (mg/l)	Phenol (mg/l)	TD (m)	TOC (mg/l)
GWBH01	1	16	<0.0005	97.12	0.48
GWBH02	2	8	<0.0005	100.63	0.88
GWBH04	9	18	<0.0005	30.84	11
GWBH06R				100.04	
GWBH07	4	44	<0.0005	25.87	2.6
GWBH22	2	35	<0.0005	36.23	0.34
GWBH23	2	49	<0.0005	26.11	0.22
GWBH24	9	90	<0.0005	18.43	0.88
GWBH25	1	14	<0.0005	54.43	0.38
GWBH26B				49.96	
GWBH27B	3	21	<0.0005	31.21	0.26
GWBH28	<1	27	<0.0005	45.12	0.24
GWBH32	2	21	<0.0005	108.37	1.7
GWBH33	3	18	<0.0005	132.37	1.4
GWBH34	3	12	<0.0005	139.9	2.6
GWBH35	2	66	<0.0005	138.45	1.2
GWBH36	22	27	<0.0005	120.03	4.6

Sample Point	TON (mg/l)	Total S(D) SO4:mg/l	Trifluralin (ng/l)	Trimethylphenols (mg)	Water Level (mAOD)
GWBH01	7.5	14	<20	<0.0005	53.65
GWBH02	2.7	12	<20	<0.0005	48.28
GWBH04	1.6	30	<20	<0.0005	45.72
GWBH06R					30.83
GWBH07	0.3	34	<20	<0.0005	35.15
GWBH22	1.4	49	<20	<0.0005	31.37
GWBH23	<0.2	76	<20	<0.0005	40.05
GWBH24	6.0	32	<20	<0.0005	12.62
GWBH25	4.8	14	<20	<0.0005	39.71
GWBH26B					31.55
GWBH27B	4.4	18	<20	<0.0005	16.36
GWBH28	3.1	22	<20	<0.0005	31.17
GWBH32	0.6	6	<20	0.0032	40.84
GWBH33	4.6	17	<20	<0.0005	51.88
GWBH34	15.7	19	<20	<0.0005	47.13
GWBH35	1.3	16	<20	<0.0005	48.39
GWBH36	15.1	46	<20	<0.0005	65.52

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From : 15/01/2018
To : 15/01/2018

15/01/2018

Sample Point	Zn(D) (mg/l)
GWBH01	0.016
GWBH02	0.006
GWBH04	0.016
GWBH07	0.006
GWBH22	<0.002
GWBH23	<0.002
GWBH24	0.014
GWBH25	0.003
GWBH27B	0.006
GWBH28	0.005
GWBH32	0.004
GWBH33	0.005
GWBH34	0.01
GWBH35	0.013
GWBH36	0.017

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APPENDIX 9

Surface Water Quality Data

Llanddulas - Surface Water Quality Report - Q4



From : 10/11/2017

To : 24/01/2018

10/11/2017

Sample Point	Amm-N (N:mg/l)	Chloride (mg/l)
LLASPRING	<0.015	27.4

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Llanddulas - Surface Water Quality Report - Q4



From : 10/11/2017
To : 24/01/2018

15/11/2017

Sample Point	Amm-N (N:mg/l)	BOD (mg/l)	Chloride (mg/l)	Cond(Fld) (uS / cm)	Pb(D) (mg/l)
LLA000W1	0.2	1.6			
LLADOWNSTREAM	0.06		22	275	
LLASPRING	<0.01		35	665	<0.001
LLAUPSTREAM	0.06		21	276	

Sample Point	Hg (mg/l)	MCP (UG/L)	pH (Lab)	pH(Fld)	S.Solids (mg/l)
LLA000W1			7.9		9
LLADOWNSTREAM				7.56	
LLASPRING	<0.000005	<0.02		6.79	
LLAUPSTREAM				7.63	

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Llanddulas - Surface Water Quality Report - Q4



From : 10/11/2017
To : 24/01/2018

23/11/2017

Sample Point	Amm-N (N:mg/l)	Chloride (mg/l)	Cond(Fld) (uS / cm)	pH(Fld)
LLASPRING	<0.015	23.9	665	7.24

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From : 10/11/2017

To : 24/01/2018

29/11/2017

Sample Point	Amm-N (N:mg/l)	Chloride (mg/l)	Cond(Fld) (uS / cm)	pH(Fld)
LLASPRING	<0.015	29.1	689	6.99

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From : 10/11/2017

To : 24/01/2018

06/12/2017

Sample Point	Amm-N (N:mg/l)	Chloride (mg/l)	Cond(Fld) (uS / cm)	pH(Fld)
LLASPRING	<0.015	45.1	722	7.09

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From : 10/11/2017
To : 24/01/2018

12/12/2017

Sample Point	Amm-N (N:mg/l)	BOD (mg/l)	Chloride (mg/l)	Cond(Fld) (uS / cm)	Pb(D) (mg/l)
LLA000W1	0.2	<35.6			
LLADOWNSTREAM	0.08		33	341	
LLASPRING	<0.01		52	710	<0.001
LLAUPSTREAM	0.08		32	308	

Sample Point	Hg (mg/l)	MCP (UG/L)	pH (Lab)	pH(Fld)	S.Solids (mg/l)
LLA000W1			7.8		9
LLADOWNSTREAM				7.54	
LLASPRING	<0.000005	<0.02		6.93	
LLAUPSTREAM				7.61	

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From : 10/11/2017

To : 24/01/2018

20/12/2017

Sample Point	Amm-N (N:mg/l)	Chloride (mg/l)	Cond(Fld) (uS / cm)	pH(Fld)
LLASPRING	0.02	41.7	730	6.84

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From : 10/11/2017
To : 24/01/2018

29/12/2017

Sample Point	Amm-N (N:mg/l)	Chloride (mg/l)
LLASPRING	<0.015	47.6

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From : 10/11/2017

To : 24/01/2018

03/01/2018

Sample Point	Amm-N (N:mg/l)	Chloride (mg/l)	Cond(Fld) (uS / cm)	pH(Fld)
LLASPRING	0.04	48.4	699	7

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From : 10/11/2017

To : 24/01/2018

11/01/2018

Sample Point	Amm-N (N:mg/l)	Chloride (mg/l)	Cond(Fld) (uS / cm)	pH(Fld)
LLASPRING	<0.015	43.2	739	7.05

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From : 10/11/2017
To : 24/01/2018

15/01/2018

Sample Point	Amm-N (N:mg/l)	BOD (mg/l)	Chloride (mg/l)	COD (mg/l)	Cond(Fld) (uS / cm)
LLA000W1	0.02	1.3			
LLADOWNSTREAM	0.13		35	12	337
LLASPRING	0.04		56		737
LLAUPSTREAM	0.13		34	12	326

Sample Point	Hg (mg/l)	MCP (UG/L)	Pb(D) (mg/l)	pH (Lab)	pH(Fld)
LLA000W1				8	
LLADOWNSTREAM	<0.000005	<0.02	<0.001		7.71
LLASPRING	<0.000005	<0.02	<0.001		7.06
LLAUPSTREAM	<0.000005	<0.02	<0.001		7.72

Sample Point	S.Solids (mg/l)
LLA000W1	6

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From : 10/11/2017

To : 24/01/2018

24/01/2018

Sample Point	Amm-N (N:mg/l)	Chloride (mg/l)	Cond(Fld) (uS / cm)	pH(Fld)
LLASPRING	0.02	53.4	700	7.01

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