



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

28th May 2017

Dear Tony,

Environmental Monitoring Report, 1st May 2017 to 31st July 2017.

Please find enclosed the quarterly report for routine environmental monitoring undertaken at Llanddulas Landfill Site during the period 1st February to 30th April 2017.

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.

Phil Birchall

Compliance Advisor

APPENDIX 1

Field Logs

Field log report

Llanddulas

09-May-2017

Equipment 01 Calibration Due	N/A
Equipment 01 Last Calibration	20/04/2017
Equipment 01 Serial No.	LT1
Equipment 01 Type	Hannah Instruments HI98130
Personnel 01	L.Terrace
Time OFF	12:25
Time ON	12:10
Weather	Sunny

Issued By:

Signed By :

Name :

Field log report

Llanddulas

24-May-2017

Equipment 01 Calibration Due	02/06/2016
Equipment 01 Last Calibration	02/12/2016
Equipment 01 Serial No.	GA11581
Equipment 01 Type	GA2000+
Equipment 02 Type	PH/EC Meter
Personnel 01	L.Terrace

Issued By:

Signed By :

Name :

Field log report

Llanddulas

07-June-2017

Equipment 01 Calibration Due	14/08/2017
Equipment 01 Last Calibration	14/02/2017
Equipment 01 Serial No.	GA12569
Equipment 01 Type	GA2000
Equipment 02 Last Calibration	15/05/2017
Equipment 02 Serial No.	Hannah Instruments HI98130
Equipment 02 Type	PH/EC Meter
Personnel 01	L.Terrace
Time OFF	15:40
Time ON	09:10
Weather	Overcast

Issued By:

Signed By :

Name :

Field log report

Llanddulas

14-June-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	11:35
Time ON	09:11
Weather	Sunny

Issued By:

Signed By :

Name :

Field log report

Llanddulas

21-June-2017

Equipment 01 Calibration Due	14/08/2017
Equipment 01 Last Calibration	14/06/2017
Equipment 01 Serial No.	LT1
Equipment 01 Type	Hannah Instruments HI98130
Personnel 01	L.Terrace
Time OFF	12:05
Time ON	11:50
Weather	Sunny

Issued By:

Signed By :

Name :

Field log report

Llanddulas

06-July-2017

Equipment 01 Calibration Due	14/08/2017
Equipment 01 Last Calibration	14/02/2017
Equipment 01 Serial No.	GA12569
Equipment 01 Type	GA2000
Equipment 02 Last Calibration	14/06/2017
Equipment 02 Serial No.	Hannah Instruments HI98130
Equipment 02 Type	PH/EC Meter
Personnel 01	L.Terrace
Time OFF	17:00
Time ON	08:22

Issued By:

Signed By :

Name :

Field log report

Llanddulas

17-July-2017

Equipment 01 Last Calibration	17/07/2017
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	18:48
Time ON	08:57
Weather	Sunny

Issued By:

Signed By :

Name :

Field log report

Llanddulas

18-July-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	11:50
Time ON	09:11
Weather	Sunny

Issued By:

Signed By :

Name :

Field log report

Llanddulas

27-July-2017

Equipment 01 Last Calibration	17/07/2017
Equipment 01 Serial No.	LT1
Equipment 01 Type	Hannah Instruments HI98130
Personnel 01	L.Terrace
Time OFF	09:27
Time ON	09:07
Weather	Overcast

Issued By:

Signed By :

Name :

APPENDIX 2

Perimeter Borehole Gas Data

From : 09/05/2017

To : 18/07/2017

09/05/2017

Sample Point	AtPress (mBar)	C0 (ppm)	CH4 (%v/v) (%)	CO2 (%v/v) (%)	H2S (ppm)
BH001	1013	0	0	0	0
BH002	1012	0	0	1.4	0
BH003	1012	0	0	0.1	0
BH004	1012	0	0	0.2	0
BH005	1012	0	0	1.3	0
BH006	1012	0	0	0.7	0
BH007	1012	0	0	0.9	0
BH008	1012	0	0	0.9	0
BH009	1012	0	0	0.3	0
BH010	1012	0	0	0.6	0
BH011	1012	0	0	0.1	0
BH012	1012	0	0	0.9	0
BH013	1012	0	0	0.9	0
BH014	1012	0	0	2.7	0
BH015	1011	0	0	0.5	0
BH016	1011	0	0	1.7	0
BH017	1011	0	0	1.5	0
BH018	1011	0	0	0.7	0
BH019	1011	0	0	1.8	0
BH020	1011	0	0	1.3	0
BH021	1011	0	0	0.9	0
BH022	1011	0	0	0.5	0
BH023	1011	0	0	2.1	0
BH024	1011	0	0	0.7	0
BH025	1011	0	0	0.4	0
BH026	1011	0	0	2.3	0
BH027	1011	0	0	2.9	0
BH028	1011	0	0	2.3	0
BH029	1011	0	0	1	0
BH030	1011	0	0	2.4	0
BH031	1011	0	0	1.8	0
BH032	1011	0	0	1.1	0
BH033	1011	0	0	2.3	0
BH034	1011	0	0	1.3	0
BH035	1011	0	0	1.1	0
BH036	1010	0	0	3.9	0
BH037	1010	0	0	0.2	0
BH038	1010	0	0	0.6	0
BH039	1010	0	0	0.7	0
BH040	1013	0	0	1.7	0
BH041	1010	0	0	0.6	0
BH042	1015	0	0	0	0
BH047	1010	0	0	1.2	0
BH048	1009	0	0	5.4	0
BH049	1009	0	0	0.8	0
BH050	1009	0	0	3.1	0
BH051	1009	0	0	3	0
BH052	1009	0	0	1.5	0
BH053	1009	0	0	0.8	0
BH054	1009	0	0	1.9	0
BH055	1009	0	0	3.5	0

Issued By:

From : 09/05/2017

To : 18/07/2017

09/05/2017

	AtPress (mBar)	C0 (ppm)	CH4 (%v/v) (%)	CO2 (%v/v) (%)	H2S (ppm)
BH056	1008	0	0	0.7	0
BH057	1009	0	0	0.9	0
BH100	1010	0	0	3.7	0
BH101	1009	0	0	2.4	0
BH102	1008	0	0	0.8	0
BH103	1008	0	0	1.6	0
BH104	1008	0	0	0.2	0
BH105	1007	0	0	1.3	0
BH106	1007	0	0	1	0
BH107	1007	0	0	3.7	0
BH108	1007	0	0	0.7	0
BH109	1007	0	0	0.1	0
BH110	1007	0	0	1.8	0
BH111	1007	0	0	2.1	0
BH112	1007	0	0	4.1	0
BH113	1007	0	0	2.8	0
BH114	1006	0	0	0.3	0
BH115	1006	0	0	0.1	0
BH116	1006	0	0	0.8	0
BH117	1005	0	0	0.1	0
BH118	1005	0	0	0.9	0
BH119	1005	0	0	0.5	0
BH120	1005	0	0	0.2	0

Issued By:

From : 09/05/2017
To : 18/07/2017

09/05/2017

Sample Point	O2 (%v/v)	Rel Press (mBar)
BH001	20.3	0.19
BH002	18.9	0.21
BH003	20.3	0.22
BH004	20.3	0.22
BH005	18.9	0.24
BH006	19.7	0.24
BH007	19.8	0.28
BH008	19.7	0.35
BH009	20.2	0.29
BH010	20.2	0.31
BH011	20.5	0.31
BH012	19.7	0.3
BH013	19.9	0.3
BH014	18.8	0.31
BH015	20.4	0.32
BH016	19.3	0.3
BH017	19.4	0.31
BH018	20	0.32
BH019	19.6	0.34
BH020	19.7	0.34
BH021	19.8	0.35
BH022	20.2	0.35
BH023	19.2	0.36
BH024	20.1	0.37
BH025	20.4	0.53
BH026	18.8	0.35
BH027	18.1	0.35
BH028	18.9	0.38
BH029	19.8	0.4
BH030	18.9	0.37
BH031	19.3	0.37
BH032	19.6	0.38
BH033	18.5	0.37
BH034	19.3	0.32
BH035	19.8	0.31
BH036	16.5	0.32
BH037	20.3	0.29
BH038	19.9	0.35
BH039	19.8	0.35
BH040	18.6	0.17
BH041	19.2	0.5
BH042	20.3	0.02
BH047	18.6	0.53
BH048	15.3	0.33
BH049	19.5	0.38
BH050	16.9	0.35
BH051	17.8	0.37
BH052	19	0.41
BH053	19.8	0.41
BH054	19.4	0.4
BH055	17.6	0.38

Issued By:

From : 09/05/2017

To : 18/07/2017

09/05/2017

	O2 (%v/v)	Rel Press (mBar)
BH056	19.8	0.44
BH057	19.5	0.43
BH100	15.6	0.67
BH101	17.9	0.71
BH102	19.1	0.74
BH103	18.8	0.77
BH104	19.9	0.83
BH105	19.1	0.86
BH106	19.9	0.82
BH107	18.4	0.84
BH108	19.5	0.86
BH109	20.3	0.86
BH110	17.8	0.84
BH111	18.4	0.85
BH112	16.1	0.85
BH113	15.3	0.83
BH114	20.2	0.83
BH115	20.5	0.84
BH116	19.5	0.84
BH117	20.6	0.7
BH118	20.1	0.81
BH119	20.2	0.79
BH120	20.6	0.8

Issued By:

From : 09/05/2017

To : 18/07/2017

24/05/2017

Sample Point	AtPress (mBar)	C0 (ppm)	CH4 (%v/v) (%)	CO2 (%v/v) (%)	H2S (ppm)
BH001	1013	0	0	0	0
BH002	1014	0	0	0.6	0
BH003	1014	0	0	0.3	0
BH004	1014	0	0	0	0
BH005	1014	0	0	0.3	0
BH006	1013	0	0	0.1	0
BH007	1013	0	0	0.2	0
BH008	1013	0	0	0.8	0
BH009	1013	0	0	0.1	0
BH010	1013	0	0	0.2	0
BH011	1013	0	0	0.4	0
BH012	1013	0	0	0.1	0
BH013	1013	0	0	0.1	0
BH014	1013	0	0	0.4	0
BH015	1013	0	0	0.1	0
BH016	1013	0	0	0.2	0
BH017	1013	0	0	0.1	0
BH018	1013	0	0	0.2	0
BH019	1013	0	0	0.8	0
BH020	1013	0	0	0.2	0
BH021	1013	0	0	0	0
BH022	1013	0	0	0.2	0
BH023	1013	0	0	0.4	0
BH024	1013	0	0	0.4	0
BH025	1013	0	0	0.5	0
BH026	1013	0	0	0.4	0
BH027	1013	0	0	1.1	0
BH028	1013	0	0	1.6	0
BH029	1013	0	0	0.1	0
BH030	1013	0	0	0.5	0
BH040	1016	0	0	1.9	0
BH041	1013	0	0	0.4	0
BH042	1016	0	0	0	0

Issued By:

From : 09/05/2017
To : 18/07/2017

24/05/2017

Sample Point	O2 (%v/v)	Rel Press (mBar)
BH001	20.7	0
BH002	20.4	0.03
BH003	20.5	0.03
BH004	20.7	0.06
BH005	20.4	0.08
BH006	20.7	0.12
BH007	20.5	0.14
BH008	19.9	0.16
BH009	20.8	0.14
BH010	20.6	0.17
BH011	20.5	0.18
BH012	20.8	0.2
BH013	20.8	0.21
BH014	20.5	0.22
BH015	20.7	0.26
BH016	20.7	0.26
BH017	20.8	0.29
BH018	20.8	0.29
BH019	20.3	0.28
BH020	20.8	0.29
BH021	20.9	0.31
BH022	20.7	0.34
BH023	20.5	0.35
BH024	20.4	0.36
BH025	20.2	0.48
BH026	20.4	0.38
BH027	19.5	0.62
BH028	19.4	0.42
BH029	20.6	0.45
BH030	20.2	0.44
BH040	18.3	0.13
BH041	19.6	0.17
BH042	19.9	0.06

Issued By:

From : 09/05/2017

To : 18/07/2017

07/06/2017

Sample Point	AtPress (mBar)	C0 (ppm)	CH4 (%v/v) (%)	CO2 (%v/v) (%)	H2S (ppm)
BH001	997	0	0	0	0
BH002	998	0	0	0.2	0
BH003	998	0	0	4	0
BH004	998	0	0	0	0
BH005	998	0	0	0	0
BH006	998	0	0	0	0
BH007	998	0	0	0.2	0
BH008	998	0	0	0.9	0
BH009	998	0	0	0	0
BH010	998	0	0	0	0
BH011	998	0	0	0	0
BH012	998	0	0	0	0
BH013	998	0	0	0	0
BH014	998	0	0	1.2	0
BH015	997	0	0	0	0
BH016	997	0	0	0.1	0
BH017	997	0	0	0	0
BH018	997	0	0	0.3	0
BH019	997	0	0	0.3	0
BH020	997	0	0	0.2	0
BH021	997	0	0	0	0
BH022	997	0	0	0.3	0
BH023	997	0	0	1.7	0
BH024	997	0	0	1.1	0
BH025	997	0	0	0.8	0
BH026	997	0	0	0.2	0
BH027	997	0	0	1.9	0
BH028	997	0	0	2.6	0
BH029	997	0	0	0	0
BH030	997	0	0	2.1	0
BH040	1001	0	0	0.1	0
BH041	997	0	0	1.3	0
BH042	1000	0	0	0	0

Issued By:

From : 09/05/2017
To : 18/07/2017

07/06/2017

Sample Point	O2 (%v/v)	Rel Press (mBar)
BH001	20.1	0.13
BH002	19.9	0.17
BH003	14.7	0.18
BH004	20.2	0.17
BH005	20.2	0.21
BH006	20.3	0.19
BH007	20.1	0.2
BH008	19.9	0.26
BH009	20.4	0.2
BH010	20.4	0.26
BH011	20.5	0.21
BH012	20.5	0.29
BH013	20.5	0.24
BH014	19.5	0.26
BH015	20.6	0.32
BH016	20.6	0.33
BH017	20.6	0.31
BH018	20.3	0.33
BH019	20.5	0.22
BH020	20.6	0.35
BH021	20.6	0.37
BH022	20.4	0.37
BH023	18.9	0.38
BH024	19.6	0.38
BH025	19.8	0.41
BH026	20.5	0.38
BH027	18	0.47
BH028	17.3	0.41
BH029	20.7	0.39
BH030	18.2	0.41
BH040	20.1	0
BH041	18.2	0.12
BH042	20.1	0

Issued By:

From : 09/05/2017

To : 18/07/2017

21/06/2017

Sample Point	AtPress (mBar)	C0 (ppm)	CH4 (%v/v) (%)	CO2 (%v/v) (%)	H2S (ppm)
BH001	1003	0	0	0	0
BH002	1002	0	0	0.6	0
BH003	1002	0	0	1.2	0
BH004	1002	0	0	0	0
BH005	1002	0	0	0.6	0
BH006	1002	0	0	0.1	0
BH007	1002	0	0	0.2	0
BH008	1002	0	0	0	0
BH009	1002	0	0	0.1	0
BH010	1001	0	0	0.2	0
BH011	1001	0	0	0.3	0
BH012	1001	0	0	0.1	0
BH013	1001	0	0	0.1	0
BH014	1001	0	0	0.2	0
BH015	1001	0	0	0.1	0
BH016	1001	0	0	0.4	0
BH017	1001	0	0	0.2	0
BH018	1001	0	0	0.3	0
BH019	1001	0	0	1.3	0
BH020	1001	0	0	0.4	0
BH021	1001	0	0	0	0
BH022	1001	0	0	0.2	0
BH023	1001	0	0	0.5	0
BH024	1000	0	0	0.6	0
BH025	1000	0	0	0.9	0
BH026	1000	0	0	0.6	0
BH027	1000	0	0	1.7	0
BH028	1000	0	0	0.2	0
BH029	1000	0	0	0	0
BH030	1000	0	0	1.3	0
BH031	1000	0	0	1	0
BH032	1000	0	0	0.5	0
BH033	1000	0	0	0	0
BH034	1000	0	0	0	0
BH035	1000	0	0	0	0
BH036	999	0	0	1.7	0
BH037	999	0	0	0.2	0
BH038	999	0	0	0	0
BH039	999	0	0	0	0
BH040	1005	0	0	2.1	0
BH041	998	0	0	0.5	0
BH042	1005	0	0	0	0
BH047	999	0	0	0	0
BH048	998	0	0	4.6	0
BH049	998	0	0	0.9	0
BH050	998	0	0	0.1	0
BH051	998	0	0	0	0
BH052	997	0	0	0.1	0
BH053	997	0	0	0	0
BH054	997	0	0	1.9	0
BH055	997	0	0	4.5	0

Issued By:

From : 09/05/2017

To : 18/07/2017

21/06/2017

	AtPress (mBar)	C0 (ppm)	CH4 (%v/v) (%)	CO2 (%v/v) (%)	H2S (ppm)
BH056	997	0	0	0	0
BH057	997	0	0	0	0
BH100	998	0	0	4.5	0
BH101	997	0	0	1.1	0
BH102	997	0	0	0.5	0
BH103	996	0	0	0	0
BH104	996	0	0	0	0
BH105	996	0	0	0	0
BH106	996	0	0	1.1	0
BH107	995	0	0	0.8	0
BH108	995	0	0	1.6	0
BH109	996	0	0	0	0
BH110	996	0	0	1.7	0
BH111	996	0	0	3.2	0
BH112	995	0	0	3.6	0
BH113	995	0	0	4.3	0
BH114	995	0	0	1.2	0
BH115	995	0	0	0.1	0
BH116	994	0	0	0.7	0
BH117	994	0	0	0.1	0
BH118	994	0	0	0.3	0
BH119	994	0	0	0.9	0
BH120	994	0	0	0	0

Issued By:

From : 09/05/2017
To : 18/07/2017

21/06/2017

Sample Point	O2 (%v/v)	Rel Press (mBar)
BH001	20.9	0.03
BH002	20.4	0.04
BH003	20	0.05
BH004	21	0.08
BH005	20.4	0.09
BH006	20.6	0.11
BH007	20.7	0.12
BH008	20.7	0.17
BH009	20.6	0.18
BH010	20.6	0.19
BH011	20.4	0.21
BH012	20.7	0.21
BH013	20.7	0.23
BH014	20.5	0.24
BH015	20.7	0.25
BH016	20.5	0.27
BH017	20.6	0.26
BH018	20.6	0.28
BH019	19.6	0.28
BH020	20.3	0.29
BH021	20.9	0.31
BH022	20.7	0.32
BH023	20.5	0.33
BH024	20.2	0.34
BH025	19.7	0.39
BH026	20.2	0.33
BH027	18.3	0.33
BH028	20.6	0.34
BH029	21	0.36
BH030	19.4	0.36
BH031	20	0.37
BH032	20.5	0.35
BH033	20.7	0.34
BH034	20.7	0.3
BH035	20.7	0.27
BH036	18.9	0.37
BH037	20.5	0.36
BH038	20.7	0.33
BH039	20.7	0.33
BH040	17.3	-0.53
BH041	20.1	0.13
BH042	20	-0.65
BH047	20.7	0.32
BH048	15.5	0.3
BH049	19.4	0.36
BH050	20.4	0.37
BH051	20.7	0.35
BH052	20.7	0.36
BH053	20.7	0.31
BH054	19.3	0.38
BH055	15.7	0.29

Issued By:

From : 09/05/2017

To : 18/07/2017

21/06/2017

	O2 (%v/v)	Rel Press (mBar)
BH056	20.6	0.35
BH057	20.7	0.36
BH100	15.9	0.17
BH101	19.4	0.18
BH102	19.8	0.2
BH103	20.3	0.24
BH104	20.3	0.23
BH105	20.2	0.27
BH106	19.3	0.32
BH107	19.4	0.34
BH108	18.7	0.36
BH109	20.2	0.39
BH110	17.1	0.4
BH111	16.3	0.4
BH112	15.4	0.43
BH113	11.7	0.46
BH114	18.8	0.47
BH115	19.8	0.53
BH116	18.8	0.53
BH117	20.2	0.51
BH118	20	0.58
BH119	19.3	0.6
BH120	20.5	0.6

Issued By:

From : 09/05/2017

To : 18/07/2017

06/07/2017

Sample Point	AtPress (mBar)	C0 (ppm)	CH4 (%v/v) (%)	CO2 (%v/v) (%)	H2S (ppm)
BH001	1002	0	0	0	0
BH002	1002	0	0	0.9	0
BH003	1002	0	0	1.6	0
BH004	1002	0	0	0	0
BH005	1002	0	0	0.6	0
BH006	1002	0	0	0.1	0
BH007	1002	0	0	0.2	0
BH008	1002	0	0	0.3	0
BH009	1002	0	0	0.1	0
BH010	1002	0	0	0.1	0
BH011	1002	0	0	0.4	0
BH012	1001	0	0	0.1	0
BH013	1001	0	0	0.1	0
BH014	1001	0	0	0.7	0
BH015	1001	0	0	0.1	0
BH016	1001	0	0	0.4	0
BH017	1001	0	0	0.2	0
BH018	1001	0	0	0.4	0
BH019	1001	0	0	1.6	0
BH020	1001	0	0	0.7	0
BH021	1001	0	0	0.1	0
BH022	1001	0	0	0.4	0
BH023	1001	0	0	0.8	0
BH024	1001	0	0	0.8	0
BH025	1001	0	0	0.7	0
BH026	1001	0	0	0.8	0
BH027	1001	0	0	2.2	0
BH028	1001	0	0	2.1	0
BH029	1001	0	0	0.1	0
BH030	1001	0	0	1.4	0
BH040	1006	0	0	1.9	0
BH041	1001	0	0	0.6	0
BH042	1006	0	0	0	0

Issued By:

From : 09/05/2017
To : 18/07/2017

06/07/2017

Sample Point	O2 (%v/v)	Rel Press (mBar)
BH001	20.1	-0.32
BH002	19.3	-0.33
BH003	19	-0.32
BH004	20.2	-0.28
BH005	19.6	-0.29
BH006	20	-0.24
BH007	20	0.01
BH008	20	0.04
BH009	20.1	0.02
BH010	20.1	0.04
BH011	19.8	0.06
BH012	20.1	0.08
BH013	20.2	0.09
BH014	19.7	0.11
BH015	20.1	0.12
BH016	20	0.13
BH017	20.2	0.15
BH018	20.1	0.16
BH019	19.1	0.17
BH020	19.8	0.19
BH021	20.1	0.2
BH022	19.8	0.22
BH023	19.7	0.25
BH024	19.6	0.25
BH025	19.6	0.37
BH026	19.3	0.28
BH027	18.1	0.29
BH028	18.2	0.32
BH029	20.1	0.32
BH030	18.9	0.3
BH040	17.6	-0.6
BH041	19.8	-0.41
BH042	20.3	-0.64

Issued By:

From : 09/05/2017

To : 18/07/2017

18/07/2017

Sample Point	AtPress (mBar)	C0 (ppm)	CH4 (%v/v) (%)	CO2 (%v/v) (%)	H2S (ppm)
BH001	1002	0	0	0	0
BH002	1002	0	0	1.5	0
BH003	1002	0	0	0.5	0
BH004	1002	0	0	0	0
BH005	1002	0	0	0.9	0
BH006	1002	0	0	0.2	0
BH007	1002	0	0	0.9	0
BH008	1002	0	0	0.1	0
BH009	1002	0	0	0.2	0
BH010	1001	0	0	0.2	0
BH011	1001	1	0	0.3	0
BH012	1001	0	0	0.1	0
BH013	1001	0	0	0.2	0
BH014	1001	0	0	1.4	0
BH015	1001	0	0	0.3	0
BH016	1001	0	0	0.5	0
BH017	1001	0	0	0.2	0
BH018	1001	0	0	0.3	0
BH019	1001	0	0	1.6	0
BH020	1000	0	0	0.6	0
BH021	1000	0	0	0.4	0
BH022	1000	0	0	0.2	0
BH023	1000	0	0	0.7	0
BH024	1000	0	0	0.6	0
BH025	1000	0	0	0.7	0
BH026	1000	0	0	0.9	0
BH027	1000	0	0	1.9	0
BH028	1000	0	0	0	0
BH029	1000	0	0	0.3	0
BH030	1000	0	0	1.1	0
BH031	1000	0	0	0.8	0
BH032	1000	0	0	0.3	0
BH033	1000	0	0	0.1	0
BH034	1000	0	0	0	0
BH035	1000	0	0	0	0
BH036	1000	0	0	2.5	0
BH037	999	0	0	0.2	0
BH038	999	0	0	0	0
BH039	999	0	0	0	0
BH040	1009	0	0	1.9	0
BH041	999	0	0	0.5	0
BH042	1009	0	0	0	0
BH047	999	0	0	0.1	0
BH048	998	0	0	6.2	0
BH049	998	0	0	0.9	0
BH050	998	0	0	0.9	0
BH051	998	0	0	0	0
BH052	997	0	0	0	0
BH053	997	0	0	0	0
BH054	997	0	0	1.5	0
BH055	997	0	0	4.3	0

Issued By:

From : 09/05/2017

To : 18/07/2017

18/07/2017

	AtPress (mBar)	C0 (ppm)	CH4 (%v/v) (%)	CO2 (%v/v) (%)	H2S (ppm)
BH056	997	0	0	0	0
BH057	997	0	0	0	0
BH100	999	0	0	2.7	0
BH101	999	0	0	2.1	0
BH102	999	0	0	0.3	0
BH103	999	0	0	0.5	0
BH104	998	0	0	0.6	0
BH105	998	0	0	2	0
BH106	998	0	0	1.3	0
BH107	998	0	0	2.9	0
BH108	997	0	0	0.5	0
BH109	997	0	0	0.5	0
BH110	997	0	0	0.8	0
BH111	999	0	0	1.6	0
BH112	999	0	0	1.5	0
BH113	999	0	0	1.1	0
BH114	999	0	0	0.8	0
BH115	998	0	0	0.1	0
BH116	998	0	0	0.7	0
BH117	998	0	0	0.2	0
BH118	998	0	0	1.4	0
BH119	997	0	0	0.8	0
BH120	997	0	0	0.9	0

Issued By:

From : 09/05/2017
To : 18/07/2017

18/07/2017

Sample Point	O2 (%v/v)	Rel Press (mBar)
BH001	19.6	0.45
BH002	18.2	0.46
BH003	19.1	0
BH004	19.5	0.05
BH005	18.5	0.09
BH006	19.2	0.1
BH007	18.9	0.12
BH008	19.8	0.12
BH009	19.6	0.15
BH010	19.6	0.18
BH011	19.3	0.22
BH012	19.5	0.21
BH013	19.5	0.25
BH014	18.7	0.27
BH015	19.4	0.29
BH016	19.4	0.26
BH017	19.6	0.33
BH018	19.6	0.35
BH019	18.5	0.38
BH020	19.2	0.38
BH021	19.6	0.4
BH022	19.7	0.44
BH023	19.4	0.45
BH024	19.5	0.48
BH025	19.2	0.52
BH026	19.1	0.49
BH027	17.5	0.49
BH028	20.1	0.51
BH029	19.7	0.51
BH030	19.2	0.65
BH031	19.5	0.53
BH032	20	0.53
BH033	20.3	0.52
BH034	20.4	0.5
BH035	20.5	0.48
BH036	17.8	0.55
BH037	20.2	0.53
BH038	20.3	0.55
BH039	20.3	0.55
BH040	17.6	-0.16
BH041	20.2	0.33
BH042	20.1	-0.21
BH047	20.4	0.58
BH048	14.5	0.51
BH049	19	0.52
BH050	19.4	0.58
BH051	20.4	0.56
BH052	20.5	0.62
BH053	20.5	0.54
BH054	19.2	0.56
BH055	15.9	0.53

Issued By:

From : 09/05/2017

To : 18/07/2017

18/07/2017

	O2 (%v/v)	Rel Press (mBar)
BH056	20.4	0.47
BH057	20.8	0.55
BH100	17.4	0.03
BH101	17	0.02
BH102	19.8	0.02
BH103	19.3	0.05
BH104	18.3	0.02
BH105	17.9	0.05
BH106	18.6	0.15
BH107	16.5	0.05
BH108	19.7	0.14
BH109	19.5	0.02
BH110	18.1	-0.1
BH111	18.7	0.09
BH112	18.3	1.63
BH113	19.1	0.09
BH114	18.2	0.07
BH115	20.1	0.28
BH116	19.3	0.07
BH117	20	0.09
BH118	18.2	0.09
BH119	19.2	0.09
BH120	19.2	0.17

Issued By:

APPENDIX 3

Landfill Gas Field Extraction and Balancing Data

Asset ID	Reading Taken On	CH4 (%)	CO2 (%)	O2 (%)	Balance Gas (%)	Vacuum (mbar)	Atm Pressure (mbar)	CO (ppm)	H2S (ppm)	CH4 + CO2 (%)	Original Valve (%)	Depart valve (%)	Comment
LLARA025	03/05/2017 09:26	0.4	5.3	15.8	78.5	-0.28	1012	4	1	5.7	0	0	
LLAWA026	03/05/2017 09:28	14.7	15.4	0.1	69.8	-1.31	1013	4	0	30.1	0	0	
LLAWA204	03/05/2017 09:31	13.7	17.6	0	68.7	-6.95	1013	4	0	31.3	5	5	
LLAWA203	03/05/2017 09:34	24.5	17.3	0.1	58.1	-4.91	1014	4	0	41.8	5	5	
LLAWA027	03/05/2017 09:37	14	15.8	0	70.2	-0.38	1012	5	0	29.8	0	0	
LLAWA033	03/05/2017 09:40	4.4	14.1	0.6	80.9	-0.93	1013	6	0	18.5	0	0	
LLAWA032	03/05/2017 09:43	0.1	3.3	18.4	78.2	-0.15	1013	4	0	3.4	0	0	
LLAWA001	03/05/2017 09:47	8.8	14.1	0	77.1	-0.62	1014	5	0	22.9	0	0	
LLAWA01A	03/05/2017 09:50	9.3	13.4	1.5	75.8	-0.67	1013	5	0	22.7	0	0	
LLAWA002	03/05/2017 10:02	1.2	14.7	2.2	81.9	-0.07	1013	6	0	15.9	0	0	
LLAWA003	03/05/2017 10:07	1.4	8.8	7	82.8	-0.09	1013	5	0	10.2	0	0	
LLAWA004	03/05/2017 10:12	18.6	13.3	1	67.1	-0.17	1013	31	0	31.9	0	0	
LLAWA005	03/05/2017 10:16	0.2	6.5	13.9	79.4	-0.09	1013	7	0	6.7	0	0	
LLAWA006	03/05/2017 10:21	1.4	7.1	11.5	80	-0.12	1013	6	0	8.5	0	0	
LLAWA130	03/05/2017 10:24	12.1	13.6	4.9	69.4	-0.95	1013	6	0	25.7	0	0	
LLAWA131	03/05/2017 10:51	4.3	16.6	1.2	77.9	-2.01	1011	7	1	20.9	0	0	
LLAWA030	03/05/2017 10:53	23.5	21.4	0	55.1	-1.84	1012	7	1	44.9	5	5	
LLAWA132	03/05/2017 10:56	8.1	16.7	0.6	74.6	-0.67	1012	7	1	24.8	5	5	
LLARA010	03/05/2017 10:58	12.1	19.3	0	68.6	-0.6	1012	8	1	31.4	5	5	
LLAWA011	03/05/2017 11:01	10.2	19.3	0	70.5	-2.07	1011	7	1	29.5	5	5	
LLARA012	03/05/2017 11:03	15.7	21.6	0	62.7	-1.69	1011	0	0	37.3	5	5	
LLARA028	03/05/2017 11:06	30.1	24.6	0	45.3	-10.74	1001	0	0	54.7	5	5	
LLARA015	03/05/2017 11:08	21.1	18.2	0.2	60.5	-3.96	1012	0	0	39.3	5	5	
LLAWA016	03/05/2017 11:11	32.7	22.5	1	43.8	-0.14	1012	0	1	55.2	1	1	
LLARA014	03/05/2017 11:15	9.9	16.1	0.2	73.8	-0.21	1012	13	1	26	0	0	
LLAWA031	03/05/2017 11:19	0	1.9	19.4	78.7	6.01	1012	0	1	1.9	0	0	
LLAWA029	03/05/2017 11:22	31.4	18.3	0.6	49.7	-5.27	1011	1	1	49.7	5	5	
LLAWC143	03/05/2017 11:24	43.7	34.1	0	22.2	-35.8	1009	0	0	77.8	10	10	
LLAWC144	03/05/2017 11:26	38.7	27	6.1	28.2	-13.48	1011	0	0	65.7	10	10	
LLAWC145	03/05/2017 11:31	50.3	38	1.5	10.2	-1.69	1012	0	1	88.3	5	5	
LLAWC141	03/05/2017 11:35	35.1	31.9	0.9	32.1	-2.24	1012	13	6	67	5	5	
LLAWC142	03/05/2017 11:38	40.2	33.5	4.4	21.9	-2.15	1012	7	16	73.7	1	1	
LLAWC140	03/05/2017 11:43	33.1	32.1	0.1	34.7	-3.46	1012	10	0	65.2	5	5	
LLAWC148	03/05/2017 11:45	57.4	41.1	0	1.5	-1.1	1011	0	0	98.5	0	0	
LLAWC147	03/05/2017 11:48	41.7	31.7	0.6	26	-34.13	1011	0	2	73.4	10	10	
LLAWC146	03/05/2017 11:51	3.3	13.4	14	69.3	-19.62	1011	0	5	16.7	0	0	
LLARB072	03/05/2017 12:18	44.2	29	2.2	24.6	-9.02	1011	0	1	73.2	20	0	
LLAWB083	03/05/2017 12:21	59.5	29.9	1.4	9.2	-46.92	1012	0	4	89.4	5	5	
LLAWB082	03/05/2017 12:24	65.3	32.8	0	1.9	-47.49	1011	0	4	98.1	5	5	
LLAWB081	03/05/2017 12:26	0.3	4.5	18.2	77	-0.74	1012	5	2	4.8	0	0	
LLAWB079	03/05/2017 12:29	43.9	23.7	4.9	27.5	-47.21	1011	1	0	67.6	5	5	
LLAWB115	03/05/2017 12:32	35.3	24.6	3.2	36.9	-28.66	1011	2	0	59.9	5	5	
LLAWB114	03/05/2017 12:35	51.8	38	0	10.2	-0.96	1011	6	0	89.8	5	5	
LLAWB113	03/05/2017 12:37	33.7	31.4	1.1	33.8	-1.46	1011	3	0	65.1	5	5	
LLAWB112	03/05/2017 12:40	56.5	41.5	0	2	-0.28	1006	8	0	98	5	5	
LLAWB111	03/05/2017 12:44	51.1	37.9	0	11	-1.1	1010	1	1	89	10	10	
LLAWB096	03/05/2017 12:48	56	42.6	0	1.4	-0.69	1011	1	10	98.6	1	1	
LLAWB095	03/05/2017 12:51	16	14.9	13.8	55.3	-0.33	1011	0	16	30.9	0	0	
LLAWB117	03/05/2017 13:02	39.4	28.2	0.2	32.2	-11.39	1011	1	1	67.6	10	10	
LLAWB119	03/05/2017 13:05	40.2	30.2	0.1	29.5	-0.64	1011	2	1	70.4	5	5	
LLAWB120	03/05/2017 13:08	31.2	27.1	0	41.7	-0.71	1010	0	1	58.3	5	5	
LLAWB116	03/05/2017 13:12	65.1	33.3	0	1.6	-0.17	1010	1	2	98.4	1	1	
LLAL0003	03/05/2017 14:13	42.4	33.3	0.1	24.2	-37.02	1010	2	0	75.7	10	10	
LLAWC134	03/05/2017 14:15	13.4	17.8	7.5	61.3	-16.08	1011	3	0	31.2	1	1	
LLAWC132	03/05/2017 14:17	13.1	17.2	7.6	62.1	-7.02	1011	4	0	30.3	10	10	
LLAWC132	03/05/2017 14:19	12.2	17.1	7.7	63	-2.41	1011	0	0	29.3	10	5	
LLAWC133	03/05/2017 14:21	44.3	34.8	1.4	19.5	-50.46	996	6	0	79.1	5	5	
LLAWC152	03/05/2017 14:24	0.4	6.6	18	75	-43.58	1009	0	1	7	5	5	
LLAWC152	03/05/2017 14:26	0.1	1.7	19.4	78.8	-37.9	1009	0	1	1.8	5	0	
LLAWC152	03/05/2017 14:28	0	1.6	19.4	79	-33.75	1009	0	1	1.6	0	0	
LLAWC251	03/05/2017 14:31	36.6	30.4	0	33	-46.83	1012	2	1	67	10	10	
LLAWC250	03/05/2017 14:33	35.4	28.2	0	36.4	-36.23	1011	2	1	63.6	10	10	
LLAWC132	03/05/2017 14:37	49.4	35.7	0	14.9	-53.79	1007	6	1	85.1	10	10	
LLAWC249	03/05/2017 14:40	38.6	31.8	0	29.6	-38.57	1003	0	9	70.4	20	20	
LLAWC154	03/05/2017 14:49	25	22.4	0.7	51.9	-10.9	1012	3	2	47.4	5	5	
LLAWC135	03/05/2017 14:52	41	31.4	1.8	25.8	-19.83	1011	1	1	72.4	5	5	
LLAWC136	03/05/2017 14:55	45.3	34.5	2.2	18	-45.52	1011	4	0	79.8	5	5	
LLAWC137	03/05/2017 14:58	55.5	35.3	0.4	8.8	-6.57	1005	2	1	90.8	10	10	
LLAWD298	05/05/2017 11:24	68.9	40.2	0.5	0	-68.57	1011	5	15	109.1	20	20	
LLAL003A	05/05/2017 11:27	58.9	38.8	1.9	0.4	-63.09	1011	4	0	97.7	10	10	
LLAWD299	05/05/2017 11:30	66	39.6	0.8	0	-57.2	1010	4	0	105.6	20	20	
LLAWD300	05/05/2017 11:33	68.1	42.8	0	0	-45.48	1009	5	4	110.9	20	20	
LLAWD301	05/05/2017 11:35	67.7	42.6	0.1	0	-66.02	1009	7	4	110.3	20	20	
LLAWD302	05/05/2017 11:38	54.2	41.3	1.5	3	-1.06	1010	7	1	95.5	15	15	
LLAWD303	05/05/2017 11:45	67.5	42.5	0.2	0	-51.64	1011	8	21	110	15	15	
LLAWD304	05/05/2017 11:48	67.6	42.9	0.1	0	-65.47	1010	3	0	110.5	20	20	
LLAWD305	05/05/2017 11:51	63.5	41.6	0.8	0	-51.63	1009	4	0	105.1	15	15	
LLAWD306	05/05/2017 11:54	66.7	42.8	0.2	0	-69.42	1010	3	0	109.5	20	20	
LLAWD307	05/05/2017 11:58	67.5	41.8	0.3	0	-45.44	1010	4	11	109.3	20	20	
LLAWD233	05/05/2017 12:02	59.3	33.4	2.2	5.1	-54.97	1012	2	0	92.7	20	20	
LLAWD234	05/05/2017 12:05	64.4	38.1	0.2	0	-5.28	1011	6	4	102.5	30	30	
LLARD220	05/05/2017 12:08	50.8	34.8	0.1	14.3	-60.74	1011	3	0	85.6	20	20	
LLAWD237	05/05/2017 12:11	56.4	37.5	0	6.1	-53.1	1011	4	2	93.9	10	10	
LLAWD222	05/05/2017 12:16	68.4	40.4	0.3	0	-69.87	1010	9	0	108.8	20	20	
LLAWD231	05/05/2017 12:20	46.2	33.8	0.6	19.4	-24.41	1010	5	0	80	20	20	
LLAWD230	05/05/2017 12:23	4	8.2	18.3	69.5	-0.12	1009	0	0	12.2	0	0	
LLAWD210	05/05/2017 12:32												Inaccessible
LLAWD211	05/05/2017 12:34												Inaccessible
LLAWD253	05/05/2017 12:39	79.4	30.1	0.2	0	-60.48	1011	5	3	109.5	10	10	
LLARD207	05/05/2017 12:44												Inaccessible
LLAWD297	05/05/2017 09:08	63.6	30.4	0.2	5.8	-62.31	1009	13	1	94	25	25	
LLAWD225	05/05/2017 09:11	59.2	38.5	0.2	2.1	-68.85	1010	13	2	97.7	10	10	

Asset ID	Reading Taken On	CH4 (%)	CO2 (%)	O2 (%)	Balance Gas (%)	Vacuum (mbar)	Atm Pressure (mbar)	CO (ppm)	H2S (ppm)	CH4 + CO2 (%)	Original Valve (%)	Depart valve (%)	Comment
LLAWD227	05/05/2017 09:14	1.6	8.2	16.9	73.3	-10.65	1010	5	1	9.8	0	0	
LLAWD266	05/05/2017 09:17	56.5	31.2	2.2	10.1	-61.43	1010	10	3	87.7	10	10	
LLAWD265	05/05/2017 09:20	44.7	26.8	5.3	23.2	-66.33	1010	7	4	71.5	1	1	
LLAWD264	05/05/2017 09:23	31.8	19.6	9.2	39.4	-22.82	1010	4	6	51.4	1	1	
LLAWD262	05/05/2017 09:25	62.5	36.2	0	1.3	4.01	1010	7	8	98.7	0	0	
LLAWD262	05/05/2017 09:27	45.5	32.4	3.8	18.3	-14.03	1010	7	2	77.9	0	1	
LLAWD262	05/05/2017 09:29	35.6	25.2	7.4	31.8	-23.46	1010	6	4	60.8	1	0	
LLAWD262	05/05/2017 09:31	36.9	26	7.2	29.9	-3.99	1010	7	5	62.9	0	0	
LLAWD256	05/05/2017 09:34	50.4	31.3	3.2	15.1	-60.17	1009	6	9	81.7	20	20	
LLAWD250	05/05/2017 09:37	59.2	36.5	0.5	3.8	-69.71	1010	6	8	95.7	10	10	
LLAWD258	05/05/2017 09:40	60.4	37.2	0.3	2.1	-68	1011	7	6	97.6	20	20	
LLAWD255	05/05/2017 09:44	56.9	35.8	0.7	6.6	-69	1011	7	8	92.7	10	10	
LLAWD254	05/05/2017 09:47	57.8	36.2	0.2	5.8	-66.02	1011	6	7	94	10	10	
LLAWD259	05/05/2017 09:50	56.5	39.3	0.3	3.9	-69.98	1011	12	5	95.8	10	10	
LLAWD270	05/05/2017 09:52	51.8	39.6	1.5	7.1	-68.42	1010	22	4	91.4	5	5	
LLAL00C3	05/05/2017 09:55	60.5	39.2	0	0.3	-0.33	1009	11	2	99.7	1	1	
LLAWD283	05/05/2017 09:58	55	42.8	0.2	2	-68.07	1010	53	1	97.8	10	10	
LLAWD281	05/05/2017 10:00	43.1	37.2	3.7	16	-68.09	1007	33	5	80.3	10	10	
LLAWD281	05/05/2017 10:03	43.6	36.6	3.7	16.1	-67.66	1007	34	3	80.2	10	5	
LLAWD281	05/05/2017 10:05	43.6	36.6	3.7	16.1	-48.16	1007	34	2	80.2	5	5	
LLAWD293	05/05/2017 10:20	49.2	34.1	0.2	16.5	-55.82	1011	0	5	83.3	15	15	
LLAWD279	05/05/2017 10:23	54.8	34.3	1.8	9.1	-67.57	1011	0	7	89.1	5	5	
LLAWD286	05/05/2017 10:26	40.5	28.8	5.9	24.8	-67.81	1011	0	10	69.3	10	10	
LLAWD286	05/05/2017 10:28	40.8	28.5	5.9	24.8	-45.08	1011	0	1	69.3	10	5	
LLAWD286	05/05/2017 10:30	40.9	28.7	5.9	24.5	-24.54	1011	0	2	69.6	5	5	
LLAWD278	05/05/2017 10:33	49.5	33.7	0.2	16.6	-57.76	1010	2	5	83.2	10	10	
LLAWD287	05/05/2017 10:35	3.8	14.8	4.7	76.7	-82.63	1008	18	1	18.6	0	0	
LLAWD285	05/05/2017 10:38	65.2	33.9	0	0.9	-67.38	1010	0	1	99.1	10	10	
LLAWD280	05/05/2017 10:42	57.4	35.6	0.9	6.1	-69.4	1010	1	6	93	10	10	
LLAWD284	05/05/2017 10:46	67.8	30.2	0.1	1.9	-67.92	1010	0	5	98	10	10	
LLAWD219	05/05/2017 12:13												Inaccessible
LLARA025	15/05/2017 11:15	8.2	11.6	2.6	77.6	-0.19	1001	4	0	19.8	0	0	500. Routine H2S monitoring sweep
LLAWA204	15/05/2017 11:18	12	16.2	4	67.8	-6.2	1002	3	0	28.2	5	5	500. Routine H2S monitoring sweep
LLAWA203	15/05/2017 11:21	26.7	17.9	0.1	55.3	-4.51	1002	2	0	44.6	5	5	500. Routine H2S monitoring sweep
LLAWA026	15/05/2017 11:24	16.2	17.3	0	66.5	-0.5	1000	3	0	33.5	0	0	500. Routine H2S monitoring sweep
LLAWA027	15/05/2017 11:27	15	15.4	0	69.6	-0.9	1001	3	0	30.4	0	0	500. Routine H2S monitoring sweep
LLAWA033	15/05/2017 11:31	5.1	14.6	1.3	79	-0.38	1001	4	0	19.7	0	0	500. Routine H2S monitoring sweep
LLAWA032	15/05/2017 11:33	0.1	2	19.1	78.8	-0.22	1002	2	0	2.1	0	0	500. Routine H2S monitoring sweep
LLAWA001	15/05/2017 11:36	9	14.2	0	76.8	-2.94	1002	3	0	23.2	0	0	500. Routine H2S monitoring sweep
LLAWA01A	15/05/2017 11:38	13.5	15.1	0.3	71.1	-0.31	1002	3	0	28.6	0	0	500. Routine H2S monitoring sweep
LLAWA002	15/05/2017 11:41	1.2	14.5	3.1	81.2	-0.21	1002	2	0	15.7	0	0	500. Routine H2S monitoring sweep
LLAWA003	15/05/2017 11:44	2	10.5	8.1	79.4	-0.45	1002	3	0	12.5	0	0	500. Routine H2S monitoring sweep
LLAWA004	15/05/2017 11:47	20.3	16.6	0.3	62.8	-0.1	1000	22	0	36.9	0	0	500. Routine H2S monitoring sweep
LLAWA005	15/05/2017 11:50	0.5	9.6	10.7	79.2	-0.22	1001	3	0	10.1	0	0	500. Routine H2S monitoring sweep
LLAWA006	15/05/2017 11:53	1.4	8.1	13.3	77.2	-0.28	998	4	0	9.5	0	0	500. Routine H2S monitoring sweep
LLAWA130	15/05/2017 11:56	10	12.7	8.6	68.7	-1.29	1001	2	0	22.7	0	0	500. Routine H2S monitoring sweep
LLAWA131	15/05/2017 12:08	4.4	16.1	2.4	77.1	-2.2	1000	5	0	20.5	0	0	500. Routine H2S monitoring sweep
LLAWA030	15/05/2017 12:11	24.7	21.1	0	54.2	-2.05	1000	5	0	45.8	5	5	500. Routine H2S monitoring sweep
LLAWA132	15/05/2017 12:13	8.3	17.7	0.3	73.7	-1.22	1000	5	0	26	5	5	500. Routine H2S monitoring sweep
LLARA010	15/05/2017 12:16	13.9	20.2	0	65.9	-0.96	1000	5	0	34.1	5	5	500. Routine H2S monitoring sweep
LLAWA011	15/05/2017 12:19	10.8	19	0	70.2	-2.51	1000	5	0	29.8	5	5	500. Routine H2S monitoring sweep
LLARA012	15/05/2017 12:22	17.4	22.4	0	60.2	-0.69	1000	6	0	39.8	5	5	500. Routine H2S monitoring sweep
LLARA028	15/05/2017 12:24	31.1	25.6	0	43.3	-13.03	1001	5	0	56.7	5	5	500. Routine H2S monitoring sweep
LLARA015	15/05/2017 12:27	22.2	20.7	0.1	57	-5.15	1000	5	0	42.9	5	5	500. Routine H2S monitoring sweep
LLAWA016	15/05/2017 12:30	37.8	24.3	0	37.9	-0.43	1001	5	0	62.1	1	1	500. Routine H2S monitoring sweep
LLARA014	15/05/2017 12:32	14.3	16.6	0.1	69	-0.43	1000	11	0	30.9	0	0	500. Routine H2S monitoring sweep
LLAWA031	15/05/2017 12:35	0	0.4	20.9	77.8	-0.84	1000	1	0	0.4	0	0	500. Routine H2S monitoring sweep
LLAWA029	15/05/2017 12:38	30	26.5	0.1	43.4	-6.35	999	5	0	56.5	5	5	500. Routine H2S monitoring sweep
LLAWC143	15/05/2017 12:40	41.7	35.6	0.1	22.6	-39.79	995	11	0	77.3	10	10	500. Routine H2S monitoring sweep
LLAWC144	15/05/2017 12:43	52.9	36.2	1.6	9.3	-20.65	998	12	71	89.1	10	10	500. Routine H2S monitoring sweep
LLAWC145	15/05/2017 12:46	49.6	38.4	1.4	10.6	-2.72	1000	17	0	88	5	5	500. Routine H2S monitoring sweep
LLAWC141	15/05/2017 12:50	33.5	32.9	0.2	33.4	-3.24	999	13	244	66.4	5	5	500. Routine H2S monitoring sweep
LLAWC142	15/05/2017 12:53	57.3	45	0.1	0	-1.1	1000	12	0	102.3	1	1	500. Routine H2S monitoring sweep
LLAWC140	15/05/2017 12:57	33.2	32.5	0.5	33.8	-3.44	1000	18	0	65.7	5	5	500. Routine H2S monitoring sweep
LLAWC148	15/05/2017 12:59	57.6	41.3	0.2	0.9	-0.43	1000	18	368	98.9	0	0	500. Routine H2S monitoring sweep
LLAWC147	15/05/2017 13:02	41.3	32.8	0	25.9	-43.2	999	12	0	74.1	10	10	500. Routine H2S monitoring sweep
LLAWC146	15/05/2017 13:06	24.7	16.7	10.1	48.5	-27.37	1000	8	0	41.4	0	0	500. Routine H2S monitoring sweep
LLAL0003	15/05/2017 13:36	41.8	35.4	0.3	22.5	-42.81	1004	6	27	77.2	10	10	500. Routine H2S monitoring sweep
LLAWC134	15/05/2017 13:38	19.5	24.4	2.8	53.3	-1.49	1003	5	0	43.9	1	1	500. Routine H2S monitoring sweep
LLAWC152	15/05/2017 13:40	38.5	32.1	2.8	26.6	-25.22	1002	7	209	70.6	5	5	500. Routine H2S monitoring sweep
LLAWC133	15/05/2017 13:45	46	38.4	1	14.6	-58.87	1004	10	64	84.4	5	5	500. Routine H2S monitoring sweep
LLAWC251	15/05/2017 13:49	34.3	30.8	0.1	34.8	-45.22	1002	10	141	65.1	10	10	500. Routine H2S monitoring sweep
LLAWC250	15/05/2017 13:51	31.4	28.1	0.1	40.4	-38.16	1003	10	16	59.5	10	10	500. Routine H2S monitoring sweep
LLAWC132	15/05/2017 13:54	48.2	37.1	0.1	14.6	-54.62	1002	11	141	85.3	10	10	500. Routine H2S monitoring sweep
LLAWC249	15/05/2017 13:57	41.6	33.6	0.2	24.6	-42.06	1003	11	64	75.2	20	20	500. Routine H2S monitoring sweep
LLAWC135	15/05/2017 14:00	43.2	35	1.8	20	-20.51	1004	11	0	78.2	5	5	500. Routine H2S monitoring sweep
LLAWC136	15/05/2017 14:03	50.6	40.4	0.8	8.2	-35.7	1002	11	128	91	5	5	500. Routine H2S monitoring sweep
LLAWC137	15/05/2017 14:05	43.4	38.4	0.2	18	-11.76	1003	12	7	81.8	10	10	500. Routine H2S monitoring sweep
LLAWC154	15/05/2017 14:09	25.5	26.2	1.1	47.2	-22.99	1003	11	0	51.7	5	5	500. Routine H2S monitoring sweep
LLAWD254	15/05/2017 14:16	65.2	39.3	0.2	0	-58.04	1002	23	358	104.5	10	10	500. Routine H2S monitoring sweep
LLAWD284	15/05/2017 14:20	74.3	29.1	0	0	-65.36	1003	16	182	103.4	10	10	500. Routine H2S monitoring sweep
LLAWD280	15/05/2017 14:23	63.4	40.4	0.3	0	-65.62	1002	19	16	103.8	10	10	500. Routine H2S monitoring sweep
LLAWD285	15/05/2017 14:26	67.2	36.5	0	0	-60.81	1002	17	179	103.7	10	10	500. Routine H2S monitoring sweep
LLAWD279	15/05/2017 14:29	62.3	41	0.6	0	-59.61	1004	23	347	103.3	5	5	500. Routine H2S monitoring sweep
LLAWD286	15/05/2017 14:31	65.2	42	0	0	-1.68	1003	20	190	107.2	10	10	500. Routine H2S monitoring sweep
LLAWD278	15/05/2017 14:34	55.6	38.2	0	6.2	-52.89	1002	22	101	93.8	10	10	500. Routine H2S monitoring sweep
LLAWD287	15/05/2017 14:36	4.7	9.3	4.6	81.4	-64.24	1002	33	1	14	0	0	500. Routine H2S monitoring sweep
LLAWD293	15/05/2017 14:39	53.8	38.8	0	7.4	-58.42	1001	24	55	92.6	15	15	500. Routine H2S monitoring sweep
LLAWD281	15/05/2017 14:41	70.4	47.9	0	0	-64.03	1001	56	519	118.3	5	5	500. Routine H2S monitoring sweep
LLAWD283	15/05/2017 14:44	63.6	48.4	0	0	-63.84	1000	65	603	112	10	10	500. Routine H2S monitoring sweep
LLAL003A	15/05/2017 14:47	60	39.1	1.5	0	-4.14	1001	31	98	99.1	5	5	500. Routine H2S monitoring sweep
LLAWD270	15/05/2017 14:49	63.3	46.7</										

Asset ID	Reading Taken On	CH4 (%)	CO2 (%)	O2 (%)	Balance Gas (%)	Vacuum (mbar)	Atm Pressure (mbar)	CO (ppm)	H2S (ppm)	CH4 + CO2 (%)	Original Valve (%)	Depart valve (%)	Comment
LLAWD259	15/05/2017 14:52	65.9	43.3	0	0	-60.88	1001	44	493	109.2	10	10	500. Routine H2S monitoring sweep
LLAWD253	15/05/2017 14:55	70.5	34.4	0.1	0	-63.37	1001	35	90	104.9	10	10	500. Routine H2S monitoring sweep
LLAWD255	15/05/2017 14:58	65.6	41.6	0	0	-63.41	1000	35	283	107.2	10	10	500. Routine H2S monitoring sweep
LLAWD258	15/05/2017 15:01	66.8	41	0	0	-58.16	1002	35	482	107.8	20	20	500. Routine H2S monitoring sweep
LLAWD256	15/05/2017 15:03	66.3	41.3	0	0	-63.98	1001	31	408	107.6	20	20	500. Routine H2S monitoring sweep
LLAWD264	15/05/2017 15:07	58.3	34.4	2.5	4.8	-0.31	1001	32	823	92.7	1	1	500. Routine H2S monitoring sweep
LLAWD266	15/05/2017 15:09	65.7	39.5	0.1	0	-63.06	1000	30	423	105.2	10	10	500. Routine H2S monitoring sweep
LLAWD265	15/05/2017 15:12	63.9	37.3	1	0	-63.06	1000	29	363	101.2	1	1	500. Routine H2S monitoring sweep
LLAWD262	15/05/2017 15:14	39.9	27.1	7.9	25.1	-29.57	1001	27	863	67	0	0	500. Routine H2S monitoring sweep
LLAWD250	15/05/2017 15:17	65.8	40.3	0	0	-60.6	1001	30	332	106.1	10	10	500. Routine H2S monitoring sweep
LLAWB079	16/05/2017 08:48	65.3	32.6	1.2	0.9	-10.45	1001	5	15	97.9	5	5	500. Routine H2S monitoring sweep
LLAWB115	16/05/2017 08:51	37.4	33.5	0.4	28.7	-29.87	1002	5	40	70.9	5	5	500. Routine H2S monitoring sweep
LLAWB114	16/05/2017 08:54	54.2	47.3	0	0	-1.61	999	8	199	101.5	5	5	500. Routine H2S monitoring sweep
LLAWB113	16/05/2017 08:56	29.8	30.3	2.1	37.8	-3.53	1001	7	92	60.1	5	5	500. Routine H2S monitoring sweep
LLAWB112	16/05/2017 08:59	62.3	46	0	0	-1.39	1001	10	201	108.3	5	5	500. Routine H2S monitoring sweep
LLAWB111	16/05/2017 09:04	58.2	41.9	0	0	-1.66	1002	8	105	100.1	10	10	500. Routine H2S monitoring sweep
LLAWB096	16/05/2017 09:07	56.9	38.4	0.8	3.9	-1.58	1005	10	2	95.3	1	1	500. Routine H2S monitoring sweep
LLAWB095	16/05/2017 09:11	46.6	36.2	4.6	12.6	-1.07	1003	9	63	82.8	0	0	500. Routine H2S monitoring sweep
LLAWB117	16/05/2017 09:14	40.2	35.1	0.1	24.6	-12.75	1001	10	5	75.3	10	10	500. Routine H2S monitoring sweep
LLAWB119	16/05/2017 09:17	35.5	35.4	0.1	29	-1.47	1002	9	27	70.9	5	5	500. Routine H2S monitoring sweep
LLAWB120	16/05/2017 09:19	23.9	26.8	0.2	49.1	-1.14	1001	8	136	50.7	5	5	500. Routine H2S monitoring sweep
LLAWD231	16/05/2017 09:23	40.2	34.3	0.7	24.8	-19.42	997	14	249	74.5	20	20	500. Routine H2S monitoring sweep
LLAWD222	16/05/2017 09:26	64	45	0	0	-48.2	1002	23	438	109	20	20	500. Routine H2S monitoring sweep
LLAWD237	16/05/2017 09:32	49.7	38.3	0	12	-38.13	1003	16	297	88	10	10	500. Routine H2S monitoring sweep
LLARD220	16/05/2017 09:34	43.8	37.2	0	19	-42.69	1002	16	256	81	20	20	500. Routine H2S monitoring sweep
LLAWD234	16/05/2017 09:37	60.4	41.3	0	0	-19.47	1002	26	576	101.7	30	30	500. Routine H2S monitoring sweep
LLAWD297	16/05/2017 09:40	61.4	42.4	0	0	-41.33	1001	19	475	103.8	25	25	500. Routine H2S monitoring sweep
LLAWD225	16/05/2017 09:43	63	44.3	0	0	-45.11	1002	19	377	107.3	10	10	500. Routine H2S monitoring sweep
LLAWD227	16/05/2017 09:46	0.8	0.7	20.9	77.4	-20.68	1002	11	33	1.5	0	0	500. Routine H2S monitoring sweep
LLAWD307	16/05/2017 09:49	64.6	42.6	0.3	0	-29.83	1003	21	305	107.2	20	20	500. Routine H2S monitoring sweep
LLAWD306	16/05/2017 09:52	63.3	44.8	0	0	-48.09	1002	25	506	108.1	20	20	500. Routine H2S monitoring sweep
LLAWD305	16/05/2017 09:55	60.9	42.7	0.5	0	-24.77	1001	27	192	103.6	15	15	500. Routine H2S monitoring sweep
LLAWD304	16/05/2017 09:57	64.7	43.9	0	0	-43.76	1002	23	476	108.6	20	20	500. Routine H2S monitoring sweep
LLAWD298	16/05/2017 10:00	64.6	44.5	0	0	-45.75	1003	23	574	109.1	20	20	500. Routine H2S monitoring sweep
LLAL00C3	16/05/2017 10:03	55.6	40.5	2	1.9	-37.16	1001	19	34	96.1	10	10	500. Routine H2S monitoring sweep
LLAWD299	16/05/2017 10:05	62.5	42.4	0.5	0	-47.33	1001	21	323	104.9	20	20	500. Routine H2S monitoring sweep
LLAWD300	16/05/2017 10:08	64.6	44.3	0	0	-29.83	1002	26	386	108.9	20	20	500. Routine H2S monitoring sweep
LLAWD303	16/05/2017 10:11	63.8	44	0.1	0	-37.61	1003	27	534	107.8	15	15	500. Routine H2S monitoring sweep
LLAWD302	16/05/2017 10:17	63.4	44.7	0	0	-45.6	1002	25	365	108.1	15	15	500. Routine H2S monitoring sweep
LLAWD301	16/05/2017 10:20	62.5	43.2	0	0	-42.7	1003	24	401	105.7	20	20	500. Routine H2S monitoring sweep
LLAWD230	16/05/2017 10:23	2	1.6	20.8	75.6	0.26	1003	14	8	3.6	0	0	500. Routine H2S monitoring sweep
LLAWB116	16/05/2017 10:27	16.9	22.2	3.1	57.8	-0.66	1002	13	6	39.1	1	1	500. Routine H2S monitoring sweep
LLAWB083	16/05/2017 14:23	54	30.2	3.7	12.1	-49.51	1003	7	19	84.2	5	5	500. Routine H2S monitoring sweep
LLAWB082	16/05/2017 14:26	67.1	36.8	0.4	0	-49.22	1004	7	14	103.9	5	5	500. Routine H2S monitoring sweep
LLARB072	16/05/2017 14:33												Inaccessible
LLAWB081	16/05/2017 14:38	0.7	1.3	19.8	78.2	-3.24	1003	12	3	2	0	0	500. Routine H2S monitoring sweep
LLARA025	01/06/2017 09:15	6.3	12	2.7	79	0.59	1005	3	0	18.3	0	0	
LLAWA026	01/06/2017 09:18	11.7	16.5	0.9	70.9	0	1005	0	0	28.2	0	0	
LLAWA027	01/06/2017 09:20	11.5	14.3	2.1	72.1	-0.34	1005	0	0	25.8	0	0	
LLAWA033	01/06/2017 09:24	26.4	14	6.1	53.5	0.53	1005	1	0	40.4	0	0	
LLAWA003	01/06/2017 09:26	2.9	10.7	11.6	74.8	0.37	1005	0	0	13.6	0	0	
LLAWA002	01/06/2017 09:28	3	14.7	3.1	79.2	0.48	1005	0	0	17.7	0	0	
LLAWA01A	01/06/2017 09:31	12	14.6	0.2	73.2	0.42	1005	0	0	26.6	0	0	
LLAWA032	01/06/2017 09:34	0	0.1	20.5	79.4	-0.01	1005	0	0	0.1	0	0	
LLAWA001	01/06/2017 09:36	15.2	13.8	0.4	70.6	-1.23	1006	0	7	29	0	0	
LLAWA203	01/06/2017 09:39	26.1	17.5	0.4	56	-1.38	1006	0	1	43.6	5	5	
LLAWA204	01/06/2017 09:42	12.2	17.4	0.3	70.1	-2.06	1006	0	8	29.6	5	5	
LLAWA004	01/06/2017 09:45	20.9	16.6	0.2	62.3	-0.25	1005	3	1	37.5	0	0	
LLAWA005	01/06/2017 09:48	2.4	12.6	10.8	74.2	-0.02	1005	8	0	15	0	0	
LLAWA006	01/06/2017 09:51	1	7.6	20.9	70.5	0.22	1005	0	0	8.6	0	0	
LLAWA130	01/06/2017 09:53	14.4	13	11.2	61.4	-0.91	1005	0	0	27.4	0	0	
LLAWA131	01/06/2017 10:06	4	14	6.7	75.3	-2.2	1004	2	0	18	5	5	
LLAWA132	01/06/2017 10:09	5.3	16.6	1.3	76.8	-0.95	1004	0	0	21.9	5	5	
LLAWA030	01/06/2017 10:11	21.8	21.4	0.6	56.2	-5.56	1003	0	9	43.2	5	5	
LLARA010	01/06/2017 10:14	13.4	19.6	0.1	66.9	-0.78	1003	0	1	33	5	5	
LLAWA011	01/06/2017 10:17	10.6	18.6	0	70.8	-1.16	1003	0	5	29.2	5	5	
LLARA012	01/06/2017 10:19	22.5	23.5	0	54	-0.04	1003	0	34	46	0	0	
LLARA028	01/06/2017 10:22	31.1	25.2	0.1	43.6	-0.69	1003	0	26	56.3	5	5	
LLARA015	01/06/2017 10:26	21.6	20.2	0.4	57.8	-4.96	1003	0	35	41.8	5	5	
LLAWA016	01/06/2017 10:29	20.7	16.4	7.7	55.2	-0.01	1003	0	1	37.1	0	0	
LLARA014	01/06/2017 10:32	13.7	15.6	1.9	68.8	-0.22	1003	16	0	29.3	10	0	
LLAWA029	01/06/2017 10:38	29.5	25.7	0.6	44.2	-42.17	1004	0	0	55.2	10	10	
LLAWA031	01/06/2017 10:40	0	0.2	20.8	79	0.1	1003	0	0	0.2	0	0	
LLAWC143	01/06/2017 10:43	42.7	35.3	0.5	21.5	-33.17	1003	2	253	78	10	10	
LLAWC140	01/06/2017 10:46	33.3	32.6	0.5	33.6	-0.98	1003	5	200	65.9	10	10	
LLAWC142	01/06/2017 10:48	37.7	33.9	2.8	25.6	-46.58	1003	2	265	71.6	10	10	
LLAWC141	01/06/2017 10:57	44.3	35.8	2.2	17.7	6.59	1003	3	267	80.1	0	0	
LLAWC145	01/06/2017 11:00	46.1	36.3	2.6	15	-3.23	1002	5	250	82.4	20	20	
LLAWC144	01/06/2017 11:04	49.6	33.9	4.3	12.2	-20.14	1002	4	277	83.5	20	20	
LLAWC146	01/06/2017 11:08	13.5	9.4	14.7	62.4	-20.83	1003	0	3	22.9	0	0	
LLAWC147	01/06/2017 11:10	37.9	31.2	0.2	30.7	-44.36	1003	1	48	69.1	10	10	
LLAWC148	01/06/2017 11:15	55.3	39.6	0.1	5	-0.21	1003	2	2	94.9	0	0	
LLAWC249	01/06/2017 13:06	37.6	31.3	0.1	31	-47.08	1004	1	49	68.9	20	20	
LLAWC250	01/06/2017 13:09	27.4	25.5	0.4	46.7	-38.43	1005	1	16	52.9	10	0	
LLAWC251	01/06/2017 13:11	30.4	28.7	0.3	40.6	-49.81	1005	2	93	59.1	10	10	
LLAWC152	01/06/2017 13:13	0.1	0	20.9	78.6	-26.66	1005	1	1	0.1	0	0	
LLAL0003	01/06/2017 13:16	37.4	31.3	0.3	31	-45.04	1005	2	23	68.7	10	10	
LLAWC154	01/06/2017 13:19	24.5	25.5	1.5	48.5	-17.6	1005	2	1	50	10	0	
LLAWC137	01/06/2017 13:22	46.9	37	0.5	15.6	-10.54	1005	3	9	83.9	10	10	
LLAWC136	01/06/2017 13:24	49	37.7	0.5	12.8	-39.95	1005	3	108	86.7	20	20	
LLAWC135	01/06/2017 13:26	36	26.6	8.1	29.3	-13.93	1005	2	1	62.6	0	0	
LLAWC134	01/06/2017 13:29	6.1	5.4	16.3	72.2	-0.45	1005	1	0	11.5	0	0	

Asset ID	Reading Taken On	CH4 (%)	CO2 (%)	O2 (%)	Balance Gas (%)	Vacuum (mbar)	Atm Pressure (mbar)	CO (ppm)	H2S (ppm)	CH4 + CO2 (%)	Original Valve (%)	Depart valve (%)	Comment
LLAWC133	01/06/2017 13:31	42.8	35.4	1.2	20.6	-66.48	1005	3	44	78.2	10	10	
LLAWC132	01/06/2017 13:33	41.2	32.6	0.2	26	-60.04	1005	3	92	73.8	10	10	
LLAWB116	01/06/2017 13:43	30.8	25.9	0.9	42.4	-0.22	1003	2	22	56.7	10	10	
LLAWB120	01/06/2017 13:45	15.9	16.6	11	56.5	-1.01	1003	2	71	32.5	0	0	
LLAWB119	01/06/2017 13:47	35.8	32.3	0.4	31.5	-1.41	1003	4	18	68.1	5	5	
LLAWB117	01/06/2017 13:50	36.8	31.3	0.3	31.6	-5.95	1002	4	2	68.1	5	5	
LLAWB095	01/06/2017 13:54	26.7	19.3	19.9	34.1	-0.41	1003	3	26	46	0	0	
LLAWB096	01/06/2017 13:56	7.8	7.3	18.3	66.6	-0.68	1003	7	0	15.1	0	0	
LLAWB111	01/06/2017 13:59	45.7	34.7	0.6	19	-1.13	1003	4	57	80.4	10	10	
LLAWB112	01/06/2017 14:03	41.5	34.2	0.5	23.8	-1.9	1002	5	66	75.7	10	10	
LLAWB113	01/06/2017 14:05	21.8	23.3	4.4	50.5	-3.83	1002	4	61	45.1	10	0	
LLAWB114	01/06/2017 14:08	42.7	34.5	2.4	20.4	-2.14	1002	5	69	77.2	30	30	
LLAWB115	01/06/2017 14:10	31.3	28.4	1.7	38.6	-25.73	1002	4	21	59.7	10	10	
LLAWB079	01/06/2017 14:13	24.7	13	20.9	41.3	-73.22	1002	2	8	37.7	5	0	
LLAWB081	01/06/2017 14:24	0.4	0.9	19.8	78.9	1.4	1002	8	0	1.3	0	0	
LLAWB082	01/06/2017 14:26	64.8	33.4	0.7	1.1	-24.46	1003	3	13	98.2	10	10	
LLAWB083	01/06/2017 14:35	18	9.3	14.3	58.4	-37.28	1003	3	6	27.3	5	0	
LLAWD256	02/06/2017 09:35	0.1	0.1	20.9	77.5	0.49	1001	0	1	0.2	-	-	Too tall for valve adjustment
LLAWD297	09/06/2017 08:58	54.4	36.4	0.8	8.4	-67.6	990	7	12	90.8	25	25	
LLAWD225	09/06/2017 09:01	58	43.6	0	0	-64.5	989	6	1	101.6	10	10	
LLAWD227	09/06/2017 09:04	0.1	1.1	20.9	77.9	-5.98	991	0	0	1.2	0	0	
LLAWD266	09/06/2017 09:10	56.6	37	1.9	4.5	-68.67	990	7	18	93.6	10	10	
LLAWD265	09/06/2017 09:13	58.7	37.3	1.4	2.6	-57	990	7	1	96	1	1	
LLAWD264	09/06/2017 09:18	16.6	10.8	15.4	57.2	-63.16	990	2	0	27.4	0	0	
LLAWD262	09/06/2017 09:20	12.3	9	16.8	61.9	-60.69	991	2	0	21.3	1	1	
LLAWD256	09/06/2017 09:23	52.5	35.9	2.8	8.8	-68.86	991	4	0	88.4	20	20	
LLAWD250	09/06/2017 09:25	55.6	37.5	1.9	5	-68.01	991	4	0	93.1	10	10	
LLAWD255	09/06/2017 09:28	56.1	39.2	1.5	3.2	-66.26	992	5	0	95.3	10	10	
LLAWD258	09/06/2017 09:30	59.2	40.2	0.5	0.1	-69.88	992	7	0	99.4	20	20	
LLAWD259	09/06/2017 09:33	57.9	42.7	0.4	0	-69.52	992	10	0	100.6	10	10	
LLAWD254	09/06/2017 09:36	60.7	39.8	0.5	0	-62.17	992	6	0	100.5	10	10	
LLAWD284	09/06/2017 09:41	72.8	27.9	0.5	0	-68.81	992	4	0	100.7	10	10	
LLAWD280	09/06/2017 09:42	34.8	25.2	8.5	31.5	-68.84	992	3	0	60	10	10	
LLAWD280	09/06/2017 09:44	34.5	25	8.6	31.9	-68.29	992	2	0	59.5	10	5	
LLAWD280	09/06/2017 09:46	35	25.4	8.5	31.1	-69.57	992	3	0	60.4	5	5	
LLAWD285	09/06/2017 09:48	63	35.8	0.5	0.7	-64.09	992	3	0	98.8	10	10	
LLAWD279	09/06/2017 09:52	56.4	39.8	1.1	2.7	-69.99	993	3	0	96.2	5	5	
LLAWD286	09/06/2017 09:54	39.8	29.5	6.5	24.2	-68.62	993	3	0	69.3	10	10	
LLAWD278	09/06/2017 09:59	61.1	40.6	0.1	0	-15.54	993	5	0	101.7	10	10	
LLAWD287	09/06/2017 10:02	4.1	16.5	2.9	76.5	-68.72	992	16	0	20.6	0	0	
LLAWD293	09/06/2017 10:05	45.3	36.9	0.3	17.5	-69.5	991	4	0	82.2	15	15	
LLAWD281	09/06/2017 10:08	51.2	44.7	1.3	2.8	-69	991	18	0	95.9	5	5	
LLAWD283	09/06/2017 10:11	54.3	46.4	0.4	0	-68.55	992	25	0	100.7	10	10	
LLAL00C3	09/06/2017 10:13	39.9	29.4	6.2	24.5	-10.17	992	2	0	69.3	5	5	
LLAL00C3	09/06/2017 10:15	39.9	29.4	6.3	24.4	-7.43	992	3	0	69.3	5	1	
LLAL00C3	09/06/2017 10:17	43.6	32	5	19.4	-4.97	992	4	0	75.6	1	1	
LLAWD270	09/06/2017 10:20	15.2	12.6	15.2	57	-68.63	992	5	0	27.8	5	5	
LLAWD270	09/06/2017 10:22	14.8	12	15.5	57.7	-60.81	992	6	0	26.8	5	1	
LLAWD270	09/06/2017 10:24	14.8	12	15.5	57.7	-43.15	992	6	0	26.8	1	1	
LLAWD307	09/06/2017 10:26	58.4	39.6	0.9	1.1	-36.19	992	8	0	98	15	15	
LLAWD307	09/06/2017 10:28	57.9	41.3	0.7	0.1	-50.38	992	7	0	99.2	15	20	
LLAWD307	09/06/2017 10:30	57.3	41	0.8	0.9	-57.81	992	6	0	98.3	20	20	
LLAWD306	09/06/2017 10:33	56.9	42.2	0.6	0.3	-78.2	991	7	0	99.1	20	20	
LLAWD305	09/06/2017 10:37	57.5	42	0.6	0	-6.64	991	6	0	99.5	15	15	
LLAWD304	09/06/2017 10:44	51.2	38.7	2.6	7.5	-69.49	991	5	0	89.9	205	20	
LLAWD303	09/06/2017 10:46	56.6	43.7	0.3	0	-60.44	992	7	0	100.3	15	15	
LLAWD302	09/06/2017 10:49	57	44.4	0.2	0	-68.1	991	7	0	101.4	15	15	
LLAWD301	09/06/2017 10:52	57.3	43.2	0.5	0	-50.46	991	6	0	100.5	20	20	
LLAWD230	09/06/2017 10:55	0.2	2	20.7	77.1	-0.14	993	1	0	2.2	0	0	
LLAWD231	09/06/2017 10:58	37.4	34.4	0.6	27.6	-26.9	993	7	0	71.8	20	20	
LLAWD222	09/06/2017 11:01	56.9	44.7	0.3	0	-66.88	992	11	0	101.6	20	20	
LLARD207	09/06/2017 11:03	51.8	40.5	0.6	7.1	-68.59	992	10	0	92.3	20	20	
LLAWD219	09/06/2017 11:06	43.4	37.8	0.3	18.5	-60.22	993	3	0	81.2	20	20	
LLAWD237	09/06/2017 11:11	47.4	38	0.2	14.4	-49.72	993	6	0	85.4	10	10	
LLARD220	09/06/2017 11:13	50.3	40.9	0.1	8.7	-23.7	992	6	0	91.2	20	20	
LLAWD234	09/06/2017 11:16	48.6	40.5	0	10.9	-30.2	992	9	0	89.1	30	30	
LLAWD300	09/06/2017 11:18	58.4	44.2	0	0	-41.39	992	6	0	102.6	20	20	
LLAWD299	09/06/2017 11:22	53.2	40.2	1.2	5.4	-66.59	992	6	0	93.4	20	20	
LLAL003A	09/06/2017 11:26	51	39	1.3	8.7	-10.86	992	6	0	90	10	10	
LLAWD298	09/06/2017 11:30	61.1	39.1	0.7	0	-69.07	993	6	0	100.2	20	20	
LLARB072	12/06/2017 10:03												Inaccessible
LLAWD253	12/06/2017 11:06	68.3	32	0.5	0	-67.44	1001	7	0	100.3	20	20	
LLAWD210	12/06/2017 13:04												Inaccessible
LLAWD211	12/06/2017 13:05												Inaccessible
LLAWD233	12/06/2017 13:07												Inaccessible
LLAWD308	30/06/2017 13:15	53.4	38	0.2	8.4	-0.6	994	9	0	91.4	5	10	
LLAWD308	30/06/2017 13:17	51.6	39.5	0.2	8.7	-3.14	994	8	0	91.1	10	10	
LLAWD309	30/06/2017 13:20	28.6	19.9	11.1	40.4	-18.03	994	0	0	48.5	0	5	
LLAWD309	30/06/2017 13:22	56.1	39.4	1	3.5	-18.31	994	3	0	95.5	5	5	
LLAWD310	30/06/2017 13:24	52.8	38.1	0.1	9	-8.86	994	5	0	90.9	5	5	
LLAWD311	30/06/2017 13:26	42.9	36.2	0.1	20.8	-26.42	994	2	0	79.1	5	5	
LLAWD312	30/06/2017 13:29	52.8	37.4	0.1	9.7	-43.15	994	2	2	90.2	10	10	
LLAWD313	30/06/2017 13:31	36.7	32.2	1	30.1	-13.81	994	3	0	68.9	10	10	
LLAWD314	30/06/2017 13:33	56.9	40	0.2	2.9	-0.62	994	5	2	96.9	10	10	
LLAWD301	30/06/2017 13:36	60.4	40.4	0.1	0	-63.5	988	1	0	100.8	20	20	
LLAWD303	30/06/2017 13:41	55.9	37.9	1.4	4.8	-66.37	993	2	0	93.8	10	10	
LLAWD315	30/06/2017 13:48	63.2	35.5	0.2	1.1	-33.05	994	3	0	98.7	10	10	
LLAWA130	11/07/2017 09:31	16.6	14.2	3.4	65.8	-0.8	993	0	0	30.8	0	0	
LLAWA006	11/07/2017 09:38	3.6	14.3	1.8	80.3	-0.7	992	4	0	17.9	0	0	
LLAWA005	11/07/2017 09:41	9.2	17.1	2.4	71.3	-1.63	994	8	0	26.3	0	0	
LLAWA004	11/07/2017 09:43	28.1	17.9	0.1	53.9	-0.44	993	1	0	46	0	0	
LLAWA003	11/07/2017 09:45	7.1	14.6	1.8	76.5	-1.12	993	7	0	21.7	0	0	

Asset ID	Reading Taken On	CH4 (%)	CO2 (%)	O2 (%)	Balance Gas (%)	Vacuum (mbar)	Atm Pressure (mbar)	CO (ppm)	H2S (ppm)	CH4 + CO2 (%)	Original Valve (%)	Depart valve (%)	Comment
LLAWA002	11/07/2017 09:48	15.2	14.9	0	69.9	-0.78	995	1	0	30.1	0	0	
LLAWA01A	11/07/2017 09:50	5.6	13	0	81.4	-0.36	993	7	0	18.6	0	0	
LLAWA032	11/07/2017 09:54	16.1	13.8	0.7	69.4	-1.59	994	3	0	29.9	0	0	
LLAWA001	11/07/2017 09:57	32	13.7	0	54.3	-0.83	992	1	0	45.7	0	0	
LLAWA033	11/07/2017 10:00	41	17	0	42	-0.51	991	3	0	58	0	0	
LLAWA027	11/07/2017 10:02	41.1	23.1	0	35.8	-0.63	993	1	0	64.2	0	0	
LLAWA204	11/07/2017 10:10	25.7	18.4	0.4	55.5	-3.27	993	1	0	44.1	5	5	
LLAWA203	11/07/2017 10:12	36.5	18.3	0	45.2	-2.07	994	1	0	54.8	5	5	
LLAWA026	11/07/2017 10:15	27.2	18.2	0	54.6	-0.85	994	1	0	45.4	0	0	
LLARA025	11/07/2017 10:17	17.2	13.9	0	68.9	-0.46	993	3	0	31.1	0	0	
LLAWC146	11/07/2017 10:21	7.3	5.7	18.1	68.9	-27.37	992	0	0	13	0	0	
LLAWC147	11/07/2017 10:27	46	21.3	1.5	31.2	-43.31	991	0	0	67.3	10	10	
LLAWC148	11/07/2017 10:30	57	40.3	0.7	2	-1.19	992	3	0	97.3	0	0	
LLAWC144	11/07/2017 10:34	53.9	37.4	2.3	6.4	-15.14	991	3	0	91.3	10	10	
LLAWC145	11/07/2017 10:36	54.8	39.9	0.9	4.4	-3.41	993	3	0	94.7	10	10	
LLAWC141	11/07/2017 10:41	57	43.3	0.2	0	-0.71	991	1	0	100.3	1	1	
LLAWC142	11/07/2017 10:44	34	30.7	3.9	31.4	-50.85	992	1	0	64.7	10	10	
LLAWC140	11/07/2017 10:46	52.1	39.2	0.2	8.5	-1.15	991	2	0	91.3	10	10	
LLAWC143	11/07/2017 10:49	49.2	37.7	0	13.1	-29.54	991	0	0	86.9	10	10	
LLAWA029	11/07/2017 10:53	38.8	28.6	0	32.6	-24.96	992	1	0	67.4	5	5	
LLAWA031	11/07/2017 10:56	0.6	6.5	18.4	74.5	-0.81	991	0	0	7.1	0	0	
LLAWB095	11/07/2017 11:00	42.4	28.8	6.3	22.5	-0.78	991	1	0	71.2	0	0	
LLAWB095	11/07/2017 11:03	56	38.8	0.8	4.4	-1.49	991	2	0	94.8	0	1	
LLAWB095	11/07/2017 11:05	56	40.2	0.2	3.6	-1.42	991	1	0	96.2	1	1	
LLAWC249	11/07/2017 12:56	42.5	31.5	0.1	25.9	-49.9	991	0	0	74	20	20	
LLAWC132	11/07/2017 12:59	43.9	32.7	0	23.4	-54.97	994	1	0	76.6	10	10	
LLAWC250	11/07/2017 13:00	33.3	26.1	0.7	39.9	-26.35	993	1	0	59.4	0	0	
LLAWC250	11/07/2017 13:02	34.1	26.7	0.2	39	-23.11	993	1	0	60.8	0	5	
LLAWC250	11/07/2017 13:04	34.3	26.9	0	38.8	-27.27	993	2	0	61.2	5	5	
LLAWC251	11/07/2017 13:06	40.6	31.7	0	27.7	-53.09	994	3	0	72.3	20	20	
LLAWC152	11/07/2017 13:09	0.2	1.2	20.9	77.7	-21.42	993	1	0	1.4	0	0	
LLAWC133	11/07/2017 13:12	49.1	37.8	0.4	12.7	-64.04	995	2	0	86.9	10	10	
LLAWC134	11/07/2017 13:15	57.8	40.8	0	1.4	-0.68	994	1	0	98.6	1	1	
LLAL0003	11/07/2017 13:17	54	38.5	0	7.5	-11.09	994	2	0	92.5	10	10	
LLAL0003	11/07/2017 13:19	56.8	40.4	0	2.8	-26.52	994	3	0	97.2	10	15	
LLAL0003	11/07/2017 13:21	55.6	40.1	0	4.3	-36.74	994	3	0	95.7	15	15	
LLAWC154	11/07/2017 13:24	60.3	38.3	0	1.4	-7.22	991	9	0	98.6	5	5	
LLAWC135	11/07/2017 13:27	60.5	36.7	0.1	2.7	-11.39	993	4	0	97.2	10	10	
LLAWC136	11/07/2017 13:31	41	33.7	1.7	23.6	-55.89	993	3	0	74.7	10	10	
LLAWC137	11/07/2017 13:36	46.6	36.6	0	16.8	-13.79	994	3	0	83.2	10	10	
LLAWB096	11/07/2017 13:41	58.8	41.6	0	0	-0.88	992	3	0	100.4	1	1	
LLAWB111	11/07/2017 13:44	58.1	39.4	0	2.5	-1.42	991	1	0	97.5	10	10	
LLAWB112	11/07/2017 13:51	54.3	40.9	0	4.8	-1.25	992	1	0	95.2	5	5	
LLAWB113	11/07/2017 13:54	57.8	43.2	0	0	-2.54	990	3	0	101	5	5	
LLAWB114	11/07/2017 13:57	54.2	40.8	0	5	-2.36	990	2	0	95	5	5	
LLAWB115	11/07/2017 14:01	38.4	31.2	0.8	29.6	-32.32	992	1	0	69.6	10	10	
LLAWB116	11/07/2017 14:04	25.7	24.3	0	50	-1.14	991	2	0	50	5	5	
LLAWB120	11/07/2017 14:07	28.2	26.6	0	45.2	-1.9	992	1	0	54.8	5	5	
LLAWB079	11/07/2017 14:12	68.6	30.6	0.2	0.6	-58.45	993	2	0	99.2	5	5	
LLAWB081	11/07/2017 14:14	0.2	4.1	19.8	75.9	-0.2	991	10	0	4.3	0	0	
LLAWB082	11/07/2017 14:17	65.4	33.8	0.4	0.4	-67.45	991	2	0	99.2	10	10	
LLAWB083	11/07/2017 14:21	51.1	25.1	3.7	20.1	-16.09	992	1	0	76.2	5	5	
LLARA014	11/07/2017 14:25	32.3	18.7	0	49	-0.49	993	2	0	51	1	1	
LLAWA016	11/07/2017 14:28	35.6	23.7	0	40.7	-0.8	991	1	0	59.3	0	0	
LLARA015	11/07/2017 14:30	33.5	22.6	0	43.9	-4.51	992	1	0	56.1	5	5	
LLARA028	11/07/2017 14:33	62.7	29.2	0	8.1	-0.61	992	2	0	91.9	0	0	
LLARA028	11/07/2017 14:35	67.8	31.4	0	0.8	-6.88	992	2	0	99.2	0	5	
LLARA028	11/07/2017 14:37	67.9	31	0	1.1	-9.29	992	2	0	98.9	5	5	
LLARA012	11/07/2017 14:40	43	31.4	0	25.6	-0.24	992	3	0	74.4	0	0	
LLAWA011	11/07/2017 14:43	21.1	21.2	0	57.7	-1.34	993	2	0	42.3	5	5	
LLARA010	11/07/2017 14:45	21.8	21.7	0	56.5	-1.39	994	3	0	43.5	5	5	
LLAWA132	11/07/2017 14:48	23	20.4	0.5	56.1	-1.22	993	3	0	43.4	5	5	
LLAWA030	11/07/2017 14:50	57	30.2	0	12.8	-0.37	992	4	0	87.2	5	5	
LLAWA131	11/07/2017 14:56	11.4	19.2	0	69.4	-2.61	993	3	0	30.6	5	5	
LLARB072	11/07/2017 15:05												Inaccessible
LLAWD233	11/07/2017 10:14	56.6	32.9	1.7	8.8	-54.26	991	1	0	89.5	10	10	
LLAWD210	11/07/2017 10:17	49.3	33	1	16.7	-33.32	995	2	0	82.3	10	10	
LLAWD211	11/07/2017 10:22	9.6	5.3	18.1	67	-3.25	995	2	0	14.9	0	0	
LLAWD219	11/07/2017 10:25	49.7	33.6	0.2	16.5	-54.35	994	2	0	83.3	20	20	
LLARD207	11/07/2017 10:27	58.1	36.6	0.1	5.2	-56.9	994	10	0	94.7	20	20	
LLAWD222	11/07/2017 10:30	60.4	40.6	0.1	0	-72.41	995	7	0	101	20	20	
LLAWD231	11/07/2017 10:32	36.1	30.6	0.2	33.1	-23.26	994	4	0	66.7	30	30	
LLAWD230	11/07/2017 10:35	2.6	4.6	19.8	73	-2.42	994	0	0	7.2	0	0	
LLAWD312	11/07/2017 10:38	59.9	37.4	0.1	2.6	-36.88	994	2	24	97.3	20	25	
LLAWD312	11/07/2017 10:39	57.5	40.2	0.1	2.2	-38.29	994	2	23	97.7	25	25	
LLAWD313	11/07/2017 10:42	48.2	35.8	0.2	15.8	-4.57	994	2	1	84	20	25	
LLAWD313	11/07/2017 10:44	46.7	36.8	0.2	16.3	-15.61	994	1	0	83.5	25	25	
LLAWD314	11/07/2017 10:47	56.9	41.3	0.1	1.7	-1.68	994	2	0	98.2	10	20	
LLAWD314	11/07/2017 10:51	55.7	42.1	0.2	2	-5.41	994	4	0	97.8	20	20	
LLAWD301	11/07/2017 10:55	61.4	39.5	0.1	0	-47.44	994	1	0	100.9	30	30	
LLAWD302	11/07/2017 10:58	60.8	40.1	0.1	0	-32.67	994	1	0	100.9	20	30	
LLAWD302	11/07/2017 11:00	59	42.1	0.1	0	-51.72	994	1	0	101.1	30	30	
LLAWD303	11/07/2017 11:03	57.9	36.6	1.3	4.2	-51.3	994	2	0	94.5	25	25	
LLAWD304	11/07/2017 11:05	59.9	38.7	0.5	0.9	-48.02	994	1	0	98.6	25	25	
LLAWD305	11/07/2017 11:12	54.7	38.5	1.3	5.5	-68.84	993	2	0	93.2	20	20	
LLAWD306	11/07/2017 11:23	57	43.5	0.1	0	-21.09	994	2	0	100.5	20	20	
LLAWD307	11/07/2017 11:25	60.8	39.8	0.1	0	-72.11	994	2	0	100.6	30	30	
LLAWD315	11/07/2017 11:27	60.7	38.9	0.1	0.3	-30.25	994	4	0	99.6	30	30	
LLAWD227	11/07/2017 11:30	0.5	3.4	20.9	75.2	-8.31	993	0	0	3.9	0	0	
LLAWD225	11/07/2017 11:33	62.2	38	0.2	0	-75.68	994	2	0	100.2	25	25	
LLAWD297	11/07/2017 11:38	61.2	39.5	0.1	0	-3.14	994	2	0	100.7	20	20	
LLAWD298	11/07/2017 11:40	61.9	38.2	0.2	0	-68.34	994	1	0	100.1	20	20	

Asset ID	Reading Taken On	CH4 (%)	CO2 (%)	O2 (%)	Balance Gas (%)	Vacuum (mbar)	Atm Pressure (mbar)	CO (ppm)	H2S (ppm)	CH4 + CO2 (%)	Original Valve (%)	Depart valve (%)	Comment
LLAWD299	11/07/2017 11:46	0.6	8.2	19.7	71.5	-0.12	993	0	0	8.8	0	0	
LLAWD300	11/07/2017 11:50	61.3	39	0.2	0	-54.53	994	2	0	100.3	25	25	
LLAWD311	11/07/2017 11:53	59.3	39.5	0.1	1.1	-7.06	992	2	0	98.8	10	20	
LLAWD311	11/07/2017 11:55	58.4	40.7	0	0.9	-17.67	992	2	0	99.1	20	20	
LLAWD237	11/07/2017 12:00	37.6	31.6	0.1	30.7	-55.44	994	1	0	69.2	20	20	
LLARD220	11/07/2017 12:04	43.3	34.4	0.3	22	-31.47	994	2	0	77.7	10	10	
LLAWD310	11/07/2017 12:07	59.4	39.6	0	1	-7.71	994	4	0	99	10	20	
LLAWD310	11/07/2017 12:08	58.5	40.7	0	0.8	-14.57	994	4	0	99.2	20	20	
LLAWD309	11/07/2017 12:11	42.5	30.4	3	24.1	-46.8	994	1	0	72.9	20	20	
LLAWD308	11/07/2017 12:14	38.6	34.5	1.2	25.7	-5.44	994	7	0	73.1	10	10	
LLAWD250	11/07/2017 14:17	65.8	34.3	0.3	0	-68.09	994	1	0	100.1	20	20	
LLAWD255	11/07/2017 14:19	62.4	38.4	0.2	0	-63.17	996	1	0	100.8	10	10	
LLAWD254	11/07/2017 14:22	65	36	0.2	0	-60.73	996	1	0	101	20	20	
LLAWD253	11/07/2017 14:25	71.5	30.1	0.1	0	-68.69	992	0	0	101.6	20	20	
LLAWD280	11/07/2017 14:30	60.9	35.5	1	2.6	-66.16	996	0	0	96.4	10	10	
LLAWD285	11/07/2017 14:32	69.7	30.7	0	0	-69.03	996	0	0	100.4	20	20	
LLAWD279	11/07/2017 14:34	64.3	36.4	0.2	0	-56.66	996	1	0	100.7	10	10	
LLAWD286	11/07/2017 14:36	43.3	19.8	0	36.9	-66.63	996	1	0	63.1	10	10	
LLAWD278	11/07/2017 14:39	63.5	37.9	0	0	-14.27	996	3	0	101.4	10	10	
LLAWD287	11/07/2017 14:42	4.1	10	1.7	84.2	-78.67	996	20	0	14.1	5	10	
LLAWD287	11/07/2017 14:45	30.4	26	0.9	42.7	-69.17	996	5	0	56.4	10	10	
LLAWD293	11/07/2017 14:47	59.8	36.7	0.1	3.4	-59.96	995	2	0	96.5	10	10	
LLAWD281	11/07/2017 14:50	58.4	42.7	0	0	-68.17	995	7	0	101.1	10	10	
LLAWD284	11/07/2017 14:53	72.5	29.1	0	0	-69.65	994	1	0	101.6	20	20	
LLAWD283	11/07/2017 14:56	58	42.9	0.1	0	-66.9	995	16	0	100.9	10	10	
LLAL00C3	11/07/2017 14:58	63.8	37.6	0.1	0	21.62	993	1	0	101.4	5	10	
LLAL00C3	11/07/2017 15:02	62.2	39.2	0	0	-0.84	993	1	0	101.4	10	10	
LLAWD270	11/07/2017 15:05	57.1	41.8	0.4	0.7	-37.68	994	5	0	98.9	1	10	
LLAWD259	11/07/2017 15:07	61.8	39.1	0	0	-58.35	995	3	0	100.9	10	10	
LLAWD258	11/07/2017 15:09	63.5	37.4	0.1	0	-54.1	995	1	0	100.9	10	10	
LLAWD262	11/07/2017 15:12												Too Tall
LLAWD266	11/07/2017 15:16	64.5	36.8	0.1	0	-69.8	995	1	0	101.3	10	10	
LLAWD265	11/07/2017 15:19												Too Tall
LLAWD264	11/07/2017 15:21	24.5	10.9	14.2	50.4	-60.49	995	0	0	35.4	5	5	
LLAWD256	11/07/2017 15:24	64.9	35.3	0.3	0	-69.34	995	1	0	100.2	10	10	
LLAWD305	14/07/2017 13:16	50.3	37.3	2.4	10	-82.41	1006	2	0	87.6	20	20	
LLAWD303	14/07/2017 13:25	56.7	38.7	0.8	3.8	-68.52	1006	2	0	95.4	10	10	
LLAWD301	14/07/2017 13:32	59	41	0	0	-68.46	1008	2	0	100	20	20	
LLAWD234	14/07/2017 13:40	15.6	15.7	8.2	60.5	-56.8	1008	9	0	31.3	20	0	
LLAWD234	14/07/2017 13:43	16.3	18.4	6.8	58.5	0.05	1008	4	0	34.7	0	0	
LLAWD307	14/07/2017 13:51	61.6	38.4	0	0	-42.46	1008	1	0	100	20	30	
LLAWD307	14/07/2017 13:53	59.7	40.3	0	0	-48.57	1008	1	0	100	30	30	
LLAWB117	14/07/2017 13:07	44.8	34.6	0.1	20.5	-14.23	1005	2	0	79.4	10	0	
LLAWB119	14/07/2017 13:10	38.1	33.2	0.4	28.3	-1.85	1005	3	0	71.3	5	5	
LLAL003A	28/07/2017 10:12	53	38.9	1.3	6.8	-12.78	991	2	0	91.9	10	10	

APPENDIX 4

Gas Compound Inputs

Asset ID	Reading Taken On	CH4 (%)	CO2 (%)	O2 (%)	Balance Gas (%)	Vacuum (mbar)	CO (ppm)	H2 (ppm)	H2S (ppm)	Flow (M3 / H)	Engine output (kW)	Comment
LLASITE1	03/05/2017 09:21	45	31.9	1.2	21.9	-52.46	8 LOW		2	797	993 1. OK	
LLASITE1	03/05/2017 15:13	45.3	31.6	1.2	21.9	-78.9	11 LOW		0	835	1502 1. OK	
LLASITE1	05/05/2017 12:47	51.2	32.9	1.4	14.5	-75.46	4 LOW		0	1094	1829 1. OK	
LLASITE1	05/05/2017 09:05	43.7	30.6	1.3	24.4	-74.23	11 LOW		1	1024	1726 1. OK	
LLASITE1	15/05/2017 10:38	43.5	33.2	1.3	22	-74.1	15 LOW		0	913	1535 500. Routine H2S monitoring sweep	
LLASITE1	15/05/2017 15:30	56	35.5	1.5	7	-77.92	24 LOW		178	865	988 500. Routine H2S monitoring sweep	
LLASITE1	16/05/2017 08:44	48.8	34.8	1.9	14.5	-54.66	9 LOW		164	828	965 500. Routine H2S monitoring sweep	
LLASITE1	16/05/2017 15:15	51.3	36.1	1.3	11.3	-51.95	13 LOW		166	674	1098 500. Routine H2S monitoring sweep	
LLASITE1	01/06/2017 08:55	42.8	32.6	2.9	21.7	-75.38	3 LOW		144	940	1540 1. OK	
LLASITE1	01/06/2017 14:57	44.1	32.2	2.9	20.8	-42.78	7 LOW		130	940	1500 1. OK	
LLASITE1	09/06/2017 08:46	44.1	34.3	2.1	19.5	-81.11	6 LOW		4	887	1494 1. OK	
LLASITE1	09/06/2017 12:11	42.6	35.2	1.4	20.8	-82.88	4 LOW		0	946	1602 1. OK	
LLASITE1	12/06/2017 10:11	42.7	35	1.8	20.5	-81.46	4 LOW		0	919	1514 1. OK	
LLASITE1	12/06/2017 12:23	43	35.3	1.5	20.2	-66.84	3 LOW		0 -	-	1. OK	
LLASITE1	30/06/2017 13:09	45.8	33.3	1.2	19.7	-82.94	2 LOW		0	900	1560 1. OK	
LLASITE1	30/06/2017 15:14	46.8	33.2	1.2	18.8	-78.92	2 LOW		0	912	1600 1. OK	
LLASITE1	11/07/2017 09:29	46.8	32.9	1.4	18.9	-53.22	3 LOW		4	750	847 1. OK	
LLASITE1	11/07/2017 14:59	46.8	33.9	0.9	18.4	-72.74	6 LOW		0	1148	0 1.2 engines off	
LLASITE1	11/07/2017 15:37	46.3	34.5	1.1	18.1	-71.28	4 LOW		0	1075	0 1. OK	
LLASITE1	14/07/2017 11:17	39.8	32.5	1.6	26.1	-86.02	3 LOW		0	1170	1850 1. OK	
LLASITE1	28/07/2017 10:06	45.1	33.4	1	20.5	-63.23	3 LOW		0	990	1750 1. OK	

APPENDIX 5

Emissions/Ambient Air Monitoring

APPENDIX 6

Leachate Level Data

Llanddulas Monthly Leachate Level Data - May to July 2017 inclusive



From : 01/05/2017

To : 18/07/2017

09/05/2017

Sample Point	Depth of Liq (m)	Dip to Water (m)	Leachate Head (m)	LeachateHead Fld (m)	PulseCount	TD (m)	Water Level (mAOD)
LCP2Ar2	1.89	43.76		2.55	501778	46.31	90.39
LCP2Br2	2.12	48.29		1.56	450940	49.85	89.42
LCP2Cr	1.96	48.05		0.65		48.7	87.91
LCP3	1.71	22.8		0.7		23.5	98.52
LCP3A	0.12	45.6	0.12	0.28	943660	45.88	90.04
LLALCP1AR	0.87	23.82		0.61	122953	24.43	99.32
LLALCP1C	1.65	40.8		1.84		42.64	90.89
LLALMP01	1.29	18.93		0.67		19.6	99.89
LLALMP02	0.13	29.02		0.6	26952	29.62	101.19
LLALMP03	0.60	36.75		0.22	661003	36.97	96.20
LLALMP04	1.20	41.29		1.33	45135	42.62	96.47
LLALMP05	-0.92	45.6		1.1	89973	46.7	94.68
LLALMP3/1	0.96	18.14		0.56		18.7	99.19
LLALMP3/2	0.41	40.35		0.33		40.68	90.41

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Llanddulas Monthly Leachate Level Data - May to July 2017 inclusive



From : 01/05/2017
To : 18/07/2017

14/06/2017

Sample Point	Depth of Liq (m)	Dip to Water (m)	Leachate Head (m)	LeachateHead Fld (m)	PulseCount	TD (m)	Water Level (mAOD)
LCP2Ar2	1.75	43.9		1.62	501778	45.52	90.25
LCP2Br2	1.32	49.09		0.92	450940	50.01	88.62
LCP2Cr	1.88	48.13		0.57		48.7	87.83
LCP3	2.17	22.34		1.16		23.5	98.98
LCP3A	1.25	46.47	1.25	1.38	943660	47.85	91.17
LLALCP1AR	0.84	23.85		0.58	122953	24.43	99.29
LLALCP1C	1.55	40.9		1.74		42.64	90.79
LLALMP01	1.27	18.95		0.65		19.6	99.87
LLALMP02	0.10	29.05		0.57	28966	29.62	101.16
LLALMP03	0.97	36.38		0.59	661003	36.97	96.57
LLALMP04	1.16	41.33		1.29	45135	42.62	96.43
LLALMP05	-1.03	45.71		0.99	89973	46.7	94.57
LLALMP3/1	0.98	25.12		0.54		25.66	99.21
LLALMP3/2	0.58	40.18		0.5		40.68	90.58

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Llanddulas Monthly Leachate Level Data - May to July 2017 inclusive



From : 01/05/2017
To : 18/07/2017

18/07/2017

Sample Point	Depth of Liq (m)	Dip to Water (m)	Leachate Head (m)	LeachateHead Fld (m)	PulseCount	TD (m)	Water Level (mAOD)
LCP2Ar2	1.75	43.9		1.62	501778	45.52	90.25
LCP2Br2	1.32	49.09		0.92	450940	50.01	88.62
LCP2Cr	1.88	48.13		0.57		48.7	87.83
LCP3	1.74	22.77		0.73		23.5	98.55
LCP3A	1.25	46.47	1.25	1.38	943660	47.85	91.17
LLALCP1AR	0.84	23.85		0.58	122953	24.43	99.29
LLALCP1C	1.55	40.9		1.74		42.64	90.79
LLALMP01	1.27	18.95		0.65		19.6	99.87
LLALMP02	0.10	29.05		0.57	28966	29.62	101.16
LLALMP03	0.97	36.38		0.59	661003	36.97	96.57
LLALMP04	1.16	41.33		1.29	45135	42.62	96.43
LLALMP05	-1.03	45.71		0.99	89973	46.7	94.57
LLALMP3/1	0.98	25.12		0.54		25.66	99.21
LLALMP3/2	0.58	40.18		0.5		40.68	90.58

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APPENDIX 7

Leachate Quality Data

Llanddulas Quarterly Leachate Quality Report - May to July 2017 inclusive



From : 18/07/2017

To : 18/07/2017

18/07/2017

Sample Point	Alk (CaCO3:mg/l)	Amm-N (N:mg/l)	BOD (mg/l)	Ca(D) (mg/l)	Chloride (mg/l)	COD (mg/l)	Cond(Fld) (uS / cm)
LCP2AR	8290	1220	162.6	84	2220	2890	20000
LCP2BR	10500	1550	438.1	49	3090	4410	20000
LCP2C1	14400	2240	1119.9	43	2730	6830	20000
LCP3	9860	1440	289.9	57	1870	3870	20000
LCP3A	15200	2310	1117.1	50	2450	8370	20000
LLALCP1AR	2680	351	21.6	116	878	441	8600
LLALCP1C	5630	836	53.9	69	2270	1600	19800

Sample Point	Hg (mg/l)	K(D) (mg/l)	MCP (UG/L)	Mg(D) (mg/l)	Na(D) (mg/l)	Pb(D) (mg/l)	pH(Fld)
LCP2AR	<0.000005	803	76.9	74	2170	<0.01	6.95
LCP2BR	<0.000005	995	123	69	2900	<0.01	6.98
LCP2C1	<0.000005	1130	179	67	2800	<0.01	7.24
LCP3	<0.000005	856	99.1	52	1920	<0.01	6.86
LCP3A	<0.000005	1110	196	69	2560	<0.01	6.98
LLALCP1AR	<0.000005	233	19.9	55	780	<0.001	6.72
LLALCP1C	<0.000005	659	54.9	59	2010	<0.01	6.83

Sample Point	TOC (mg/l)	TON (mg/l)	Total S(D) SO4:mg/l
LCP2AR	930	<2	107
LCP2BR	1460	<2	133
LCP2C1	2540	3.9	229
LCP3	1220	<2	129
LCP3A	2960	9.5	257
LLALCP1AR	139	<0.2	38
LLALCP1C	460	<2	53

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APPENDIX 8

Groundwater Quality Data

Llanddulas Monthly Groundwater Level Report - May to July 2017 inclusive



From : 17/07/2017

To : 17/07/2017

17/07/2017

Sample Point	Dip to Water (m)	TD (m)	Water Level (mAOD)
GWBH01	97.12	97.12	46.22
GWBH02	68.23	100.63	46.45
GWBH04	18.19	30.84	38.76
GWBH06R	98.94	100.04	30.09
GWBH07	5.3	25.87	33.31
GWBH22	14.39	36.23	25.88
GWBH23	0.02	26.11	40.03
GWBH24	4.2	18.43	11.94
GWBH25	44.59	54.43	35.50
GWBH26B	48.58	49.96	31.48
GWBH27B	16.73	31.21	15.53
GWBH28	33.2	45.12	30.52
GWBH32	98.88	108.37	36.21
GWBH33	109.41	132.37	45.66
GWBH34	129.5	139.9	46.52
GWBH35	128.05	138.45	46.24
GWBH36	103.69	120.03	37.56

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Llanddulas Quarterly Groundwater Quality Report - May to July 2017 inclusive



From : 17/07/2017
To : 17/07/2017

17/07/2017

Sample Point	Alk (CaCO3:mg/l)	Amm-N (N:mg/l)	Ca(D) (mg/l)	Cd(D) (mg/l)	CH4(Diss) (mg/l)	Chloride (mg/l)	Cr(D) (mg/l)
GWBH02	145	0.01	66	<0.0001	<0.02	12	<0.001
GWBH04	212	3.8	99	<0.0001	<0.02	40	<0.001
GWBH07	198	0.01	76	<0.0001	<0.02	63	<0.001
GWBH22	255	0.06	123	<0.0001	<0.02	73	<0.001
GWBH23	295	0.03	148	<0.0001	<0.02	78	<0.001
GWBH24	266	0.01	105	<0.0001	<0.02	97	<0.001
GWBH25	232	0.03	104	<0.0001	<0.02	15	<0.001
GWBH27B	318	0.03	151	<0.0001	<0.02	37	<0.001
GWBH28	228	0.01	109	<0.0001	<0.02	38	<0.001
GWBH32	405	0.02	162	<0.0001	0.2	38	<0.001
GWBH33	210	0.02	100	<0.0001	<0.02	24	<0.001
GWBH34	324	0.03	179	<0.0001	<0.02	19	<0.001
GWBH35	233	0.02	71	<0.0001	<0.02	19	<0.001
GWBH36	328	0.02	185	<0.0001	<0.02	57	<0.001

Sample Point	Cond(Fld) (uS / cm)	Cresols (mg/l)	Cu(D) (mg/l)	Dimethylphenols (mg/	Fe(D) (mg/l)	Mg(D) (mg/l)	Pb(D) (mg/l)
GWBH02	364	<0.0005	<0.001	<0.0005	0.11	4	<0.001
GWBH04	710	<0.0005	0.004	<0.0005	0.14	6	<0.001
GWBH07	598	<0.0005	0.001	<0.0005	0.12	14	<0.001
GWBH22	787	<0.0005	<0.001	<0.0005	0.16	18	<0.001
GWBH23	894	<0.0005	<0.001	<0.0005	0.19	15	<0.001
GWBH24	879	<0.0005	<0.001	<0.0005	0.15	15	<0.001
GWBH25	533	<0.0005	<0.001	<0.0005	0.15	7	<0.001
GWBH27B	750	<0.0005	<0.001	<0.0005	0.18	9	<0.001
GWBH28	593	<0.0005	<0.001	<0.0005	0.16	6	<0.001
GWBH32	865	<0.0005	<0.001	<0.0005	0.18	21	<0.001
GWBH33	553	<0.0005	<0.001	<0.0005	0.14	4	<0.001
GWBH34	812	<0.0005	0.002	<0.0005	0.19	7	<0.001
GWBH35	685	<0.0005	0.002	<0.0005	0.12	10	<0.001
GWBH36	1425	<0.0005	0.003	<0.0005	0.19	11	<0.001

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Llanddulas Quarterly Groundwater Quality Report - May to July 2017 inclusive



From : 17/07/2017
To : 17/07/2017

17/07/2017

Sample Point	Hg (mg/l)	K(D) (mg/l)	MCP (UG/L)	Mn(D) (mg/l)	Ni(D) (mg/l)	pH(Fld)	Phenol (mg/l)
GWBH02	<0.000005	1	<0.02	<0.002	<0.001	6.93	<0.0005
GWBH04	0.00001	8	<0.02	0.004	<0.001	6.75	<0.0005
GWBH07	<0.000005	4	<0.02	0.022	<0.001	6.9	<0.0005
GWBH22	<0.000005	3	<0.02	0.22	<0.001	6.8	<0.0005
GWBH23	<0.000005	2	<0.02	0.497	<0.001	6.76	<0.0005
GWBH24	<0.000005	3	<0.02	0.011	<0.001	6.82	<0.0005
GWBH25	<0.000005	<1	<0.02	<0.002	<0.001	6.78	<0.0005
GWBH27B	<0.000005	2	<0.02	0.075	<0.001	6.65	<0.0005
GWBH28	0.000007	<1	<0.02	<0.002	<0.001	6.83	<0.0005
GWBH32	<0.000005	2	<0.02	0.351	<0.001	6.59	<0.0005
GWBH33	<0.000005	2	<0.02	<0.002	<0.001	6.74	0.0010
GWBH34	0.000006	3	<0.02	0.003	<0.001	6.59	<0.0005
GWBH35	<0.000005	2	<0.02	<0.002	<0.001	6.82	<0.0005
GWBH36	<0.000005	9	<0.02	0.002	0.002	6.48	<0.0005

Sample Point	Na(D) (mg/l)	TOC (mg/l)	TON (mg/l)	Total S(D) SO4:mg/l	Trifluralin (ng/l)	Trimethylphenol s (mg)	Zn(D) (mg/l)
GWBH02	8	0.66	1.0	14	<0.02	<0.0005	0.012
GWBH04	20	14	<0.2	32	<0.02	<0.0005	0.005
GWBH07	42	3.2	<0.2	32	<0.02	<0.0005	<0.002
GWBH22	35	0.69	2.6	44	<0.02	<0.0005	<0.002
GWBH23	46	<0.2	0.7	75	<0.02	<0.0005	0.003
GWBH24	70	1.0	4.8	31	<0.02	<0.0005	<0.002
GWBH25	14	0.32	3.9	17	<0.02	<0.0005	0.009
GWBH27B	22	0.34	3.6	18	<0.02	<0.0005	0.002
GWBH28	22	<0.2	3.1	22	<0.02	<0.0005	0.005
GWBH32	22	1.8	4.3	8	<0.02	0.0062	0.01
GWBH33	14	0.27	2.5	12	<0.02	<0.0005	0.004
GWBH34	12	1.9	14.5	19	<0.02	<0.0005	0.006
GWBH35	44	0.90	1.2	26	<0.02	<0.0005	0.006
GWBH36	26	2.5	14.0	35	<0.02	<0.0005	0.008

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APPENDIX 9

Surface Water Quality Data

Llanddulas Surface Water Report - May to July 2017 inclusive



From : 05/05/2017

To : 27/07/2017

05/05/2017

Sample Point	Amm-N (N:mg/l)	Chloride (mg/l)	Cond (uS / cm)	pH(Fld)	Spring Flow (l/min)
LLASPRING	0.018	39	685	7.13	200

Sample Point	WtrTemp (Deg C)
LLASPRING	11.1

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Llanddulas Surface Water Report - May to July 2017 inclusive



From : 05/05/2017

To : 27/07/2017

09/05/2017

Sample Point	Amm-N (N:mg/l)	Chloride (mg/l)	Cond (uS / cm)	Cond(Fld) (uS / cm)	pH(Fld)
LLASPRING	0.021	31	720	720	7.25

Sample Point	Spring Flow (l/min)	WtrTemp (Deg C)
LLASPRING	240	11.6

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Llanddulas Surface Water Report - May to July 2017 inclusive



From : 05/05/2017

To : 27/07/2017

15/05/2017

Sample Point	Amm-N (N:mg/l)	BOD (mg/l)	Chloride (mg/l)	Cond (uS / cm)	Pb(D) (mg/l)
LLA000W1	0.2	1.3			
LLADOWNSTREAM	0.02		30		
LLASPRING	0.01		46	655	<0.001
LLAUPSTREAM	0.02		28		
Sample Point	Hg (mg/l)	MCPD (UG/L)	pH (Lab)	pH(Fld)	Spring Flow (l/min)
LLA000W1			7.4		
LLASPRING	<0.00001	<0.02		7.06	180
Sample Point	S.Solids (mg/l)	WtrTemp (Deg C)			
LLA000W1	<5				
LLASPRING		11.8			

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Llanddulas Surface Water Report - May to July 2017 inclusive



From : 05/05/2017

To : 27/07/2017

24/05/2017

Sample Point	Amm-N (N:mg/l)	Chloride (mg/l)	Cond (uS / cm)	pH(Fld)	Spring Flow (l/min)
LLASPRING	<0.015	34	830	7.46	240

Sample Point	WtrTemp (Deg C)
LLASPRING	12.4

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Llanddulas Surface Water Report - May to July 2017 inclusive



From : 05/05/2017

To : 27/07/2017

01/06/2017

Sample Point	Amm-N (N:mg/l)	Chloride (mg/l)	Cond (uS / cm)	pH(Fld)	Spring Flow (l/min)
LLASPRING	<0.015	36	691	6.75	120

Sample Point	WtrTemp (Deg C)
LLASPRING	12.1

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Llanddulas Surface Water Report - May to July 2017 inclusive



From : 05/05/2017

To : 27/07/2017

09/06/2017

Sample Point	Amm-N (N:mg/l)	Chloride (mg/l)	Cond (uS / cm)	pH(Fld)	Spring Flow (l/min)
LLASPRING	0.017	42	724	6.83	140

Sample Point	WtrTemp (Deg C)
LLASPRING	12.3

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Llanddulas Surface Water Report - May to July 2017 inclusive



From : 05/05/2017

To : 27/07/2017

14/06/2017

Sample Point	Amm-N (N:mg/l)	BOD (mg/l)	Chloride (mg/l)	Cond (uS / cm)	Cond(Fld) (uS / cm)
LLA000W1	0.11	1.4			
LLADOWNSTREAM	0.04		21		235
LLASPRING	0.02		49	682	682
LLAUPSTREAM	0.03		20		246

Sample Point	Hg (mg/l)	MCPD (UG/L)	Pb(D) (mg/l)	pH (Lab)	pH(Fld)
LLA000W1				7.3	
LLADOWNSTREAM					6.92
LLASPRING	<0.000005	<0.02	<0.001		6.86
LLAUPSTREAM					7.25

Sample Point	S.Solids (mg/l)	Spring Flow (l/min)	WtrTemp (Deg C)
LLA000W1	28		
LLADOWNSTREAM			15.2
LLASPRING		120	11.9
LLAUPSTREAM			16.3

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From : 05/05/2017

To : 27/07/2017

21/06/2017

Sample Point	Amm-N (N:mg/l)	Chloride (mg/l)	Cond (uS / cm)	Cond(Fld) (uS / cm)	pH(Fld)
LLASPRING	0.024	45	675	675	6.33

Sample Point	Spring Flow (l/min)	WtrTemp (Deg C)
LLASPRING	120	12.6

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Llanddulas Surface Water Report - May to July 2017 inclusive



From : 05/05/2017

To : 27/07/2017

30/06/2017

Sample Point	Amm-N (N:mg/l)	Chloride (mg/l)	Cond (uS / cm)	pH(Fld)	Spring Flow (l/min)
LLASPRING	<0.015	37	680	6.97	150

Sample Point	WtrTemp (Deg C)
LLASPRING	12.4

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Llanddulas Surface Water Report - May to July 2017 inclusive



From : 05/05/2017

To : 27/07/2017

06/07/2017

Sample Point	Amm-N (N:mg/l)	Chloride (mg/l)	Cond (uS / cm)	Cond(Fld) (uS / cm)	pH(Fld)
LLASPRING	0.019	29	680	680	6.43

Sample Point	Spring Flow (l/min)	WtrTemp (Deg C)
LLASPRING	120	12.9

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Llanddulas Surface Water Report - May to July 2017 inclusive



From : 05/05/2017

To : 27/07/2017

13/07/2017

Sample Point	Amm-N (N:mg/l)	Chloride (mg/l)	Cond (uS / cm)	pH(Fld)	Spring Flow (l/min)
LLASPRING	0.026	48	720	7.27	120

Sample Point	WtrTemp (Deg C)
LLASPRING	11.9

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Llanddulas Surface Water Report - May to July 2017 inclusive



From : 05/05/2017
To : 27/07/2017

17/07/2017

Sample Point	Amm-N (N:mg/l)	BOD (mg/l)	Chloride (mg/l)	COD (mg/l)	Cond(Fld) (uS / cm)
LLA000W1	0.07	2.1			
LLADOWNSTREAM	0.06		26	9	309
LLASPRING	<0.01		51		679
LLAUPSTREAM	0.07		22	9	259

Sample Point	Cond (uS / cm)	Hg (mg/l)	MCP (UG/L)	Pb(D) (mg/l)	pH(Fld)
LLADOWNSTREAM		0.000008	<0.02	<0.001	7.05
LLASPRING	679	0.000008	<0.02	<0.001	6.73
LLAUPSTREAM		<0.000005	<0.02	<0.001	7.14

Sample Point	pH (Lab)	S.Solids (mg/l)	Spring Flow (l/min)	WtrTemp (Deg C)
LLA000W1	8.8	18		
LLADOWNSTREAM				15.7
LLASPRING			120	12
LLAUPSTREAM				17

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Llanddulas Surface Water Report - May to July 2017 inclusive



From : 05/05/2017

To : 27/07/2017

27/07/2017

Sample Point	Amm-N (N:mg/l)	Chloride (mg/l)	Cond (uS / cm)	Cond(Fld) (uS / cm)	pH(Fld)
LLASPRING	<0.015	39	740	740	7.37

Sample Point	Spring Flow (l/min)	WtrTemp (Deg C)
LLASPRING	240	11.2

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