Norwich Western Link

Environmental Statement Chapter 13: Geology and Soils

Appendix 13.2: Generic Quantitative Risk Assessment

Sub Appendix G: Ground Gas Monitoring Results

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Contents

1 Introduction

1.1.1 This document presents the ground gas monitoring results for the 35 borehole wells installed as part of the Generic Quantitative Risk Assessment. The borehole wells were monitored on up to twelve occasions between 24 September 2019 and 4 August 2021. They were monitored for five attributes which include:

- Atmospheric Pressure;
- Carbon Dioxide concentration;
- Flow;
- Methane Concentration and;
- Oxygen Concentration.

1.1.2 The data collected for each of these attributes across the study period is included in the tables below.

1.1.3 We have included a summary of key information shown in this document in an accessible format in section 1.1.1. However, some users may not be able to access all technical details that are included in the rest of this document. If you require this document in a more accessible format, please contact norwichwesternlink@norfolk.gov.uk

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(Atmospheric Pressure (mbar)

Location	27/09/2019	02/10/2019	09/10/2019	22/10/2019	14/11/2019	27/11/2019	09/12/2019	13/01/2020	30/01/2020	19/02/2020	17/06/2020	01/07/2020	15/07/2020	29/07/2020	15/10/2020	28/10/2020	11/11/2020	25/11/2020	09/12/2020	22/12/2020	06/01/2021	20/01/2021	03/02/2021	17/03/2021	14/04/2021	28/04/2021	12/05/2021	09/06/2021	23/06/2021	07/07/2021	21/07/2021	04/08/2021
001	1016	1021	994	1015	991	973	998	1003	995	1006	-	994	1006	1006	#	#	1011	1003	1000	1004	1012	980	987	1023	1031	999	1005	1021	1018	1009	1017	1005
003	1016	1023	996	1015	991	974	998	1004	995	1006	-	994	1005	1005	#	#	1011	1003	1000	1004	1012	980	987	1023	1031	999	1005	1021	1018	1009	1017	1005
005s	-	-	-	1012	989	973	996	1000	993	1005	1003	995	1006	1006	1018	993	1011	1002	999	1003	1009	978	987	1023	1031	1000	1005	1021	1018	1009	1017	1005
005d	-	-	-	1012	989	972	996	1000	993	1005	1003	995	1006	1006	1018	993	1011	1002	999	1003	1009	978	987	1023	1031	1000	1005	1021	1018	1009	1017	1005
007	-	-	-	-	-	-	1001	1001	993	1010	1006	995	1005	1005	1018	991	1011	1004	999	1003	1009	978	987	1023	1032	1000	1005	1021	1018	1009	1017	1008
010	-	1023	995	1015	993	975	1007	1003	995	1011	1006	996	1006	1006	1019	993	1011	1006	999	1003	1009	979	987	1024	1032	999	1005	1021	1019	1009	1017	1007
012	-	-	-	-	-	-	-	-	-	1012	1007	996	1006	1006	1019	994	1012	1006	999	1002	1013	979	987	1023	1032	1002	1005	1021	1018	1009	1017	1008
013s	-	-	-	-	-	-	-	-	-	-	-	995	-	-	1019	994	1013	1006	999	1003	1015	979	987	1024	1032	1002	1005	1021	1018	1009	1017	1007
013d	-	-	-	-	-	-	-	-	-	-	-	995	-	-	1019	994	1013	1006	999	1003	1015	979	987	1025	1032	1002	1005	1021	1018	1009	1017	1007
014s	-	-	-	-	-	-	-	-	-	-	-	-	-	-	$	$	$	1006	999	1002				1025	1032	1002	1006	1021	1019	1009	1017	1008
014d	-	-	-	-	-	-	-	-	-	-	-	-	-	-	$	$	$	1006	999	1002				1025	1032	1002	1006	1021	1018	1009	1017	1008
015s	-	-	-	-	-	-	-	-	-	-	-	-	-	-	$	$	$	1006	999	1002				1025	1032	1002	1006	1021	1018	1009	1017	1008
015d	-	-	-	-	-	-	-	-	-	-	-	-	-	-	$	$	$	1006	999	1002				1025	1032	1002	1006	1021	1018	1009	1017	1008
016s	-	-	-	-	-	-	-	-	-	-	-	-	-	-	$	$	$	1006	999	1002				1024	1032	1002	1006	1021	1018	1009	1017	1008
016d	-	-	-	-	-	-	-	-	-	-	-	-	-	-	$	$	$	1006	999	1002				1024	1032	1002	1006	1021	1018	1009	1017	1008
019s	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1019	#	1011	1006	1000	1003	1014	979		1025	1032	1002	1006	1021	1019	1010	1017	1007
019d	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1019	#	1011	1006	1000	1003	1014	979		1024	1032	1002	1006	1021	1019	1010	1017	1007
020s	-	-	-	-	-	-	-	-	-	-	-	-	-	-	$	$	1016	1006	1000	1003	1014	979		1025	1032	1002	1006	1021	1019	1010	1017	1007
020d	-	-	-	-	-	-	-	-	-	-	-	-	-	-	$	$	1015	1006	1000	1003	1014	979		1025	1032	1002	1006	1021	1019	1010	1017	1007
021s	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1019	993	1015	1006	999	1003	1013	979	987	1025	1032	1001	1006	1021	1019	1010	1017	1007
021d	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1019	994	1015	1006	999	1003	1013	979	987	1025	1032	1000	1006	1021	1019	1010	1017	1007
030	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1019	994	1013	1006	999	1003	1013	979	987	1025	1032	1001	1006	1021	1019	1010	1017	1007
031	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1019	994	1013	1006	999	1003	1013	979	987	1023	1032	1001	1006	1021	1019	1010	1017	1007
101	1016	1021	994	1015	991	973	999	1003	994	1008	-	994	1006	1006	#	#	1011	1004	1000	1004	1012	979	#	1023	1032	999	1005	1021	1018	1009	1017	1005
102	1016	1021	994	1015	991	973	998	1002	994	1007	-	994	1006	1006	#	#	1011	1004	1000	1004	1012	979	#	1021	1032	999	1005	1021	1018	1009	1017	1005
103	1016	1023	996	1015	991	973	998	1004	995	1007	-	994	1006	1006	#	#	1011	1004	1000	1004	1012	979	#	1022	1032	999	1005	1021	1019	1009	1017	1005
105	-	-	-	1015	990	972	1001	1001	993	1009	1005	995	1004	1004	1017	994	1011	1004	1000	1003	1009	978	985	1022	1032	1000	1005	1021	1019	1010	1017	1006
106	-	-	-	1014	990	972	1001	1001	993	1009	1005	995	1004	1004	1017	994	1011	1004	1000	1003	1009	978	985	1022	1032	1000	1005	1021	1018	1010	1017	1006
107	-	1023	995	1015	991	973	1003	1001	994	1008	1006	995	1004	1004	1017	993	1011	1006	999	1003	1009	978	985	1022	1032	999	1005	1021	1019	1010	1017	1008
108	-	1023	994	1015	991	973	1003	1003	994	1011	1006	995	1005	1005	1017	993	1011	1006	999	1003	1009	979	#	1022	1032	1002	1005	1021	1019	1010	1017	1008
109	-	1023	996	1013	991	974	1003	1000	993	1010	1006	996	1005	1005	1018	992	1011	1006	999	1003	1009	978	#	1022	1032	1002	1005	1021	1019	1010	1017	1008
110	-	-	-	-	-	-	-	-	-	1012	1007	996	1005	1005	1019	994	1012	1006	999	1003	1013	979	#	1022	1032	1002	1005	1021	1018	1010	1017	1008
112	-	-	-	-	-	-	1009	1003	994	1011	1006	996	1005	1005	1019	994	1012	1005	999	1003	1013	979	985	1022	1032	1002	1005	1021	1018	1010	1017	1008
113	-	-	-	-	-	-	1009	1003	994	1011	1007	998	1005	1005	1019	994	1012	1005	999	1003	1014	979	985	1022	1032	1002	1005	1021	1018	1010	1017	1008
114	1016	1021	994	1015	991	974	999	1003	994	1008	-	994	1006	1006	#	#	1012	1004	1000	1004	1012	979	985	1022	1032	999	1005	1021	1018	1010	1017	1005

-	Not present
#	No access
$	No gas fitting

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Carbon Dioxide Concentration (%)

Location	27/09/2019	02/10/2019	09/10/2019	22/10/2019	14/11/2019	27/11/2019	09/12/2019	13/01/2020	30/01/2020	19/02/2020	17/06/2020	01/07/2020	15/07/2020	29/07/2020	15/10/2020	28/10/2020	11/11/2020	25/11/2020	09/12/2020	22/12/2020	06/01/2021	20/01/2021	03/02/2021	17/03/2021	14/04/2021	28/04/2021	12/05/2021	09/06/2021	23/06/2021	07/07/2021	21/07/2021	04/08/2021
001	0.0	0.2	0.5	0.3	0.2	0.2	0.2	1.8	1.7	1.6	-	0.70	0.80	0.8	#	#	0.3	0.3	0.4	0.1	0.6	0.5	0.5	0.4	0.4	0.7	0.7	0.3	0.7	0.2	0.3	0.3
003	0.0	0.1	0.6	0.1	0.3	0.3	0.1	3.9	3.6	4.0	-	3.90	4.20	4.2	#	#	0.3	0.3	0.3	1.8	1.7	1.3	1.4	0.5	0.3	1.6	0.6	0.3	0.6	0.3	0.3	0.3
005s	-		-	0.1	0.0	1.5	0.1	0.7	0.3	0.6	0.2	0.3	0.3	0.3	0.7	0.6	0.6	0.8	0.7	0.8	0.2	1.7	1.6	0.7	0.5	0.7	0.6	0.6	0.3	0.4	0.7	0.5
005d	-		-	1.5	0.4	1.0	0.1	0.6	1.5	1.3	1.3	1.1	0.9	0.9	0.3	0.7	0.7	0.3	0.9	0.9	1.5	1.9	1.0	0.6	0.4	0.6	0.7	0.3	0.3	0.5	0.7	0.6
007	-	-	-	-	-	-	0.6	0.5	0.8	0.1	1.8	1.7	1.6	1.6	0.6	0.8	1.2	1.4	0.3	0.9	0.1	0.8	0.6	0.3	0.6	0.7	0.5	0.6	0.5	0.3	0.6	0.6
010	-	0.2	1.1	1.3	1.4	1.3	1.1	1.2	1.1	0.9	1.2	1.1	1.1	1.1	0.8	1.3	1.2	1.0	1.1	0.7	1.1	1.0	1.3	0.3	0.6	0.8	0.3	0.3	0.3	0.3	0.6	0.7
012	-	-	-	-	-	-	-	-	-	0.8	1.3	1.0	1.0	1.2	1.4	1.6	1.6	1.0	0.9	0.7	1.0	0.6	0.9	0.7	0.7	0.9	0.6	0.3	0.4	0.3	0.7	0.6
013s	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.6	6.0	3.5	4.1	17.5	5.8	0.9	0.2	0.1	1.1	0.7	0.3	0.6	0.5	0.6	0.5	0.6	0.7
013d	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.1	1.3	6.1	3.9	0.3	1.0	2.0	2.1	1.9	0.5	0.6	0.7	0.7	0.3	0.5	0.4	0.5	0.6
014s	-	-	-	-	-	-	-	-	-	-	-	-	-	-	$	$	$	0.2	0.1	0.5					0.8	0.4	0.9	0.3	0.3	0.6	0.3	0.3
014d	-	-	-	-	-	-	-	-	-	-	-	-	-	-	$	$	$	0.1	0.1	0.7					0.8	1.6	0.6	0.5	0.3	0.4	0.2	0.4
015s	-	-	-	-	-	-	-	-	-	-	-	-	-	-	$	$	$	0.1	0.2	0.5				0.3	0.3	0.2	0.4	0.3	0.6	0.5	0.3	0.4
015d	-	-	-	-	-	-	-	-	-	-	-	-	-	-	$	$	$	0.2	0.1	0.6				0.1	0.2	0.5	0.3	0.3	0.5	0.6	0.5	0.5
016s	-	-	-	-	-	-	-	-	-	-	-	-	-	-	$	$	$	0.3	0.4	0.9				0.6	0.7	0.5	0.4	0.5	0.6	0.5	0.3	0.4
016d	-	-	-	-	-	-	-	-	-	-	-	-	-	-	$	$	$	0.3	0.3	0.9				0.5	0.6	0.6	0.6	0.6	0.4	0.5	0.4	0.3
019s	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.0	#	0.3	0.8	1.4	0.9	0.4	0.3		0.5	0.6	0.6	0.7	0.3	0.3	0.3	0.4	0.4
019d	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.4	#	0.4	0.7	0.5	0.7	0.4	0.2		0.6	0.6	0.6	0.9	0.2	0.4	0.4	0.5	0.5
020s	-	-	-	-	-	-	-	-	-	-	-	-	-	-	$	$	0.9	0.6	1.0	0.9	0.6	1.0		0.3	0.6	0.6	0.8	0.3	0.3	0.5	0.7	0.6
020d	-	-	-	-	-	-	-	-	-	-	-	-	-	-	$	$	0.7	0.4	0.8	0.7	0.6	0.4		0.2	0.5	0.5	0.2	0.4	0.4	0.6	0.8	0.6
021s	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.8	1.6	2.3	1.8	1.9	2.2	1.6	1.3	1.3	0.2	0.8	0.5	0.3	0.4	0.3	0.6	1.1	0.7
021d	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.3	2.1	2.2	2.3	2.1	2.4	1.5	1.4	1.4	0.3	0.7	0.3	0.3	0.3	0.5	0.7	1.8	0.6
030	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.9	0.9	1.1	1.3	0.9	0.7	0.7	0.7	0.7	0.6	0.5	0.3	0.3	0.6	0.6	0.3	0.7	0.7
031	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.1	1.2	1.1	0.8	0.7	0.8	0.8	0.8	0.8	0.7	0.6	0.6	0.4	0.7	0.7	0.6	0.9	0.8
101	0.7	0.6	0.6	0.4	1.1	1.3	0.6	0.7	0.6	0.3	-	4.30	4.10	4.1	#	#	1.7	0.7	0.7	1.3	0.9	1.1	#	0.3	0.3	0.3	0.6	0.3	0.9	0.3	0.6	0.4
102	0.2	1.7	3.5	3.3	3.4	2.6	3.6	4.1	0.1	0.1	-	3.00	2.70	3.7	#	#	2.1	1.9	1.3	2.0	1.6	1.5	#	0.3	0.3	0.4	0.5	0.3	0.8	0.2	0.5	1.6
103	0.8	0.6	1.6	0.8	1.1	1.1	1.5	1.5	1.3	0.9	-	0.90	0.80	0.8	#	#	1.5	1.6	1.6	0.8	0.9	0.9	#	0.4	0.9	0.6	0.4	0.5	0.7	0.3	0.7	0.7
105	-	-	-	0.1	0.4	0.9	0.2	0.8	0.9	0.8	0.7	0.9	0.9	0.9	0.8	0.8	0.6	0.6	0.9	0.6	0.6	1.1	1.0	0.6	0.8	0.6	0.5	0.5	0.6	0.6	0.6	0.6
106	-	-	-	0.1	0.0	1.4	0.1	1.6	1.6	1.3	1.3	0.3	0.7	0.7	0.6	0.8	0.5	0.7	0.8	0.3	0.7	1.4	1.2	0.8	0.7	0.7	0.6	0.6	0.6	0.6	0.5	0.6
107	-	0.5	1.6	2.0	1.7	0.9	0.8	1.0	1.2	1.1	1.3	0.3	0.4	0.4	0.5	0.8	0.4	1.1	0.7	0.7	1.1	1.3	1.0	1.1	0.6	0.6	0.3	0.3	0.5	0.6	0.6	0.5
108	-	0.6	0.7	0.1	0.6	0.7	1.7	1.7	1.8	1.6	1.1	0.9	0.8	0.8	0.6	0.7	1.5	1.5	1.1	0.6	1.1	0.9	#	0.3	0.5	0.3	0.6	0.1	0.3	0.5	0.7	0.4
109	-	0.3	1.7	1.4	0.7	1.9	0.7	1.8	1.8	1.3	1.4	2.0	1.7	1.7	0.9	2.2	1.4	1.3	1.9	0.8	1.4	0.7	#	0.2	0.6	0.4	0.6	0.3	0.3	0.4	0.7	0.6
110	-	-	-	-	-	-	-	-	-	0.3	0.9	0.9	0.9	0.9	0.8	1.1	0.9	1.0	1.2	0.7	0.9	0.9	#	0.3	7.0	0.5	0.5	0.5	0.3	0.3	0.8	0.7
112	-	-	-	-	-	-	0.6	0.9	1.0	0.9	0.4	0.4	0.4	0.4	0.3	0.4	1.0	0.9	0.7	0.6	1.0	0.9	0.9	0.3	0.3	0.6	0.5	0.3	0.4	0.3	0.8	0.6
113	-	-	-	-	-	-	1.6	0.9	0.8	0.9	1.5	1.3	1.1	1.1	0.3	0.5	0.9	1.1	0.9	0.6	0.9	1.0	1.0	0.2	0.6	0.5	0.5	0.4	0.3	0.3	0.7	0.6
114	0.1	0.6	1.3	1.1	0.1	0.1	0.2	1.0	0.9	0.8	-	0.80	0.80	0.8	#	#	1.2	0.6	0.7	0.1	0.6	0.9	0.8	0.3	0.7	0.3	0.4	0.5	0.3	0.3	0.8	0.6

- Not present
No access
$ No gas fitting

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Flow (l/hr)

Location	27/09/2019	02/10/2019	09/10/2019	22/10/2019	14/11/2019	27/11/2019	09/12/2019	13/01/2020	30/01/2020	19/02/2020	17/06/2020	01/07/2020	15/07/2020	29/07/2020	15/10/2020	28/10/2020	11/11/2020	25/11/2020	09/12/2020	22/12/2020	06/01/2021	20/01/2021	03/02/2021	17/03/2021	14/04/2021	28/04/2021	12/05/2021	09/06/2021	23/06/2021	07/07/2021	21/07/2021	04/08/2021
001	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	#	#	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
003	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	#	#	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
005s	-	-	-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
005d	-	-	-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
007	-	-	-	-	-	-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
010	-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
012	-	-	-	-	-	-	-	-	-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
013s	-	-	-	-	-	-	-	-	-	-	-	-		-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
013d	-	-	-	-	-	-	-	-	-	-	-	-		-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
014s	-	-	-	-	-	-	-	-	-	-	-	-		-	$	$	$	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
014d	-	-	-	-	-	-	-	-	-	-	-	-		-	$	$	$	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
015s	-	-	-	-	-	-	-	-	-	-	-	-		-	$	$	$	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
015d	-	-	-	-	-	-	-	-	-	-	-	-		-	$	$	$	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
016s	-	-	-	-	-	-	-	-	-	-	-	-		-	$	$	$	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
016d	-	-	-	-	-	-	-	-	-	-	-	-		-	$	$	$	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
019s	-	-	-	-	-	-	-	-	-	-	-	-		-	0.0	#	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
019d	-	-	-	-	-	-	-	-	-	-	-	-		-	0.0	#	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
020s	-	-	-	-	-	-	-	-	-	-	-	-		-	$	$	$	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
020d	-	-	-	-	-	-	-	-	-	-	-	-		-	$	$	$	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
021s	-	-	-	-	-	-	-	-	-	-	-	-		-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
021d	-	-	-	-	-	-	-	-	-	-	-	-		-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
030	-	-	-	-	-	-	-	-	-	-	-	-		-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
031	-	-	-	-	-	-	-	-	-	-	-	-		-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
101	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	#	#	0.0	0.0	0.0	0.0	0.0	0.0	#	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
102	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	#	#	0.0	0.0	0.0	0.0	0.0	0.0	#	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
103	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	#	#	0.0	0.0	0.0	0.0	0.0	0.0	#	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
105	-	-	-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
106	-	-	-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
107	-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
108	-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	#	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
109	-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	#	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
110	-	-	-	-	-	-	-	-	-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	#	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
112	-	-	-	-	-	-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
113	-	-	-	-	-	-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
114	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	#	#	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

- Not present
No access
$ No gas fitting

100046 Norwich Western Link

Methane Concentration (%)

Location	27/09/2019	02/10/2019	09/10/2019	22/10/2019	14/11/2019	27/11/2019	09/12/2019	13/01/2020	30/01/2020	19/02/2020	17/06/2020	01/07/2020	15/07/2020	29/07/2020	15/10/2020	28/10/2020	11/11/2020	25/11/2020	09/12/2020	22/12/2020	06/01/2021	20/01/2021	03/02/2021	17/03/2021	14/04/2021	28/04/2021	12/05/2021	09/06/2021	23/06/2021	07/07/2021	21/07/2021	04/08/2021
001	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-	0.00	0.00	0.0	#	#	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
003	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-	0.00	0.00	0.0	#	#	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
005s	-	-	-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
005d	-	-	-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
007	-	-	-	-	-	-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
010	-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
012	-	-	-	-	-	-	-	-	-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
013s	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.6	77.0	44.0	6.0	2.6	2.6	0.0	1.8	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
013d	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	0.0	66.0	3.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
014s	-	-	-	-	-	-	-	-	-	-	-	-	-	-	$	$	$	0.0	0.0	0.0				0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0
014d	-	-	-	-	-	-	-	-	-	-	-	-	-	-	$	$	$	0.0	0.0	0.0				0.0	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0
015s	-	-	-	-	-	-	-	-	-	-	-	-	-	-	$	$	$	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
015d	-	-	-	-	-	-	-	-	-	-	-	-	-	-	$	$	$	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
016s	-	-	-	-	-	-	-	-	-	-	-	-	-	-	$	$	$	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
016d	-	-	-	-	-	-	-	-	-	-	-	-	-	-	$	$	$	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
019s	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
019d	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
020s	-	-	-	-	-	-	-	-	-	-	-	-	-	-	$	$	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
020d	-	-	-	-	-	-	-	-	-	-	-	-	-	-	$	$	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
021s	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
021d	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
030	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
031	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
101	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-	0.00	0.00	0.0	#	#	0.0	0.0	0.0	0.0	0.0	0.0	#	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
102	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-	0.00	0.00	0.0	#	#	0.0	0.0	0.0	0.0	0.0	0.0	#	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
103	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-	0.00	0.00	0.0	#	#	0.0	0.0	0.0	0.0	0.0	0.0	#	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
105	-	-	-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
106	-	-	-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
107	-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
108	-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	#	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
109	-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	#	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
110	-	-	-	-	-	-	-	-	-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	#	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
112	-	-	-	-	-	-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
113	-	-	-	-	-	-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
114	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-	0.00	0.00	0.0	#	#	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

- Not present
No access
$ No gas fitting

100046 Norwich Western Link

Oxygen concentration (%)

Location	27/09/2019	02/10/2019	09/10/2019	22/10/2019	14/11/2019	27/11/2019	09/12/2019	13/01/2020	30/01/2020	19/02/2020	17/06/2020	01/07/2020	15/07/2020	29/07/2020	15/10/2020	28/10/2020	11/11/2020	25/11/2020	09/12/2021	22/12/2020	06/01/2021	20/01/2021	03/02/2021	17/03/2021	14/04/2021	28/04/2021	12/05/2021	09/06/2021	23/06/2021	07/07/2021	21/07/2021	04/08/2021
001	20.2	20.3	19.3	20.3	20.4	20.3	20.3	18.6	19.3	19.3	-	19.30	19.30	19.3	#	#	18.3	19.3	19.1	18.6	16.9	17.9	17.2	17.9	19.1	18.3	18.3	17.9	18.6	19.8	18.3	17.9
003	20.6	20.7	20.4	20.5	20.6	20.3	20.5	15.2	16.3	17.3	-	17.90	17.30	17.3	#	#	18.4	19.3	19.1	15.3	17.5	18.6	17.9	18.3	18.6	17.9	18.3	18.3	18.7	18.6	18.3	17.7
005s	-	-	-	19.9	21.0	19.9	20.3	19.9	19.0	18.6	19.6	19.6	19.9	19.9	19.1	19.2	18.1	19.0	18.9	19.3	18.3	17.8	18.1	17.9	18.7	17.9	18.6	18.6	19.1	18.7	18.1	17.9
005d	-	-	-	20.6	21.1	20.1	20.5	20.0	19.8	19.8	19.7	19.3	20.1	20.1	19.0	19.2	18.5	18.3	18.6	18.3	18.6	18.7	18.6	18.3	.18.7	18.0	18.3	18.6	17.9	19.1	17.9	18.0
007	-	-	-	-	-	-	20.1	20.2	19.6	20.4	17.2	18.6	19.1	19.1	18.6	17.9	18.1	17.8	19.9	18.6	18.2	18.4	18.4	17.9	18.9	18.1	17.9	17.9	18.7	18.7	17.9	17.9
010	-	20.3	17.7	20.0	18.7	19.3	19.5	19.1	19.3	18.9	1901.0	19.2	19.3	19.3	19.1	17.9	18.3	18.8	18.9	17.2	18.2	18.3	17.7	18.6	19.1	18.3	18.3	18.6	18.6	18.7	17.9	18.0
012	-	-	-	-	-	-	-	-	-	19.9	19.3	19.3	18.9	18.9	18.8	17.9	19.1	18.7	18.5	18.5	17.5	18.8	17.7	18.3	18.6	17.9	18.6	18.6	17.9	19.3	18.1	18.1
013s	-	-	-	-	-	-	-	-	-	-	-	-	-	-	15.2	11.5	14.0	14.8	17.5	15.9	18.0	18.5	18.1	18.7	17.9	17.9	18.3	18.6	18.10	18.6	17.9	17.9
013d	-	-	-	-	-	-	-	-	-	-	-	-	-	-	14.5	16.8	16.0	15.0	18.4	18.0	18.3	17.8	18.0	18.6	18.9	18.3	18.3	18.3	18.30	18.6	17.6	18.0
014s	-	-	-	-	-	-	-	-	-	-	-	-	-	-	$	$	$	19.2	19.6	19.1					16.9	16.9	17.1	18.3	18.30	19.1	18.3	17.9
014d	-	-	-	-	-	-	-	-	-	-	-	-	-	-	$	$	$	19.0	19.6	18.6					16.9	17.4	18.3	18.3	18.30	18.7	18.3	17.9
015s	-	-	-	-	-	-	-	-	-	-	-	-	-	-	$	$	$	19.3	19.1	18.6				18.6	17.5	18.2	18.6	18.5	18.30	18.7	17.9	18.0
015d	-	-	-	-	-	-	-	-	-	-	-	-	-	-	$	$	$	19.1	19.3	18.0				18.3	17.3	18.0	18.3	18.7	18.30	19.1	17.9	17.7
016s	-	-	-	-	-	-	-	-	-	-	-	-	-	-	$	$	$	19.2	19.1	17.7				18.7	18.7	18.6	18.5	18.6	17.90	18.7	17.9	18.0
016d	-	-	-	-	-	-	-	-	-	-	-	-	-	-	$	$	$	19.3	18.9	18.2				18.6	18.6	18.1	18.3	17.9	18.30	18.3	17.9	17.6
019s	-	-	-	-	-	-	-	-	-	-	-	-	-	-	18.5	#	19.1	18.4	19.1	18.3	18.5	18.8		18.6	18.7	18.3	17.9	17.9	18.30	18.7	17.8	18.1
019d	-	-	-	-	-	-	-	-	-	-	-	-	-	-	18.1	#	18.6	18.7	18.7	18.0	18.4	18.7		18.7	18.6	18.3	17.9	18.6	18.60	19.1	17.9	17.7
020s	-	-	-	-	-	-	-	-	-	-	-	-	-	-	$	$	17.9	19.5	18.5	18.3	18.4	18.5		18.5	18.7	18.3	18.3	18.6	18.60	19.3	17.8	17.7
020d	-	-	-	-	-	-	-	-	-	-	-	-	-	-	$	$	18.1	19.3	18.7	17.6	18.0	18.7		18.3	18.7	18.6	17.9	18.6	17.90	18.6	17.9	17.9
021s	-	-	-	-	-	-	-	-	-	-	-	-	-	-	16.8	16.9	16.8	16.6	19.1	17.3	17.3	17.9	17.9	19.1	18.7	18.6	18.3	19.1	18.30	18.7	17.0	17.6
021d	-	-	-	-	-	-	-	-	-	-	-	-	-	-	17.5	17.2	17.3	17.6	18.7	17.4	18.1	18.1	18.1	18.3	18.6	18.6	18.6	18.6	18.60	18.7	17.4	17.6
030	-	-	-	-	-	-	-	-	-	-	-	-	-	-	19.9	18.6	18.1	18.3	19.0	18.1	18.6	18.6	18.4	20.1	19.0	18.3	18.6	18.7	18.60	18.7	18.7	18.3
031	-	-	-	-	-	-	-	-	-	-	-	-	-	-	18.8	18.4	18.2	18.6	18.9	17.8	18.3	18.5	18.1	20.1	18.6	18.0	17.9	18.8	18.60	17.9	18.3	18.1
101	20.1	20.0	20.1	20.6	20.6	19.4	20.3	19.9	20.3	19.6	-	13.50	12.70	12.7	#	#	17.9	19.2	19.3	18.1	18.1	18.6		17.6	18.3	19.1	18.6	18.6	18.6	18.6	17.9	17.6
102	20.6	19.4	16.9	17.3	18.1	19.3	16.9	14.4	20.5	20.6	-	18.60	19.30	19.3	#	#	18.0	18.2	19.6	17.9	16.0	19.1		18.6	17.9	18.6	18.3	19.1	19.0	18.7	18.1	17.2
103	20.3	20.4	19.1	20.5	19.7	20.1	19.0	17.8	18.6	19.3	-	19.60	18.90	18.9	#	#	17.7	18.2	19.6	17.1	18.4	18.7		17.9	18.3	18.1	18.6	19.1	18.6	19.1	17.9	17.6
105	-	-	-	20.4	21.1	19.9	20.5	20.0	19.8	19.6	19.3	18.9	19.4	19.4	19.3	18.7	19.1	19.3	19.1	18.6	18.7	18.6	18.7	18.6	18.6	18.1	19.1	18.9	18.3	18.7	18.2	17.9
106	-	-	-	20.5	20.5	20.0	20.4	19.4	19.6	19.9	19.1	19.1	18.9	18.9	19.6	18.9	18.8	19.0	18.9	19.1	19.1	18.3	18.4	18.3	17.9	17.6	18.3	19.0	17.9	19.3	18.3	18.0
107	-	20.3	17.7	19.9	19.3	18.3	19.8	19.7	19.3	20.3	19.7	19.6	19.3	19.3	19.3	18.6	19.1	18.6	18.2	18.6	17.9	17.8	17.9	19.1	18.6	18.3	18.4	18.6	18.3	18.7	17.3	17.7
108	-	20.3	19.6	20.5	20.1	20.1	19.2	18.7	18.0	17.9	19.3	19.6	19.5	19.5	19.9	18.6	17.8	18.6	17.1	18.3	18.3	18.6		18.6	18.7	18.3	18.5	17.9	17.3	18.7	17.6	18.1
109	-	20.6	19.3	20.3	20.3	19.6	20.0	19.0	19.1	18.9	19.1	19.1	18.7	18.7	18.9	17.4	18.5	19.1	17.7	18.0	17.6	18.9		17.9	19.1	18.7	18.5	17.9	18.1	19.3	18.3	17.6
110	-	-	-	-	-	-	-	-	-	20.5	19.3	19.3	19.3	19.3	19.1	19.0	18.4	19.0	18.2	17.8	18.4	18.3		18.6	18.3	17.9	17.9	18.1	18.5	19.1	18.1	17.6
112	-	-	-	-	-		20.1	19.4	18.9	19.0	19.6	19.3	19.3	19.3	18.6	18.6	19.1	19.3	18.1	18.1	17.5	18.6	17.9	18.3	18.6	18.3	18.1	18.1	17.9	18.7	18.1	18.3
113	-	-	-	-	-		18.7	19.6	19.3	19.3	19.1	19.0	18.6	18.6	18.7	18.6	18.8	19.1	18.9	18.0	18.3	19.1	19.0	18.6	18.9	18.3	18.6	18.3	17.9	187.0	18.1	18.3
114	20.8	20.4	19.7	20.3	20.6	20.5	20.5	19.4	20.0	20.0	-	19.40	19.30	19.3	#	#	18.0	18.6	18.9	18.9	18.9	18.4	18.6	18.6	19.1	17.9	18.3	18.3	18.1	18.7	18.6	17.3

\- Not present
\# No access
$ No gas fitting