

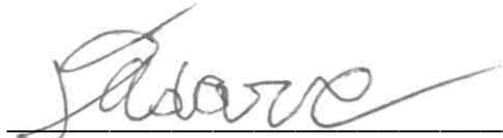
REPORT ID: 17283.01.T06.RP1

North Kent Wind 1 LP – Turbine T06 IEC 61400-11 Edition 3.0 Measurement Report

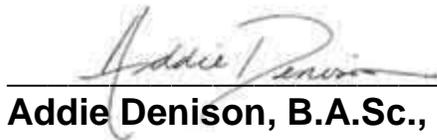
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27 May 2019 – Revision 1



Revision History

Revision Number	Description	Date
1	Issued test report	May 27, 2019

This report in its entirety, including appendices contains 95 pages.

Statement Qualifications and Limitations

This report was prepared by Aercoustics Engineering Limited in accordance with International Standard IEC 61400-11 (Edition 3.0, released 2012-11), “Wind turbine generator systems – Part 11: Acoustic noise measurement techniques”. This report is specific only to the Wind Turbine identified in this report.

Aercoustics Engineering Limited shall not be responsible for any events or circumstances that may have occurred since the date on which the Wind Turbine was tested and/or this report was prepared, or for any inaccuracies contained in information that was provided to Aercoustics Engineering Limited. Further, Aercoustics Engineering Limited agrees that this report represents test data analysed as per the above described standard for the specific Wind Turbine described in this report, but Aercoustics Engineering Limited makes no other representations with respect to this report or any part thereof.

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This Statement of Qualifications and Limitations is attached to and forms part of this report.

Table of Contents

Revision History	2
Statement Qualifications and Limitations	2
List of Appendices	4
1 Introduction	6
2 Wind Turbine Information	6
2.1 Wind turbine equipment specific information.....	6
2.2 Wind Turbine Location.....	7
3 Measurement Details	8
3.1 Measurement Equipment.....	8
3.1.1 Acoustic Measurement Equipment.....	8
3.1.2 Non-Acoustic Measurement Equipment	8
3.2 Measurement Setup	8
3.2.1 Microphone Placement.....	8
3.2.2 Double Windscreen Setup.....	9
3.3 Measurement Schedule	9
3.4 Meteorological Conditions.....	9
3.5 Turbine operational information	10
4 Measurement Results	10
4.1 Deviations from IEC-61400-11 Edition 3.0.....	10
4.2 Special Notes & Considerations	10
4.3 Analysis Details	10
4.3.1 Double Windscreen Adjustment	10
4.3.2 Wind Speed Correction	10
4.4 Type B uncertainties	11
4.5 Sound Pressure Level Measurements	11
4.6 Sound Power Level of Turbine.....	12
4.7 Tonality Analysis.....	13
5 Closure	13
6 References	13

List of Appendices

Appendix A Site Details	
Figure A.01	Site Plan
Figure A.02	Site Photos
Appendix B Turbine Information	
Figure B.01	Power Curve
Figure B.02	Rotor RPM vs. Wind Speed
Table B.01	Allowed range of power curve and required wind speeds
Appendix C Apparent Sound Power Level	
Figure C.01	Plot of overall measurement data pairs at Position 1 (Turbine ON & Background)
Figure C.02	Plot of measured total noise vs. electrical power output
Figure C.03	Plot of power curve relative to nacelle anemometer and 10 m anemometer
Figure C.04	Plot of rotor RPM vs. electrical power output
Figure C.05	Plot of sound pressure spectrum in 1/3 octave at 8 m/s
Figure C.06	Plot of sound pressure spectrum in 1/3 octave at 8.5 m/s
Figure C.07	Plot of sound pressure spectrum in 1/3 octave at 9 m/s
Figure C.08	Plot of sound pressure spectrum in 1/3 octave at 9.5 m/s
Figure C.09	Plot of sound pressure spectrum in 1/3 octave at 10 m/s
Figure C.10	Plot of sound pressure spectrum in 1/3 octave at 10.5 m/s
Figure C.11	Plot of sound pressure spectrum in 1/3 octave at 11 m/s
Figure C.12	Plot of sound pressure spectrum in 1/3 octave at 11.5 m/s
Figure C.13	Plot of sound pressure spectrum in 1/3 octave at 12 m/s
Figure C.14	Plot of sound pressure spectrum in 1/3 octave at 12.5 m/s
Figure C.15	Plot of sound pressure spectrum in 1/3 octave at 13 m/s
Table C.01	Detailed apparent sound power level data at hub height
Table C.02	Detailed apparent sound power level data at 10 m height
Table C.03	Type B measurement uncertainty summary
Table C.04	Detailed measurement uncertainty at hub height
Table C.05	Secondary Windscreen Influence

List of Appendices (cont'd)

Appendix D Tonality Assessment	
Figure D.01	Plot of narrow band spectra - Turbine ON vs. Background at 8 m/s
Figure D.02	Plot of narrow band spectra - Turbine ON vs. Background at 8.5 m/s
Figure D.03	Plot of narrow band spectra - Turbine ON vs. Background at 9 m/s
Figure D.04	Plot of narrow band spectra - Turbine ON vs. Background at 9.5 m/s
Figure D.05	Plot of narrow band spectra - Turbine ON vs. Background at 10 m/s
Figure D.06	Plot of narrow band spectra - Turbine ON vs. Background at 10.5 m/s
Figure D.07	Plot of narrow band spectra - Turbine ON vs. Background at 11 m/s
Figure D.08	Plot of narrow band spectra - Turbine ON vs. Background at 11.5 m/s
Figure D.09	Plot of narrow band spectra - Turbine ON vs. Background at 12 m/s
Figure D.10	Plot of narrow band spectra - Turbine ON vs. Background at 12.5 m/s
Figure D.11	Plot of narrow band spectra - Turbine ON vs. Background at 13 m/s
Table D.01	Tonality Assessment Table – 8 m/s
Table D.02	Tonality Assessment Table – 11.5 m/s
Table D.03	Tonality Assessment Table – 12 m/s
Table D.04	Tonality Assessment Table – 12.5 m/s
Table D.05	Tonality Assessment Table – 13 m/s

Appendix E Measurement Data	
Table E.01	Measurement Data - Turbine ON
Table E.02	Measurement Data - Background

Appendix F Supplementary Information for the Regulators	
Appendix F.01	Calibration Certificates
Appendix F.02	Summary of Measurement Results
Appendix F.03	E-Audit Checklist

1 Introduction

Aercoustics Engineering Limited (“Aercoustics”) was retained by North Kent Wind 1 LP to conduct testing per the IEC 61400-11 test standard on one of the wind turbines, designated as T06, located in the North Kent Wind 1 Project. The measurements were carried out in accordance with IEC 61400-11:2012, “*Wind turbine generator systems – Part 11: Acoustic noise measurement techniques*”. This report is specific only to turbine T06.

2 Wind Turbine Information

2.1 Wind turbine equipment specific information

Equipment information specific for turbine T06 was provided by manufacturer and is summarized in Tables 1 – 5.

Table 1 - Wind Turbine Details

Wind Turbine Details	
Manufacturer	Siemens Gamesa Renewable Energy
Model Number	SWT 3.2-113
Turbine ID	T06

Table 2 - Operating Details

Operating Details	
Vertical or Horizontal axis wind turbine	Horizontal
Upwind or downwind rotor	Upwind rotor
Hub height	99.5 m
Horizontal distance from rotor centre to tower axis	5.5 m
Diameter of rotor	113 m
Tower type (lattice or tube)	Tubular
Passive stall, active stall, or pitch controlled turbine	Pitch controlled turbine
Constant or variable speed	Variable speed
Power curve	Rev 0
Rotational speed at each integer standardised wind speed	Max speed, 14.4 rpm
Rated power output	3200 kW
Control software version	133.0.0.6

Table 3 - Rotor Details

Rotor Details	
Rotor control devices	Pitch control
Presence of vortex generators, stall strips, serrated trailing edges	Vortex generators and Dinotails
Blade type	B55
Serial number	Blade A: 550360801 Blade B: 550272101 Blade C: 550361401
Number of blades	3

Table 4 - Gearbox Details

Gearbox Details	
Manufacturer	N/A Direct drive
Model number	N/A Direct drive
Serial number	N/A Direct drive

Table 5 - Generator Details

Generator Details	
Manufacturer	Siemens
Model number	DD22_02
Serial number	5100246479

2.2 Wind Turbine Location

Turbine T06 is located in the municipality of Chatham-Kent near the town of Chatham-Kent, approximately 540 m West of Prince Albert Road, and 800 m South of Countryview Line. The area surrounding T06 is flat and consists primarily of farmland.

A general layout of the area in which the turbine is located is provided in the site plan (Figure A.01).

3 Measurement Details

3.1 Measurement Equipment

3.1.1 Acoustic Measurement Equipment

A summary of acoustic equipment utilized by Aercoustics for the measurement of turbine T06 is summarized in Table 6.

Table 6 - Acoustic Measurement Equipment

Equipment	Manufacturer Name & Model	Serial Number
Acoustic Data acquisition system	SIEMENS SCR202	22143211
Microphone	B&K 4189	2625416
Pre-amplifier	B&K 2671	2369794
Acoustic calibrator	B&K 4231	2513183

A field calibration of the measurement chain was performed at the beginning and end of each measurement day.

3.1.2 Non-Acoustic Measurement Equipment

Non-acoustic measurement equipment includes an anemometer installed 10 meters above ground level (“10-m AGL”) as well any sensing equipment utilized by the wind turbine to measure and record operational parameters. The 10-m AGL anemometer is provided by Aercoustics while the turbine sensing equipment is a part of the turbine installation.

Details regarding the non-acoustic measurement equipment utilized and controlled by Aercoustics is summarized in Table 7. Equipment used to measure turbine parameters, such as yaw angle and power output, are outside of Aercoustics’ control and are not reported here.

Table 7 – Meteorological Measurement Equipment

Equipment	Manufacturer Name & Model	Serial Number
Anemometer	VAISALA WXT520	K4250007
Serial to Analog Converter	NOKEVAL 7470	A165152

3.2 Measurement Setup

3.2.1 Microphone Placement

The measurement microphone was setup 156 meters from the base of the turbine in a downwind position (Position 1, per IEC 61400-11), at an elevation of 0m relative to the base of T06. The slant distance (R_1) from microphone location to rotor centre includes

the distance from rotor center to tower axis ($R_1 = 189.7$ m). The microphone was placed in the centre of a circular, acoustically reflective board.

During the measurement period, data points were used only when the microphone was within 15 degrees of the downwind direction from the turbine. The microphone position relative to downwind is monitored via the turbine yaw angle provided from the turbine SCADA system (discussed further in Section 3.5).

During the test, the land surrounding the turbine was a plowed field. No crops or vegetation were in the nearby area which would influence the results of the measurement. There were no nearby reflecting surfaces (houses, barns etc.); as such the influence from reflecting surfaces is negligible.

Photos of the measurement setup are provided in Figure A.02, Appendix A.

3.2.2 Double Windscreen Setup

A double windscreen setup was utilized for both measurement days (May 9, 2019 and May 10, 2019). Documentation of how the secondary windscreen affects the overall sound pressure level and 1/3 Octave Band spectrum in comparison to a single windscreen setup is provided in Appendix C.

The secondary windscreen used meets the performance criterion specified in Annex E (Characterization of a secondary wind screen) of IEC-61400-11:2012.

3.3 Measurement Schedule

Table 8 provides a summary of the test date and times. Data was logged in 10 second intervals for post-processing (as per the measurement standard).

Table 8 - Measurement Schedule Summary

Date	Test Type	Start Time	Finish time
May 9, 2019	Turbine ON	10:25AM	11:10AM
	Background	11:18AM	12:05PM
	Turbine ON	12:35PM	12:37PM
	Turbine ON	12:50PM	1:06PM
	Turbine ON	1:10PM	1:27PM
May 10, 2019	Turbine ON	7:22AM	7:45AM
	Background	7:48AM	8:42AM
	Turbine ON	8:48AM	9:04 AM

3.4 Meteorological Conditions

The normalised hub height wind speed during Turbine ON periods is either derived directly using the turbine power curve and measured power output (Section 8.2.1.1 of (IEC 61400-11 , 2012)) or indirectly using the measured wind speed from the nacelle anemometer and applying a correction factor (Section 8.2.1.2 of (IEC 61400-11 , 2012)). Wind speeds

during Background periods are measured using the 10-m AGL anemometer and corrected to hub-height using a correction factor (Section 8.2.2 of (IEC 61400-11 , 2012)). The downwind direction is determined using the turbine yaw angle output, also known as the nacelle position (Section 8.3 of (IEC 61400-11 , 2012)).

Other atmospheric conditions, including ambient temperature and atmospheric pressure, are measured by the 10-m AGL anemometer during the measurement periods.

Detailed meteorological data relevant to the measurement is provided in Appendix E.

3.5 Turbine operational information

Turbine operational parameters – including electrical power, nacelle position (yaw angle), rotational speed, and nacelle wind speed – are acquired from the turbine controller simultaneously with the acoustic and weather measurement data using Aercoustics' data acquisition system.

4 Measurement Results

4.1 Deviations from IEC-61400-11 Edition 3.0

No deviations.

4.2 Special Notes & Considerations

No adjacent turbines were parked during the test.

4.3 Analysis Details

The following section outlines any corrections applied to the acoustic or weather measurement data, per IEC 61400-11. Transient events, such as vehicle traffic, wildlife, or air traffic, are excluded from the measurement data set.

4.3.1 Double Windscreen Adjustment

As previously mentioned, a double wind screen was used, as such; the measurement data was adjusted on a per-data-point basis, as appropriate, to account for its influence. All 1/3 Octave Band spectrum and overall level data presented in this report is based on data that has been adjusted appropriately for the influence of the secondary wind screen.

FFT spectral data used for the tonality assessment was not adjusted. However, it should be noted that the effect of the windscreen on the tonality assessment is considered to be negligible.

4.3.2 Wind Speed Correction

Following the methodology described in Section 8.2 of (IEC 61400-11 , 2012) and summarized in Section 3.2.2 of this report, two correction factors are derived from the measurement data and used to determine the normalized hub-height wind speed in certain

conditions. The first correction factor (k_{nac}) is used to correct nacelle wind speeds measured for intervals that fall outside of the allowable power curve range. The second correction factor (k_Z) is used to correct 10m-AGL wind speeds measured during Background measurement periods up to hub-height.

The k-factors for this measurement set are provided in Table 9.

Table 9 – Calculated nacelle anemometer (k_{nac}) and 10m (k_Z) wind speed k-factor

k_{nac}	k_Z
0.95	1.34

4.4 Type B uncertainties

Type B uncertainties were obtained through interpretation of the information provided in Annex C of (IEC 61400-11, 2012). A summary of Type B uncertainties is provided in Table 10, while detailed information, including uncertainties by 1/3 octave band, is provided in Appendix C.

Table 10 - Summary of Type B uncertainties

Component	Typical (dB)	Used (dB)
Calibration	0.2	0.2
Board	0.3	0.3
Distance & direction	0.1	0.1
Air absorption	0	0
Weather conditions	0.5	0.5
Wind speed measured	0.7	0.7
Wind speed derived	0.2	0.2
Wind speed from power curve	0.2	0.2

4.5 Sound Pressure Level Measurements

Average overall sound pressure levels in each wind bin for Turbine ON and Background periods are summarized in Table 11. Average sound levels and uncertainties by 1/3 octave band are provided in Appendix C. A copy of the measurement data used for analysis is provided in Appendix E.

Table 11 - Summary of Sound Pressure Level Measurements

Wind Speed (m/s)	Turbine ON		Background		Turbine ON, Background adjusted L_{eq} , (dBA)
	L_{eq} , (dBA)	# of data pts	L_{eq} , (dBA)	# of data pts	
8	53.6	62	40.3	56	53.4
8.5	54.9	54	39.9	36	54.8
9	55.7	33	39.7	26	55.6
9.5	55.7	22	40.1	20	55.6
10	55.2	46	40.6	14	55.1
10.5	55.3	34	44.0	17	54.9
11	55.3	35	43.5	29	55.0
11.5	55.3	80	43.7	29	55.0
12	55.2	80	43.9	47	54.9
12.5	55.0	58	44.0	38	54.7
13	55.2	60	44.2	37	54.8

4.6 Sound Power Level of Turbine

The calculated apparent sound power level at hub height is summarized in Table 12. Corresponding sound power levels for 10-meter height wind speeds are provided in Table 13. Wind speeds at 10 meters are calculated using the wind shear profile described in Section 9.4 of (IEC 61400-11, 2012). Sound power levels by 1/3 octave band are provided in Appendix C.

Table 12 - $L_{WA, K}$ at each integer wind speed

Wind Speed (m/s)	Apparent L_{WA} , (dBA)	Uncertainty (dB)
8	103.9	0.7
8.5	105.3	0.8
9	106.1	0.8
9.5	106.1	0.8
10	105.6	0.8
10.5	105.5	0.8
11	105.6	0.8
11.5	105.5	0.8
12	105.5	0.8
12.5	105.2	0.8
13	105.4	0.9

Table 13 - $L_{WA, 10m, K}$ at each integer wind speed

Wind Speed (m/s)	Apparent L_{WA} , (dBA)	Uncertainty (dB)
5	101.2	0.8
6	105.2	0.7
7	105.7	0.8
8	105.5	0.8
9	105.4	0.8

4.7 Tonality Analysis

The tonality analysis for turbine T06 is summarized in Table 14, while plots of narrow band spectra at each wind speed are provided in Appendix D. All ΔL_{tn} and ΔL_a values reported represent the energy average of all data points with an identified tone that fall within the same frequency of origin (Section 9.5.8 of (IEC 61400-11 , 2012)).

The narrow band spectra provided in the plots represents an energy average of all data points in the given wind speed bin for both Turbine ON and Background.

Table 14 - Tonality Assessment Summary

Wind Speed (m/s)	Frequency (Hz)	Tonality, ΔL_{tn} (dB)	Tonal audibility, ΔL_a (dB)	FFT's with tones	Total # of FFT's	Presence (%)
8	71	-3.0	-1.0	55	62	89%
11.5	78	-4.4	-2.4	68	80	85%
12	78	-4.0	-2.0	73	80	91%
12.5	78	-4.1	-2.1	53	58	91%
13	78	-3.6	-1.6	52	60	87%

5 Closure

Measurements and analyses per IEC 61400-11:2012 (Edition 3.0) were performed on turbine T06 of the North Kent Wind 1 Project, located in the municipality of Chatham-Kent, Ontario. The test turbine was found to have a maximum apparent sound power level of 106.1 dBA and a maximum tonal audibility of -1 dB.

Supplementary information to address specific local regulatory requirements are attached separately in Appendix F.

Should you have any questions or comments please contact the authors of this report.

6 References

- [1] IEC 61400-11 . (2012). Wind Turbines - Part 11: Acoustic noise measurement techniques. *IEC 61400-11*. International Electrotechnical Commission.

Appendix A Site Details



	170283.01.T06.RP1	Project Name North Kent Wind 1 LP - IEC 61400-11 Edition 3.0 - Turbine T06	Figure Title Site Plan	Figure A.01
	Scale: NTS Drawn by: DEA Reviewed by: MAD Date: May 2019 Revision: 1			



17283.01.T06.RP1

Project Name

North Kent Wind Power Project - IEC 61400-11 Edition 3.0 - Turbine T06



Scale: NTS
 Drawn by: DEA
 Reviewed by: MAD
 Date: May 2019
 Revision: 1

Figure Title

Site Photo

Figure A.02

Appendix B Turbine Information

Table B.01 Allowed range of power curve and required wind speeds

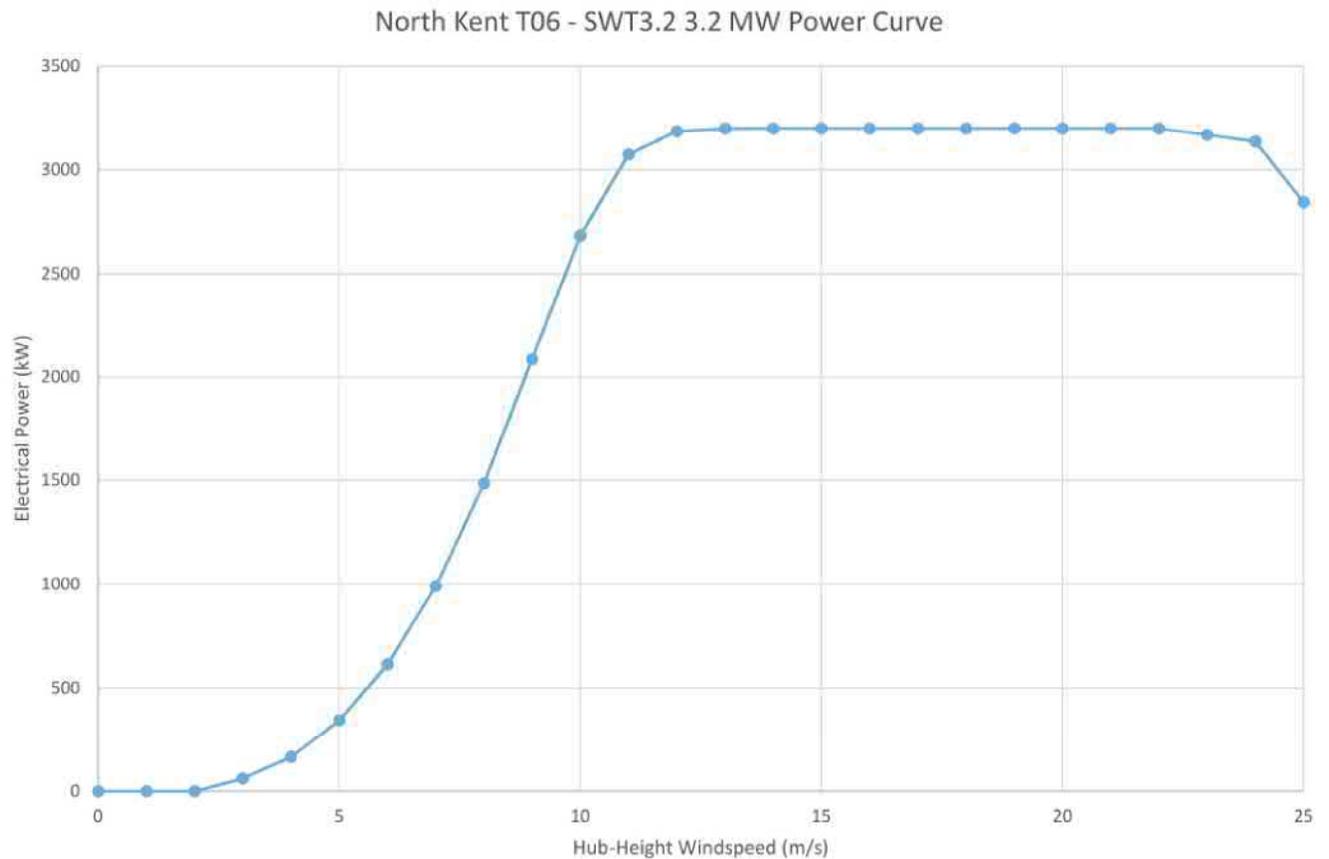
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 Report ID: 17283.01.T06.RP1

Page 1 of 1
 Created on: 5/24/2019

Power Curve & Required Wind Speeds		
Power Curve Tolerance	3%	
Acceptable range min	5	m/s
Acceptable range max	10	m/s
Min allowable range	5	m/s
Max allowable range	10	m/s
Power Output	3200	kW
85% Power	2720	kW
Corresponding wind speed	10.09	m/s
Minimum bin	8.0	m/s
Maximum bin	13.0	m/s

Power Curve (+ value = acceptable)		
Hub Wind Speed (m/s)	Power [kW]	Slope of Power Curve
0	0	-192
1	0	-192
2	0	-130
3	62	-87
4	167	-14
5	345	77
6	614	184
7	990	303
8	1485	408
9	2085	406
10	2683	199
11	3074	-80
12	3186	-179
13	3199	-191
14	3200	-192
15	3200	-192
16	3200	-192
17	3200	-192
18	3200	-192
19	3200	-192
20	3200	-192
21	3200	-192
22	3200	-224
23	3168	-224
24	3136	-484
25	2844	

Hub Wind Speed (m/s)	Electrical Power (kW)
0	0
1	0
2	0
3	62
4	167
5	345
6	614
7	990
8	1485
9	2085
10	2683
11	3074
12	3186
13	3199
14	3200
15	3200
16	3200
17	3200
18	3200
19	3200
20	3200
21	3200
22	3200
23	3168
24	3136
25	2844



17283.01.T06.RP1

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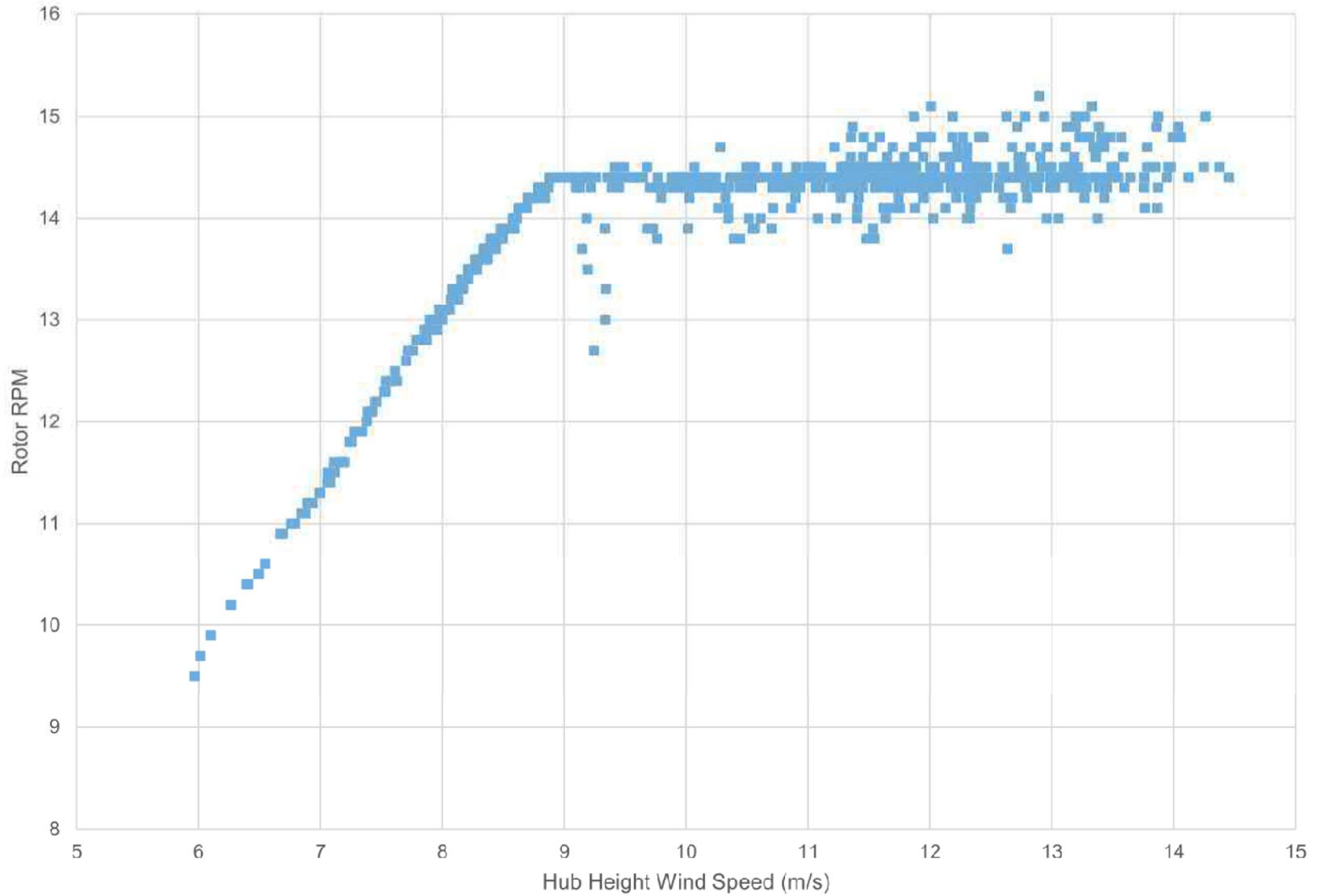
Project Name

North Kent Wind 1 LP - IEC 61400-11 Edition 3.0 - Turbine T06

Figure Title

Power Curve

Figure B.01



■ Rotor Speed vs. Hub Height Wind Speed



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Project Name

North Kent Wind Power Project - IEC 61400-11 Edition 3.0 - Turbine T06

Figure Title

Rotor RPM vs. Wind Speed

Figure B.02

Appendix C

Apparent Sound Power Level

Table C.01 Detailed apparent sound power level data at hub height

Project: North Kent Wind 1 LP - Turbine T06 - IEC 61400-11 Measurement

Report ID: 17283.01.T06.RP1

1/3 Octave values marked with brackets [] denote less than 3 dB difference between Turbine ON and Background

Overall levels marked with an asterisk * denote 3 to 6 dB difference between Turbine ON and Background, while Overall values with less than 3 dB difference between Turbine ON and Background are not reported

Wind Bin (m/s)	Parameter	1/3 Octave Band (Hz)																				Overall									
		20	25	31.5	40	50	63	80	100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000	6300	8000	10000		
8.0	Turbine ON (dBA)	7.3	12.4	16.8	20.7	25.0	32.4	34.9	34.0	37.2	39.5	40.4	42.3	41.2	41.5	42.7	42.7	43.1	43.1	43.2	42.6	41.4	40.4	37.0	34.3	31.2	27.2	15.7	9.0	53.6	
	Background (dBA)	-0.5	5.0	9.8	13.4	17.6	24.6	25.6	26.9	29.1	28.2	26.8	28.6	27.5	27.8	28.2	28.9	30.5	31.0	28.8	26.1	23.3	21.4	18.3	20.8	18.1	14.9	10.4	6.4	40.3	
	Turbine ON - background adj (dBA)	6.5	11.6	15.9	19.8	24.1	31.6	34.4	33.1	36.5	39.1	40.2	42.1	41.1	41.3	42.5	42.6	42.8	42.8	43.0	42.5	41.3	40.3	36.9	34.1	31.0	26.9	14.2	[6]	53.4	
	Signal to noise (dB)	7.7	7.4	7.0	7.3	7.4	7.8	9.3	7.1	8.1	11.2	13.6	13.7	13.8	13.7	14.4	13.8	12.6	12.0	14.4	16.5	18.1	18.9	18.7	13.5	13.1	12.3	5.3	2.6	13.3	
	Uncertainty (dB)	2.2	1.9	1.3	1.8	1.2	1.1	0.9	1.0	0.9	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.7	0.7	0.8	1.0	1.0	1.0	1.1	1.9	3.6	0.7
	PWL (dBA)	57.0	62.1	66.4	70.4	74.7	82.1	85.0	83.6	87.0	89.7	90.8	92.6	91.6	91.9	93.1	93.1	93.4	93.3	93.6	93.1	91.9	90.8	87.4	84.7	81.5	77.5	64.7	[56.6]	103.9	
8.5	Turbine ON (dBA)	8.3	13.5	17.8	21.8	25.7	30.0	35.1	35.4	37.8	40.2	41.3	43.4	42.5	42.9	44.1	44.1	44.5	44.7	44.9	44.1	42.8	41.7	38.5	35.3	30.0	24.4	16.1	9.0	54.9	
	Background (dBA)	-0.6	4.4	9.1	13.0	17.2	22.2	23.7	24.1	27.2	27.0	26.6	28.4	27.5	27.7	28.6	28.8	30.3	31.1	29.1	26.2	23.1	20.5	16.7	21.7	18.2	14.7	8.5	6.3	39.9	
	Turbine ON - background adj (dBA)	7.7	12.9	17.1	21.2	25.0	29.2	34.7	35.1	37.4	40.0	41.2	43.2	42.4	42.8	44.0	44.0	44.4	44.5	44.8	44.1	42.7	41.7	38.4	35.1	29.7	23.9	15.3	[6]	54.8	
	Signal to noise (dB)	8.9	9.1	8.6	8.8	8.5	7.8	11.4	11.3	10.6	13.2	14.7	14.9	15.0	15.2	15.5	15.3	14.2	13.6	15.8	17.9	19.7	21.2	21.7	13.6	11.8	9.6	7.6	2.7	15.0	
	Uncertainty (dB)	2.3	1.9	1.2	1.7	1.2	1.1	1.0	0.9	0.9	0.9	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.7	0.8	1.0	1.1	1.1	1.2	1.6	3.7	0.8	
	PWL (dBA)	58.3	63.5	67.7	71.8	75.6	79.8	85.3	85.6	87.9	90.6	91.7	93.8	92.9	93.3	94.6	94.5	94.9	95.1	95.4	94.6	93.3	92.2	89.0	85.7	80.2	74.4	65.8	[56.6]	105.3	
9.0	Turbine ON (dBA)	9.4	14.4	18.6	22.6	26.2	30.1	34.0	35.6	38.6	41.1	42.1	44.1	43.3	43.6	44.8	44.8	45.3	45.6	45.9	44.9	43.6	42.5	39.1	36.0	30.6	25.0	16.5	9.0	55.7	
	Background (dBA)	0.1	4.6	8.8	12.8	17.0	22.0	23.5	24.0	26.7	26.8	26.2	28.4	27.1	27.0	28.2	29.3	30.9	30.7	28.6	25.9	23.0	20.7	16.6	20.0	18.7	13.0	8.6	6.5	39.7	
	Turbine ON - background adj (dBA)	8.8	13.9	18.1	22.1	25.7	29.4	33.6	35.3	38.3	40.9	42.0	44.0	43.2	43.5	44.7	44.7	45.2	45.5	45.8	44.8	43.5	42.4	39.1	35.9	30.3	24.7	15.7	[6]	55.6	
	Signal to noise (dB)	9.3	9.8	9.8	9.8	9.3	8.1	10.5	11.6	11.9	14.3	15.8	15.7	16.2	16.7	16.6	15.6	14.4	14.9	17.3	19.0	20.6	21.8	22.5	16.1	12.0	12.0	7.9	2.5	15.9	
	Uncertainty (dB)	2.3	1.9	1.2	1.7	1.2	1.1	0.9	0.9	0.9	0.9	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.7	0.8	1.1	1.1	1.1	1.1	1.6	3.8	0.8	
	PWL (dBA)	59.4	64.5	68.7	72.6	76.3	79.9	84.2	85.8	88.8	91.5	92.5	94.5	93.7	94.1	95.3	95.2	95.7	96.0	96.4	95.4	94.1	93.0	89.7	86.5	80.9	75.2	66.3	[56.6]	106.1	
9.5	Turbine ON (dBA)	9.3	14.5	18.4	22.6	26.5	30.2	34.7	35.7	38.6	41.2	42.0	43.9	43.1	43.4	44.7	44.7	45.4	45.7	46.1	45.1	43.7	42.9	39.5	36.4	31.3	26.0	17.6	10.3	55.7	
	Background (dBA)	1.0	5.6	10.0	13.4	17.3	21.7	23.6	24.2	26.7	25.9	26.1	28.2	27.8	29.4	29.6	29.0	30.7	31.0	29.0	26.8	24.4	22.4	17.8	21.0	19.2	13.5	9.4	7.2	40.1	
	Turbine ON - background adj (dBA)	8.6	13.9	17.7	22.0	25.9	29.6	34.4	35.4	38.4	41.0	41.8	43.8	42.9	43.2	44.6	44.6	45.2	45.5	46.0	45.0	43.7	42.8	39.5	36.2	31.0	25.8	16.9	7.4	55.6	
	Signal to noise (dB)	8.3	8.9	8.4	9.2	9.2	8.5	11.2	11.6	11.9	15.3	15.8	15.7	15.2	14.0	15.1	15.7	14.7	14.7	17.1	18.3	19.3	20.5	21.7	15.3	12.1	12.5	8.2	3.1	15.6	
	Uncertainty (dB)	2.4	1.9	1.3	1.8	1.3	1.1	0.9	0.9	0.9	0.7	0.7	0.7	0.7	0.8	0.7	0.8	0.7	0.8	0.8	0.8	0.7	0.8	1.1	1.1	1.1	1.2	1.7	3.8	0.8	
	PWL (dBA)	59.2	64.5	68.3	72.6	76.5	80.1	84.9	86.0	88.9	91.6	92.4	94.4	93.5	93.8	95.1	95.1	95.8	96.1	96.6	95.6	94.2	93.4	90.0	86.8	81.6	76.3	67.4	57.9	106.1	
10.0	Turbine ON (dBA)	11.4	16.7	20.5	24.4	28.2	31.7	37.9	36.2	38.5	40.0	40.7	43.0	43.0	42.5	43.9	44.1	44.8	45.0	45.5	44.6	43.3	42.0	39.5	37.3	34.0	30.2	25.0	18.9	55.2	
	Background (dBA)	1.7	5.4	9.8	13.3	17.3	22.4	23.4	24.3	26.6	26.1	26.3	29.0	28.2	28.4	29.7	29.6	30.8	31.7	29.7	28.0	26.1	21.3	17.7	23.9	22.3	16.0	9.1	6.9	40.6	
	Turbine ON - background adj (dBA)	10.9	16.4	20.1	24.0	27.9	31.1	37.7	35.9	38.2	39.8	40.5	42.8	42.9	42.4	43.7	44.0	44.6	44.8	45.3	44.5	43.2	42.0	39.4	37.1	33.7	30.1	24.9	18.6	55.1	
	Signal to noise (dB)	9.7	11.3	10.7	11.1	11.0	9.3	14.5	11.9	11.9	13.9	14.3	14.0	14.8	14.1	14.2	14.5	14.0	13.3	15.7	16.6	17.2	20.7	21.8	13.4	11.7	14.3	15.9	12.0	14.6	
	Uncertainty (dB)	2.2	1.7	1.2	1.6	1.1	1.1	0.9	0.9	0.9	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.7	0.8	1.0	1.1	1.1	1.2	1.5	1.9	0.8	
	PWL (dBA)	61.5	66.9	70.7	74.6	78.4	81.7	88.3	86.5	88.7	90.4	91.1	93.4	93.4	92.9	94.2	94.5	95.2	95.4	95.9	95.1	93.8	92.5	90.0	87.7	84.3	80.6	75.4	69.1	105.6	
10.5	Turbine ON (dBA)	12.3	17.5	21.4	25.3	28.9	32.6	39.1	37.2	39.3	40.3	41.2	43.4	43.4	42.6	43.9	44.0	44.8	44.9	45.3	44.4	43.2	41.8	39.4	37.3	34.4	30.6	25.5	19.0	55.3	
	Background (dBA)	4.9	9.3	12.9	16.0	19.6	25.6	26.4	27.0	29.0	29.1	29.1	31.5	31.8	32.7	32.9	33.1	33.5	34.0	33.5	32.8	31.9	30.4	27.0	25.2	20.9	17.6	13.0	9.9	44.0	
	Turbine ON - background adj (dBA)	11.5	16.8	20.7	24.7	28.4	31.6	38.9	36.7	38.9	39.9	40.9	43.1	43.1	42.1	43.5	44.5	44.5	45.0	44.1	42.9	41.5	39.1	37.0	34.2	30.4	25.2	18.4	54.9		
	Signal to noise (dB)	7.5	8.3	8.5	9.2	9.3	7.0	12.7	10.1	10.3	11.2	12.1	11.9	11.6	9.9	11.0	11.3	10.9	11.8	11.6	11.3	11.4	12.4	12.1	13.6	13.0	12.5	9.0	11.3	11.3	
	Uncertainty (dB)	2.4	1.9	1.2	1.7	1.2	1.2	0.9	0.9	0.9	0.7	0.8	0.7	0.8	0.7	0.8	0.8	0.7	0.8	0.8	0.8	0.7	0.9	1.1	1.1	1.1	1.2	1.5	2.0	0.8	
	PWL (dBA)	62.0	67.4	71.2	75.3	78.9	82.2	89.5	87.3	89.4	90.5	91.4	93.7	93.6	92.6	94.1	94.2	95.0	95.1	95.5	94.7	93.4	92.0	89.7	87.6	84.8	81.0	75.8	69.0	105.5	
11.0	Turbine ON (dBA)	12.1	17.2	21.2	25.0	28.9	32.4	39.5	37.0	39.0	39.9	40.9	43.2	43.4	42.6	43.9	44.1	44.8	45.0	45.4	44.6	43.3	42.0	39.6	37.7	34.7	31.0	25.9	19.6	55.3	
	Background (dBA)	5.9	9.9	13.3	16.6	20.0	25.0	26.9	27.2	29.3	29.2	29.4	30.9	31.1	31.9	31.8	32.0	31.8	32.9	32.9	32.6	32.1	31.3	27.8	24.9	20.8	17.6	13.6	10.5	43.5	
	Turbine ON - background adj (dBA)	11.0	16.3	20.5	24.3	28.3	31.5	39.3	36.5	38.5	39.5	40.6	43.0	43.2	42.2	43.6	43.8	44.6	44.7	45.2	44.3	43.0	41.6	39.3	37.5	34.5	30.8	25.6	19.1	55.0	
	Signal to noise (dB)	6.3	7.3	7.9	8.4	8.9	7.3	12.6	9.8	9.7	10.7	11.5	12.4	12.3	10.5	12.1	12.1	13.0	12.1	12.5	11.9	11.2	10.6	11.8	12.8	13.9	13.4	12.3	9.2	11.8	
	Uncertainty (dB)	2.6	2.0	1.3	1.8	1.2	1.2	0.9	0.9	0.9	0.9	0.7	0.8	0.7	0.8	0.7	0.8	0.7	0.8	0.8	0.8	0.8	0.9	1.2	1.1	1.1	1.2	1.5	2.0	0.8	
	PWL (dBA)	61.5	66.8	71.0	74.9	78.9	82.0	89.8	87.1	89.1	90.1	91.2	93.5	93.7	92.8	94.2	94.4	95.2	95.3	95.7	94.8	93.5	92.1	89.9	88.0	85.1	81.3	76.2	69.6	105.6	
11.5	Turbine ON (dBA)	12.0	17.0	21.0	24.9	28.7																									

Table C.01 Detailed apparent sound power level data at hub height

Project: North Kent Wind 1 LP - Turbine T06 - IEC 61400-11 Measurement

Report ID: 17283.01.T06.RP1

1/3 Octave values marked with brackets [] denote less than 3 dB difference between Turbine ON and Background

Overall levels marked with an asterisk * denote 3 to 6 dB difference between Turbine ON and Background, while Overall values with less than 3 dB difference between Turbine ON and Background are not reported

Wind Bin (m/s)	Parameter	1/3 Octave Band (Hz)																				Overall								
		20	25	31.5	40	50	63	80	100	125	160	200	250	315	400	500	630	800	1000	1250	1600		2000	2500	3150	4000	5000	6300	8000	10000
12.0	Turbine ON (dBA)	11.9	16.9	20.8	24.8	28.5	32.1	39.5	36.4	38.5	39.4	40.3	42.6	42.9	42.2	43.7	44.1	44.8	45.0	45.6	44.8	43.5	42.1	39.8	38.0	35.0	31.5	26.2	20.2	55.2
	Background (dBA)	6.1	10.6	14.1	17.4	20.6	24.6	27.2	28.3	29.2	29.7	29.9	31.1	31.4	31.1	32.1	32.2	32.3	33.3	33.4	33.3	33.0	32.1	28.6	25.4	21.1	17.8	14.1	10.9	43.9
	Turbine ON - background adj (dBA)	10.5	15.7	19.8	23.9	27.8	31.3	39.2	35.7	38.0	38.9	39.9	42.3	42.6	41.9	43.4	43.8	44.5	44.7	45.3	44.5	43.1	41.6	39.5	37.7	34.8	31.3	25.9	19.6	54.9
	Signal to noise (dB)	5.7	6.3	6.8	7.4	8.0	7.5	12.3	8.1	9.3	9.7	10.3	11.5	11.5	11.2	11.6	11.9	12.5	11.7	12.2	11.5	10.6	10.0	11.2	12.6	13.9	13.7	12.1	9.3	11.3
	Uncertainty (dB)	2.7	2.2	1.4	1.9	1.3	1.1	0.9	1.0	0.9	0.9	0.8	0.8	0.7	0.8	0.7	0.8	0.7	0.8	0.8	0.8	0.8	0.9	1.1	1.1	1.0	1.1	1.4	2.0	0.8
	PWL (dBA)	61.1	66.2	70.4	74.4	78.3	81.8	89.7	86.3	88.5	89.4	90.4	92.9	93.1	92.4	93.9	94.4	95.1	95.3	95.9	95.1	93.7	92.2	90.0	88.3	85.3	81.9	76.5	70.2	105.5
12.5	Turbine ON (dBA)	12.0	17.0	20.9	24.9	28.6	32.1	39.5	36.3	38.4	39.1	40.0	42.3	42.7	42.2	43.5	43.9	44.6	44.8	45.4	44.7	43.3	41.8	39.3	37.9	35.1	30.8	25.3	18.6	55.0
	Background (dBA)	6.0	10.3	13.9	17.3	20.4	24.6	27.2	28.3	30.5	30.3	29.8	31.2	31.4	31.4	32.3	32.2	32.1	33.0	33.3	33.2	32.8	31.9	28.5	26.5	21.8	18.3	13.9	10.6	44.0
	Turbine ON - background adj (dBA)	10.7	15.9	19.9	24.1	27.9	31.3	39.3	35.6	37.7	38.5	39.6	42.0	42.3	41.8	43.2	43.6	44.4	44.5	45.1	44.4	42.9	41.3	39.0	37.5	34.9	30.6	25.0	17.8	54.7
	Signal to noise (dB)	6.0	6.6	7.0	7.6	8.2	7.5	12.3	8.1	7.9	8.9	10.2	11.1	11.3	10.8	11.2	11.7	12.5	11.8	12.2	11.5	10.5	9.8	10.9	11.4	13.3	12.5	11.4	7.9	11.1
	Uncertainty (dB)	2.6	2.1	1.3	1.8	1.2	1.1	0.9	1.0	1.0	0.9	0.7	0.8	0.7	0.8	0.7	0.8	0.7	0.8	0.8	0.8	0.8	0.9	1.1	1.1	1.0	1.1	1.4	2.0	0.8
	PWL (dBA)	61.3	66.4	70.5	74.6	78.5	81.8	89.8	86.2	88.2	89.1	90.1	92.5	92.9	92.4	93.7	94.2	94.9	95.1	95.7	94.9	93.4	91.8	89.5	88.1	85.4	81.1	75.5	68.4	105.2
13.0	Turbine ON (dBA)	12.0	16.9	21.0	25.0	28.7	32.2	39.6	36.4	38.4	39.1	40.0	42.3	42.6	42.0	43.5	44.0	44.7	44.9	45.5	44.9	43.6	42.1	39.8	40.3	35.3	31.6	26.1	19.5	55.2
	Background (dBA)	6.7	10.8	14.3	17.6	21.0	24.5	27.2	28.1	29.7	29.8	29.6	31.9	31.1	31.1	31.9	32.4	32.6	33.6	33.8	33.8	33.4	32.6	29.1	26.2	22.3	18.6	14.2	10.9	44.2
	Turbine ON - background adj (dBA)	10.5	15.7	20.0	24.1	27.9	31.4	39.3	35.7	37.8	38.6	39.6	41.9	42.3	41.7	43.2	43.7	44.4	44.6	45.2	44.5	43.1	41.5	39.4	40.1	35.1	31.4	25.8	18.9	54.8
	Signal to noise (dB)	5.3	6.2	6.8	7.4	7.7	7.7	12.3	8.3	8.7	9.3	10.4	10.4	11.5	11.0	11.6	11.6	12.1	11.3	11.7	11.1	10.1	9.5	10.8	14.1	13.0	13.0	11.9	8.7	11.0
	Uncertainty (dB)	2.9	2.2	1.4	1.9	1.3	1.2	0.9	1.0	1.0	0.9	0.8	0.8	0.8	0.8	0.8	0.8	0.7	0.8	0.9	0.8	0.8	1.0	1.2	1.1	1.2	1.1	1.5	2.0	0.9
	PWL (dBA)	61.1	66.3	70.6	74.7	78.5	82.0	89.9	86.2	88.3	89.1	90.1	92.4	92.9	92.2	93.7	94.3	94.9	95.1	95.8	95.1	93.7	92.1	90.0	90.6	85.6	81.9	76.3	69.5	105.4

Table C.02 Detailed apparent sound power level data at 10m height

Project: North Kent Wind 1 LP - Turbine T06 - IEC 61400-11 Measurement

Report ID: 17283.01.T06.RP1

1/3 Octave values marked with brackets [] denote less than 3 dB difference between Turbine ON and Background

Overall levels marked with an asterisk * denote 3 to 6 dB difference between Turbine ON and Background, while Overall values with less than 3 dB difference between Turbine ON and Background are not reported

Wind Bin (m/s)	Parameter	1/3 Octave Band (Hz)																			Overall									
		20	25	31.5	40	50	63	80	100	125	160	200	250	315	400	500	630	800	1000	1250		1600	2000	2500	3150	4000	5000	6300	8000	10000
5.0	Turbine ON (dBA)	5.9	10.6	15.3	19.0	24.3	33.5	31.3	33.1	36.1	37.6	38.4	39.9	38.6	38.7	39.8	39.9	40.3	40.1	40.2	39.7	38.6	37.6	34.2	32.4	31.2	28.4	14.4	8.8	51.0
	Background (dBA)	-0.6	5.0	9.5	13.2	17.4	23.8	25.9	27.3	28.6	27.8	26.7	28.2	26.8	26.5	27.9	28.6	30.4	31.1	29.2	26.8	23.7	19.8	16.0	21.6	20.0	14.9	8.5	6.8	40.1
	Turbine ON - background adj (dBA)	4.9	9.2	14.0	17.7	23.3	33.0	29.7	31.7	35.2	37.2	38.1	39.6	38.3	38.4	39.5	39.6	39.8	39.5	39.9	39.5	38.5	37.5	34.1	32.0	30.9	28.2	13.2	[5.8]	50.7
	Signal to noise (dB)	6.5	5.6	5.8	5.8	6.9	9.7	5.3	5.8	7.4	9.9	11.7	11.7	11.8	12.2	11.9	11.3	9.9	9.0	11.0	12.9	14.9	17.8	18.2	10.8	11.2	13.5	6.0	1.9	10.9
	Uncertainty (dB)	2.4	2.1	1.4	2.0	1.3	1.1	1.2	1.1	1.0	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.7	0.7	0.8	1.0	1.1	1.2	1.4	1.7	3.5	0.8
6.0	PWL (dBA)	55.4	59.8	64.6	68.2	73.9	83.6	80.3	82.3	85.7	87.7	88.6	90.1	88.9	89.0	90.1	90.1	90.4	90.1	90.4	90.0	89.0	88.1	84.7	82.5	81.4	78.8	63.7	[56.3]	101.2
	Turbine ON (dBA)	8.5	13.7	17.9	21.9	25.8	30.8	35.3	35.1	37.9	40.3	41.3	43.3	42.5	42.7	43.9	44.0	44.4	44.6	44.8	44.0	42.7	41.6	38.3	35.4	30.7	25.7	16.7	9.7	54.8
	Background (dBA)	-0.3	4.7	9.5	13.1	17.2	23.3	24.3	24.7	28.1	27.4	26.6	28.5	27.4	27.7	28.4	29.0	30.6	31.0	28.9	26.2	23.4	21.3	17.8	21.1	18.5	14.7	9.6	6.4	40.0
	Turbine ON - background adj (dBA)	7.9	13.1	17.3	21.3	25.2	30.0	34.9	34.7	37.4	40.0	41.1	43.1	42.3	42.6	43.8	43.8	44.2	44.4	44.7	43.9	42.6	41.6	38.3	35.2	30.4	25.3	15.8	7.0	54.7
	Signal to noise (dB)	8.9	9.0	8.5	8.8	8.6	7.5	10.9	10.5	9.8	12.8	14.7	14.8	15.1	15.0	15.5	14.9	13.8	13.6	15.9	17.8	19.3	20.3	20.5	14.3	12.1	10.9	7.1	3.3	14.8
7.0	Uncertainty (dB)	2.1	1.8	1.2	1.6	1.2	1.1	0.8	0.8	0.9	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.7	0.7	0.8	1.0	1.0	1.0	1.1	1.6	3.4	0.7
	PWL (dBA)	58.5	63.7	67.8	71.9	75.7	80.5	85.5	85.3	88.0	90.6	91.7	93.7	92.9	93.1	94.4	94.4	94.8	94.9	95.2	94.5	93.2	92.1	88.9	85.8	81.0	75.9	66.4	57.6	105.2
	Turbine ON (dBA)	11.4	16.6	20.4	24.4	28.1	31.8	37.9	36.4	38.8	40.3	41.1	43.3	43.1	42.7	44.0	44.2	44.9	45.1	45.5	44.6	43.3	42.1	39.4	37.1	33.7	29.8	24.3	18.0	55.3
	Background (dBA)	3.1	7.4	11.4	14.6	18.3	23.7	24.9	25.6	27.7	27.5	27.6	29.9	29.9	30.9	31.2	31.0	31.9	32.5	31.3	30.2	29.0	27.3	23.8	23.5	20.5	15.9	11.1	8.4	42.1
	Turbine ON - background adj (dBA)	10.7	16.0	19.9	23.9	27.7	31.0	37.7	36.1	38.4	40.1	40.9	43.1	42.9	42.4	43.8	44.0	44.7	44.9	45.3	44.5	43.2	42.0	39.3	36.9	33.5	29.6	24.1	17.5	55.1
8.0	Signal to noise (dB)	8.3	9.2	9.1	9.8	9.8	8.0	13.0	10.9	11.0	12.9	13.5	13.4	13.2	11.8	12.8	13.2	13.0	12.7	14.2	14.4	14.3	14.8	15.6	13.6	13.2	13.8	13.2	9.6	13.2
	Uncertainty (dB)	2.3	1.9	1.2	1.7	1.2	1.1	0.9	0.9	0.9	0.9	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.7	0.8	1.1	1.1	1.0	1.1	1.5	2.0	0.8
	PWL (dBA)	61.2	66.6	70.4	74.5	78.2	81.6	88.2	86.6	89.0	90.7	91.5	93.7	93.5	93.0	94.4	94.5	95.2	95.4	95.9	95.0	93.7	92.5	89.8	87.5	84.0	80.1	74.6	68.0	105.7
	Turbine ON (dBA)	12.0	17.0	20.9	24.9	28.7	32.2	39.4	36.6	38.7	39.7	40.6	42.9	43.1	42.4	43.8	44.1	44.8	45.0	45.5	44.7	43.4	42.0	39.6	37.7	34.7	31.1	25.8	19.7	55.3
	Background (dBA)	6.0	10.3	13.7	17.0	20.3	24.6	27.0	28.9	29.5	29.7	30.9	31.3	31.5	32.1	32.3	32.2	33.1	33.2	33.0	32.5	31.6	28.1	25.1	21.1	17.7	13.8	10.6	43.8	
9.0	Turbine ON - background adj (dBA)	10.7	15.9	20.0	24.1	28.0	31.4	39.1	35.8	38.1	39.2	40.2	42.6	42.8	42.0	43.5	43.8	44.6	44.7	45.2	44.4	43.0	41.6	39.3	37.5	34.6	30.9	25.5	19.1	54.9
	Signal to noise (dB)	5.9	6.7	7.2	7.8	8.4	7.6	12.4	7.7	9.0	10.1	10.9	12.0	11.8	10.9	11.7	11.8	12.6	11.9	12.3	11.7	10.8	10.4	11.5	12.6	13.6	13.4	12.0	9.1	11.4
	Uncertainty (dB)	2.5	2.0	1.2	1.7	1.2	1.1	0.8	0.9	0.9	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.7	0.9	1.1	1.1	1.0	1.1	1.4	1.8	0.8
	PWL (dBA)	61.2	66.5	70.6	74.6	78.5	81.9	89.7	86.4	88.7	89.8	90.8	93.2	93.4	92.6	94.0	94.4	95.1	95.3	95.8	94.9	93.6	92.1	89.9	88.0	85.1	81.5	76.1	69.7	105.5
	Turbine ON (dBA)	12.0	16.9	21.0	24.9	28.7	32.2	39.4	36.4	38.4	39.1	40.0	42.3	42.7	42.1	43.5	44.1	44.7	45.0	45.6	44.9	43.7	42.3	40.0	39.2	35.4	31.8	26.2	19.9	55.2
9.0	Background (dBA)	6.6	10.7	14.2	17.5	20.8	24.6	27.3	28.3	30.1	30.6	29.9	31.8	31.6	31.6	32.5	32.6	32.6	33.5	33.8	33.8	33.5	32.6	29.2	26.5	22.2	18.5	14.3	10.9	44.4
	Turbine ON - background adj (dBA)	10.5	15.7	20.0	24.1	27.9	31.4	39.1	35.7	37.7	38.4	39.6	41.9	42.3	41.7	43.2	43.8	44.5	44.6	45.3	44.6	43.3	41.8	39.6	39.0	35.2	31.6	26.0	19.4	54.9
	Signal to noise (dB)	5.4	6.2	6.8	7.4	7.8	7.6	12.1	8.1	8.3	8.5	10.1	10.5	11.1	10.5	11.1	11.5	12.2	11.4	11.8	11.2	10.2	9.6	10.8	12.7	13.2	13.2	12.0	9.0	10.9
	Uncertainty (dB)	2.7	2.1	1.3	1.8	1.2	1.1	0.8	0.9	0.9	0.9	0.7	0.8	0.7	0.8	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.9	1.1	1.1	1.0	1.1	1.4	1.9	0.8
	PWL (dBA)	61.1	66.3	70.5	74.6	78.4	81.9	89.6	86.2	88.2	89.0	90.1	92.4	92.9	92.3	93.7	94.3	95.0	95.2	95.9	95.1	93.8	92.3	90.2	89.5	85.7	82.1	76.5	69.9	105.4

Table C.03 Type B measurement uncertainty summary

Project: North Kent Wind 1 LP - Turbine T06 - IEC 61400-11 Measurement
Report ID: 17283.01.T06.RP1

Page 1 of 1
Created on: 5/24/2019

Overall Equipment Uncertainties		
	Typical values	Used values
Calibration	0.2 dB	0.2 dB
Board	0.3 dB	0.3 dB
Distance	0.1 dB	0.1 dB
Air absorption	0 dB	0 dB
Weather	0.5 dB	0.5 dB

1/3 Octave Band Uncertainties		
Frequency (Hz)	Microphone Uncertainty	Overall (including overall equipment Uncertainties)
20	0.8 dB	2 dB
25	0.8 dB	1.6 dB
31.5	0.5 dB	1.1 dB
40	0.5 dB	1.5 dB
50	0.5 dB	1.1 dB
63	0.5 dB	0.9 dB
80	0.5 dB	0.8 dB
100	0.5 dB	0.8 dB
125	0.5 dB	0.8 dB
160	0.5 dB	0.8 dB
200	0.3 dB	0.7 dB
250	0.3 dB	0.7 dB
315	0.3 dB	0.7 dB
400	0.3 dB	0.7 dB
500	0.3 dB	0.7 dB
630	0.3 dB	0.7 dB
800	0.3 dB	0.7 dB
1000	0.3 dB	0.8 dB
1250	0.3 dB	0.8 dB
1600	0.3 dB	0.8 dB
2000	0.3 dB	0.7 dB
2500	0.5 dB	0.8 dB
3150	0.5 dB	1.1 dB
4000	0.5 dB	1.1 dB
5000	0.5 dB	1 dB
6300	0.5 dB	1.1 dB
8000	0.5 dB	1.4 dB
10000	1.3 dB	1.7 dB

Table C.04 Detailed measurement uncertainty at hub height

Project: North Kent Wind 1 LP - Turbine T06 - IEC 61400-11 Measurement
 Report ID: 17283.01.T06.RP1

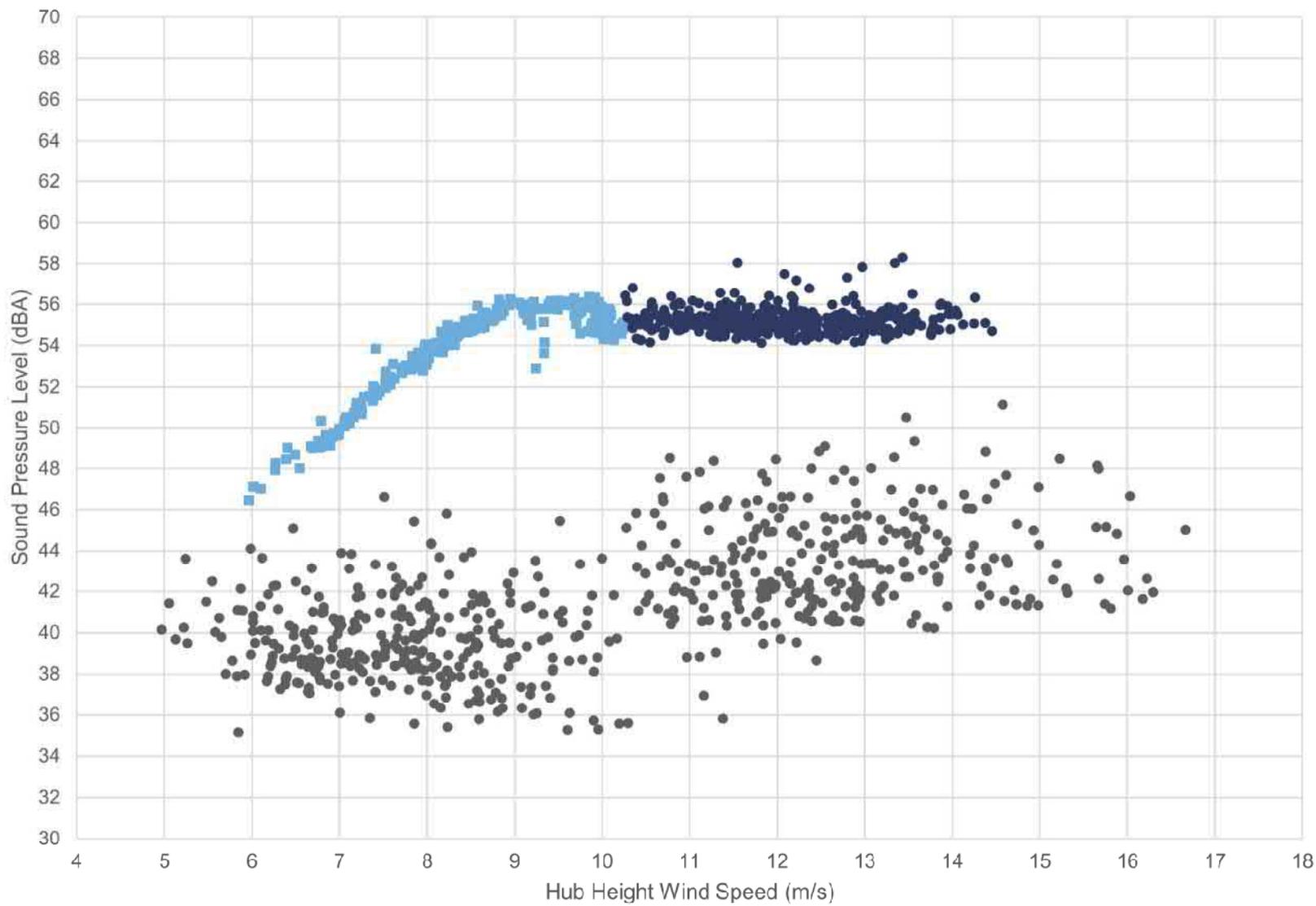
Page 1 of 2
 Created on: 5/27/2019

Wind Bin (m/s)	Parameter	Average Wind Speed (m/s)	# of data points	Parameter	1/3 Octave Band (Hz)																Overall																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
					20	25	31.5	40	50	63	80	100	125	160	200	250	315	400	500	630		800	1000	1250	1600	2000	2500	3150	4000	5000	6300	8000	10000																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
8.0	Turbine ON	8.05	62	Average (dBA)	7.3	12.5	16.9	20.8	24.9	31.9	35.2	34.1	37.2	39.6	40.6	42.4	41.4	41.7	42.9	42.9	43.3	43.3	43.4	42.8	41.6	40.5	37.1	34.4	30.8	26.6	15.7	8.9	53.8																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
				Uncertainty A (dB)	0.2	0.1	0.1	0.1	0.2	0.1	0.3	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
				Uncertainty B (dB)	2.0	1.6	1.1	1.5	1.1	0.9	0.8	0.8	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.7	0.8	1.1	1.1	1.0	1.1	1.4	1.7																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
				Combined Uncertainty (dB)	2.0	1.7	1.1	1.5	1.1	1.0	0.9	0.8	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.7	0.8	1.1	1.1	1.0	1.2	1.4	1.7																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
	Background	8.00	56	Average (dBA)	-0.5	5.0	9.8	13.4	17.6	24.6	25.6	26.9	29.1	28.2	26.8	28.6	27.5	27.8	28.2	28.9	30.5	31.0	28.8	26.1	23.3	21.4	18.3	20.8	18.1	14.9	10.4	6.4	40.3																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
8.5	Turbine ON	8.49	54	Average (dBA)	0.1	0.2	0.3	0.2	0.2	0.5	0.4	0.5	0.5	0.5	0.3	0.3	0.5	0.6	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.5	0.6	0.7	0.7	0.4	0.1	53.8	Uncertainty A (dB)	0.2	0.2	0.2	0.2	0.2	0.1	0.4	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	Uncertainty B (dB)	2.0	1.6	1.1	1.5	1.1	0.9	0.8	0.8	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.7	0.8	1.1	1.1	1.0	1.1	1.4	1.7	Combined Uncertainty (dB)	2.0	1.7	1.1	1.5	1.1	1.1	0.9	0.8	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.7	0.8	1.0	1.2	1.3	1.2	1.4	1.7	Background	8.53	36	Average (dBA)	8.3	13.5	17.7	21.8	25.7	30.0	35.1	35.4	37.8	40.2	41.3	43.4	42.5	42.9	44.1	44.1	44.5	44.7	44.9	44.1	42.8	41.7	38.5	35.3	30.0	24.3	16.1	9.0	54.9	9.0	Turbine ON	9.00	33	Average (dBA)	0.1	0.2	0.2	0.3	0.2	0.3	0.2	0.3	0.4	0.5	0.4	0.4	0.6	0.7	0.6	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.5	1.0	0.9	0.8	0.1	53.8	Uncertainty A (dB)	0.2	0.2	0.2	0.2	0.2	0.1	0.4	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	Uncertainty B (dB)	2.0	1.6	1.1	1.5	1.1	0.9	0.8	0.8	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.7	0.8	1.1	1.1	1.0	1.1	1.4	1.7	Combined Uncertainty (dB)	2.0	1.7	1.1	1.5	1.1	1.0	0.9	0.8	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.7	0.8	1.0	1.2	1.3	1.2	1.4	1.7	Background	8.98	26	Average (dBA)	0.0	4.6	8.7	12.7	16.9	22.1	23.5	24.0	26.7	26.9	26.2	28.4	27.0	26.9	28.1	29.3	31.0	30.7	28.6	25.9	22.9	20.6	16.5	19.9	18.6	12.9	8.6	6.5	39.7	9.5	Turbine ON	9.50	22	Average (dBA)	0.3	0.3	0.3	0.2	0.3	0.2	0.3	0.4	0.4	0.6	0.4	0.5	0.7	0.8	0.7	0.7	0.6	0.5	0.4	0.4	0.5	0.6	0.6	0.7	0.6	0.8	1.0	0.5	0.1	53.8	Uncertainty A (dB)	0.3	0.3	0.3	0.2	0.3	0.2	0.3	0.4	0.4	0.6	0.4	0.5	0.7	0.8	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.7	0.8	1.1	1.1	1.0	1.1	1.4	1.7	Uncertainty B (dB)	2.0	1.6	1.1	1.5	1.1	0.9	0.8	0.8	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.7	0.8	1.1	1.1	1.0	1.1	1.4	1.7	Combined Uncertainty (dB)	2.0	1.7	1.1	1.5	1.1	1.0	0.9	0.8	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.7	0.8	1.1	1.1	1.0	1.1	1.4	1.7	Background	9.47	20	Average (dBA)	0.9	5.7	10.0	13.4	17.3	21.7	23.6	24.2	26.8	25.9	26.1	28.2	27.8	29.5	29.6	29.0	30.7	30.9	29.0	26.7	24.3	22.5	17.9	20.9	18.9	13.3	9.4	7.3	40.1	10.0	Turbine ON	10.02	46	Average (dBA)	0.5	0.4	0.4	0.3	0.2	0.4	0.5	0.5	0.4	0.4	0.4	0.8	1.3	1.1	0.7	0.7	0.7	0.7	0.8	1.0	0.9	0.7	0.9	1.2	0.7	0.3	0.3	53.8	Uncertainty A (dB)	0.5	0.4	0.4	0.3	0.2	0.4	0.5	0.5	0.4	0.4	0.4	0.8	1.3	1.1	0.7	0.7	0.7	0.7	0.7	0.8	1.0	0.9	0.7	0.9	1.2	0.7	0.3	0.3	53.8	Uncertainty B (dB)	2.0	1.6	1.1	1.5	1.1	0.9	0.8	0.8	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.7	0.8	1.1	1.1	1.0	1.1	1.4	1.7	Combined Uncertainty (dB)	2.0	1.7	1.1	1.5	1.1	1.0	0.9	0.9	0.9	0.9	0.8	0.8	1.1	1.5	1.3	1.0	1.0	1.0	1.0	1.1	1.2	1.2	1.2	1.3	1.4	1.6	1.3	1.4	1.7	1.7	Background	9.96	14	Average (dBA)	11.5	16.8	20.6	24.5	28.3	31.7	38.0	36.2	38.5	39.9	40.6	43.0	43.0	42.5	43.8	44.1	44.8	45.0	45.4	44.6	43.3	42.0	39.5	37.3	34.1	30.4	25.2	19.2	55.2	10.5	Turbine ON	10.51	34	Average (dBA)	0.3	0.3	0.3	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.3	0.4	0.5	0.7	Uncertainty A (dB)	0.3	0.3	0.3	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.3	0.4	0.4	0.6	Uncertainty B (dB)	2.0	1.6	1.1	1.5	1.1	0.9	0.8	0.8	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.7	0.8	1.1	1.1	1.0	1.1	1.4	1.7	Combined Uncertainty (dB)	2.0	1.7	1.1	1.5	1.1	1.0	0.9	0.8	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.7	0.8	1.0	1.2	1.3	1.2	1.4	1.7	Background	10.54	17	Average (dBA)	5.1	9.6	13.1	16.2	19.8	25.8	26.6	27.3	29.2	29.3	29.3	31.7	32.1	33.0	33.1	33.3	33.7	34.2	33.8	33.2	32.4	31.1	27.7	25.3	20.7	17.7	13.3	10.2	44.3	11.0	Turbine ON	10.99	35	Average (dBA)	0.9	0.7	0.7	0.5	0.6	0.8	0.6	0.7	0.6	0.7	0.6	0.8	0.9	1.0	0.9	0.9	0.9	0.7	0.7	0.8	1.1	1.4	1.6	1.8	1.4	1.2	1.0	0.7	0.6	Uncertainty A (dB)	0.9	0.7	0.7	0.5	0.6	0.8	0.6	0.7	0.6	0.7	0.6	0.8	0.9	1.0	0.9	0.9	0.9	0.7	0.7	0.7	0.8	1.1	1.4	1.6	1.8	1.4	1.2	1.0	0.7	0.6	Uncertainty B (dB)	2.0	1.6	1.1	1.5	1.1	0.9	0.8	0.8	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.7	0.8	1.1	1.1	1.0	1.1	1.4	1.7	Combined Uncertainty (dB)	2.2	1.8	1.3	1.6	1.2	1.3	1.0	1.1	1.0	1.1	0.9	1.1	1.2	1.2	1.1	1.1	1.1	1.0	1.0	1.1	1.3	1.6	1.8	2.1	1.8	1.6	1.5	1.6	1.8	1.8	Background	11.00	29	Average (dBA)	12.1	17.2	21.3	25.0	28.9	32.4	39.5	37.0	39.0	39.9	40.9	43.2	43.4	42.6	43.9	44.1	44.8	45.0	45.4	44.6	43.3	42.0	39.6	37.7	34.7	31.0	25.9	19.6	55.3	11.0	Background	11.00	29	Average (dBA)	0.2	0.2	0.2	0.2	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.3	0.4	0.4	0.6	Uncertainty A (dB)	0.2	0.2	0.2	0.2	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.3	0.4	0.4	0.6	Uncertainty B (dB)	2.0	1.6	1.1	1.5	1.1	0.9	0.8	0.8	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.7	0.8	1.1	1.1	1.0	1.1	1.4	1.7	Combined Uncertainty (dB)	2.0	1.7	1.1	1.5	1.1	1.0	0.8	0.8	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.7	0.8	1.0	1.1	1.0	1.1	1.4	1.8	Background	11.00	29	Average (dBA)	5.9	9.9	13.3	16.6	20.0	25.0	26.9	27.2	29.3	29.2	29.4	30.8	31.1	31.9	31.8	32.0	31.8	32.9	32.9	32.6	32.1	31.3	27.8	24.9	20.8	17.6	13.6	10.5	43.5
				8.5	Turbine ON	8.49	54	Average (dBA)	0.1	0.2	0.3	0.2	0.2	0.5	0.4	0.5	0.5	0.5	0.3	0.3	0.5	0.6	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.5	0.6	0.7	0.7	0.4	0.1	53.8																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
								Uncertainty A (dB)	0.2	0.2	0.2	0.2	0.2	0.1	0.4	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
								Uncertainty B (dB)	2.0	1.6	1.1	1.5	1.1	0.9	0.8	0.8	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.7	0.8	1.1	1.1	1.0	1.1	1.4	1.7																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
	Combined Uncertainty (dB)	2.0	1.7					1.1	1.5	1.1	1.1	0.9	0.8	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.7	0.8	1.0	1.2	1.3	1.2	1.4	1.7																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
Background	8.53	36	Average (dBA)		8.3	13.5	17.7	21.8	25.7	30.0	35.1	35.4	37.8	40.2	41.3	43.4	42.5	42.9	44.1	44.1	44.5	44.7	44.9	44.1	42.8	41.7	38.5	35.3	30.0	24.3	16.1	9.0	54.9																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
9.0	Turbine ON	9.00	33	Average (dBA)	0.1	0.2	0.2	0.3	0.2	0.3	0.2	0.3	0.4	0.5	0.4	0.4	0.6	0.7	0.6	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.5	1.0	0.9	0.8	0.1	53.8	Uncertainty A (dB)	0.2	0.2	0.2	0.2	0.2	0.1	0.4	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	Uncertainty B (dB)	2.0	1.6	1.1	1.5	1.1	0.9	0.8	0.8	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.7	0.8	1.1	1.1	1.0	1.1	1.4	1.7	Combined Uncertainty (dB)	2.0	1.7	1.1	1.5	1.1	1.0	0.9	0.8	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.7	0.8	1.0	1.2	1.3	1.2	1.4	1.7	Background	8.98	26	Average (dBA)	0.0	4.6	8.7	12.7	16.9	22.1	23.5	24.0	26.7	26.9	26.2	28.4	27.0	26.9	28.1	29.3	31.0	30.7	28.6	25.9	22.9	20.6	16.5	19.9	18.6	12.9	8.6	6.5	39.7	9.5	Turbine ON	9.50	22	Average (dBA)	0.3	0.3	0.3	0.2	0.3	0.2	0.3	0.4	0.4	0.6	0.4	0.5	0.7	0.8	0.7	0.7	0.6	0.5	0.4	0.4	0.5	0.6	0.6	0.7	0.6	0.8	1.0	0.5	0.1	53.8	Uncertainty A (dB)	0.3	0.3	0.3	0.2	0.3	0.2	0.3	0.4	0.4	0.6	0.4	0.5	0.7	0.8	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.7	0.8	1.1	1.1	1.0	1.1	1.4	1.7	Uncertainty B (dB)	2.0	1.6	1.1	1.5	1.1	0.9	0.8	0.8	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.7	0.8	1.1	1.1	1.0	1.1	1.4	1.7	Combined Uncertainty (dB)	2.0	1.7	1.1	1.5	1.1	1.0	0.9	0.8	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.7	0.8	1.1	1.1	1.0	1.1	1.4	1.7	Background	9.47	20	Average (dBA)	0.9	5.7	10.0	13.4	17.3	21.7	23.6	24.2	26.8	25.9	26.1	28.2	27.8	29.5	29.6	29.0	30.7	30.9	29.0	26.7	24.3	22.5	17.9	20.9	18.9	13.3	9.4	7.3	40.1	10.0	Turbine ON	10.02	46	Average (dBA)	0.5	0.4	0.4	0.3	0.2	0.4	0.5	0.5	0.4	0.4	0.4	0.8	1.3	1.1	0.7	0.7	0.7	0.7	0.8	1.0	0.9	0.7	0.9	1.2	0.7	0.3	0.3	53.8	Uncertainty A (dB)	0.5	0.4	0.4	0.3	0.2	0.4	0.5	0.5	0.4	0.4	0.4	0.8	1.3	1.1	0.7	0.7	0.7	0.7	0.7	0.8	1.0	0.9	0.7	0.9	1.2	0.7	0.3	0.3	53.8	Uncertainty B (dB)	2.0	1.6	1.1	1.5	1.1	0.9	0.8	0.8	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.7	0.8	1.1	1.1	1.0	1.1	1.4	1.7	Combined Uncertainty (dB)	2.0	1.7	1.1	1.5	1.1	1.0	0.9	0.9	0.9	0.9	0.8	0.8	1.1	1.5	1.3	1.0	1.0	1.0	1.0	1.1	1.2	1.2	1.2	1.3	1.4	1.6	1.3	1.4	1.7	1.7	Background	9.96	14	Average (dBA)	11.5	16.8	20.6	24.5	28.3	31.7	38.0	36.2	38.5	39.9	40.6	43.0	43.0	42.5	43.8	44.1	44.8	45.0	45.4	44.6	43.3	42.0	39.5	37.3	34.1	30.4	25.2	19.2	55.2	10.5	Turbine ON	10.51	34	Average (dBA)	0.3	0.3	0.3	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.3	0.4	0.5	0.7	Uncertainty A (dB)	0.3	0.3	0.3	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.3	0.4	0.4	0.6	Uncertainty B (dB)	2.0	1.6	1.1	1.5	1.1	0.9	0.8	0.8	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.7	0.8	1.1	1.1	1.0	1.1	1.4	1.7	Combined Uncertainty (dB)	2.0	1.7	1.1	1.5	1.1	1.0	0.9	0.8	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.7	0.8	1.0	1.2	1.3	1.2	1.4	1.7	Background	10.54	17	Average (dBA)	5.1	9.6	13.1	16.2	19.8	25.8	26.6	27.3	29.2	29.3	29.3	31.7	32.1	33.0	33.1	33.3	33.7	34.2	33.8	33.2	32.4	31.1	27.7	25.3	20.7	17.7	13.3	10.2	44.3	11.0	Turbine ON	10.99	35	Average (dBA)	0.9	0.7	0.7	0.5	0.6	0.8	0.6	0.7	0.6	0.7	0.6	0.8	0.9	1.0	0.9	0.9	0.9	0.7	0.7	0.8	1.1	1.4	1.6	1.8	1.4	1.2	1.0	0.7	0.6	Uncertainty A (dB)	0.9	0.7	0.7	0.5	0.6	0.8	0.6	0.7	0.6	0.7	0.6	0.8	0.9	1.0	0.9	0.9	0.9	0.7	0.7	0.7	0.8	1.1	1.4	1.6	1.8	1.4	1.2	1.0	0.7	0.6	Uncertainty B (dB)	2.0	1.6	1.1	1.5	1.1	0.9	0.8	0.8	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.7	0.8	1.1	1.1	1.0	1.1	1.4	1.7	Combined Uncertainty (dB)	2.2	1.8	1.3	1.6	1.2	1.3	1.0	1.1	1.0	1.1	0.9	1.1	1.2	1.2	1.1	1.1	1.1	1.0	1.0	1.1	1.3	1.6	1.8	2.1	1.8	1.6	1.5	1.6	1.8	1.8	Background	11.00	29	Average (dBA)	12.1	17.2	21.3	25.0	28.9	32.4	39.5	37.0	39.0	39.9	40.9	43.2	43.4	42.6	43.9	44.1	44.8	45.0	45.4	44.6	43.3	42.0	39.6	37.7	34.7	31.0	25.9	19.6	55.3	11.0	Background	11.00	29	Average (dBA)	0.2	0.2	0.2	0.2	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.3	0.4	0.4	0.6	Uncertainty A (dB)	0.2	0.2	0.2	0.2	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.3	0.4	0.4	0.6	Uncertainty B (dB)	2.0	1.6	1.1	1.5	1.1	0.9	0.8	0.8	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.7	0.8	1.1	1.1	1.0	1.1	1.4	1.7	Combined Uncertainty (dB)	2.0	1.7	1.1	1.5	1.1	1.0	0.8	0.8	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.7	0.8	1.0	1.1	1.0	1.1	1.4	1.8	Background	11.00	29	Average (dBA)	5.9	9.9	13.3	16.6	20.0	25.0	26.9	27.2	29.3	29.2	29.4	30.8	31.1	31.9	31.8	32.0	31.8	32.9	32.9	32.6	32.1	31.3	27.8	24.9	20.8	17.6	13.6	10.5	43.5																																																																																																																																																																		
				9.0	Turbine ON	9.00	33	Average (dBA)	0.1	0.2	0.2	0.3	0.2	0.3	0.2	0.3	0.4	0.5	0.4	0.4	0.6	0.7	0.6	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.5	1.0	0.9	0.8	0.1	53.8																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
								Uncertainty A (dB)	0.2	0.2	0.2	0.2	0.2	0.1	0.4	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
								Uncertainty B (dB)	2.0	1.6	1.1	1.5	1.1	0.9	0.8	0.8	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.7	0.8	1.1	1.1	1.0	1.1	1.4	1.7																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
	Combined Uncertainty (dB)	2.0	1.7					1.1	1.5	1.1	1.0	0.9	0.8	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.7	0.8	1.0	1.2	1.3	1.2	1.4	1.7																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
Background	8.98	26	Average (dBA)		0.0	4.6	8.7	12.7	16.9	22.1	23.5	24.0	26.7	26.9	26.2	28.4	27.0	26.9	28.1	29.3	31.0	30.7	28.6	25.9	22.9	20.6	16.5	19.9	18.6	12.9	8.6	6.5	39.7																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
9.5	Turbine ON	9.50	22	Average (dBA)	0.3	0.3	0.3	0.2	0.3	0.2	0.3	0.4	0.4	0.6	0.4	0.5	0.7	0.8	0.7	0.7	0.6	0.5	0.4	0.4	0.5	0.6	0.6	0.7	0.6	0.8	1.0	0.5	0.1	53.8	Uncertainty A (dB)	0.3	0.3	0.3	0.2	0.3	0.2	0.3	0.4	0.4	0.6	0.4	0.5	0.7	0.8	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.7	0.8	1.1	1.1	1.0	1.1	1.4	1.7	Uncertainty B (dB)	2.0	1.6	1.1	1.5	1.1	0.9	0.8	0.8	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.7	0.8	1.1	1.1	1.0	1.1	1.4	1.7	Combined Uncertainty (dB)	2.0	1.7	1.1	1.5	1.1	1.0	0.9	0.8	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.7	0.8	1.1	1.1	1.0	1.1	1.4	1.7	Background	9.47	20	Average (dBA)	0.9	5.7	10.0	13.4	17.3	21.7	23.6	24.2	26.8	25.9	26.1	28.2	27.8	29.5	29.6	29.0	30.7	30.9	29.0	26.7	24.3	22.5	17.9	20.9	18.9	13.3	9.4	7.3	40.1	10.0	Turbine ON	10.02	46	Average (dBA)	0.5	0.4	0.4	0.3	0.2	0.4	0.5	0.5	0.4	0.4	0.4	0.8	1.3	1.1	0.7	0.7	0.7	0.7	0.8	1.0	0.9	0.7	0.9	1.2	0.7	0.3	0.3	53.8	Uncertainty A (dB)	0.5	0.4	0.4	0.3	0.2	0.4	0.5	0.5	0.4	0.4	0.4	0.8	1.3	1.1	0.7	0.7	0.7	0.7	0.7	0.8	1.0	0.9	0.7	0.9	1.2	0.7	0.3	0.3	53.8	Uncertainty B (dB)	2.0	1.6	1.1	1.5	1.1	0.9	0.8	0.8	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.7	0.8	1.1	1.1	1.0	1.1	1.4	1.7	Combined Uncertainty (dB)	2.0	1.7	1.1	1.5	1.1	1.0	0.9	0.9	0.9	0.9	0.8	0.8	1.1	1.5	1.3	1.0	1.0	1.0	1.0	1.1	1.2	1.2	1.2	1.3	1.4	1.6	1.3	1.4	1.7	1.7	Background	9.96	14	Average (dBA)	11.5	16.8	20.6	24.5	28.3	31.7	38.0	36.2	38.5	39.9	40.6	43.0	43.0	42.5	43.8	44.1	44.8	45.0	45.4	44.6	43.3	42.0	39.5	37.3	34.1	30.4	25.2	19.2	55.2	10.5	Turbine ON	10.51	34	Average (dBA)	0.3	0.3	0.3	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.3	0.4	0.5	0.7	Uncertainty A (dB)	0.3	0.3	0.3	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.3	0.4	0.4	0.6	Uncertainty B (dB)	2.0	1.6	1.1	1.5	1.1	0.9	0.8	0.8	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.7	0.8	1.1	1.1	1.0	1.1	1.4	1.7	Combined Uncertainty (dB)	2.0	1.7	1.1	1.5	1.1	1.0	0.9	0.8	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.7	0.8	1.0	1.2	1.3	1.2	1.4	1.7	Background	10.54	17	Average (dBA)	5.1	9.6	13.1	16.2	19.8	25.8	26.6	27.3	29.2	29.3	29.3	31.7	32.1	33.0	33.1	33.3	33.7	34.2	33.8	33.2	32.4	31.1	27.7	25.3	20.7	17.7	13.3	10.2	44.3	11.0	Turbine ON	10.99	35	Average (dBA)	0.9	0.7	0.7	0.5	0.6	0.8	0.6	0.7	0.6	0.7	0.6	0.8	0.9	1.0	0.9	0.9	0.9	0.7	0.7	0.8	1.1	1.4	1.6	1.8	1.4	1.2	1.0	0.7	0.6	Uncertainty A (dB)	0.9	0.7	0.7	0.5	0.6	0.8	0.6	0.7	0.6	0.7	0.6	0.8	0.9	1.0	0.9	0.9	0.9	0.7	0.7	0.7	0.8	1.1	1.4	1.6	1.8	1.4	1.2	1.0	0.7	0.6	Uncertainty B (dB)	2.0	1.6	1.1	1.5	1.1	0.9	0.8	0.8	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.7	0.8	1.1	1.1	1.0	1.1	1.4	1.7	Combined Uncertainty (dB)	2.2	1.8	1.3	1.6	1.2	1.3	1.0	1.1	1.0	1.1	0.9	1.1	1.2	1.2	1.1	1.1	1.1	1.0	1.0	1.1	1.3	1.6	1.8	2.1	1.8	1.6	1.5	1.6	1.8	1.8	Background	11.00	29	Average (dBA)	12.1	17.2	21.3	25.0	28.9	32.4	39.5	37.0	39.0	39.9	40.9	43.2	43.4	42.6	43.9	44.1	44.8	45.0	45.4	44.6	43.3	42.0	39.6	37.7	34.7	31.0	25.9	19.6	55.3	11.0	Background	11.00	29	Average (dBA)	0.2	0.2	0.2	0.2	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.3	0.4	0.4	0.6	Uncertainty A (dB)	0.2	0.2	0.2	0.2	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.3	0.4	0.4	0.6	Uncertainty B (dB)	2.0	1.6	1.1	1.5	1.1	0.9	0.8	0.8	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.7	0.8	1.1	1.1	1.0	1.1	1.4	1.7	Combined Uncertainty (dB)	2.0	1.7	1.1	1.5	1.1	1.0	0.8	0.8	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.7	0.8	1.0	1.1	1.0	1.1	1.4	1.8	Background	11.00	29	Average (dBA)	5.9	9.9	13.3	16.6	20.0	25.0	26.9	27.2	29.3	29.2	29.4	30.8	31.1	31.9	31.8	32.0	31.8	32.9	32.9	32.6	32.1	31.3	27.8	24.9	20.8	17.6	13.6	10.5	43.5																																																																																																																																																																																																																																																																																																																																					
				9.5	Turbine ON	9.50	22	Average (dBA)	0.3	0.3	0.3	0.2	0.3	0.2	0.3	0.4	0.4	0.6	0.4	0.5	0.7	0.8	0.7	0.7	0.6	0.5	0.4	0.4	0.5	0.6	0.6	0.7	0.6	0.8	1.0	0.5	0.1	53.8																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
								Uncertainty A (dB)	0.3	0.3	0.3	0.2	0.3	0.2	0.3	0.4	0.4	0.6	0.4	0.5	0.7	0.8	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.7	0.8	1.1	1.1	1.0	1.1	1.4	1.7																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
								Uncertainty B (dB)	2.0	1.6	1.1	1.5	1.1	0.9	0.8	0.8	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.7	0.8	1.1	1.1	1.0	1.1	1.4	1.7																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
	Combined Uncertainty (dB)	2.0	1.7					1.1	1.5	1.1	1.0	0.9	0.8	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.7	0.8	1.1	1.1	1.0	1.1	1.4	1.7																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
Background	9.47	20	Average (dBA)		0.9	5.7	10.0	13.4	17.3	21.7	23.6	24.2	26.8	25.9	26.1	28.2	27.8	29.5	29.6	29.0	30.7	30.9	29.0	26.7	24.3	22.5	17.9	20.9	18.9	13.3	9.4	7.3	40.1																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
10.0	Turbine ON	10.02	46	Average (dBA)	0.5	0.4	0.4	0.3	0.2	0.4	0.5	0.5	0.4	0.4	0.4	0.8	1.3	1.1	0.7	0.7	0.7	0.7	0.8	1.0	0.9	0.7	0.9	1.2	0.7	0.3	0.3	53.8	Uncertainty A (dB)	0.5	0.4	0.4	0.3	0.2	0.4	0.5	0.5	0.4	0.4	0.4	0.8	1.3	1.1	0.7	0.7	0.7	0.7	0.7	0.8	1.0	0.9	0.7	0.9	1.2	0.7	0.3	0.3	53.8	Uncertainty B (dB)	2.0	1.6	1.1	1.5	1.1	0.9	0.8	0.8	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.7	0.8	1.1	1.1	1.0	1.1	1.4	1.7	Combined Uncertainty (dB)	2.0	1.7	1.1	1.5	1.1	1.0	0.9	0.9	0.9	0.9	0.8	0.8	1.1	1.5	1.3	1.0	1.0	1.0	1.0	1.1	1.2	1.2	1.2	1.3	1.4	1.6	1.3	1.4	1.7	1.7	Background	9.96	14	Average (dBA)	11.5	16.8	20.6	24.5	28.3	31.7	38.0	36.2	38.5	39.9	40.6	43.0	43.0	42.5	43.8	44.1	44.8	45.0	45.4	44.6	43.3	42.0	39.5	37.3	34.1	30.4	25.2	19.2	55.2	10.5	Turbine ON	10.51	34	Average (dBA)	0.3	0.3	0.3	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.3	0.4	0.5	0.7	Uncertainty A (dB)	0.3	0.3	0.3	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.3	0.4	0.4	0.6	Uncertainty B (dB)	2.0	1.6	1.1	1.5	1.1	0.9	0.8	0.8	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.7	0.8	1.1	1.1	1.0	1.1	1.4	1.7	Combined Uncertainty (dB)	2.0	1.7	1.1	1.5	1.1	1.0	0.9	0.8	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.7	0.8	1.0	1.2	1.3	1.2	1.4	1.7	Background	10.54	17	Average (dBA)	5.1	9.6	13.1	16.2	19.8	25.8	26.6	27.3	29.2	29.3	29.3	31.7	32.1	33.0	33.1	33.3	33.7	34.2	33.8	33.2	32.4	31.1	27.7	25.3	20.7	17.7	13.3	10.2	44.3	11.0	Turbine ON	10.99	35	Average (dBA)	0.9	0.7	0.7	0.5	0.6	0.8	0.6	0.7	0.6	0.7	0.6	0.8	0.9	1.0	0.9	0.9	0.9	0.7	0.7	0.8	1.1	1.4	1.6	1.8	1.4	1.2	1.0	0.7	0.6	Uncertainty A (dB)	0.9	0.7	0.7	0.5	0.6	0.8	0.6	0.7	0.6	0.7	0.6	0.8	0.9	1.0	0.9	0.9	0.9	0.7	0.7	0.7	0.8	1.1	1.4	1.6	1.8	1.4	1.2	1.0	0.7	0.6	Uncertainty B (dB)	2.0	1.6	1.1	1.5	1.1	0.9	0.8	0.8	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.7	0.8	1.1	1.1	1.0	1.1	1.4	1.7	Combined Uncertainty (dB)	2.2	1.8	1.3	1.6	1.2	1.3	1.0	1.1	1.0	1.1	0.9	1.1	1.2	1.2	1.1	1.1	1.1	1.0	1.0	1.1	1.3	1.6	1.8	2.1	1.8	1.6	1.5	1.6	1.8	1.8	Background	11.00	29	Average (dBA)	12.1	17.2	21.3	25.0	28.9	32.4	39.5	37.0	39.0	39.9	40.9	43.2	43.4	42.6	43.9	44.1	44.8	45.0	45.4	44.6	43.3	42.0	39.6	37.7	34.7	31.0	25.9	19.6	55.3	11.0	Background	11.00	29	Average (dBA)	0.2	0.2	0.2	0.2	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.3	0.4	0.4	0.6	Uncertainty A (dB)	0.2	0.2	0.2	0.2	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.3	0.4	0.4	0.6	Uncertainty B (dB)	2.0	1.6	1.1	1.5	1.1	0.9	0.8	0.8	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.7	0.8	1.1	1.1	1.0	1.1	1.4	1.7	Combined Uncertainty (dB)	2.0	1.7	1.1	1.5	1.1	1.0	0.8	0.8	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.7	0.8	1.0	1.1	1.0	1.1	1.4	1.8	Background	11.00	29	Average (dBA)	5.9	9.9	13.3	16.6	20.0	25.0	26.9	27.2	29.3	29.2	29.4	30.8	31.1	31.9	31.8	32.0	31.8	32.9	32.9	32.6	32.1	31.3	27.8	24.9	20.8	17.6	13.6	10.5	43.5																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
				10.0	Turbine ON	10.02	46	Average (dBA)	0.5	0.4	0.4	0.3	0.2	0.4	0.5	0.5	0.4	0.4	0.4	0.8	1.3	1.1	0.7	0.7	0.7	0.7	0.8	1.0	0.9	0.7	0.9	1.2	0.7	0.3	0.3	53.8																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
								Uncertainty A (dB)	0.5	0.4	0.4	0.3	0.2	0.4	0.5	0.5	0.4	0.4	0.4	0.8	1.3	1.1	0.7	0.7	0.7	0.7	0.7	0.8	1.0	0.9	0.7	0.9	1.2	0.7	0.3	0.3	53.8																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
								Uncertainty B (dB)	2.0	1.6	1.1	1.5	1.1	0.9	0.8	0.8	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.7	0.8	1.1	1.1	1.0	1.1	1.4	1.7																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
	Combined Uncertainty (dB)	2.0	1.7					1.1	1.5	1.1	1.0	0.9	0.9	0.9	0.9	0.8	0.8	1.1	1.5	1.3	1.0	1.0	1.0	1.0	1.1	1.2	1.2	1.2	1.3	1.4	1.6	1.3	1.4	1.7	1.7																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
Background	9.96	14	Average (dBA)		11.5	16.8	20.6	24.5	28.3	31.7	38.0	36.2	38.5	39.9	40.6	43.0	43.0	42.5	43.8	44.1	44.8	45.0	45.4	44.6	43.3	42.0	39.5	37.3	34.1	30.4	25.2	19.2	55.2																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
10.5	Turbine ON	10.51	34	Average (dBA)	0.3	0.3	0.3	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.3	0.4	0.5	0.7	Uncertainty A (dB)	0.3	0.3	0.3	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.3	0.4	0.4	0.6	Uncertainty B (dB)	2.0	1.6	1.1	1.5	1.1	0.9	0.8	0.8	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.7	0.8	1.1	1.1	1.0	1.1	1.4	1.7	Combined Uncertainty (dB)	2.0	1.7	1.1	1.5	1.1	1.0	0.9	0.8	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.7	0.8	1.0	1.2	1.3	1.2	1.4	1.7	Background	10.54	17	Average (dBA)	5.1	9.6	13.1	16.2	19.8	25.8	26.6	27.3	29.2	29.3	29.3	31.7	32.1	33.0	33.1	33.3	33.7	34.2	33.8	33.2	32.4	31.1	27.7	25.3	20.7	17.7	13.3	10.2	44.3	11.0	Turbine ON	10.99	35	Average (dBA)	0.9	0.7	0.7	0.5	0.6	0.8	0.6	0.7	0.6	0.7	0.6	0.8	0.9	1.0	0.9	0.9	0.9	0.7	0.7	0.8	1.1	1.4	1.6	1.8	1.4	1.2	1.0	0.7	0.6	Uncertainty A (dB)	0.9	0.7	0.7	0.5	0.6	0.8	0.6	0.7	0.6	0.7	0.6	0.8	0.9	1.0	0.9	0.9	0.9	0.7	0.7	0.7	0.8	1.1	1.4	1.6	1.8	1.4	1.2	1.0	0.7	0.6	Uncertainty B (dB)	2.0	1.6	1.1	1.5	1.1	0.9	0.8	0.8	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.7	0.8	1.1	1.1	1.0	1.1	1.4	1.7	Combined Uncertainty (dB)	2.2	1.8	1.3	1.6	1.2	1.3	1.0	1.1	1.0	1.1	0.9	1.1	1.2	1.2	1.1	1.1	1.1	1.0	1.0	1.1	1.3	1.6	1.8	2.1	1.8	1.6	1.5	1.6	1.8	1.8	Background	11.00	29	Average (dBA)	12.1	17.2	21.3	25.0	28.9	32.4	39.5	37.0	39.0	39.9	40.9	43.2	43.4	42.6	43.9	44.1	44.8	45.0	45.4	44.6	43.3	42.0	39.6	37.7	34.7	31.0	25.9	19.6	55.3	11.0	Background	11.00	29	Average (dBA)	0.2	0.2	0.2	0.2	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.3	0.4	0.4	0.6	Uncertainty A (dB)	0.2	0.2	0.2	0.2	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.3	0.4	0.4	0.6	Uncertainty B (dB)	2.0	1.6	1.1	1.5	1.1	0.9	0.8	0.8	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.7	0.8	1.1	1.1	1.0	1.1	1.4	1.7	Combined Uncertainty (dB)	2.0	1.7	1.1	1.5	1.1	1.0	0.8	0.8	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.7	0.8	1.0	1.1	1.0	1.1	1.4	1.8	Background	11.00	29	Average (dBA)	5.9	9.9	13.3	16.6	20.0	25.0	26.9	27.2	29.3	29.2	29.4	30.8	31.1	31.9	31.8	32.0	31.8	32.9	32.9	32.6	32.1	31.3	27.8	24.9	20.8	17.6	13.6	10.5	43.5																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
				10.5	Turbine ON	10.51	34	Average (dBA)	0.3	0.3	0.3	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.3	0.4	0.5	0.7																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
								Uncertainty A (dB)	0.3	0.3	0.3	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.3	0.4	0.4	0.6																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
								Uncertainty B (dB)	2.0	1.6	1.1	1.5	1.1	0.9	0.8	0.8	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.7	0.8	1.1	1.1	1.0	1.1	1.4	1.7																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
	Combined Uncertainty (dB)	2.0	1.7					1.1	1.5	1.1	1.0	0.9	0.8	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.7	0.8	1.0	1.2	1.3	1.2	1.4	1.7																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
Background	10.54	17	Average (dBA)		5.1	9.6	13.1	16.2	19.8	25.8	26.6	27.3	29.2	29.3	29.3	31.7	32.1	33.0	33.1	33.3	33.7	34.2	33.8	33.2	32.4	31.1	27.7	25.3	20.7	17.7	13.3	10.2	44.3																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
11.0	Turbine ON	10.99	35	Average (dBA)	0.9	0.7	0.7	0.5	0.6	0.8	0.6	0.7	0.6	0.7	0.6	0.8	0.9	1.0	0.9	0.9	0.9	0.7	0.7	0.8	1.1	1.4	1.6	1.8	1.4	1.2	1.0	0.7	0.6	Uncertainty A (dB)	0.9	0.7	0.7	0.5	0.6	0.8	0.6	0.7	0.6	0.7	0.6	0.8	0.9	1.0	0.9	0.9	0.9	0.7	0.7	0.7	0.8	1.1	1.4	1.6	1.8	1.4	1.2	1.0	0.7	0.6	Uncertainty B (dB)	2.0	1.6	1.1	1.5	1.1	0.9	0.8	0.8	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.7	0.8	1.1	1.1	1.0	1.1	1.4	1.7	Combined Uncertainty (dB)	2.2	1.8	1.3	1.6	1.2	1.3	1.0	1.1	1.0	1.1	0.9	1.1	1.2	1.2	1.1	1.1	1.1	1.0	1.0	1.1	1.3	1.6	1.8	2.1	1.8	1.6	1.5	1.6	1.8	1.8	Background	11.00	29	Average (dBA)	12.1	17.2	21.3	25.0	28.9	32.4	39.5	37.0	39.0	39.9	40.9	43.2	43.4	42.6	43.9	44.1	44.8	45.0	45.4	44.6	43.3	42.0	39.6	37.7	34.7	31.0	25.9	19.6	55.3	11.0	Background	11.00	29	Average (dBA)	0.2	0.2	0.2	0.2	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.3	0.4	0.4	0.6	Uncertainty A (dB)	0.2	0.2	0.2	0.2	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.3	0.4	0.4	0.6	Uncertainty B (dB)	2.0	1.6	1.1	1.5	1.1	0.9	0.8	0.8	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.7	0.8	1.1	1.1	1.0	1.1	1.4	1.7	Combined Uncertainty (dB)	2.0	1.7	1.1	1.5	1.1	1.0	0.8	0.8	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.7	0.8	1.0	1.1	1.0	1.1	1.4	1.8	Background	11.00	29	Average (dBA)	5.9	9.9	13.3	16.6	20.0	25.0	26.9	27.2	29.3	29.2	29.4	30.8	31.1	31.9	31.8	32.0	31.8	32.9	32.9	32.6	32.1	31.3	27.8	24.9	20.8	17.6	13.6	10.5	43.5																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
				11.0	Turbine ON	10.99	35	Average (dBA)	0.9	0.7	0.7	0.5	0.6	0.8	0.6	0.7	0.6	0.7	0.6	0.8	0.9	1.0	0.9	0.9	0.9	0.7	0.7	0.8	1.1	1.4	1.6	1.8	1.4	1.2	1.0	0.7	0.6																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
								Uncertainty A (dB)	0.9	0.7	0.7	0.5	0.6	0.8	0.6	0.7	0.6	0.7	0.6	0.8	0.9	1.0	0.9	0.9	0.9	0.7	0.7	0.7	0.8	1.1	1.4	1.6	1.8	1.4	1.2	1.0	0.7	0.6																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
								Uncertainty B (dB)	2.0	1.6	1.1	1.5	1.1	0.9	0.8	0.8	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.7	0.8	1.1	1.1	1.0	1.1	1.4	1.7																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
	Combined Uncertainty (dB)	2.2	1.8					1.3	1.6	1.2	1.3	1.0	1.1	1.0	1.1	0.9	1.1	1.2	1.2	1.1	1.1	1.1	1.0	1.0	1.1	1.3	1.6	1.8	2.1	1.8	1.6	1.5	1.6	1.8	1.8																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
Background	11.00	29	Average (dBA)		12.1	17.2	21.3	25.0	28.9	32.4	39.5	37.0	39.0	39.9	40.9	43.2	43.4	42.6	43.9	44.1	44.8	45.0	45.4	44.6	43.3	42.0	39.6	37.7	34.7	31.0	25.9	19.6	55.3																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
11.0	Background	11.00	29	Average (dBA)	0.2	0.2	0.2	0.2	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.3	0.4	0.4	0.6	Uncertainty A (dB)	0.2	0.2	0.2	0.2	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.3	0.4	0.4	0.6	Uncertainty B (dB)	2.0	1.6	1.1	1.5	1.1	0.9	0.8	0.8	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.7	0.8	1.1	1.1	1.0	1.1	1.4	1.7	Combined Uncertainty (dB)	2.0	1.7	1.1	1.5	1.1	1.0	0.8	0.8	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.7	0.8	1.0	1.1	1.0	1.1	1.4	1.8	Background	11.00	29	Average (dBA)	5.9	9.9	13.3	16.6	20.0	25.0	26.9	27.2	29.3	29.2	29.4	30.8	31.1	31.9	31.8	32.0	31.8	32.9	32.9	32.6	32.1	31.3	27.8	24.9	20.8	17.6	13.6	10.5	43.5																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
				11.0	Background	11.00	29	Average (dBA)	0.2	0.2	0.2	0.2	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.3	0.4	0.4	0.6																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
								Uncertainty A (dB)	0.2	0.2	0.2	0.2	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.3	0.4	0.4	0.6																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
								Uncertainty B (dB)	2.0	1.6	1.1	1.5	1.1	0.9	0.8	0.8	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.7	0.8	1.1	1.1	1.0	1.1	1.4	1.7																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
	Combined Uncertainty (dB)	2.0	1.7					1.1	1.5	1.1	1.0	0.8	0.8	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.7	0.8	1.0	1.1	1.0	1.1	1.4	1.8																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
Background	11.00	29	Average (dBA)		5.9	9.9	13.3	16.6	20.0	25.0	26.9	27.2	29.3	29.2	29.4	30.8	31.1	31.9	31.8	32.0	31.8	32.9	32.9	32.6	32.1	31.3	27.8	24.9	20.8	17.6	13.6	10.5	43.5																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												

Table C.04 Detailed measurement uncertainty at hub height

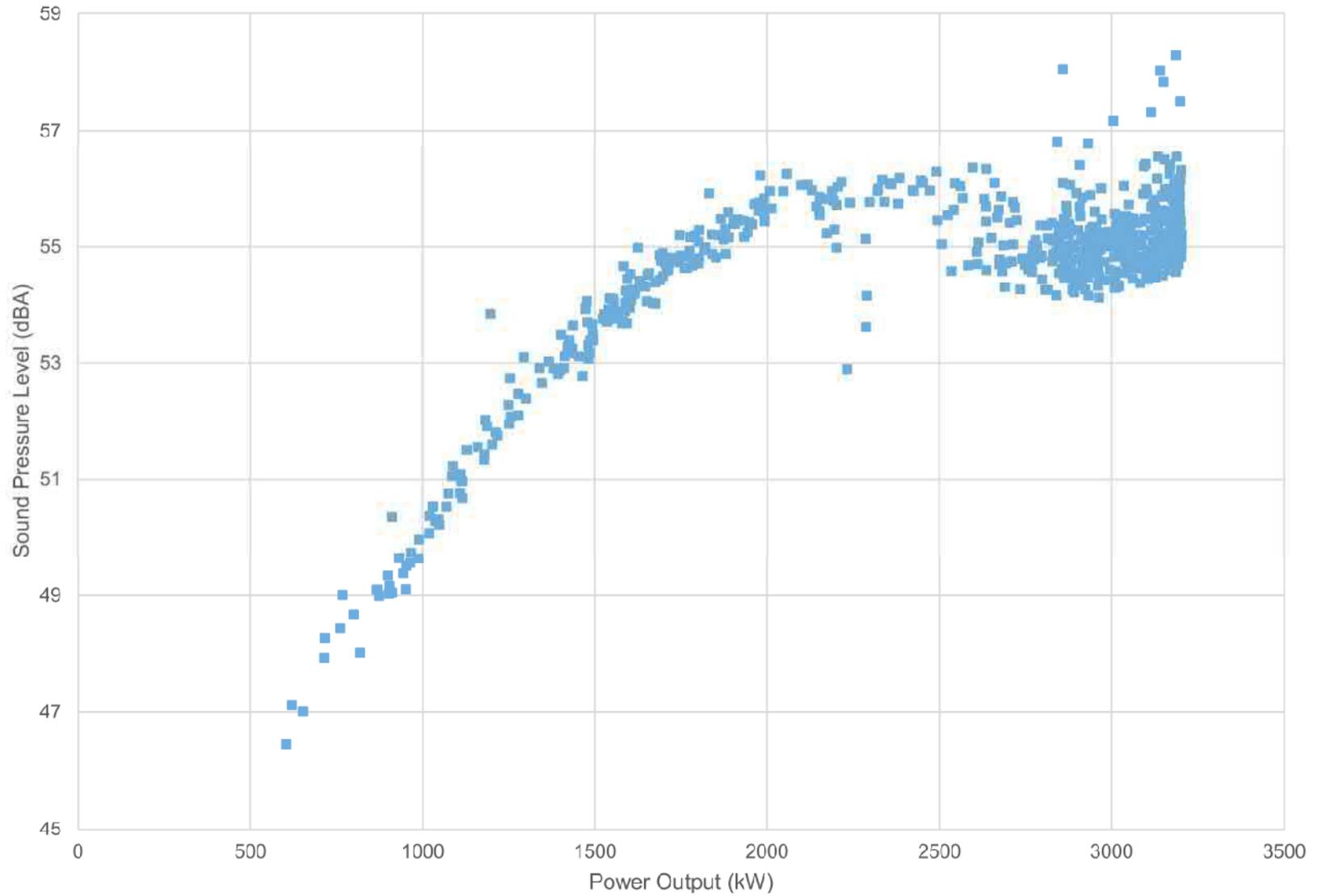
Project: North Kent Wind 1 LP - Turbine T06 - IEC 61400-11 Measurement
 Report ID: 17283.01.T06.RP1

Wind Bin (m/s)	Parameter	Average Wind Speed (m/s)	# of data points	Parameter	1/3 Octave Band (Hz)																Overall														
					20	25	31.5	40	50	63	80	100	125	160	200	250	315	400	500	630		800	1000	1250	1600	2000	2500	3150	4000	5000	6300	8000	10000		
11.5	Turbine ON	11.49	80	Average (dBA)	12.0	17.0	21.0	24.9	28.7	32.3	39.4	36.6	38.7	39.6	40.6	42.9	43.1	42.5	43.8	44.2	44.8	45.0	45.5	44.7	43.4	42.1	39.7	37.7	34.9	31.2	25.9	19.8	55.3		
				Uncertainty A (dB)	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.3	0.2	0.4	
				Uncertainty B (dB)	2.0	1.6	1.1	1.5	1.1	0.9	0.8	0.8	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.7	0.8	1.1	1.1	1.0	1.1	1.4	1.7
				Combined Uncertainty (dB)	2.0	1.7	1.1	1.5	1.1	0.9	0.8	0.8	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.7	0.8	1.1	1.1	1.0	1.1	1.4	1.7
	Background	11.50	29	Average (dBA)	5.7	9.8	13.3	16.6	19.8	24.2	26.7	30.6	30.7	29.5	29.7	30.8	31.3	31.6	32.4	32.6	32.1	32.9	32.8	32.4	31.6	30.5	26.9	24.4	21.2	17.3	13.1	10.0	43.7		
				Uncertainty A (dB)	0.5	0.4	0.4	0.3	0.3	0.3	0.4	0.8	0.6	0.4	0.4	0.5	0.6	0.6	0.6	0.6	0.4	0.4	0.5	0.7	0.9	1.1	1.0	0.7	0.5	0.4	0.3				
				Uncertainty B (dB)	2.0	1.6	1.1	1.5	1.1	0.9	0.8	0.8	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.7	0.8	1.1	1.1	1.0	1.1	1.4	1.7	
				Combined Uncertainty (dB)	2.0	1.7	1.1	1.6	1.1	1.0	0.9	1.2	1.0	0.9	0.8	0.9	0.9	1.0	0.9	1.0	0.9	1.0	1.1	1.1	1.3	1.5	1.3	1.2	1.2	1.4	1.7				
12.0	Turbine ON	11.99	80	Average (dBA)	11.9	16.9	20.8	24.8	28.5	32.1	39.5	36.4	38.5	39.4	40.3	42.6	42.9	42.2	43.7	44.1	44.8	45.0	45.6	44.8	43.5	42.1	39.8	38.0	34.9	31.5	26.2	20.2	55.2		
				Uncertainty A (dB)	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.3	0.3	0.4		
				Uncertainty B (dB)	2.0	1.6	1.1	1.5	1.1	0.9	0.8	0.8	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.7	0.8	1.1	1.1	1.0	1.1	1.4	1.7	
				Combined Uncertainty (dB)	2.0	1.7	1.1	1.5	1.1	0.9	0.8	0.8	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.7	0.8	1.1	1.1	1.0	1.1	1.4	1.8	
	Background	11.98	47	Average (dBA)	6.2	10.6	14.1	17.4	20.6	24.6	27.2	28.3	29.2	29.7	29.9	31.1	31.4	31.1	32.1	32.2	32.3	33.3	33.4	33.3	33.0	32.1	28.6	25.3	21.0	17.8	14.1	10.9	43.9		
				Uncertainty A (dB)	0.4	0.3	0.3	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.6	0.7	0.9	0.9	0.8	0.6	0.5	0.4	0.3			
				Uncertainty B (dB)	2.0	1.6	1.1	1.5	1.1	0.9	0.8	0.8	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.7	0.8	1.1	1.1	1.0	1.1	1.4	1.7	
				Combined Uncertainty (dB)	2.0	1.7	1.1	1.5	1.1	1.0	0.8	0.9	0.8	0.8	0.7	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.9	1.0	1.0	1.2	1.4	1.3	1.2	1.2	1.4	1.7			
12.5	Turbine ON	12.48	58	Average (dBA)	12.0	17.0	20.9	24.9	28.6	32.1	39.5	36.3	38.4	39.2	40.0	42.3	42.7	42.2	43.5	43.9	44.6	44.8	45.4	44.7	43.3	41.7	39.3	37.8	35.1	30.8	25.3	18.5	55.0		
				Uncertainty A (dB)	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.3		
				Uncertainty B (dB)	2.0	1.6	1.1	1.5	1.1	0.9	0.8	0.8	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.7	0.8	1.1	1.1	1.0	1.1	1.4	1.7	
				Combined Uncertainty (dB)	2.0	1.7	1.1	1.5	1.1	0.9	0.9	0.8	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.7	0.8	1.1	1.1	1.0	1.1	1.4	1.7	
	Background	12.50	38	Average (dBA)	6.0	10.3	13.9	17.3	20.4	24.6	27.2	28.3	30.5	30.3	29.8	31.2	31.4	31.4	32.3	32.2	32.1	33.0	33.3	33.2	32.8	31.9	28.5	26.5	21.8	18.3	13.9	10.6	44.0		
				Uncertainty A (dB)	0.4	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.4	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.6	0.8	0.9	0.9	0.9	0.7	0.6	0.4	0.3			
				Uncertainty B (dB)	2.0	1.6	1.1	1.5	1.1	0.9	0.8	0.8	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.7	0.8	1.1	1.1	1.0	1.1	1.4	1.7	
				Combined Uncertainty (dB)	2.0	1.7	1.1	1.5	1.1	1.0	0.8	0.9	0.9	0.9	0.7	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.9	1.0	1.1	1.2	1.4	1.4	1.2	1.2	1.4	1.7			
13.0	Turbine ON	13.00	60	Average (dBA)	12.0	16.9	21.0	25.0	28.7	32.2	39.6	36.4	38.4	39.1	40.0	42.3	42.6	42.0	43.5	44.0	44.7	44.9	45.5	44.9	43.6	42.1	39.8	40.3	35.3	31.6	26.1	19.5	55.2		
				Uncertainty A (dB)	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.5	0.2	0.3	0.3	0.4		
				Uncertainty B (dB)	2.0	1.6	1.1	1.5	1.1	0.9	0.8	0.8	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.7	0.8	1.1	1.1	1.0	1.1	1.4	1.7	
				Combined Uncertainty (dB)	2.0	1.7	1.1	1.5	1.1	0.9	0.9	0.8	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.7	0.8	1.1	1.1	1.0	1.1	1.4	1.7	
	Background	12.97	37	Average (dBA)	6.6	10.7	14.2	17.6	21.0	24.5	27.2	28.1	29.7	29.7	29.5	31.8	31.0	30.9	31.8	32.3	32.5	33.5	33.8	33.7	33.3	32.5	29.0	26.1	22.3	18.6	14.1	10.8	44.1		
				Uncertainty A (dB)	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.4	0.2	0.2	0.3	0.3	0.3	0.3	0.4	0.6	0.7	0.9	0.9	0.7	0.7	0.6	0.4	0.3		
				Uncertainty B (dB)	2.0	1.6	1.1	1.5	1.1	0.9	0.8	0.8	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.7	0.8	1.1	1.1	1.0	1.1	1.4	1.7	
				Combined Uncertainty (dB)	2.0	1.7	1.1	1.5	1.1	1.0	0.8	0.9	0.8	0.9	0.7	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.9	1.0	1.0	1.2	1.4	1.3	1.2	1.2	1.4	1.7		



■ Turbine ON - Derived from power curve
 ● Turbine ON - Derived from nacelle anemometer
 ● Background

	17283.01.T06.RP1	Project Name	Figure C.01
	Scale: NTS Drawn by: DEA Reviewed by: MAD Date: May 2019 Revision: 1	North Kent Wind Power Project - IEC 61400-11 Edition 3.0 - Turbine T06 Figure Title Plot of overall measurement data pairs at Position 1 (Turbine ON & Background)	



■ Total noise vs electrical power output



17283.01.T06.RP1

Scale: NTS
 Drawn by: DEA
 Reviewed by: MAD
 Date: May 2019
 Revision: 1

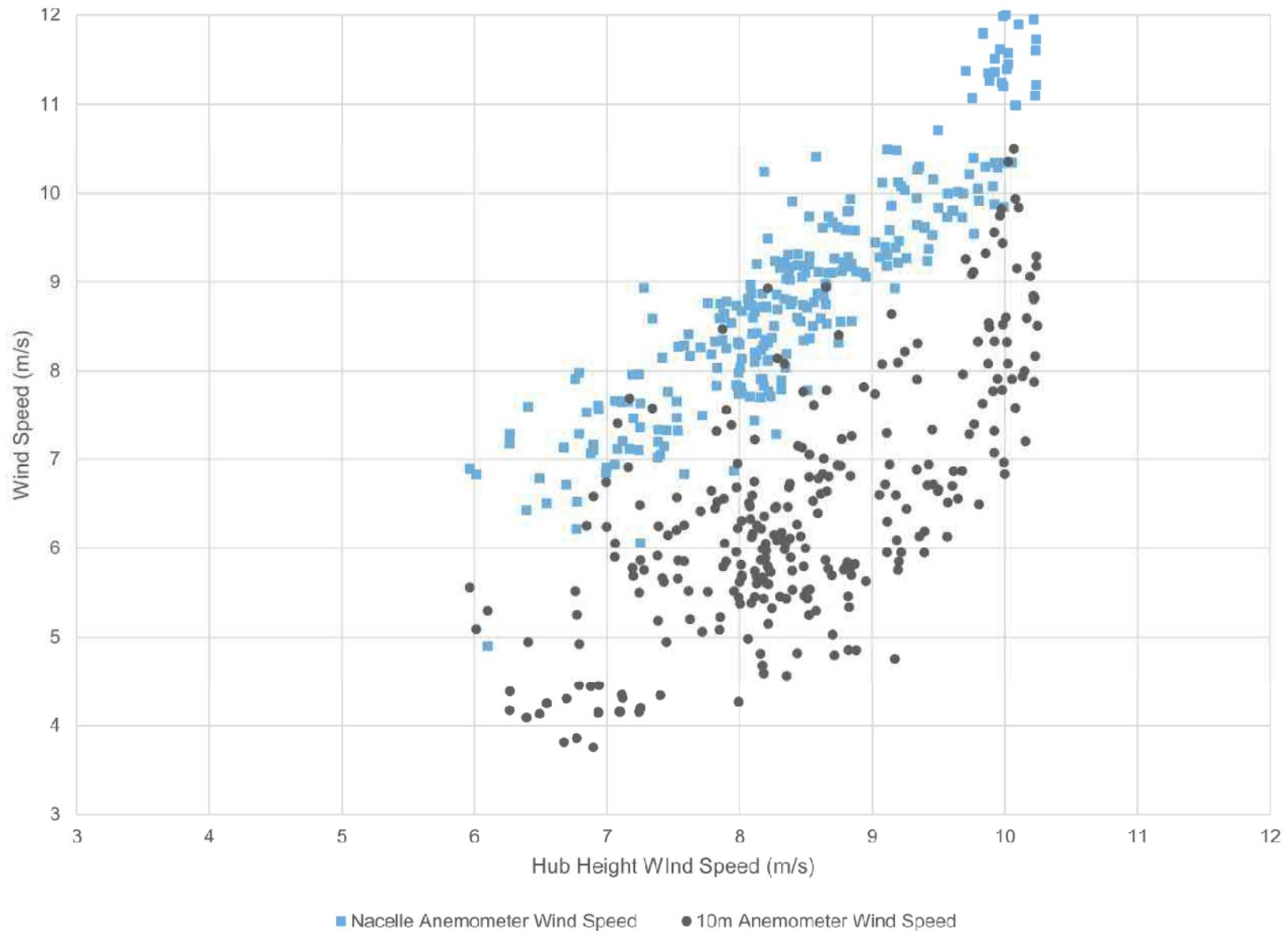
Project Name

North Kent Wind Power Project - IEC 61400-11 Edition 3.0 - Turbine T06

Figure Title

Plot of measured total noise vs. electrical power output

Figure C.02



17283.01.T06.RP1

Scale: NTS
 Drawn by: DEA
 Reviewed by: MAD
 Date: May 2019
 Revision: 1

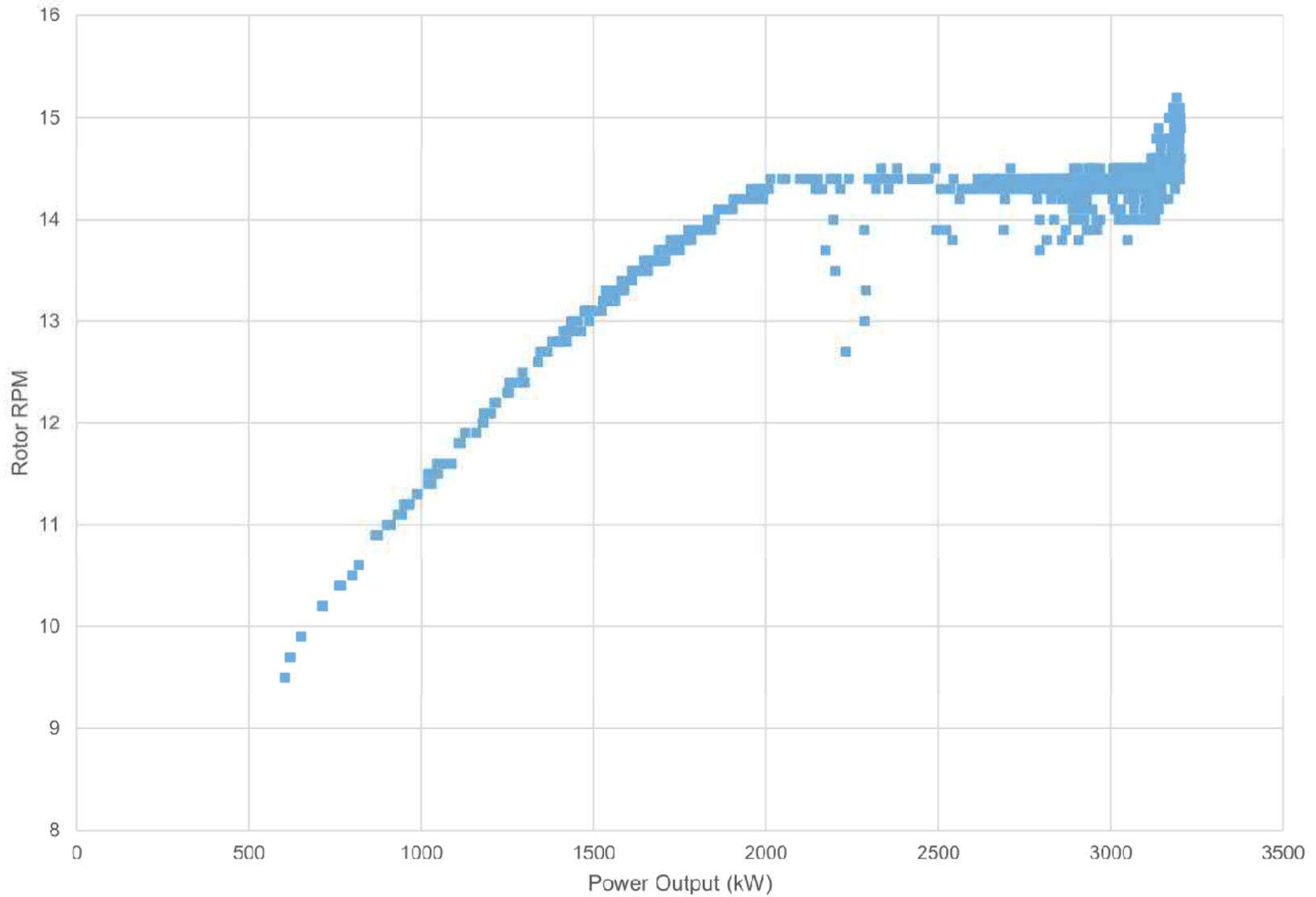
Project Name

North Kent Wind Power Project - IEC 61400-11 Edition 3.0 - Turbine T06

Figure Title

Plot of power curve relative to nacelle anemometer and 10 m anemometer

Figure C.03



■ Rotor RPM vs electrical power output



17283.01.T06.RP1

Scale: NTS
 Drawn by: DEA
 Reviewed by: MAD
 Date: May 2019
 Revision: 1

Project Name

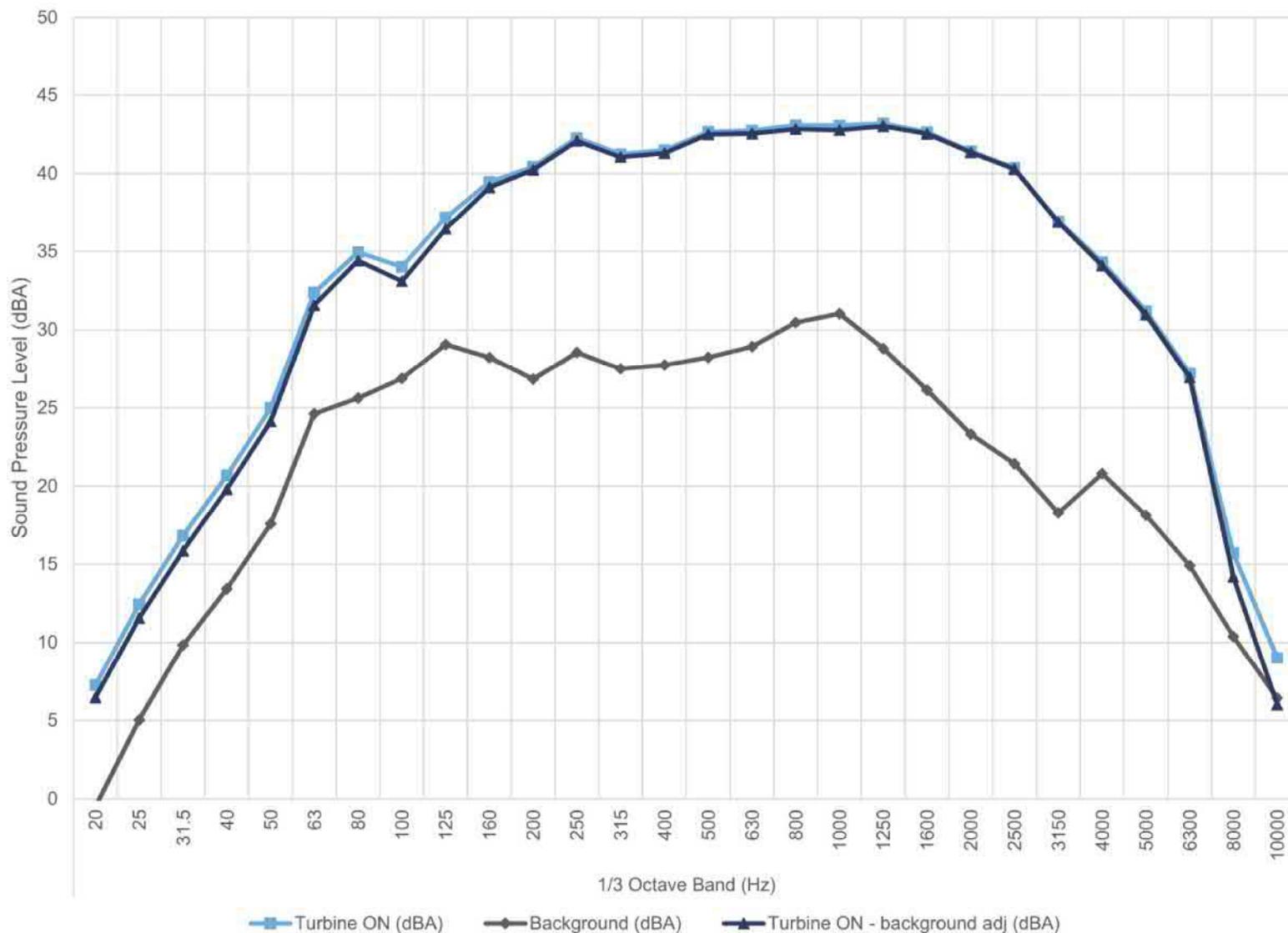
North Kent Wind Power Project - IEC 61400-11 Edition 3.0 - Turbine T06

Figure Title

Plot of rotor RPM vs. electrical power output

Figure C.04

8.0 m/s - Hub Height



17283.01.T06.RP1

Scale: NTS
 Drawn by: DEA
 Reviewed by: MAD
 Date: May 2019
 Revision: 1

Project Name

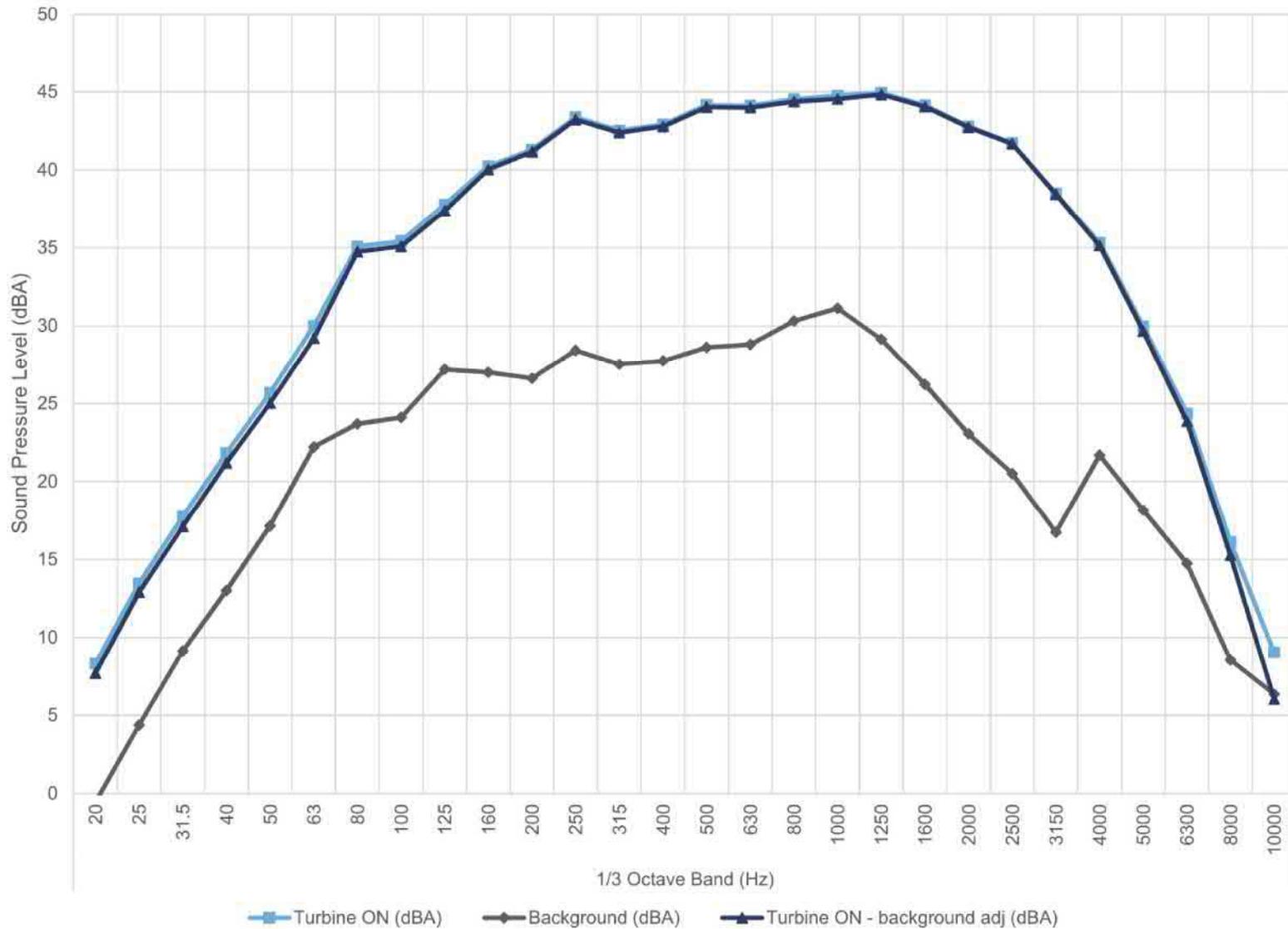
North Kent Wind Power Project - IEC 61400-11 Edition 3.0 - Turbine T06

Figure Title

Plot of sound pressure spectrum in 1/3 Octave at 8.0 m/s

Figure C.05

8.5 m/s - Hub Height



17283.01.T06.RP1

Scale: NTS
 Drawn by: DEA
 Reviewed by: MAD
 Date: May 2019
 Revision: 1

Project Name

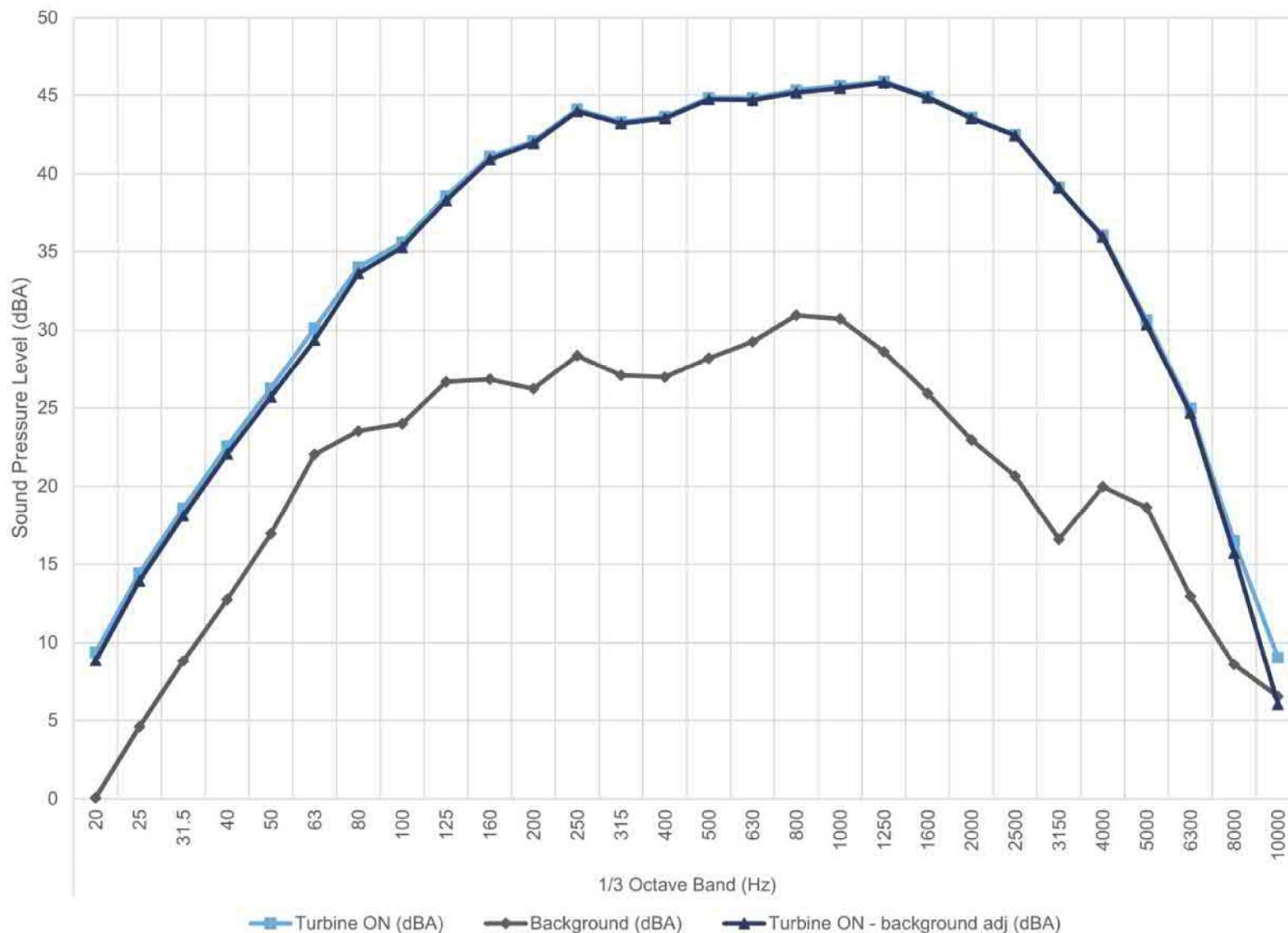
North Kent Wind Power Project - IEC 61400-11 Edition 3.0 - Turbine T06

Figure Title

Plot of sound pressure spectrum in 1/3 Octave at 8.5 m/s

Figure C.06

9.0 m/s - Hub Height



17283.01.T06.RP1

Scale: NTS
 Drawn by: DEA
 Reviewed by: MAD
 Date: May 2019
 Revision: 1

Project Name

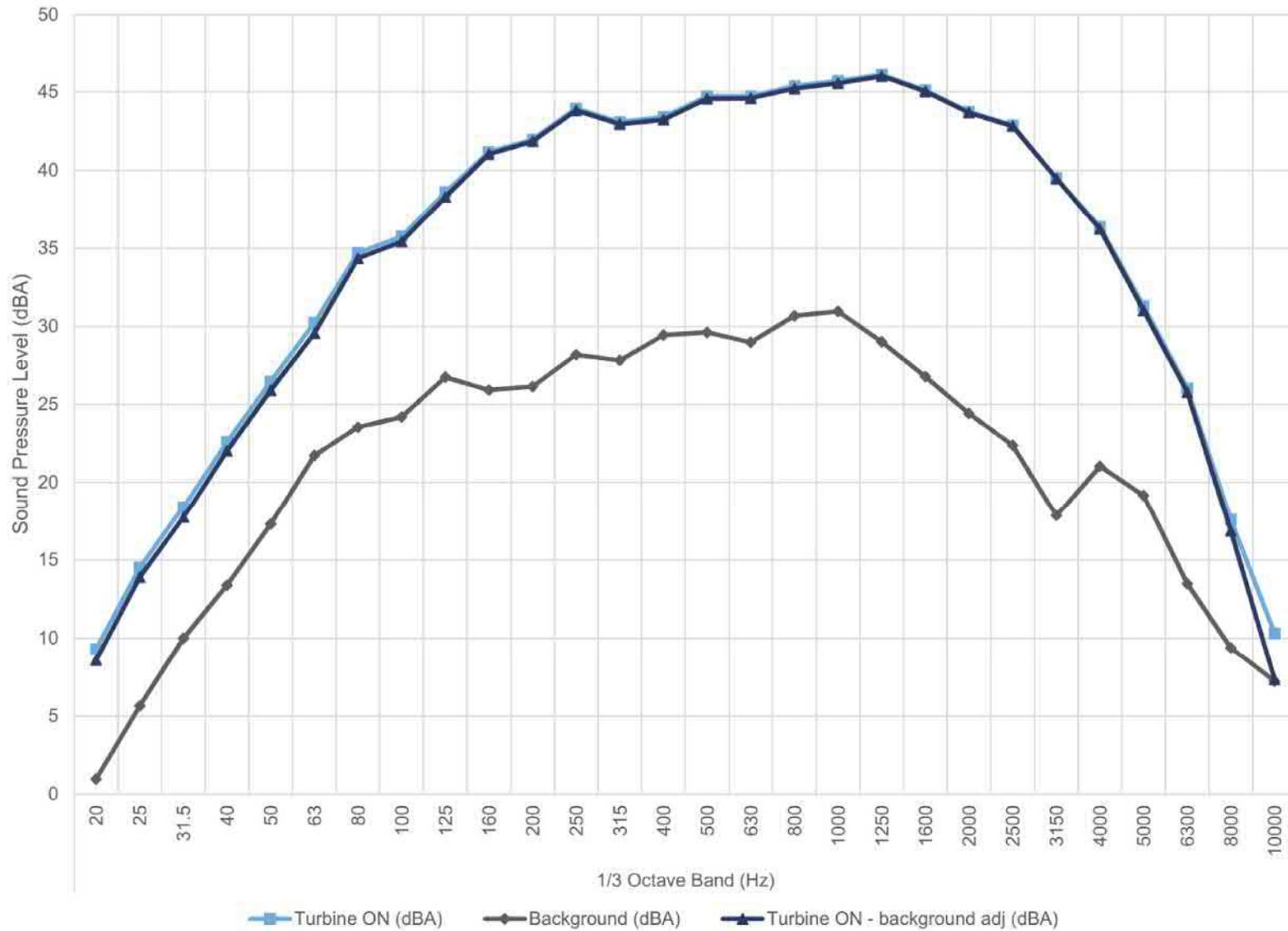
North Kent Wind Power Project - IEC 61400-11 Edition 3.0 - Turbine T06

Figure Title

Plot of sound pressure spectrum in 1/3 Octave at 9.0 m/s

Figure C.07

9.5 m/s - Hub Height



17283.01.T06.RP1

Scale: NTS
 Drawn by: DEA
 Reviewed by: MAD
 Date: May 2019
 Revision: 1

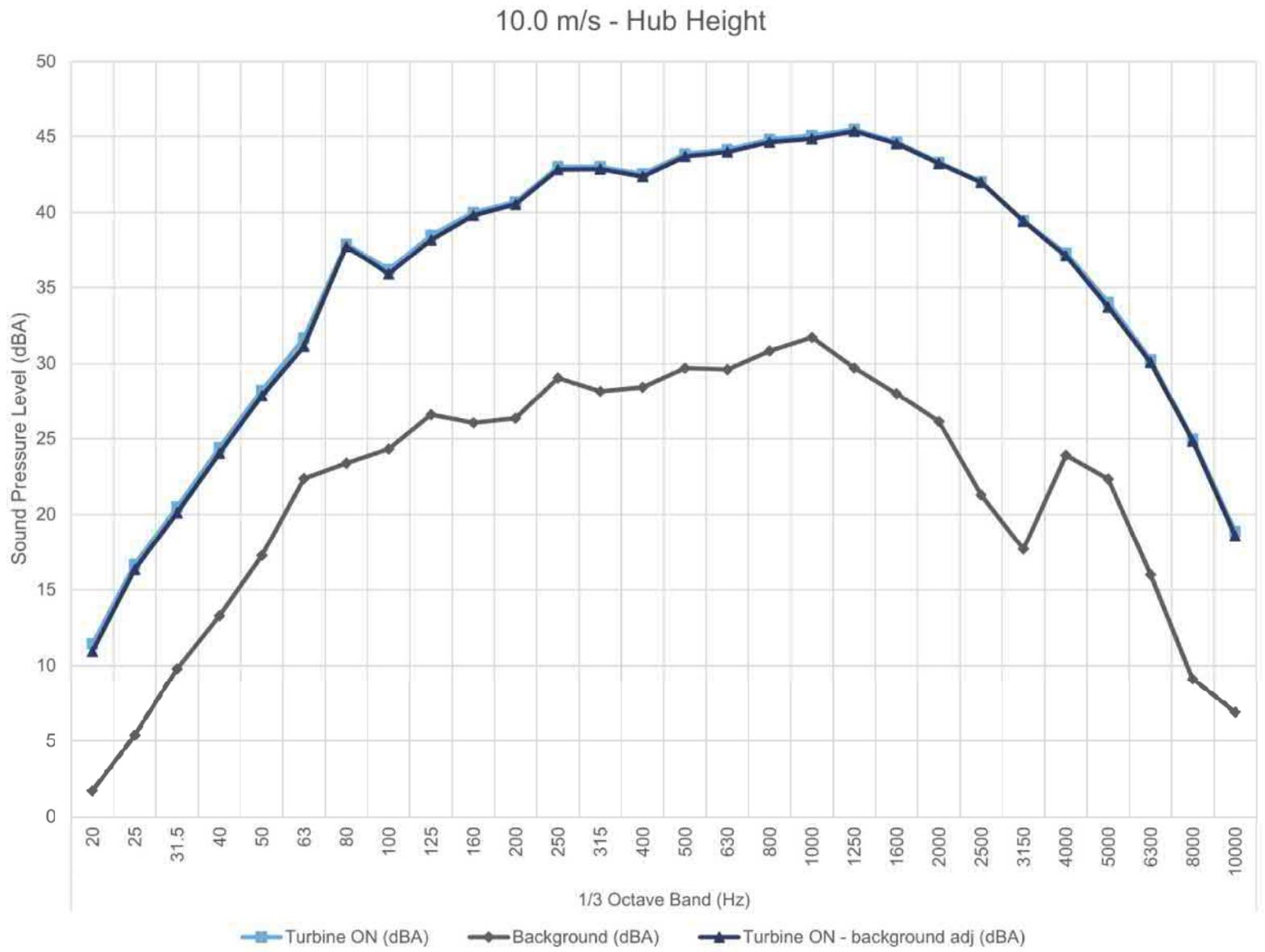
Project Name

North Kent Wind Power Project - IEC 61400-11 Edition 3.0 - Turbine T06

Figure Title

Plot of sound pressure spectrum in 1/3 Octave at 9.5 m/s

Figure C.08



17283.01.T06.RP1

Scale: NTS
 Drawn by: DEA
 Reviewed by: MAD
 Date: May 2019
 Revision: 1

Project Name

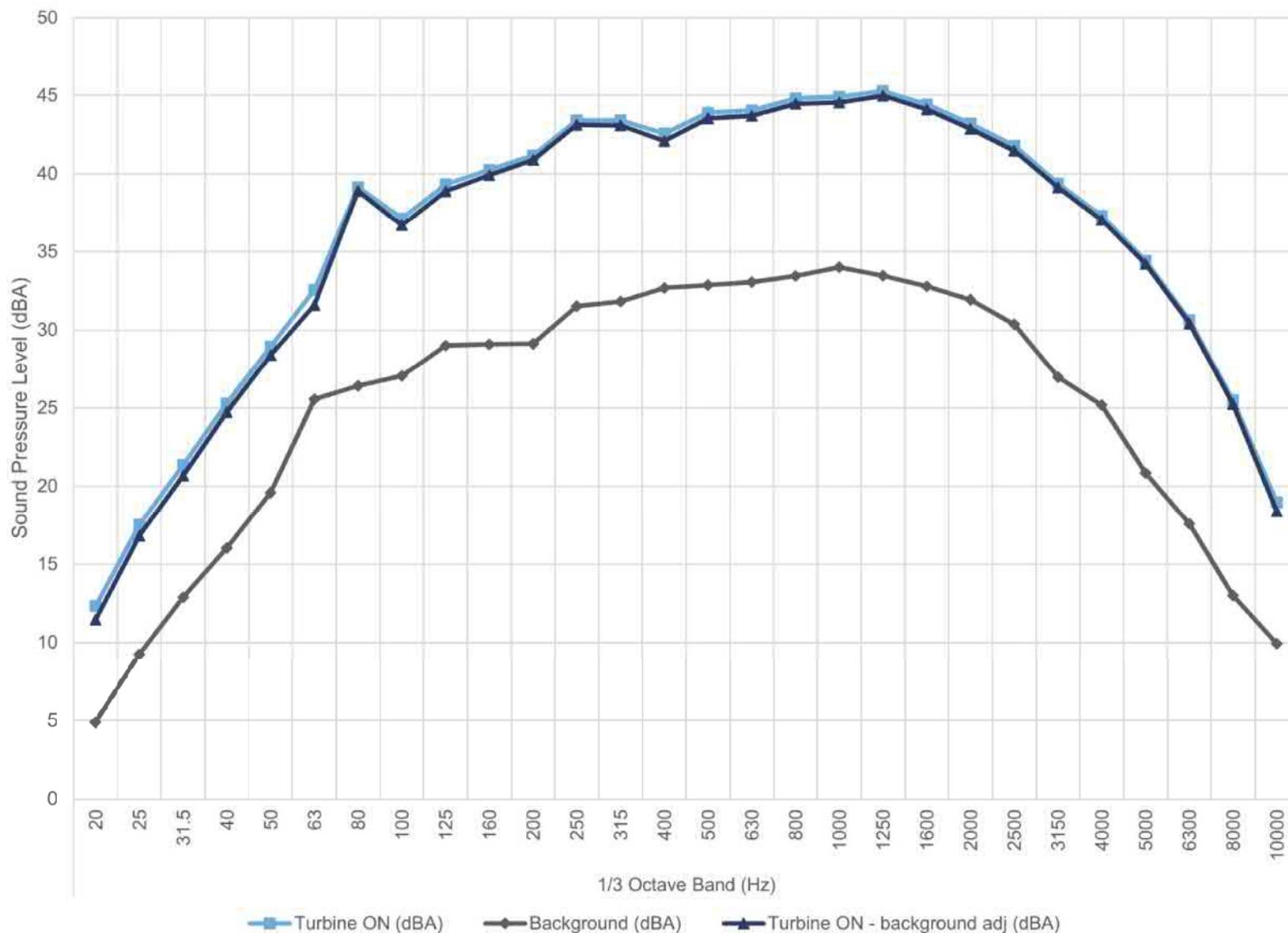
North Kent Wind Power Project - IEC 61400-11 Edition 3.0 - Turbine T06

Figure Title

Plot of sound pressure spectrum in 1/3 Octave at 10.0 m/s

Figure C.09

10.5 m/s - Hub Height



17283.01.T06.RP1

Scale: NTS
 Drawn by: DEA
 Reviewed by: MAD
 Date: May 2019
 Revision: 1

Project Name

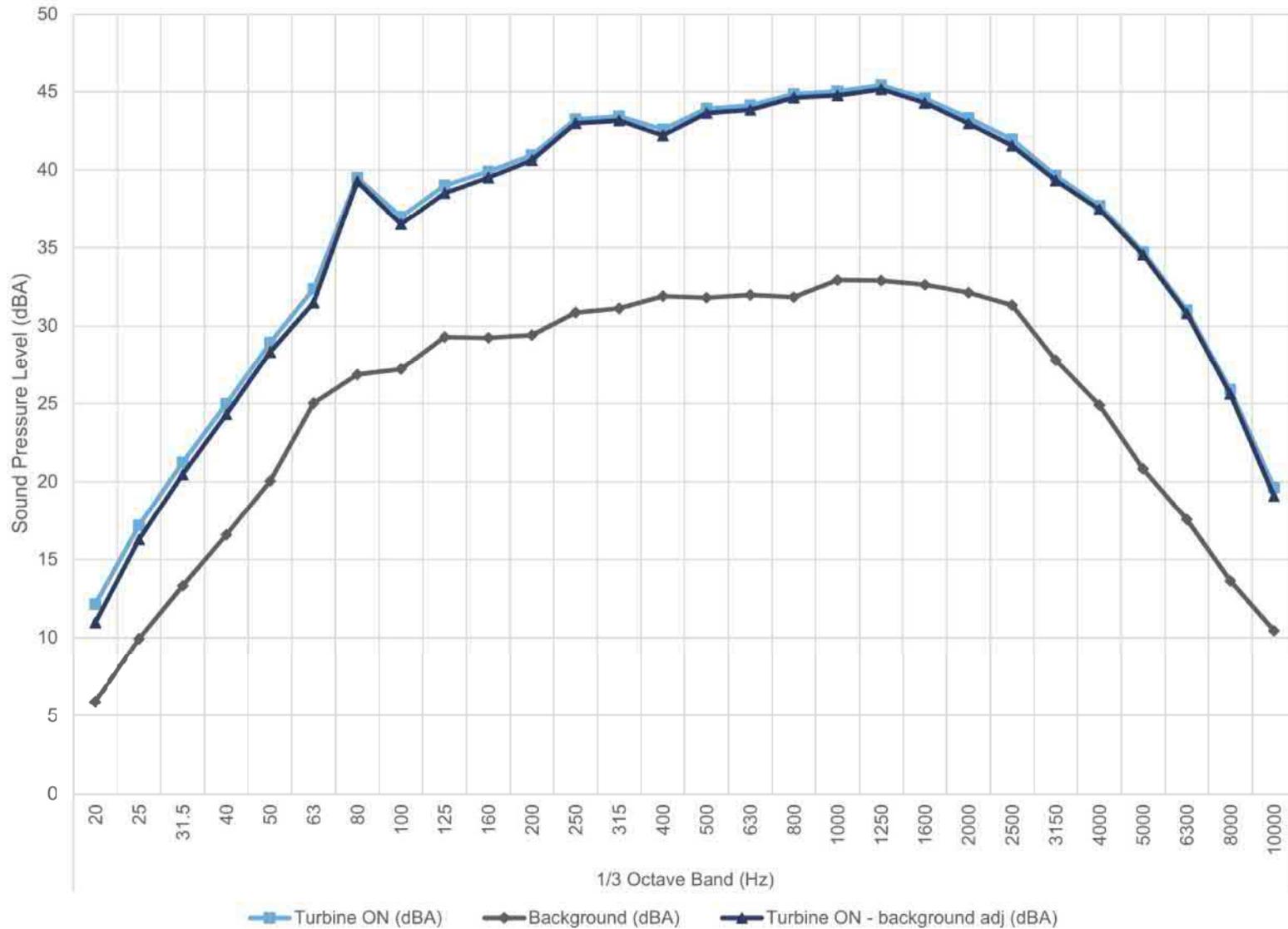
North Kent Wind Power Project - IEC 61400-11 Edition 3.0 - Turbine T06

Figure Title

Plot of sound pressure spectrum in 1/3 Octave at 10.5 m/s

Figure C.10

11.0 m/s - Hub Height



17283.01.T06.RP1

Scale: NTS
 Drawn by: DEA
 Reviewed by: MAD
 Date: May 2019
 Revision: 1

Project Name

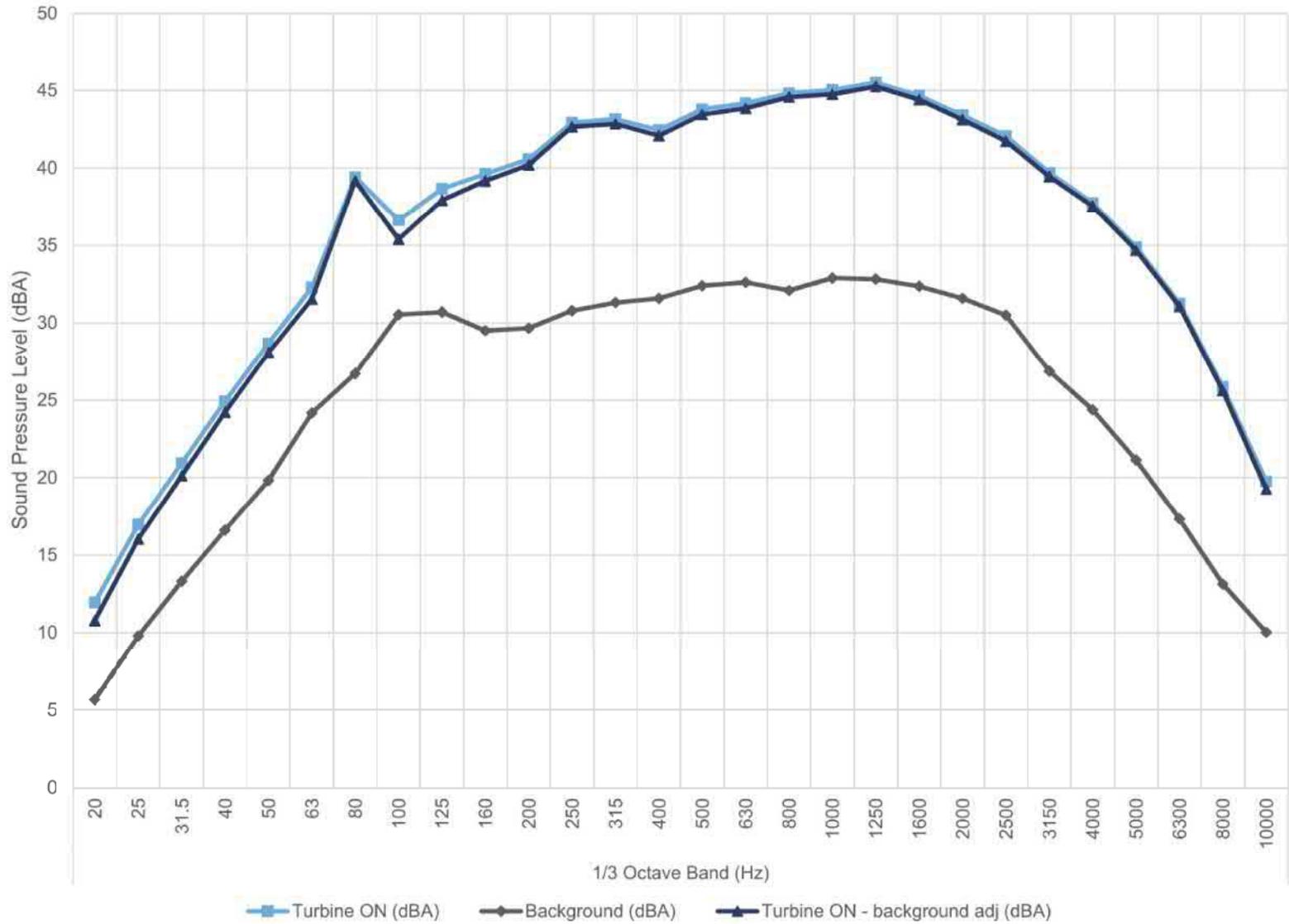
North Kent Wind Power Project - IEC 61400-11 Edition 3.0 - Turbine T06

Figure Title

Plot of sound pressure spectrum in 1/3 Octave at 11.0 m/s

Figure C.11

11.5 m/s - Hub Height



17283.01.T06.RP1

Scale: NTS
 Drawn by: DEA
 Reviewed by: MAD
 Date: May 2019
 Revision: 1

Project Name

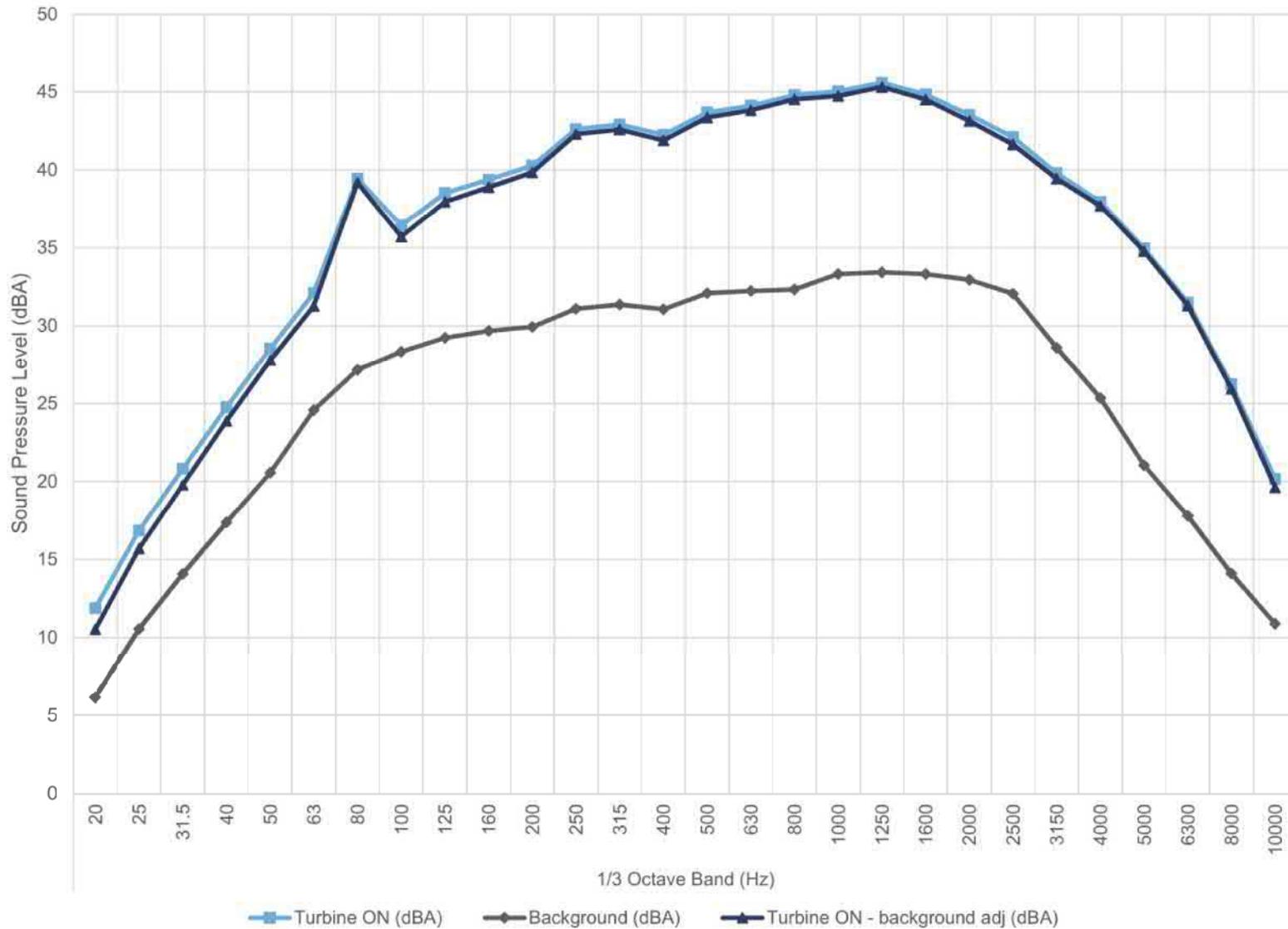
North Kent Wind Power Project - IEC 61400-11 Edition 3.0 - Turbine T06

Figure Title

Plot of sound pressure spectrum in 1/3 Octave at 11.5 m/s

Figure C.12

12.0 m/s - Hub Height



17283.01.T06.RP1

Scale: NTS
 Drawn by: DEA
 Reviewed by: MAD
 Date: May 2019
 Revision: 1

Project Name

North Kent Wind Power Project - IEC 61400-11 Edition 3.0 - Turbine T06

Figure Title

Plot of sound pressure spectrum in 1/3 Octave at 12.0 m/s

Figure C.13

12.5 m/s - Hub Height



17283.01.T06.RP1

Scale: NTS
 Drawn by: DEA
 Reviewed by: MAD
 Date: May 2019
 Revision: 1

Project Name

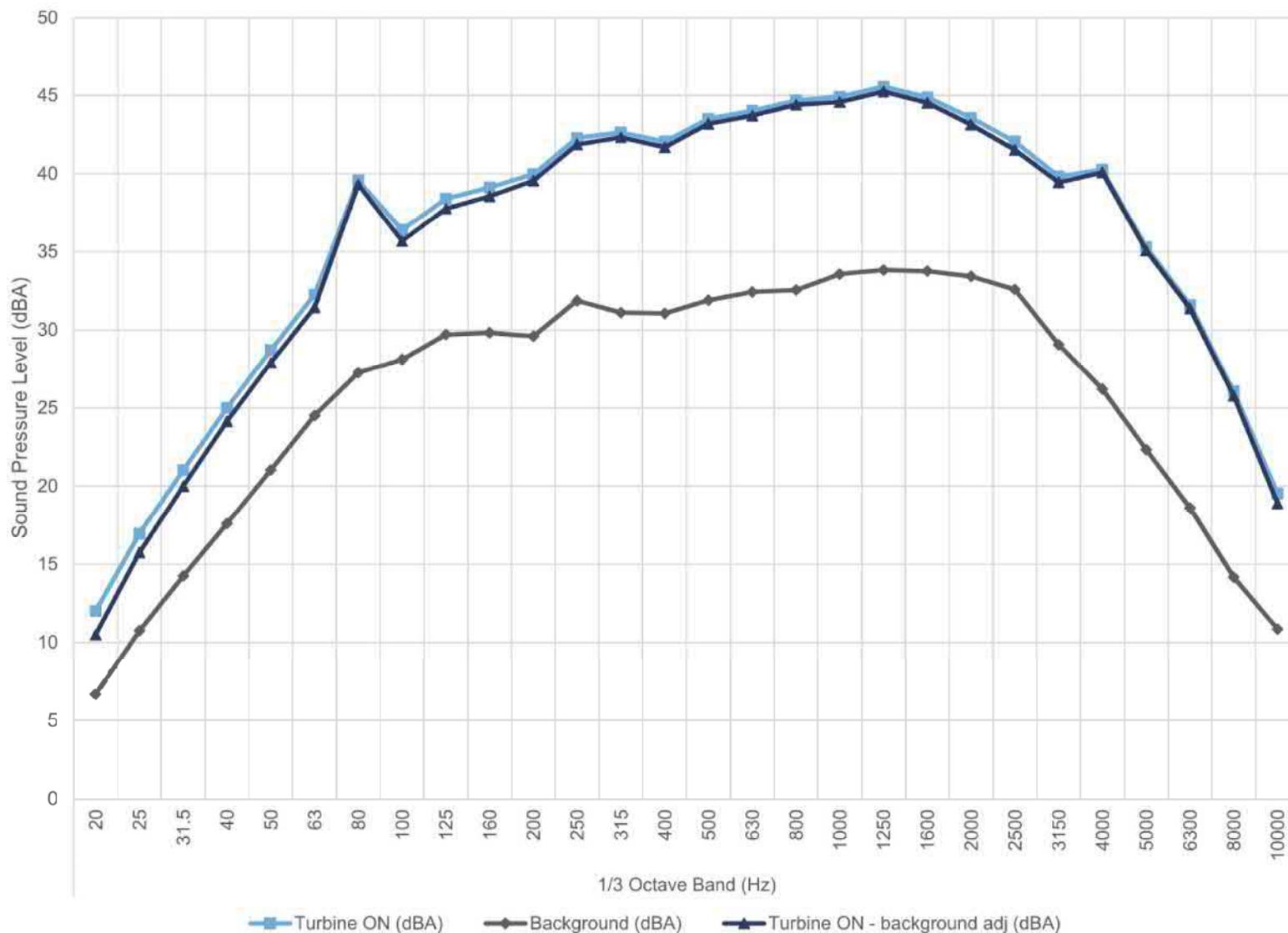
North Kent Wind Power Project - IEC 61400-11 Edition 3.0 - Turbine T06

Figure Title

Plot of sound pressure spectrum in 1/3 Octave at 12.5 m/s

Figure C.14

13.0 m/s - Hub Height



17283.01.T06.RP1

Scale: NTS
 Drawn by: DEA
 Reviewed by: MAD
 Date: May 2019
 Revision: 1

Project Name

North Kent Wind Power Project - IEC 61400-11 Edition 3.0 - Turbine T06

Figure Title

Plot of sound pressure spectrum in 1/3 Octave at 13.0 m/s

Figure C.15

Appendix D Tonality Assessment

Table D.01 Tonality Assessment Table - 8 m/s

Project: North Kent Wind 1 LP - Turbine T06 - IEC 61400-11 Measurement
 Report ID: 17283.01.T06.RP1

Measurement #	Centre frequency (Hz)	Background adjusted criterion level (dB)	Masking level (dB)	Tone level (dB)	Determination of tonality (dB)	Frequency dependent audibility criterion (dB)	Tonal Audibility (dB)
555	64	21.1	39.4	37.7	-1.6	-2.0	0.4
488	67	21.3	39.6	36.6	-3.0	-2.0	-0.9
559	68	21.7	40.0	35.9	-4.1	-2.0	-2.1
648	68	22.9	41.1	36.8	-4.4	-2.0	-2.4
475	68	22.2	40.4	36.2	-4.2	-2.0	-2.2
625	68	22.6	40.9	37.1	-3.7	-2.0	-1.7
487	68	21.3	39.6	36.3	-3.2	-2.0	-1.2
662	68	23.0	41.2	34.9	-6.3	-2.0	-4.3
541	68	22.2	40.5	35.1	-5.4	-2.0	-3.4
511	68	22.5	40.8	35.9	-4.9	-2.0	-2.9
472	68	22.6	40.8	35.9	-4.9	-2.0	-2.9
510	69	22.4	40.7	34.6	-6.1	-2.0	-4.1
552	69	21.4	39.6	38.1	-1.5	-2.0	0.5
562	69	23.2	41.4	37.2	-4.3	-2.0	-2.3
517	70	21.7	40.0	38.3	-1.6	-2.0	0.4
692	70	21.8	40.0	38.7	-1.3	-2.0	0.7
516	70	22.3	40.5	34.6	-6.0	-2.0	-4.0
554	70	22.5	40.8	36.6	-4.2	-2.0	-2.2
540	70	21.7	39.9	36.4	-3.5	-2.0	-1.5
489	70	22.1	40.4	36.5	-3.9	-2.0	-1.9
691	70	21.5	39.8	38.0	-1.8	-2.0	0.2
553	70	22.7	40.9	36.7	-4.2	-2.0	-2.2
626	71	22.3	40.6	34.7	-5.9	-2.0	-3.9
490	71	22.3	40.5	35.0	-5.6	-2.0	-3.6
649	71	23.1	41.4	35.8	-5.6	-2.0	-3.6
661	71	22.6	40.8	37.3	-3.5	-2.0	-1.5
530	71	23.1	41.4	31.4	-10.0	-2.0	-8.0
532	71	22.7	41.0	36.5	-4.5	-2.0	-2.5
624	71	22.5	40.8	35.6	-5.2	-2.0	-3.2
663	71	22.7	40.9	36.7	-4.2	-2.0	-2.2
537	71	22.6	40.9	36.2	-4.7	-2.0	-2.7
660	71	23.5	41.8	37.0	-4.8	-2.0	-2.8
539	71	22.1	40.3	36.6	-3.7	-2.0	-1.7
698	71	24.6	42.9	35.9	-7.0	-2.0	-5.0
659	71	22.0	40.3	36.8	-3.5	-2.0	-1.5
471	72	23.0	41.2	36.4	-4.8	-2.0	-2.8
647	72	23.9	42.1	37.4	-4.7	-2.0	-2.7
476	72	23.0	41.3	36.2	-5.1	-2.0	-3.1
690	72	22.0	40.3	37.1	-3.2	-2.0	-1.2
522	72	22.3	40.6	46.0	5.5	-2.0	7.5
538	72	23.0	41.2	35.2	-6.0	-2.0	-4.0
689	72	22.1	40.3	37.6	-2.7	-2.0	-0.7
551	72	21.9	40.1	35.8	-4.3	-2.0	-2.3
515	73	23.2	41.4	35.9	-5.5	-2.0	-3.5
514	73	23.0	41.3	38.2	-3.1	-2.0	-1.1
486	73	21.6	39.8	36.7	-3.2	-2.0	-1.2
524	74	23.1	41.3	43.0	1.7	-2.0	3.7
523	74	23.1	41.4	45.3	3.9	-2.0	5.9
525	74	22.3	40.5	40.8	0.2	-2.0	2.2
561	75	21.9	40.1	35.0	-5.1	-2.0	-3.1
499	75	22.5	40.8	35.8	-5.0	-2.0	-3.0
560	75	23.2	41.4	34.9	-6.5	-2.0	-4.5
512	79	24.1	42.4	36.0	-6.4	-2.0	-4.4
518	83	25.1	43.4	35.4	-7.9	-2.0	-5.9
474	88	24.7	42.9	37.3	-5.7	-2.0	-3.7
Average	71				-3.0	-2.0	-1.0

Table D.02 Tonality Assessment Table - 11.5 m/s

Project: North Kent Wind 1 LP - Turbine T06 - IEC 61400-11 Measurement

Report ID: 17283.01.T06.RP1

Page 2 of 7

Created on: 5/27/2019

Measurement #	Centre frequency (Hz)	Background adjusted criterion level (dB)	Masking level (dB)	Tone level (dB)	Determination of tonality (dB)	Frequency dependent audibility criterion (dB)	Tonal Audibility (dB)
352	58	24.2	42.5	34.5	-8.0	-2.0	-6.0
392	75	25.8	44.0	36.4	-7.7	-2.0	-5.7
386	76	26.9	45.1	37.8	-7.3	-2.0	-5.3
469	76	25.3	43.5	38.1	-5.4	-2.0	-3.4
225	76	25.9	44.2	35.9	-8.2	-2.0	-6.2
464	76	26.3	44.5	37.8	-6.8	-2.0	-4.8
157	77	26.4	44.6	39.5	-5.1	-2.0	-3.1
388	77	26.6	44.8	39.6	-5.3	-2.0	-3.3
226	77	26.2	44.5	39.0	-5.5	-2.0	-3.5
154	77	26.0	44.2	40.5	-3.7	-2.0	-1.7
172	77	25.7	44.0	40.8	-3.2	-2.0	-1.2
238	77	26.0	44.2	40.7	-3.5	-2.0	-1.5
423	77	25.5	43.8	37.4	-6.4	-2.0	-4.4
408	77	25.7	43.9	40.6	-3.3	-2.0	-1.3
184	77	26.0	44.3	39.4	-4.9	-2.0	-2.9
162	77	25.3	43.5	41.4	-2.2	-2.0	-0.2
123	77	26.9	45.2	38.5	-6.7	-2.0	-4.7
431	77	26.9	45.2	38.2	-7.0	-2.0	-5.0
164	78	25.7	43.9	41.0	-3.0	-2.0	-1.0
178	78	26.0	44.2	41.9	-2.3	-2.0	-0.3
50	78	26.7	45.0	42.0	-2.9	-2.0	-0.9
144	78	25.9	44.1	40.0	-4.2	-2.0	-2.2
190	78	26.4	44.7	41.3	-3.4	-2.0	-1.4
247	78	26.6	44.9	40.3	-4.6	-2.0	-2.6
188	78	27.3	45.6	41.9	-3.7	-2.0	-1.7
32	78	27.0	45.3	39.4	-5.9	-2.0	-3.9
255	78	26.9	45.2	43.5	-1.7	-2.0	0.3
252	78	25.2	43.5	43.2	-0.3	-2.0	1.7
165	78	26.5	44.7	41.4	-3.4	-2.0	-1.4
197	78	26.5	44.8	43.3	-1.4	-2.0	0.6
251	78	26.0	44.2	41.4	-2.8	-2.0	-0.8
180	78	25.7	44.0	41.8	-2.2	-2.0	-0.2
132	78	26.1	44.3	41.0	-3.3	-2.0	-1.3
84	78	27.0	45.3	41.0	-4.3	-2.0	-2.3
152	78	26.9	45.2	43.3	-1.8	-2.0	0.2
22	78	26.7	44.9	37.3	-7.6	-2.0	-5.6
47	78	26.6	44.9	40.5	-4.3	-2.0	-2.3
183	78	25.6	43.9	42.2	-1.7	-2.0	0.3
159	78	26.6	44.9	43.9	-1.0	-2.0	1.0
195	78	26.3	44.5	43.3	-1.3	-2.0	0.8
18	78	26.8	45.0	41.7	-3.3	-2.0	-1.3
125	78	28.0	46.2	39.6	-6.6	-2.0	-4.6
27	78	28.1	46.4	37.8	-8.5	-2.0	-6.5
120	78	27.3	45.6	40.4	-5.1	-2.0	-3.1
10	78	27.2	45.5	36.1	-9.3	-2.0	-7.3
148	78	26.6	44.8	43.4	-1.5	-2.0	0.5
142	78	25.9	44.1	41.5	-2.6	-2.0	-0.6
60	78	27.1	45.4	40.7	-4.7	-2.0	-2.7
192	78	26.6	44.9	37.8	-7.1	-2.0	-5.1
8	78	27.9	46.2	39.5	-6.7	-2.0	-4.7
394	78	25.1	43.4	37.6	-5.8	-2.0	-3.8
158	78	26.4	44.7	41.1	-3.6	-2.0	-1.6
156	78	26.0	44.3	43.5	-0.8	-2.0	1.2
78	79	27.9	46.2	40.0	-6.1	-2.0	-4.1
48	79	27.0	45.2	35.5	-9.7	-2.0	-7.7
466	79	27.2	45.4	40.2	-5.2	-2.0	-3.2
151	79	26.9	45.1	40.8	-4.4	-2.0	-2.4
269	79	26.5	44.7	38.8	-5.9	-2.0	-3.9
416	80	26.1	44.3	36.9	-7.4	-2.0	-5.4
418	80	25.9	44.2	35.6	-8.6	-2.0	-6.6

Table D.02 Tonality Assessment Table - 11.5 m/s

Project: North Kent Wind 1 LP - Turbine T06 - IEC 61400-11 Measurement
Report ID: 17283.01.T06.RP1

Page 3 of 7

Created on: 5/27/2019

430	80	26.6	44.9	39.5	-5.4	-2.0	-3.4
421	80	25.2	43.4	36.4	-7.1	-2.0	-5.1
339	80	26.5	44.7	33.9	-10.8	-2.0	-8.8
398	80	26.5	44.8	33.1	-11.7	-2.0	-9.7
79	80	26.6	44.9	37.9	-7.0	-2.0	-5.0
465	80	27.2	45.4	35.5	-9.9	-2.0	-7.9
417	80	26.2	44.4	35.7	-8.7	-2.0	-6.7
463	80	26.1	44.4	39.6	-4.8	-2.0	-2.8
Average	78				-4.4	-2.0	-2.4

Table D.03 Tonality Assessment Table - 12 m/s

Project: North Kent Wind 1 LP - Turbine T06 - IEC 61400-11 Measurement
 Report ID: 17283.01.T06.RP1

Measurement #	Centre frequency (Hz)	Background adjusted criterion level (dB)	Masking level (dB)	Tone level (dB)	Determination of tonality (dB)	Frequency dependent audibility criterion (dB)	Tonal Audibility (dB)
425	74	26.1	44.4	37.2	-7.2	-2.0	-5.2
303	76	26.2	44.5	39.7	-4.8	-2.0	-2.7
317	76	25.4	43.6	40.5	-3.1	-2.0	-1.1
363	76	26.4	44.7	35.8	-8.9	-2.0	-6.8
364	76	26.4	44.7	36.2	-8.5	-2.0	-6.5
424	76	26.1	44.3	36.3	-8.0	-2.0	-6.0
112	77	26.1	44.3	38.8	-5.5	-2.0	-3.5
217	77	24.9	43.2	41.3	-1.9	-2.0	0.1
106	77	27.6	45.9	40.7	-5.2	-2.0	-3.2
227	77	25.9	44.2	45.8	1.7	-2.0	3.7
94	77	26.1	44.4	39.8	-4.5	-2.0	-2.5
155	77	25.7	43.9	38.7	-5.2	-2.0	-3.2
177	77	25.5	43.7	41.4	-2.3	-2.0	-0.3
117	77	26.8	45.1	40.6	-4.5	-2.0	-2.5
191	77	26.8	45.1	40.2	-4.9	-2.0	-2.9
91	77	26.3	44.6	39.5	-5.1	-2.0	-3.1
175	77	25.7	43.9	40.6	-3.3	-2.0	-1.3
202	77	24.9	43.1	41.1	-2.1	-2.0	-0.1
56	77	26.5	44.7	38.5	-6.2	-2.0	-4.2
11	77	25.8	44.1	37.5	-6.6	-2.0	-4.6
219	77	26.1	44.3	39.8	-4.6	-2.0	-2.6
126	78	26.9	45.2	43.5	-1.7	-2.0	0.3
87	78	26.4	44.6	40.9	-3.7	-2.0	-1.7
237	78	25.2	43.5	42.2	-1.3	-2.0	0.8
111	78	26.6	44.9	43.2	-1.7	-2.0	0.3
182	78	25.0	43.3	42.9	-0.4	-2.0	1.6
115	78	26.5	44.8	41.2	-3.6	-2.0	-1.6
203	78	25.4	43.7	41.4	-2.3	-2.0	-0.3
41	78	26.0	44.3	38.9	-5.4	-2.0	-3.4
173	78	26.8	45.1	41.2	-3.9	-2.0	-1.9
65	78	27.4	45.7	41.9	-3.8	-2.0	-1.8
246	78	26.5	44.7	42.5	-2.3	-2.0	-0.3
218	78	25.4	43.7	42.2	-1.5	-2.0	0.5
221	78	25.7	43.9	44.0	0.0	-2.0	2.0
240	78	25.8	44.1	42.9	-1.2	-2.0	0.8
179	78	26.7	44.9	41.7	-3.2	-2.0	-1.2
57	78	25.3	43.5	41.3	-2.2	-2.0	-0.2
315	78	25.9	44.2	33.7	-10.5	-2.0	-8.5
186	78	27.4	45.7	42.3	-3.4	-2.0	-1.4
101	78	27.7	46.0	39.1	-6.9	-2.0	-4.9
209	78	25.5	43.8	43.1	-0.7	-2.0	1.3
76	78	27.1	45.4	42.7	-2.7	-2.0	-0.7
222	78	26.1	44.3	42.0	-2.3	-2.0	-0.3
59	78	26.9	45.2	40.3	-4.9	-2.0	-2.9
379	79	25.9	44.1	35.6	-8.5	-2.0	-6.5
80	79	25.5	43.8	40.0	-3.7	-2.0	-1.7
119	79	27.6	45.9	39.7	-6.2	-2.0	-4.2
446	79	24.8	43.1	39.3	-3.8	-2.0	-1.8
189	79	27.8	46.0	37.2	-8.8	-2.0	-6.8
438	79	25.8	44.1	34.3	-9.7	-2.0	-7.7
309	79	26.4	44.6	32.9	-11.7	-2.0	-9.7
31	79	28.1	46.4	40.9	-5.5	-2.0	-3.5
161	79	26.0	44.3	43.3	-0.9	-2.0	1.1
411	79	26.0	44.2	38.6	-5.6	-2.0	-3.6
198	79	27.2	45.5	38.0	-7.4	-2.0	-5.4
403	79	24.5	42.8	40.6	-2.2	-2.0	-0.2
171	79	25.6	43.9	42.4	-1.5	-2.0	0.5
308	79	26.3	44.6	36.2	-8.3	-2.0	-6.3
468	80	26.4	44.6	39.2	-5.4	-2.0	-3.4
409	80	24.7	43.0	39.6	-3.4	-2.0	-1.4

Table D.03 Tonality Assessment Table - 12 m/s

Project: North Kent Wind 1 LP - Turbine T06 - IEC 61400-11 Measurement
 Report ID: 17283.01.T06.RP1

Page 5 of 7

Created on: 5/27/2019

462	80	26.5	44.8	39.5	-5.3	-2.0	-3.3
429	80	27.3	45.5	34.1	-11.4	-2.0	-9.4
385	80	27.5	45.8	38.9	-6.9	-2.0	-4.9
440	80	25.9	44.2	37.1	-7.1	-2.0	-5.1
397	80	24.9	43.2	37.6	-5.6	-2.0	-3.6
415	80	26.0	44.2	38.8	-5.4	-2.0	-3.4
454	80	26.0	44.3	34.0	-10.3	-2.0	-8.3
354	80	27.1	45.3	36.8	-8.6	-2.0	-6.6
432	80	26.9	45.2	37.6	-7.6	-2.0	-5.6
422	80	25.5	43.7	36.6	-7.1	-2.0	-5.1
384	80	26.8	45.1	35.3	-9.8	-2.0	-7.8
435	81	26.1	44.4	36.8	-7.6	-2.0	-5.6
17	82	27.3	45.5	38.7	-6.9	-2.0	-4.9
Average	78				-4.0	-2.0	-2.0

Table D.04 Tonality Assessment Table - 12.5 m/s

Project: North Kent Wind 1 LP - Turbine T06 - IEC 61400-11 Measurement

Report ID: 17283.01.T06.RP1

Page 6 of 7

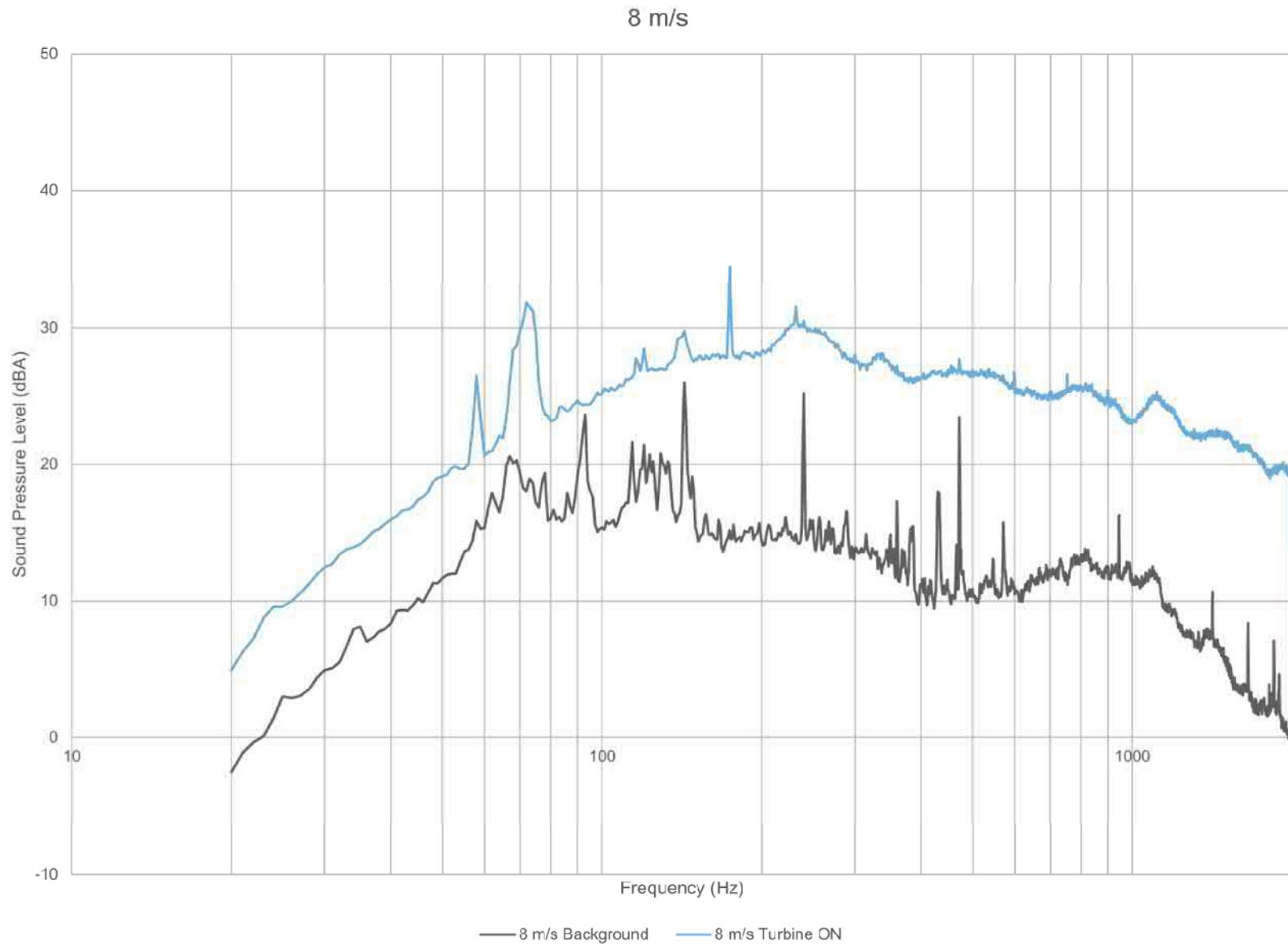
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Measurement #	Centre frequency (Hz)	Background adjusted criterion level (dB)	Masking level (dB)	Tone level (dB)	Determination of tonality (dB)	Frequency dependent audibility criterion (dB)	Tonal Audibility (dB)
323	74	25.8	44.0	35.4	-8.7	-2.0	-6.7
289	76	25.5	43.8	35.4	-8.4	-2.0	-6.4
341	76	26.4	44.7	38.4	-6.3	-2.0	-4.3
71	76	26.6	44.9	40.5	-4.4	-2.0	-2.4
70	77	26.7	45.0	40.9	-4.1	-2.0	-2.1
200	77	27.0	45.2	42.4	-2.9	-2.0	-0.9
257	77	26.5	44.7	40.9	-3.8	-2.0	-1.8
313	77	26.3	44.6	34.1	-10.5	-2.0	-8.5
114	77	25.8	44.0	41.4	-2.6	-2.0	-0.6
93	77	25.8	44.1	40.6	-3.5	-2.0	-1.5
134	77	27.5	45.7	39.5	-6.2	-2.0	-4.2
160	77	26.2	44.4	41.8	-2.6	-2.0	-0.6
294	77	26.8	45.0	33.1	-11.9	-2.0	-9.9
90	77	26.8	45.0	39.5	-5.5	-2.0	-3.5
83	77	26.8	45.1	40.6	-4.5	-2.0	-2.5
69	77	26.7	45.0	40.5	-4.5	-2.0	-2.5
220	78	25.6	43.9	41.7	-2.2	-2.0	-0.1
213	78	25.7	44.0	42.8	-1.2	-2.0	0.8
130	78	26.5	44.7	42.1	-2.7	-2.0	-0.7
105	78	27.1	45.4	42.7	-2.7	-2.0	-0.7
212	78	25.5	43.8	42.7	-1.1	-2.0	0.9
92	78	26.6	44.9	42.6	-2.2	-2.0	-0.2
72	78	27.1	45.4	42.0	-3.4	-2.0	-1.4
245	78	26.1	44.4	39.3	-5.0	-2.0	-3.0
231	78	25.1	43.3	42.4	-1.0	-2.0	1.0
58	78	25.8	44.0	42.1	-1.9	-2.0	0.1
113	78	26.8	45.0	41.1	-3.9	-2.0	-1.9
332	78	26.0	44.3	34.2	-10.0	-2.0	-8.0
61	78	26.8	45.1	39.2	-5.9	-2.0	-3.9
181	78	25.2	43.4	45.0	1.6	-2.0	3.6
174	78	26.7	45.0	39.9	-5.0	-2.0	-3.0
104	78	27.0	45.2	43.3	-1.9	-2.0	0.1
49	78	26.2	44.4	43.4	-1.1	-2.0	0.9
88	79	26.4	44.7	40.3	-4.4	-2.0	-2.4
66	79	27.2	45.5	43.2	-2.3	-2.0	-0.3
372	79	25.9	44.2	37.1	-7.1	-2.0	-5.1
401	79	26.1	44.4	39.6	-4.7	-2.0	-2.7
434	79	26.6	44.9	36.3	-8.5	-2.0	-6.5
322	79	26.0	44.3	38.3	-5.9	-2.0	-3.9
67	79	27.3	45.5	40.5	-5.0	-2.0	-3.0
250	79	25.9	44.2	41.3	-2.9	-2.0	-0.9
362	79	26.0	44.2	35.9	-8.3	-2.0	-6.3
256	79	26.5	44.7	42.2	-2.6	-2.0	-0.6
290	79	26.0	44.2	37.8	-6.4	-2.0	-4.4
439	80	24.9	43.2	37.0	-6.2	-2.0	-4.2
396	80	25.0	43.2	37.9	-5.4	-2.0	-3.4
128	80	27.1	45.3	35.9	-9.4	-2.0	-7.4
375	80	26.7	45.0	34.8	-10.2	-2.0	-8.2
404	80	24.6	42.9	39.3	-3.6	-2.0	-1.6
361	80	25.7	44.0	36.2	-7.8	-2.0	-5.8
199	80	26.4	44.6	38.0	-6.6	-2.0	-4.6
318	82	26.3	44.6	38.7	-5.9	-2.0	-3.9
319	82	26.6	44.9	34.4	-10.5	-2.0	-8.5
Average	78				-4.1	-2.0	-2.1

Table D.05 Tonality Assessment Table - 13 m/s

Project: North Kent Wind 1 LP - Turbine T06 - IEC 61400-11 Measurement
 Report ID: 17283.01.T06.RP1

Measurement #	Centre frequency (Hz)	Background adjusted criterion level (dB)	Masking level (dB)	Tone level (dB)	Determination of tonality (dB)	Frequency dependent audibility criterion (dB)	Tonal Audibility (dB)
351	58	23.9	42.1	37.4	-4.7	-2.0	-2.7
299	76	26.0	44.3	37.5	-6.7	-2.0	-4.7
413	76	25.4	43.6	39.4	-4.2	-2.0	-2.2
314	76	25.6	43.8	40.0	-3.9	-2.0	-1.9
97	76	27.1	45.4	39.9	-5.5	-2.0	-3.5
298	76	26.2	44.4	37.5	-7.0	-2.0	-5.0
264	77	26.1	44.3	38.8	-5.5	-2.0	-3.5
201	77	26.3	44.6	41.3	-3.3	-2.0	-1.3
263	77	26.0	44.2	42.1	-2.1	-2.0	-0.1
447	77	24.9	43.2	39.4	-3.8	-2.0	-1.8
85	78	26.4	44.6	43.8	-0.8	-2.0	1.2
211	78	24.7	43.0	42.1	-0.9	-2.0	1.1
239	78	25.3	43.6	44.4	0.9	-2.0	2.9
136	78	26.2	44.4	43.2	-1.2	-2.0	0.8
103	78	27.2	45.4	41.0	-4.4	-2.0	-2.4
204	78	25.8	44.0	40.3	-3.7	-2.0	-1.7
254	78	27.1	45.4	43.7	-1.7	-2.0	0.3
82	78	25.8	44.0	42.3	-1.7	-2.0	0.3
258	78	26.9	45.1	43.4	-1.7	-2.0	0.3
53	78	26.5	44.7	41.1	-3.6	-2.0	-1.6
259	78	26.1	44.3	43.4	-0.9	-2.0	1.1
243	78	25.5	43.8	42.8	-1.0	-2.0	1.0
51	78	26.5	44.8	41.7	-3.0	-2.0	-1.0
133	78	26.1	44.3	43.8	-0.5	-2.0	1.5
54	78	27.4	45.6	42.0	-3.6	-2.0	-1.6
215	78	25.5	43.8	41.7	-2.0	-2.0	0.0
260	78	24.5	42.8	43.4	0.6	-2.0	2.6
129	78	25.8	44.1	43.8	-0.3	-2.0	1.7
55	78	28.4	46.7	40.2	-6.5	-2.0	-4.5
42	78	27.2	45.4	40.4	-5.0	-2.0	-3.0
455	78	26.0	44.3	38.7	-5.6	-2.0	-3.6
135	78	26.2	44.5	40.3	-4.1	-2.0	-2.1
73	79	27.5	45.8	36.4	-9.5	-2.0	-7.5
95	79	27.1	45.4	35.7	-9.7	-2.0	-7.7
312	79	27.2	45.5	38.0	-7.5	-2.0	-5.5
377	79	26.1	44.3	36.0	-8.3	-2.0	-6.3
445	79	24.7	43.0	39.0	-4.0	-2.0	-2.0
242	79	26.8	45.0	41.8	-3.2	-2.0	-1.2
449	79	26.1	44.4	34.1	-10.2	-2.0	-8.2
261	79	27.3	45.5	43.4	-2.2	-2.0	-0.2
236	79	26.2	44.5	39.3	-5.1	-2.0	-3.1
340	80	27.1	45.4	38.1	-7.3	-2.0	-5.3
391	80	25.3	43.5	39.8	-3.8	-2.0	-1.8
405	80	24.3	42.6	38.5	-4.1	-2.0	-2.1
412	80	25.9	44.2	38.5	-5.7	-2.0	-3.7
110	80	28.1	46.4	34.7	-11.7	-2.0	-9.7
347	80	26.7	45.0	39.9	-5.1	-2.0	-3.1
410	80	25.0	43.3	39.4	-3.9	-2.0	-1.9
441	80	25.6	43.9	37.1	-6.8	-2.0	-4.8
348	80	25.8	44.1	37.7	-6.4	-2.0	-4.4
395	80	25.1	43.3	31.2	-12.2	-2.0	-10.2
267	80	27.1	45.4	37.0	-8.4	-2.0	-6.4
Average	78				-3.6	-2.0	-1.6



17283.01.T06.RP1

Project Name

North Kent Wind 1 LP - IEC 61400-11 Edition 3.0 - Turbine T06



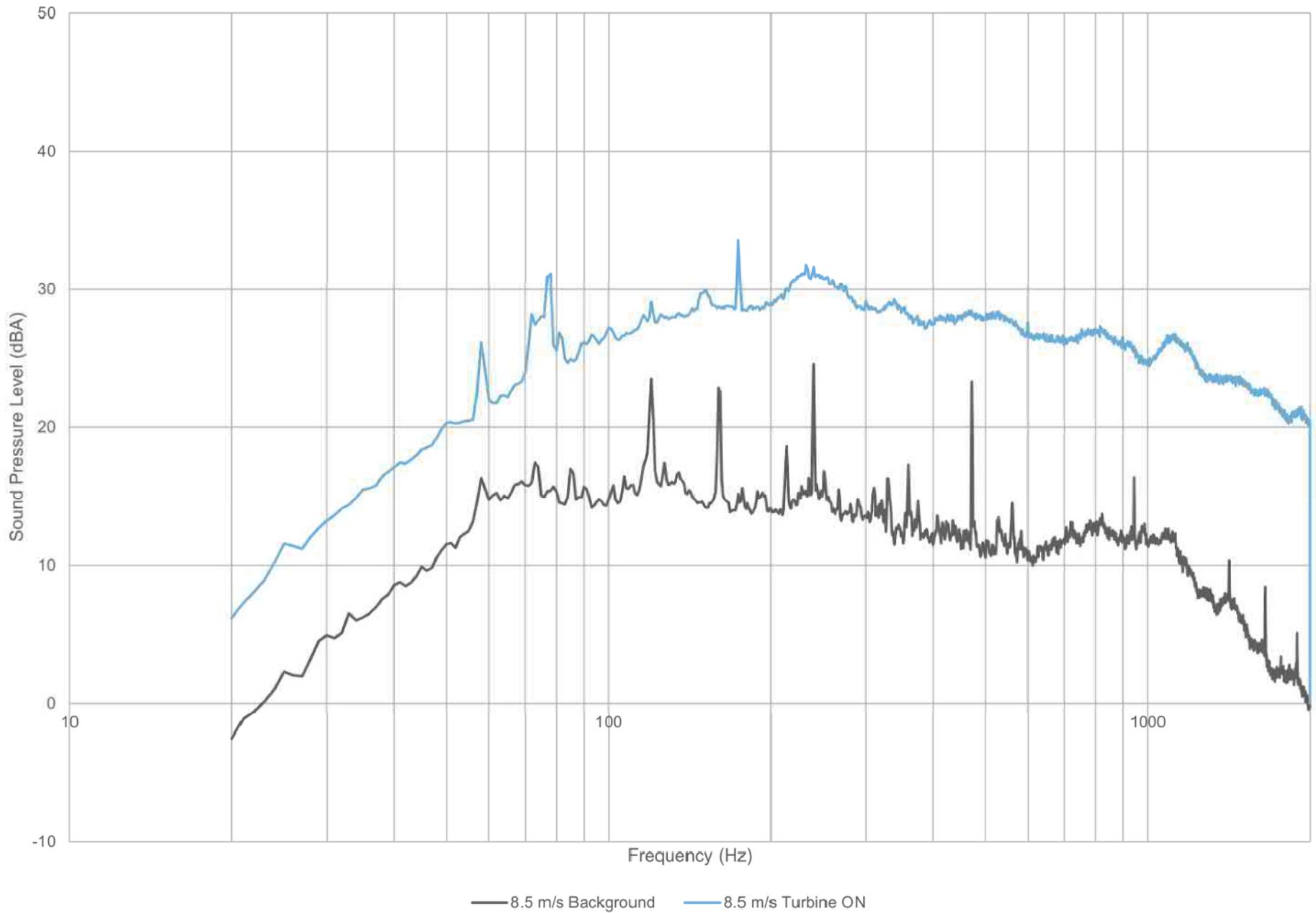
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 Drawn by: DEA
 Reviewed by: MAD
 Date: May 2019
 Revision: 1

Figure Title

Plot of narrow band spectra - Turbine ON vs. Background at 8.0 m/s

Figure D.01

8.5 m/s



17283.01.T06.RP1

Project Name

North Kent Wind 1 LP - IEC 61400-11 Edition 3.0 - Turbine T06

Figure Title

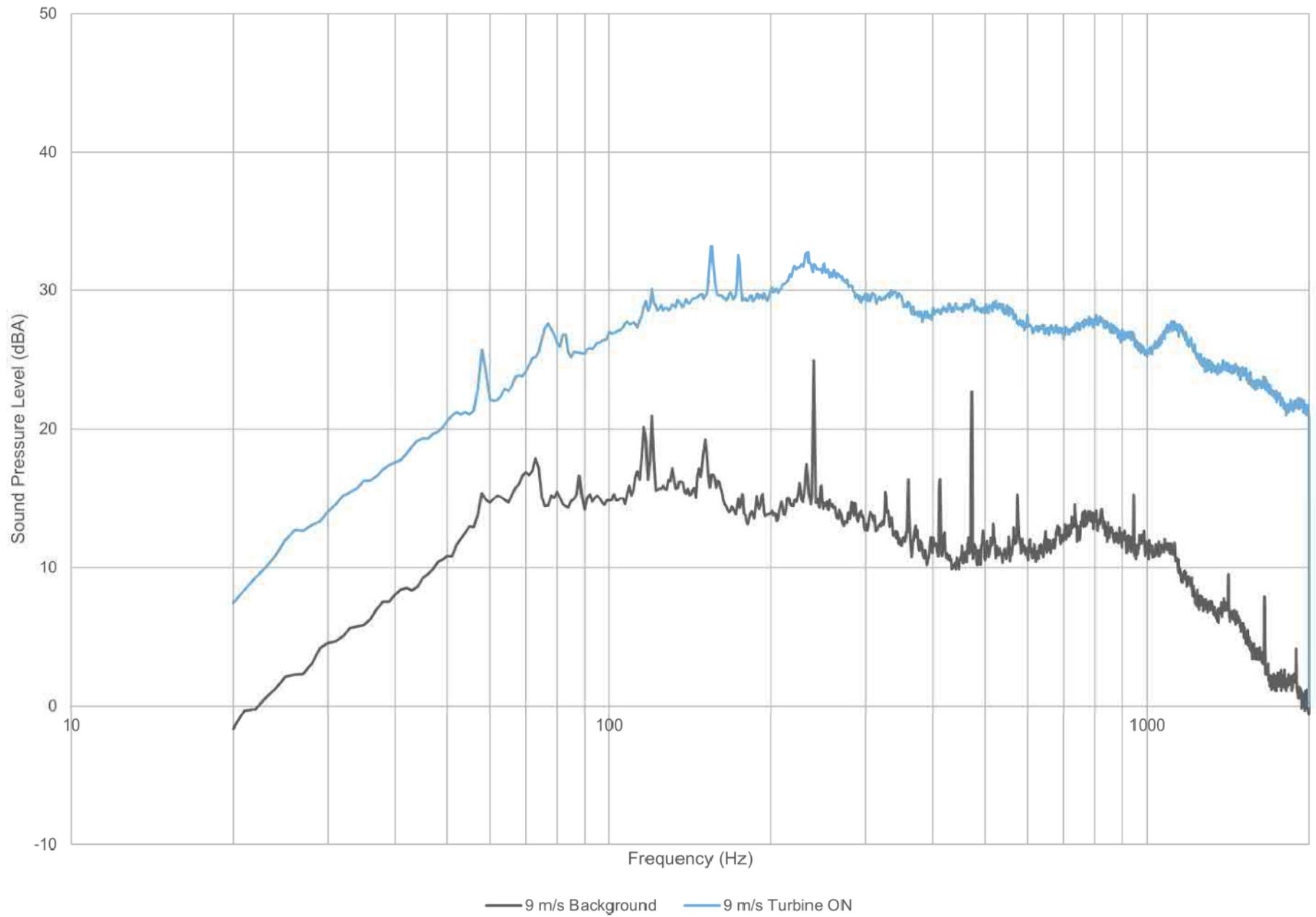
Plot of narrow band spectra - Turbine ON vs. Background at 8.5 m/s



Scale: NTS
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Reviewed by: MAD
Date: May 2019
Revision: 1

Figure D.02

9 m/s



17283.01.T06.RP1

Scale: NTS
Drawn by: DEA
Reviewed by: MAD
Date: May 2019
Revision: 1

Project Name

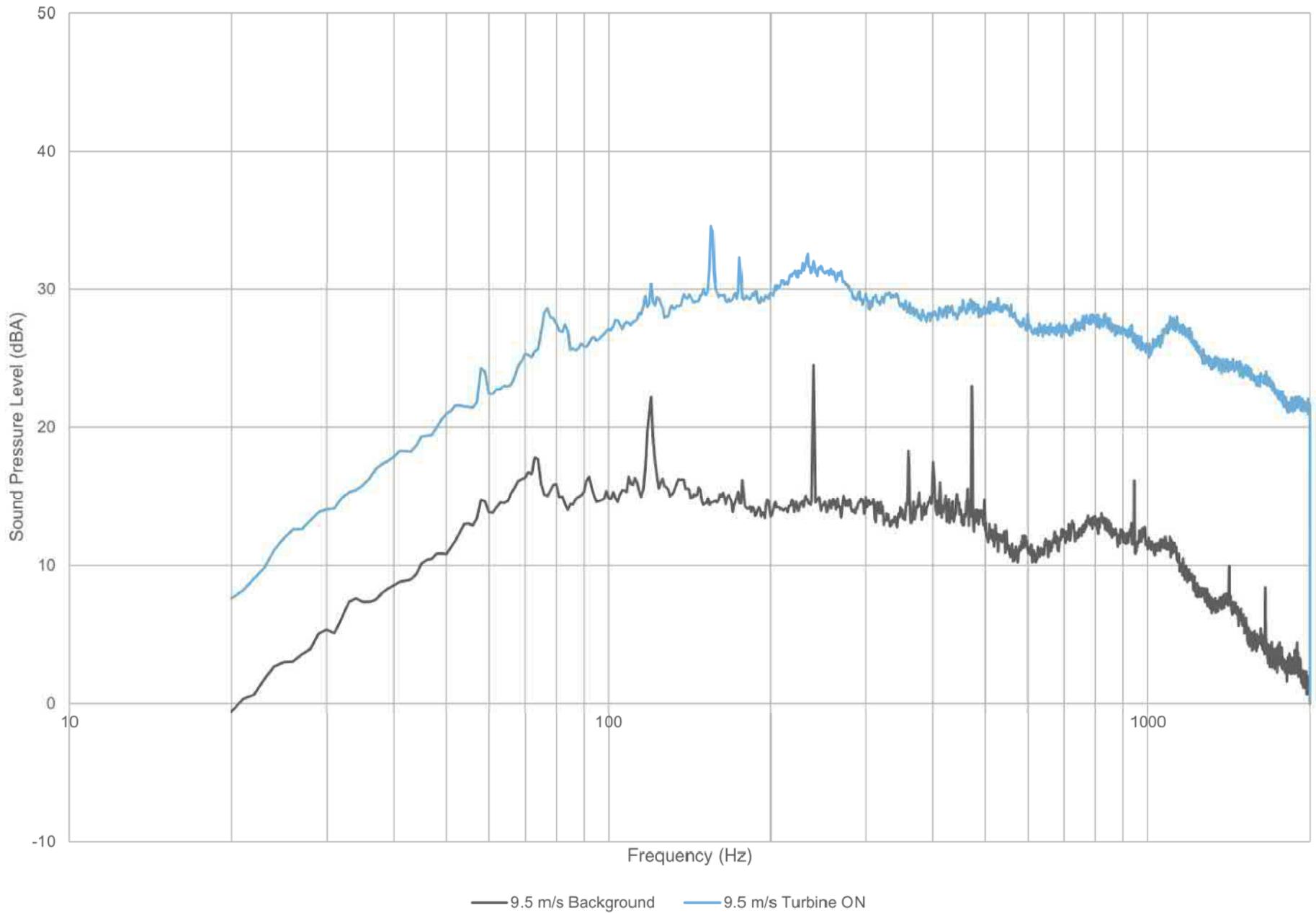
North Kent Wind 1 LP - IEC 61400-11 Edition 3.0 - Turbine T06

Figure Title

Plot of narrow band spectra - Turbine ON vs. Background at 9.0 m/s

Figure D.03

9.5 m/s



17283.01.T06.RP1

Scale: NTS
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Reviewed by: MAD
Date: May 2019
Revision: 1

Project Name

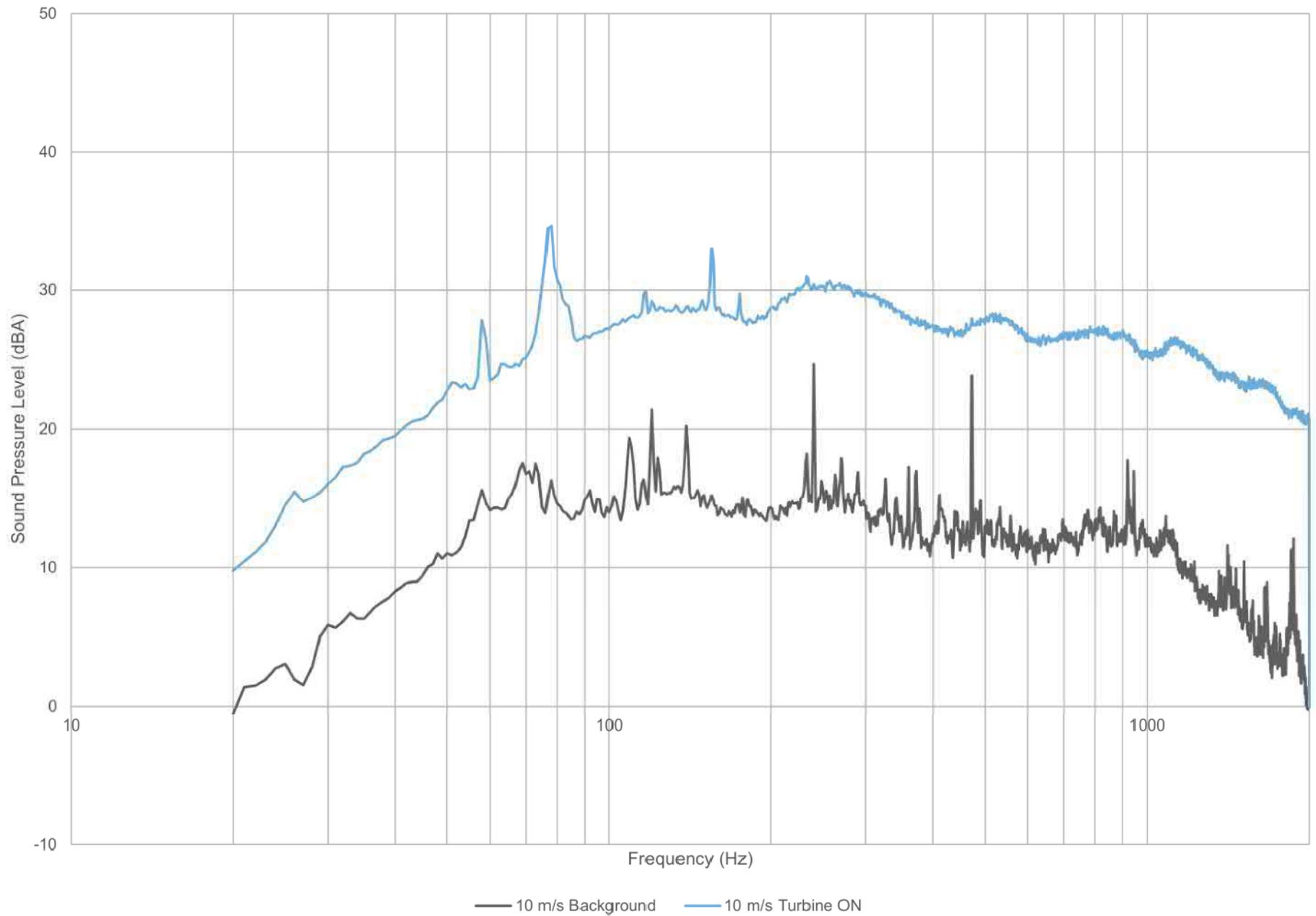
North Kent Wind 1 LP - IEC 61400-11 Edition 3.0 - Turbine T06

Figure Title

Plot of narrow band spectra - Turbine ON vs. Background at 9.5 m/s

Figure D.04

10 m/s



17283.01.T06.RP1

Scale: NTS
Drawn by: DEA
Reviewed by: MAD
Date: May 2019
Revision: 1

Project Name

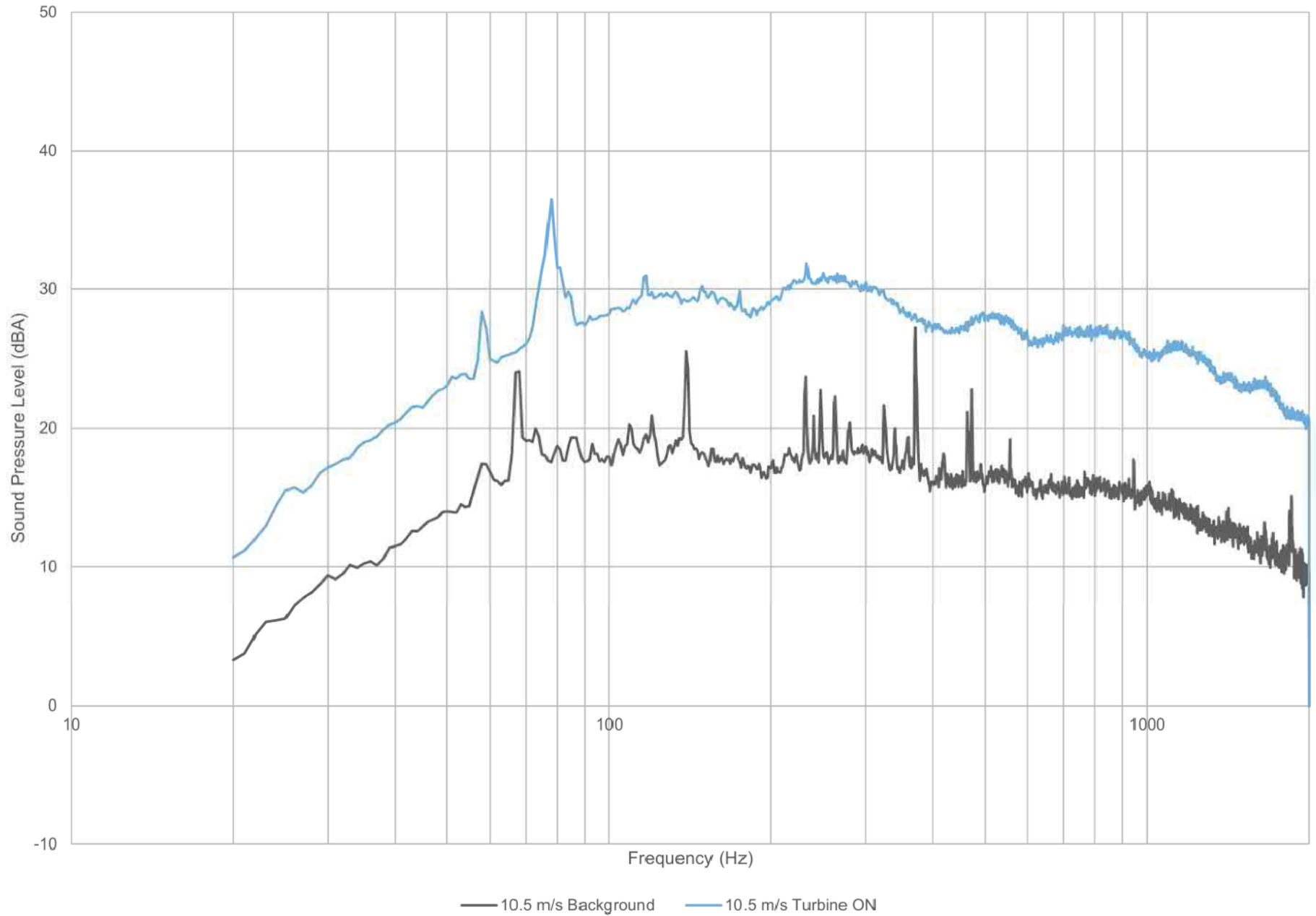
North Kent Wind 1 LP - IEC 61400-11 Edition 3.0 - Turbine T06

Figure Title

Plot of narrow band spectra - Turbine ON vs. Background at 10.0 m/s

Figure D.05

10.5 m/s



17283.01.T06.RP1

Scale: NTS
Drawn by: DEA
Reviewed by: MAD
Date: May 2019
Revision: 1

Project Name

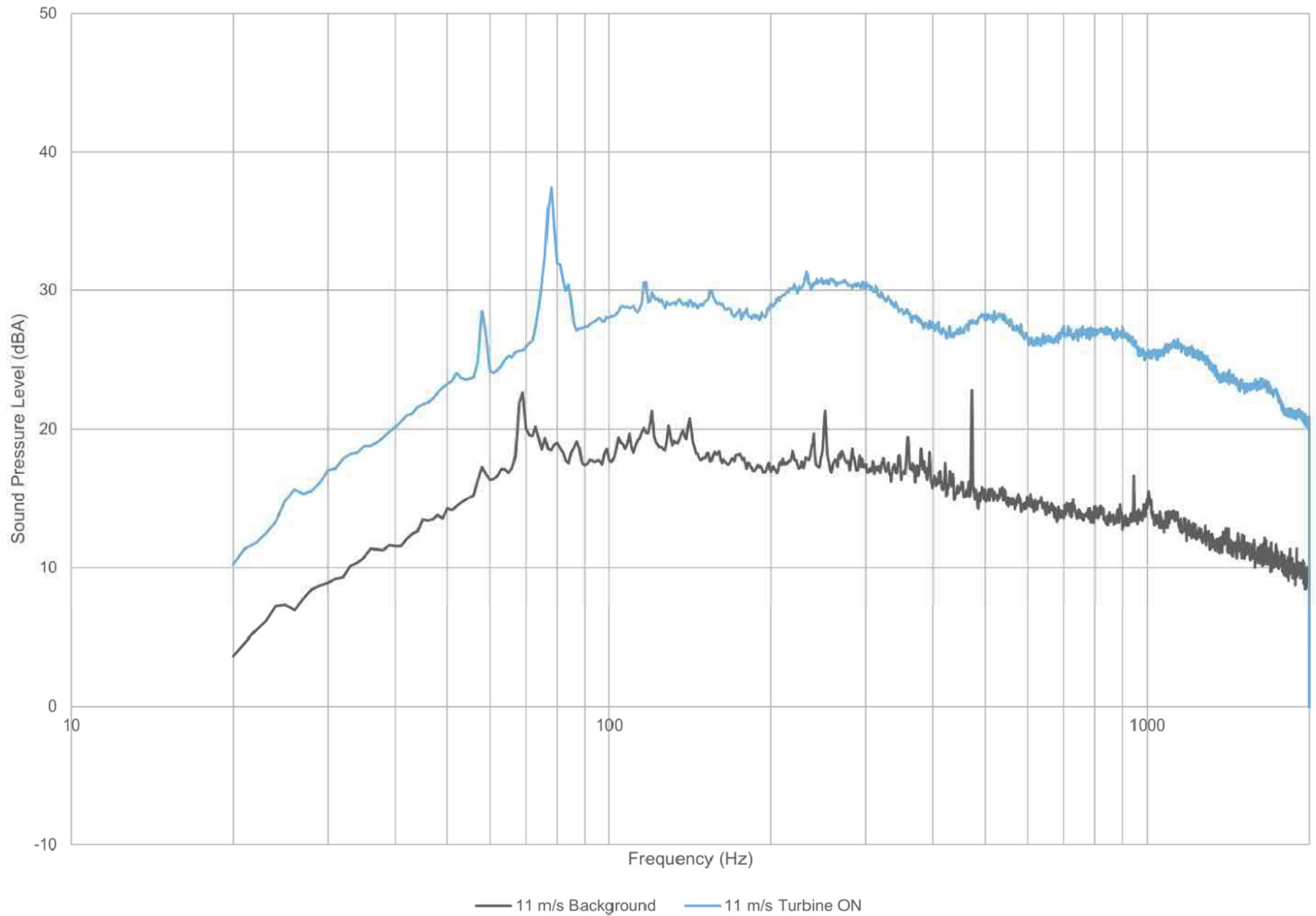
North Kent Wind 1 LP - IEC 61400-11 Edition 3.0 - Turbine T06

Figure Title

Plot of narrow band spectra - Turbine ON vs. Background at 10.5 m/s

Figure D.06

11 m/s



17283.01.T06.RP1

Scale: NTS
Drawn by: DEA
Reviewed by: MAD
Date: May 2019
Revision: 1

Project Name

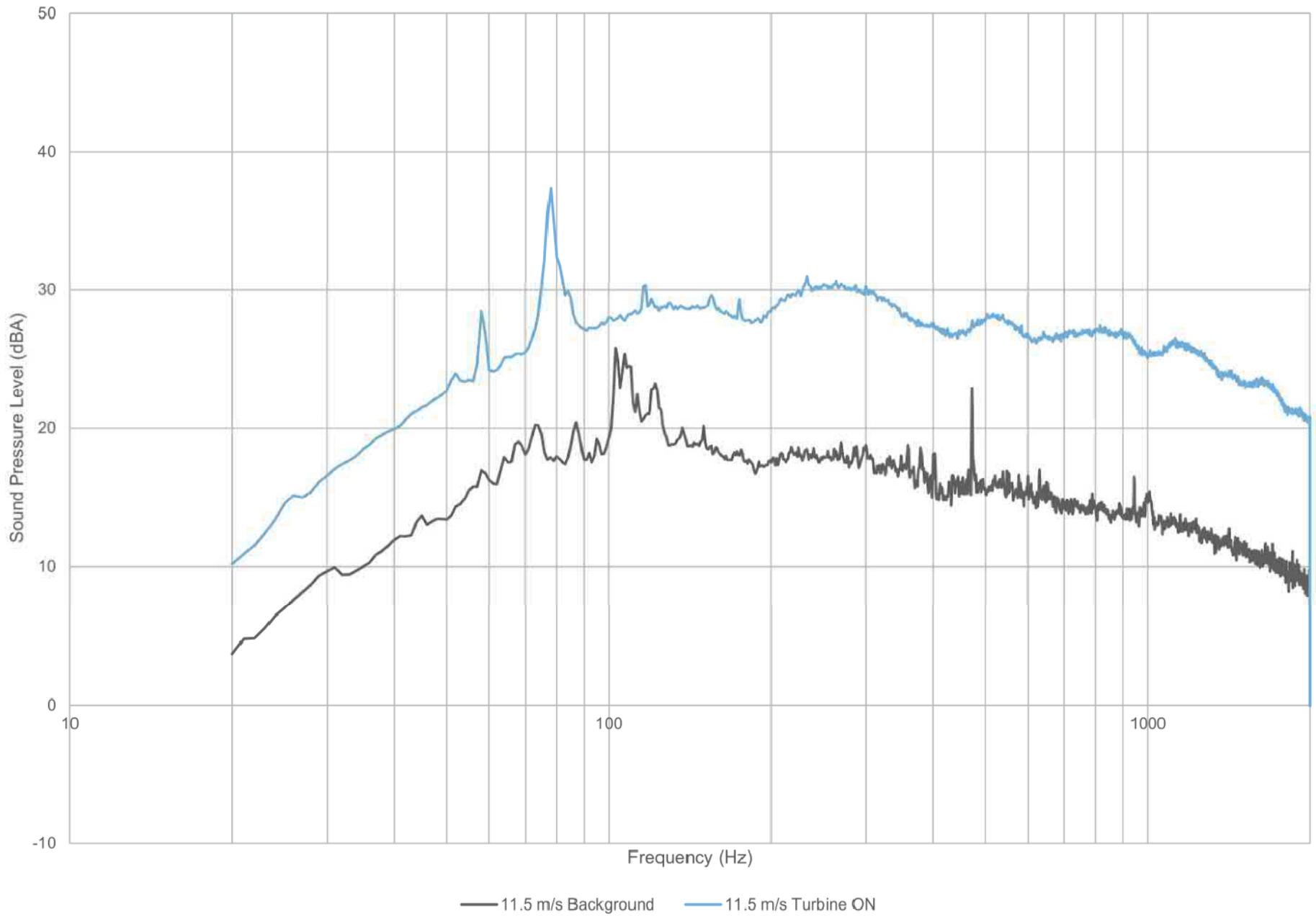
North Kent Wind 1 LP - IEC 61400-11 Edition 3.0 - Turbine T06

Figure Title

Plot of narrow band spectra - Turbine ON vs. Background at 11.5 m/s

Figure D.07

11.5 m/s



17283.01.T06.RP1

Scale: NTS
Drawn by: DEA
Reviewed by: MAD
Date: May 2019
Revision: 1

Project Name

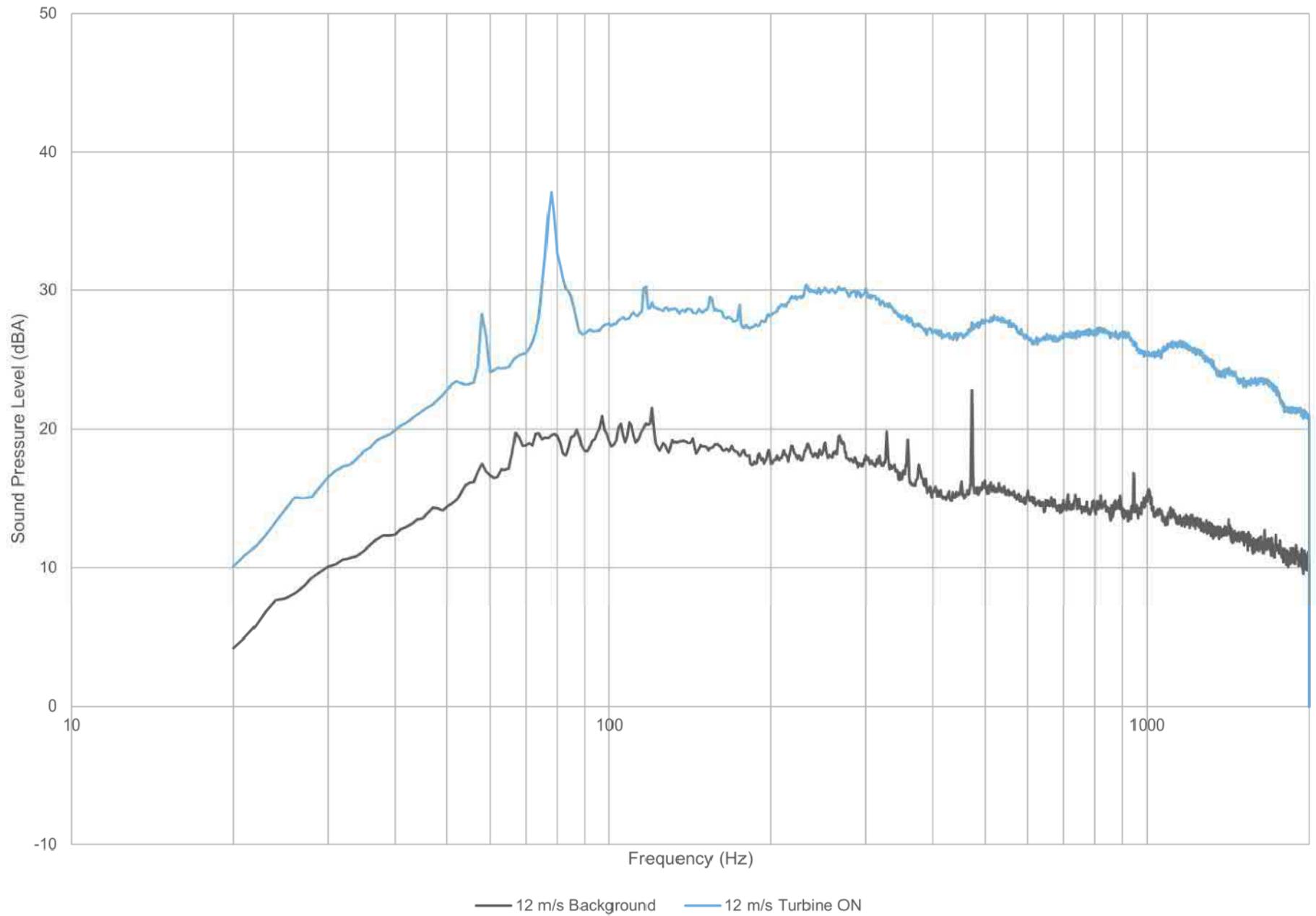
North Kent Wind 1 LP - IEC 61400-11 Edition 3.0 - Turbine T06

Figure Title

Plot of narrow band spectra - Turbine ON vs. Background at 11.5 m/s

Figure D.08

12 m/s



17283.01.T06.RP1

Scale: NTS
Drawn by: DEA
Reviewed by: MAD
Date: May 2019
Revision: 1

Project Name

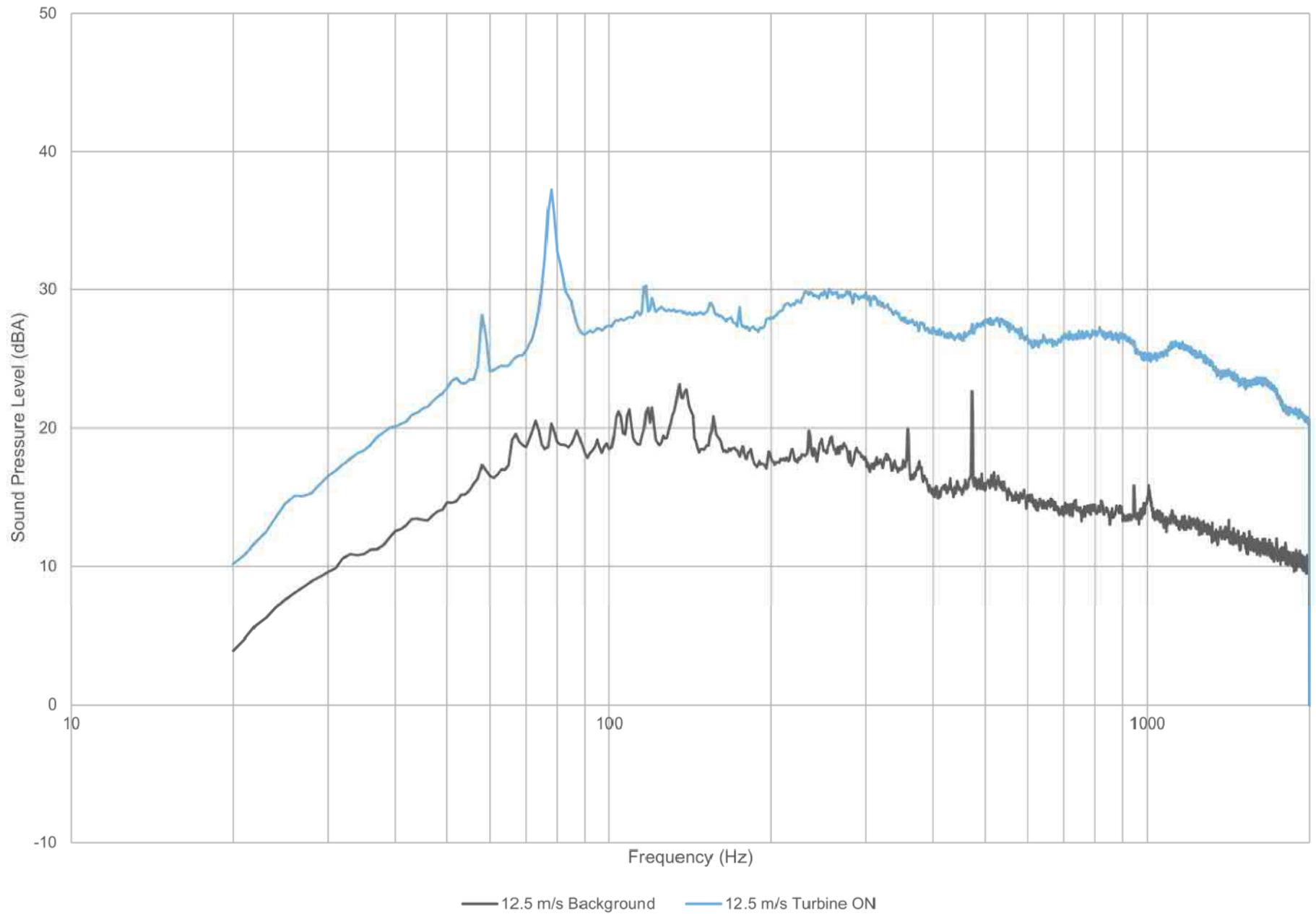
North Kent Wind 1 LP - IEC 61400-11 Edition 3.0 - Turbine T06

Figure Title

Plot of narrow band spectra - Turbine ON vs. Background at 12.0 m/s

Figure D.09

12.5 m/s



17283.01.T06.RP1

Scale: NTS
Drawn by: DEA
Reviewed by: MAD
Date: May 2019
Revision: 1

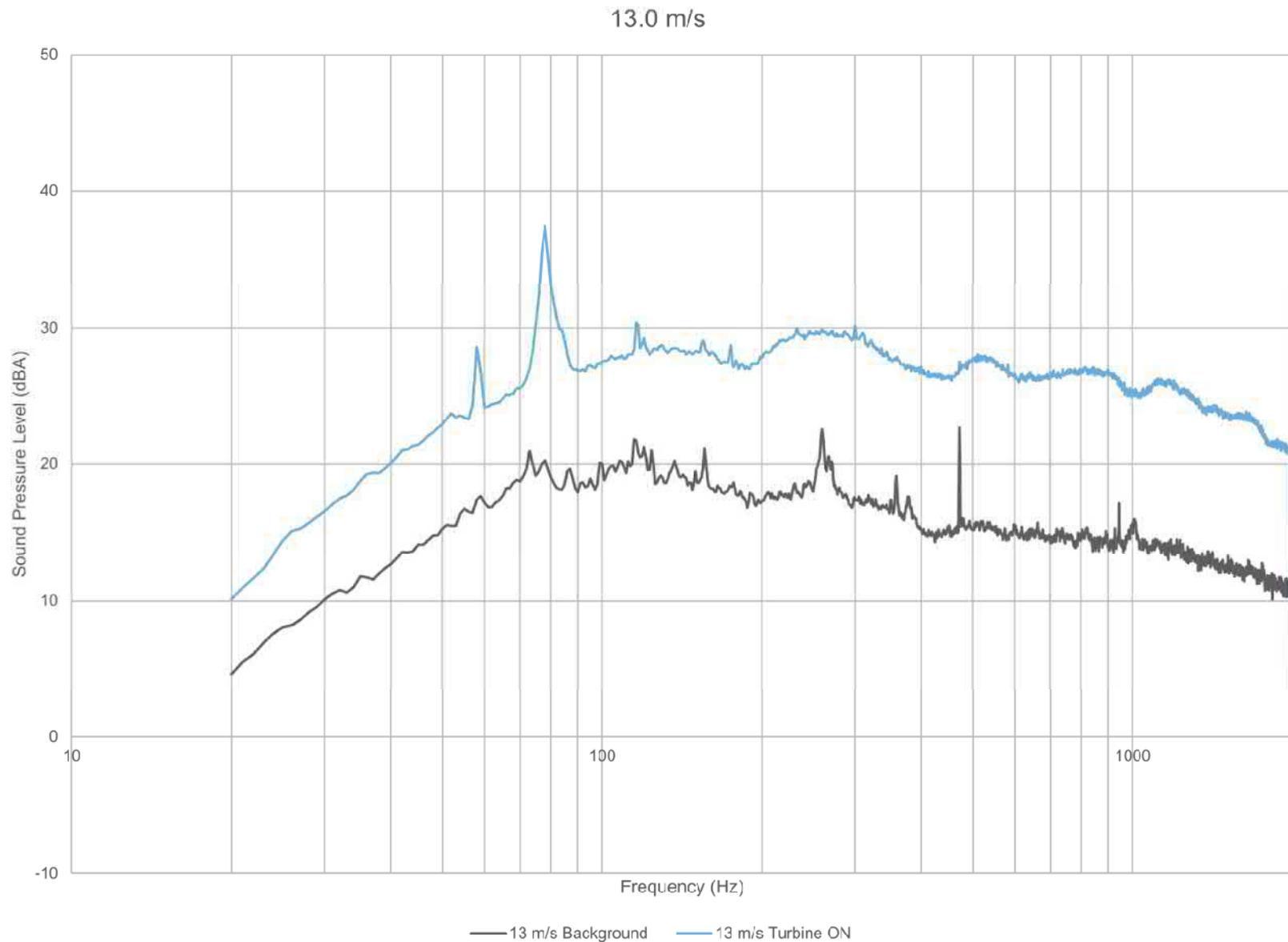
Project Name

North Kent Wind 1 LP - IEC 61400-11 Edition 3.0 - Turbine T06

Figure Title

Plot of narrow band spectra - Turbine ON vs. Background at 12.5 m/s

Figure D.10



17283.01.T06.RP1

Scale: NTS
 Drawn by: DEA
 Reviewed by: MAD
 Date: May 2019
 Revision: 1

Project Name

North Kent Wind 1 LP - IEC 61400-11 Edition 3.0 - Turbine T06

Figure Title

Plot of narrow band spectra - Turbine ON vs. Background at 13.0 m/s

Figure D.11

Appendix E Measurement Data

Table E.01 Measurement data - Turbine ON

Project: North Kent Wind 1 LP - Turbine T06 - IEC 61400-11 Measurement
Report ID: 17283.01.T06.RP1

Page 1 of 5
Created on: 5/25/2019

***Blank data denotes values that were omitted in the analysis due to an extraneous event during recording

Data Point #	Standardized Wind Speed	LReq	Turbine Power Output (kW)	Reference View Angle (°)	Yaw Angle (°)	Pitch Angle (°)	Rotor RPM	Nacelle Anemometer Wind Speed (m/s)	10m Anemometer Wind Speed (m/s)	Air Temperature (°C)	Pressure (kPa)	Relative Humidity (%)
1	10.3	55.0	2903	160.0	166.2	2.6	14.2	10.9	6.9	18.7	95948.3	70
2	10.3	55.7	2879	160.0	166.1	1.4	14.2	9.9	6.9	18.7	95944.8	70
3	10.8	55.7	2895	160.0	166.2	1.4	14.3	11.4	7.0	18.7	95932.4	70
4	10.9	55.8	2879	160.0	166.1	1.3	14.4	11.5	7.7	18.7	95987.5	70
5	10.6	55.6	2915	160.0	166.2	1.5	14.4	11.2	9.4	18.7	95859.0	70
6	10.5	55.3	3174	160.0	166.1	2.2	14.5	11.1	9.1	18.7	95988.1	70
7	13.6	55.8	3182	160.0	166.1	2.1	14.4	11.1	10.5	18.8	95733.2	69
8	11.5	55.7	3178	160.0	166.1	3.1	14.6	12.1	9.4	18.7	95682.8	69
9	12.0	55.4	3182	160.0	166.1	6.8	15.1	12.7	9.4	18.8	95757.9	69
10	11.3	55.2	3095	160.0	166.1	6.2	14.5	11.9	9.1	18.8	95654.0	69
11	11.8	54.9	2985	160.0	166.1	2.6	14.4	12.4	8.1	18.8	95554.9	69
12	10.1	54.8	2715	160.0	166.1	4.4	14.3	11.0	7.6	18.8	95612.3	69
13	10.1	55.1	2705	160.0	166.1	3.1	14.4	10.3	7.9	18.9	95827.8	69
14	10.6	55.2	2862	160.0	166.1	3.6	14.4	11.2	7.2	18.9	96043.5	69
15	11.0	55.4	2797	160.0	166.2	2.6	14.4	10.1	6.6	19.2	96124.7	69
16	11.0	55.4	2508	160.0	166.1	2.5	14.5	11.6	6.3	18.9	95987.2	69
17	11.9	55.5	3192	160.0	166.1	4.9	14.8	12.6	7.0	18.9	96172.0	69
18	11.4	54.9	3182	160.0	166.2	4.8	14.5	12.0	8.2	18.9	96248.3	69
19	10.4	54.9	2960	160.0	166.2	4.6	14.3	11.0	8.3	19.0	96305.7	69
20	10.7	55.0	2952	160.0	166.2	4.4	14.4	11.3	8.2	19.0	96397.1	69
21	10.9	55.2	3042	160.0	166.2	4.6	14.4	11.5	9.0	19.0	96419.0	69
22	11.4	55.1	2945	160.0	166.2	4.4	14.3	12.0	9.7	19.0	96494.2	69
23	11.2	55.1	2974	160.0	166.1	4.0	14.4	11.8	9.1	19.0	96416.4	69
24	10.7	54.9	2981	160.0	166.1	3.3	14.4	11.2	9.2	19.0	96395.8	69
25	10.8	54.9	2845	160.0	166.1	3.3	14.4	11.4	8.2	19.1	96385.5	68
26	10.7	55.2	2972	160.0	166.2	3.8	14.4	11.3	8.8	19.1	96342.3	68
27	11.3	55.1	2848	160.0	166.2	3.3	14.4	11.9	7.6	19.1	96333.6	68
28	10.4	54.9	2819	160.0	166.2	3.8	14.4	10.9	8.0	19.1	96291.4	68
29	10.0	55.4	2672	160.0	166.2	1.9	14.3	10.3	7.8	19.1	96846.5	68
30	11.2	55.6	3146	160.0	166.1	4.0	14.7	11.8	6.9	19.2	96222.4	68
31	11.8	55.3	3184	160.0	166.1	4.6	14.6	12.4	7.9	19.2	96773.3	68
32	11.6	55.4	3127	160.0	166.1	3.1	14.4	12.3	7.6	19.2	96895.1	68
33	10.9	55.0	3134	160.0	166.1	3.8	14.3	11.5	8.8	19.2	96887.8	68
34	11.4	55.6	3183	160.0	166.2	5.5	14.8	12.0	8.9	19.2	96905.5	68
35	11.9	55.2	3127	160.0	166.2	6.2	14.5	12.5	11.0	19.2	96909.7	68
36	10.5	54.7	2995	160.0	166.1	3.3	14.0	11.1	11.0	19.2	96955.2	68
37	9.8	55.8	2562	160.0	166.2	1.7	14.0	9.8	10.4	19.2	97011.3	68
38	9.8	55.8	2562	160.0	166.6	0.8	14.2	10.0	9.3	19.2	96988.8	67
39	11.9	55.7	3139	160.0	169.4	4.1	14.9	10.5	8.2	19.2	96946.3	67
40	11.9	54.9	3188	160.0	169.6	6.9	14.6	12.6	10.0	19.2	96956.2	67
41	11.9	54.9	3188	160.0	169.6	6.9	14.6	12.6	10.0	19.2	96883.4	67
42	12.9	54.6	3146	160.0	169.7	6.7	14.4	13.6	9.3	19.2	96960.4	67
43	11.2	54.7	2925	160.0	169.7	6.1	14.3	11.8	7.6	19.3	97016.0	67
44	10.5	54.6	2785	160.0	169.6	5.6	14.3	11.1	7.5	19.3	96988.6	67
45	10.5	55.1	2849	160.0	169.6	4.9	14.4	11.1	8.8	19.3	97009.3	67
46	11.1	55.1	2827	160.0	169.6	4.9	14.4	11.7	9.7	19.3	96982.5	67
47	11.3	55.3	3009	160.0	169.7	5.0	14.5	11.9	8.7	19.3	97005.0	67
48	11.4	55.5	3195	160.0	169.7	7.3	14.9	12.2	8.2	19.3	97121.3	67
49	12.4	54.9	3188	160.0	169.6	7.1	14.5	13.1	9.4	19.3	97094.3	67
50	11.6	54.6	3123	160.0	169.6	6.8	14.4	12.0	10.4	19.3	96979.4	67
51	12.9	54.8	3151	160.0	169.6	7.2	14.5	13.6	10.0	19.3	97085.3	67
52	13.3	55.1	3194	160.0	169.7	8.6	14.8	14.0	10.0	19.3	97090.8	67
53	13.1	54.9	3178	160.0	169.7	9.6	14.7	13.8	10.0	19.3	97055.6	67
54	12.8	54.6	3152	160.0	169.7	9.0	14.4	13.5	10.6	19.3	97077.7	67
55	12.8	55.2	3105	160.0	169.6	9.0	14.4	13.5	8.8	19.4	96941.0	67
56	11.8	54.7	2849	160.0	169.6	8.5	14.3	12.4	11.1	19.4	96986.7	67
57	11.8	54.4	2868	160.0	169.7	8.5	14.3	12.5	11.6	19.4	96988.5	67
58	12.4	54.6	2839	160.0	169.7	8.2	14.4	13.0	11.2	19.4	96916.8	67
59	11.9	54.6	2832	160.0	169.6	8.0	14.4	12.5	8.7	19.4	96880.1	67
60	11.4	55.3	2870	160.0	169.6	7.4	14.4	12.0	7.8	19.4	96822.0	67
61	12.7	55.2	2910	160.0	169.7	7.5	14.4	13.4	7.4	19.4	97019.8	67
62	10.2	54.7	2773	160.0	169.6	6.8	14.4	11.6	8.2	19.4	97007.0	67
63	9.7	54.8	2507	160.0	169.6	5.9	14.3	11.4	9.3	19.4	96946.8	67
64	10.0	55.2	2688	160.0	169.6	6.2	14.4	11.2	9.8	19.4	96931.3	67
65	11.8	55.1	3031	160.0	169.7	6.9	14.5	12.4	9.4	19.4	96805.3	67
66	12.7	55.1	3193	160.0	169.7	7.5	14.6	13.4	10.4	19.4	96723.7	67
67	12.7	54.9	3198	160.0	169.6	8.4	14.6	13.4	11.4	19.5	96704.3	67
68	13.5	54.7	3187	160.0	169.7	8.4	14.5	14.2	11.2	19.5	96713.0	66
69	12.6	54.7	3140	160.0	169.6	8.2	14.4	13.3	9.9	19.5	96836.2	66
70	12.7	54.2	3062	160.0	169.6	7.6	14.2	13.4	9.6	19.5	96792.2	66
71	12.7	54.5	3133	160.0	169.6	6.5	14.1	13.3	9.4	19.5	96773.1	66
72	12.6	54.9	3179	160.0	169.6	6.7	14.4	13.3	7.9	19.5	96815.1	66
73	13.2	55.1	3175	160.0	169.6	9.0	14.8	13.9	8.2	19.5	96816.4	66
74	10.4	54.1	2907	160.0	169.6	5.6	13.8	11.0	8.4	19.5	96786.4	66
75	10.3	54.6	3046	160.0	169.6	4.1	14.0	10.9	8.9	19.5	96761.1	67
76	11.9	55.4	3148	160.0	169.6	4.6	14.3	12.5	7.5	19.5	96777.5	67
77	10.3	55.1	2878	160.0	169.6	4.0	14.3	10.8	8.4	19.5	96884.4	67
78	11.5	55.6	3177	160.0	169.6	7.7	14.7	12.1	10.8	19.5	96888.5	67
79	11.5	55.3	3195	160.0	169.6	7.3	14.8	12.1	10.4	19.5	96896.7	66
80	12.2	54.7	3190	160.0	169.6	7.8	14.7	12.9	10.5	19.6	96852.2	66
81	13.4	55.3	3193	160.0	169.7	8.3	14.6	14.1	10.6	19.6	96856.7	66
82	13.2	54.8	3162	160.0	169.7	7.9	14.4	13.9	10.1	19.6	96880.5	66
83	12.3	54.9	2995	160.0	169.7	7.7	14.3	12.9	9.9	19.6	96777.0	66
84	11.7	54.8	2987	160.0	169.7	7.7	14.4	12.4	10.0	19.6	96743.1	66
85	13.0	54.7	3064	160.0	169.7	7.8	14.4	13.7	9.0	19.6	96837.3	66
86	14.0	54.2	2776	160.0	169.6	7.2	14.3	11.7	9.3	19.6	96800.7	66
87	12.0	54.7	2850	160.0	169.6	7.1	14.4	12.6	9.4	19.6	96801.2	66

***Blank data denotes values that were omitted in the analysis due to an extraneous event during recording

Data Point #	Standardized Wind Speed	LReq	Turbine Power Output (kW)	Reference View Angle (°)	Yaw Angle (°)	Pitch Angle (°)	Rotor RPM	Nacelle Anemometer Wind Speed (m/s)	10m Anemometer Wind Speed (m/s)	Air Temperature (°C)	Pressure (kPa)	Relative Humidity (%)
89	14.1	55.2	3198	160.0	169.7	9.8	14.8	14.8	9.5	19.6	96899.5	66
90	12.5	54.3	3039	160.0	169.6	8.9	14.3	13.1	8.9	19.6	96936.2	66
91	12.0	54.5	2931	160.0	169.7	8.4	14.3	12.7	7.9	19.6	96955.2	66
92	12.6	54.5	3071	160.0	169.6	8.9	14.5	13.3	10.9	19.5	96904.2	66
93	12.4	54.1	2895	160.0	169.7	7.9	14.2	13.0	9.6	19.5	96858.6	66
94	11.9	54.4	3068	160.0	169.6	6.5	14.1	12.5	10.8	19.5	96966.4	66
95	13.2	55.3	3199	160.0	169.6	9.1	14.9	13.9	10.1	19.5	96826.0	66
96	13.9	55.7	3185	160.0	169.6	10.9	14.9	14.6	10.5	19.5	96873.8	66
97	13.1	54.9	3074	160.0	169.7	8.9	14.0	13.8	10.6	19.5	96781.6	66
98	12.6	55.1	2795	160.0	169.7	6						

Table E.01 Measurement data - Turbine ON

Project: North Kent Wind 1 LP - Turbine T06 - IEC 61400-11 Measurement
Report ID: 17283.01.T06.RP1

Page 2 of 5
Created on: 5/25/2019

***Blank data denotes values that were omitted in the analysis due to an extraneous event during recording

Data Point #	Standardized Wind Speed	LEq	Turbine Power Output (kW)	Reference View Angle (°)	Yaw Angle (°)	Pitch Angle (°)	Rotor RPM	Nacelle Anemometer Wind Speed (m/s)	10m Anemometer Wind Speed (m/s)	Air Temperature (C)	Pressure (kPa)	Relative Humidity (%)
88	12.2	55.1	3199	160.0	169.6	8.3	14.3	13.4	11.4	19.6	96904.8	66
177	12.7	54.6	2958	160.0	169.6	5.0	14.7	12.8	10.0	19.4	97396.7	67
178	11.5	54.8	3055	160.0	169.7	5.2	14.4	12.7	9.2	19.4	97352.2	67
179	11.8	54.9	3065	160.0	169.7	5.5	14.5	12.5	9.0	19.4	97386.0	67
180	11.7	54.6	3111	160.0	169.7	5.9	14.4	12.4	8.0	19.4	97326.1	67
181	12.3	54.8	3174	160.0	169.7	6.0	14.5	13.0	9.0	19.4	97334.3	67
182	12.0	54.6	3176	160.0	169.7	6.3	14.5	12.7	9.5	19.4	97332.1	67
183	11.4	54.1	2988	160.0	169.7	5.9	14.3	12.0	9.0	19.4	97365.8	67
184	11.3	54.2	2798	160.0	169.7	5.2	14.3	11.9	7.9	19.4	97330.0	67
185	9.9	54.9	2651	160.0	169.6	3.2	14.3	10.3	7.9	19.4	97339.3	67
186	10.8	55.1	3181	160.0	169.6	2.9	14.4	12.7	7.9	19.4	97319.6	67
187	11.0	55.1	3031	160.0	169.6	4.4	14.5	11.6	7.1	19.5	97447.9	67
188	11.6	55.2	3199	160.0	169.6	4.9	14.5	12.3	6.3	19.5	97523.1	67
189	12.0	55.5	3195	160.0	169.6	6.3	14.8	12.6	6.7	19.5	97555.1	67
190	54.7	11.6	3067	160.0	169.9	6.4	14.5	12.2	7.0	19.5	97548.7	67
191	12.1	54.7	2873	160.0	169.7	5.8	14.3	12.7	6.8	19.5	97572.5	67
192	11.5	54.8	2890	160.0	170.8	5.8	14.4	12.1	6.7	19.5	97562.5	67
193	10.2	54.6	2770	160.0	172.9	5.3	14.3	12.2	7.9	19.5	97486.8	67
194	10.0	54.6	2804	160.0	172.9	4.8	14.4	10.6	9.7	19.5	97496.5	67
195	11.3	54.8	2970	160.0	172.8	5.3	14.5	11.9	9.5	19.5	97530.0	67
196	10.5	55.0	3024	160.0	172.9	5.3	14.4	11.0	9.2	19.5	97501.6	67
197	11.7	54.9	3177	160.0	172.9	5.8	14.5	12.4	8.5	19.5	97497.8	67
198	12.2	54.8	3182	160.0	172.9	7.1	14.7	12.5	8.1	19.5	97470.6	67
199	12.4	55.1	3198	160.0	172.8	8.4	14.8	13.1	9.2	19.6	97484.0	67
200	12.4	54.6	3116	160.0	172.8	8.3	14.4	13.1	10.2	19.6	97550.0	67
201	13.2	54.4	2981	160.0	172.9	7.9	14.3	11.7	11.7	19.6	97495.2	67
202	12.2	54.0	2886	160.0	172.9	7.7	14.4	12.9	11.2	19.6	97538.7	67
203	12.1	54.9	2962	160.0	172.9	7.8	14.4	12.9	10.9	19.6	97481.5	67
204	13.2	54.4	2956	160.0	172.9	7.8	14.4	13.2	11.2	19.6	97462.4	67
205	10.1	54.5	2741	160.0	172.9	7.1	14.3	13.2	8.0	19.6	97462.8	67
206	9.9	54.3	2637	160.0	172.9	6.5	14.4	11.5	8.3	19.6	97481.4	66
207	9.8	54.8	2535	160.0	172.9	6.2	14.5	11.1	9.1	19.6	97512.8	66
208	10.1	54.5	2710	160.0	172.8	6.6	14.5	12.9	10.5	19.6	97481.2	66
209	11.9	54.5	2937	160.0	172.8	7.0	14.5	12.5	8.8	19.6	97477.0	66
210	13.4	55.0	3134	160.0	172.8	7.6	14.6	14.1	10.0	19.6	97501.4	66
211	13.1	54.8	2948	160.0	172.9	7.5	14.4	13.8	11.9	19.7	97522.0	66
212	12.5	54.4	3125	160.0	172.8	7.4	14.4	13.1	9.8	19.7	97470.0	66
213	12.6	54.3	3165	160.0	172.9	7.5	14.4	13.3	9.3	19.7	97461.6	66
214	13.8	54.9	3194	160.0	172.9	8.7	14.7	14.5	8.5	19.7	97425.2	66
215	14.2	54.8	3189	160.0	172.9	8.4	14.5	13.5	8.0	19.8	97430.5	66
216	13.3	54.2	2863	160.0	172.9	8.0	14.3	14.0	9.1	19.7	97451.4	66
217	12.2	54.0	2807	160.0	172.9	7.7	14.3	14.0	9.3	19.8	97489.4	66
218	11.8	54.5	3065	160.0	172.9	8.2	14.5	12.4	9.1	19.8	97469.2	66
219	12.0	54.2	2848	160.0	172.9	7.5	14.3	12.7	9.4	19.8	97478.3	66
220	12.4	54.4	2925	160.0	172.8	7.7	14.4	13.1	8.8	19.8	97489.8	66
221	11.8	54.4	3045	160.0	172.8	7.9	14.4	12.4	7.9	19.8	97481.0	66
222	12.1	54.6	3126	160.0	172.8	8.0	14.4	12.4	7.4	19.8	97450.8	66
223	13.9	54.5	3130	160.0	172.8	8.2	14.5	14.6	8.6	19.8	97448.7	66
224	13.5	54.4	3139	160.0	172.9	8.7	14.5	14.2	9.4	19.8	97412.3	66
225	11.5	54.0	2961	160.0	172.9	6.2	13.9	12.2	9.1	19.8	97391.7	66
226	11.7	54.7	3030	160.0	172.8	4.8	14.1	12.3	8.4	19.8	97388.8	66
227	12.2	54.9	3183	160.0	172.9	5.4	14.4	12.8	9.6	19.8	97375.8	66
228	13.4	54.8	3197	160.0	172.9	7.6	14.9	14.1	10.8	19.8	97365.0	66
229	13.5	54.8	3198	160.0	172.8	8.7	14.8	14.2	10.9	19.9	97420.0	66
230	13.5	54.7	3083	160.0	172.8	7.9	14.3	14.2	9.6	19.9	97401.0	66
231	12.7	54.0	3009	160.0	172.9	7.9	14.4	13.4	7.6	19.9	97374.9	66
232	10.2	54.5	2771	160.0	172.9	7.2	14.3	11.1	8.8	19.9	97344.6	66
233	10.2	54.3	2758	160.0	172.8	6.9	14.4	12.4	9.1	19.9	97320.5	66
234	10.0	54.4	2693	160.0	172.9	6.1	14.3	11.6	8.1	19.9	97313.7	66
235	10.1	55.4	2719	160.0	172.9	6.1	14.4	12.2	9.2	19.9	97303.1	66
236	13.0	54.9	3176	160.0	172.9	7.5	14.7	13.7	10.0	19.9	97351.2	66
237	12.1	54.3	3115	160.0	172.9	7.2	14.4	12.8	9.2	19.9	97368.5	66
238	11.3	54.6	2943	160.0	172.9	6.9	14.3	11.9	9.3	19.9	97365.4	66
239	12.8	54.8	3160	160.0	172.8	7.5	14.5	13.4	7.7	19.9	97321.8	66
240	12.2	54.5	3201	160.0	172.9	7.5	14.4	12.9	8.1	19.9	97330.3	66
241	13.5	54.8	3185	160.0	172.8	7.8	14.5	14.2	9.2	20.0	97315.1	66
242	12.9	54.7	3202	160.0	172.9	8.4	14.6	13.6	9.4	20.0	97319.4	66
243	12.8	54.3	3110	160.0	172.9	8.3	14.4	13.5	9.0	20.0	97286.1	66
244	12.4	54.6	2848	160.0	172.9	7.6	14.3	14.1	7.6	20.0	97286.3	66
245	12.7	54.5	2863	160.0	172.9	7.6	14.4	13.4	7.3	20.0	97313.1	66
246	11.8	54.6	2912	160.0	172.8	7.6	14.4	12.5	8.8	20.0	97306.5	66
247	11.6	54.4	2870	160.0	172.8	7.4	14.4	12.2	9.4	20.0	97292.5	65
248	10.0	54.7	2687	160.0	172.9	6.6	14.3	12.0	8.6	20.0	97280.3	65
249	10.0	54.5	2675	160.0	172.9	6.4	14.4	11.2	8.3	20.0	97289.6	65
250	12.4	54.6	3026	160.0	172.9	7.0	14.5	13.0	8.0	20.0	97311.2	65
251	11.7	54.4	3133	160.0	172.9	7.1	14.4	12.4	9.0	20.0	97307.4	65
252	11.7	54.3	3082	160.0	172.9	7.0	14.5	12.3	8.6	20.0	97293.1	65
253	11.1	54.7	2854	160.0	172.9	6.3	14.3	11.7	9.3	20.1	97274.0	65
254	13.2	55.3	3128	160.0	172.8	6.9	14.5	13.9	9.1	20.1	97267.7	65
255	11.7	55.5	3177	160.0	172.8	7.2	14.5	12.3	8.0	20.1	97251.4	65
256	12.3	55.3	3187	160.0	172.8	8.1	14.6	13.0	7.8	20.1	97196.8	65
257	12.4	54.9	2959	160.0	172.8	7.3	14.3	13.1	7.5	20.1	97263.7	65
258	13.1	54.8	3013	160.0	172.9	7.5	14.4	13.8	7.9	20.1	97197.4	65
259	13.0	54.4	3117	160.0	172.9	7.6	14.4	13.7	8.9	20.1	97136.2	65
260	12.9	54.4	3086	160.0	172.9	7.6	14.4	13.6	9.8	20.1	97057.1	65
261	13.0	54.9	3188	160.0	172.9	8.3	14.7	13.7	9.1	20.1	97192.1	65
262	14.0	54.5	3151	160.0	172.9	8.9	14.5	14.2	9.2	20.1	97093.0	65
263	13.0	54.3	2995	160.0	172.9	8.4	14.3	13.7	9.1	20.1	97109.7	65

***Blank data denotes values that were omitted in the analysis due to an extraneous event during recording

Data Point #	Standardized Wind Speed	LEq	Turbine Power Output (kW)	Reference View Angle (°)	Yaw Angle (°)	Pitch Angle (°)	Rotor RPM	Nacelle Anemometer Wind Speed (m/s)	10m Anemometer Wind Speed (m/s)	Air Temperature (C)	Pressure (kPa)	Relative Humidity (%)
176	10.0	54.8	3148	160.0	169.6	5.5	14.4	14.4	19.4	19.4	97411.7	67
265	10.9	54.0	2690	160.0	172.8	5.3	13.9	11.5	8.3	20.1	97121.5	66
266	10.6	54.6	2636	160.0	172.9	3.2	14.0	11.2	9.3	20.1	97120.1	66
267	13.0	55.4	3181	160.0	172.9	5.1	14.7	13.7	8.0	20.1	97110.4	66
268	13.2	55.1	3187	160.0	172.9	7.9	15.0	13.9	7.7	20.1	97067.1	66
269	11.7	54.8	3063	160.0	174.1	6.5	14.2	12.4	8.3	20.1	97055.1	66
270			3191	160.0	176.1	5.2	14.2	12.4	8.6	20.1	97053.2	66
271			3201	160.0	176.2	6.8	14.6	13.3	8.5	20.1	96992.4</	

Table E.01 Measurement data - Turbine ON
Project: North Kent Wind 1 LP - Turbine T06 - IEC 61400-11 Measurement
Report ID: 17283.01.T06.RP1

***Blank data denotes values that were omitted in the analysis due to an extraneous event during recording

Data Point #	Standardized Wind Speed	LReq	Turbine Power Output (kW)	Reference View Angle (°)	Yaw Angle (°)	Pitch Angle (°)	Rotor RPM	Nacelle Anemometer Wind Speed (m/s)	10m Anemometer Wind Speed (m/s)	Air Temperature (C)	Pressure (hPa)	Relative Humidity (%)
264	12.9	53.9	2840	160.0	172.9	7.9	14.3	13.6	8.7	20.1	97144.4	65
353	12.1	57.1	3183	192.0	197.9	4.5	14.4	12.7	8.2	21.9	98667.4	63
354	10.8	56.0	3094	192.0	197.9	4.3	14.3	11.4	8.2	21.9	98667.4	63
355	10.7	55.4	2869	192.0	197.8	3.6	14.3	11.3	7.6	21.9	98667.3	64
356	9.9	58.1	2597	192.0	197.9	1.2	14.3	10.3	9.3	21.9	98667.3	64
357			2894	192.0	197.8	2.2	14.5	9.5	9.4	21.9	98667.3	64
358	11.4	55.7	3183	192.0	197.8	3.0	14.5	12.0	9.5	21.9	98667.4	64
359	13.3	55.6	3199	192.0	197.9	6.2	15.0	14.0	8.8	21.9	98667.5	64
360	12.7	54.7	3203	192.0	197.9	7.7	14.9	13.4	8.8	21.9	98667.5	64
361	12.4	54.4	3167	192.0	197.9	7.9	14.5	13.0	8.3	21.9	98667.5	64
362	11.8	56.1	3094	192.0	197.9	2.2	14.4	12.4	9.8	21.9	98667.5	64
363	11.9	55.0	2880	192.0	197.9	6.9	14.3	12.5	9.3	21.9	98667.4	64
364	10.0	54.4	2674	192.0	197.9	6.3	14.3	12.0	9.4	21.9	98667.4	64
365	9.9	54.4	2611	192.0	197.9	5.5	14.3	12.3	8.5	21.9	98667.4	64
366	10.1	56.1	2735	192.0	197.9	5.8	14.4	12.5	7.9	21.9	98667.3	64
367	10.0	54.5	2694	192.0	197.9	3.8	14.2	11.4	10.0	21.9	98667.4	64
368	10.6	55.6	2938	192.0	197.8	4.2	14.5	11.1	10.5	21.8	98667.4	64
369	12.0	55.9	3199	192.0	197.9	6.5	14.8	12.7	9.4	21.8	98667.5	64
370	13.4	55.0	3200	192.0	197.9	7.9	14.8	14.1	9.7	21.8	98667.2	64
371	12.6	54.3	2928	192.0	197.9	6.7	14.2	13.3	9.9	21.8	98667.2	64
372	10.2	54.4	2788	192.0	197.8	6.0	14.3	11.9	8.8	21.8	98667.0	64
373	10.1	55.1	2724	192.0	197.9	5.0	14.3	11.9	9.8	21.8	98667.0	64
374	13.4	55.4	3163	192.0	197.9	7.2	14.8	13.1	9.1	21.8	98667.2	64
375	13.3	55.4	3196	192.0	197.9	8.7	14.7	14.1	8.1	21.8	98667.5	64
376	12.8	55.0	3129	192.0	197.9	7.9	14.3	13.5	8.6	21.8	98667.4	64
377	13.5	55.0	3187	192.0	197.8	8.2	14.4	14.2	7.2	21.8	98667.4	64
378	12.2	55.7	2970	192.0	197.9	7.8	14.3	12.8	8.1	21.8	98667.6	64
379	10.1	55.1	2611	192.0	197.9	5.8	14.3	12.7	9.8	21.8	98667.3	64
380	9.9	55.1	2636	192.0	197.9	5.1	14.3	11.4	9.6	21.8	98655.2	65
381	10.0	55.8	2661	192.0	197.9	3.9	14.4	11.6	9.7	21.8	98655.2	65
382	11.1	55.7	3036	192.0	197.9	4.9	14.5	11.7	9.9	21.8	98655.2	65
383	11.9	55.0	3187	192.0	197.9	6.9	14.7	12.5	10.2	21.8	98655.2	65
384	11.9	55.6	3103	192.0	197.9	6.0	14.3	12.5	9.7	21.8	98655.4	65
385	11.7	54.9	2850	192.0	197.9	5.0	14.3	12.3	9.3	21.7	98667.5	64
386	10.9	54.8	2830	192.0	197.9	4.9	14.3	11.5	9.7	21.7	98667.3	64
387	11.5	55.1	3122	192.0	197.9	7.9	14.5	12.1	9.5	21.7	98667.4	64
388	14.0	55.4	3192	192.0	197.9	7.9	14.9	14.0	10.0	21.7	98667.4	64
389	13.4	54.3	3186	192.0	197.9	7.6	14.4	14.1	8.4	21.7	98667.3	64
390	13.1	54.5	3153	192.0	197.9	7.5	14.4	13.8	8.7	21.7	98667.4	64
391	11.4	54.0	2945	192.0	197.9	7.4	14.1	12.0	9.1	21.7	98667.1	64
392	10.7	54.2	2932	192.0	197.9	4.0	13.9	11.3	9.5	21.7	98667.4	65
393	11.3	54.5	3143	192.0	197.9	3.5	14.2	11.9	9.0	21.7	98667.3	65
394	12.9	54.7	3187	192.0	197.9	7.1	15.0	13.3	9.1	21.7	98667.3	65
395	12.4	54.1	3083	192.0	197.9	6.3	14.3	13.3	8.3	21.7	98667.4	65
396	11.8	53.8	2963	192.0	197.9	8.0	14.4	12.5	8.3	21.7	98667.3	65
397	11.6	54.4	2915	192.0	197.9	5.9	14.3	12.2	7.8	21.6	98667.4	65
398	11.1	54.4	2882	192.0	197.9	5.6	14.4	11.7	8.9	21.6	98667.5	65
399	11.3	54.5	2900	192.0	197.9	5.6	14.3	11.9	7.7	21.6	98667.4	65
400	12.3	55.4	3126	192.0	197.9	8.5	14.6	12.9	8.0	21.6	98667.4	65
401	13.9	55.7	3192	192.0	198.0	9.3	15.0	14.6	8.6	21.6	98667.4	65
402	11.9	56.0	3170	192.0	198.0	8.7	14.4	12.5	9.1	21.6	98667.4	65
403	12.4	54.5	2931	192.0	198.0	8.2	14.3	13.0	8.5	21.6	98667.5	65
404	10.9	55.0	2908	192.0	197.9	8.2	14.3	13.6	7.4	21.6	98667.4	65
405	10.2	54.5	2745	192.0	197.9	7.6	14.3	13.1	7.2	21.6	98667.4	65
406	9.8	54.4	2584	192.0	197.9	6.7	14.3	11.8	7.6	21.6	98667.4	65
407	11.3	55.2	3041	192.0	197.9	6.7	14.5	11.9	8.5	21.6	98667.4	65
408	12.2	54.9	3198	192.0	197.9	7.5	14.6	12.9	9.4	21.6	98667.4	65
409	13.2	55.0	3175	192.0	197.9	7.3	14.4	13.9	8.6	21.6	98667.4	66
410	12.1	54.8	3119	192.0	197.9	7.2	14.4	12.7	8.0	21.6	98667.4	66
411	13.1	54.7	3154	192.0	197.9	7.3	14.4	13.8	8.4	21.6	98667.4	66
412	12.8	54.4	3185	192.0	197.9	7.4	14.4	13.5	9.8	21.6	98667.5	66
413	11.1	55.0	2937	192.0	198.0	6.9	14.3	11.7	9.3	21.6	98667.5	66
414	12.1	54.9	3071	192.0	197.9	7.2	14.4	12.7	8.7	21.6	98667.3	65
415	11.7	54.8	2912	192.0	197.9	6.9	14.3	12.3	8.7	21.6	98667.2	65
416	14.3	54.5	3203	192.0	197.9	8.1	14.3	11.9	8.6	21.6	98667.2	65
417	11.5	54.5	2798	192.0	197.9	5.7	14.4	12.1	6.6	21.6	98667.2	65
418	9.9	54.6	2609	192.0	197.9	5.0	14.3	11.3	8.1	21.6	98667.3	65
419	9.9	54.8	2614	192.0	197.9	4.1	14.4	11.3	8.5	21.6	98667.2	65
420	11.4	54.8	2786	192.0	197.9	4.6	14.4	12.0	7.6	21.6	98667.3	65
421	11.9	54.9	2878	192.0	197.9	4.5	14.4	12.6	8.7	21.6	98667.3	67
422	11.7	54.8	2824	192.0	197.9	5.3	14.5	12.3	8.6	21.6	98667.3	67
423	11.8	54.9	3093	192.0	197.9	5.3	14.3	12.4	9.5	21.6	98667.4	67
424	12.0	54.8	2921	192.0	197.9	3.3	14.0	12.7	9.4	21.6	98667.5	67
425	10.3	54.6	3012	192.0	197.9	2.4	14.1	10.6	9.2	21.6	98667.5	67
426			2828	192.0	197.9	1.3	14.2	10.2	8.2	21.6	98667.4	66
427	11.6	55.9	3133	192.0	197.9	3.8	14.8	12.2	8.7	21.5	98667.5	66
428	12.2	55.3	3192	192.0	197.9	5.7	14.8	12.8	9.4	21.5	98667.6	66
429	11.4	54.8	3159	192.0	197.9	4.8	14.4	12.0	8.6	21.5	98667.6	66
430	11.4	55.0	3199	192.0	197.9	5.6	14.5	12.0	8.6	21.5	98667.7	66
431	12.2	54.9	3141	192.0	197.8	5.4	14.3	12.9	8.3	21.5	98667.6	66
432	13.6	55.2	3183	192.0	197.8	7.4	14.8	14.3	8.1	21.5	98667.5	66
433	12.7	54.7	3125	192.0	197.9	7.3	14.5	13.4	8.6	21.5	98667.7	67
434	12.2	54.7	3187	192.0	197.9	8.1	14.6	12.9	8.1	21.5	98667.5	67
435	13.6	54.9	3204	192.0	197.8	9.0	14.6	14.3	10.7	21.5	98667.3	67
436	13.6	54.7	3019	192.0	197.9	8.3	14.3	14.3	12.0	21.5	98667.4	67
437	12.9	54.9	2981	192.0	197.9	8.0	14.3	12.8	12.1	21.5	98667.3	67
438	12.5	54.1	2915	192.0	197.8	8.1	14.4	13.1	10.5	21.5	98667.2	66
439	12.1	55.0	2956	192.0	197.9	8.2	14.4	12.7	11.5	21.5	98667.3	66

***Blank data denotes values that were omitted in the analysis due to an extraneous event during recording

Data Point #	Standardized Wind Speed	LReq	Turbine Power Output (kW)	Reference View Angle (°)	Yaw Angle (°)	Pitch Angle (°)	Rotor RPM	Nacelle Anemometer Wind Speed (m/s)	10m Anemometer Wind Speed (m/s)	Air Temperature (C)	Pressure (hPa)	Relative Humidity (%)
352	10.3	56.1	3099	192.0	197.9	3.5	14.1	10.8	7.6	21.9	98667.4	63
441	13.9	55.6	3092	192.0	197.9	8.3	14.4	14.7	10.8	21.5	98667.3	66
442	14.0	55.2	3174	192.0	197.9	8.8	14.5	14.7	8.8	21.5	98667.3	66
443	14.4	54.8	3200	192.0	197.9	9.4	14.5	15.1	9.6	21.5	98667.5	66
444	13.2	54.0	3021	192.0	197.9	9.0	14.3	14.0	8.4	21.5	98667.5	66
445	12.2	54.2	2964	192.0	197.9	8.9	14.4	12.8	8.1	21.5	98667.3	66
446	13.1	54.4	3194	192.0	197.9	9.5	14.5	13.8	9.0	21.5	98667.4	66
447	13.8	54.3	2962	192.0	197.9	9.4	14.3	14.5	9.7	21.5	98667.4	66
448	13.2	54.2	2862	192.0	197.9	9.1	14.3	13.9	8.5	21.5	98667.5	66
449	14.1	54.7	3000	192.0	197.9	9.4	14.					

Table E.01 Measurement data - Turbine ON

Project: North Kent Wind 1 LP - Turbine T06 - IEC 61400-11 Measurement
Report ID: 17283.01.T06.RP1

Page 4 of 5
Created on: 5/25/2019

***Blank data denotes values that were omitted in the analysis due to an excruciating event during recording

Data Point #	Standardized Wind Speed	LReq	Turbine Power Output (kW)	Reference View Angle (°)	Yaw Angle (°)	Pitch Angle (°)	Rotor RPM	Nacelle Anemometer Wind Speed (m/s)	10m Anemometer Wind Speed (m/s)	Air Temperature (C)	Pressure (kPa)	Relative Humidity (%)
440	12.9	54.7	2965	192.0	197.9	8.2	14.4	13.6	11.1	21.5	98667.3	66
459	8.2	54.2	1595	282.0	287.4	-2.1	13.4	8.3	5.4	11.4	99039.7	75
530	8.1	53.8	1543	282.0	287.3	-2.1	13.3	8.4	6.6	11.4	99039.9	75
531	8.2	54.4	1583	282.0	284.4	-2.1	13.4	8.2	6.2	11.4	99039.8	75
532	8.3	54.2	1654	282.0	284.1	-1.6	13.6	8.9	6.1	11.4	99039.8	75
533	8.3	54.6	1699	282.0	284.1	-1.5	13.7	9.2	6.0	11.4	99039.9	75
534	8.4	54.4	1717	282.0	284.2	-1.5	13.7	8.7	5.9	11.4	99040.0	75
535	8.3	54.0	1642	282.0	284.2	-1.5	13.5	8.5	6.1	11.4	99040.1	75
536	8.2	54.0	1590	282.0	284.2	-1.5	13.4	7.9	5.7	11.4	99040.1	75
537	8.2	54.0	1617	282.0	284.2	-1.5	13.5	7.8	5.6	11.4	99040.1	75
538	8.2	53.9	1581	282.0	284.2	-2.1	13.4	7.9	5.9	11.4	99040.1	75
539	8.1	53.5	1533	282.0	284.2	-2.1	13.2	7.7	6.5	11.4	99040.0	75
540	7.8	52.6	1399	282.0	284.1	-2.1	12.8	7.8	7.3	11.4	99040.0	75
541	7.5	51.7	1252	282.0	284.1	-2.1	12.3	7.5	6.6	11.4	99040.0	75
542	7.6	53.4	1279	282.0	284.1	-2.1	12.4	8.3	5.8	11.4	99040.1	75
543	8.0	53.7	1474	282.0	284.1	-2.1	13.1	8.7	6.0	11.4	99040.2	75
544	8.4	54.5	1704	282.0	284.1	-1.7	13.7	9.3	6.5	11.4	99040.4	75
545	8.6	54.9	1861	282.0	284.1	-1.5	14.1	9.6	6.8	11.4	99040.4	75
546	9.1	55.7	2130	282.0	284.1	-1.5	14.4	10.1	8.1	11.4	99040.4	75
547	9.1	55.5	2164	282.0	284.1	-1.5	14.3	9.6	6.9	11.4	99040.5	75
548	8.6	54.8	1874	282.0	284.1	-1.5	14.1	9.0	5.9	11.4	99040.4	75
549	8.3	53.7	1676	282.0	284.2	-1.5	13.6	7.8	6.2	11.3	99040.4	74
550	7.9	52.6	1485	282.0	284.1	-2.1	13.0	8.5	7.4	11.3	99040.4	74
551	8.0	53.2	1495	282.0	284.1	-2.1	13.1	8.1	6.3	11.3	99040.5	74
552	8.1	53.6	1528	282.0	284.1	-2.1	13.2	8.8	6.5	11.3	99040.5	74
553	8.1	53.9	1553	282.0	284.1	-2.1	13.3	7.4	6.7	11.3	99040.4	74
554	7.8	52.6	1394	282.0	284.2	-2.1	12.8	8.3	6.4	11.3	99040.4	75
555	8.1	53.5	1515	282.0	284.2	-2.1	12.8	7.8	6.5	11.3	99040.4	75
556	7.4	53.7	1197	282.0	284.1	-1.5	12.1	8.1	5.7	11.4	99040.5	75
557	7.5	51.8	1256	282.0	284.1	-1.5	12.4	8.3	5.9	11.3	99040.4	75
558	7.9	53.0	1435	282.0	284.2	-1.5	13.0	8.3	5.8	11.3	99040.6	75
559	8.2	53.2	1615	282.0	284.2	-1.5	13.5	8.3	5.9	11.3	99040.4	75
560	8.2	53.4	1594	282.0	284.2	-1.5	13.4	7.8	4.6	11.3	99040.5	76
561	8.0	52.8	1482	282.0	284.2	-1.9	13.1	8.0	4.3	11.3	99040.5	76
562	7.7	52.4	1346	282.0	284.1	-2.1	12.7	7.5	5.1	11.3	99040.5	76
563	7.5	52.5	1254	282.0	284.1	-2.1	12.3	7.3	5.3	11.3	99040.5	76
564	7.6	52.8	1294	282.0	284.1	-2.1	12.5	8.4	5.5	11.3	99040.5	76
565	7.7	52.7	1340	282.0	284.1	-2.1	12.6	8.3	6.4	11.3	99040.6	76
566	7.6	52.2	1278	282.0	284.1	-2.1	12.4	6.8	6.3	11.3	99040.6	75
567	7.4	51.8	1221	282.0	284.1	-2.1	12.1	7.3	6.5	11.4	99040.6	75
568	7.4	51.1	1179	282.0	287.7	-1.5	12.0	7.0	5.9	11.3	99040.6	74
569	7.1	49.8	1020	282.0	287.7	-1.5	11.4	6.9	5.9	11.2	99040.7	74
570	6.8	48.9	905	282.0	287.7	-1.5	11.0	6.5	5.2	11.3	99040.6	74
571	6.8	50.1	944	282.0	287.7	-1.5	11.0	7.9	5.3	11.3	99040.7	75
572	6.8	49.4	933	282.0	287.7	-1.5	11.1	7.5	6.3	11.3	99040.8	75
573	7.2	50.8	1110	282.0	287.7	-1.8	11.8	7.0	5.5	11.3	99040.8	75
574	7.4	51.5	1213	282.0	287.7	-2.1	12.2	7.3	4.9	11.3	99040.8	75
575	51.6	1188	282.0	288.9	-2.1	12.1	7.0	4.3	3.8	11.3	99040.8	75
576	7.2	50.5	1109	282.0	291.0	-2.1	11.8	7.1	4.2	11.3	99040.9	75
577	7.1	50.0	1037	282.0	291.0	-2.1	11.5	7.7	4.2	11.3	99040.8	75
578	6.9	49.5	967	282.0	291.0	-2.1	11.2	7.6	4.5	11.3	99040.8	77
579	6.9	49.1	944	282.0	291.0	-1.8	11.1	7.1	4.4	11.3	99040.8	77
580	6.9	49.5	951	282.0	291.0	-1.5	11.2	7.1	3.8	11.3	99040.9	77
581	6.8	48.8	904	282.0	291.1	-1.5	11.0	6.2	3.9	11.3	99040.9	77
582	6.7	48.7	875	282.0	291.1	-1.5	10.9	6.7	4.3	11.3	99040.8	77
583	6.9	49.3	965	282.0	291.1	-1.5	11.2	7.6	4.1	11.3	99040.8	77
584	6.8	48.8	911	282.0	291.1	-1.5	11.0	7.3	4.5	11.3	99040.8	77
585	6.5	47.8	819	282.0	291.1	-1.8	10.6	6.5	4.2	11.3	99054.0	77
586	6.7	48.8	868	282.0	291.1	-2.1	10.9	7.1	3.8	11.3	99054.1	77
587	7.1	50.0	1046	282.0	291.1	-2.1	11.6	7.6	4.3	11.3	99054.2	77
588	7.3	50.4	1116	282.0	291.1	-2.1	11.8	7.6	4.2	11.3	99054.3	77
589	7.1	49.9	1049	282.0	291.1	-2.1	11.5	7.2	4.3	11.3	99054.3	77
590	6.5	48.4	799	282.0	288.0	-2.0	10.5	6.8	4.1	11.3	99054.3	76
591	6.1	46.8	652	282.0	287.7	-1.5	9.9	4.9	5.3	11.3	99054.4	76
592	6.0	46.2	605	282.0	287.7	-1.5	9.5	6.9	5.6	11.3	99054.4	76
593	6.0	46.9	620	282.0	287.6	-1.5	9.7	6.8	6.1	11.3	99054.5	76
594	6.3	47.7	714	282.0	287.6	-1.5	10.2	7.2	4.2	11.3	99054.5	76
595	6.4	48.2	761	282.0	287.6	-1.5	10.4	6.4	4.1	11.3	99053.1	76
596	6.3	48.1	745	282.0	287.6	-1.6	10.2	7.3	4.4	11.3	99053.2	76
597	6.4	48.8	787	282.0	287.6	-2.1	11.0	7.6	4.9	11.3	99058.4	76
598	6.8	50.1	912	282.0	287.6	-2.1	11.4	8.0	4.9	11.3	99058.4	76
599	7.3	51.2	1128	282.0	287.6	-2.1	11.9	8.9	5.8	11.3	99058.5	76
600	7.5	52.0	1250	282.0	287.7	-2.1	12.3	7.7	6.2	11.3	99058.6	76
601	7.4	51.3	1203	282.0	287.7	-2.1	12.1	7.1	5.6	11.3	99058.6	76
602	7.3	50.7	1115	282.0	287.7	-2.0	11.8	6.1	5.9	11.3	99058.6	75
603	7.0	49.4	988	282.0	287.7	-1.5	11.3	6.8	6.7	11.3	99058.5	75
604	6.9	49.3	952	282.0	287.7	-1.5	11.2	7.2	6.6	11.3	99058.5	75
605	7.1	50.1	1021	282.0	287.7	-1.5	11.5	7.7	6.1	11.3	99058.5	75
606	7.2	50.7	1114	282.0	287.7	-1.5	11.8	7.4	6.5	11.3	99058.5	75
607	7.2	50.3	1070	282.0	287.7	-1.5	11.6	7.7	6.9	11.3	99058.0	75
608	7.0	49.7	960	282.0	287.7	-1.6	11.3	6.9	6.2	11.3	99054.7	75
609	9.2	52.6	2233	282.0	276.0	0.4	12.7	10.0	8.2	11.2	99175.4	72
610	9.3	53.3	2287	282.0	275.9	0.0	13.0	9.6	7.9	11.2	99175.4	71
611	9.3	53.9	2290	282.0	275.9	-1.2	13.3	10.3	8.3	11.2	99175.4	71
612	9.2	54.7	2202	282.0	276.0	-1.8	13.5	10.1	8.1	11.2	99175.4	71
613	9.1	55.0	2113	282.0	276.0	-1.9	13.7	9.9	8.0	11.2	99175.4	71
614	9.2	55.2	2495	282.0	276.0	-1.1	13.9	10.0	8.0	11.2	99175.4	71
615	9.7	55.2	2524	282.0	276.0	-1.4	13.9	10.2	7.3	11.2	99175.4	71

***Blank data denotes values that were omitted in the analysis due to an excruciating event during recording

Data Point #	Standardized Wind Speed	LReq	Turbine Power Output (kW)	Reference View Angle (°)	Yaw Angle (°)	Pitch Angle (°)	Rotor RPM	Nacelle Anemometer Wind Speed (m/s)	10m Anemometer Wind Speed (m/s)	Air Temperature (C)	Pressure (kPa)	Relative Humidity (%)
528	8.3	54.5	1693	282.0	287.4	-2.1	13.7	8.0	6.0	11.4	99039.4	75
529	8.2	54.2	1595	282.0	287.6	-1.8	13.0	10.5	8.1	11.2	99175.3	70
528	8.1	53.8	1543	282.0	287.3	-2.1	13.3	8.2	6.6	11.4	99039.9	75
528	8.2	54.4	1583	282.0	284.4	-2.1	13.4	8.2	6.2	11.4	99039.8	75
528	8.3	54.2	1654	282.0	284.1	-1.6	13.6	8.9	6.1	11.4	99039.8	75
528	8.3	54.6	1699	282.0	284.1	-1.5	13.7	9.2	6.0	11.4	99039.9	75
528	8.4	54.4	1717	282.0	284.2	-1.5	13.7	8.7	5.9	11.4	99040.0	75
528	8.3	54.0	1642	282.0	284.2	-1.5	13.5	8.5	6.1	11.4	99040.1	75
528	8.2	54.0	1590	282.0	284.2	-1.5	13.4	7.9	5.7	11.4	99040.1	75
528	8.2	54.0	1617	282.0	284.2	-1.5	13.5	7.8	5.6	11.4	99040.1	75
528	8.2	53.9	1581	282.0	284.2	-2.1	13.4	7.9	5.9	11.4	99040.1	75</

Table E.01 Measurement data - Turbine ON

Project: North Kent Wind 1 LP - Turbine T06 - IEC 61400-11 Measurement
 Report ID: 17283.01.T06.RP1

Page 5 of 5
 Created on: 5/25/2019

***Blank data denotes values that were omitted in the analysis due to an extraneous event during recording

Data Point #	Standardized Wind Speed	L _{Aeq}	Turbine Power Output (kW)	Reference Yaw Angle (°)	Yaw Angle (°)	Pitch Angle (°)	Rotor RPM	Nacelle Anemometer Wind Speed (m/s)	10m Anemometer Wind Speed (m/s)	Air Temperature (°C)	Pressure (kPa)	Relative Humidity (%)
616	9.3	54.8	2286	282.0	276.0	-1.8	13.9	9.9	6.9	11.2	99175.4	70

***Blank data denotes values that were omitted in the analysis due to an extraneous event during recording

Data Point #	Standardized Wind Speed	L _{Aeq}	Turbine Power Output (kW)	Reference Yaw Angle (°)	Yaw Angle (°)	Pitch Angle (°)	Rotor RPM	Nacelle Anemometer Wind Speed (m/s)	10m Anemometer Wind Speed (m/s)	Air Temperature (°C)	Pressure (kPa)	Relative Humidity (%)
704	7.3	51.3	1160	282.0	268.1	-2.1	11.9	8.6	7.6	11.1	99176.1	72

Table E.02 Measurement data - Background

Project: North Kent Wind 1 LP - Turbine T06 - IEC 61400-11 Measurement
 Report ID: 17283.01.T06.RP1

***Blank data denotes values that were omitted in the analysis due to an extraneous event during recording

Data Point #	Standardized Wind Speed	LAeq	RPM	10m Anemometer Wind Speed (m/s)	Air Temperature (C)	Pressure (kPa)	Relative Humidity (%)
1	12.9	40.6	0.6	9.6	20	96755.2	65
2	12.2	39.5	0.7	9.1	20	96787.1	65
3	11.6	41.1	0.6	8.6	20	96773.4	65
4	9.4	39.8	0.7	7.0	20	96759.1	65
5	8.9	38.4	0.7	6.6	20	96762.9	66
6	11.0	38.8	0.6	8.2	20	96694.1	66
7	11.8	39.5	0.5	8.8	20	96699.6	66
8	12.4	41.0	0.6	9.2	20	96674.9	66
9	12.8	42.0	0.5	9.6	20	96718.3	66
10	11.8	43.8	0.5	8.8	20	96681.3	66
11	11.8	45.1	0.7	8.8	20	96684.4	66
12	11.3	48.4	0.6	8.4	20	96614.1	66
13	10.8	48.5	0.6	8.0	20	96542.9	66
14	10.6	45.6	0.7	7.9	20	96444.6	66
15	10.7	46.4	0.3	8.0	20	96328.2	66
16	10.7	45.2	0.5	7.9	20	96314.0	66
17	10.5	42.9	0.7	7.8	20	96287.4	66
18	9.3	41.9	0.7	6.9	20	96264.1	66
19	9.7	39.8	0.5	7.2	20	96351.3	66
20	12.0	39.7	0.6	9.0	20	96396.1	66
21	12.4	38.7	0.7	9.3	20	96321.8	66
22	10.5	41.8	0.5	7.8	20	96312.0	66
23	10.7	43.2	0.5	7.9	20	96337.1	66
24	11.4	40.3	0.7	8.5	20	96315.7	66
25	11.8	40.3	0.8	8.8	20	96719.1	66
26	12.5	43.6	0.6	9.3	20	97902.1	66
27	12.4	40.5	0.5	9.2	20	98230.6	66
28	11.4	40.8	0.6	8.5	20	98506.2	66
29	10.6	46.6	0.6	9.0	20	98569.1	66
30	13.3	41.8	0.6	9.9	20	98587.4	66
31	12.7	40.5	0.8	9.5	20	98577.1	66
32	12.6	40.6	0.6	9.4	20	98550.1	66
33	12.1	46.1	0.6	9.0	20	98269.1	66
34	14.0	44.7	0.6	11.1	20	97547.1	66
35	12.9	42.7	0.5	9.6	20	96873.6	66
36	10.8	40.9	0.5	8.0	20	97100.5	66
37	12.9	41.8	0.4	9.6	20	97534.6	66
38	14.9	41.6	0.5	11.1	20	97591.6	66
39	16.0	43.6	0.6	11.9	20	97554.2	66
40	14.9	45.0	0.6	11.1	20	97845.8	66
41	13.6	40.9	0.6	10.1	20	97948.0	65
42	12.7	42.0	0.5	9.4	20	98224.5	65
43	12.4	42.1	0.6	9.2	20	97702.5	65
44	11.5	41.5	0.6	8.6	20	97365.5	65
45	11.5	43.5	0.7	8.5	20	97938.3	65
46	12.2	44.9	0.7	9.1	20	96720.1	65
47	12.0	42.1	0.6	8.9	20	97916.4	65
48	12.5	41.4	0.6	9.3	20	97890.5	65
49	14.7	42.1	0.6	10.9	20	97899.1	65
50	15.7	48.1	0.6	11.6	20	97295.0	65
51	13.8	42.7	0.5	10.3	20	97986.5	65
52	12.4	41.3	0.6	9.2	20	97804.8	65
53	12.9	41.8	0.5	9.6	20	98112.4	65
54	14.6	43.6	0.6	10.9	20	98159.9	65
55	13.7	45.1	0.6	10.2	20	97857.2	65
56	13.6	44.4	0.6	10.1	20	97813.4	65
57	12.5	45.6	0.6	9.3	20	97182.9	65
58	14.2	46.1	0.7	10.5	20	97240.0	65
59	15.6	45.1	0.7	11.6	20	97126.4	65
60	13.8	42.7	0.6	10.3	20	97558.2	65
61	12.9	47.4	0.7	9.6	20	97702.6	65
62	14.6	47.7	0.7	10.9	20	97609.8	65
63	14.2	44.2	0.7	10.6	20	97692.0	65
64	14.4	46.5	0.6	11.9	20	97869.4	65
65	15.0	41.6	0.6	11.1	20	97881.8	65
66	15.7	41.4	0.7	11.7	20	98137.5	65
67	13.8	44.8	0.9	10.3	20	98282.8	65
68	14.3	41.3	0.7	10.6	20	98379.2	65
69	16.0	42.0	0.6	11.9	20	98521.4	65
70	15.7	42.6	0.7	11.7	20	98554.3	65
71	16.7	45.0	0.7	12.4	20	98553.8	65
72	15.3	42.1	0.7	11.4	20	98545.8	65
73	16.2	41.6	0.6	12.0	20	98526.2	65
74	14.9	41.9	0.5	11.1	20	97551.9	65
75	13.5	44.9	0.7	10.0	20	96210.7	65
76	13.2	41.5	0.7	9.8	20	96237.8	65
77	13.9	46.2	0.7	10.3	20	96234.6	65
78	12.7	47.4	0.6	9.4	20	96183.4	65
79	10.7	47.5	0.7	7.9	20	96251.9	65
80	11.4	46.1	0.6	8.5	20	96257.7	65
81	11.9	45.3	0.6	8.8	20	96227.3	65
82	12.4	48.0	0.7	9.2	20	96174.8	65
83	13.6	49.3	0.6	10.1	20	96107.0	66

***Blank data denotes values that were omitted in the analysis due to an extraneous event during recording

Data Point #	Standardized Wind Speed	LAeq	RPM	10m Anemometer Wind Speed (m/s)	Air Temperature (C)	Pressure (kPa)	Relative Humidity (%)
84	12.5	49.1	0.6	9.3	20	96059.5	66
85	13.3	48.6	0.7	9.9	20	96195.3	66
86	13.7	45.5	0.8	10.2	20	96068.4	66
87	12.1	46.6	0.7	9.0	20	96090.2	66
88	11.5	44.2	0.7	8.5	20	96041.3	66
89	12.0	42.3	0.7	8.9	20	95977.9	66
90	12.3	40.7	0.6	9.2	20	96058.8	66
91	11.9	41.8	0.7	8.8	20	96010.3	66
92	13.5	45.9	0.7	10.0	20	95930.7	66
93	14.6	51.1	0.7	10.8	20	95912.4	66
94	14.2	46.0	0.8	10.6	20	96032.3	66
95	13.5	50.5	0.7	10.0	20	96015.8	66
96	11.8	47.7	0.6	8.8	20	95956.9	66
97	11.4	46.4	0.7	8.5	20	95945.2	66
98	11.2	46.2	0.7	8.3	20	95829.3	66
99	11.2	45.0	0.6	8.3	20	95910.0	66
100	13.6	46.3	0.6	10.1	20	96075.0	66
101	14.7	45.3	0.7	11.0	20	95884.6	65
102	14.3	42.2	0.7	10.7	20	95841.7	65
103	15.0	44.3	0.7	11.2	20	95543.9	65
104	13.6	45.7	0.8	10.1	20	95898.2	65
105	12.9	46.3	0.8	9.6	20	95997.9	65
106	15.7	46.0	0.7	11.7	20	96277.7	65
107	16.0	46.7	0.6	11.9	20	95702.9	65
108	14.8	44.8	0.7	11.8	20	95625.2	65
109	13.2	45.5	0.6	9.8	20	95698.6	65
110	11.1	47.8	0.6	8.3	20	95741.5	65
111	13.4	43.5	0.6	10.0	20	95708.0	65
112	13.8	47.0	0.7	10.2	20	95741.6	65
113	15.0	47.1	0.7	11.1	20	95926.0	65
114	16.2	42.6	0.7	12.1	20	95767.2	65
115	14.5	47.3	0.8	10.8	20	95449.4	65
116	14.4	48.8	0.7	10.7	20	95228.8	65
117	13.6	47.0	0.6	10.1	20	95362.9	65
118	15.8	45.2	0.6	11.7	20	95482.8	65
119	15.2	48.5	0.7	11.3	21	95545.9	65
120	13.9	44.5	0.7	10.4	21	95542.4	65
121	13.0	45.7	0.7	9.7	21	95612.7	65
122	11.3	43.6	0.7	8.1	21	95624.3	65
123	11.9	47.4	0.6	8.8	21	95930.1	65
124	11.8	46.5	0.6	8.8	21	95531.3	65
125	15.2	42.6	0.6	11.3	21	95664.2	65
126	14.2	43.8	0.6	10.6	21	95764.0	65
127	13.8	43.3	0.6	10.3	21	95891.4	65
128	13.2	43.1	0.6	9.8	21	95900.9	65
129	13.5	44.3	0.7	10.0	21	95931.1	65
130	13.9	44.0	0.6	10.4	21	96007.2	65
131	12.9	45.0	0.8	9.6	21	96142.6	65
132	12.6	45.0	0.6	9.4	21	96118.7	65
133	12.9	45.0	0.7	9.6	21	96106.6	65
134	14.1	46.7	0.5	10.5	21	96092.9	65
135	12.8	44.6	0.6	9.5	21	95981.0	65
136	14.6	43.4	0.7	10.9	21	95983.9	65
137	15.3	41.9	0.6	11.4	20	96002.6	65
138	13.6	44.7	0.6	10.1	20	95980.7	65
139	11.2	43.0	0.6	8.3	20	95860.0	65
140	10.8	42.0	0.7	8.0	20	95796.0	65
141	12.2	41.9	0.6	9.1	20	95619.1	65
142	12.1	42.7	0.7	9.0	20	95498.5	65
143	12.1	42.8	0.6	9.0	20	95600.6	66
144	11.9	46.1	0.6	8.9	20	95466.1	66
145	10.8	44.4	0.6	8.1	20	95504.6	66
146	11.0	41.9	0.6	8.2	20	95441.1	66
147	11.1	43.6	0.7	8.4	20	95480.4	66
148	10.5	41.5	0.6	7.8	20	95416.8	66
149	10.8	41.1	0.6	8.0	20	95427.4	66
150	10.8	40.4	0.6	8.0	20	95520.7	66
151	11.8	41.7	0.6	8.8	20	95755.3	66
152	12.6	40.8	0.7	9.4	20	95553.5	66
153	13.7	40.3	0.6	10.2	20	95477.4	66
154	13.5	40.5	0.7	10.1	20	95268.5	66
155	13.1	41.8	0.7	9.8	20	95104.6	66
156	12.0	43.0	0.7	8.9	20	94915.3	66
157	11.9	46.1	0.6	8.9	20	94905.1	66
158	11.6	46.3	0.7	8.7	20	94720.5	66
159	12.0	48.5	0.8	8.9	20	94858.8	66
160	12.0	45.6	0.6	8.9	20	94803.6	66
161	12.5	48.8	0.7	9.3	20	94927.0	66
162	12.9	45.7	0.7	9.4	20	95214.1	66
163	11.8	42.0					

Table E.02 Measurement data - Background

Project: North Kent Wind 1 LP - Turbine T06 - IEC 61400-11 Measurement
 Report ID: 17283.01.T06.RP1

Page 2 of 3
 Created on: 5/25/2019

***Blank data denotes values that were omitted in the analysis due to an extraneous event during recording

Data Point #	Standardized Wind Speed	LAeq	RPM	10m Anemometer Wind Speed (m/s)	Air Temperature (C)	Pressure (kPa)	Relative Humidity (%)
250	11.0	41.6	0.6	8.2	21	96750.7	66
251	11.9	44.9	0.7	8.8	21	96832.1	66
252	13.4	43.4	0.6	10.0	21	96436.5	66
253	11.6	43.6	0.6	8.7	21	96519.8	66
254	11.9	42.5	0.8	8.9	21	96692.0	66
255	13.3	45.0	0.7	9.9	21	96686.8	66
256	14.2	43.1	0.7	10.6	21	96770.3	66
257	14.5	43.6	0.7	10.8	21	96837.0	66
258	14.4	43.0	0.6	10.7	21	97059.8	66
259	13.7	43.0	0.6	10.2	21	97400.8	66
260	14.6	41.5	0.6	10.9	21	97868.8	66
261	12.9	42.3	0.6	9.6	21	97913.7	66
262	11.9	44.9	0.6	8.9	21	97944.2	66
263	12.0	40.5	0.6	8.4	21	98191.8	66
264	12.6	43.9	0.7	9.4	21	98415.9	66
265	11.0	47.6	0.6	8.2	21	98578.3	66
266	11.2	46.0	0.4	8.3	21	98628.6	66
267	10.8	43.4	0.7	8.0	21	98641.4	66
268	11.5	43.8	0.7	8.6	21	98645.4	66
269	11.1	43.3	0.6	8.2	21	98634.0	66
270	10.8	42.2	0.7	8.1	21	98634.7	66
271	10.7	43.6	0.7	8.0	21	98635.4	66
272	12.2	45.0	0.6	9.1	21	98635.7	66
273	12.4	46.6	0.6	9.2	21	98635.8	66
274	11.7	45.7	0.5	8.7	21	98635.9	66
275	11.5	41.9	0.6	8.6	21	98636.1	66
276	11.5	42.4	0.6	8.6	21	98636.4	66
277	11.8	41.0	0.6	8.8	21	98636.4	66
278	12.4	41.7	0.7	9.2	21	98636.4	66
279	13.0	42.1	0.6	9.6	21	98636.4	66
280	11.6	41.9	0.6	8.6	21	98637.8	66
281	11.4	42.3	0.7	8.5	21	98650.3	66
282	7.0	40.5	0.3	5.2	11	99068.4	75
283	6.5	45.1	0.3	4.5	11	99068.4	75
284	6.9	40.7	0.2	5.2	11	99068.3	75
285	7.7	40.2	0.2	5.7	11	99068.3	75
286	7.0	40.6	0.3	5.2	11	99068.2	75
287	6.3	42.3	0.3	4.7	11	99068.3	75
288	6.4	45.1	0.3	4.8	11	99068.3	75
289	7.9	45.4	0.3	5.8	11	99068.2	75
290	8.2	45.8	0.3	6.1	11	99068.3	75
291	7.5	46.6	0.3	5.6	11	99068.3	75
292	8.1	44.4	0.3	6.0	11	99068.4	75
293	7.7	42.3	0.2	5.7	11	99068.3	75
294	7.2	42.2	0.2	5.4	11	99068.3	75
295	6.7	43.1	0.2	5.0	11	99068.3	75
296	7.0	43.9	0.3	5.2	11	99068.3	74
297	6.0	44.1	0.3	4.5	11	99068.3	74
298	6.0	40.8	0.3	4.5	11	99068.4	74
299	6.5	40.2	0.3	4.8	11	99068.3	74
300	7.3	40.7	0.4	5.4	11	99068.3	74
301	7.6	41.8	0.4	5.7	11	99068.2	74
302	7.6	40.8	0.3	5.7	11	99077.7	74
303	8.2	40.0	0.3	6.3	11	99081.4	74
304	8.5	39.1	0.3	6.3	11	99081.4	74
305	7.8	38.2	0.3	5.8	11	99081.4	74
306	9.0	38.8	0.4	6.7	11	99081.3	74
307	9.1	39.3	0.4	6.8	11	99081.4	74
308	8.5	39.8	0.3	6.3	11	99081.6	74
309	7.0	40.4	0.2	5.2	11	99081.5	74
310	7.8	40.8	0.2	5.8	11	99081.6	74
311	7.5	39.5	0.3	5.6	11	99081.6	74
312	6.6	40.0	0.2	4.9	11	99081.6	74
313	6.0	39.5	0.2	4.5	11	99081.3	74
314	6.2	37.9	0.2	4.6	11	99081.5	76
315	6.1	40.1	0.3	4.5	11	99081.6	77
316	7.0	38.5	0.4	5.2	11	99081.7	77
317	7.6	38.4	0.3	5.7	11	99081.7	77
318	7.2	38.9	0.2	5.4	11	99081.8	77
319	7.7	39.3	0.3	5.7	11	99082.0	77
320	7.5	38.8	0.3	5.6	11	99081.9	76
321	7.5	39.1	0.4	5.6	11	99082.0	75
322	7.7	38.7	0.3	5.8	11	99082.0	75
323	7.8	39.1	0.3	5.8	11	99082.1	75
324	8.4	39.8	0.4	6.2	11	99082.1	75
325	8.4	39.7	0.4	6.3	11	99082.2	75
326	8.2	40.7	0.5	6.1	11	99082.2	75
327	8.2	41.9	0.4	6.1	11	99082.3	75
328	8.5	41.4	0.3	6.3	11	99082.4	75
329	9.2	41.3	0.2	6.8	11	99082.4	75
330	9.4	38.1	0.2	7.0	14	99082.4	75
331	9.1	37.4	0.3	6.8	11	99082.4	75
332	8.6	36.7	0.3	6.4	11	99082.4	75

***Blank data denotes values that were omitted in the analysis due to an extraneous event during recording

Data Point #	Standardized Wind Speed	LAeq	RPM	10m Anemometer Wind Speed (m/s)	Air Temperature (C)	Pressure (kPa)	Relative Humidity (%)
333	9.2	37.3	0.2	6.8	11	99082.3	75
334	8.4	37.9	0.3	6.2	11	99082.3	75
335	8.5	38.0	0.4	6.4	11	99082.2	75
336	9.2	36.9	0.3	6.1	11	99082.3	75
337	8.0	37.0	0.3	5.9	11	99082.3	75
338	7.8	37.2	0.4	5.8	11	99082.3	75
339	7.9	37.7	0.4	5.9	11	99082.4	75
340	8.6	38.0	0.5	6.4	11	99082.5	75
341	8.1	38.3	0.4	6.0	11	99082.4	75
342	9.4	38.2	0.3	7.0	11	99082.5	75
343	9.9	38.8	0.3	7.4	11	99082.5	75
344	9.3	39.6	0.3	6.9	11	99082.4	75
345	9.6	40.5	0.4	7.1	11	99082.4	74
346	8.8	40.1	0.4	6.5	11	99082.4	74
347	8.0	40.0	0.4	5.9	11	99082.5	74
348	8.0	41.1	0.3	6.0	11	99082.4	74
349	7.8	39.6	0.3	5.8	11	99082.5	74
350	9.6	41.1	0.4	7.1	11	99082.6	74
351	9.8	41.1	0.4	7.3	11	99082.6	74
352	9.5	40.9	0.4	7.1	11	99082.6	74
353	9.1	41.2	0.4	6.8	11	99082.6	74
354	8.6	41.8	0.4	6.4	11	99082.7	74
355	8.6	41.5	0.4	6.4	11	99082.7	74
356	8.0	41.5	0.4	5.8	11	99082.5	74
357	7.8	40.5	0.4	5.8	11	99082.5	74
358	7.9	38.3	0.4	5.9	11	99082.5	75
359	7.5	37.7	0.5	5.6	11	99082.5	75
360	7.7	38.6	0.4	5.7	11	99082.5	75
361	8.0	41.4	0.3	6.0	11	99082.2	75
362	7.9	39.9	0.3	5.9	11	99082.1	75
363	7.7	39.8	0.3	5.7	11	99082.1	75
364	7.5	41.0	0.3	5.6	11	99082.1	75
365	7.9	39.7	0.4	5.9	11	99082.2	75
366	8.0	40.5	0.5	6.0	11	99082.2	75
367	8.9	42.4	0.3	6.6	11	99082.3	75
368	7.9	42.7	0.3	5.9	11	99082.5	75
369	7.4	43.3	0.2	5.5	11	99082.5	75
370	5.9	42.1	0.2	4.4	11	99082.2	75
371	7.2	41.7	0.3	5.4	11	99082.3	75
372	7.1	39.1	0.4	5.3	11	99082.2	75
373	6.7	38.1	0.4	5.0	11	99082.2	75
374	6.7	37.1	0.3	5.0	11	99104.4	75
375	6.6	37.1	0.3	4.9	11	99108.0	76
376	7.0	36.1	0.3	5.2	11	99108.0	76
377	6.8	37.7	0.3	5.0	11	99107.9	76
378	6.8	37.9	0.5	5.0	11	99107.8	76
379	6.7	38.4	0.4	5.0	11	99107.7	76
380	7.4	38.4	0.4	5.5	11	99107.7	75
381	6.8	38.5	0.3	4.9	11	99107.6	75
382	7.1	38.4	0.3	5.3	11	99107.6	75
383	6.8	38.3	0.3	5.0	11	99107.6	75
384	6.9	39.3	0.4	5.2	11	99107.8	75
385	6.7	38.5	0.4	4.9	11	99108.0	75
386	6.8	38.4	0.3	5.0	11	99116.3	76
387	6.8	38.4	0.3	5.0	11	99121.5	76
388	6.6	38.3	0.3	4.9	11	99121.6	76
389	6.4	37.8	0.4	4.8	11	99121.6	76
390	7.4	37.7	0.4	5.5	11	99121.7	76
391	6.8	38.6	0.4	5.0	11	99121.7	76
392	7.0	38.5	0.2	5.2	11	99121.7	76
393	7.4	38.8	0.2	5.5	11	99121.7	76
394	8.7	37.5	0.2	6.5	11	99121.8	76
395	8.6	37.2	0.3	6.4	11	99121.9	76
396	8.0	40.2	0.4	6.0	11	99121.8	76
397	7.1	43.8	0.5	5.3	11	99121.9	76
398	7.2	40.9	0.4	5.4	11	99121.8	76
399	7.2	38.6	0.2	5.3	11	99121.9	76
400	7.0	38.0	0.2	5.2	11	99121.9	76
401	6.4	38.8	0.3	4.7	11	99122.0	76
402	7.1	38.7	0.4	5.3	11	99122.0	76
403	7.2	40.5	0.3	5.3	11	99121.9	76
404	7.7	40.8	0.3	5.7	11	99122.0	75
405	7.9	38.9	0.3	5.8	11	99121.9	74
406	7.5	38.8	0.3	5.6	11	99121.9	74
407	7.6	38.4	0.2	5.7	11	99122.0	74
408	7.3	38.7	0.2	5.4	11	99121.9	74
409	6.9	38.7	0.3	5.1	11	99122.0	74
410	6.0	38.9	0.4	4.5	11	99121.9	75
411	6.6	38.7	0.3	4.9	11	99122.0	75
412	7.8	38.4	0.2	5.8	11	99122.0	76
413	9.0	38.8	0.3				

Table E.02 Measurement data - Background

Project: North Kent Wind 1 LP - Turbine T06 - IEC 61400-11 Measurement
 Report ID: 17283.01.T06.RP1

***Blank data denotes values that were omitted in the analysis due to an extraneous event during recording

Data Point #	Standardized Wind Speed	LAEq	RPM	10m Anemometer Wind Speed (m/s)	Air Temperature (C)	Pressure (kPa)	Relative Humidity (%)
499	8.1	40.7	0.1	6.0	11	99083.5	72
500	7.8	39.2	0.2	5.8	11	99091.3	74
501	8.2	38.2	0.2	6.1	11	99096.2	75
502	7.9	39.3	0.2	5.9	11	99096.2	75
503	7.7	39.2	0.3	5.7	11	99096.2	75
504	8.8	39.5	0.3	6.6	11	99096.2	75
505	7.7	38.7	0.4	5.8	11	99096.1	75
506	8.1	38.5	0.4	6.0	11	99112.1	75
507	8.2	38.1	0.3	6.1	11	99122.3	75
508	9.4	38.8	0.2	7.0	11	99122.2	75
509	9.8	38.7	0.3	7.3	11	99122.2	75
510	8.6	39.2	0.3	6.4	11	99122.1	75
511	9.0	41.4	0.5	6.7	11	99122.1	75
512	10.8	40.7	0.6	8.1	11	99122.0	75
513	11.2	40.6	0.4	8.3	11	99122.0	75
514	8.6	40.7	0.4	6.4	11	99121.9	75
515	8.4	41.0	0.4	6.3	11	99121.9	75
516	9.9	41.8	0.4	7.4	11	99121.9	75
517	8.7	41.5	0.2	6.4	11	99121.8	75
518	8.7	41.0	0.3	6.5	11	99129.2	75
519	10.6	41.2	0.4	7.9	11	99133.8	75
520	10.4	41.0	0.5	7.8	11	99133.8	75
521	9.0	42.9	0.5	6.7	11	99133.8	75
522	8.3	42.9	0.4	6.1	11	99133.8	75
523	7.9	42.3	0.3	5.9	11	99133.8	75
524	9.3	42.7	0.3	6.9	11	99133.6	74
525	10.2	39.7	0.5	7.6	11	99133.5	73
526	10.4	43.2	0.5	7.7	11	99133.5	73
527	9.8	43.3	0.3	7.3	11	99133.5	73
528	9.6	38.6	0.4	7.2	11	99133.3	73
529	9.7	39.9	0.4	7.2	11	99133.4	73
530	9.3	40.9	0.4	6.9	11	99122.4	72
531	9.2	43.5	0.4	6.9	11	99121.3	72
532	10.0	43.6	0.4	7.4	11	99121.1	72
533	9.5	45.4	0.3	7.1	11	99121.1	72
534	7.6	43.2	0.3	5.7	11	99120.9	72
535	6.3	41.1	0.4	4.7	11	99120.7	72
536	6.0	40.1	0.3	4.5	11	99120.6	76
537	7.7	38.9	0.3	5.8	11	99120.3	76
538	7.2	40.2	0.4	5.4	11	99120.1	76
539	7.1	43.1	0.4	5.3	11	99119.8	76
540	6.2	38.9	0.3	4.6	11	99119.5	76
541	5.8	38.6	0.3	4.3	11	99119.1	76
542	6.8	41.2	0.3	5.1	11	99118.7	75
543	7.9	39.0	0.4	5.9	11	99118.0	75
544	7.5	39.3	0.3	5.6	11	99116.9	75
545	6.9	39.6	0.3	5.1	11	99114.1	75
546	6.3	39.2	0.4	4.7	11	99101.2	75
547	5.6	40.0	0.3	4.2	11	98918.7	75
548	6.1	43.6	0.3	4.6	11	98876.6	75
549	5.0	40.2	0.3	3.7	11	98895.4	75
550	5.1	39.7	0.3	3.8	11	98889.1	75
551	6.7	38.8	0.4	5.0	11	98917.5	75
552	7.3	38.1	0.4	5.4	11	98965.1	75
553	6.7	37.3	0.3	4.9	11	98954.3	75
554	6.5	37.6	0.4	4.8	11	98977.6	75
555	5.8	35.1	0.4	4.3	11	99014.3	75
556	7.4	35.8	0.4	5.5	11	99057.1	75
557	8.1	36.5	0.3	6.0	11	99093.3	75
558	9.1	36.3	0.2	6.8	11	99110.4	75
559	8.6	37.0	0.3	6.4	11	99114.7	75
560	8.5	36.6	0.4	6.3	11	99116.9	74
561	8.6	36.6	0.4	6.4	11	99119.0	74
562	7.9	35.6	0.3	5.8	11	99119.2	74
563	8.2	35.4	0.2	6.1	11	99119.7	74
564	8.6	35.8	0.2	6.4	11	99119.8	74
565	10.2	35.6	0.2	7.6	11	99122.5	74
566	10.0	35.3	0.3	7.4	11	99132.2	73
567	9.6	35.3	0.4	7.1	11	99132.4	73
568	9.9	35.7	0.4	7.4	11	99132.7	73
569	8.9	36.3	0.4	6.6	11	99132.8	73
570	8.6	39.5	0.2	6.4	11	99132.9	73
571	8.2	37.5	0.1	6.1	11	99135.6	73
572	8.4	36.3	0.1	6.1	11	99133.0	72
573	8.9	36.8	0.2	6.6	11	99133.1	72
574	9.2	37.0	0.3	6.8	11	99133.2	72
575	7.6	37.4	0.3	5.6	11	99133.2	72
576	9.4	37.4	0.3	7.0	11	99133.2	72
577	9.4	36.8	0.2	7.0	11	99133.3	72
578	9.3	36.1	0.2	6.9	11	99133.4	72
579	8.8	36.2	0.3	6.6	11	99133.5	72
580	9.2	36.0	0.3	6.9	11	99133.5	72
581	8.7	36.7	0.3	6.5	11	99133.4	72

***Blank data denotes values that were omitted in the analysis due to an extraneous event during recording

Data Point #	Standardized Wind Speed	LAEq	RPM	10m Anemometer Wind Speed (m/s)	Air Temperature (C)	Pressure (kPa)	Relative Humidity (%)
582	8.8	37.1	0.4	6.5	11	99133.4	72
583	8.2	37.9	0.3	6.1	11	99133.4	72
584	7.6	39.4	0.4	5.7	11	99133.4	73
585	7.8	42.0	0.4	5.8	11	99133.4	73
586	8.4	43.7	0.3	6.3	11	99133.4	73
587	8.5	43.9	0.4	6.3	11	99133.4	73
588	9.0	41.9	0.5	6.7	11	99133.4	73
589	7.9	41.3	0.4	5.9	11	99133.3	73
590	8.8	40.4	0.3	6.6	11	99133.2	73
591	7.5	39.9	0.2	5.6	11	99133.0	73
592	7.2	37.7	0.2	5.3	11	99132.8	73
593	8.4	38.4	0.3	6.2	11	99132.7	73
594	8.3	37.9	0.4	6.2	11	99132.5	73
595	8.2	37.4	0.3	6.1	11	99132.7	73
596	8.9	37.8	0.3	6.6	11	99146.8	73
597	11.2	37.0	0.3	8.3	11	99147.1	73
598	11.4	35.8	0.3	8.5	11	99147.2	73
599	10.3	35.6	0.4	7.7	11	99147.3	73
600	9.6	36.1	0.4	7.2	11	99147.4	73

Appendix F Supplementary Information for the Regulator

Appendix F.01 Calibration Certificates

Customer: AEROCOUSTICS ENGINEERING LTD
1004 MIDDLEGATE ROAD
SUITE 1100
MISSISSAUGA, ON L4Y 1M4
PO Number: 2018.06.11C



SCC Lab No 827



Certificate/SO Number: 33-Q0Z01-20-1 Revision 0

Manufacturer: Nokeval
Model Number: 7470
Description: Serial to Analog Converter
Serial Number: A165152
ID: NONE

As-Found: In Tolerance
As-Left: In Tolerance
Calibration Date: Jun 19, 2018
Due Date: Jun 19, 2020

Calibrated To: Manufacturer Specification
Calibration Procedure: 1-AC58014-0

Transcat Calibration Laboratories have been audited and found in compliance with ISO/IEC 17025:2005. Accredited calibrations performed within the Lab's Scope of Accreditation are indicated by the presence of the Accrediting Body's Logo and Certificate Number. Any measurements on an accredited calibration not covered by that Lab's Scope of Accreditation are listed in the notes section of the certificate. SCC, NRC, CLAS or ANAB do not guarantee the accuracy of an individual calibration by accredited laboratories.

Transcat calibrations, as applicable, are performed in compliance with the requirements of the Transcat Quality Manual QAC-P01-000 Revision 1.0, the customer's Purchase Order and/or Quality Agreement requirements, ISO 9001:2008, ANS/NCSL Z540.1-1994 (R2002). Complete records of work performed are maintained by Transcat and are available for inspection. Laboratory standards used in the performance of this calibration are listed below.

Transcat documents the traceability of measurements to the SI units through the National Institute of Standards and Technology (NIST), or the National Research Council of Canada (NRC), or other national measurement institutes (NMI) that are signatories to the CIPM Mutual Recognition Arrangement, or accepted fundamental and/or natural physical constants, or by the use of specified methods, consensus standards or ratio type measurements. Documentation supporting traceability information is available for review upon written request at a Transcat facility. The measured quantity and the measurement uncertainty are required for further dissemination of traceability.

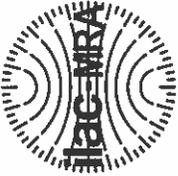
Uncertainties are reported with a coverage factor $k=2$, providing a level of confidence of approximately 95%. All calibrations have been performed using processes having a TUR of 4:1 or better (3:1 for mass calibrations), unless otherwise noted. The Test Uncertainty Ratio (TUR) is calculated in accordance with NCSL International RP-18. For mass calibrations: Conventional mass referenced to 8.0 g/cm³.

The results in this report relate only to the item calibrated or tested. Recorded calibration data is valid at the time of calibration within the stated uncertainties at the environmental conditions noted. The determination of compliance to the specification is specific to the model/serial no./ID no. referenced above based on the tolerances shown; these tolerances are either the original equipment manufacturers (OEM's) warranted specifications or the client's requested specifications. This certificate may not be reproduced except in full, without the written approval of Transcat. Additional information, if applicable may be included on separate report(s).

Customer: AEROCOUSTICS ENGINEERING LTD
 1004 MIDDLEGATE ROAD
 SUITE 1100
 MISSISSAUGA, ON L4Y 1M4
 PO Number: 2018.06.11C



SCC Lab No 827



Certificate/SO Number: 33-Q0Z01-20-1 Revision 0

As Found/As Left Data

Description	Setpoints	Accuracy	Low Limit	High Limit	As Found / As Left	Cal Process		Measurement		Units	TUR
						O	T	O	T		
DC Current % Source - 4-20mA Ch #1											
4 - 20mA	0%	±(0.1% Span)	3.984	4.016	4.002 mA	1.6e-004	1.6e-004	1.9e-003	1.9e-003	mA	100.0 : 1
	25%	±(0.1% Span)	7.984	8.016	7.999 mA	2.7e-004	2.7e-004	1.9e-003	1.9e-003	mA	59.3 : 1
	50%	±(0.1% Span)	11.984	12.016	12.003 mA	1.1e-003	1.1e-003	2.2e-003	2.2e-003	mA	14.5 : 1
	75%	±(0.1% Span)	15.984	16.016	16.001 mA	1.3e-003	1.3e-003	2.3e-003	2.3e-003	mA	12.3 : 1
	100%	±(0.1% Span)	19.984	20.016	20.001 mA	1.4e-003	1.4e-003	2.3e-003	2.3e-003	mA	11.4 : 1
DC Current % Source - 4-20mA Ch #2											
4 - 20mA	0%	±(0.1% Span)	3.984	4.016	3.998 mA	1.6e-004	1.6e-004	1.9e-003	1.9e-003	mA	100.0 : 1
	25%	±(0.1% Span)	7.984	8.016	7.998 mA	2.7e-004	2.7e-004	1.9e-003	1.9e-003	mA	59.3 : 1
	50%	±(0.1% Span)	11.984	12.016	11.999 mA	1.1e-003	1.1e-003	2.2e-003	2.2e-003	mA	14.5 : 1
	75%	±(0.1% Span)	15.984	16.016	16.004 mA	1.3e-003	1.3e-003	2.3e-003	2.3e-003	mA	12.3 : 1
	100%	±(0.1% Span)	19.984	20.016	20.002 mA	1.4e-003	1.4e-003	2.3e-003	2.3e-003	mA	11.4 : 1
DC Current % Source - 4-20mA Ch #3											
4 - 20mA	0%	±(0.1% Span)	3.984	4.016	3.998 mA	1.6e-004	1.6e-004	1.9e-003	1.9e-003	mA	100.0 : 1
	25%	±(0.1% Span)	7.984	8.016	8.002 mA	2.7e-004	2.7e-004	1.9e-003	1.9e-003	mA	59.3 : 1
	50%	±(0.1% Span)	11.984	12.016	12.001 mA	1.1e-003	1.1e-003	2.2e-003	2.2e-003	mA	14.5 : 1
	75%	±(0.1% Span)	15.984	16.016	16.000 mA	1.3e-003	1.3e-003	2.3e-003	2.3e-003	mA	12.3 : 1
	100%	±(0.1% Span)	19.984	20.016	20.001 mA	1.4e-003	1.4e-003	2.3e-003	2.3e-003	mA	11.4 : 1
DC Current % Source - 4-20mA Ch #4											
4 - 20mA	0%	±(0.1% Span)	3.984	4.016	4.004 mA	1.6e-004	1.6e-004	1.9e-003	1.9e-003	mA	100.0 : 1
	25%	±(0.1% Span)	7.984	8.016	8.002 mA	2.7e-004	2.7e-004	1.9e-003	1.9e-003	mA	59.3 : 1
	50%	±(0.1% Span)	11.984	12.016	12.001 mA	1.1e-003	1.1e-003	2.2e-003	2.2e-003	mA	14.5 : 1
	75%	±(0.1% Span)	15.984	16.016	16.005 mA	1.3e-003	1.3e-003	2.3e-003	2.3e-003	mA	12.3 : 1
	100%	±(0.1% Span)	19.984	20.016	20.001 mA	1.4e-003	1.4e-003	2.3e-003	2.3e-003	mA	11.4 : 1

Customer: AEROCOUSTICS ENGINEERING LTD
1004 MIDDLEGATE ROAD
SUITE 1100
MISSISSAUGA, ON L4Y 1M4
PO Number: 2018.06.11C



SCC Lab No 827



Certificate/SO Number: 33-Q0Z01-20-1 Revision 0

As Found/As Left Data

Description	Setpoints	Accuracy	Low Limit	High Limit	As Found / As Left	Cal Process		Measurement Uncertainty (k=2; ±)	Units	TUR
						O	T			
DC Current % Source - 0-20mA Ch #1										
0 - 20mA	0%	±(0.1% Span)	-0.020	0.020	0.004 mA	9.2e-007		2.3e-003	mA	100.0 : 1
	25%	±(0.1% Span)	4.980	5.020	5.001 mA	1.9e-004		2.3e-003	mA	100.0 : 1
	50%	±(0.1% Span)	9.980	10.020	10.002 mA	3.2e-004		2.3e-003	mA	62.5 : 1
	75%	±(0.1% Span)	14.980	15.020	15.001 mA	1.2e-003		2.6e-003	mA	16.7 : 1
	100%	±(0.1% Span)	19.980	20.020	20.002 mA	1.4e-003		2.7e-003	mA	14.3 : 1
DC Current % Source - 0-20mA Ch #2										
0 - 20mA	0%	±(0.1% Span)	-0.020	0.020	0.004 mA	9.2e-007		2.3e-003	mA	100.0 : 1
	25%	±(0.1% Span)	4.980	5.020	5.000 mA	1.9e-004		2.3e-003	mA	100.0 : 1
	50%	±(0.1% Span)	9.980	10.020	9.998 mA	3.2e-004		2.3e-003	mA	62.5 : 1
	75%	±(0.1% Span)	14.980	15.020	15.002 mA	1.2e-003		2.6e-003	mA	16.7 : 1
	100%	±(0.1% Span)	19.980	20.020	20.002 mA	1.4e-003		2.7e-003	mA	14.3 : 1
DC Current % Source - 0-20mA Ch #3										
0 - 20mA	0%	±(0.1% Span)	-0.020	0.020	0.000 mA	9.2e-007		2.3e-003	mA	100.0 : 1
	25%	±(0.1% Span)	4.980	5.020	4.999 mA	1.9e-004		2.3e-003	mA	100.0 : 1
	50%	±(0.1% Span)	9.980	10.020	10.002 mA	3.2e-004		2.3e-003	mA	62.5 : 1
	75%	±(0.1% Span)	14.980	15.020	15.003 mA	1.2e-003		2.6e-003	mA	16.7 : 1
	100%	±(0.1% Span)	19.980	20.020	20.001 mA	1.4e-003		2.7e-003	mA	14.3 : 1
DC Current % Source - 0-20mA Ch #4										
0 - 20mA	0%	±(0.1% Span)	-0.020	0.020	0.000 mA	9.2e-007		2.3e-003	mA	100.0 : 1
	25%	±(0.1% Span)	4.980	5.020	5.001 mA	1.9e-004		2.3e-003	mA	100.0 : 1
	50%	±(0.1% Span)	9.980	10.020	10.004 mA	3.2e-004		2.3e-003	mA	62.5 : 1
	75%	±(0.1% Span)	14.980	15.020	15.002 mA	1.2e-003		2.6e-003	mA	16.7 : 1
	100%	±(0.1% Span)	19.980	20.020	20.002 mA	1.4e-003		2.7e-003	mA	14.3 : 1

Customer: AEROCOUSTICS ENGINEERING LTD
 1004 MIDDLEGATE ROAD
 SUITE 1100
 MISSISSAUGA, ON L4Y 1M4
 PO Number: 2018.06.11C



SCC Lab No 827

Certificate/SO Number: 33-Q0Z01-20-1 Revision 0

As Found/As Left Data

Description	Setpoints	Accuracy	Low Limit	High Limit	As Found / As Left	Cal Process		Measurement Uncertainty (k=2; ±)	Units	TUR
						O	T			
DC Voltage % Source - 0-5V Ch#1										
0-5V	0%	±(0.1% Span)	-0.0050	0.0050	0.0011 V	5.0e-007	5.8e-004	V	100.0 : 1	
	20%	±(0.1% Span)	0.9950	1.0050	1.0003 V	5.5e-006	5.8e-004	V	100.0 : 1	
	40%	±(0.1% Span)	1.9950	2.0050	1.9994 V	1.1e-005	5.8e-004	V	100.0 : 1	
	60%	±(0.1% Span)	2.9950	3.0050	3.0016 V	1.6e-005	5.8e-004	V	100.0 : 1	
	80%	±(0.1% Span)	3.9950	4.0050	4.0014 V	2.1e-005	5.8e-004	V	100.0 : 1	
	100%	±(0.1% Span)	4.9950	5.0050	5.0011 V	2.6e-005	5.8e-004	V	100.0 : 1	
DC Voltage % Source - 0-5V Ch#2										
0-5V	0%	±(0.1% Span)	-0.0050	0.0050	0.0002 V	5.0e-007	5.8e-004	V	100.0 : 1	
	20%	±(0.1% Span)	0.9950	1.0050	1.0008 V	5.5e-006	5.8e-004	V	100.0 : 1	
	40%	±(0.1% Span)	1.9950	2.0050	2.0000 V	1.1e-005	5.8e-004	V	100.0 : 1	
	60%	±(0.1% Span)	2.9950	3.0050	3.0016 V	1.6e-005	5.8e-004	V	100.0 : 1	
	80%	±(0.1% Span)	3.9950	4.0050	4.0009 V	2.1e-005	5.8e-004	V	100.0 : 1	
	100%	±(0.1% Span)	4.9950	5.0050	5.0004 V	2.6e-005	5.8e-004	V	100.0 : 1	
DC Voltage % Source - 0-5V Ch#3										
0-5V	0%	±(0.1% Span)	-0.0050	0.0050	0.0020 V	5.0e-007	5.8e-004	V	100.0 : 1	
	20%	±(0.1% Span)	0.9950	1.0050	1.0000 V	5.5e-006	5.8e-004	V	100.0 : 1	
	40%	±(0.1% Span)	1.9950	2.0050	2.0001 V	1.1e-005	5.8e-004	V	100.0 : 1	
	60%	±(0.1% Span)	2.9950	3.0050	3.0006 V	1.6e-005	5.8e-004	V	100.0 : 1	
	80%	±(0.1% Span)	3.9950	4.0050	4.0014 V	2.1e-005	5.8e-004	V	100.0 : 1	
	100%	±(0.1% Span)	4.9950	5.0050	5.0019 V	2.6e-005	5.8e-004	V	100.0 : 1	

Customer: AEROCOUSTICS ENGINEERING LTD
 1004 MIDDLEGATE ROAD
 SUITE 1100
 MISSISSAUGA, ON L4Y 1M4
 PO Number: 2018.06.11C



SCC Lab No 827

Certificate/SO Number: 33-Q0Z01-20-1 Revision 0

As Found/As Left Data

Description	Setpoints	Accuracy	As Found / As Left			Cal Process O T	Measurement Uncertainty (k=2; ±)	Units	TUR
			Low Limit	High Limit	As Found / As Left				
DC Voltage % Source - 0-5V Ch#4									
0 -5V	0%	±(0.1% Span)	-0.0050	0.0050	0.0006 V	5.0e-007	5.8e-004	V	100.0 : 1
	20%	±(0.1% Span)	0.9950	1.0050	1.0021 V	5.5e-006	5.8e-004	V	100.0 : 1
	40%	±(0.1% Span)	1.9950	2.0050	2.0011 V	1.1e-005	5.8e-004	V	100.0 : 1
	60%	±(0.1% Span)	2.9950	3.0050	3.0007 V	1.6e-005	5.8e-004	V	100.0 : 1
	80%	±(0.1% Span)	3.9950	4.0050	4.0007 V	2.1e-005	5.8e-004	V	100.0 : 1
	100%	±(0.1% Span)	4.9950	5.0050	5.0004 V	2.6e-005	5.8e-004	V	100.0 : 1
DC Voltage % Source - 0-10V Ch#1									
0 - 10V	0%	±(0.1% Span)	-0.010	0.010	0.001 V	5.0e-007	1.2e-003	V	100.0 : 1
	20%	±(0.1% Span)	1.990	2.010	1.999 V	1.1e-005	1.2e-003	V	100.0 : 1
	40%	±(0.1% Span)	3.990	4.010	4.001 V	2.1e-005	1.2e-003	V	100.0 : 1
	60%	±(0.1% Span)	5.990	6.010	6.001 V	3.1e-005	1.2e-003	V	100.0 : 1
	80%	±(0.1% Span)	7.990	8.010	8.002 V	4.1e-005	1.2e-003	V	100.0 : 1
	100%	±(0.1% Span)	9.990	10.010	10.000 V	5.2e-005	1.2e-003	V	100.0 : 1
DC Voltage % Source - 0-10V Ch#2									
0 - 10V	0%	±(0.1% Span)	-0.010	0.010	0.002 V	5.0e-007	1.2e-003	V	100.0 : 1
	20%	±(0.1% Span)	1.990	2.010	2.000 V	1.1e-005	1.2e-003	V	100.0 : 1
	40%	±(0.1% Span)	3.990	4.010	4.001 V	2.1e-005	1.2e-003	V	100.0 : 1
	60%	±(0.1% Span)	5.990	6.010	6.002 V	3.1e-005	1.2e-003	V	100.0 : 1
	80%	±(0.1% Span)	7.990	8.010	8.001 V	4.1e-005	1.2e-003	V	100.0 : 1
	100%	±(0.1% Span)	9.990	10.010	10.000 V	5.2e-005	1.2e-003	V	100.0 : 1

Customer: AEROCOUSTICS ENGINEERING LTD
 1004 MIDDLEGATE ROAD
 SUITE 1100
 MISSISSAUGA, ON L4Y 1M4
 PO Number: 2018.06.11C



SCC Lab No 827

Certificate/SO Number: 33-Q0Z01-20-1 Revision 0

As Found/As Left Data

Description	Setpoints	Accuracy	Low Limit	High Limit	As Found / As Left	Cal Process		Units	TUR
						O Uncertainty (k=2; ±)	T Measurement Uncertainty (k=2; ±)		
DC Voltage % Source - 0-10V Ch#3									
0 - 10V	0%	±(0.1% Span)	-0.010	0.010	0.002 V	5.0e-007	1.2e-003	V	100.0 : 1
	20%	±(0.1% Span)	1.990	2.010	2.000 V	1.1e-005	1.2e-003	V	100.0 : 1
	40%	±(0.1% Span)	3.990	4.010	4.001 V	2.1e-005	1.2e-003	V	100.0 : 1
	60%	±(0.1% Span)	5.990	6.010	6.003 V	3.1e-005	1.2e-003	V	100.0 : 1
	80%	±(0.1% Span)	7.990	8.010	8.001 V	4.1e-005	1.2e-003	V	100.0 : 1
	100%	±(0.1% Span)	9.990	10.010	10.001 V	5.2e-005	1.2e-003	V	100.0 : 1
DC Voltage % Source - 0-10V Ch#4									
0 - 10V	0%	±(0.1% Span)	-0.010	0.010	0.000 V	5.0e-007	1.2e-003	V	100.0 : 1
	20%	±(0.1% Span)	1.990	2.010	2.001 V	1.1e-005	1.2e-003	V	100.0 : 1
	40%	±(0.1% Span)	3.990	4.010	4.001 V	2.1e-005	1.2e-003	V	100.0 : 1
	60%	±(0.1% Span)	5.990	6.010	6.000 V	3.1e-005	1.2e-003	V	100.0 : 1
	80%	±(0.1% Span)	7.990	8.010	8.002 V	4.1e-005	1.2e-003	V	100.0 : 1
	100%	±(0.1% Span)	9.990	10.010	10.000 V	5.2e-005	1.2e-003	V	100.0 : 1

Customer: AEROCOUSTICS ENGINEERING LTD
1004 MIDDLEGATE ROAD
SUITE 1100
MISSISSAUGA, ON L4Y 1M4
PO Number: 2018.06.11C



SCC Lab No 827



Certificate/SO Number: 33-Q0Z01-20-1 Revision 0

Traceable Standards

Asset	Manufacturer	Model Number	Description	Cal Date	Due Date	Traceability Number	Use
N0351	Agilent	3458A Opt 002	Multimeter, Digital	22-Jun-17	30-Jun-18	5-&N0351-21-1	AF/AL
N0390	Fluke Corporation	5520A	Multifunction Calibrator	19-Dec-17	31-Dec-18	5-&N0390-18-1	AF/AL

The use of the standard is defined as: AF - used for as-found readings, AL - used for as-left readings.

Environmental Data

Temperature	Relative Humidity	Temp / RH Asset
70.99°F /21.66°C	36.80%	N0457

Calibrated At:
4043 Carling Avenue
Ottawa, ON K2K 2A4

Facility Responsible:
4043 Carling Avenue
Ottawa, ON K2K 2A4
800-828-1470

Unit Barcode:

901B0165859

Calibrated By:

Mark King
Calibration Technician
Jun 19, 2018
14:24:03 -04:00

Reviewed By:

Francis Kane
Lab Manager
Jun 19, 2018
15:08:27 -04:00

Date Received: June 12, 2018
Service Level: R9

Certificate - Page 7 of 7

Customer Number: 9-322110-000
OPS-F20-014R1 01/23/2017 FP001R1 10/12/2017



SOH Wind Engineering LLC

141 Leroy Road · Williston, VT 05495 · USA

Tel 802.316.4368 · Fax 802.735.9106 · www.sohwind.com

CERTIFICATE FOR CALIBRATION OF SONIC ANEMOMETER

Certificate number: 18.US1.05011

Date of issue: September 28, 2018

Type: Vaisala Weather Transmitter, WXT520

Serial number: k4250007

Manufacturer: Vaisala, Oyj, PL 26, FIN-00421 Helsinki, Finland

Client: Aercoustics Engineering Ltd., 1004 Middlegate RD, Suite 1100, S.Tower, Mississauga, ON L4Y 1M4, Canada

Anemometer received: September 28, 2018

Anemometer calibrated: September 28, 2018

Calibrated by: MEJ

Procedure: MEASNET, IEC 61400-12-1:2017 Annex F

Certificate prepared by: EJJ

Approved by: Calibration engineer, EJJ

Calibration equation obtained: $v \text{ [m/s]} = 1.01370 \cdot f \text{ [m/s]} + 0.06230$

Standard uncertainty, slope: 0.00263

Standard uncertainty, offset: 0.44596

Covariance: -0.0000692 (m/s)²/m/s

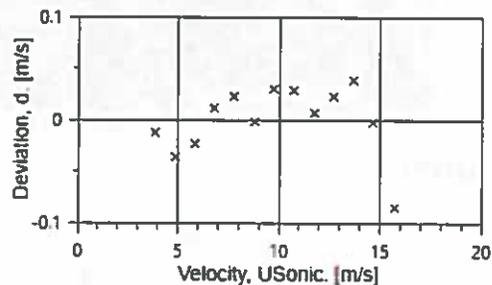
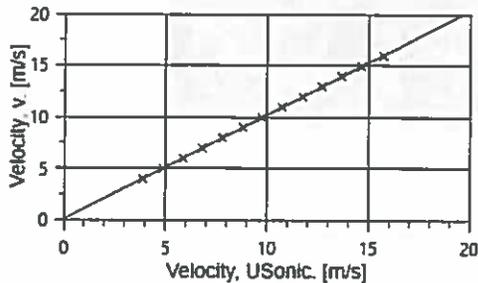
Coefficient of correlation: $\rho = 0.999962$

Absolute maximum deviation: -0.085 m/s at 15.914 m/s

Barometric pressure: 1004.6 hPa

Relative humidity: 41.7%

Succession	Velocity pressure, q. [Pa]	Temperature in wind tunnel [°C]	d.p. box [°C]	Wind velocity, v. [m/s]	Anemometer Output, f. [m/s]	Deviation, d. [m/s]	Uncertainty $u_c (k=2)$ [m/s]
2	9.14	26.3	26.6	3.966	3.8633	-0.012	0.020
4	14.39	26.4	26.7	4.976	4.8828	-0.036	0.023
6	20.73	26.4	26.7	5.973	5.8533	-0.023	0.026
8	28.21	26.4	26.7	6.967	6.8000	0.012	0.029
10	36.96	26.4	26.7	7.974	7.7828	0.023	0.033
12	46.92	26.3	26.7	8.985	8.8033	-0.002	0.037
13-last	57.63	26.3	26.7	9.957	9.7310	0.030	0.041
11	69.92	26.3	26.7	10.968	10.7300	0.029	0.045
9	83.41	26.3	26.7	11.980	11.7500	0.007	0.049
7	97.59	26.3	26.7	12.959	12.7000	0.023	0.053
5	113.15	26.3	26.7	13.955	13.6667	0.039	0.057
3	129.18	26.3	26.6	14.911	14.6500	-0.002	0.061
1-first	147.16	26.3	26.6	15.914	15.7214	-0.085	0.065



AC-1746



EQUIPMENT USED

Serial Number	Description
Njord1	Wind tunnel, blockage factor = 1.0035
2254	Control cup anemometer
-	Mounting tube, D = 19 mm
TT002	Summit Electronics, 1XPT100, 0-10V Output, wind tunnel temp.
TP001	PR Electronics 5102, 0-10V Output, differential pressure box temp.
DP005	Setra Model 239, 0-1inWC, differential pressure transducer
HY003	Dwyer RHP-2D20, 0-10V Output, humidity transmitter
BP003	Setra M278, 0-5VDC Output, barometer
PL8	Pitot tube
XB002	Computer Board, 16 bit A/D data acquisition board
9PRZRWI	PC dedicated to data acquisition

Traceable calibrations of the equipment are carried out by external accredited institutions: Atlantic Scale, Essco Calibration Labs & Furness Controls. A real-time analysis module within the data acquisition software detects pulse frequency.

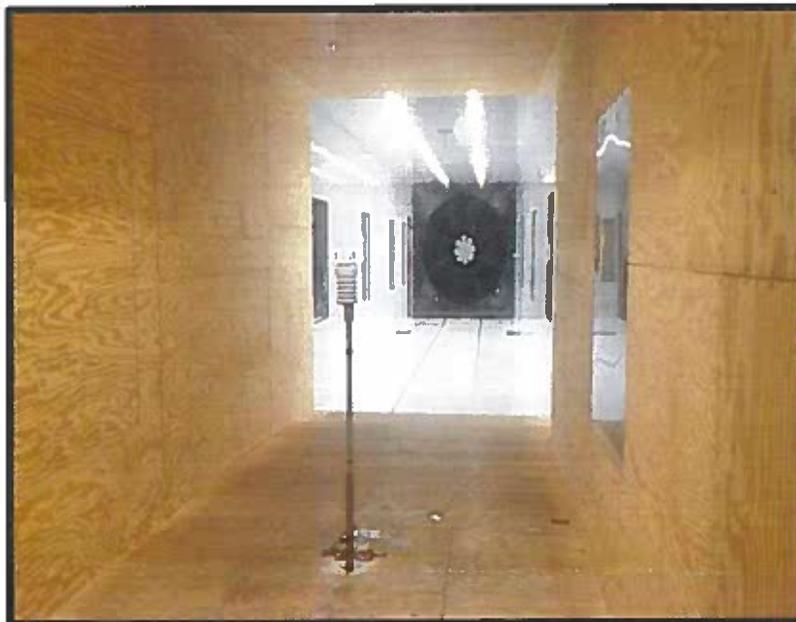


Photo of the wind tunnel setup. The cross-sectional area is 2.5m x 2.5m.

UNCERTAINTIES

The documented uncertainty is the total combined uncertainty at 95% confidence level ($k=2$) in accordance with EA-4/02. The uncertainty at 10 m/s comply with the requirements in the IEC 61400-12-1:2005 procedure. See Document US.12.01.004 for further details.

COMMENTS

This sensor was calibrated at 90°.

Certificate number: 18.US1.05011

All calibrations are done in the "As Left" condition unless otherwise noted.

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Tel 802.316.4368 · Fax 802.735.9106 · www.sohwind.com

CERTIFICATE FOR CALIBRATION OF SONIC ANEMOMETER

Certificate number: 18.US1.05010

Date of issue: September 28, 2018

Type: Vaisala Weather Transmitter, WXT520

Serial number: k4250007

Manufacturer: Vaisala, Oyj, PI 26, FIN-00421 Helsinki, Finland

Client: Aercoustics Engineering Ltd., 1004 Middlegate RD, Suite 1100, S.Tower, Mississauga, ON L4Y 1M4, Canada

Anemometer received: September 28, 2018

Anemometer calibrated: September 28, 2018

Calibrated by: MEJ

Procedure: MEASNET, IEC 61400-12-1:2017 Annex F

Certificate prepared by: EJF

Approved by: Calibration engineer, EJF

Calibration equation obtained: $v [m/s] = 0.99242 \cdot f [m/s] + 0.03258$

Standard uncertainty, slope: 0.00169

Standard uncertainty, offset: 0.54886

Covariance: -0.0000280 (m/s)²/m/s

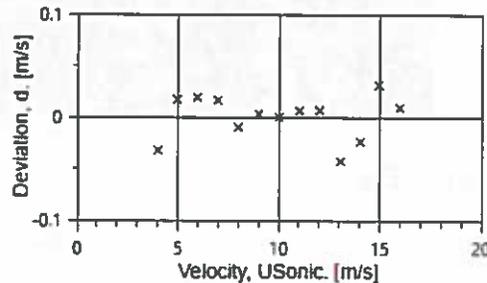
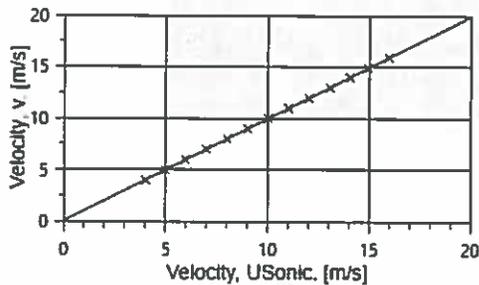
Coefficient of correlation: $\rho = 0.999984$

Absolute maximum deviation: -0.043 m/s at 12.957 m/s

Barometric pressure: 1004.7 hPa

Relative humidity: 42.1%

Succession	Velocity pressure, q, [Pa]	Temperature in wind tunnel [°C]	d.p. box [°C]	Wind velocity, v, [m/s]	Anemometer Output, f, [m/s]	Deviation, d, [m/s]	Uncertainty u _c (k=2) [m/s]
2	9.17	26.0	26.6	3.970	4.0000	-0.032	0.020
4	14.42	26.1	26.7	4.978	4.9655	0.017	0.023
6	20.76	26.1	26.7	5.973	5.9667	0.019	0.026
8	28.34	26.1	26.7	6.979	6.9833	0.016	0.029
10	37.04	26.1	26.7	7.979	8.0167	-0.010	0.033
12	46.92	26.1	26.7	8.981	9.0133	0.003	0.037
13-last	57.79	26.1	26.7	9.967	10.0103	0.000	0.041
11	70.03	26.1	26.7	10.972	11.0167	0.006	0.045
9	83.27	26.1	26.7	11.965	12.0167	0.007	0.049
7	97.66	26.1	26.7	12.957	13.0667	-0.043	0.053
5	113.17	26.1	26.7	13.949	14.0467	-0.024	0.057
3	129.15	26.0	26.7	14.901	14.9500	0.031	0.061
1-first	147.15	26.0	26.6	15.904	15.9833	0.009	0.065



AC-1746



EQUIPMENT USED

Serial Number	Description
Njord1	Wind tunnel, blockage factor = 1.0035
2254	Control cup anemometer
-	Mounting tube, D = 19 mm
TT002	Summit Electronics, IXPT100, 0-10V Output, wind tunnel temp.
TP001	PR Electronics 5102, 0-10V Output, differential pressure box temp.
DP005	Setra Model 239, 0-1inWC, differential pressure transducer
IHY003	Dwyer RHP-2D20, 0-10V Output, humidity transmitter
BP003	Setra M278, 0-5VDC Output, barometer
PL8	Pitot tube
XB002	Computer Board, 16 bit A/D data acquisition board
9PRZRWI	PC dedicated to data acquisition

Traceable calibrations of the equipment are carried out by external accredited institutions: Atlantic Scale, Essco Calibration Labs & Furness Controls. A real-time analysis module within the data acquisition software detects pulse frequency.

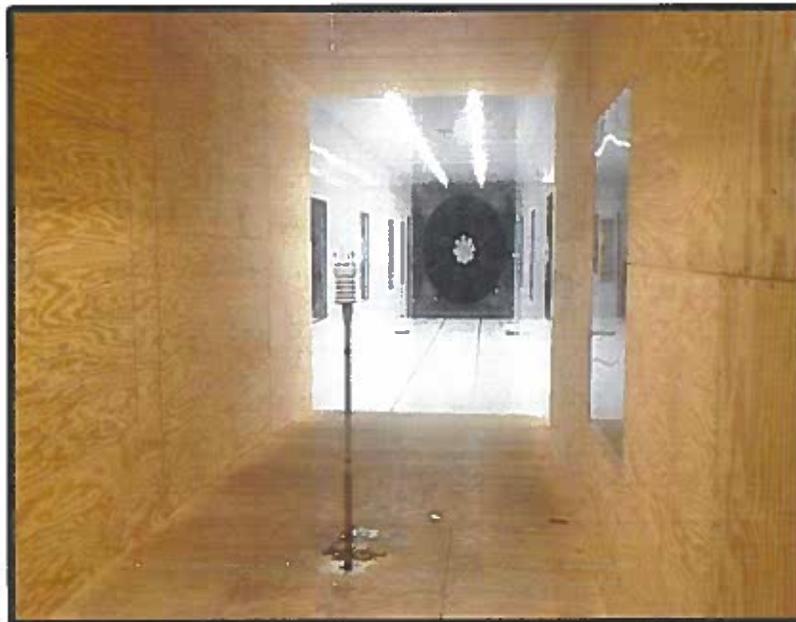


Photo of the wind tunnel setup. The cross-sectional area is 2.5m x 2.5m.

UNCERTAINTIES

The documented uncertainty is the total combined uncertainty at 95% confidence level ($k=2$) in accordance with EA-4/02. The uncertainty at 10 m/s comply with the requirements in the IEC 61400-12-1:2005 procedure. See Document US.12.01.004 for further details.

COMMENTS

This sensor was calibrated at 0°.

Certificate number: 18.US1.05010

All calibrations are done in the "As Left" condition unless otherwise noted.

This certificate must not be reproduced, except in full, without the approval of SOH Wind Engineering LLC

West Caldwell Calibration Laboratories Inc.

Certificate of Calibration

for

SOUND CALIBRATOR

Manufactured by: BRUEL & KJAER
Model No: 4231
Serial No: 2513183
Calibration Recall No: 29177

Submitted By:

Customer:
Company: Aercoustics Engineering LTD.
Address:

The subject instrument was calibrated to the indicated specification using standards traceable to the National Institute of Standards and Technology or to accepted values of natural physical constants. This document certifies that the instrument met the following specification upon its return to the submitter.

West Caldwell Calibration Laboratories Procedure No. 4231 BRUE

Upon receipt for Calibration, the instrument was found to be:

Within (X)

tolerance of the indicated specification. See attached Report of Calibration.
The information supplied relates to the calibrated item listed above.

West Caldwell Calibration Laboratories' calibration control system meets the requirements, ISO 10012-1 MIL-STD-45662A, ANSI/NCSL Z540-1, IEC Guide 25, ISO 9001:2008 and ISO 17025.

Note: With this Certificate, Report of Calibration is included.

Approved by: 

Calibration Date: 11-Sep-18

Felix Christopher (QA Mgr.)

Certificate No: 29177 - 1

QA Doc. #1051 Rev. 2.0 10/1/01

Certificate Page 1 of 1

ISO/IEC 17025:2005

**West Caldwell
Calibration
Laboratories, Inc.**
uncompromised calibration
1575 State Route 96, Victor, NY 14564, U.S.A.



Calibration Lab. Cert. # 1533.01

West Caldwell Calibration Laboratories, Inc.
 uncompromised calibration
 1575 State Route 96, Victor NY 14564



REPORT OF CALIBRATION

for

Brüel & Kjær Sound Calibrator
 Company: Aercoustics Engineering LTD.

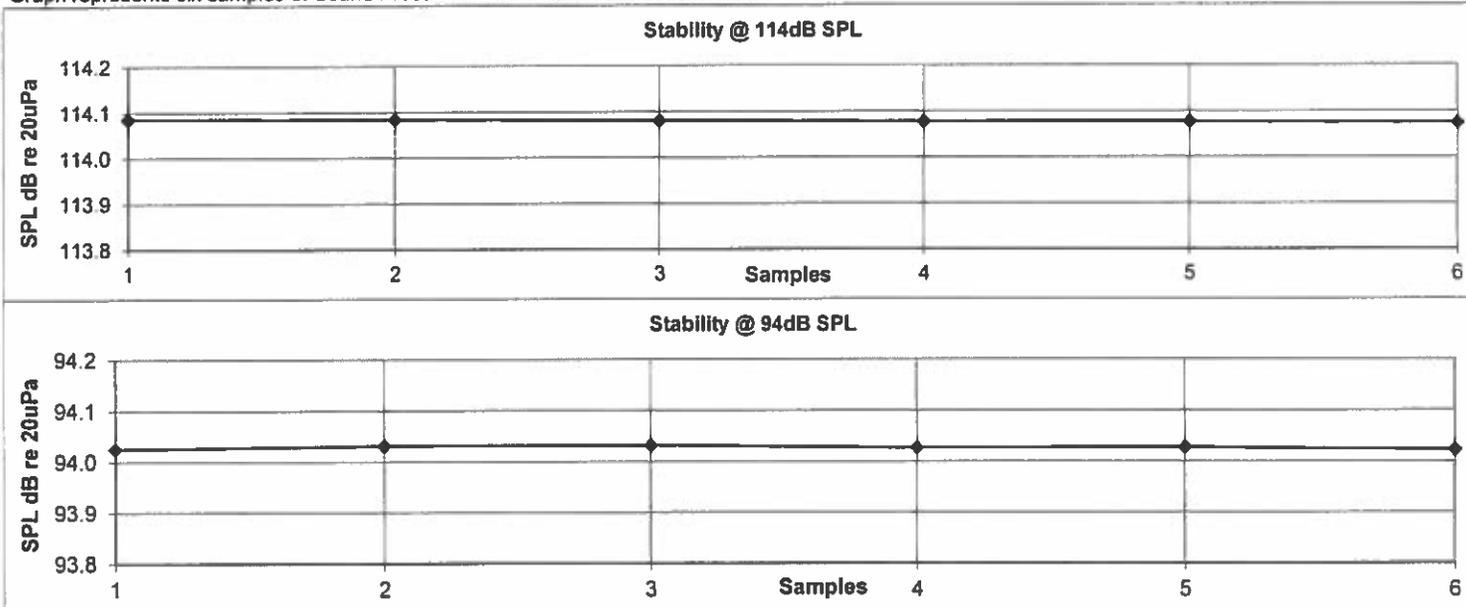
Model No.: 4231

Serial No.: 2513183
 ID No.: XXXX

Calibration results: Before data: After data: Before & after data same: ...X..... Sound Pressure Level at 1000.0 Hz and pressure of 1013 hPa (mbar) was 114.08 dB re 20µPa (Calibrator tested with 1/2" adaptor UC 0210) IEC 1094-4 Type WS 2 P Microphone was used for measurement.		Laboratory Environment: Ambient Temperature: 21.1 °C Ambient Humidity: 56.1 % RH Ambient Pressure: 99.652 kPa Calibration Date: 11-Sep-2018 Calibration Due: 11-Sep-2019 Report Number: 29177 -1 Control Number: 29177	
Sound Pressure Level:	Pass	114dB	94dB
Frequency:	Pass	Pass	Pass
Distortion:	Pass	Pass	Pass
Stability:	Pass	Pass	Pass
All tested parameters:	Pass	Pass	Pass

The above listed instrument meets or exceeds the tested manufacturer's specifications
 The IEC 60942:2003 Class 1 specifications, passed.
 The ANSI S1.4-1984 specifications, passed.
 This Calibration is traceable through NIST test numbers: 683/284413-14
 The expanded uncertainty of calibration: 0.11 dB at 95% confidence level with a coverage factor of k=2.

Graph represents six samples of Sound Pressure Level measured at 5sec. interval.



The above listed instrument was checked using calibration procedure documented in West Caldwell Calibration Laboratories Inc. procedure : Rev. 7.0 Jan. 24, 2014 Doc. # 1038 4231B&K
 Calibration was performed by West Caldwell Calibration Laboratories Inc. under Operating Procedures intended to implement the requirements of ISO10012-1, IEC Guide 25, ANSI/NCSL Z540-1, (MIL-STD-45662A) and ISO 9001:2008, ISO 17025

Cal. Date: 11-Sep-2018

Measurements performed by: *MS*

Calibrated on WCCL system type 9700

Matthew Smith

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Rev. 7.0 Jan. 24, 2014 Doc. # 1038 4231B&K

West Caldwell Calibration Laboratories Inc.1575 State Route 96, Victor NY 14564
Tel. (585) 586-3900 FAX (585) 586-4327**Calibration Data Record**

for

Model No.: 4231

Serial No.: 2513183

Brüel & Kjær Sound Calibrator
Company: Aercoustics Engineering LTD.

All tested parameters: Pass

Measured Sound Pressure Level (Six samples measured at 5 sec. interval)

Sample	1	114.09 dB re 20µPa	94.03 dB re 20µPa	
	2	114.08	94.03	
	3	114.08	94.03	
	4	114.08	94.03	
	5	114.08	94.03	
	6	114.07	94.02	
	Average	114.08 Spec. 114dB ± 0.2dB	94.03	Spec. 94dB ± 0.2dB

Frequency measured (Three samples at 30 sec. Interval)

Sample	1	999.96 Hz	999.96 Hz	
	2	999.96	999.98	
	3	999.96	999.95	
	Average	999.96	999.96	Spec. 1000Hz ±0.1%

The Frequency expanded uncertainty of calibration:45µHz/Hz at 95% confidence level with a coverage factor of k=2.

Distortion measured	-47.9 dB	-45.3 dB	Spec. ≤-40dB
---------------------	----------	----------	--------------

Instruments used for calibration:	Date of Cal.	Traceability No.	Re-cal. Due Date
Brüel & Kjær 4231 S/N 2205492	16-Jul-2018	683/284413-14	16-Jul-2019
Brüel & Kjær 4134 S/N 173494	16-Jul-2018	683/284413-14	16-Jul-2019
Brüel & Kjær 2669 S/N 1835080	16-Jul-2018	683/284413-14	16-Jul-2019
HP 34401A S/N US361025	19-Jul-2018	,287708	19-Jul-2019
Brüel & Kjær 2636 S/N 1487493	17-Jul-2018	683/284413-14	17-Jul-2019
HP 33120A S/N SG400116	19-Jul-2018	,287708	19-Jul-2019

Cal. Date: 11-Sep-2018

Tested by: Matthew Smith

Calibrated on WCCL system type 9700

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Rev. 7.0 Jan. 24, 2014 Doc. # 1038 4231B&K

West Caldwell Calibration Laboratories Inc.

Certificate of Calibration

for

MICROPHONE UNIT

Manufactured by: **BRUEL & KJAER**
Model No: **4189-2671**
Serial No: **2625416-2369794**
Calibration Recall No: **28047**

Submitted By:

Customer:
Company: **Aercoustics Engineering LTD**
Address:

The subject instrument was calibrated to the indicated specification using standards traceable to the National Institute of Standards and Technology or to accepted values of natural physical constants. This document certifies that the instrument met the following specification upon its return to the submitter.

West Caldwell Calibration Laboratories Procedure No. **4189-2671 BRUE**

Upon receipt for Calibration, the instrument was found to be:

Within (X)

tolerance of the indicated specification. See attached Report of Calibration.

West Caldwell Calibration Laboratories' calibration control system meets the requirements, ISO 10012-1 MIL-STD-45662A, ANSI/NCSL Z540-1, IEC Guide 25, ISO 9001:2008 and ISO 17025.

Note: With this Certificate, Report of Calibration is included.

Approved by:

FC

Calibration Date: **20-Sep-17**

Felix Christopher (QA Mgr.)

Certificate No: **28047 -2**

QA Doc. #1051 Rev. 2.0 10/1/01

Certificate Page 1 of 1

ISO/IEC 17025:2005

**West Caldwell
Calibration
Laboratories, Inc.**
uncompromised calibration
1575 State Route 96, Victor, NY 14564, U.S.A.



Calibration Lab. Cert. # 1533.01

West Caldwell Calibration Laboratories, Inc.
 uncompromised calibration
 1575 State Route 96, Victor NY 14564



Calibration Lab. Cert. # 1533.01

REPORT OF CALIBRATION

Brüel & Kjær Microphone Unit	for	Model No.: 4189&2671	Serial No.: 2625416-2369794
		Mic. Model No.: 4189	Serial No.: 2625416
		Preamp Model No.: 2671	Serial No.: 2369794
			I. D. No.: XXXX

Company: Aercoustics Engineering LTD

Calibration results:

Before & after data same: ...X...		Ambient Temperature:	21.6	°C			
Combined Sensitivity @	250 Hz	and pressure of	99.456 kPa	Ambient Humidity:	53.6	% RH	
(Sens. with mic. and preamp.)	0 Volts Polarization voltage (External):	Ambient Pressure:	99.456	kPa	Calibration Date:	20-Sep-2017	
	-26.39 dB re.1V/Pascal	Re-calibration Due:	20-Sep-2018	Report Number:	28047 -2	Control Number:	28047
	47.91 mV/Pascal						
	0.39 Ko (- dB re 50 mV/Pascal)						
Sensitivity:	Pass						
Freq. Response:	Pass						
All tests:	Pass						

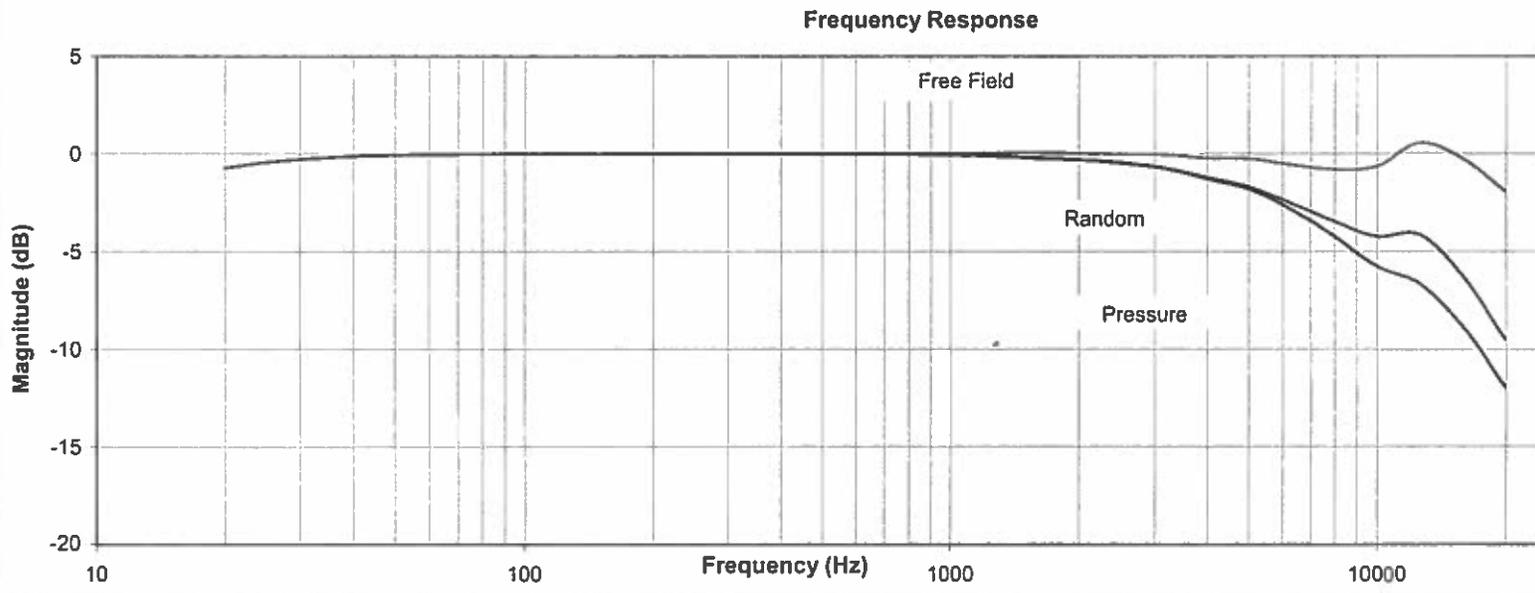
The above listed instrument meets or exceeds the tested manufacturer's specifications.

The IEC 651:1979 & 1993 Type 1 and ANSI S1.4 1983 Type 2 specification passed.

This Calibration is traceable through NIST test numbers: 683/284413-14

The expanded uncertainty of calibration: 0.079dB at 95% confidence level with a coverage factor of k=2.

The pressure response recorded with electroacoustic method.



The above listed instrument was checked using calibration procedure documented in West Caldwell

Calibration Laboratories Inc. procedure :

Rev. 7.0 Jan. 24, 2014 Doc. # 1038 P4189&2671B&K

Calibration was performed by West Caldwell Calibration Laboratories Inc. under Operating Procedures

intended to implement the requirements of ISO10012-1, IEC Guide 25, ANSI/NCSL Z540-1, (MIL-STD-45662A) and ISO 9001:2008, ISO 17025

Calibrated on WCCL system type 9700

Measurements performed by:
 James Zhu

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Rev. 7.0 Jan. 24, 2014 Doc. # 1038 P4189&2671B&K

West Caldwell Calibration Laboratories Inc.

1575 State Route 96, Victor NY 14564
 Tel. (585) 586-3900 FAX (585) 586-4327

Calibration Data Record

Brüel & Kjær Microphone Unit
 Company: Aercoustics Engineering LTD

for
 Model No.: 4189&2671

Serial No.: 2625416-2369794
 I. D. No.: XXXX

Frequency Response (Reference = 0 dB @ 250Hz)

Frequency [Hz]	Pressure [dB]	Free Field (dB)	Random (dB)
19.95	-0.71	-0.71	-0.71
25.12	-0.42	-0.42	-0.42
31.62	-0.23	-0.23	-0.23
39.81	-0.12	-0.12	-0.12
50.12	-0.06	-0.06	-0.06
63.10	-0.03	-0.03	-0.03
79.43	-0.01	-0.01	-0.01
100.00	0.00	0.00	0.00
125.89	0.00	0.00	0.00
158.49	0.00	0.00	0.00
199.53	0.00	0.00	0.00
251.19	0.00	0.00	0.00
316.23	0.00	0.00	0.00
398.11	0.00	0.01	0.00
501.19	-0.01	0.02	-0.01
630.96	-0.01	0.02	-0.01
794.33	-0.03	0.03	-0.03
1000.00	-0.07	0.03	-0.09
1258.93	-0.10	0.05	-0.13
1584.89	-0.18	0.04	-0.23
1995.26	-0.31	0.02	-0.31
2511.89	-0.48	-0.01	-0.45
3162.28	-0.75	-0.04	-0.72
3981.07	-1.28	-0.22	-1.19
5011.87	-1.83	-0.26	-1.69
6309.57	-2.85	-0.57	-2.54
7943.28	-4.18	-0.80	-3.43
10000.00	-5.76	-0.64	-4.23
12589.25	-6.64	0.56	-4.13
15848.93	-8.84	-0.25	-6.26
19952.62	-11.98	-1.93	-9.50

Freq. response: Expanded Uncertainty (dB) with coverage factor K = 2
 20 to 63Hz 0.1dB, 63 to 12.5kHz 0.094dB, 12.5k to 16kHz 0.10dB, 16k to 20kHz 0.5dB.

Instruments used for calibration:	Date of Cal.	Traceability No.	Re-cal. Due Date
Brüel & Kjær 4226 S/N 1445428	3-Nov-2016	683/284413-14	3-Nov-2017
Brüel & Kjær 3560 S/N 2202374	3-Nov-2016	683/284413-14	3-Nov-2017
HP 33120A S/N 36043716	1-Oct-2016	,287708	1-Oct-2017
HP 34401A S/N 36064102	1-Oct-2016	,287708	1-Oct-2017

Cal. Date: 20-Sep-2017

Tested by: James Zhu

Calibrated on WCCL system type 9700

Appendix F.02

Summary of Measurement Results

Summary of Measurement Results

1.1 Sound Pressure Levels

From Table 11 of IEC test report 17283.01.T06.RP1:

Wind Speed (m/s)	Turbine ON		Background		Turbine ON, Background adjusted L_{eq} , (dBA)
	L_{eq} , (dBA)	# of data pts	L_{eq} , (dBA)	# of data pts	
8	53.6	62	40.3	56	53.4
8.5	54.9	54	39.9	36	54.8
9	55.7	33	39.7	26	55.6
9.5	55.7	22	40.1	20	55.6
10	55.2	46	40.6	14	55.1
10.5	55.3	34	44.0	17	54.9
11	55.3	35	43.5	29	55.0
11.5	55.3	80	43.7	29	55.0
12	55.2	80	43.9	47	54.9
12.5	55.0	58	44.0	38	54.7
13	55.2	60	44.2	37	54.8

1.2 Sound Power Levels

From Table 12 of IEC test report 17283.01.T06.RP1. Octave Band data has been included to fulfil requirements stipulated in the project's Renewable Energy Approval.

Wind Speed (m/s)	Octave Band Centre Frequency (Hz)								Apparent L_{WA} , (dBA)	Maximum Sound Power Level (dBA)* REA # 5272-A9FHRL
	63	125	250	500	1000	2000	4000	8000		
8	87.0	92.2	96.5	97.5	98.2	96.8	90.0	77.7	103.9	106.5
8.5	86.7	93.3	97.7	99.0	99.9	98.3	91.0	75.0	105.3	106.5
9	86.0	94.1	98.4	99.7	100.8	99.0	91.7	75.8	106.1	106.5
9.5	86.6	94.2	98.3	99.5	100.9	99.3	92.1	76.9	106.1	106.5
10	89.5	93.6	97.5	98.7	100.3	98.7	92.7	82.0	105.6	106.5
10.5	90.5	94.0	97.8	98.5	100.0	98.3	92.6	82.3	105.5	106.5
11	90.8	93.7	97.7	98.6	100.2	98.4	92.9	82.7	105.6	106.5
11.5	90.7	93.1	97.4	98.5	100.2	98.5	93.0	82.9	105.5	106.5
12	90.7	93.0	97.1	98.4	100.2	98.6	93.0	83.2	105.5	106.5
12.5	90.7	92.8	96.8	98.2	100.0	98.3	92.8	82.3	105.2	106.5
13	90.8	92.8	96.7	98.3	100.1	98.6	94.0	83.2	105.4	106.5

*Includes +0.5 dB, per Section E3.1 of the MECP Compliance Protocol for Wind Turbine Noise

1.3 Tonal Audibility Values

From Table 14 of IEC test report 17283.01.T06.RP1.

Wind Speed (m/s)	Frequency (Hz)	Tonal audibility, ΔL_a (dB)	Tonal Audibility from AAR* (dB)
8	71	-1.0	3
11.5	78	-2.4	3
12	78	-2.0	3
12.5	78	-2.1	3
13	78	-1.6	3

*North Kent 1 Wind Project Noise Impact Assessment Report (May 9, 2016)

1.4 Statement of Compliance

Based on the results in Table 12 of the IEC 61400-11 test report to which this statement is attached, the maximum apparent sound power level of the test turbine complies with the sound level in REA # 5272-A9FHRL and Section E3.1 of the MECP Compliance Protocol for Wind Turbine Noise.

Based on the results in Table 14 of the IEC 61400-11 to which this statement is attached, the tonal audibility of the test turbine complies with the maximum tonal audibility of 3 dB as indicated in the statement from the manufacturer dated July 15, 2015, found in Appendix E of the Noise Impact Assessment Report dated May 9, 2016.

Appendix F.03 E-Audit Checklist

Appendix F.03 - (2017 Compliance Protocol Appendix F6): E-Audit checklist for IEC 61400-11:2013
Wind Energy Project – Screening Document – Acoustic Audit Report – Emission IEC61400-11:2013 Standard
Information Required in the Acoustic Audit Report – Emission

Item #	Description	Complete?	Comment
1	Characterization of the wind turbine Items 1 to 26; IEC61400-11:2013, Section 10.2	✓	Report Section 2.1
2	Physical environment Items 27 to 33; IEC61400-11:2013, Section 10.3, Physical Environment	✓	Report Section 2.2, 3.2, 4.2, Appendix A
3	Measurement instrumentation Items 34 to 39; IEC61400-11:2013, Section 10.4, Instrumentation	✓	Report Section 3, Appendix F.01
4	Acoustic data Items 40 to 52; IEC61400-11:2013, Section 10.5, Acoustic Data	✓	Report Section 4, 3.3, Appendix C, Appendix D,
5	Non-acoustic data Items 50 to 53, and 56; IEC61400-11:2003 Section 10.6, Non-Acoustic Data Items 59 and 60; NPC-233, Section 12.3, Acoustic Audit – Acoustical Data, bullet point number 8, All necessary and supporting calculations	✓	Report Section 3, Appendix E
6	Uncertainty the apparent sound power level at integer wind speeds one-third octave band spectrum of the noise at the reference position at each integer wind speed the Tonality of the sound emissions of the wind turbine measured at the reference position	✓	Report Section 4, Appendix C
7	Additional information Item 60; NPC-233, Section 10, Report Format, bullet point number 4, Conclusions and Recommendations Item 61; NPC-233, Section 12.3, Acoustic Audit – Acoustical Data, bullet point number 8, All necessary and supporting calculations Item 62; NPC-233, Section 12.3, Acoustic Audit – Acoustical Data, bullet point number 3, Details of measurement procedure	✓	Report Section 3, Appendix F, data in Excel provided separately
8	Items 68 to 72; IEC61400-11:2013, Section 10.5, Acoustic Data	⊘	Optional information, not provided in this report
9	Non-acoustic data Items 73 to 74 are from IEC61400-11:2013, Section 10.6, Non-Acoustic Data	⊘	Optional information, not provided in this report

End of Report
