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NOISE IMPACT ASSESSMENT

Malting Lane, Donington

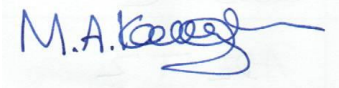
Spalding, PE11 4XA

Client:

Seagate Homes

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1.0 INTRODUCTION

Martec prepared a noise assessment report for the residential development of a site at Malting Lane, Donington, Spalding, PE11 4XA [Martec Ref. 20160208 7526 Donington BS8233]; the site received outline planning consent for residential development.

The development is occurring in phases, with the eastern section of the site being first [Phase 1] currently under construction [SHDC Ref.H04-0268-20]. Martec prepared a Technical Note [20221121 7526 TN] to consider the noise impact on this eastern section of the site [Phase 1], assuming that the western section of the site [Phase 2] did not occur.

This report has been prepared on the basis that development will occur in the western section of the site [Phase 2] and using the latest plans for this area [See Appendix 4] and the recommendations on noise control relate to both Phase 1 and Phase 2.

The original outline planning consent for approximately 73 dwellings was granted by South Holland DC for the site [SHDC Ref. H04-0244-16]; our first report formed part of the application and consent was granted subject to the following ‘noise’ condition:

“14 Before the commencement of the development hereby permitted, a noise and vibration report prepared by a suitably qualified consultant shall be submitted to and approved in writing by the Local Planning Authority. This report shall identify any measures or works necessary to ensure that there is no possible nuisance

caused to the proposed residential properties from noise or vibration.”

This additional latest report updates the recommendations of our original report, based on new noise measurements and a similar methodology to the original report.

2.0 SITE DESCRIPTION

The site of the proposed development is to the west of Malting Lane and was previously used as farmland.

There is a haulage facility at Station Yard, which is immediately to the west of the site and operated by Turners (Soham) Ltd; it is understood that container lorries are loaded/unloaded and despatched from the site, particularly during late afternoon, evening and night time (typically until about 23:00hrs) with seasonal periods of activity, including the Christmas period, connected to green grocery transportation, typically until about 01:00hrs.

The haulage site consists of a storage warehouse located at the southern end of the haulage yard where container trailers are loaded/unloaded by forklift trucks and large parking areas for tractor units and trailers .

The Lincoln to Peterborough railway line is also to the west of the site at an approximate distance of 40m from the site boundary to the nearest rail line. This line carries both suburban passenger and freight traffic.

There are areas of existing housing to the north and east of the site.

The dominant noise sources affecting the site are from the haulage facility and from railway traffic. The whole site is shown in Figure 1 below, with the measurement positions indicated and Phase 1 of the development within the red line.

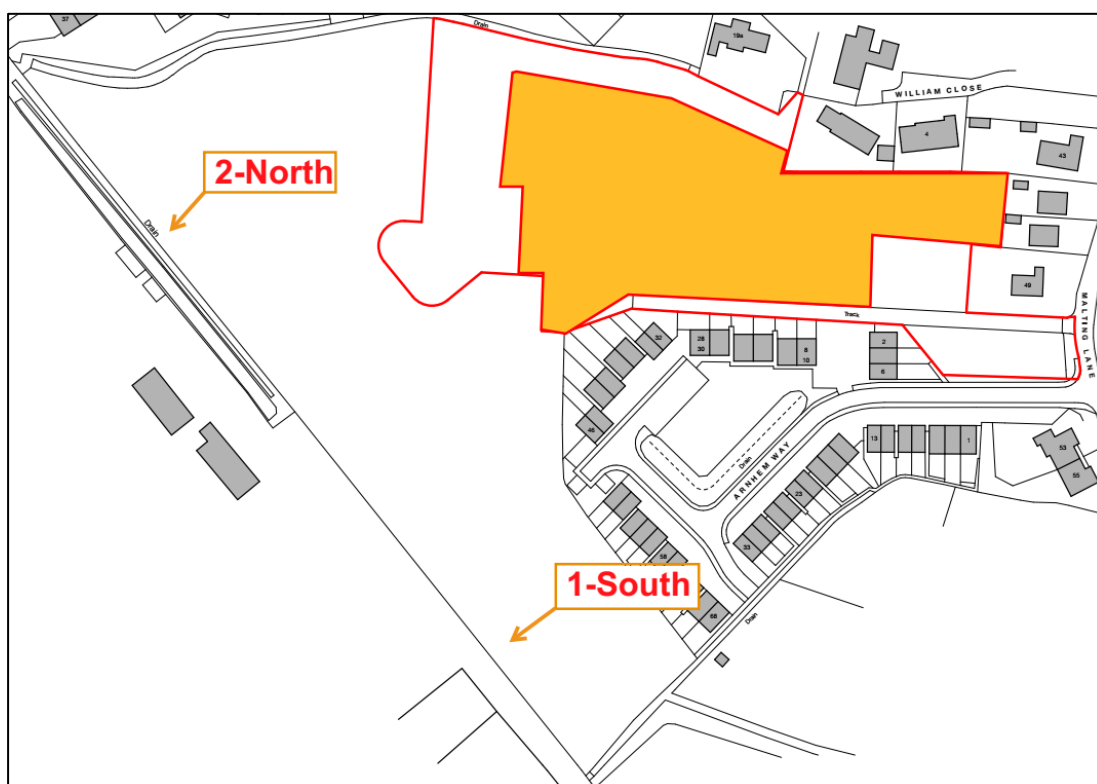


Figure 1: Site Location Plan – showing North and South Measurement Positions & Phase 1 area of the development within red line.

3.0 CRITERIA

3.1.1 Internal Noise Levels

The target noise levels are broadly as set out in BS8233:2014 [see below] with additional guidance on nighttime noise events based on World

Health Organisation advice.

Activity	Location	07:00 to 23:00	23:00 to 07:00
Resting	Living Room	35 LAeq,16hr	--
Dining	Dining Room/Area	40 LAeq,16hr	--
Sleeping (daytime resting)	Bedroom	35 LAeq,16hr	30 Aeq,8hr 45 LAmax,F ^[1]

Table 1: ProPG - Target Internal Noise Levels

[1] Added from WHO and applies to 10th highest nighttime event.

The footnotes to this table make it clear that the guidance is based on the current WHO recommendations and that the above internal levels can be relaxed by 5dB to achieve “reasonable” internal conditions. The footnotes also make it clear that planning consent can be granted when external levels exceed the WHO guidance targets provided that appropriate internal noise levels are achieved.

The ProPG makes it clear that, where possible, the target internal noise levels in Table 2, should be achieved with windows open.

Following on from the above, the question then arises as to what attenuation should be assumed for an open window. Section 2.33 of the ProPG states

“It should be noted that the acoustic performance of the building envelope will be reduced in the event windows are opened for ventilation

or cooling purposes, typically reducing the insulation to no more than 10 to 15 dB(A)."

In addition, it will be recalled that the ProPG states that if nighttime **external** noise events are 60 L_{Amax,F} or less, then there is negligible risk of noise and no adverse **effect**; given that the corresponding **internal** target noise level is 45 L_{Amax,F}, it can be seen that the ProPG is assuming that the difference between external and internal levels, i.e. the attenuation of a façade with an open window, is 15 dBA [60-45=15]. Similarly, daytime external noise levels of 50 L_{Aeq,16hr} fall into the negligible risk category, i.e. open windows must be capable of achieving the internal noise target of 35 L_{Aeq,16hr} with no special measures; again, implying that the attenuation of a façade with an open window, is 15 dBA [50 - 35=15].

In addition to the above, the Defra research report NANR116 tested a variety of open windows and concluded that the difference between external and internal road traffic noise levels, ranged from 12 dBA [wide open outward opening side-hung casement] to 18 dBA [top hung opening light of single casement window]. The distribution of performance from NANR116 is as shown in Figure 2 below.

Given the above, for road traffic noise it is considered reasonable to assume a "global" figure of 15 dBA as the difference between external and internal levels for a façade with an open window.

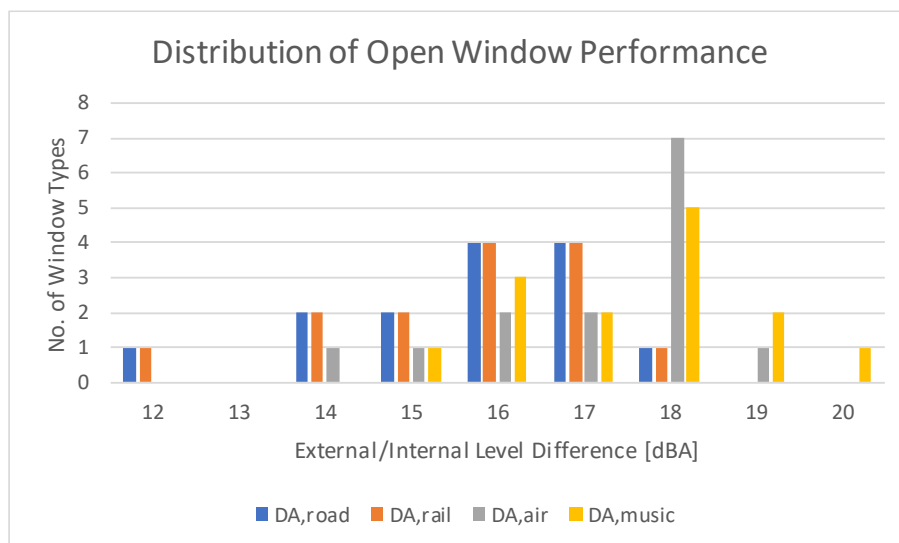


Figure 2: NANR116 test data

NANR116 also reports details of research carried out by Ford and Kerry who found that secondary glazing with staggered openings permits through “fresh air” ventilation and *“It was concluded that, in general, open double windows are about 10 dBA better than open single windows.”* The ProPG refers to this window type as “plenum” windows. Therefore, it is considered reasonable to assume a “global” figure of 25 dBA as the difference between external and road traffic noise internal levels for a façade with an open “plenum” window.

Should it not be possible to meet the internal noise targets with openable windows, the ProPG sets out a variety of options that should be considered in an endeavour to avoid the need for windows to be closed, but if this is the only reasonable method by which the internal noise targets can be met, the ProPG requires that the approach should be justified and... *“Where the local authority accepts that there is a justification that the internal target noise levels can only practically be achieved with windows closed, which may be the case in urban areas and*

at sites adjacent to transportation noise sources, special care may be taken to design the accommodation...”

If closed glazing is required to achieve suitable internal noise targets, some local authorities require the glazing to be sealed; however, the ProPG explicitly states at Sn.2.22:

“Using fixed unopenable glazing for sound insulation purposes is generally unsatisfactory and should be avoided;”

Consequently, the ProPG confirms that windows should not be sealed.

3.1.2 External Noise Levels

Section 3(ii) of the ProPG states:

“The acoustic environment of external amenity areas that are an intrinsic part of the overall design should always be assessed and noise levels should ideally not be above the range 50 – 55 dB $L_{Aeq,16hr}$.”

And at Section 2.49

“Developers are particularly encouraged to enter into pre-application discussions with the LPA where noise levels in proposed amenity spaces are likely to be above 55 dB $L_{Aeq,16hr}$ ”

Therefore, noise levels up to 55 dB $L_{Aeq,16hr}$ are within the “ideal” range for external amenity areas. It is only when levels in these areas exceed 55 $L_{Aeq,16hr}$ that the ProPG recommends other methods to avoid significant adverse impact discussions with the LPA.

The wording of the ProPG [and BS8233] make it clear that the guideline noise levels for gardens, patios, larger balconies etc., are not overriding planning considerations in any event.

3.2 Noise from Commercial Premises

BS4142:2014 – Rating Industrial Noise Affecting Mixed Residential and Industrial Areas

BS4142:2014 states, *“Response to sound can be subjective and is affected by many factors, both acoustic and non-acoustic. The significance of its impact, for example, can depend on such factors as the margin by which a sound exceeds the background sound level, its absolute level, time of day and change in the acoustic environment, as well as local attitudes to the source of the sound and the character of the neighbourhood...This British Standard describes methods for rating and assessing sound of an industrial and/or commercial nature”*.

The Standard requires that the ambient noise (***totally encompassing sound in a given situation at a given time, usually composed of sound from many sources near and far***) including the “specific” sound from the source in question is measured in terms of the equivalent continuous sound level LAeq [see Appendix 1 for acoustic terms], which is then corrected for the residual sound (total LAeq excluding the “specific” sound).

A correction for character is made if ***“a tone, impulse or other characteristic occurs”***. For tonality, a correction of between +2dB and

6dB is considered acceptable and for impulsivity between 3 and 9dB. See table below.

Character	Just Perceptible	Clearly Perceptible	Highly Perceptible
Tonality	+2dB	+4dB	+6dB
Impulsivity	+3dB	+6dB	+9dB

Table 2: BS4142 Character Corrections

Where the specific sound features characteristics that are neither tonal nor impulsive, though otherwise are readily distinctive against the residual acoustic environment, a penalty of 3 dB can be applied.

Where tonal and impulsive characteristics are present in the specific sound within the same reference period then these two corrections can both be taken into account. If one feature is dominant, then it might be appropriate to apply a single correction. Where both features are likely to affect perception and response, the corrections ought normally to be added in a linear fashion.

The final figure, including any character correction is known as the Rating level.

This Rating Level is then compared with the measured background [LA90] level. The greater this difference the greater the likelihood of “adverse impact” (See Notes 1 & 2 from BS4142:2014 below).

"NOTE 1

a) Typically, the greater this difference, the greater the magnitude of the impact.

b) A difference of around +10 dB or more is likely to be an indication of a significant adverse impact, depending on the context.

c) A difference of around +5 dB is likely to be an indication of an adverse

impact, depending on the context.

d) The lower the rating level is relative to the measured background sound level, the less likely it is that the specific sound source will have an adverse impact or a significant adverse impact. Where the rating level does not exceed the background sound level, this is an indication of the specific sound source having a low impact, depending on the context.

NOTE 2

Adverse impacts include, but are not limited to, annoyance and sleep disturbance. Not all adverse impacts will lead to complaints and not every complaint is proof of an adverse impact."

BS4142:2014 recognises that at night residents will be inside their properties [BS4142 A.6.1 and A.6.3] and that consequently *"Other guidance, such as BS 8233, might be applicable in this instance."*

Also BS4142 is directed primarily to the circumstances of a proposed or existing noise affecting existing property, i.e. circumstances where insulating the property is impracticable. Therefore, BS4142 can't take into account circumstances where the properties have not yet been built and where noise control, such as acoustic glazing and ventilation, can be incorporated such to alleviate *"...the primary concern is the potential for disturbance of residents who could be sleeping with open bedroom windows."*

It can be seen from Section 3.3 above that the conclusions to a BS4142 assessment also depend on the context and Section 11 of the British Standard states:

"Where the initial estimate of the impact needs to be modified due to

the context, take all pertinent factors into consideration, including the following...

3) The sensitivity of the receptor and whether dwellings or other premises used for residential purposes will already incorporate design measures that secure good internal and/or outdoor acoustic conditions, such as:

- i. facade insulation treatment;*
- ii. ventilation and/or cooling that will reduce the need to have windows open so as to provide rapid or purge ventilation; and*
- iii. acoustic screening."*

Consequently, where noise control can be incorporated into the properties Martec uses BS 8233 to assess night-time noise. In addition, where acoustic glazing and ventilation have been provided to a façade, Martec uses BS8233 to assess internal noise levels and, if appropriate, BS4142 to assess daytime industrial noise in the main outdoor amenity space.

4.0 NOISE MEASUREMENTS

The site was visited on Tuesday 23rd April 2024 and noise monitoring equipment was installed at two positions [See Figure 1] and left gathering data for a week until the following Tuesday afternoon:

1. As shown in Figure 1 above, southern end of site at a position some

20m from the western boundary and some 35m from the approximate centre of the loading/unloading area; in line with the loading/unloading area just to the north of the storage warehouse; this was towards the southern end of the boundary.

2. Again shown in Figure 1, a position some 27m from the western boundary in line with two fuel tanks towards the northern end of the boundary.

These measurement positions are approximately as used for our original report; however, they are further away from the western boundary.

Phase 1 of the development [inside red line of Figure 1] was being constructed at the time of monitoring and building works were ongoing; however, temporary bunds had been erected to shield the monitoring positions from the noise and the site manager was aware of the survey and took steps to minimise noisier activities.

In addition to some building works activities on the adjacent site that were occasionally audible, there were also heavy plant movements, trains and aircraft.

The sound level meters were a Svan type 977 (s/n 97425) and a Svan type 971 (s/n 62080); mounted on tripods at a height of 1.2m and fitted with RION WSO2 “all-weather” wind muffs. The meters calibrated correctly before and after the measurements using Rion calibrator type NC-74 (s/n 34362117).

Both meters and calibrator had been laboratory calibrated within the preceding 2 years [SV 971 – Manufacturer’s Certificate 15/3/23 & SV 977 Acsoft 1504401-1 27/1/23 & RION NC-74 Acsoft 1504401-2 27/1/23.

Unfortunately, the external battery on for the northern location failed; this was noticed when an interim visit was made on Friday 26th April when the battery was checked and the meter restarted. The Instruments were collected on Tuesday 30th April 2024.

5.0 RESULTS

5.1 Period Results - For Use in BS8233 Assessment

Period		North - Railway			South - Depot		
Day	Date	Day LAeq,16hr	Evening LAeq,5hr	Night LAeq,8hr	Day LAeq,16hr	Evening LAeq,5hr	Night LAeq,8hr
Tue	23-Apr	53	--	--	54	54	49
Wed	24-Apr	--	--	--	53	53	50
Thu	25-Apr	--	--	--	53	54	48
Fri	26-Apr	47	44	43	54	50	45
Sat	27-Apr	44	40	42	45	45	46
Sun	28-Apr	51	45	41	52	45	41
Mon	29-Apr	53	--	--	55	56	47
Tue	30-Apr	--	--	--	52	--	--

Table 3: Period Data [LAeq,T]

It should be noted that periods affected by military jet overflights have been omitted from the period results in Table 3.

5.2 BS4142 Results

5.2.1 Background Noise Levels - For Use in BS4142 Assessment

The bulk of the measurements made at the northern end of the site relate to periods when the depot was not active [weekends]; a similar survey was conducted for our original assessment and the daytime and evening noise levels derived from the results at the northern end of the site were 45 and 42 LA90 respectively in the 2015 survey.

For comparison if we analyse the extensive recent data for the southern monitoring position, BS4142 Section 8 provides guidance on analysing the measured levels when a range of results is available.

The average of all the daytime [7am to 6pm] readings was 42 dB LA90; the spread of results can be plotted as follows:

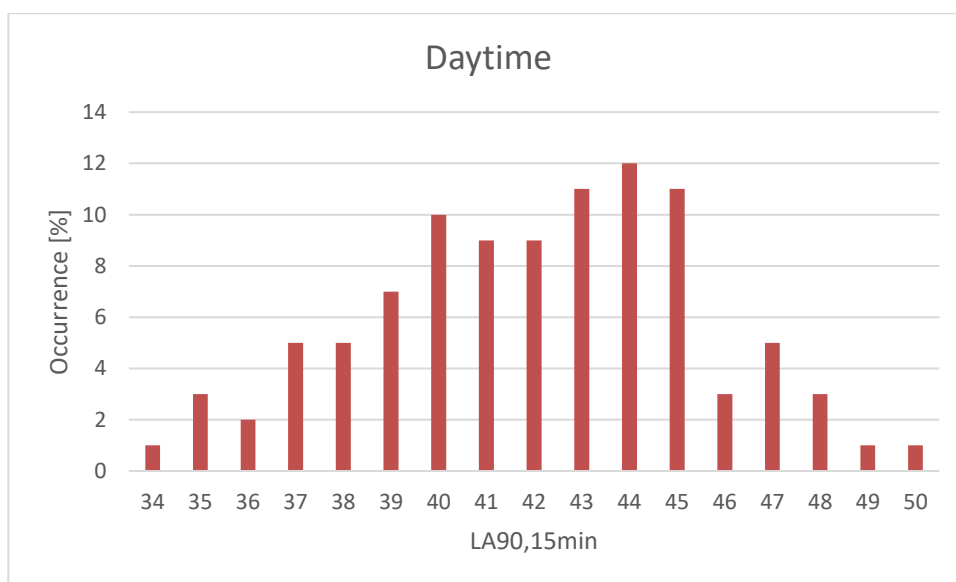


Figure 3: Variation in Daytime Background Noise – South Position 1

From the above a figure of 40 dB LA90 has been taken as reasonably representative of daytime [7am to 6pm] background noise levels.

If we consider evening [6pm to 11pm] separately, the average of the readings was 41 LA90 and the graph appears as follows:

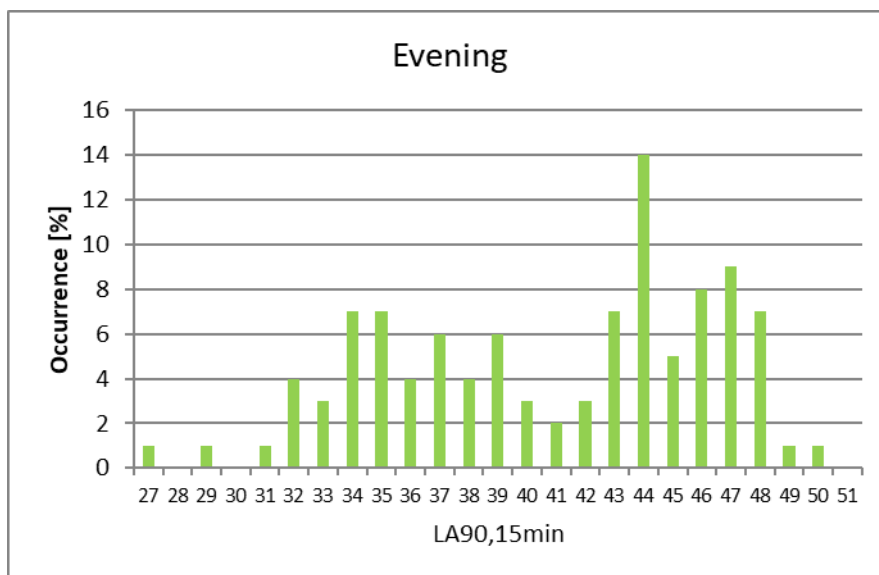


Figure 4: Variation in Evening Background Noise – South Position 1

From the above, a figure of 39 dB LA90 has been taken as reasonably representative of evening [6pm to 11pm] background noise levels, being a mode close to the average value.

5.2.2 Source Noise Levels - For Use in BS4142 Assessment

From Figures 5 and 6 below, it can be seen that daytime and evening noise levels affecting the site are very variable; if we take 51 and 55 LAeq,1hr as being representative of the daytime and evening source noise.

From both the current and previous studies, 'depot noise' tended to be lower towards the northern end of the site, so that a separate analysis has not been performed on this occasion, i.e. the results from the southern end of the site have been assumed to be representative of the

whole.

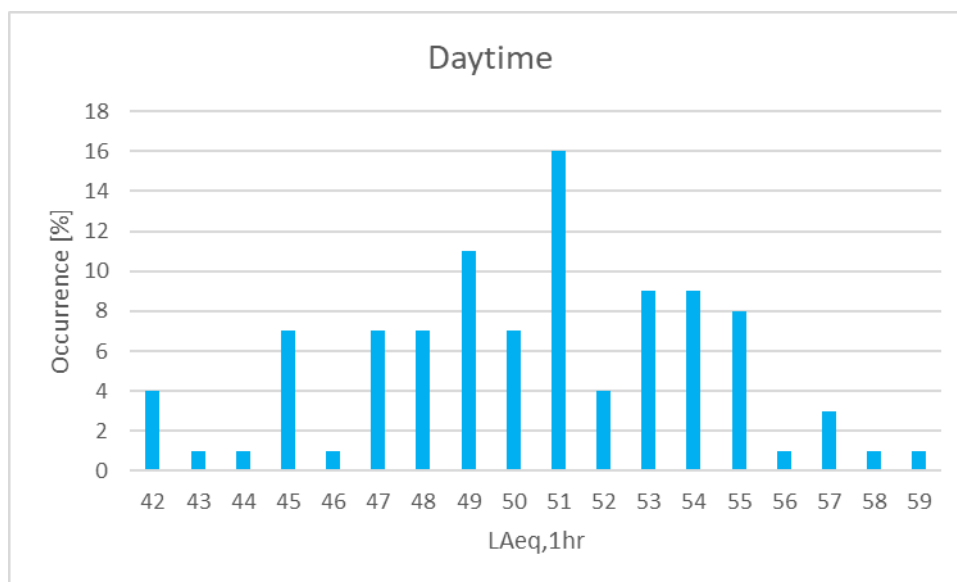


Figure 5: Variation Hourly Noise Levels – South Position 1 [dB LAeq,1hr]

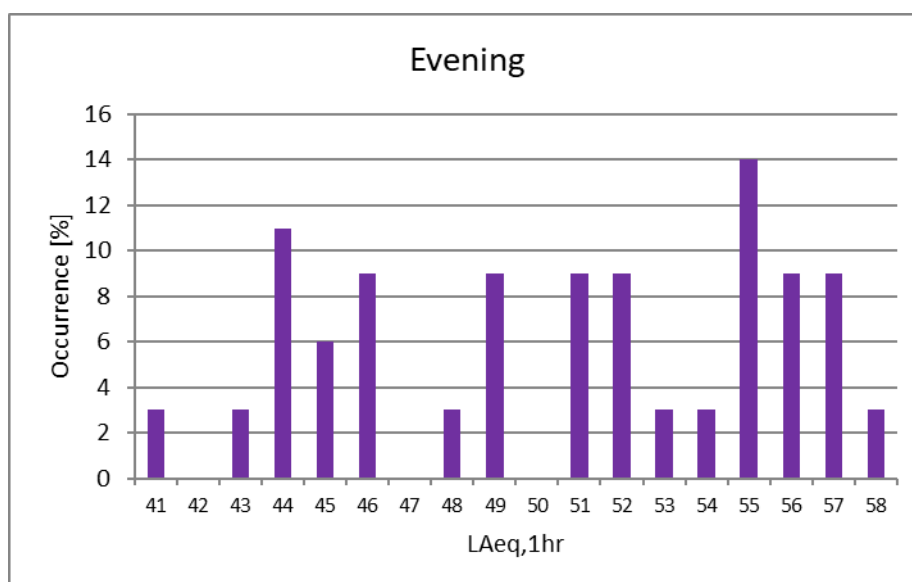


Figure 6: Variation Hourly Noise Levels – South Position 1 [dB LAeq,1hr]

5.3 Subjective Observations

At the time of the site visits, both previously and for the current

assessment, it was noted that noises from the haulage operation that were present on the site included fork lift truck movement with tonal reversing alarms and lorry movements with both tonal and "white noise" reversing alarms from the haulage facility; fork lift truck hydraulic noise; container doors opening and closing and impact noises as pallets are handled; there was also passing railway traffic and distant road traffic from the A52 to the north and Malting Lane to the east.

Occasional building site activities at the adjacent site were audible. It is likely that building site activities would typically begin at about 07:00 until about 16:30 on weekdays and may have influenced noise levels during these periods. Night time (23:00-07:00) noise levels are less likely to have been affected as no night time construction works were being undertaken.

Occasional trains were audible, but the dominant noise source affecting the development site was the haulage yard.

5.4 Summary to Measurement Results

The representative backgrounds were 40 and 39 for the daytime and evening periods respectively.

The representative source noise levels [specific noise from the haulage yard] were established as 51 and 55 LAeq,1hr for daytime and evening respectively.

With regard to the period noise levels, again for Position 1 [south] the

representative levels were 53 LAeq,16hr [day] and 48 LAeq,8hr [night].
With 10th highest nighttime maxima of 74 L_{Amax,F} [data not reproduced in report].

6.0 ASSESSMENT OF RESULTS

The latest plans for this area [Appendix 4] show the nearest facades some 34m from the nominal centre of the loading area, and the centre of the nearest rear gardens being 28m from the nominal centre of the loading area.

In Table 4 below a 'calibration' prediction has been made corresponding to the evening measurements at Position 1 [south]:

BS5228 SWL Method				Octave Band Centre Frequency [Hz]					dBA
Version	1.6	SWL Spectrum Shape (dBLin)		125	250	500	1000	2000	
© 2015 Martec Environmental Consultants Ltd				51.4	47.3	44.1	44.6	41.3	48.4
BS5228-1:2009 Predictions		Adjustment to a Given Level							94.6
		Height	Dist from Source						
Element									
Sound Power Level		2.0		97.6	93.5	90.3	90.8	87.5	94.6
Attenuations									Attenuation
Receiver [distance correction]		1.4	35.0	38.9	38.9	38.9	38.9	38.9	38.9
Proportion of Soft Ground & HPR		1.0	2.0	0.7	0.7	0.7	0.7	0.7	0.7
Barrier Attenuation		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Façade Reflection		0.0		0.0	0.0	0.0	0.0	0.0	
Predicted Level at Reciever		External SPL/dBLin		58.0	53.9	50.7	51.2	47.9	55.0

Table 4: Evening Calibration Prediction for Position 1 [LAeq,1hr free field]

The nearest rear garden in Phase 2 would be 28m from the centre of the loading area, compared with the 25m separation distance of Monitoring Position No.1 [south].

We have assumed that the rear gardens would be protected by a 4.5m high acoustic mound/fence combination along the western perimeter of the site.

Table 5 below shows the predicted evening noise levels in the nearest rear gardens on the same basis as previously. It can be seen that the predicted level is 15dB lower than at the measurement position 1-south [55-40].

BS5228 SWL Method			Octave Band Centre Frequency [Hz]						dBA
Version	1.6	SWL Spectrum Shape (dBLin)	125	250	500	1000	2000		
© 2015 Martec Environmental Consultants Ltd			51.4	47.3	44.1	44.6	41.3	48.4	
BS5228-1:2009 Predictions			Adjustment to a Given Level						94.6
Element	Height	Dist from Source							
Sound Power Level	2.0		97.6	93.5	90.3	90.8	87.5	94.6	
Attenuations								Attenuatn	
Receiver [distance correction]	1.4	28.0	36.9	36.9	36.9	36.9	36.9	36.9	
Proportion of Soft Ground & HPR	1.0	2.0	0.2	0.2	0.2	0.2	0.2	0.2	
Barrier Attenuation	4.5	21.0	12.0	13.8	16.8	19.8	22.9	17.8	
Façade Reflection	0.0		0.0	0.0	0.0	0.0	0.0		
Predicted Level at Reciever		External SPL/dBLin	48.6	42.7	36.5	34.0	27.7	39.9	

Table 5: Predicted Evening 'Haulage Yard' Noise Levels in Nearest Rear Garden [LAeq,1hr]

Similarly for the bedrooms on the first floor, the acoustic barrier would be less effective, as shown in Table 6 below, meaning that the predicted evening level is 10dB lower than the measured evening level at the measurement position 1-south [55-45].

BS5228 SWL Method			Octave Band Centre Frequency [Hz]					dBA
Version	1.6	SWL Spectrum Shape (dBLin)	125	250	500	1000	2000	
© 2015 Martec Environmental Consultants Ltd			51.4	47.3	44.1	44.6	41.3	48.4
BS5228-1:2009 Predictions			Adjustment to a Given Level					94.6
Element	Height	Dist from Source						
Sound Power Level	2.0		97.6	93.5	90.3	90.8	87.5	94.6
Attenuations							Attenuation	
Receiver [distance correction]	4.0	34.0	38.6	38.6	38.6	38.6	38.6	38.6
Proportion of Soft Ground & HPR	1.0	2.0	0.7	0.7	0.7	0.7	0.7	0.7
Barrier Attenuation	4.5	21.0	6.5	7.8	9.7	12.0	13.8	10.7
Façade Reflection	0.0		0.0	0.0	0.0	0.0	0.0	
Predicted Level at Reciever		External SPL/dBLin	52.4	47.1	41.9	40.2	35.0	45.2

Table 6: Predicted Evening 'Haulage Yard' Noise Levels at First-Floor Level [LAeq,1hr]

Using the differences between levels at the monitoring position and those in the rear gardens and first floor facades, the Predicted Noise Levels can be summarised as shown in Table 7 below:

Factor	Position 1 South	Nearest Garden	Nearest 1 st Floor
Daytime Background [LA90]	40		
Evening Background [LA90]	39		
Daytime Haulage Yard [LAeq,1hr]	51	36	41
Evening Haulage Yard [LAeq,1hr]	55	40	45
Daytime Period [LAeq,16hr]	53	38	43
Nighttime Period [LAeq,8hr]	48	N/A	38
Nighttime Maxima [LAmx,F]	74	N/A	64

Table 7: Derived/Predicted Noise Levels

7.0 DISCUSSION OF PROPERTY NOISE LEVELS

7.1 Internal Period Noise Levels – BS8233.

British Standard 8233:2014 and several other similar documents all indicate that when glazing is open ‘for ventilation’ the difference between internal and external noise levels should be taken as 15dBA no matter the room size or window area; similarly, Reference 5 indicates that the attenuation of closed thermal glazing is 33dB; therefore, Table 8 below assesses internal levels, based on the external levels in Table 7.

Condition	Day LAeq,16hr Ground Floor	Night LAeq,8hr First Floor	Night LAmax,F First Floor
External Level	38	38	64
Open Windows	-15		
Internal Level	23	23	49
Criteria	35	30	45
Exceedance	-12	-7	4
Criteria Met?	Yes	Yes	No
Closed Thermal Glazing	-33		
Internal Level	5	5	31
Criteria	35	30	45
Exceedance	-30	-25	-14
Criteria Met?	Yes	Yes	Yes

Table 8: Assessment of Period Noise Levels

Table 8 above shows the relevant criteria being met with closed thermal glazing but not with open glazing. Accordingly powered ventilation will be required and both ground and first floor levels such that residents are not forced to choose between good acoustics and good ventilation.

7.2 External Daytime Period Noise Level

Firstly, it should be pointed out neither the latest government guidance

nor BS8233:2014 consider that garden noise levels should be overriding planning considerations.

With regard to private [rear] gardens, the predicted daytime noise level was 38 LAeq,16hr and this meets the daytime criterion of 55 LAeq,16hr from BS8233:2014.

7.3 External Levels - BS4142

A BS4142 assessment appears at Table 9 below, which assumes that there are "Clearly perceptible" tonal elements to the noise [reversing beepers], and some impulsive characteristics; this means that the "other" character correction is not applicable; there is no correction for intermittency because the measurement period [1 hour by day] is the same as the reference period.

Condition	Day	Evening
Measured/Predicted Ambient Level	35.7	39.7
Residual Level	0	0
Predicted Specific Noise Level	36	40
Tonal Correction	+4	+4
Impulsive Character	+3	+3
Other Character	0	0
Intermittancy	0	0
Rating Level [Specific + Character Correction]	43	47
Background Noise Level LA90	40	39
Excess over Background	+3	+8
Indication of Adverse Impact but not Significant Adverse Impact, depending on the context		

Table 9: Indicative BS4142:2014 Assessments for Rear Gardens

For the predicted daytime and evening haulage yard rating levels, there

is less than an indication of significant adverse impact depending on the context. Factors affecting the assessment are discussed at Appendix 6.

Given that facade insulation treatment is being proposed for the new properties along with appropriate ventilation, and acoustic screening, nighttime noise has been assessed as per BS8233 above.

8.0 CONCLUSIONS AND RECOMMENDATIONS

- 8.1 This report updates both our original noise assessment [Martec Ref. 20160208 7526 Donington BS8233] and first Technical Note [20221121 7526 TN] based on the layout proposed for Phase 2 of the development site off Malting Lane [See Appendix 4] assuming a 4.5m mound/fence combination in the position shown. The specification for a suitable acoustic fence appears in Appendix 3.
- 8.2 The results of the original study showed that haulage yard activities result in periods of higher noise levels, particularly during late afternoons, and evenings which could potentially cause complaints from nearby residents.
- 8.3 In order to reduce the noise impact on residents of Phase 2, it is recommended that 4.5m high mound/acoustic fence combination should be built and shown as a magenta dashed line in Appendix 4. The recommendations for Phase 1 [eastern area] have been modified in the light of the bund/fence combination extending the length of the western

boundary.

- 8.4 Habitable rooms, and both ground and first floor level, should be fitted with standard thermal glazing and a Mechanical Extract Ventilation (MEV) or a Passive Input Ventilation (PIV) system which extracts/supplies air from the habitable rooms, but which does not allow significant noise to enter from the outside, either because of the system's attenuation or because it vents to a quiet façade. Residents could then occupy the properties without the need to open windows. The relevant facades are marked with red stars in Appendix 4.
- 8.5 Should the ventilation strategy require vents, the rooms fitted with powered ventilation [above] should also be provided with acoustic trickle vents such as Passivent TVALdB 450 or similar and approved.
- 8.6 The above assessment indicates that with the above package of noise control measures, internal and external levels would comply with the recommended design criteria from BS8233. Furthermore, even during times where there are periods of higher activity at the Haulage Yard (such as Christmas), when the haulage yard daytime/evening operations could occur at night, the internal and external levels would comply with the recommended design criteria from BS8233.
- 8.7 Predictions based on the measured levels of existing noise indicate that for daytime and evening noise levels there is less than an indication of significant adverse impact on the proposed development as defined by BS4142:2014.

REFERENCES

- 1 National Planning Policy Guidance – Noise -
<http://planningguidance.planningportal.gov.uk/blog/guidance/noise/noise-guidance/>
- 2 BS4142:2014 “Methods for Rating and Assessing Industrial and Commercial Sound”.
- 3 Planning Policy Guidance 24: Planning and Noise. –
<http://www.communities.gov.uk/publications/planningandbuilding/ppg24>
- 4 BS.8233:1999: “Sound Insulation and noise reduction for buildings – Code of practice.”
- 5 “Planning Policy Guidance 24: Planning and Noise” Annex 6 – Table 1
- 6 Method for Converting the UK Road Traffic Noise Index $L_{A10,18h}$ to the EU Noise Indices for Road Noise Mapping – TRL/Casella Stanger
<http://www.defra.gov.uk/environment/quality/noise/research/crtn/documents/noise-crtn-update2006.pdf>
- 7 BS EN 12354-3:2000 *Building Acoustics-Estimation of Acoustic Performance in buildings from the performance of elements. Part 3 Airborne sound Insulation against outdoor sound.*
- 8 BS.5228-1:2009 "Code of Practice for noise and vibration control on construction and Open Sites"

APPENDIX 1

EXPLANATION OF ACOUSTIC TERMS

The dB or the decibel, is the unit of noise. The number of decibels or the level, is measured using a sound level meter. It is common for the sound level meter to filter or 'weight' the incoming sound so as to mimic the frequency response of the human ear. Such measurements are designated **dB(A)**.

A doubling of the sound is perceived, by most people, when the level has increased by 10 dB(A). The least discernible difference is 2 dB(A). Thus, most people cannot distinguish between, say 30 and 31 dB(A).

The Background level of noise is most commonly represented by the level which is exceeded for 90% of the time i.e., the LA90.

If a noise varies over time, then the **equivalent continuous level, or LAeq**, is the notional constant level of noise which would contain the same amount of acoustic energy as the time varying noise.

The following table gives an approximate indication of the comparative loudness of various noises expressed in terms of the A weighted scale:

Source of noise	dB(A)	Nature of Noise
Inside Quiet bedroom at night	25-30	Very Quiet
Quiet office	40-45	
Rural background noise	35-45	
Normal conversational level	55-65	
Busy restaurant	65-75	
Inside suburban electric train	70-80	
Hand clap @ 1m	75-85	
HGV accelerating @ 5m away	85-90	Very Loud

APPENDIX 2

QUALIFICATIONS AND EXPERIENCE OF M. A. KENYON

My full name is Melville Alexander Kenyon. I am the principal of the firm of Martec Environmental Consultants Ltd, a consultancy company that specialises in environmental noise assessment and control. I graduated in 1982 with a bachelor's degree in engineering and subsequently a master's degree in environmental acoustics. I have been a corporate member of the professional body for noise and vibration specialists, the Institute of Acoustics, since 1988, and have sat on the British Standards Committee dealing with noise in buildings [BS.8233:1999].

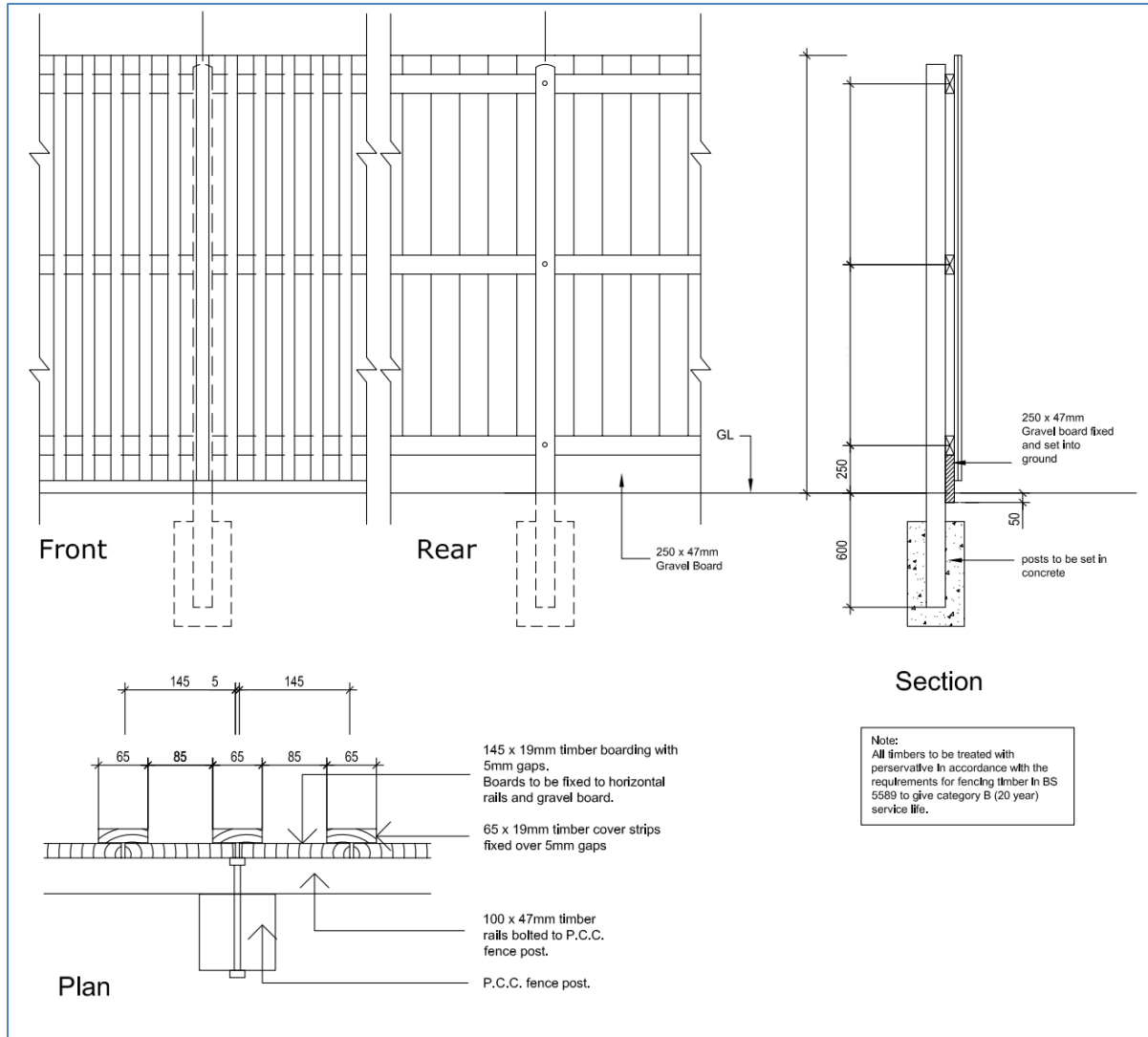
I have lectured at Liverpool John Moores University on the Diploma of Acoustics course and at Manchester Metropolitan University on their Environmental Health degree course.

The firm of Martec Environmental Engineering was formed in the 1970's and joined The Association of Noise Consultants in 1996. It is now known as Martec Environmental Consultants Ltd.

Since its formation, Martec has advised many groups of both residents and developers about the problems of noise and vibration in the environment.

APPENDIX 3

ACOUSTIC FENCE DETAIL



APPENDIX 4
[3m Acoustic Fence – Solid Magenta line,
Whole Western Boundary 4.5m mound fence combination - Red dashed line
Façades, GF & FF, with Acoustic Ventilation – Red Star]



APPENDIX 5

Noise Measurements and Met Data

A5.1 Position 1 – South

Start Date & time	Duration	L _{Amax,F}	L _{Amin}	L _{Aeq}	LA01	LA10	LA50	LA90
23/04/2024 11:35:00	00:15:00	71.4	38.5	52.0	64.6	52.1	45.7	42.1
23/04/2024 11:50:00	00:15:00	65.6	38.6	49.3	59.5	51.3	46	42.3
23/04/2024 12:05:00	00:15:00	60.5	38.6	47.1	56.5	49.1	45.6	42.2
23/04/2024 12:20:00	00:15:00	72.7	39.1	52.9	64.4	52.5	47.4	44.1
23/04/2024 12:35:00	00:15:00	75.3	40.1	55.5	68.3	57.6	47.4	44
23/04/2024 12:50:00	00:15:00	80.6	40.1	58.4	72	55.9	47.6	44.3
23/04/2024 13:05:00	00:15:00	64.9	40.9	48.3	58.3	49.9	46.1	43.8
23/04/2024 13:20:00	00:15:00	77.2	41.4	51.1	58.8	51.7	47.2	44.3
23/04/2024 13:35:00	00:15:00	71.8	41.4	51.6	62.4	50.7	46.6	43.8
23/04/2024 13:50:00	00:15:00	61.9	40.5	48.1	56.1	50.2	46.6	44.2
23/04/2024 14:05:00	00:15:00	63.1	40.8	48.3	57.2	50	46.7	43.8
23/04/2024 14:20:00	00:15:00	67.2	41.1	49.2	56.3	51.2	47.6	44.2
23/04/2024 14:35:00	00:15:00	66.8	40.8	50.2	59.6	52	47.7	44.7
23/04/2024 14:50:00	00:15:00	69.1	43.4	54.6	67	54.6	48.3	45.6
23/04/2024 15:05:00	00:15:00	80.9	44.4	55.9	66.5	58.2	50.8	47.8
23/04/2024 15:20:00	00:15:00	71.7	43.7	52.8	62.5	54.6	49.4	46.2
23/04/2024 15:35:00	00:15:00	70.4	41.2	51.3	61	53.2	47.9	44.8
23/04/2024 15:50:00	00:15:00	65.3	41.5	50.0	58.8	52.4	47.9	44.7
23/04/2024 16:05:00	00:15:00	77.1	39.2	51.2	59	52	47.6	43.5
23/04/2024 16:20:00	00:15:00	69.2	40.3	51.7	61.4	53.9	49	45.4
23/04/2024 16:35:00	00:15:00	66.0	38.0	51.2	59.7	54.8	48	42.9
23/04/2024 16:50:00	00:15:00	74.9	40.5	53.2	63.3	55.9	49.2	44.1
23/04/2024 17:05:00	00:15:00	71.8	44.6	55.8	66.7	57.9	51.8	47.7
23/04/2024 17:20:00	00:15:00	77.9	43.9	55.4	64.7	57.9	51.4	47
23/04/2024 17:35:00	00:15:00	77.2	44.4	54.3	64	56.5	51.1	47.5
23/04/2024 17:50:00	00:15:00	75.0	44.4	56.7	66	60.2	53.2	48.6
23/04/2024 18:05:00	00:15:00	74.9	40.4	55.5	63.5	58.7	52.6	47.6
23/04/2024 18:20:00	00:15:00	70.2	40.6	52.8	62.1	55.6	49.7	45.7
23/04/2024 18:35:00	00:15:00	71.7	42.5	53.7	63.2	56.2	49.5	46.1
23/04/2024 18:50:00	00:15:00	80.8	42.4	55.2	64.8	57.6	49.6	45.6
23/04/2024 19:05:00	00:15:00	75.8	42.9	55.9	64.6	58.6	52.9	47.6
23/04/2024 19:20:00	00:15:00	77.3	42.7	55.5	65.5	58.4	50.7	46.5
23/04/2024 19:35:00	00:15:00	83.1	40.7	56.9	64	58.3	51.7	46.1
23/04/2024 19:50:00	00:15:00	82.7	42.2	58.8	67.1	61.4	54.3	48.1
23/04/2024 20:05:00	00:15:00	86.4	47.5	57.0	64.4	58.1	52.4	50
23/04/2024 20:20:00	00:15:00	73.2	41.0	53.8	62.6	56.8	51.1	45.9
23/04/2024 20:35:00	00:15:00	71.7	41.2	52.7	64.4	54.3	47.5	44.2
23/04/2024 20:50:00	00:15:00	74.3	35.0	55.4	71.5	54.1	44.7	38.6
23/04/2024 21:05:00	00:15:00	70.7	33.5	44.9	55.6	46.4	39.9	35.8
23/04/2024 21:20:00	00:15:00	64.7	34.1	44.9	53.7	46.8	42.7	37.4
23/04/2024 21:35:00	00:15:00	67.3	33.1	42.8	52.2	45.1	39.2	35.3
23/04/2024 21:50:00	00:15:00	77.6	32.7	53.0	66.7	45.4	38.8	34.9
23/04/2024 22:05:00	00:15:00	65.4	34.5	47.4	58.2	49	44.9	38.6
23/04/2024 22:20:00	00:15:00	84.6	34.8	53.5	60.8	54.4	46.3	39.2
23/04/2024 22:35:00	00:15:00	72.3	33.9	45.8	56.3	45.6	40.6	36.7

23/04/2024 22:50:00	00:15:00	49.7	32.9	38.6	46.6	41.8	36	34
23/04/2024 23:05:00	00:15:00	58.6	33.3	42.0	52.7	44.3	38.7	35.2
23/04/2024 23:20:00	00:15:00	51.3	32.4	36.9	44.8	39.1	35.1	33.6
23/04/2024 23:35:00	00:15:00	70.5	32.4	47.5	59.3	41.6	35.1	33.5
23/04/2024 23:50:00	00:15:00	62.4	32.5	44.8	53.1	48.1	36.6	33.8
24/04/2024 00:05:00	00:15:00	70.9	32.7	50.7	65.4	46.8	43.5	34.9
24/04/2024 00:20:00	00:15:00	50.4	26.2	34.9	43.6	37.9	32.3	28.1
24/04/2024 00:35:00	00:15:00	72.2	26.4	48.9	63.4	40.2	31.2	28
24/04/2024 00:50:00	00:15:00	47.4	25.1	33.5	42.6	36.7	30.5	27.8
24/04/2024 01:05:00	00:15:00	57.4	30.7	39.5	51.7	39.7	34.9	33.5
24/04/2024 01:20:00	00:15:00	58.0	32.4	41.6	55.2	41.6	36.2	34.1
24/04/2024 01:35:00	00:15:00	72.5	32.6	52.0	68.4	43.6	36.3	34
24/04/2024 01:50:00	00:15:00	73.9	32.9	51.0	64.8	42.1	35.6	34.2
24/04/2024 02:05:00	00:15:00	46.4	32.4	35.7	42.2	37.6	34.5	33.5
24/04/2024 02:20:00	00:15:00	73.0	32.8	50.0	63.7	40.4	36	34.4
24/04/2024 02:35:00	00:15:00	47.9	32.6	37.2	43.2	39.7	35.7	34.1
24/04/2024 02:50:00	00:15:00	73.8	33.0	52.5	66.9	43	35.5	33.9
24/04/2024 03:05:00	00:15:00	77.4	32.6	54.0	67.3	43.6	36	34.1
24/04/2024 03:20:00	00:15:00	61.5	33.4	43.8	57.9	41.6	36.4	34.6
24/04/2024 03:35:00	00:15:00	65.2	33.3	43.8	57	43.3	38.5	35.1
24/04/2024 03:50:00	00:15:00	53.7	33.0	38.5	45.7	41.1	36.4	34.7
24/04/2024 04:05:00	00:15:00	74.7	32.7	51.6	65.8	42.9	36.1	34.4
24/04/2024 04:20:00	00:15:00	66.4	29.4	44.8	60	41.4	37	33.4
24/04/2024 04:35:00	00:15:00	72.9	27.1	52.3	66	44.4	35.2	30.5
24/04/2024 04:50:00	00:15:00	58.5	28.4	42.5	52.3	45.7	38.4	32.8
24/04/2024 05:05:00	00:15:00	73.3	32.2	53.4	66.8	48	41.1	37.5
24/04/2024 05:20:00	00:15:00	75.1	35.2	55.8	73.1	49.3	42	37
24/04/2024 05:35:00	00:15:00	60.1	35.8	45.8	56.2	48.1	43.3	38.3
24/04/2024 05:50:00	00:15:00	59.5	36.9	45.2	56.3	46.9	42.7	39.7
24/04/2024 06:05:00	00:15:00	68.8	37.1	47.9	59	48.3	43.8	40.4
24/04/2024 06:20:00	00:15:00	65.4	37.0	47.1	59.1	47.4	44	40.7
24/04/2024 06:35:00	00:15:00	61.5	37.9	45.1	49.6	47.1	44.3	41
24/04/2024 06:50:00	00:15:00	65.4	40.8	47.2	54.4	48.4	45.7	43.3
24/04/2024 07:05:00	00:15:00	65.1	39.9	47.0	54	49.1	45.7	42.5
24/04/2024 07:20:00	00:15:00	77.0	41.5	51.1	60.9	51	47.5	44.2
24/04/2024 07:35:00	00:15:00	74.2	41.7	50.8	59.8	52.2	48.4	45.2
24/04/2024 07:50:00	00:15:00	66.4	42.5	50.9	61.2	52.8	48.4	44.9
24/04/2024 08:05:00	00:15:00	67.5	39.6	49.6	57.5	51.3	47.7	44.5
24/04/2024 08:20:00	00:15:00	75.3	39.6	55.8	67.1	59.1	48.2	43.3
24/04/2024 08:35:00	00:15:00	80.0	39.6	59.7	72.8	60.4	47.9	42.7
24/04/2024 08:50:00	00:15:00	65.0	41.4	49.3	58.7	51	47.3	44.6
24/04/2024 09:05:00	00:15:00	64.0	41.1	49.2	57	51.7	47.4	44.6
24/04/2024 09:20:00	00:15:00	73.9	41.4	54.8	67.3	55.1	47.4	44.4
24/04/2024 09:35:00	00:15:00	62.4	40.3	49.2	57.8	51.7	47.2	43.8
24/04/2024 09:50:00	00:15:00	69.1	39.9	50.0	60.2	53.3	45.5	42.5
24/04/2024 10:05:00	00:15:00	75.2	39.6	58.4	69.6	63	46.5	42.4
24/04/2024 10:20:00	00:15:00	82.1	39.4	61.7	75	63.4	47.7	42.9
24/04/2024 10:35:00	00:15:00	67.2	38.9	49.0	59.2	50.9	45.7	42.4
24/04/2024 10:50:00	00:15:00	70.6	40.9	49.6	58.6	51.4	47.1	44.4
24/04/2024 11:05:00	00:15:00	68.4	41.5	51.7	61.1	54.9	48.8	44.6

24/04/2024 11:35:00	00:15:00	67.3	39.4	49.3	58.3	51.4	46.8	43.1
24/04/2024 11:50:00	00:15:00	68.9	39.8	49.3	57.4	52.5	46.5	43.1
24/04/2024 12:05:00	00:15:00	61.9	39.5	47.2	54.7	50.2	45.3	42.6
24/04/2024 12:20:00	00:15:00	70.3	39.9	52.2	62.7	54.4	47.6	43.7
24/04/2024 12:35:00	00:15:00	71.4	38.4	52.0	63.7	52.3	45.5	41.9
24/04/2024 12:50:00	00:15:00	69.2	39.9	49.5	60.6	51.2	45.3	42.6
24/04/2024 13:05:00	00:15:00	67.5	39.1	49.8	59.8	52.2	46.8	42.8
24/04/2024 13:20:00	00:15:00	72.0	38.5	49.1	58.9	50.3	46.1	42.6
24/04/2024 13:35:00	00:15:00	70.6	36.6	54.0	64.9	57.3	48.4	43.6
24/04/2024 13:50:00	00:15:00	76.9	41.1	57.5	69.5	60.4	49.2	44.6
24/04/2024 14:05:00	00:15:00	77.0	39.0	49.5	59	50.8	46.1	42.8
24/04/2024 14:20:00	00:15:00	67.9	41.4	50.4	60.5	52.4	47.7	45
24/04/2024 14:35:00	00:15:00	67.7	39.9	50.1	58.9	52.7	47.7	43.9
24/04/2024 14:50:00	00:15:00	71.0	41.1	51.0	60.1	52.8	47.7	44.3
24/04/2024 15:05:00	00:15:00	70.8	41.1	51.1	60.3	53.8	46.8	43.6
24/04/2024 15:20:00	00:15:00	66.6	40.0	49.8	58.3	52.7	47.3	43.5
24/04/2024 15:35:00	00:15:00	67.8	42.5	52.2	60.7	54.4	49.5	46.1
24/04/2024 15:50:00	00:15:00	72.3	39.3	52.9	63.2	55.1	48.5	43.9
24/04/2024 16:05:00	00:15:00	66.8	41.2	48.3	57.5	50.6	45.8	43.3
24/04/2024 16:20:00	00:15:00	65.7	38.3	45.8	55	47	44	41.2
24/04/2024 16:35:00	00:15:00	60.0	38.8	45.5	50.3	47.8	44.7	41.8
24/04/2024 16:50:00	00:15:00	66.9	39.7	48.5	58.9	49.5	45.9	43.2
24/04/2024 17:05:00	00:15:00	76.9	39.0	55.3	64.3	58.4	51.9	45.1
24/04/2024 17:20:00	00:15:00	79.8	44.0	55.9	65.6	59	50.2	47.3
24/04/2024 17:35:00	00:15:00	77.9	43.3	57.0	67.4	59.4	51.6	47
24/04/2024 17:50:00	00:15:00	74.3	44.7	55.8	64.7	58.5	53.2	48.4
24/04/2024 18:05:00	00:15:00	75.8	44.3	56.8	66.4	60.1	52.9	47.4
24/04/2024 18:20:00	00:15:00	74.8	42.7	54.5	63.9	57.2	51.3	47.1
24/04/2024 18:35:00	00:15:00	76.0	42.3	54.5	64	57.6	51.1	46.6
24/04/2024 18:50:00	00:15:00	71.1	43.1	54.5	63.9	57.1	51.9	47.2
24/04/2024 19:05:00	00:15:00	69.9	40.2	53.1	62.6	56.6	49.3	45
24/04/2024 19:20:00	00:15:00	68.3	41.3	53.6	63.7	56.7	49.6	45
24/04/2024 19:35:00	00:15:00	76.7	36.2	54.5	65.1	56.2	49.6	43.9
24/04/2024 19:50:00	00:15:00	78.2	39.7	56.6	65.7	58.5	52.2	45.8
24/04/2024 20:05:00	00:15:00	74.3	43.5	55.6	65	58.6	52.4	47.9
24/04/2024 20:20:00	00:15:00	71.0	38.6	52.6	62.2	55.6	49.3	43.2
24/04/2024 20:35:00	00:15:00	75.9	35.8	51.6	60.9	52.1	47	39.9
24/04/2024 20:50:00	00:15:00	74.2	38.0	48.2	53.6	48.7	44.9	40.4
24/04/2024 21:05:00	00:15:00	60.6	27.1	43.0	55.4	44.6	38.8	32.4
24/04/2024 21:20:00	00:15:00	62.9	27.4	44.6	59.6	43.7	38.1	32.3
24/04/2024 21:35:00	00:15:00	78.2	34.7	58.3	75.7	47.2	41.2	39.5
24/04/2024 21:50:00	00:15:00	50.3	32.7	37.2	43.5	39.6	35.8	34.1
24/04/2024 22:05:00	00:15:00	66.6	32.1	45.8	55	47.3	40.1	33.7
24/04/2024 22:20:00	00:15:00	59.9	32.0	43.7	55.8	44.9	40.1	36.1
24/04/2024 22:35:00	00:15:00	62.0	32.2	44.4	52.2	47.7	36.6	33.4
24/04/2024 22:50:00	00:15:00	76.7	32.6	51.6	60.2	52.2	41.9	34.3
24/04/2024 23:05:00	00:15:00	71.2	33.0	49.4	63	43.2	39.9	35.4
24/04/2024 23:20:00	00:15:00	69.6	32.0	46.2	60.8	39.2	34	32.9
24/04/2024 23:35:00	00:15:00	65.5	32.1	42.2	47.4	42.3	38.9	33.4
24/04/2024 23:50:00	00:15:00	51.6	32.6	38.5	44.8	40.7	36.1	33.8

25/04/2024 00:05:00	00:15:00	71.7	32.2	51.8	67.4	40.4	34.7	33.3
25/04/2024 00:20:00	00:15:00	53.2	32.2	40.6	46.5	42.1	40.2	34.6
25/04/2024 00:35:00	00:15:00	62.3	32.1	43.7	58.3	41.3	35.4	33.6
25/04/2024 00:50:00	00:15:00	55.4	18.3	37.0	47.3	39.7	33.8	21.4
25/04/2024 01:05:00	00:15:00	54.8	20.2	40.1	47.4	41.1	39.4	23.8
25/04/2024 01:20:00	00:15:00	57.9	18.7	37.0	50.4	37.2	23.1	21.1
25/04/2024 01:35:00	00:15:00	74.3	19.8	55.1	68.5	47.3	40.4	22.9
25/04/2024 01:50:00	00:15:00	73.3	32.3	50.9	64.5	44.1	35.6	33.1
25/04/2024 02:05:00	00:15:00	49.9	32.2	37.3	46.2	40.2	34	33
25/04/2024 02:20:00	00:15:00	75.9	34.6	52.2	64.9	41.3	40.4	39.8
25/04/2024 02:35:00	00:15:00	52.4	32.2	39.2	48.7	42.4	36	33.3
25/04/2024 02:50:00	00:15:00	75.6	32.3	53.6	67.2	49	40.7	34.2
25/04/2024 03:05:00	00:15:00	72.2	32.0	48.6	60.8	45.7	40.4	34
25/04/2024 03:20:00	00:15:00	54.6	31.8	37.8	46.7	40.2	33.9	32.8
25/04/2024 03:35:00	00:15:00	50.0	32.3	40.7	47.3	42.8	40.3	33.7
25/04/2024 03:50:00	00:15:00	59.2	31.9	40.3	52.5	41.5	34.3	32.9
25/04/2024 04:05:00	00:15:00	76.1	32.3	53.7	67.3	44.1	40.7	38.2
25/04/2024 04:20:00	00:15:00	74.6	32.6	54.9	67.5	50.1	39	34
25/04/2024 04:35:00	00:15:00	57.5	33.0	41.5	48.2	44.1	40.6	35
25/04/2024 04:50:00	00:15:00	75.3	24.8	52.2	64.8	49.6	42	34.3
25/04/2024 05:05:00	00:15:00	73.9	24.8	52.2	65.6	47.7	39.6	31.1
25/04/2024 05:20:00	00:15:00	75.2	26.0	56.4	72.9	47.8	42.4	37.2
25/04/2024 05:35:00	00:15:00	60.4	26.4	43.9	53.5	46.4	41.5	34.9
25/04/2024 05:50:00	00:15:00	55.3	38.9	44.6	50.6	46.7	43.4	41.5
25/04/2024 06:05:00	00:15:00	54.6	34.6	43.7	50.7	47	41.8	37.8
25/04/2024 06:20:00	00:15:00	64.2	36.8	47.3	54.1	49.9	45.7	41.8
25/04/2024 06:35:00	00:15:00	75.8	36.6	47.9	52.3	48.3	45.2	42.4
25/04/2024 06:50:00	00:15:00	69.4	36.4	49.5	60.8	48.4	45	42.3
25/04/2024 07:05:00	00:15:00	73.4	39.2	53.8	65.6	53.3	45.4	42.2
25/04/2024 07:20:00	00:15:00	74.4	39.3	53.5	65.8	54.3	47.5	43.9
25/04/2024 07:35:00	00:15:00	67.0	37.8	48.3	57.5	49.5	45.7	42.6
25/04/2024 07:50:00	00:15:00	73.8	38.8	53.5	66.3	54.1	46.3	42.9
25/04/2024 08:05:00	00:15:00	70.4	41.5	53.7	64.3	57.4	48.6	44.9
25/04/2024 08:20:00	00:15:00	84.4	43.6	63.7	76.7	65.5	51.3	47.1
25/04/2024 08:35:00	00:15:00	63.4	43.3	49.1	57.4	50.5	47.6	45.3
25/04/2024 08:50:00	00:15:00	65.8	37.0	47.4	56.9	48.4	43.8	40.4
25/04/2024 09:05:00	00:15:00	74.4	38.7	53.8	66	49	44	41.3
25/04/2024 09:20:00	00:15:00	76.2	34.4	56.8	69.7	58.1	45.4	40.7
25/04/2024 09:35:00	00:15:00	72.7	35.1	55.0	67.4	57.9	45.4	40.2
25/04/2024 09:50:00	00:15:00	72.3	34.7	44.3	52.4	46.2	41	37.6
25/04/2024 10:05:00	00:15:00	68.7	34.5	49.7	60.7	52.1	44.6	40.3
25/04/2024 10:20:00	00:15:00	75.0	36.7	50.5	62.4	51.8	45	41.2
25/04/2024 10:35:00	00:15:00	69.5	37.9	52.7	67.1	51.9	45.1	41.5
25/04/2024 10:50:00	00:15:00	67.1	37.6	49.5	62.2	50	44.1	40.5
25/04/2024 11:05:00	00:15:00	66.5	38.4	48.1	56.4	50.1	45.4	42
25/04/2024 11:35:00	00:15:00	75.5	36.8	53.6	66.1	53	46.2	42
25/04/2024 11:50:00	00:15:00	70.9	37.1	48.6	60	50.4	44.4	40.2
25/04/2024 12:05:00	00:15:00	65.9	37.7	47.5	57	50.8	43.7	40.5
25/04/2024 12:20:00	00:15:00	77.3	38.4	55.4	68.8	51.6	44.9	42.1
25/04/2024 12:35:00	00:15:00	67.1	34.5	47.3	58.6	48.7	43.1	39.4

25/04/2024 12:50:00	00:15:00	68.4	35.2	49.4	60.3	51.3	43.9	39.6
25/04/2024 13:05:00	00:15:00	68.2	40.2	51.3	61.7	53.9	47.5	43.8
25/04/2024 13:20:00	00:15:00	69.7	43.8	54.0	64.5	56.5	49.9	46.9
25/04/2024 13:35:00	00:15:00	76.2	41.0	56.0	69.4	56	49.1	45.8
25/04/2024 13:50:00	00:15:00	63.7	40.3	49.2	57.7	52	47	43.4
25/04/2024 14:05:00	00:15:00	66.6	39.6	48.4	59.8	48.7	44.7	42.5
25/04/2024 14:20:00	00:15:00	64.3	37.8	44.9	50.1	46.8	43.8	40.9
25/04/2024 14:35:00	00:15:00	62.0	41.0	48.3	57.5	50.8	45.9	43.2
25/04/2024 14:50:00	00:15:00	67.9	40.0	46.9	55.6	48.8	44.3	42
25/04/2024 15:05:00	00:15:00	72.1	38.8	49.5	59.9	47	43.3	41.3
25/04/2024 15:20:00	00:15:00	73.2	39.0	52.3	63	54.1	44.9	41.2
25/04/2024 15:35:00	00:15:00	68.5	38.3	48.8	61.2	48.7	43.8	41.1
25/04/2024 15:50:00	00:15:00	68.4	43.2	52.3	63.1	54.4	48.3	45.4
25/04/2024 16:05:00	00:15:00	67.4	35.8	49.6	59.8	52.7	44.9	40.3
25/04/2024 16:20:00	00:15:00	63.9	34.9	45.0	53.3	47	42.3	38.6
25/04/2024 16:35:00	00:15:00	62.8	33.7	45.9	55.8	47.8	43	38.2
25/04/2024 16:50:00	00:15:00	66.0	35.1	48.0	59.2	50.4	44.1	40
25/04/2024 17:05:00	00:15:00	74.4	34.5	53.8	66.8	53.5	44.3	40.4
25/04/2024 17:20:00	00:15:00	72.8	38.4	55.4	67.4	57.4	48.8	42.9
25/04/2024 17:35:00	00:15:00	66.7	35.3	46.5	59.4	46.1	40.8	37.7
25/04/2024 17:50:00	00:15:00	71.6	36.5	55.0	65	58.4	51.7	41.7
25/04/2024 18:05:00	00:15:00	74.7	44.0	57.6	66.1	61.2	54	47.3
25/04/2024 18:20:00	00:15:00	76.1	41.1	55.6	64.6	58.5	52.2	47.6
25/04/2024 18:35:00	00:15:00	82.6	43.3	57.7	66.2	60.4	54	47.7
25/04/2024 18:50:00	00:15:00	77.5	44.8	57.1	66.8	59.9	53	49
25/04/2024 19:05:00	00:15:00	73.7	39.4	54.3	64.6	57.6	49.3	43.6
25/04/2024 19:20:00	00:15:00	82.8	41.1	57.2	65.3	59.2	52	46.5
25/04/2024 19:35:00	00:15:00	68.9	38.4	53.1	63.4	56.3	49	43.6
25/04/2024 19:50:00	00:15:00	77.5	42.0	54.5	63.1	57.3	50.7	46.2
25/04/2024 20:05:00	00:15:00	69.1	42.0	53.9	63.7	57.1	49.9	45
25/04/2024 20:20:00	00:15:00	69.3	41.5	54.5	64.1	57.6	51.5	45.9
25/04/2024 20:35:00	00:15:00	71.9	40.7	55.8	68.2	57.8	50.8	46
25/04/2024 20:50:00	00:15:00	73.0	43.1	53.7	63.5	55.9	50	45.8
25/04/2024 21:05:00	00:15:00	74.9	40.5	51.9	61.1	53.9	49.5	44.1
25/04/2024 21:20:00	00:15:00	64.0	36.1	47.6	59.7	48.9	42.5	39.3
25/04/2024 21:35:00	00:15:00	74.6	26.0	51.4	59.4	55.5	43.4	30.7
25/04/2024 21:50:00	00:15:00	54.0	23.8	36.0	43.9	38.9	33.3	26.6
25/04/2024 22:05:00	00:15:00	65.4	32.1	40.7	44.1	38.6	35.4	33.2
25/04/2024 22:20:00	00:15:00	48.4	32.2	37.3	43.8	39.6	35.9	33.7
25/04/2024 22:35:00	00:15:00	62.6	32.7	46.2	56.4	49	43.9	34.3
25/04/2024 22:50:00	00:15:00	67.3	33.2	47.4	60.5	47	42.1	35.2
25/04/2024 23:05:00	00:15:00	56.1	32.3	37.9	45.5	39.5	36	33.5
25/04/2024 23:20:00	00:15:00	46.3	32.1	36.3	43	38.8	34.8	33
25/04/2024 23:35:00	00:15:00	64.6	31.9	41.4	49.1	40.4	35.2	33
25/04/2024 23:50:00	00:15:00	49.6	31.4	38.3	46.9	41.3	35.8	33.1
26/04/2024 00:05:00	00:15:00	70.0	31.2	49.8	63.6	41.5	34	32.4
26/04/2024 00:20:00	00:15:00	53.3	31.9	36.9	44.7	39.6	34.7	33
26/04/2024 00:35:00	00:15:00	65.0	31.8	43.9	60.3	39.5	33.8	32.8
26/04/2024 00:50:00	00:15:00	53.7	32.0	37.9	47.4	41	34.7	33.2
26/04/2024 01:05:00	00:15:00	59.4	31.9	41.1	53.1	43.8	34.8	33.1

26/04/2024 01:20:00	00:15:00	55.4	23.6	37.1	46.3	40.8	33.3	26.4
26/04/2024 01:35:00	00:15:00	72.9	23.6	50.6	64.5	41.2	31.2	26.3
26/04/2024 01:50:00	00:15:00	74.6	21.4	53.0	66.2	41.1	26.9	24.5
26/04/2024 02:05:00	00:15:00	54.6	23.1	37.8	47.2	41.5	33.9	26.2
26/04/2024 02:20:00	00:15:00	55.2	32.0	38.1	47.4	40.8	34.8	33
26/04/2024 02:35:00	00:15:00	77.0	32.0	55.7	69.5	52	37.3	33.5
26/04/2024 02:50:00	00:15:00	52.0	31.8	38.3	46.9	41.7	35.1	33
26/04/2024 03:05:00	00:15:00	57.6	32.4	38.7	47.1	41.5	35.9	33.6
26/04/2024 03:20:00	00:15:00	64.0	31.8	43.1	55.6	45.4	35.6	32.7
26/04/2024 03:35:00	00:15:00	53.0	32.0	39.6	46.6	43.1	37.4	33.7
26/04/2024 03:50:00	00:15:00	56.0	32.3	38.9	46.9	41.6	36.7	33.8
26/04/2024 04:05:00	00:15:00	73.4	31.7	52.7	65.3	43.7	37.1	33.1
26/04/2024 04:20:00	00:15:00	74.3	32.7	49.9	61.6	45.3	39	34.2
26/04/2024 04:35:00	00:15:00	73.0	32.8	50.3	63.8	44.7	38.9	35.6
26/04/2024 04:50:00	00:15:00	75.8	34.4	55.8	72.8	50.2	43	37.8
26/04/2024 05:05:00	00:15:00	67.4	33.6	49.3	61.3	51.5	42.8	38.9
26/04/2024 05:20:00	00:15:00	58.8	33.8	43.5	50.8	46.3	41.8	37.5
26/04/2024 05:35:00	00:15:00	83.9	34.6	50.9	56.9	46.4	42.2	38.3
26/04/2024 05:50:00	00:15:00	57.6	33.5	42.7	49.4	45.5	41.2	37.3
26/04/2024 06:05:00	00:15:00	57.6	35.6	44.1	50	46.5	43.1	40.2
26/04/2024 06:20:00	00:15:00	63.6	38.8	46.5	57.6	47.8	44.1	41.4
26/04/2024 06:35:00	00:15:00	52.6	36.9	44.0	48.7	46.1	43.3	40.6
26/04/2024 06:50:00	00:15:00	72.3	37.2	46.9	53.3	47.7	43.8	40.3
26/04/2024 07:05:00	00:15:00	66.8	38.6	48.6	60.2	49.2	44.6	41.7
26/04/2024 07:20:00	00:15:00	75.1	39.1	52.3	60.3	54.5	47.1	42.6
26/04/2024 07:35:00	00:15:00	62.3	40.3	47.4	53.8	49.3	46.4	44
26/04/2024 07:50:00	00:15:00	62.2	38.9	46.6	54.7	47.9	44.7	41.8
26/04/2024 08:05:00	00:15:00	60.9	38.1	47.3	54.3	49.1	46.5	43
26/04/2024 08:20:00	00:15:00	64.3	41.9	49.0	59.6	50.2	47	44.5
26/04/2024 08:35:00	00:15:00	71.9	40.6	51.1	61.1	53.1	47.5	44.2
26/04/2024 08:50:00	00:15:00	64.6	41.3	50.3	59.1	54	46.6	43.8
26/04/2024 09:05:00	00:15:00	72.1	39.0	49.6	60.4	49.3	43.7	41.4
26/04/2024 09:20:00	00:15:00	87.2	37.1	60.8	72.7	61.4	50.3	42.6
26/04/2024 09:35:00	00:15:00	88.6	41.9	70.0	83.5	70.3	51.1	46.8
26/04/2024 09:50:00	00:15:00	62.2	37.2	47.3	58	50.3	43.5	40.2
26/04/2024 10:05:00	00:15:00	74.6	34.5	50.8	60.7	54	43.6	39.3
26/04/2024 10:20:00	00:15:00	69.0	32.6	46.6	56.6	49.7	41.7	38.2
26/04/2024 10:35:00	00:15:00	68.1	37.5	48.7	59.5	51.9	43.4	40.4
26/04/2024 10:50:00	00:15:00	72.1	38.0	49.3	60.7	50	43.9	40.7
26/04/2024 11:05:00	00:15:00	64.2	35.8	49.1	60.3	52.2	43.8	39.7
26/04/2024 11:35:00	00:15:00	63.0	38.2	45.3	53.4	46.8	43.6	40.8
26/04/2024 11:50:00	00:15:00	62.3	35.0	43.8	56	44.5	40.7	37.8
26/04/2024 12:05:00	00:15:00	58.2	35.4	41.1	48.3	42.5	39.8	38.1
26/04/2024 12:20:00	00:15:00	72.6	35.9	49.9	62.4	45.1	40.6	38.3
26/04/2024 12:35:00	00:15:00	57.3	34.4	41.4	49.3	43.7	39.4	37
26/04/2024 12:50:00	00:15:00	69.6	32.7	48.1	60.1	49.7	40.1	36.7
26/04/2024 13:05:00	00:15:00	65.5	35.8	46.2	55.8	48.9	42.1	38.7
26/04/2024 13:20:00	00:15:00	63.5	33.5	44.9	53.5	47.8	41.9	38.5
26/04/2024 13:35:00	00:15:00	74.1	35.3	50.4	60	52.7	44.3	40
26/04/2024 13:50:00	00:15:00	70.4	35.5	49.3	59.5	52.1	43	38.2

26/04/2024 14:05:00	00:15:00	70.2	36.9	49.4	61.1	51.1	44.2	40.4
26/04/2024 14:20:00	00:15:00	74.6	40.9	50.1	59.7	51.8	47	43.8
26/04/2024 14:35:00	00:15:00	76.3	38.9	50.7	59.7	52.4	47.3	43.3
26/04/2024 14:50:00	00:15:00	67.9	42.1	51.1	60.1	54.5	47.6	45.1
26/04/2024 15:05:00	00:15:00	74.1	41.2	52.0	60.8	54.4	47.9	44.7
26/04/2024 15:20:00	00:15:00	71.9	37.3	49.2	56.2	50.3	46	41.6
26/04/2024 15:35:00	00:15:00	60.4	36.1	45.0	54.4	48	42.2	39
26/04/2024 15:50:00	00:15:00	69.4	35.8	48.1	58.5	50.6	42.1	38.6
26/04/2024 16:05:00	00:15:00	67.9	36.8	52.1	62.4	55.3	47.4	41.4
26/04/2024 16:20:00	00:15:00	67.3	34.8	49.4	59.6	52.9	43.4	38.6
26/04/2024 16:35:00	00:15:00	69.3	33.9	44.9	53.9	46.9	41	37
26/04/2024 16:50:00	00:15:00	67.3	36.9	51.0	60.8	53.7	45.2	39.7
26/04/2024 17:05:00	00:15:00	61.5	39.1	48.9	58	51.8	46	41.8
26/04/2024 17:20:00	00:15:00	69.8	39.3	51.6	61.8	53.5	46.6	42.5
26/04/2024 17:35:00	00:15:00	71.6	41.8	52.9	62.3	56	49.3	44.8
26/04/2024 17:50:00	00:15:00	69.3	39.3	52.4	60.9	55.4	50.4	44.1
26/04/2024 18:05:00	00:15:00	70.6	36.9	52.8	63.8	56	45.7	41
26/04/2024 18:20:00	00:15:00	68.6	37.2	50.8	60.1	53.5	47.6	42.4
26/04/2024 18:35:00	00:15:00	67.6	36.6	52.1	61.2	55.1	48.7	43
26/04/2024 18:50:00	00:15:00	67.6	37.4	51.5	61.3	54.4	47.5	42.8
26/04/2024 19:05:00	00:15:00	70.7	37.3	50.7	61.2	54.3	44.9	40.1
26/04/2024 19:20:00	00:15:00	68.7	36.4	48.6	58.8	51.8	43	38.7
26/04/2024 19:35:00	00:15:00	76.8	35.7	50.3	59.9	51.5	43.5	38.9
26/04/2024 19:50:00	00:15:00	69.1	37.9	49.5	59.3	52.5	45.4	41.6
26/04/2024 20:05:00	00:15:00	76.8	37.9	55.4	68	56.6	50.4	45.2
26/04/2024 20:20:00	00:15:00	69.6	36.9	50.2	60.8	53.2	45.3	40.6
26/04/2024 20:35:00	00:15:00	79.0	38.4	52.4	63.2	54.7	46	41.1
26/04/2024 20:50:00	00:15:00	67.4	38.9	52.2	61.9	55.8	47.9	42.4
26/04/2024 21:05:00	00:15:00	69.3	35.0	48.6	58.1	51.3	45.5	37.5
26/04/2024 21:20:00	00:15:00	69.9	31.0	40.9	49	41.5	37.1	33.5
26/04/2024 21:35:00	00:15:00	73.8	31.7	53.5	70.8	46.8	40.4	38
26/04/2024 21:50:00	00:15:00	61.3	26.5	42.3	53.3	43.4	40.5	34.4
26/04/2024 22:05:00	00:15:00	64.9	27.0	42.7	54.8	43.3	37.4	31.7
26/04/2024 22:20:00	00:15:00	55.6	24.8	38.4	51	40.8	34	29.2
26/04/2024 22:35:00	00:15:00	47.3	27.6	37.3	44.1	40.5	35.6	32
26/04/2024 22:50:00	00:15:00	50.2	30.4	35.6	42.6	38.2	34	32
26/04/2024 23:05:00	00:15:00	62.1	29.8	44.3	54.5	47.6	35	31.5
26/04/2024 23:20:00	00:15:00	67.0	45.9	50.3	62.6	48.8	47.6	46.9
26/04/2024 23:35:00	00:15:00	60.9	29.6	44.3	49.7	48.8	36.7	31.5
26/04/2024 23:50:00	00:15:00	53.4	29.6	36.9	45.2	39.6	34.3	31.1
27/04/2024 00:05:00	00:15:00	47.9	29.9	35.0	42.6	37.6	32.8	31.2
27/04/2024 00:20:00	00:15:00	61.2	30.2	42.9	55.2	43	34	31.9
27/04/2024 00:35:00	00:15:00	60.8	31.1	38.0	48.3	41.7	33.6	32.2
27/04/2024 00:50:00	00:15:00	67.4	29.0	39.3	45.6	42.4	32.7	30.4
27/04/2024 01:05:00	00:15:00	45.5	28.9	33.1	40.4	35.3	31.5	30.1
27/04/2024 01:20:00	00:15:00	65.4	28.7	44.2	58.4	37.5	31.3	29.7
27/04/2024 01:35:00	00:15:00	71.9	28.5	49.3	63.6	40.9	31.5	29.7
27/04/2024 01:50:00	00:15:00	40.9	21.4	30.9	37.9	32.8	30.9	23.2
27/04/2024 02:05:00	00:15:00	75.1	20.9	49.5	61.7	39.2	27.9	23.7
27/04/2024 02:20:00	00:15:00	45.8	20.6	31.2	41.6	35	25.8	23.1

27/04/2024 02:35:00	00:15:00	50.1	21.4	32.8	42.5	35.6	30.6	23.6
27/04/2024 02:50:00	00:15:00	49.1	29.5	34.7	42.9	37.2	32.4	30.8
27/04/2024 03:05:00	00:15:00	60.5	29.5	41.3	55.5	38.8	33.1	30.8
27/04/2024 03:20:00	00:15:00	47.5	28.9	33.8	42	36.4	31.6	30.3
27/04/2024 03:35:00	00:15:00	49.6	29.9	44.9	48.6	47.7	46.3	31.5
27/04/2024 03:50:00	00:15:00	58.2	45.7	47.5	49.5	48.2	47.3	46.6
27/04/2024 04:05:00	00:15:00	71.6	29.3	50.7	63.6	48.2	34.9	31.1
27/04/2024 04:20:00	00:15:00	71.2	29.5	47.3	58.9	45	34.6	30.8
27/04/2024 04:35:00	00:15:00	66.1	29.9	44.1	56.2	43.8	37.6	33.8
27/04/2024 04:50:00	00:15:00	70.9	32.8	46.9	60.9	43.3	38.6	35.7
27/04/2024 05:05:00	00:15:00	55.2	31.7	36.9	42.6	38.8	35.9	33.7
27/04/2024 05:20:00	00:15:00	63.6	32.6	45.3	58.2	46.3	40.2	36.8
27/04/2024 05:35:00	00:15:00	62.8	34.3	42.9	54.8	44.2	39.5	36.9
27/04/2024 05:50:00	00:15:00	54.9	34.4	41.2	47.9	43.9	39.8	36.6
27/04/2024 06:05:00	00:15:00	55.3	33.5	41.0	47.9	43.9	39.5	36.2
27/04/2024 06:20:00	00:15:00	64.7	33.9	44.7	55	47.4	39.8	36.7
27/04/2024 06:35:00	00:15:00	69.0	33.6	46.8	57.6	48.3	40.5	37.1
27/04/2024 06:50:00	00:15:00	68.3	35.6	46.9	59.1	45.2	40.7	38.4
27/04/2024 07:05:00	00:15:00	66.4	36.0	48.5	60.2	50.3	41.9	39.3
27/04/2024 07:20:00	00:15:00	58.8	37.4	43.3	48.5	45.5	42.3	39.8
27/04/2024 07:35:00	00:15:00	57.5	35.1	43.1	49.8	45.2	42	39.3
27/04/2024 07:50:00	00:15:00	60.0	35.5	43.0	51.4	44.7	41.5	38.7
27/04/2024 08:05:00	00:15:00	64.2	35.6	45.7	58.4	45.7	40.9	38.1
27/04/2024 08:20:00	00:15:00	66.1	36.6	46.5	58.7	48.7	41.9	39.2
27/04/2024 08:35:00	00:15:00	63.4	39.4	48.5	55.6	51.5	46.4	42.8
27/04/2024 08:50:00	00:15:00	64.0	37.8	44.2	50	46.2	42.6	40.5
27/04/2024 09:05:00	00:15:00	65.3	38.0	47.5	59.8	47.6	43.4	41.2
27/04/2024 09:20:00	00:15:00	66.0	38.4	46.6	57.1	47.1	43.8	41.6
27/04/2024 09:35:00	00:15:00	65.0	38.4	46.9	58	47.7	43.1	41.1
27/04/2024 09:50:00	00:15:00	63.4	38.2	44.3	51.6	46	42.4	40.1
27/04/2024 10:05:00	00:15:00	55.9	35.7	42.7	49.1	44.7	41.7	39.1
27/04/2024 10:20:00	00:15:00	67.8	35.9	43.5	49.9	44.3	41.2	39
27/04/2024 10:35:00	00:15:00	64.5	35.4	46.7	57.7	48.8	43.1	39.8
27/04/2024 10:50:00	00:15:00	62.5	36.3	43.7	49.8	45.9	42.1	39
27/04/2024 11:05:00	00:15:00	66.8	37.2	44.3	49.6	46.1	42.6	39.8
27/04/2024 11:35:00	00:15:00	52.9	37.9	43.4	48	45.6	42.7	40.2
27/04/2024 11:50:00	00:15:00	59.7	37.3	43.7	51.7	45.3	42	39.6
27/04/2024 12:05:00	00:15:00	62.2	37.2	46.2	57.9	46.8	43.3	39.8
27/04/2024 12:20:00	00:15:00	58.1	37.2	45.7	52.9	48.2	44.2	40.7
27/04/2024 12:35:00	00:15:00	62.4	36.7	46.3	56.3	48.5	43.5	39.8
27/04/2024 12:50:00	00:15:00	64.6	37.9	47.1	53.3	50.2	45.4	40.9
27/04/2024 13:05:00	00:15:00	60.6	35.0	42.4	51	44.8	40.1	37.5
27/04/2024 13:20:00	00:15:00	63.9	35.1	42.3	53.6	41	38.5	36.9
27/04/2024 13:35:00	00:15:00	62.6	35.1	42.1	51.6	41.5	38.7	37
27/04/2024 13:50:00	00:15:00	63.9	34.7	44.5	58.3	41.1	38.2	36.4
27/04/2024 14:05:00	00:15:00	49.2	32.9	38.5	43	40.2	37.9	35.8
27/04/2024 14:20:00	00:15:00	57.7	33.1	39.9	47.6	41.3	38.3	35.8
27/04/2024 14:35:00	00:15:00	59.8	32.9	42.1	54.9	42.3	38.8	36.5
27/04/2024 14:50:00	00:15:00	63.3	32.1	43.0	56.3	41.1	38.2	35.5
27/04/2024 15:05:00	00:15:00	69.7	34.4	43.3	54.5	41.1	38.5	36.5

27/04/2024 15:20:00	00:15:00	53.1	34.4	38.6	42.7	40.2	38.1	36.3
27/04/2024 15:35:00	00:15:00	57.3	33.8	40.0	47.2	41.4	38.5	36.2
27/04/2024 15:50:00	00:15:00	61.0	34.7	42.9	54.5	42.5	39.3	37.4
27/04/2024 16:05:00	00:15:00	61.8	34.6	42.8	53.8	43.5	38.4	36.5
27/04/2024 16:20:00	00:15:00	51.8	34.5	39.5	44.2	41.4	38.8	36.9
27/04/2024 16:35:00	00:15:00	53.0	35.3	47.4	49.9	49	48	38.2
27/04/2024 16:50:00	00:15:00	64.0	45.4	48.4	53.6	48.9	47.9	46.9
27/04/2024 17:05:00	00:15:00	70.9	44.9	48.6	54.7	48.4	47.4	46.4
27/04/2024 17:20:00	00:15:00	68.8	44.8	48.0	52.5	48.2	47.2	46.4
27/04/2024 17:35:00	00:15:00	57.1	44.9	47.6	50.2	48.2	47.4	46.5
27/04/2024 17:50:00	00:15:00	65.6	43.8	50.8	61.8	52.2	47.4	46
27/04/2024 18:05:00	00:15:00	58.1	46.4	48.7	51.6	49.5	48.5	47.5
27/04/2024 18:20:00	00:15:00	54.8	44.8	48.5	50.8	49.6	48.3	47.2
27/04/2024 18:35:00	00:15:00	54.0	44.2	45.9	48.8	46.7	45.6	44.9
27/04/2024 18:50:00	00:15:00	62.3	43.8	46.2	51.9	47.2	45.3	44.6
27/04/2024 19:05:00	00:15:00	61.9	43.4	45.5	50.7	46.1	44.7	44
27/04/2024 19:20:00	00:15:00	51.5	43.0	45.0	47.6	45.8	44.8	44
27/04/2024 19:35:00	00:15:00	54.6	43.2	45.0	47.2	45.9	44.8	44
27/04/2024 19:50:00	00:15:00	55.7	43.3	45.0	47.8	45.8	44.7	43.9
27/04/2024 20:05:00	00:15:00	51.3	43.1	44.6	47	45.3	44.4	43.8
27/04/2024 20:20:00	00:15:00	55.0	43.1	44.9	47.9	45.7	44.6	43.8
27/04/2024 20:35:00	00:15:00	56.7	42.9	44.6	48.4	45.2	44.2	43.6
27/04/2024 20:50:00	00:15:00	53.2	43.0	44.5	47.3	45.2	44.3	43.7
27/04/2024 21:05:00	00:15:00	50.6	42.9	44.3	46.1	44.9	44.2	43.6
27/04/2024 21:20:00	00:15:00	54.1	42.7	44.3	47.5	45	44.1	43.4
27/04/2024 21:35:00	00:15:00	51.3	42.9	44.3	46.7	45	44.1	43.5
27/04/2024 21:50:00	00:15:00	51.2	42.9	44.2	46.3	44.8	44	43.4
27/04/2024 22:05:00	00:15:00	48.4	43.0	44.2	46.1	44.8	44.1	43.5
27/04/2024 22:20:00	00:15:00	50.8	42.8	44.1	46.6	44.8	43.9	43.3
27/04/2024 22:35:00	00:15:00	51.6	42.8	44.3	47.6	45.2	44	43.4
27/04/2024 22:50:00	00:15:00	52.8	42.7	44.5	48.9	45.2	44	43.4
27/04/2024 23:05:00	00:15:00	62.6	42.8	44.7	49.2	45.2	44.1	43.4
27/04/2024 23:20:00	00:15:00	50.0	42.4	44.3	47.2	45.1	44	43.3
27/04/2024 23:35:00	00:15:00	51.9	42.7	44.6	48.5	45.8	44.1	43.4
27/04/2024 23:50:00	00:15:00	51.6	42.0	44.6	48.1	45.7	44.2	43.4
28/04/2024 00:05:00	00:15:00	50.3	42.4	44.9	48.7	47.4	44	43.3
28/04/2024 00:20:00	00:15:00	51.2	42.6	43.9	46.2	44.5	43.7	43.3
28/04/2024 00:35:00	00:15:00	54.5	43.0	44.4	47	45.1	44.1	43.5
28/04/2024 00:50:00	00:15:00	51.8	42.7	44.0	46.9	44.5	43.8	43.3
28/04/2024 01:05:00	00:15:00	49.8	42.7	44.1	46.2	44.7	43.9	43.3
28/04/2024 01:20:00	00:15:00	49.5	42.6	44.0	46.1	44.6	43.8	43.3
28/04/2024 01:35:00	00:15:00	48.4	42.7	43.9	45.3	44.2	43.7	43.3
28/04/2024 01:50:00	00:15:00	52.7	42.9	44.0	45.5	44.6	43.9	43.4
28/04/2024 02:05:00	00:15:00	49.8	43.4	44.6	46.7	45.2	44.5	43.9
28/04/2024 02:20:00	00:15:00	55.5	43.5	44.9	47.3	45.6	44.6	44
28/04/2024 02:35:00	00:15:00	51.1	43.3	44.8	47	45.5	44.6	43.9
28/04/2024 02:50:00	00:15:00	60.7	43.6	45.4	48.5	46.2	45	44.2
28/04/2024 03:05:00	00:15:00	57.9	44.9	46.9	51.1	47.8	46.4	45.6
28/04/2024 03:20:00	00:15:00	59.9	44.3	46.7	50.6	47.6	46.3	45.3
28/04/2024 03:35:00	00:15:00	61.6	44.7	46.7	50.6	47.6	46.2	45.5

28/04/2024 03:50:00	00:15:00	61.9	44.2	45.9	49.4	46.6	45.5	44.8
28/04/2024 04:05:00	00:15:00	65.2	43.8	45.5	48.6	46.2	45.1	44.4
28/04/2024 04:20:00	00:15:00	54.7	43.3	45.2	48.5	45.9	44.9	44.3
28/04/2024 04:35:00	00:15:00	50.6	43.4	44.6	46.9	45.2	44.5	43.9
28/04/2024 04:50:00	00:15:00	54.4	43.7	45.6	49	46.6	45.2	44.4
28/04/2024 05:05:00	00:15:00	53.7	44.3	45.9	49.5	46.7	45.5	44.8
28/04/2024 05:20:00	00:15:00	73.8	43.7	47.6	53.4	46.3	45.1	44.4
28/04/2024 05:35:00	00:15:00	77.3	44.5	52.5	60.3	52	50.6	48.5
28/04/2024 05:50:00	00:15:00	66.4	44.1	49.2	62.7	47.8	45.7	44.9
28/04/2024 06:05:00	00:15:00	65.1	43.5	50.5	62.4	50.4	47.2	45.8
28/04/2024 06:20:00	00:15:00	58.8	45.0	47.4	51.3	48.9	46.8	45.9
28/04/2024 06:35:00	00:15:00	62.7	44.5	47.0	50.8	48.2	46.4	45.4
28/04/2024 06:50:00	00:15:00	58.7	44.3	47.6	51.9	49.2	47	45.6
28/04/2024 07:05:00	00:15:00	64.3	43.6	46.8	51.9	49	45.7	44.7
28/04/2024 07:20:00	00:15:00	65.4	45.1	49.1	57.2	50.2	47.9	46.6
28/04/2024 07:35:00	00:15:00	69.0	44.5	49.1	59.9	49.6	47.2	45.7
28/04/2024 07:50:00	00:15:00	64.2	44.1	48.0	58.5	48.8	46.2	45
28/04/2024 08:05:00	00:15:00	69.0	44.2	49.7	58.8	51.5	47.2	45.4
28/04/2024 08:20:00	00:15:00	69.3	40.1	53.5	64.3	55.8	49.5	45
28/04/2024 08:35:00	00:15:00	69.3	38.5	50.1	59.8	51.8	45.7	42.2
28/04/2024 08:50:00	00:15:00	79.2	39.5	54.1	62.6	56.1	50.1	44.4
28/04/2024 09:05:00	00:15:00	69.5	42.6	50.2	61	51.1	47.4	45.2
28/04/2024 09:20:00	00:15:00	69.0	40.7	54.8	65.9	58.3	47.6	44.3
28/04/2024 09:35:00	00:15:00	76.9	44.6	53.7	64.1	55.5	50.4	47.4
28/04/2024 09:50:00	00:15:00	78.5	45.7	56.3	65.2	58.4	52.5	48.9
28/04/2024 10:05:00	00:15:00	76.3	43.6	54.2	63	56.3	50.6	47.4
28/04/2024 10:20:00	00:15:00	77.8	43.5	56.2	66.5	57.9	51.5	47.9
28/04/2024 10:35:00	00:15:00	73.7	45.0	54.3	64.4	56.4	51	47.8
28/04/2024 10:50:00	00:15:00	77.4	45.3	57.1	67.1	59.3	53.5	49.5
28/04/2024 11:05:00	00:15:00	76.5	45.7	57.8	67.5	60	54.7	50.9
28/04/2024 11:35:00	00:15:00	77.5	45.9	56.8	65.9	59.1	53.2	49.8
28/04/2024 11:50:00	00:15:00	72.8	44.7	54.8	64.1	57.2	51.9	48.5
28/04/2024 12:05:00	00:15:00	68.5	42.8	52.2	60.9	54.6	50	46.5
28/04/2024 12:20:00	00:15:00	80.0	43.9	55.6	63.4	56.4	51.5	48.3
28/04/2024 12:35:00	00:15:00	75.4	45.2	55.1	65.6	57	52.3	48.4
28/04/2024 12:50:00	00:15:00	77.4	43.5	55.8	64.7	58.5	52.4	48.7
28/04/2024 13:05:00	00:15:00	69.8	42.5	53.3	62.9	55.9	50.2	46.5
28/04/2024 13:20:00	00:15:00	67.7	40.9	52.4	62.6	55.1	48.7	45
28/04/2024 13:35:00	00:15:00	77.2	41.7	53.9	63.9	55.8	49.2	45.6
28/04/2024 13:50:00	00:15:00	70.3	39.1	50.8	60.1	53.1	48	44.2
28/04/2024 14:05:00	00:15:00	77.1	43.3	57.8	66.6	62.3	52.1	47.2
28/04/2024 14:20:00	00:15:00	70.9	41.9	52.8	63.1	55.4	48.9	44.9
28/04/2024 14:35:00	00:15:00	68.2	39.6	51.5	61.2	54	48.3	44.5
28/04/2024 14:50:00	00:15:00	71.7	35.4	51.6	60.5	53.5	49.5	42.7
28/04/2024 15:05:00	00:15:00	65.0	39.2	53.0	61.9	56	50.5	45.4
28/04/2024 15:20:00	00:15:00	75.6	38.3	55.7	69.4	55.6	49.2	43.5
28/04/2024 15:35:00	00:15:00	66.8	36.4	44.8	55.2	46.2	41.9	38.9
28/04/2024 15:50:00	00:15:00	63.6	36.3	43.9	55.5	43.3	39.7	37.8
28/04/2024 16:05:00	00:15:00	66.3	34.3	49.9	60.1	54	44	38.4
28/04/2024 16:20:00	00:15:00	68.3	36.1	51.7	62.7	54.7	46.8	40.9

28/04/2024 16:35:00	00:15:00	65.9	33.7	47.0	57.4	49.7	42.6	37.6
28/04/2024 16:50:00	00:15:00	76.8	36.8	51.9	61.5	53	45.9	40.5
28/04/2024 17:05:00	00:15:00	72.7	37.5	51.7	61.4	55	46.9	42.6
28/04/2024 17:20:00	00:15:00	65.6	32.7	43.2	56.7	42	36.7	34.7
28/04/2024 17:35:00	00:15:00	48.1	33.2	36.6	41.5	38	35.9	34.6
28/04/2024 17:50:00	00:15:00	56.9	32.8	36.6	41.1	37.6	35.5	34.3
28/04/2024 18:05:00	00:15:00	48.0	33.0	36.5	42.5	38.1	35.6	34.3
28/04/2024 18:20:00	00:15:00	69.4	32.4	47.7	61.8	41.3	36.9	34.5
28/04/2024 18:35:00	00:15:00	53.0	33.1	40.0	48	42.9	37.9	35.1
28/04/2024 18:50:00	00:15:00	55.5	27.4	42.1	49.4	45.2	40.4	34.4
28/04/2024 19:05:00	00:15:00	73.9	28.1	44.7	52.3	46.1	39.8	32.8
28/04/2024 19:20:00	00:15:00	62.1	31.3	46.4	53.9	49.3	45	37.6
28/04/2024 19:35:00	00:15:00	68.8	31.3	48.9	61.4	52.4	39.7	36.1
28/04/2024 19:50:00	00:15:00	62.7	34.4	44.4	56.6	44.2	40.4	37.9
28/04/2024 20:05:00	00:15:00	64.6	35.6	45.8	58.1	47.5	41.5	37.4
28/04/2024 20:20:00	00:15:00	68.9	35.0	42.5	49.3	45.6	39.4	37.4
28/04/2024 20:35:00	00:15:00	51.7	35.0	39.6	45.7	41.4	38.6	36.9
28/04/2024 20:50:00	00:15:00	69.3	34.4	42.9	52.5	44.9	38.8	36.7
28/04/2024 21:05:00	00:15:00	68.8	35.3	46.4	56.2	52.6	38.5	36.4
28/04/2024 21:20:00	00:15:00	69.6	36.4	48.4	57.4	49.5	46	38.7
28/04/2024 21:35:00	00:15:00	70.5	35.1	46.5	56.4	48.8	41.2	37.8
28/04/2024 21:50:00	00:15:00	50.5	34.4	39.5	44.9	42	38.4	36.5
28/04/2024 22:05:00	00:15:00	49.7	33.0	39.0	44.2	41.5	38.2	35.1
28/04/2024 22:20:00	00:15:00	50.7	34.2	42.2	48.1	45	41.2	36.9
28/04/2024 22:35:00	00:15:00	49.4	33.5	41.3	47.5	44.1	40.1	35.7
28/04/2024 22:50:00	00:15:00	60.8	26.8	42.8	51.2	45.3	40.6	33.1
28/04/2024 23:05:00	00:15:00	49.9	27.0	38.7	46.8	42.4	36	31.4
28/04/2024 23:20:00	00:15:00	51.4	24.6	39.8	47.2	43.9	37	28.7
28/04/2024 23:35:00	00:15:00	47.8	27.5	37.9	44.3	41.2	36.4	32
28/04/2024 23:50:00	00:15:00	49.6	33.3	39.3	44.8	41.6	38.4	35.1
29/04/2024 00:05:00	00:15:00	50.8	33.6	39.1	46.2	41.8	37.2	35
29/04/2024 00:20:00	00:15:00	47.8	33.8	39.4	44.4	41.7	38.6	35.9
29/04/2024 00:35:00	00:15:00	48.0	34.0	38.8	43.6	41	38	35.6
29/04/2024 00:50:00	00:15:00	46.7	33.3	38.7	44.2	41.1	37.7	35.3
29/04/2024 01:05:00	00:15:00	49.3	33.7	39.0	45	41.4	38	35.5
29/04/2024 01:20:00	00:15:00	47.8	34.1	38.9	44.6	41.4	37.6	35.5
29/04/2024 01:35:00	00:15:00	53.4	32.7	38.9	45.3	41.7	37.5	34.4
29/04/2024 01:50:00	00:15:00	50.2	32.8	38.4	45	41.2	37	34.1
29/04/2024 02:05:00	00:15:00	50.6	32.8	39.8	46.9	42.7	38.3	34.6
29/04/2024 02:20:00	00:15:00	52.7	33.0	37.2	42.5	39.5	36	34.4
29/04/2024 02:35:00	00:15:00	51.0	33.1	39.5	45.5	41.9	38.6	34.8
29/04/2024 02:50:00	00:15:00	46.5	34.5	38.8	44	41	37.9	35.8
29/04/2024 03:05:00	00:15:00	50.8	27.7	39.1	47	42.6	37.1	31
29/04/2024 03:20:00	00:15:00	55.6	25.5	38.9	46.5	42.3	36.9	30.6
29/04/2024 03:35:00	00:15:00	48.5	27.1	38.0	44.7	40.9	36.8	30.9
29/04/2024 03:50:00	00:15:00	42.7	34.7	38.1	41	39.3	37.8	36.4
29/04/2024 04:05:00	00:15:00	42.7	33.8	37.0	40.6	38.4	36.7	35.2
29/04/2024 04:20:00	00:15:00	44.1	34.0	38.8	42.6	40.7	38.5	36.1
29/04/2024 04:35:00	00:15:00	55.9	35.5	41.4	49.5	43	39.8	37.9
29/04/2024 04:50:00	00:15:00	58.6	35.9	43.4	54.9	44.4	40.6	38.4

29/04/2024 05:05:00	00:15:00	61.4	35.7	45.1	58.3	43.8	38.7	37
29/04/2024 05:20:00	00:15:00	73.9	35.0	45.6	55.7	45.9	41.6	36.9
29/04/2024 05:35:00	00:15:00	52.0	34.8	38.8	46	40.8	37.4	36.1
29/04/2024 05:50:00	00:15:00	57.3	35.0	39.6	46.2	42.4	37.9	36.4
29/04/2024 06:05:00	00:15:00	65.8	34.8	47.4	61	45.1	38.5	36.6
29/04/2024 06:20:00	00:15:00	63.9	36.1	44.9	56.8	45.7	40.3	38.1
29/04/2024 06:35:00	00:15:00	63.4	36.9	44.6	54.9	44	41.3	38.8
29/04/2024 06:50:00	00:15:00	67.5	36.3	45.1	52.4	42.5	39.3	37.9
29/04/2024 07:05:00	00:15:00	57.3	32.5	39.2	46.6	41	37.9	35.1
29/04/2024 07:20:00	00:15:00	58.9	32.2	37.4	44.7	38.6	36.1	34.4
29/04/2024 07:35:00	00:15:00	69.7	32.1	45.8	58.6	44.2	37.3	34.8
29/04/2024 07:50:00	00:15:00	68.6	33.6	46.8	57.3	48.8	39.1	36.7
29/04/2024 08:05:00	00:15:00	63.9	32.3	49.2	60.1	51.8	41.9	35.3
29/04/2024 08:20:00	00:15:00	78.5	32.6	54.9	69	44.9	38.3	34.9
29/04/2024 08:35:00	00:15:00	71.1	34.1	50.7	64	50.3	38.6	35.9
29/04/2024 08:50:00	00:15:00	72.0	34.1	47.8	58.5	49.9	40.2	36.9
29/04/2024 09:05:00	00:15:00	66.0	35.8	49.0	60.3	52.6	41.4	38.4
29/04/2024 09:20:00	00:15:00	61.6	34.9	45.4	56.6	47.8	39.7	37.1
29/04/2024 09:35:00	00:15:00	70.6	37.7	47.4	57.7	49.8	42.9	40.6
29/04/2024 09:50:00	00:15:00	71.4	36.4	49.8	61.8	49.6	41.8	39.5
29/04/2024 10:05:00	00:15:00	74.7	36.7	56.8	69.9	55.7	42.3	39.2
29/04/2024 10:20:00	00:15:00	69.4	38.0	47.0	58.9	47.5	42.8	40
29/04/2024 10:35:00	00:15:00	67.8	37.6	46.3	55	47.9	44	41.3
29/04/2024 10:50:00	00:15:00	84.4	37.9	63.1	77.7	58.7	43.9	40
29/04/2024 11:05:00	00:15:00	83.6	37.4	61.4	73.8	64.3	44.7	40.4
29/04/2024 11:35:00	00:15:00	82.9	40.3	59.3	70.2	62.2	48.3	43.3
29/04/2024 11:50:00	00:15:00	63.4	38.4	44.7	54	45.9	42.5	40.2
29/04/2024 12:05:00	00:15:00	82.4	39.0	58.5	71.7	57	43.6	41.3
29/04/2024 12:20:00	00:15:00	91.0	41.5	67.6	80.4	68.5	56.9	45.7
29/04/2024 12:35:00	00:15:00	76.7	38.2	61.6	72.2	65.3	55.8	42.8
29/04/2024 12:50:00	00:15:00	76.3	33.9	51.4	64.9	50.2	40.8	37
29/04/2024 13:05:00	00:15:00	67.1	34.8	49.8	60.9	52.4	44.9	40.3
29/04/2024 13:20:00	00:15:00	71.9	40.4	53.4	65.3	55	46.1	42.4
29/04/2024 13:35:00	00:15:00	73.1	39.5	53.5	66.7	54	45	41.8
29/04/2024 13:50:00	00:15:00	69.3	41.4	54.7	63.9	59.5	48.8	44.6
29/04/2024 14:05:00	00:15:00	76.2	41.6	56.6	65.6	60.7	49.6	44.7
29/04/2024 14:20:00	00:15:00	73.0	40.3	56.1	67.2	60.6	46.8	42.7
29/04/2024 14:35:00	00:15:00	68.3	39.0	54.1	63.9	59.5	45.2	41.9
29/04/2024 14:50:00	00:15:00	68.1	38.8	53.7	63.4	59.2	45.2	41.1
29/04/2024 15:05:00	00:15:00	76.9	39.8	55.8	67.2	59.7	45.1	42.1
29/04/2024 15:20:00	00:15:00	75.1	40.3	56.7	65.3	60.7	51.9	45.4
29/04/2024 15:35:00	00:15:00	77.5	41.6	56.7	67.3	60.2	49.6	44.8
29/04/2024 15:50:00	00:15:00	73.6	40.4	55.7	65.1	60.3	48.6	43.5
29/04/2024 16:05:00	00:15:00	82.2	39.0	56.1	65.3	60	48.6	43.5
29/04/2024 16:20:00	00:15:00	72.9	38.8	50.7	61.7	52.6	43.5	40.8
29/04/2024 16:35:00	00:15:00	67.5	38.6	43.7	49.5	44.8	42.3	40.6
29/04/2024 16:50:00	00:15:00	77.6	36.3	59.1	72.4	60.5	47.2	39.6
29/04/2024 17:05:00	00:15:00	78.0	41.3	58.7	70.5	60.6	49.6	44.5
29/04/2024 17:20:00	00:15:00	70.6	36.9	54.2	63.7	57.6	50.5	41.8
29/04/2024 17:35:00	00:15:00	79.3	40.8	56.6	67	58.6	51.2	46.5

29/04/2024 17:50:00	00:15:00	74.9	42.9	57.1	66.6	60.1	53.7	48.1
29/04/2024 18:05:00	00:15:00	79.2	41.0	56.1	66.9	58.7	49.6	44.4
29/04/2024 18:20:00	00:15:00	77.7	41.1	56.9	67	59.4	51.3	46.8
29/04/2024 18:35:00	00:15:00	69.9	38.8	55.5	65.4	58.7	51.7	45.3
29/04/2024 18:50:00	00:15:00	75.9	39.0	55.5	66	58.9	50.7	43.4
29/04/2024 19:05:00	00:15:00	75.6	37.7	56.0	66.2	58.8	50.8	44.2
29/04/2024 19:20:00	00:15:00	79.5	42.5	59.3	68.9	62.4	55.1	50
29/04/2024 19:35:00	00:15:00	77.7	38.5	56.7	65.9	59.6	53.4	47.4
29/04/2024 19:50:00	00:15:00	79.8	40.4	56.2	66.2	58.8	52	46.4
29/04/2024 20:05:00	00:15:00	73.3	41.4	56.2	66	59.3	52.2	46.9
29/04/2024 20:20:00	00:15:00	73.0	43.5	56.9	67.1	59.9	53.3	48.1
29/04/2024 20:35:00	00:15:00	80.5	45.5	59.9	69.3	62.7	56.5	51.6
29/04/2024 20:50:00	00:15:00	73.8	40.4	55.7	64.1	58.4	53.4	48
29/04/2024 21:05:00	00:15:00	76.1	42.7	57.1	66.9	61	52.4	46.7
29/04/2024 21:20:00	00:15:00	72.4	39.1	54.8	63.7	59.1	50.3	43.5
29/04/2024 21:35:00	00:15:00	78.7	35.9	58.2	74.9	54.7	43.1	38.6
29/04/2024 21:50:00	00:15:00	69.4	34.4	51.8	62.4	56	44	38.2
29/04/2024 22:05:00	00:15:00	69.6	36.1	53.6	64.1	57.6	48	41.5
29/04/2024 22:20:00	00:15:00	74.8	33.7	48.0	57.1	49.3	38.6	34.8
29/04/2024 22:35:00	00:15:00	67.6	33.5	44.0	52.3	48.2	36.5	35
29/04/2024 22:50:00	00:15:00	62.4	33.4	38.2	41.8	39.8	35.8	34.7
29/04/2024 23:05:00	00:15:00	72.0	33.1	48.6	63.5	36.8	35.4	34.5
29/04/2024 23:20:00	00:15:00	72.6	33.4	49.5	65.3	38.2	35.5	34.5
29/04/2024 23:35:00	00:15:00	74.6	22.7	50.2	64.1	37.3	28	25.5
29/04/2024 23:50:00	00:15:00	61.3	24.0	33.5	43.4	34.1	29.3	26.8
30/04/2024 00:05:00	00:15:00	42.4	24.2	31.1	37.5	35	29	26.8
30/04/2024 00:20:00	00:15:00	71.0	33.5	40.2	45	39	35.8	34.8
30/04/2024 00:35:00	00:15:00	57.8	33.7	39.1	45.7	41.1	36.7	34.9
30/04/2024 00:50:00	00:15:00	46.6	33.8	35.9	39.2	36.8	35.6	34.8
30/04/2024 01:05:00	00:15:00	42.0	32.7	35.4	37.7	36.2	35.2	34.2
30/04/2024 01:20:00	00:15:00	42.0	33.0	35.1	37.6	35.9	34.9	34
30/04/2024 01:35:00	00:15:00	65.8	32.8	46.0	56.5	48.7	36.1	34.3
30/04/2024 01:50:00	00:15:00	76.3	33.1	55.6	69.2	47.7	35.4	34.2
30/04/2024 02:05:00	00:15:00	41.7	32.7	35.4	39.1	36.6	35	34
30/04/2024 02:20:00	00:15:00	42.9	32.8	35.2	37.8	36.1	35	34
30/04/2024 02:35:00	00:15:00	75.5	32.9	51.3	64.6	40	35.4	34.4
30/04/2024 02:50:00	00:15:00	74.3	32.7	50.9	65	38.3	35.1	34
30/04/2024 03:05:00	00:15:00	42.1	32.3	34.6	36.8	35.4	34.4	33.5
30/04/2024 03:20:00	00:15:00	37.8	32.1	34.4	36.1	35.2	34.3	33.4
30/04/2024 03:35:00	00:15:00	40.9	23.0	32.0	37.1	35.1	29.3	26.1
30/04/2024 03:50:00	00:15:00	34.5	17.8	25.0	29.6	27.2	24.3	21.4
30/04/2024 04:05:00	00:15:00	72.9	18.5	51.1	65.4	43.7	26.4	22.1
30/04/2024 04:20:00	00:15:00	51.0	21.8	35.3	42	37.4	34.6	28.2
30/04/2024 04:35:00	00:15:00	59.8	33.5	39.4	51	39.8	36.3	34.8
30/04/2024 04:50:00	00:15:00	74.8	33.5	55.0	68.4	49.6	37.5	35.3
30/04/2024 05:05:00	00:15:00	58.9	33.4	39.4	50.9	40	36.5	34.9
30/04/2024 05:20:00	00:15:00	72.4	34.0	46.9	60.4	43.3	37.3	35.4
30/04/2024 05:35:00	00:15:00	60.3	33.5	38.9	48	40.7	36.3	34.8
30/04/2024 05:50:00	00:15:00	59.5	33.5	38.4	46.3	40.7	36.4	34.9
30/04/2024 06:05:00	00:15:00	61.1	33.1	48.4	57.9	51.6	38.5	34.9

30/04/2024 06:20:00	00:15:00	55.9	33.0	45.3	52.2	51.2	37.3	35
30/04/2024 06:35:00	00:15:00	56.1	32.9	46.2	52.3	51	36.7	34.7
30/04/2024 06:50:00	00:15:00	70.2	33.2	49.3	61.2	51.1	36.9	34.8
30/04/2024 07:05:00	00:15:00	70.2	32.8	50.2	64.3	51.1	37.4	34.7
30/04/2024 07:20:00	00:15:00	70.6	33.1	50.0	60.8	51.4	38.1	35.1
30/04/2024 07:35:00	00:15:00	63.3	32.5	43.2	52.1	44	38.5	35.1
30/04/2024 07:50:00	00:15:00	66.9	33.1	43.4	48.6	43.4	39.7	37.2
30/04/2024 08:05:00	00:15:00	73.2	36.8	52.2	61.7	57.2	44.7	40.7
30/04/2024 08:20:00	00:15:00	77.9	38.8	55.6	64.7	58.9	48.8	43.5
30/04/2024 08:35:00	00:15:00	79.9	39.0	54.4	63.5	57.6	47.6	41.7
30/04/2024 08:50:00	00:15:00	75.8	34.1	54.7	64.5	56.8	46.1	37.4
30/04/2024 09:05:00	00:15:00	77.6	39.0	51.4	59.7	54.6	46.5	41.5
30/04/2024 09:20:00	00:15:00	69.7	37.3	51.6	62.6	54.6	46.9	41.5
30/04/2024 09:35:00	00:15:00	80.3	35.7	52.6	63.3	54.4	44.7	39.7
30/04/2024 09:50:00	00:15:00	80.0	36.9	50.8	60.3	52.3	43.6	39
30/04/2024 10:05:00	00:15:00	65.4	36.9	49.0	59	52.4	44	38.9
30/04/2024 10:20:00	00:15:00	72.5	33.0	50.9	60.5	54.5	45.7	38.9

A5.2 Position 2 North

Start Date & time	Duration	LAm _{ax} ,F	LAm _{in}	LA _{eq}	LA01	LA10	LA50	LA90
23/04/2024 11:08:00	00:15:00	80.5	37.7	49.6	55.5	51.3	46.3	42
23/04/2024 11:23:00	00:15:00	60.2	42.2	50.6	56.7	53.2	49.4	46
23/04/2024 11:38:00	00:15:00	72.0	37.4	53.3	64.9	54.3	49	44.1
23/04/2024 11:53:00	00:15:00	61.6	40.3	50.4	56.6	53.1	49.3	44.8
23/04/2024 12:08:00	00:15:00	65.2	40.5	51.7	59.3	54.7	49.9	45.1
23/04/2024 12:23:00	00:15:00	70.2	41.1	53.0	63	55.4	49.7	44.8
23/04/2024 12:38:00	00:15:00	82.1	40.4	57.2	69.3	57.3	50.5	45.9
23/04/2024 12:53:00	00:15:00	83.7	44.5	59.6	72	58.3	52.1	49
23/04/2024 13:08:00	00:15:00	64.3	44.8	51.7	57.7	53.8	50.7	48.1
23/04/2024 13:23:00	00:15:00	63.8	39.4	50.9	58.2	53.8	49.1	44
23/04/2024 13:38:00	00:15:00	69.1	39.7	51.4	59.1	53.9	48.9	44.7
23/04/2024 13:53:00	00:15:00	60.8	38.7	49.9	56.6	52.9	48.6	44.1
23/04/2024 14:08:00	00:15:00	61.5	41.8	50.2	56.9	52.9	49	44.9
23/04/2024 14:23:00	00:15:00	62.4	41.1	50.5	57	53.5	49.1	44.4
23/04/2024 14:38:00	00:15:00	63.5	41.4	50.6	57.2	53.5	49.3	45
23/04/2024 14:53:00	00:15:00	64.5	41.7	49.7	55.7	52.5	48.4	45.2
23/04/2024 15:08:00	00:15:00	68.5	39.6	51.5	60.8	53.3	48.9	44
23/04/2024 15:23:00	00:15:00	77.0	40.3	52.3	61	53.6	49.2	45.4
23/04/2024 15:38:00	00:15:00	63.7	40.7	51.5	58.4	54.1	50.1	46
23/04/2024 15:53:00	00:15:00	64.0	41.9	51.0	57.2	54	49.7	45.4
23/04/2024 16:08:00	00:15:00	60.4	39.2	49.8	55.8	52.3	48.9	44.8
23/04/2024 16:23:00	00:15:00	62.3	38.9	51.1	57.6	53.8	49.8	45.9
23/04/2024 16:38:00	00:15:00	65.8	39.6	50.0	58.4	52.8	48	43.8
24/04/2024 11:08:00	00:15:00	68.2	41.6	52.5	62.1	54.8	49.9	45.9
26/04/2024 10:41:00	00:15:00	79.3	36.7	48.2	55.5	48.2	43.7	40.3
26/04/2024 10:56:00	00:15:00	74.6	38.6	51.6	62.5	52.8	45.7	42.6
26/04/2024 11:11:00	00:15:00	68.8	38.5	51.6	62	53.8	47.6	42.2
26/04/2024 11:26:00	00:15:00	65.1	38.5	50.7	57.5	53.3	49.7	42.3

26/04/2024 11:41:00	00:15:00	62.1	37.0	46.0	55.4	48	44	40.5
26/04/2024 11:56:00	00:15:00	56.5	37.4	44.6	50.4	46.9	43.6	40.8
26/04/2024 12:11:00	00:15:00	62.4	36.6	44.0	53.5	44.8	42	39.8
26/04/2024 12:26:00	00:15:00	65.8	36.6	46.4	59.1	45.5	41.2	38.7
26/04/2024 12:41:00	00:15:00	66.6	36.0	47.3	60.2	47.4	42.5	39
26/04/2024 12:56:00	00:15:00	57.5	33.4	42.2	49	44.6	40.8	37.5
26/04/2024 13:11:00	00:15:00	61.8	32.8	43.6	52.5	45.7	41.4	37.5
26/04/2024 13:26:00	00:15:00	64.0	33.9	46.5	56.6	49	42.6	37.1
26/04/2024 13:41:00	00:15:00	67.4	36.5	48.9	58.6	52.1	44.7	40.5
26/04/2024 13:56:00	00:15:00	66.3	37.8	47.6	58.3	49.7	44	41
26/04/2024 14:11:00	00:15:00	66.9	38.2	47.5	59.1	47.8	44.3	41.7
26/04/2024 14:26:00	00:15:00	67.3	39.9	48.6	59.8	49.9	45.4	42.5
26/04/2024 14:41:00	00:15:00	70.1	40.2	49.1	57.7	51.4	46.3	43
26/04/2024 14:56:00	00:15:00	65.7	38.9	48.8	57.2	51.7	46.6	42.4
26/04/2024 15:11:00	00:15:00	68.2	43.9	54.5	60.8	57.3	52.9	48.2
26/04/2024 15:26:00	00:15:00	57.7	36.0	47.5	53.6	51.1	45.7	40.2
26/04/2024 15:41:00	00:15:00	60.0	33.7	45.4	55.2	47.9	42.7	37.6
26/04/2024 15:56:00	00:15:00	63.5	34.5	44.8	54.7	46.3	42.2	38.1
26/04/2024 16:11:00	00:15:00	65.1	34.0	48.5	61.1	47.7	42.9	38.6
26/04/2024 16:26:00	00:15:00	60.6	32.1	45.7	55.7	49	41.9	36.4
26/04/2024 16:41:00	00:15:00	60.1	33.0	42.4	48.1	45	41.3	36.9
26/04/2024 16:56:00	00:15:00	57.7	33.0	43.8	51.3	46.5	42.1	37.7
26/04/2024 17:11:00	00:15:00	66.4	33.0	46.4	57.2	47.7	42.1	38.1
26/04/2024 17:26:00	00:15:00	67.1	31.9	45.4	56.2	45.8	41.2	37.1
26/04/2024 17:41:00	00:15:00	64.7	33.0	43.3	51.5	45.1	41.1	37.3
26/04/2024 17:56:00	00:15:00	57.6	32.4	42.6	50	45.2	41.1	36.8
26/04/2024 18:11:00	00:15:00	66.4	34.4	46.2	56.6	46.2	41.4	37.7
26/04/2024 18:26:00	00:15:00	60.2	33.9	42.6	50.1	44.6	41.3	37.8
26/04/2024 18:41:00	00:15:00	66.8	33.7	44.2	55	43.9	39.5	36.5
26/04/2024 18:56:00	00:15:00	53.6	33.4	41.5	50.9	43.6	39.9	37
26/04/2024 19:11:00	00:15:00	63.2	33.9	44.9	57.1	44.5	40	36.8
26/04/2024 19:26:00	00:15:00	68.2	32.9	46.3	58.6	45.1	39.9	36.1
26/04/2024 19:41:00	00:15:00	67.7	31.9	46.1	56.5	45.5	41	36.6
26/04/2024 19:56:00	00:15:00	60.1	33.3	43.7	54	45.9	40.2	37
26/04/2024 20:11:00	00:15:00	59.1	30.8	41.9	51.8	44.1	38.6	35.6
26/04/2024 20:26:00	00:15:00	56.8	30.5	41.6	50.5	43.6	39.6	35.1
26/04/2024 20:41:00	00:15:00	59.4	30.5	40.6	51	42	37.7	34.4
26/04/2024 20:56:00	00:15:00	53.0	31.1	40.7	51.3	42.7	38.4	34.6
26/04/2024 21:11:00	00:15:00	57.4	31.0	41.7	52.3	43.9	38.3	35.1
26/04/2024 21:26:00	00:15:00	58.7	25.2	39.7	49.7	41	36.2	29.5
26/04/2024 21:41:00	00:15:00	70.4	28.6	51.6	68.6	47.2	41	35.2
26/04/2024 21:56:00	00:15:00	56.5	27.8	39.7	49.1	42.2	37.3	33.1
26/04/2024 22:11:00	00:15:00	57.7	29.5	40.4	49.9	42.1	38.1	34.1
26/04/2024 22:26:00	00:15:00	52.9	24.4	38.6	49.2	41.5	35	28.3
26/04/2024 22:41:00	00:15:00	52.4	23.8	39.2	46.6	42.6	37.3	32
26/04/2024 22:56:00	00:15:00	58.9	24.8	41.2	54.5	40.2	32.3	28
26/04/2024 23:11:00	00:15:00	63.2	24.3	43.1	58.1	42.7	37.2	31.9
26/04/2024 23:26:00	00:15:00	66.5	32.1	44.4	58.4	41.3	37.1	34.4
26/04/2024 23:41:00	00:15:00	50.6	27.5	37.9	44.9	41.5	35.8	30.3
26/04/2024 23:56:00	00:15:00	50.1	25.5	38.2	45.5	41.7	36.5	29

27/04/2024 00:11:00	00:15:00	49.5	21.5	35.5	45.2	39	31.5	25.8
27/04/2024 00:26:00	00:15:00	52.7	20.1	34.7	45.3	38.8	27.5	23.3
27/04/2024 00:41:00	00:15:00	51.9	21.4	37.0	50.1	39.7	29.6	23.6
27/04/2024 00:56:00	00:15:00	51.7	20.0	32.1	42.6	35.6	26.4	22.4
27/04/2024 01:11:00	00:15:00	45.0	19.2	31.5	40.9	35.3	27.1	22.7
27/04/2024 01:26:00	00:15:00	62.7	18.3	42.6	56.7	39	26.6	21.1
27/04/2024 01:41:00	00:15:00	68.7	19.0	46.4	60.5	40.2	26.2	22.2
27/04/2024 01:56:00	00:15:00	45.1	18.4	30.4	40.8	34.8	23	20.5
27/04/2024 02:11:00	00:15:00	69.7	18.5	46.2	58.9	39.7	28.4	22.3
27/04/2024 02:26:00	00:15:00	48.9	18.3	29.6	40.8	32.2	22.7	20
27/04/2024 02:41:00	00:15:00	47.1	20.8	32.4	41	36.2	28.6	23.5
27/04/2024 02:56:00	00:15:00	48.3	19.2	33.0	42.9	37	27.6	22
27/04/2024 03:11:00	00:15:00	57.3	18.2	36.2	48.6	36.9	26	20.2
27/04/2024 03:26:00	00:15:00	50.1	19.2	34.2	44.6	38.8	26.3	22.3
27/04/2024 03:41:00	00:15:00	46.4	26.8	33.9	41.4	37	31.4	29.4
27/04/2024 03:56:00	00:15:00	68.5	26.7	47.2	61.6	42.9	35.3	30.5
27/04/2024 04:11:00	00:15:00	68.2	21.0	48.7	61.3	46.9	34.3	26.2
27/04/2024 04:26:00	00:15:00	65.1	21.4	45.4	57.7	45.3	35.6	27.7
27/04/2024 04:41:00	00:15:00	60.6	30.8	44.6	54.5	46.9	41.5	37.3
27/04/2024 04:56:00	00:15:00	52.7	30.1	40.7	47.6	43.8	39	35.1
27/04/2024 05:11:00	00:15:00	73.4	27.9	42.7	47.3	43.3	38.6	34
27/04/2024 05:26:00	00:15:00	72.1	32.1	48.2	55.1	49.8	44.7	38.5
27/04/2024 05:41:00	00:15:00	57.3	30.6	42.0	49.2	45.1	40.2	36
27/04/2024 05:56:00	00:15:00	56.9	32.0	43.0	50.1	45.8	41.6	37.6
27/04/2024 06:11:00	00:15:00	70.4	32.8	46.6	58.3	45.7	40.7	36.7
27/04/2024 06:26:00	00:15:00	64.3	34.6	44.8	55.8	45.7	41.5	38
27/04/2024 06:41:00	00:15:00	66.8	34.3	47.6	59.7	47.9	42.5	38.9
27/04/2024 06:56:00	00:15:00	69.5	34.6	48.1	59.3	47.5	43.1	39.9
27/04/2024 07:11:00	00:15:00	71.7	33.4	48.6	60.3	47.1	42.4	38.7
27/04/2024 07:26:00	00:15:00	60.8	35.1	43.4	49.5	45.7	42	38.8
27/04/2024 07:41:00	00:15:00	65.6	32.6	42.7	49.2	45	41.1	37.9
27/04/2024 07:56:00	00:15:00	60.5	35.6	42.5	51.3	43.9	40.5	37.9
27/04/2024 08:11:00	00:15:00	70.8	33.2	47.8	57.5	45	40.6	36.7
27/04/2024 08:26:00	00:15:00	58.4	33.3	44.9	54.6	47.1	42.4	38.5
27/04/2024 08:41:00	00:15:00	61.6	33.9	46.0	54.1	48.5	44.2	40.3
27/04/2024 08:56:00	00:15:00	64.4	35.6	44.7	53	46.6	42.6	39.8
27/04/2024 09:11:00	00:15:00	63.0	35.6	43.1	50.1	45.4	41.5	38.4
27/04/2024 09:26:00	00:15:00	53.1	35.7	42.4	48.2	44.4	41.7	38.8
27/04/2024 09:41:00	00:15:00	67.1	35.2	48.0	60	48.5	42.5	39.4
27/04/2024 09:56:00	00:15:00	57.6	35.8	44.0	51.5	46.3	42.3	39
27/04/2024 10:11:00	00:15:00	53.8	34.1	43.0	50.9	45.7	41.1	37.8
27/04/2024 10:41:00	00:15:00	64.9	41.5	50.8	60.7	53.2	47.9	45
27/04/2024 10:56:00	00:15:00	61.8	36.4	47.2	53	50.2	46.1	41.4
27/04/2024 11:11:00	00:15:00	62.4	36.6	45.6	52.5	48.6	44	40.1
27/04/2024 11:26:00	00:15:00	61.8	35.9	44.6	51.6	46.9	42.9	39.6
27/04/2024 11:41:00	00:15:00	56.6	36.2	43.4	48.6	45.8	42.6	39.3
27/04/2024 11:56:00	00:15:00	58.1	38.2	45.1	50.3	47.2	44.4	41.1
27/04/2024 12:11:00	00:15:00	58.2	35.9	46.6	52.2	49.3	45.7	40.3
27/04/2024 12:26:00	00:15:00	57.5	36.1	47.1	55.3	50.9	44.4	40.5
27/04/2024 12:41:00	00:15:00	55.2	34.9	45.8	52.2	48.7	44.5	39.5

27/04/2024 12:56:00	00:15:00	67.2	34.0	49.9	60.3	53.8	45.1	40.1
27/04/2024 13:11:00	00:15:00	64.8	33.1	45.0	57.3	45.6	40.8	37.1
27/04/2024 13:26:00	00:15:00	57.7	33.4	41.5	53.4	42.9	39.3	36.7
27/04/2024 13:41:00	00:15:00	51.1	33.5	40.4	46.9	42.4	39.6	36.9
27/04/2024 13:56:00	00:15:00	52.4	30.7	38.2	43.7	40.2	37.4	34.5
27/04/2024 14:11:00	00:15:00	52.2	31.2	40.4	47.1	43	39.2	35.3
27/04/2024 14:26:00	00:15:00	59.4	31.8	41.5	49.7	43.2	39	36
27/04/2024 14:41:00	00:15:00	56.7	31.1	41.3	48.5	44	39.6	35.7
27/04/2024 14:56:00	00:15:00	55.3	32.4	40.6	47.8	43.2	39	35.8
27/04/2024 15:11:00	00:15:00	50.0	31.6	38.9	45	41.5	37.7	34.6
27/04/2024 15:26:00	00:15:00	54.3	30.8	40.6	48.5	43	39	35.2
27/04/2024 15:41:00	00:15:00	61.6	31.8	41.1	48.3	42.1	39.2	36.3
27/04/2024 15:56:00	00:15:00	57.7	32.7	41.4	49.9	43.3	39.3	36.5
27/04/2024 16:11:00	00:15:00	50.9	32.1	39.1	44.4	41.4	38.2	35.3
27/04/2024 16:26:00	00:15:00	53.0	29.3	40.1	46.2	42.8	39	35
27/04/2024 16:41:00	00:15:00	54.1	33.5	40.5	47.2	43	39.3	36.3
27/04/2024 16:56:00	00:15:00	65.4	32.3	44.8	57.8	43.7	39.9	36.4
27/04/2024 17:11:00	00:15:00	71.0	32.5	46.4	57.7	44	40.1	37.2
27/04/2024 17:26:00	00:15:00	66.3	33.4	45.3	55.7	46.2	43.8	38.1
27/04/2024 17:41:00	00:15:00	64.0	34.2	44.5	53.1	46.4	43.1	38.3
27/04/2024 17:56:00	00:15:00	53.8	33.5	42.0	49	44.5	40.8	37.6
27/04/2024 18:11:00	00:15:00	57.9	34.1	41.6	48.4	44.1	40	37
27/04/2024 18:26:00	00:15:00	58.5	34.4	41.9	49.2	44.3	40.5	37.3
27/04/2024 18:41:00	00:15:00	60.2	33.8	42.3	49.8	44.4	40.2	36.9
27/04/2024 18:56:00	00:15:00	59.5	33.3	42.0	48.9	44.1	40.1	36.7
27/04/2024 19:11:00	00:15:00	51.4	30.4	40.1	46.5	43	38.8	34.6
27/04/2024 19:26:00	00:15:00	52.6	31.8	41.1	47.1	43.9	39.9	36.4
27/04/2024 19:41:00	00:15:00	58.8	30.3	41.2	48.1	43.3	39.4	35.1
27/04/2024 19:56:00	00:15:00	53.6	30.9	39.8	45.9	42.5	38.5	35
27/04/2024 20:11:00	00:15:00	50.3	27.9	38.1	44.9	41	36.6	32.3
27/04/2024 20:26:00	00:15:00	59.0	27.3	39.4	46.8	41.5	36.6	32.6
27/04/2024 20:41:00	00:15:00	50.1	29.8	38.1	45.7	41	36.3	33.1
27/04/2024 20:56:00	00:15:00	48.5	30.8	38.2	44.4	40.8	36.9	34.1
27/04/2024 21:11:00	00:15:00	50.1	25.6	37.4	44.8	40.6	35.6	30.3
27/04/2024 21:26:00	00:15:00	58.9	26.3	38.0	46	40.4	34	28.7
27/04/2024 21:41:00	00:15:00	49.4	27.1	36.2	43.7	39.3	34.3	29.8
27/04/2024 21:56:00	00:15:00	46.3	24.8	34.2	41.9	37.8	31.8	27.6
27/04/2024 22:11:00	00:15:00	47.4	25.7	36.1	44.2	39.5	33.7	28.9
27/04/2024 22:26:00	00:15:00	57.7	26.4	36.9	45.2	40.3	33.7	29.5
27/04/2024 22:41:00	00:15:00	54.0	27.6	39.0	47.6	42.5	35.9	31.2
27/04/2024 22:56:00	00:15:00	50.2	28.4	37.6	45.5	40.9	35.4	30.8
27/04/2024 23:11:00	00:15:00	51.9	27.7	38.7	46.3	42.1	36.3	31.3
27/04/2024 23:26:00	00:15:00	53.0	31.2	39.9	47.5	42.9	38	34.9
27/04/2024 23:41:00	00:15:00	55.4	29.6	40.5	49.4	43.9	37.2	32.8
27/04/2024 23:56:00	00:15:00	53.4	28.6	39.0	46.2	42.7	36.3	31.1
28/04/2024 00:11:00	00:15:00	58.9	28.2	38.4	47.3	41.2	34.2	30.2
28/04/2024 00:26:00	00:15:00	51.4	29.0	36.4	44.3	38.8	34.7	31.3
28/04/2024 00:41:00	00:15:00	53.8	31.6	39.0	46.7	41.9	36.9	33.7
28/04/2024 00:56:00	00:15:00	55.2	29.9	37.7	46.9	39.7	35	32.1
28/04/2024 01:11:00	00:15:00	53.5	28.1	37.2	46	40.6	34.1	29.8

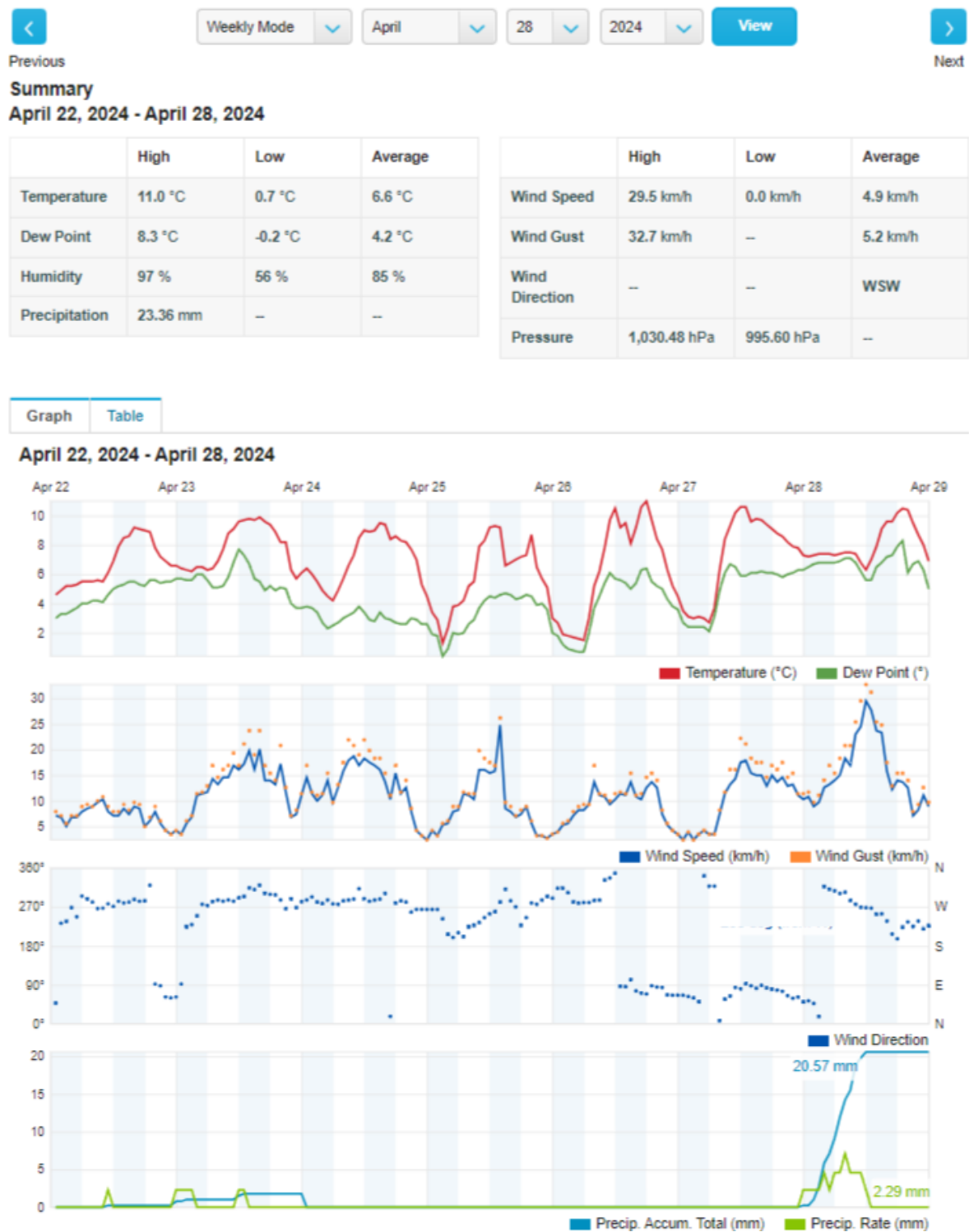
28/04/2024 01:26:00	00:15:00	48.3	26.9	32.5	41.3	34.7	30.3	28.5
28/04/2024 01:41:00	00:15:00	44.8	28.2	32.3	39.5	33.6	31.1	29.8
28/04/2024 01:56:00	00:15:00	47.6	30.9	36.3	41.9	38.2	35.5	33
28/04/2024 02:11:00	00:15:00	51.1	33.2	38.2	45	40.5	36.7	35.1
28/04/2024 02:26:00	00:15:00	52.9	32.1	37.4	46.2	39.9	35.1	33.4
28/04/2024 02:41:00	00:15:00	55.3	34.0	39.2	47.7	41.6	37	35.4
28/04/2024 02:56:00	00:15:00	52.5	34.6	41.4	49.3	43.7	40	37.5
28/04/2024 03:11:00	00:15:00	52.6	37.8	42.0	47.2	43.5	41.4	39.8
28/04/2024 03:26:00	00:15:00	52.4	36.6	42.5	48.9	44.8	41.4	38.5
28/04/2024 03:41:00	00:15:00	56.6	37.4	42.8	50.7	44.7	41.2	39.8
28/04/2024 03:56:00	00:15:00	56.4	36.1	41.5	50.6	43.4	39.6	37.8
28/04/2024 04:11:00	00:15:00	60.0	33.1	40.7	49.8	43.5	37.6	34.8
28/04/2024 04:26:00	00:15:00	60.7	31.9	41.8	52	44.7	37	33.9
28/04/2024 04:41:00	00:15:00	54.8	31.3	40.4	49.8	43.9	36.5	33.3
28/04/2024 04:56:00	00:15:00	61.4	34.3	44.1	51.1	46.7	42.7	38.7
28/04/2024 05:11:00	00:15:00	62.4	34.9	44.2	52.7	46.9	41.6	38.4
28/04/2024 05:26:00	00:15:00	59.6	35.5	41.9	50.2	44.6	39.6	37.1
28/04/2024 05:41:00	00:15:00	61.5	34.2	44.6	53.4	47.9	41.6	37.3
28/04/2024 05:56:00	00:15:00	59.7	34.2	45.0	54.2	48.7	41.3	36.2
28/04/2024 06:11:00	00:15:00	60.7	35.1	45.8	54.3	49.2	42.7	38
28/04/2024 06:26:00	00:15:00	60.1	36.1	46.1	54.9	49.6	43.1	38.5
28/04/2024 06:41:00	00:15:00	61.3	36.4	47.9	55.9	51.6	45.4	40.4
28/04/2024 06:56:00	00:15:00	61.3	32.9	47.4	54.9	51	45	38
28/04/2024 07:11:00	00:15:00	62.4	33.0	48.1	57.8	51.7	44.1	37.4
28/04/2024 07:26:00	00:15:00	64.9	37.8	47.0	54.4	50.5	44.6	40.7
28/04/2024 07:41:00	00:15:00	63.4	36.6	48.0	56.8	51.5	44.9	39.4
28/04/2024 07:56:00	00:15:00	65.7	37.5	48.4	56.9	51.7	45.4	40.3
28/04/2024 08:11:00	00:15:00	64.4	35.7	48.8	57.9	52.6	45.3	39.6
28/04/2024 08:26:00	00:15:00	63.1	36.7	50.4	58.8	54.1	47.5	41
28/04/2024 08:41:00	00:15:00	68.0	34.6	48.4	58.7	51.9	42.8	37.4
28/04/2024 08:56:00	00:15:00	70.1	38.8	51.6	61	54.9	48	41.8
28/04/2024 09:11:00	00:15:00	65.3	40.0	51.4	59.9	55.1	48.1	42.8
28/04/2024 09:26:00	00:15:00	68.2	38.9	52.2	60	56.1	49.3	43.7
28/04/2024 09:41:00	00:15:00	65.5	43.0	53.9	61.9	57.5	51.3	46.3
28/04/2024 09:56:00	00:15:00	66.4	42.3	54.4	62.2	57.9	52.2	46.1
28/04/2024 10:11:00	00:15:00	64.4	42.4	52.8	60.6	56.5	50.3	45.7
28/04/2024 10:41:00	00:15:00	68.1	43.8	54.5	62.4	57.6	52.5	47.2
28/04/2024 10:56:00	00:15:00	64.4	45.5	55.0	61.9	58.2	53.5	48.9
28/04/2024 11:11:00	00:15:00	68.0	44.5	55.0	62.6	58.3	52.8	48.3
28/04/2024 11:26:00	00:15:00	67.9	45.0	54.7	62.4	58.2	52.3	48
28/04/2024 11:41:00	00:15:00	67.7	43.4	55.1	62.3	58.4	53.2	48.2
28/04/2024 11:56:00	00:15:00	70.7	44.1	54.6	62.4	57.9	52.3	47.8
28/04/2024 12:11:00	00:15:00	65.7	42.2	54.6	62.5	58.3	51.9	46.5
28/04/2024 12:26:00	00:15:00	68.2	42.4	55.2	62.7	58.4	53.1	48.2
28/04/2024 12:41:00	00:15:00	66.6	42.0	53.3	60.6	56.6	51.4	45.7
28/04/2024 12:56:00	00:15:00	68.7	38.8	54.0	62.4	57.5	51.4	45.9
28/04/2024 13:11:00	00:15:00	67.9	39.3	53.7	60.8	57.2	51.5	45.8
28/04/2024 13:26:00	00:15:00	73.9	38.7	54.0	62.6	56.9	50.7	44
28/04/2024 13:41:00	00:15:00	68.3	40.1	53.5	61.6	57	50.7	46.2
28/04/2024 13:56:00	00:15:00	65.5	38.4	53.0	61.3	56.5	50.4	43.2

28/04/2024 14:11:00	00:15:00	68.3	39.6	52.7	60.4	55.8	50.4	44.9
28/04/2024 14:26:00	00:15:00	68.6	40.3	52.9	61.1	56.1	50.4	44.9
28/04/2024 14:41:00	00:15:00	66.1	36.6	51.8	61.7	54.5	48.7	42.6
28/04/2024 14:56:00	00:15:00	65.9	36.1	50.2	58.8	53.6	47.3	41.7
28/04/2024 15:11:00	00:15:00	68.9	33.8	49.9	58.3	53.2	47.2	38.1
28/04/2024 15:26:00	00:15:00	61.8	31.4	48.1	55.6	51.3	46.3	39.9
28/04/2024 15:41:00	00:15:00	60.2	31.7	47.2	54.4	50.5	45.4	39.5
28/04/2024 15:56:00	00:15:00	62.7	27.6	45.4	53.8	48.5	42.8	36.4
28/04/2024 16:11:00	00:15:00	56.4	35.2	46.3	52.4	49.2	45	40.6
28/04/2024 16:26:00	00:15:00	58.6	28.8	46.0	54.4	49.7	43.2	36.4
28/04/2024 16:41:00	00:15:00	59.3	33.8	43.9	49.6	46.5	42.7	38.9
28/04/2024 16:56:00	00:15:00	56.2	32.3	43.9	50.9	46.7	42.3	37.7
28/04/2024 17:11:00	00:15:00	53.0	34.3	43.2	48.9	45.7	42.3	38.8
28/04/2024 17:26:00	00:15:00	59.9	30.7	43.6	51.8	46.9	40.9	36
28/04/2024 17:41:00	00:15:00	52.2	32.7	41.7	47.5	44.4	40.7	36.6
28/04/2024 17:56:00	00:15:00	54.8	28.3	40.5	47.4	43.3	39.2	34.1
28/04/2024 18:11:00	00:15:00	64.0	30.2	40.7	47.5	43.7	38.9	34.2
28/04/2024 18:26:00	00:15:00	55.0	30.3	42.9	50.2	46	41.1	35.8
28/04/2024 18:41:00	00:15:00	61.7	28.4	47.1	56.2	50.7	43.7	34.2
28/04/2024 18:56:00	00:15:00	69.6	27.8	48.6	58	51.7	45.1	38
28/04/2024 19:11:00	00:15:00	65.8	26.8	46.1	53.8	49.5	43.6	33.8
28/04/2024 19:26:00	00:15:00	84.1	32.0	50.9	51.7	47.7	44.2	39.6
28/04/2024 19:41:00	00:15:00	67.2	33.0	47.3	55.3	49.8	45.4	39.7
28/04/2024 19:56:00	00:15:00	69.7	34.4	46.3	51.7	47.7	44.2	41.2
28/04/2024 20:11:00	00:15:00	56.2	33.2	43.5	51.9	45.8	42	38.3
28/04/2024 20:26:00	00:15:00	59.4	34.5	44.1	53.5	45.6	42.3	38.8
28/04/2024 20:41:00	00:15:00	52.0	32.4	40.7	47.4	43.1	39.7	36.4
28/04/2024 20:56:00	00:15:00	69.2	31.9	43.9	47.4	44.7	41.7	37.9
28/04/2024 21:11:00	00:15:00	52.9	29.8	40.3	45.7	43.1	39.4	33.5
28/04/2024 21:26:00	00:15:00	63.9	32.2	43.8	52.4	45.9	41.7	37.1
28/04/2024 21:41:00	00:15:00	68.6	34.6	47.7	54.5	49.4	46.2	39.6
28/04/2024 21:56:00	00:15:00	61.6	33.1	43.6	53.6	45.7	41.3	37.5
28/04/2024 22:11:00	00:15:00	53.2	26.9	41.4	48.4	45.2	39.1	32.7
28/04/2024 22:26:00	00:15:00	56.3	32.9	44.0	50.2	47	42.7	38
28/04/2024 22:41:00	00:15:00	51.6	26.6	42.7	48.9	45.9	41.7	33.9
28/04/2024 22:56:00	00:15:00	53.0	27.2	42.0	48.4	45.4	40.6	33.5
28/04/2024 23:11:00	00:15:00	51.9	26.2	41.8	48.7	45.6	39.5	33.6
28/04/2024 23:26:00	00:15:00	52.7	21.7	40.2	47.7	44.2	37.6	28
28/04/2024 23:41:00	00:15:00	52.3	24.7	39.6	46.2	43.1	37.7	31.7
28/04/2024 23:56:00	00:15:00	54.6	26.9	40.5	48.4	43.2	38.9	32.5
29/04/2024 00:11:00	00:15:00	53.6	27.4	39.7	46.5	43.1	38	31.6
29/04/2024 00:26:00	00:15:00	49.6	28.3	40.6	46.6	43.7	39.4	34.3
29/04/2024 00:41:00	00:15:00	49.8	28.2	39.6	45.9	43	38.3	31.7
29/04/2024 00:56:00	00:15:00	50.3	27.7	38.9	46	42.1	37.4	31.2
29/04/2024 01:11:00	00:15:00	58.7	29.1	42.2	53	44.3	39.3	34.7
29/04/2024 01:26:00	00:15:00	48.0	24.2	39.4	46	42.8	37.8	27
29/04/2024 01:41:00	00:15:00	53.6	23.7	40.2	47.2	43.6	38.5	31.3
29/04/2024 01:56:00	00:15:00	49.2	23.6	38.6	45.5	42.4	36.6	26.4
29/04/2024 02:11:00	00:15:00	52.4	24.8	40.6	47.7	44.4	38	28.2
29/04/2024 02:26:00	00:15:00	50.5	25.0	39.5	46.6	43.1	37.5	29.4

29/04/2024 02:41:00	00:15:00	50.0	26.7	39.6	45.7	42.7	38.7	30.9
29/04/2024 02:56:00	00:15:00	49.6	28.9	40.0	46.3	42.7	38.9	34.5
29/04/2024 03:11:00	00:15:00	51.1	27.0	41.3	47.7	44.2	40.5	32.4
29/04/2024 03:26:00	00:15:00	52.0	25.1	41.0	47.2	43.8	40.1	33.1
29/04/2024 03:41:00	00:15:00	54.8	26.4	39.0	45.2	42.2	37.4	32.6
29/04/2024 03:56:00	00:15:00	47.4	26.8	37.8	43.3	40.7	37.1	30
29/04/2024 04:11:00	00:15:00	49.2	28.9	38.5	44.2	41.3	37.4	33.1
29/04/2024 04:26:00	00:15:00	55.7	33.6	41.4	48.7	43.6	40.1	36.9
29/04/2024 04:41:00	00:15:00	55.9	34.8	42.6	49.9	44.6	41.2	38.7
29/04/2024 04:56:00	00:15:00	54.0	31.5	41.1	46.9	43.7	39.9	36.8
29/04/2024 05:11:00	00:15:00	49.6	34.4	40.7	46.2	42.8	39.8	37.8
29/04/2024 05:26:00	00:15:00	65.7	32.6	43.5	50.7	46.4	39.9	35.7
29/04/2024 05:41:00	00:15:00	59.4	31.7	40.6	49.4	42.1	38.4	35.1
29/04/2024 05:56:00	00:15:00	66.2	31.8	43.4	53.6	43.9	39.4	36.4
29/04/2024 06:11:00	00:15:00	64.2	33.1	44.4	52.6	46.4	43	37.9
29/04/2024 06:26:00	00:15:00	59.9	36.5	43.2	53.4	44.9	41.2	38.8
29/04/2024 06:41:00	00:15:00	56.6	36.0	43.9	52.7	46	42	38.6
29/04/2024 06:56:00	00:15:00	65.4	34.8	44.0	54.4	44	40.9	38.5
29/04/2024 07:11:00	00:15:00	53.6	34.5	40.5	46.7	42.3	39.6	37.2
29/04/2024 07:26:00	00:15:00	53.4	35.1	41.1	47.8	42.8	40.1	38.2
29/04/2024 07:41:00	00:15:00	70.2	35.0	49.3	61.1	50.4	43	39.4
29/04/2024 07:56:00	00:15:00	64.6	36.5	45.5	56	46.1	42	38.8
29/04/2024 08:11:00	00:15:00	64.6	38.5	46.7	55.2	49	45	40.9
29/04/2024 08:26:00	00:15:00	74.4	37.8	55.5	69.1	52.3	44.2	41
29/04/2024 08:41:00	00:15:00	74.4	38.0	53.8	65.5	56.4	45.9	41
29/04/2024 08:56:00	00:15:00	66.0	40.4	49.2	58.7	51.4	46.1	43.1
29/04/2024 09:11:00	00:15:00	67.5	40.6	48.0	58	49.9	44.6	42.5
29/04/2024 09:26:00	00:15:00	66.7	38.7	50.1	60.4	52.3	46.9	42.8
29/04/2024 09:41:00	00:15:00	67.9	40.1	50.4	59.8	52.9	47.1	44
29/04/2024 09:56:00	00:15:00	70.1	39.9	50.0	60	51.5	45.5	42.9
29/04/2024 10:11:00	00:15:00	75.5	41.2	57.6	71	57.2	47.2	43.9
29/04/2024 10:41:00	00:15:00	68.8	42.2	49.0	56.2	50.9	47.2	44.6
29/04/2024 10:56:00	00:15:00	88.1	41.2	65.2	78.8	64.6	48.4	45.1
29/04/2024 11:11:00	00:15:00	85.2	43.2	62.5	74.8	64.8	49.7	45.7
29/04/2024 11:26:00	00:15:00	71.5	45.5	55.4	65.9	58.3	51	48.5
29/04/2024 11:41:00	00:15:00	72.3	44.3	57.2	68.8	60.9	49.1	46.4
29/04/2024 11:56:00	00:15:00	82.5	41.2	58.8	70.4	58.8	49	45.3
29/04/2024 12:11:00	00:15:00	74.0	42.7	57.6	68.7	61.5	50	45.7
29/04/2024 12:26:00	00:15:00	87.4	43.0	67.9	80.2	69.8	59	50.1
29/04/2024 12:41:00	00:15:00	85.5	38.0	61.5	73.3	64.4	50	43.5
29/04/2024 12:56:00	00:15:00	70.7	37.8	50.4	64.4	49.4	44.2	40.9
29/04/2024 13:11:00	00:15:00	62.6	36.0	46.4	56.8	48.1	43.6	40.3
29/04/2024 13:26:00	00:15:00	72.7	40.4	53.3	66.5	52.4	45.8	43.2
29/04/2024 13:41:00	00:15:00	71.9	41.8	53.0	64.9	52.3	47.7	44.4
29/04/2024 13:56:00	00:15:00	75.9	43.3	54.4	65.5	52.9	48.2	45.7
29/04/2024 14:11:00	00:15:00	66.4	42.2	50.0	57.9	51.8	48.2	45.8
29/04/2024 14:26:00	00:15:00	75.3	41.8	53.6	66.2	51.3	47.2	44.5
29/04/2024 14:41:00	00:15:00	70.7	42.6	50.4	56.8	51.3	47.8	45.2
29/04/2024 14:56:00	00:15:00	64.2	41.2	48.8	55	50.8	47.8	45.1
29/04/2024 15:11:00	00:15:00	77.9	43.8	57.6	70.5	56.2	49.2	46.1

29/04/2024 15:26:00	00:15:00	69.1	43.6	50.9	58.8	52.3	49.1	46.6
29/04/2024 15:41:00	00:15:00	73.9	44.5	53.3	65.5	52.5	48.7	46.5
29/04/2024 15:56:00	00:15:00	70.3	41.8	52.7	64.1	54.1	48.7	45.9
29/04/2024 16:11:00	00:15:00	66.1	43.1	51.5	58	54.1	49.7	46.8
29/04/2024 16:26:00	00:15:00	61.2	40.3	48.4	56.5	51.2	46.7	43.5
29/04/2024 16:41:00	00:15:00	66.3	38.8	47.7	55.3	49.8	45.5	42.3
29/04/2024 16:56:00	00:15:00	83.0	40.9	59.7	73	59.9	45.8	43.2
29/04/2024 17:11:00	00:15:00	77.2	40.3	57.6	71.1	57.8	46.5	43.3
29/04/2024 17:26:00	00:15:00	71.5	39.7	53.0	64.2	54.4	47.7	43.9
29/04/2024 17:41:00	00:15:00	75.1	43.2	54.4	66.3	55.7	49.1	45.9
29/04/2024 17:56:00	00:15:00	62.5	40.9	48.6	55.2	51.5	47.1	43.7
29/04/2024 18:11:00	00:15:00	76.3	37.2	54.2	65.7	53.8	47.3	42.6
29/04/2024 18:26:00	00:15:00	79.0	37.9	55.1	67.7	50.9	45.4	41.8
29/04/2024 18:41:00	00:15:00	67.4	38.7	49.1	59.3	50.2	45.9	42.5
30/04/2024 10:41:00	00:15:00	102.7	41.0	78.6	91.9	75.5	53.7	45.6

A5.3 Weather Data from Donington Met Station [Wunderground ISPAD60]



Previous

Next

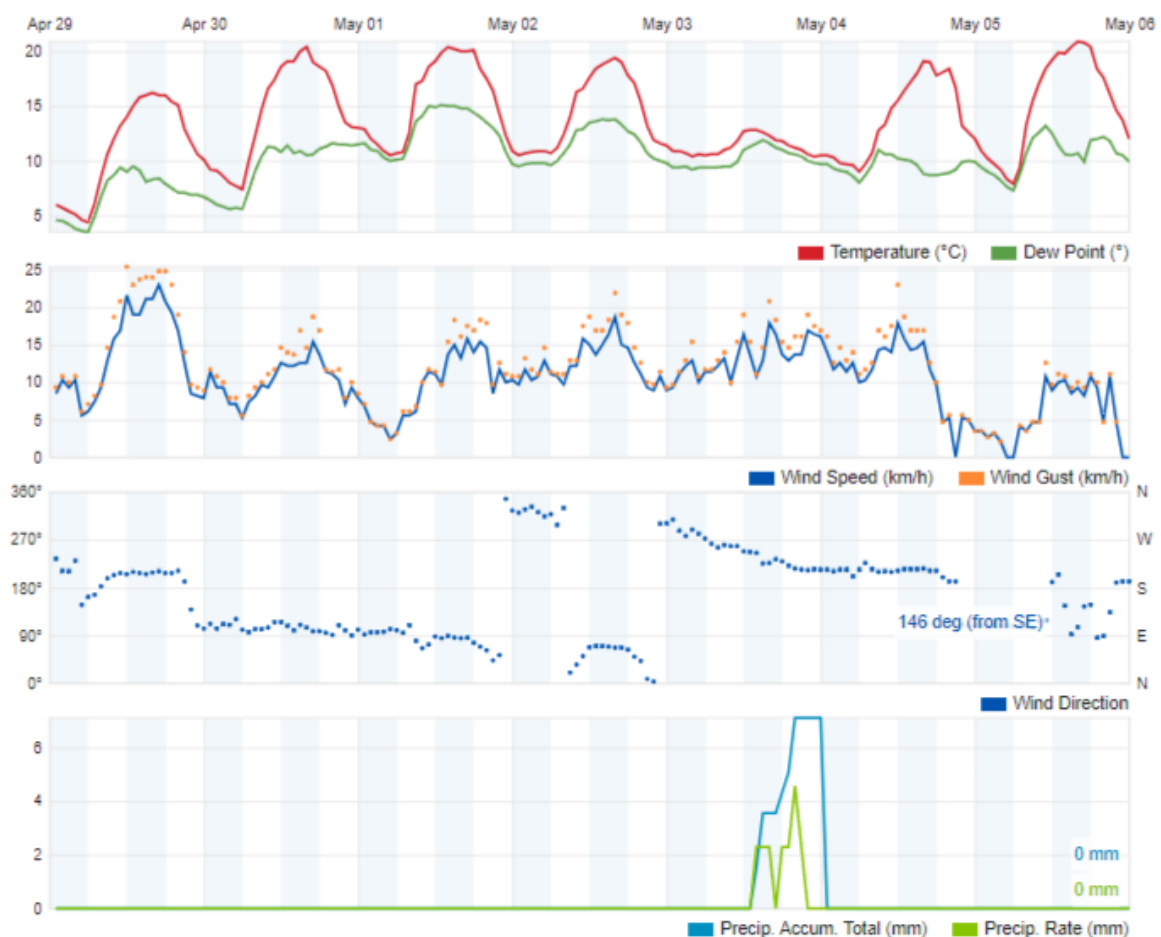
Summary

April 29, 2024 - May 5, 2024

	High	Low	Average		High	Low	Average
Temperature	20.9 °C	4.1 °C	13.1 °C	Wind Speed	23.0 km/h	0.0 km/h	4.7 km/h
Dew Point	15.1 °C	3.1 °C	9.6 °C	Wind Gust	25.4 km/h	--	5.0 km/h
Humidity	97 %	45 %	81 %	Wind Direction	--	--	SE
Precipitation	7.11 mm	--	--	Pressure	1,013.88 hPa	999.32 hPa	--

Graph Table

April 29, 2024 - May 5, 2024



APPENDIX 6

FACTORS AFFECTING BS4142 ASSESSMENT

It is a requirement of BS4142:2014 Section 10 that any assessment made using the standard contains a discussion of the factors affecting the assessment [scientific uncertainty].

With regard to the background noise measurements, the survey was over a relatively long period of time, a week, when the weather conditions were broadly typical; it is possible that noise from the depot itself could have influenced background measurements; however, firstly this would have been most likely to have occurred at night, when a different standard was considered more appropriate to assess the impact on residents [BS8233] for reasons explained above, and secondly BS4142 recognises that there are occasions when pre-existing commercial noise can be considered as part of the noise environment.

The weather conditions during the survey were almost entirely within appropriate limits; the exceptions being restricted to the daytime, given the amount of data available it is not considered that the results will have been significantly affected by the weather conditions.

For this type of survey, it is not possible to correct the ambient levels for the presence of [non-depot] residual noise; such a correction always results in a lower specific noise level, and therefore omitting the correction is a conservative factor tending to overstate the impact of depot noise.

As stated in the report, whilst this survey 2024 survey produced similar results to the original assessment [conducted in early November 2015], we understand that in the approach to Christmas evening/nighttime activity on the depot site can be more intense; however, this would be at a time of year when residents would be most unlikely to be outside 'enjoying' their gardens and in fact residents would be inside their properties with windows closed.

It is considered that the current assessment is representative of the impact residents would actually experience.