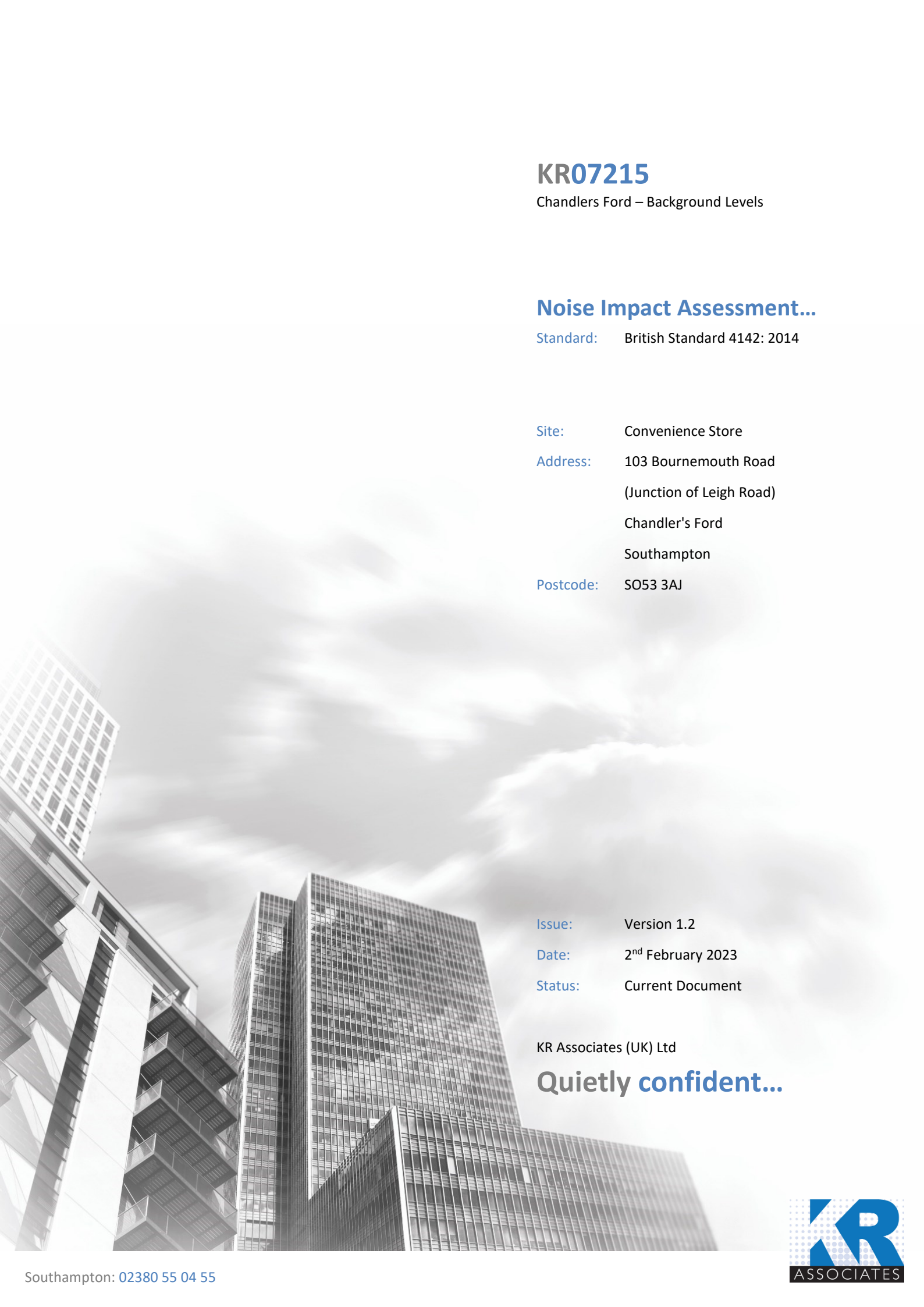




KR07215

Chandlers Ford – Background Levels

Noise Impact Assessment...

Standard: British Standard 4142: 2014

Site: Convenience Store

Address: 103 Bournemouth Road
(Junction of Leigh Road)
Chandler's Ford
Southampton

Postcode: SO53 3AJ

Issue: Version 1.2

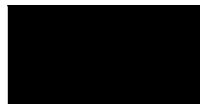
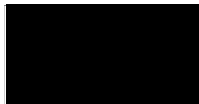
Date: 2nd February 2023

Status: Current Document

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Revisions...

KR07215		Project	Convenience Store		
		Title	Background Noise LLevels		
		Standard	British Standard 4142: 2014 + A1: 2019		
Issue	Date	Details of Revision			
V1.2	02/02/23	Description	Report issue for submission to Local Authority		
		Signature			
		Name	Mr. R. Scrivener	Miss N Truman	Mr R Scrivener
		Position	Technical Director	Project Manager	Technical Director

Disclaimer...

This report is strictly confidential and is designed to meet the requirements of the customer. It is not intended for and should not be relied upon by any third party and no responsibility is undertaken to any third party. No Liability is accepted outside the scope of this report in strict accordance with the standard terms and conditions.

KR Associates...

KR Associates (UK) Ltd (Company No. 04813349) registered office at 56 Bassett Green Road, Southampton. SO16 3DX.

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1. Background Noise Measurement Details...

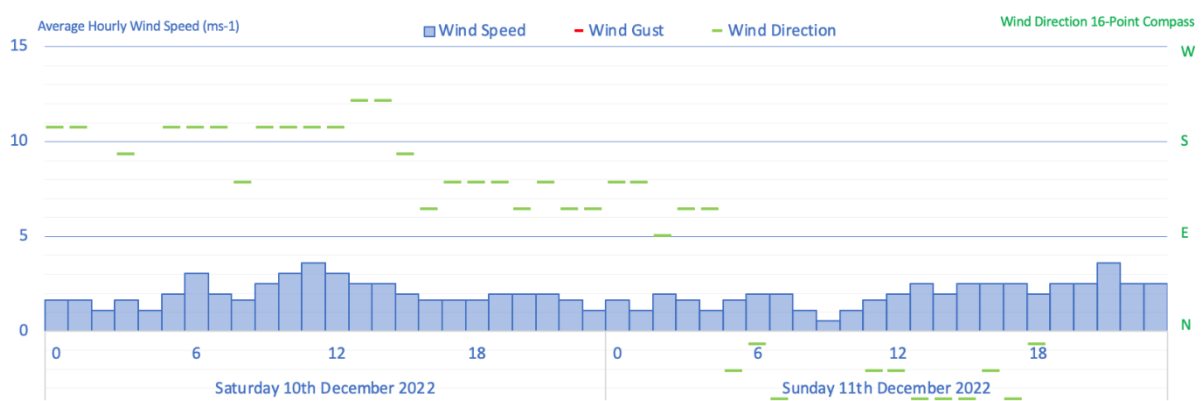
1.1. Key Positions (Source, Assessment & Background)



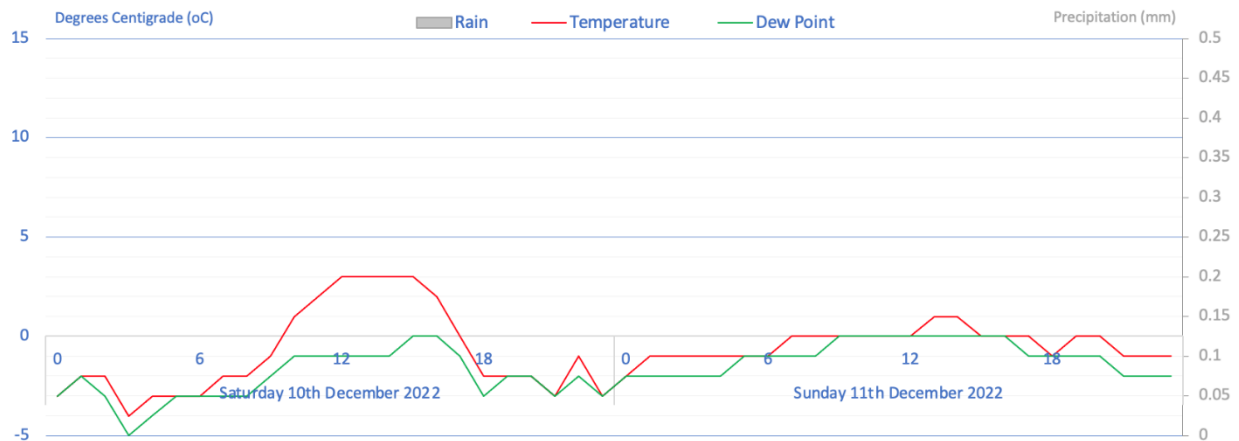
Position	Description	Latitude	Longitude	Elevation
Sources	Dedicated plant area at the rear of the store.	50.974709 ⁰	-1.387902 ⁰	2 m
Assessment	Residential room in the garden of 331 Leigh Road.	50.974786 ⁰	-1.387658 ⁰	7 m
Background	On the boundary of the site using the minimum levels.	52.008892 ⁰	-0.772250 ⁰	4 m

1.2. Weather During Survey

1.2.1 Wind Speed, Gust and Direction



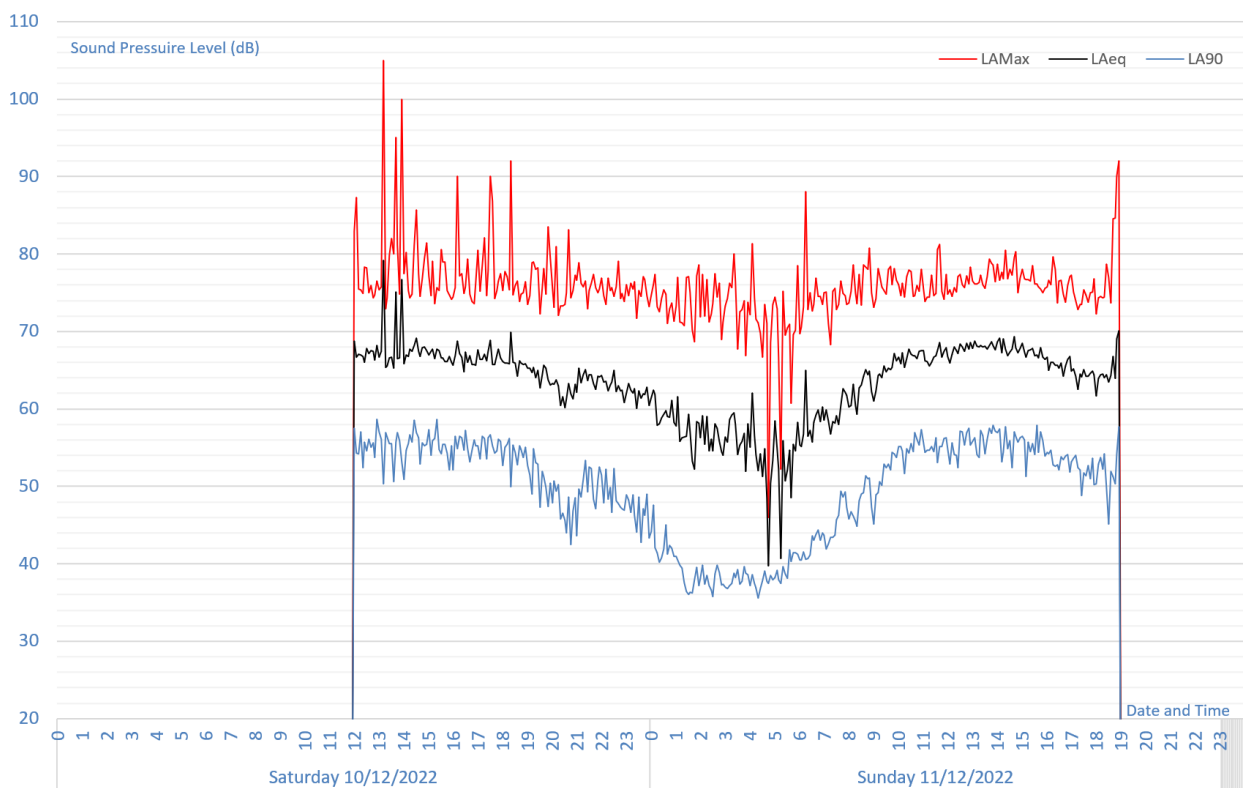
1.2.2 Rainfall, Temperature and Dew Point



1.2.3 Impact of Weather

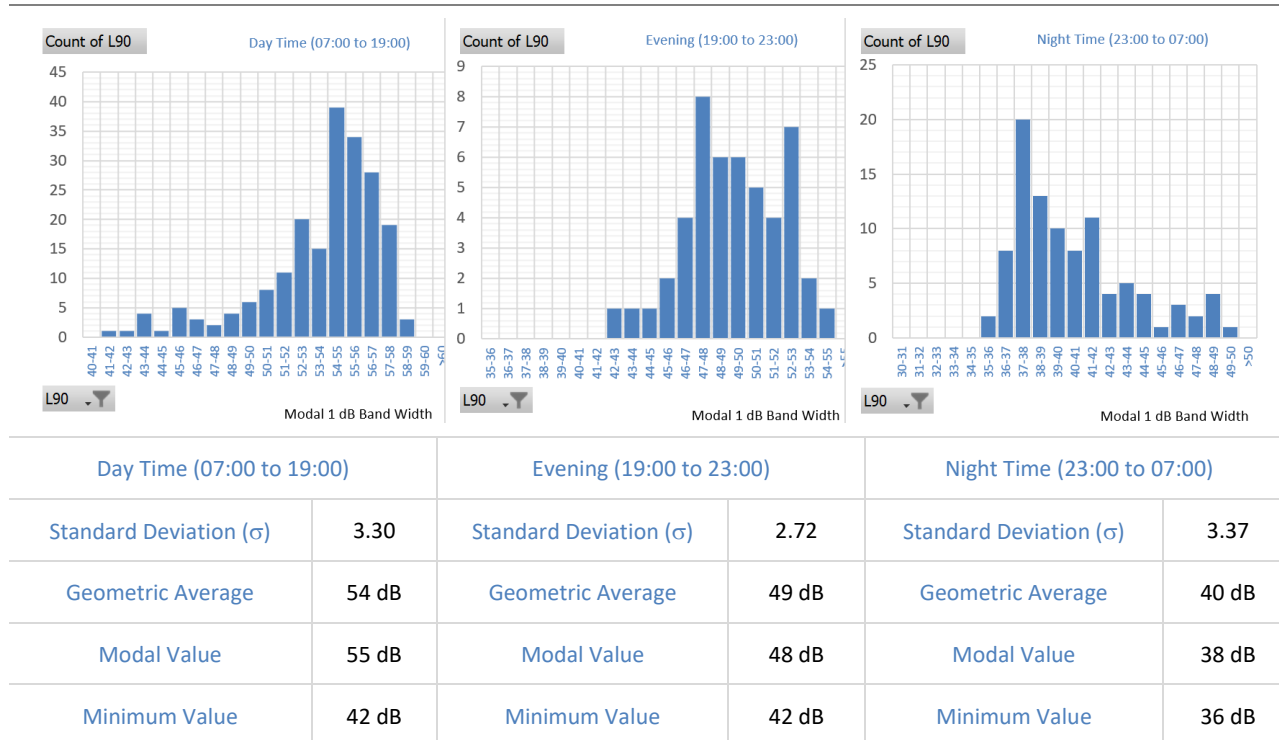
An analysis of the background data recorded on site indicates that the prevailing weather did not adversely impact the results. The wind speed was on average below 5.0ms^{-1} and there was no precipitation during the survey period.

1.3. 24-hour Background Measurements



Day Time (07:00 – 19:00)			Evening (19:00 – 23:00)			Night Time (23:00 – 07:00)		
L _{Amax,1h}	L _{Aeq,1h}	L _{A90,1h}	L _{Amax,1h}	L _{Aeq,1h}	L _{A90,1h}	L _{Amax,15m}	L _{Aeq,15m}	L _{A90,15m}
68 - 105 dB	57 - 79 dB	42 - 59 dB	72 - 84 dB	60 - 66 dB	42 - 55 dB	46 - 88 dB	40 - 65 dB	36 - 49 dB

1.4. Modal Analysis of Background Data



1.5. Appendix A - BS 4142:2014 + A1: 2019 Information to Be Reported...

1.5.1 a) Competency

	Name	Role	Competency
1)	Mr. R. Scrivener	Director	Master of Science Degree in Acoustics and Noise Control (MSc) Member of the Institute of Acoustics (MIOA)

1.5.2 c) Subjective Impression of Source at Assessment Position

1)	Dominance	Source will not be dominant at residential facade
	Audibility	Source will not be audible at residential facade
2)	Residual Noise Sources	Residual noise due to local road traffic

1.5.3 d) Existing Contexts

	Type of Receptor	Period	Sensitivity	Description
1)	Residential	Day Time (07:00 to 19:00)	Low	Noise can disturb outside amenity space and internal living space
		Evening (19:00 to 23:00)	Moderate	Noise can interrupt people trying to get to sleep
		Night Time (23:00 to 07:00)	High	Noise can disturb sleeping

1.5.4 e) Relative Positions

1)	Assessment Position	1 st floor bedroom on the rear of 331 Leigh Road		
		BS 4142:2014 Criteria	Details	Compliance with Criteria
		Section 6	1.0m from façade (external)	Position is valid
2)	Source Measurement	The source sound power levels were supplied by the client. It is believed the sound power levels were established in accordance with BS EN 13487:2003.		
	Justification	The client supplied the noise levels for the proposed plant.		
3)	Background Position	On the boundary of the site using the minimum levels		
	Justification	BS 4142:2014 Criteria	Details	Compliance with Criteria
		Section 6.2	3.5m to any reflecting surface	Complies
		Section 6.2	Height 1.2m to 1.5m	Complies
		Section 6.2	1 st floor 1m to facade	Not applicable
		Section 6.2	Measurement Height	3.5m
			Distance to Reflecting Surface	1.0m
		To record remote background levels, the noise meter had to be left in a secure position. The position represented the assessment position within the constraints of the site.		
4)	Topography, surfaces etc.	Hard and Flat		
5)	Relative Distances	The plant is located approximately 16 to 20m from the assessment position.		
6)	Dimensioned sketch	See maps and images.		

1.5.5 f) Noise Measurement Equipment Calibration

1)	Type	Sound Level Meter	Microphone	Calibrator
		KRE/05 - CEL 633.C1	KRE/05/01 - CEL 251	KRE/05 - CEL 120/1
2)	Manufacturer	Casella	Casella	Casella
3)	Serial Number	2145360	00709	5231047
4)	Certificate Number	Certificate: U36894	Certificate: U36894	Certificate: U40107
	Calibration Date=	27th January 2021	27th January 2021	4th February 2022

1.5.6 g) Noise Measurement Equipment Operation Test

1)	Ref. Level of Calibrator	94 dB
2)	Meter Reading Before	94 dB – Meter operation checked. Meter in good working order.
	Meter Reading After	94 dB - Meter operation checked. Meter in good working order.

1.5.7 h) Weather Conditions

1)	Wind Speed	See weather information
	Wind Direction	
2)	Temperature Inversion	Unlikely to have occurred
3)	Precipitation	None – See section 3.1
4)	Fog	None
5)	Wet Ground	Not within the measurement period – See above
6)	Frozen Ground or Snow	Not within the measurement period – See above
7)	Temperature	See above
8)	Cloud Cover	Partly Cloudy

1.5.8 i) Date of Measurements

1)	Source Measurements	Unknown
	Background Measurements	10/12/2022

1.5.9 j) Measurement Time Interval

1)	Source Measurements	$T_m = 15$ minutes	
	Background Measurements	Day Time (07:00 to 19:00)	$T_m = 12$ hours
		Evening (19:00 to 23:00)	$T_m = 4$ hours
		Night Time (23:00 to 07:00)	$T_m = 8$ hours

1.5.10 k) Reference Time Interval

1)	Reference Time Interval	Day Time (07:00 to 19:00)	$T_r = 1$ hour
		Evening (19:00 to 23:00)	$T_r = 1$ hour
		Night Time (23:00 to 07:00)	$T_r = 15$ minutes

1.5.11 l) Specific Noise / m) Background Noise / n) Rating / o) Assessment / p) Conclusions

These details are all included within the body of the report and are not replicated within this section.

END OF REPORT (1st and last page not numbered)

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Southampton: 02380 55 04 55