Noise Impact Assessment

Low Prudhoe

Thompsons of Prudhoe Limited

Ashcourt Group Halifax Way, Pocklington, York, England, YO42 1NR

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Basis of Report

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Executive Summary

Purpose of this Report

SLR Consulting has been instructed by Thompsons of Prudhoe Limited to prepare a noise impact assessment to accompany a permit variation application for their Waste Transfer Station, located at Dukes Way, Prudhoe NE42 6PQ.

It is understood that the site currently operates as a waste transfer station that accepts a range of non-hazardous industrial and commercial wastes and hazardous waste in the form of cement-bonded asbestos.

The purpose of this report is to assess the noise impact from the operations associated with the waste transfer station. This report includes the results of a noise survey and an operational noise assessment carried out in accordance with guidance presented in British Standard 4142: 2014+A1:2019 Methods for rating and assessing industrial and commercial sound (BS 4142) and the Environment Agency's (EA) Noise and Vibration Management guidance.

Assessment

The noise associated with the development has been assessed at the closest existing sensitive receptors (ESRs). Noise predictions of onsite plant have been undertaken using sound pressure data stated in BS5228-1. The onsite activities include movements from a loading shovel, a tracked crusher and HGV deliveries and collections.

Baseline noise monitoring has been undertaken at the ESRs. This assessment is based upon the site operational hours of 06:00 to 18:00 on Monday to Friday. The assessment has considered the daytime and night-time assessment periods.

Findings

The results of the BS 4142 assessment indicate that noise associated with the proposed development is below existing background sound levels at ESR1 during the daytime and ESR2 during all periods. A minor exceedance of +3dB occurs at ESR1 during the night-time.

In accordance with BS4142, this is an indication of a low impact at ESR1 during the daytime and ESR2 during all periods. At ESR1, during the night-time, this is an indication that the specific noise source is less likely to have an adverse or significant adverse impact depending on context.

In accordance with the Environment Agency's noise guidance document, the initial impact shows that the proposed development will produce a barely audible or detectable noise at all receptors. However, the proposed development will produce a not audible or detectable noise at ESR2 during the daytime.

When considering the site's context, the assessment concludes that the impact of the proposed development will not increase from the initial estimate.

An example of BAT is included in Section 8 of this report which should be implemented at the commencement of operational activities.

This noise assessment concludes that the proposed development complies with the EA Guidance and noise should not be reasons for refusal of the environmental permit.

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Acronyms and Abbreviations

BAT	Best Available Techniques
BS	British Standard
BS 4142	British Standard 4142: 2014+A1:2019 Methods for rating and assessing industrial and commercial sound
BS 5228-1	BS 5228-1:2009+A1:2014 Code of practice for noise and vibration control on construction and open sites - Noise
BS 7445	BS 7445-1:2003 Description and measurement of environmental noise - Guide to quantities and procedures
dB	Decibel
dB(A)	A-weighted decibel, accounting for human hearing sensitivity
EA	Environment Agency
ESR	Existing Sensitive Receptor
Hz	Hertz is the base unit of frequency, representing how many times a sound wave oscillates per second.
HGV	Heavy Goods Vehicle
ISO 9613-2	ISO 9613-2:2024 Acoustics — Attenuation of sound during propagation outdoors Part 2: Engineering method for the prediction of sound pressure levels outdoors
kHz	One thousand hertz.
$L_{A90, T}$	A-weighted sound level exceeded for 90% of the time period T (typically used to describe background noise)
$L_{A10, T}$	A-weighted sound level exceeded for 10% of the time period T (commonly used for road traffic noise assessments)
$L_{Aeq, T}$	A-weighted equivalent continuous sound level over time period T
L_{AFmax}	A-weighted, Fast time-weighted maximum sound level
L_{ArTr}	Rating Level - Specific sound level plus any adjustment for the characteristic features of the sound.
LT	Long Term Measurement Location
NIA	Noise Impact Assessment
SLR	SLR Consulting

1.0 Introduction

1.1 Background

SLR Consulting Limited (SLR) has been instructed by Thompsons of Prudhoe Limited to prepare a noise assessment to accompany a permit variation application for their Waste Transfer Station located at Dukes Way, Prudhoe NE42 6PQ.

1.2 Site Location

The Site is located at the northern side of Prudhoe within an industrial park. The Site is bounded by a railway line to the north, other industrial based businesses to the east and west, and Princess Way to the south.

The surrounding land uses are heavy industry and/or commercial in nature. The nearest residential dwellings are located approximately 400m to the south of the site.

1.3 Site Details

The site currently operates as a waste transfer station accepting a range of commercial and industrial waste types. The existing site operations allows the acceptance of inert wastes (including soils and stones), scrap metal, a limited range of degradable waste (from commercial and industrial sources) construction and demolition wastes, and cement bound asbestos only.

The development proposals will expand the size of the permitted area. The permit variation will include an increase of annual waste quantities from 93,000 tonnes to 150,000 tonnes. Furthermore, the operators are proposing to introduce a tracked crusher to crush and screen inert waste to produce aggregate for use in construction.

1.4 Scope of the Report

The scope of this noise assessment comprises a consideration of noise from proposed and existing site activities which might affect existing noise sensitive receptors.

A noise survey has been undertaken at ESRs with the site operating as normal and with the site not operating to distinguish the background sound levels.

2.0 Assessment Methodology

2.1 Relevant Standard and Guidance

The assessment has been undertaken in accordance with the following policy, standards and guidance:

- British Standard 4142: 2014+A1:2019 Methods for rating and assessing industrial and commercial sound (BS 4142);
- Environment Agency, Noise and Vibration Management: Environmental Permits, 2022.

Details of the guidance documents are provided in Appendix A.

2.2 Assessment Criteria

2.2.1 BS 4142: 2014+A1:2019 Methods for rating and assessing industrial and commercial sound

BS 4142:2014+A1:2019 provides guidance on appropriate methodology and criteria for assessing the impacts of a new or existing sound source by comparing the operational sound level (rating level) with the sound level that is present without development (background sound level) i.e., the existing acoustic environment.

The appropriate reference time interval for assessing the noise level is dependent upon when it operates. BS 4142 determines the reference time internal as 1 hour during the daytime (07:00 – 23:00). It is understood that the development is not proposed to operate during night-time hours and therefore only daytime has been considered within this assessment.

A penalty should be applied to the specific sound level if a tone, impulse or other characteristic occurs or is expected to be present. These character corrections vary in their weighting depending upon the severity of the acoustic feature, as follows (with regards to the subjective method).

Table A: BS4142 Subjective Character Corrections

Acoustic Feature	Correction	Comments
Impulsivity	+3	Where the impulsivity is just perceptible
	+6	Where the impulsivity is clearly perceptible
	+9	Where the impulsivity is highly perceptible
Intermittency	+3	Where the intermittency is readily distinctive against the acoustic environment
Other Sound Characteristics	+3	Where a sound exhibits characteristics that are neither tonal nor impulsive, though it is readily distinctive acoustic the acoustic environment at the receptor

The assessment is based on the following potential results as shown in Table B.

Table B: BS4142 Assessment Guidance

BS4142 Conclusion	Source Condition
Rating level from site operations of around +10 dB or more above the existing L_{A90} background sound level	An indication of significant adverse impact, depending on the context
Rating level from site operations of around +5 dB above the existing L_{A90} background sound level	An indication of an adverse impact, depending on the context
Rating level from site operations of between +1 and +4dB above the existing L_{A90} background sound level	An indication that the specific noise source is less likely to have an adverse or significant adverse impact depending on context.
Rating level from site operations does not exceed the existing L_{A90} background sound level	An indication of a specific sound source having a low impact, depending on the context

The context is used to rate and assess sound of an industrial nature including, but not limited to, assessing sound from proposed, new, modified, or additional sources of industrial sound, and sound at proposed new dwellings.

2.2.2 Noise and Vibration Management: Environmental Permits

The Environment Agency have produced a guidance to help holders and potential holders of permits apply for, vary, and comply with their permits in terms of noise and vibration.

The Noise and Vibration Management: Environmental Permits provides the effect levels at ESRs in relation to the closest corresponding BS 4142 criteria for each defined level. Table C presents the appropriate noise criteria, and the actions required.

Table C: Noise Level Criteria and Actions

Effect Level	Level Criteria	Action Required
No audible or detectable noise	Difference between Rating Level ($L_{Ar,Tr}$) dB is 10 dB less than the existing background level $L_{A90,T}$ dB	This level of noise means that no action is needed beyond basic appropriate measures or BAT.
Barely audible or detectable noise	Difference between Rating Level ($L_{Ar,Tr}$) dB and existing background sound level is below or equal to background or between 1-4dB. The closest Corresponding BS4142 descriptor is 'low impact or no impact'	This level of noise means that no action is needed beyond basic appropriate measures or BAT.
Audible or detectable noise	Difference between Rating Level ($L_{Ar,Tr}$) dB and existing background sound level $L_{A90,T}$ dB is between 5-9dB. The closest corresponding BS4142 descriptor is 'adverse impact' (following consideration of the context).	Use appropriate measures to prevent or, where that is not practicable, minimise noise.
Unacceptable level of audible or detectable noise	Difference between Rating Level ($L_{Ar,Tr}$) dB and existing background sound level $L_{A90,T}$ dB is equal to or greater than 10dB. The closest corresponding BS 4142 descriptor is 'significant adverse impact' (following consideration of the context).	Must take further action or you may have to reduce or stop operations. The environment agencies will not issue a permit if you are likely to be operating at this level.

2.3 Existing Sensitive Receptors

Aerial imagery of the site and surrounding area has been reviewed to identify the nearest ESRs. The closest ESRs likely to experience an impact have been identified and set out in Table D and shown in Figure A.

Table D: Identified Existing Sensitive Receptors

ID	Location	Co-ordinates		Distance from Site Boundary
		Easting	Northing	
ESR1	9 North Wylan Road	410129	563643	400m, South
ESR2	Tynewood South Lodge, Ovingham Road	409935	564442	500m, North

Figure A: Existing Sensitive Receptor Locations

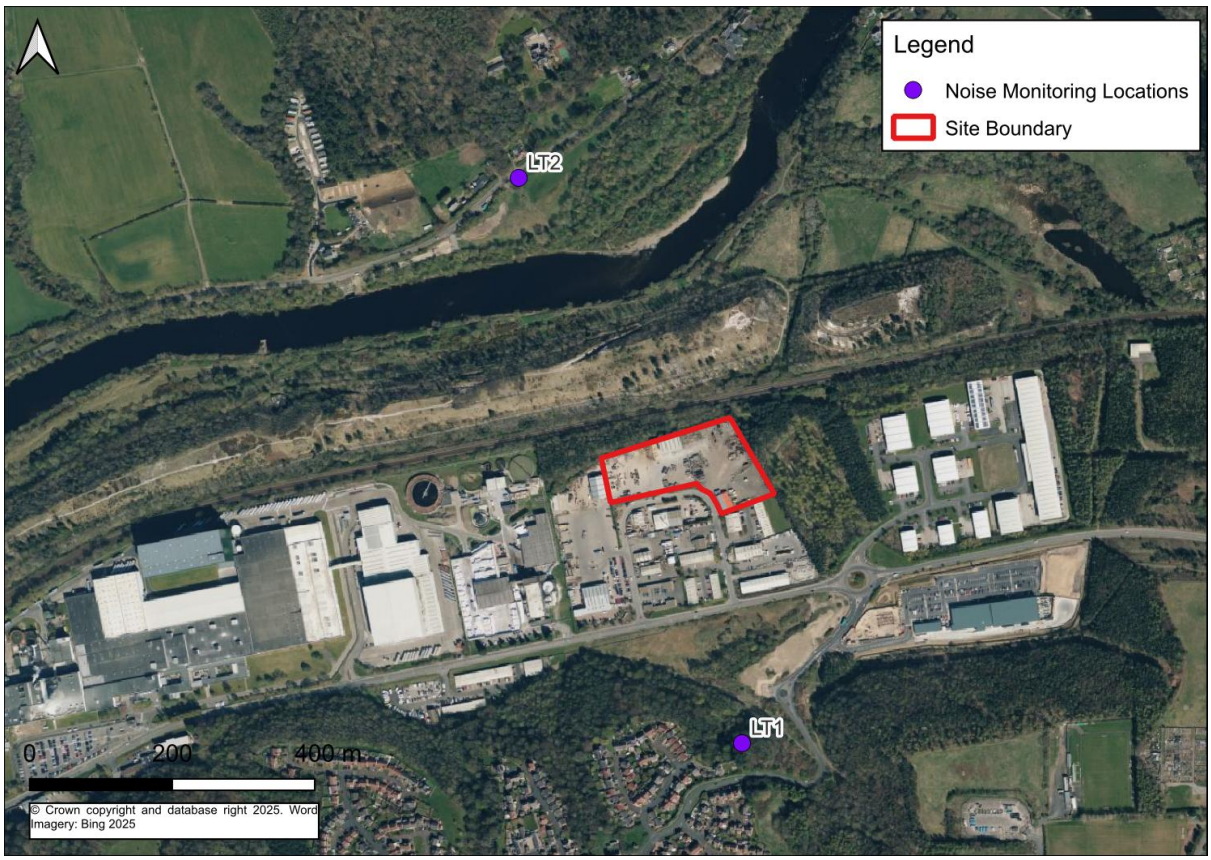
3.0 Noise Survey

A noise survey was carried out on the on the 5th and 6th December 2023. Unattended noise measurements were taken at two monitoring locations off-site representative of the closest ESR's (LT1 and LT2). The monitoring locations are presented in Table E and are shown illustratively in Figure B.

Table E: Noise Monitoring Locations

Monitoring Location	Description	Start Date and Time	End Date and Time	Co-ordinates
LT1	Adjacent to 9 North Wylan Road	05/12/2023 11:23:01	06/12/2023 15:34:52	410235, 563636
LT2	Located at the bottom of the hill, besides Princess Way	05/12/2023 11:23:01	06/12/2023 15:34:52	409974, 564444

Figure B: Noise Monitoring Locations



Noise measurements were made using a Class 1 integrating sound level meter. In accordance with BS 7445, the meters were mounted vertically on tripods 1.5m above the ground and more than 3.5m from any other reflecting surfaces.

The sound level meters were calibrated to a reference level of 94dB at 1kHz before the noise measurements. A further check was carried out on completion to determine if there was any drift in the meter at the end of the measurement. There was no drift observed in the calibration at any measurement location.

3.1 Summary of Monitoring Results

A-weighted L_{eq} and L_{90} noise levels were measured to comply with the requirements of BS 4142. A-weighted maximum, minimum and L_{10} noise levels were also measured to provide additional information.

The noise levels measured during the noise survey have been divided into daytime (07:00-23:00 hours) and night-time (23:00-07:00 hours) categories. The results of the noise surveys are presented in Table F and Table G below.

Table F: Summary of Measured Noise Levels at LT1

Parameter	Background Sound Level, dB $L_{A90,T}$		Residual Sound Level, dB $L_{Aeq,T}$		Maximum Sound Level, dB L_{AFmax}	
	Daytime	Night-time	Daytime	Night-time	Daytime	Night-time
Range	37 - 57	34 - 46	43 - 65	37 - 50	54 - 77	49 - 59
25th %ile	47	35	50	39	57	53
Median	48	36	51	40	61	54
75th %ile	49	37	53	43	66	55
Arithmetic Avg	47	37	52	42	62	54
Log Avg	-	-	55	43	-	-
Modal Value	48	35	-	-	-	-

Table G: Summary of Measured Noise Levels at LT2

Parameter	Background Sound Level, dB $L_{A90,T}$		Residual Sound Level, dB $L_{Aeq,T}$		Maximum Sound Level, dB L_{AFmax}	
	Daytime	Night-time	Daytime	Night-time	Daytime	Night-time
Range	36 - 46	34 - 41	42 - 62	35 - 56	64 - 82	40 - 79
25th %ile	41	35	57	36	75	45
Median	42	35	59	43	76	68
75th %ile	42	36	60	49	77	73
Arithmetic Avg	41	36	58	43	76	60
Log Avg	-	-	59	48	-	-
Modal Value	42	35	-	-	-	-

The measured noise levels are set out in full in Appendix B.

3.2 Determination of Background Sound Levels

Section 8 of BS 4142 provides guidance on the selection of the background sound to be used in the assessment. BS 4142 states that the background sound levels used for the assessment should be representative of the period being assessed (i.e., daytime or night-time periods,) and that there is no ‘single’ background sound level.

The modal background sound levels measured during the proposed operational hours have been used within the assessment. The daytime (07:00 – 18:00) and night-time (06:00 – 07:00) for each ESR is summarised in Table H.

Table H: Representative Background Sound Levels

Receptor	Representative Noise Monitoring Location	Representative Daytime Background Sound Level dB $L_{A90,T}$	Representative Night-time Background Sound Level dB $L_{A90,T}$
ESR1	LT1	48	44
ESR2	LT2	42	39

4.0 Assumptions, Limitations, and Uncertainty

This assessment is affected by the following assumptions, limitations, and uncertainty.

4.1 Assumptions

The following assumptions have been made:

- Noise Sensitive Receptors (ESRs) are positioned at a height of 1.5 m and 4.0m above ground level and 1m from the building façade.
- The site will be operational between 06:00 and 18:00 hours on Monday to Friday and between 06:00 and 13:00 hours on Saturdays.
- The site will not be operational on Sundays and Bank-Holidays.

4.2 Limitations

Due to the continuous nature of the waste transfer station on site, it was not possible to undertake the noise survey with the existing plant turned off. Therefore, the background sound survey was undertaken during the daytime and night-time, while the site was operational.

However, due to the low level of sound from the site, and the lack of distinguishable features, it was not considered to be contributing to the background or residual noise levels beyond the site at the receptor locations.

4.3 Uncertainty

To reduce measurement uncertainty the following steps have been taken:

- The background noise measurement locations were selected to be representative of the background noise level at the closest receptor to the site;
- In accordance with guidance the microphones were mounted vertically on a tripod 1.5m above the ground. The monitoring location was also more than 3.5 metres from any other reflecting surfaces;
- The background noise measurements were undertaken during suitable weather conditions, with a weather station situated on site;
- The daytime background noise monitoring was undertaken during what is considered to be the representative periods of the daytime;
- The night-time background noise monitoring was undertaken over 15-minute periods in accordance with the reference period required by BS4142;
- The results of each measurement period are reported to the nearest 1dB; and
- Noise measurements were undertaken using a Class 1, integrating sound level meter.

5.0 Noise Modelling

The assessment of the propagation of sound across the development site has been undertaken using the noise modelling software SoundPLAN version 9.1. The SoundPLAN model uses the noise prediction methodology set out in ISO 9613-2:2024 'Attenuation of sound during propagation outdoors'.

5.1 Noise Model Setup

SoundPLAN modelling software utilises publicly available topography data and digital terrain mapping to generate 3D environmental models. The model implements the following factors to predict noise propagation:

- Sound source location;
- Relative distances between sound sources/receivers;
- Location and dimensions of object barriers including man-made or natural;
- Ground contours, determining the relative ground heights;
- Ground absorption effects due to soft/hard ground;
- Ground absorption areas entered for the site and surrounding area (0= hard ground to 1 = soft ground).
- The ground absorption factor has been set to G=0.6 across the development Site and surrounding area.
- Orders of reflections has been set to 3.

Buildings surrounding the site have been modelled at a height of 8m height for two storey residential properties and 6m for the existing industrial buildings on the industrial estate. Receptor positions have been modelled at 1m from the building's façade at a height of 1.5m for daytime ground floor properties and at 4m for first floor bedrooms.

5.2 Noise Model Source Inputs

Noise data from BS5228-1 have been utilised within the noise model to predict activities from mobile plant and HGV movements. Proposed and existing mobile plant or HGV deliveries and collection have been modelled as fully omni-directional point sources or moving point sources along a line.

The following noise sources, detailed in Table I, have been input into the noise model.

Table I: Noise Sources Used in Modelling Scenario

Details of Equipment (BS5228-1 Reference)	Quantity	Sound Power Level dB(A)	On-time (%)
Loading Shovel (C2.28)	1	104	100%
Crusher (C1.14)	1	109	100%
HGV Deliveries (C11.5)	1	109	14 events per hour

The loading shovel and HGV deliveries have been modelled as moving point sources, at a speed of 16km/h. The crusher has been modelled as a fully omni-directional point source at a height of 3m.

The noise impact assessment has been carried out in Section 6 of this report. This has been carried out using the calculated noise levels at receptors from the SoundPLAN model.

6.0 Assessment of Effects

6.1 BS4142:2014+A1:2019 Assessment

This section of the report sets out the assessment of noise emissions from the site, and the potential impacts they have on the receptors.

6.1.1 Identification of Specific Sound

Noise modelling software SoundPLAN has been used to calculate the operational noise impacts at the existing receptors. The noise generating activities of the proposed development have been carried out using data provided by the developer. The locations of plant and ESRs are shown in Appendix C.

The SoundPLAN noise model has predicted the specific sound levels at receptors. The predictions are summarised in Table J.

Table J: Predicted Specific Sound Levels

Specific Sound Level	Daytime dB $L_{Aeq\ 1hr}$		Night-time dB $L_{Aeq\ 15min}$	
	ESR1	ESR2	ESR1	ESR2
Ground Floor	46	31	46	31
First Floor	47	31	47	31

6.1.2 Acoustic Character Corrections

BS 4142 includes guidance on the application of acoustic character corrections which include tonality, impulsivity or intermittency. Where such features are present at the assessment location character corrections to the specific sound level are added to obtain a rating level.

With regard to the proposed waste transfer station, these will also operate in a similar way to the existing waste transfer station, and distinctive acoustic characteristics are not expected to be audible any of the ESRs. Therefore, no corrections have been applied.

6.1.3 Initial Estimate of Impact

In accordance with BS 4142 the noise rating levels from the site have been compared with the corresponding L_{A90} background sound levels at each ESR. Table K presents the difference between the background noise level and noise rating level associated with the proposed development.

Table K: BS4142 Initial Estimate of Impact Assessment

Description	ESR1		ESR2	
	Daytime	Night-time	Daytime	Night-time
Specific Sound Level dB	47	47	31	31
Acoustic Feature Correction	0	0	0	0
Rating Sound Level dB $L_{Ar,Tr}$	47	47	31	31
Background Sound Level, dB $L_{A90,T}$	48	44	42	39
BS 4142:2014 Difference between Rating Sound Level & Background Sound Level	-1	+3	-11	-8

The BS4141 initial impact, presented in Table K, shows that the rating level will exceed the background sound level at ESR1 during the Night-time by +3dB. In accordance with BS4142, this is an indication that the specific noise source is less likely to have an adverse or significant adverse impact depending on context.

At ESR1 during the daytime and ESR2 during the daytime and night-time, the rating level will not exceed the background sound level at ESRs during the Daytime and Night-time. This is an indication that the specific sound source will have a low impact, depending on the context.

In accordance with EA Guidance, the initial impact shows that the proposed development will produce a barely audible or detectable noise at all receptors. However, the proposed development will produce a not audible or detectable noise at ESR2 during the daytime.

6.1.4 BS4142 Context Assessment

BS4142:2014 States; "*the significance of sound of an industrial and/or commercial nature depends upon both the margin by which the rating level of the specific sound sources exceeds the background sound level and the context in which the sound occurs*".

The first requirement of the above statement has been determined in the noise impact assessment section above. To establish the context in which the industrial sound will reside three pertinent factors must be considered, these are;

- The absolute sound level,
- The character and level of the residual sound compared to the character and level of the specific sound,
- The sensitivity of the receptor,

6.1.4.1 Absolute Level of Sound

To determine the first context test in BS4142 it is necessary to determine whether the residual and background sound levels are high or low. Section 11 of BS4142 states;

> "*Where background sound levels and rating levels are low, absolute levels might be as, or more, relevant than the margin by which the rating level exceeds the background. This is especially true at night.*
>
> *Where residual sound levels are very high, the residual sound might itself result in adverse impacts or significant adverse impacts, and the margin by which the rating level exceeds the background might simply be an indication of the extent to which the specific sound source is likely to make those impacts worse*."

During the Daytime and Night-time, the rating Level at the ESRs are 47dB(A) and 31dB(A) at ESR1 and ESR2, respectively.

Daytime background sound levels at the ESRs are 48dB and 42dB L_{A90} at ESR1 and ESR2, respectively. The background sound levels during the night-time are 44dB and 39dB L_{A90} at ESR1 and ESR2, respectively.

The rating levels and background sound levels are moderate to low. Therefore, the margin by which the rating level exceeds the background is more relevant than the absolute level of sound. Thus, potential impact presented in Table K remains unaltered.

6.1.4.2 Character and Level of the Residual and Specific Sound

During the daytime, the residual sound level is not exceeded at ESR1 and ESR2.

The residual sound level during the night-time working hours (06:00-07:00) is 49dB(A) and 53dB(A) at ESR1 and ESR2, respectively.

The specific sound levels are not predicted to exceed the residual sound levels during the daytime or night-time.

Furthermore, the proposed development site is located in an industrial setting which is surrounded by commercial units and industrial yards. Therefore, the proposed development will be in keeping with the character of the existing acoustic environment.

Thus, taking the character and level of the residual sound into consideration, the noise impact is not expected to be higher than the initial estimate.

6.1.4.3 Sensitivity of Receptor

With regard to pertinent factors to be taken into consideration, Section 11 of BS4142 states;

> "*The sensitivity of the receptor and whether dwellings or other premises used for residential purposes will already incorporate design measures that secure good internal design and/or outdoor acoustic conditions, such as:*
>
> *i. Façade insulate treatment;*
>
> *ii. Ventilation and/or cooling that will reduce the need to have windows open as to provide rapid or purge ventilation; and*
>
> *iii. Acoustic screening."*

The ESRs are residential properties which make them sensitive to noise.

The receptors are not expected to benefit from any additional noise insulation, alternative ventilation or acoustic screening; therefore, these have not been considered in this assessment.

Therefore, the sensitivity of the receptor will remain the same, which means the initial estimate will remain the same.

6.1.5 Summary of BS4142:2014+A1:2019 Context Assessment

When considering the absolute level of sound and the sensitivity of the receptors, the noise impact of the proposed equipment on site will remain the same as the initial estimate.

When considering the character and level of the residual sound, the noise impact is not expected to be increase the initial estimate as the proposed development is in keeping with the character of the existing acoustic environment. Additionally, the specific sound levels do not exceed the residual noise level.

On balance, the noise impact is likely to remain as stated in the initial impact when considering the site in context.

7.0 Best Available Techniques

In line with the Environment Agency's noise guidance document, it is recommended that Best Available Techniques (BAT) are implemented on site to minimise noise impact beyond the site boundary. An example of BAT include:

- Plant and equipment will be maintained in good working order with regular inspections undertaken;
- No unnecessary shouting in the external yard area;
- Keep site routes well maintained to avoid unnecessary noise from trucks hitting potholes, ruts etc.;
- Manoeuvring should be minimised as far as practicable to avoid unnecessary revving of engines;
- Engines to be switched off when vehicle is waiting or not in use;
- No use of vehicle horns unless as an emergency health and safety requirement;
- Minimise drop heights of materials and excessive banging of materials when loading/unloading; and
- Training and toolbox talks regarding minimising noise will be conducted for onsite employees.

The BAT stated above should be introduced at commencement of operational activities

8.0 Closure

This report presents the findings of a noise assessment to support a permit variation application for a waste transfer station located at Dukes Way, Prudhoe, NE42 6PQ.

The purpose of this report is to assess the noise impact from the operations associated with the waste transfer station. This report includes the results of a noise survey, and an operational noise assessment carried out in accordance with guidance presented in British Standard 4142: 2014+A1:2019 Methods for rating and assessing industrial and commercial sound (BS 4142) and the Environment Agency's (EA) Noise and Vibration Management guidance.

It is understood that the site will be operational between 06:00 to 18:00 on Monday to Friday and 0600 to 1300 on Saturdays. Therefore, the assessment has considered the daytime and night-time assessment periods.

The results of the BS 4142 assessment indicate that noise associated with the proposed development is below existing background sound levels at the majority of receptors, with a minor exceedance of +3dB at ESR1 during the night-time. In accordance with BS4142, this is an indication of a low impact at ESR1 during the daytime and ESR2 during all periods. At ESR1, during the night-time, this is an indication that the specific noise source is less likely to have an adverse or significant adverse impact depending on context.

In accordance with the Environment Agency's noise guidance document, the initial impact shows that the proposed development will produce a barely audible or detectable noise at all receptors. However, the proposed development will produce a not audible or detectable noise at ESR2 during the daytime.

When considering the site's context, the assessment concludes that the impact of the proposed development will not increase from the initial estimate.

An example of BAT is included in Section 8 of this report which should be implemented at the commencement of operational activities.

This noise assessment concludes that the proposed development complies with the EA Guidance and noise should not be reasons for refusal of the environmental permit.

Regards,

SLR Consulting Limited

Cavan Garfield
Acoustic Consultant

Paul Bentley
Technical Director

Appendix A Relevant Standards and Policy Summary

Noise Impact Assessment

Low Prudhoe

Thompsons of Prudhoe Limited

SLR Project No.: 414.V16466.00WA1

19 August 2025

Table A-1: Legislation Relevant to the Noise Assessment

Policy	Planning Context
The Environmental Protection Act 1990 (as amended by the Noise and Statutory Nuisance Act 1993) particularly Section 79) (EPA)	The EPA sets out: the definition of statutory nuisance due to noise; the duty on local authorities to investigate and abate nuisance; and the defence against abatement because "best practicable means" has been employed to minimise noise (including vibration) for business premises. The EPA sets out the means for a person affected by noise nuisance to seek abatement through the courts. The Noise and Statutory Nuisance Act sets out an extension of powers to abate noise nuisance to a wider range of sources than the Environmental Protection Act 1990.
Noise Policy Statement for England (NPSE)	Paragraph 1.6 sets out the long-term vision of Government noise policy, i.e. to "promote good health and a good quality of life through the effective management of noise within the context of Government policy on sustainable development." Paragraph 1.7 states that the NPSE vision is supported by aims to effectively manage and control environmental, neighbour and neighbourhood noise within the context of Government policy on sustainable development by avoiding significant adverse impacts, mitigating and minimising adverse impacts and contributing to the improvement of health and quality of life. Paragraph 2.20 states that to identify "significant adverse" and "adverse" impact in line with the three aims of NPSE, there are two established concepts from toxicology that are currently being applied to noise impacts, for example, by the World Health Organization: No Observed Effect Level (NOEL): This is the level below which no effect can be detected. In simple terms, below this level, there is no detectable effect on health and quality of life due to the noise. Lowest Observed Adverse Effect Level (LOAEL): This is the level above which adverse effects on health and quality of life can be detected. Significant Observed Adverse Effect Level (SOAEL). This is the level above which significant adverse effects on health and quality of life occur. Paragraph 2.24 states that where an impact lies somewhere between LOAEL and SOAEL, all reasonable steps should be taken to mitigate and minimise adverse effects on health and quality of life while also taking into account the guiding principles of sustainable development (paragraph 1.8). This does not mean that such adverse effects cannot occur. Paragraph 2.22 notes that the NPSE states "it is not possible to have a single objective noise-based measure that defines SOAEL that is applicable to all sources of noise in all situations. Consequently, the SOAEL is likely to be different for different noise sources, for different receptors and at different times. It is acknowledged that further research is required to increase our understanding of what may constitute a significant adverse impact on health and quality of life from noise. However, not having specific SOAEL values in the NPSE provides the necessary policy flexibility until further evidence and suitable guidance is available."
The Control of Pollution Act 1974 (particularly Sections 60 and 61) (CoPA)	Sets out the Section 60 notice which a local authority can serve so as to impose requirements upon relevant construction activities with regard to the control of noise. Under Section 61 of the CoPA, the party that intends to carry out works to which Section 60 applies may apply to the local authority for consent and "an application under this section shall contain particulars of – The works, and method by which they are to be carried out; and The steps proposed to be taken to minimise noise resulting from the works."

Table A-2: Guidance and Standards relevant to the noise and vibration assessment

Guidance Document	Summary
Institute of Environmental Management and Assessment (IEMA) (2014) Guidelines for Environmental Noise Impact Assessment	Presents guidelines on how the assessment of noise effects should be presented within the Environmental Impact Assessment (EIA) process. The IEMA guidelines cover aspects such as scoping, baseline, prediction and example definitions of significance criteria.
ISO 9613:2024 Acoustics – Attenuation of sound during propagation outdoors: Part 2 General Method of Calculation (ISO 9613-2)	Defines a method for calculating the attenuation of sound during propagation outdoors in order to predict the levels of environmental noise at distances from a source.
BS 4142:2014 +A1:2019 Methods for rating and assessing industrial and commercial sound	BS 4142:2014+A1:2019 Methods for rating and assessing industrial and commercial sound is used to rate and assess sound of an industrial nature including, but not limited to, assessing sound from proposed, new, modified, or additional sources of industrial sound, and sound at proposed new dwellings. It contains guidance on the monitoring and assessment of industrial and commercial sound sources (including fixed installations comprising mechanical and electrical plant and equipment) affecting sensitive receptors.
Environment Agency, Noise and Vibration Management: Environmental Permits, 2022.	Environmental permits have conditions that require operators to control pollution – this includes controlling noise and vibration. This guidance covers: • how the environment agencies will assess noise from certain • industrial processes • what the law says you must do to manage noise and vibration • advice on how to manage noise – in particular, how to carry out a noise impact assessment and what operators should include in a noise management plan

Appendix B Noise Survey Results

Noise Impact Assessment

Low Prudhoe

Thompsons of Prudhoe Limited

SLR Project No.: 414.V16466.00WA1

19 August 2025

Table B-1: Measured Noise Levels at LT1

Period Start	L_{Aeq}	L_{AFmax}	L_{A90}	L_{A10}
05/12/2023 11:30	50.5	56.3	48.0	52.1
05/12/2023 11:45	50.7	60.8	48.1	52.3
05/12/2023 12:00	50.6	68.6	47.5	52.0
05/12/2023 12:15	51.1	62.6	47.9	53.0
05/12/2023 12:30	51.5	57.1	48.9	53.2
05/12/2023 12:45	50.5	61.6	48.0	52.0
05/12/2023 13:00	50.7	56.0	48.3	52.3
05/12/2023 13:15	50.6	62.1	47.9	52.3
05/12/2023 13:30	50.8	58.9	47.9	52.7
05/12/2023 13:45	50.8	59.2	48.2	52.6
05/12/2023 14:00	50.8	60.8	48.1	52.4
05/12/2023 14:15	51.8	58.5	48.8	53.5
05/12/2023 14:30	51.1	67.1	47.9	53.1
05/12/2023 14:45	51.1	59.3	48.7	52.6
05/12/2023 15:00	51.4	60.1	48.2	53.3
05/12/2023 15:15	51.5	57.6	49.2	53.0
05/12/2023 15:30	51.5	56.6	49.1	53.1
05/12/2023 15:45	50.8	55.8	47.9	52.7
05/12/2023 16:00	52.8	60.4	49.5	54.9
05/12/2023 16:15	51.1	59.1	48.3	52.8
05/12/2023 16:30	50.8	58.7	48.4	52.4
05/12/2023 16:45	50.6	59.8	47.9	52.5
05/12/2023 17:00	51.6	61.0	49.3	53.1
05/12/2023 17:15	51.6	63.1	48.8	53.3
05/12/2023 17:30	52.4	71.8	47.9	52.4
05/12/2023 17:45	51.5	65.9	47.9	53.3
05/12/2023 18:00	50.6	65.1	47.9	52.1
05/12/2023 18:15	50.3	57.0	47.2	52.2
05/12/2023 18:30	50.8	60.5	47.5	52.4
05/12/2023 18:45	50.5	64.1	45.8	52.4
05/12/2023 19:00	49.0	54.1	45.0	51.2
05/12/2023 19:15	48.1	53.6	44.1	50.3
05/12/2023 19:30	48.1	55.2	43.2	50.7
05/12/2023 19:45	46.9	55.5	42.3	49.6
05/12/2023 20:00	45.5	55.5	40.1	48.7

Period Start	L_{Aeq}	L_{AFmax}	L_{A90}	L_{A10}
05/12/2023 20:15	46.2	53.6	42.1	48.9
05/12/2023 20:30	46.4	56.1	40.8	49.6
05/12/2023 20:45	45.3	54.3	40.1	48.3
05/12/2023 21:00	46.0	59.5	41.1	48.5
05/12/2023 21:15	46.3	55.7	40.6	49.2
05/12/2023 21:30	45.5	54.6	39.7	48.5
05/12/2023 21:45	45.0	62.5	38.9	48.3
05/12/2023 22:00	45.1	61.7	37.9	48.0
05/12/2023 22:15	44.6	55.8	37.9	48.3
05/12/2023 22:30	43.5	55.0	37.8	46.7
05/12/2023 22:45	43.0	57.1	37.0	46.6
05/12/2023 23:00	43.3	57.4	36.9	46.6
05/12/2023 23:15	40.3	50.7	35.1	43.5
05/12/2023 23:30	41.3	58.5	36.3	44.7
05/12/2023 23:45	39.6	53.8	35.5	40.8
06/12/2023 00:00	39.3	51.3	35.3	42.8
06/12/2023 00:15	38.2	54.6	35.0	38.6
06/12/2023 00:30	38.7	50.1	35.5	40.6
06/12/2023 00:45	38.6	55.7	35.7	38.8
06/12/2023 01:00	39.3	51.9	35.5	42.2
06/12/2023 01:15	40.5	53.6	35.8	43.4
06/12/2023 01:30	37.8	53.1	34.2	39.0
06/12/2023 01:45	38.4	51.8	34.7	39.4
06/12/2023 02:00	39.0	52.5	35.9	39.6
06/12/2023 02:15	38.6	53.5	35.7	39.0
06/12/2023 02:30	38.3	54.1	35.1	39.7
06/12/2023 02:45	39.1	52.8	34.7	40.7
06/12/2023 03:00	39.1	52.7	35.3	40.9
06/12/2023 03:15	41.6	52.5	35.2	46.0
06/12/2023 03:30	37.4	49.1	35.5	38.6
06/12/2023 03:45	40.3	55.0	35.6	43.2
06/12/2023 04:00	39.7	51.7	35.4	43.3
06/12/2023 04:15	41.0	53.1	35.7	44.7
06/12/2023 04:30	40.6	53.0	36.3	43.7
06/12/2023 04:45	41.2	53.2	37.1	44.2
06/12/2023 05:00	42.1	52.1	36.8	45.7

Period Start	L_{Aeq}	L_{AFmax}	L_{A90}	L_{A10}
06/12/2023 05:15	43.8	53.8	37.9	47.3
06/12/2023 05:30	45.5	57.6	39.6	48.4
06/12/2023 05:45	46.1	53.7	40.5	48.8
06/12/2023 06:00	47.5	56.2	43.5	49.9
06/12/2023 06:15	47.9	56.8	43.5	50.5
06/12/2023 06:30	48.8	54.5	45.1	50.7
06/12/2023 06:45	49.6	55.2	46.0	51.7
06/12/2023 07:00	49.4	55.2	46.4	51.5
06/12/2023 07:15	49.9	58.2	46.4	51.9
06/12/2023 07:30	50.7	60.4	47.9	52.6
06/12/2023 07:45	49.7	57.9	46.6	51.8
06/12/2023 08:00	49.8	55.1	47.3	51.5
06/12/2023 08:15	50.1	56.6	47.1	52.2
06/12/2023 08:30	52.4	63.3	48.8	54.5
06/12/2023 08:45	61.9	75.6	49.9	66.9
06/12/2023 09:00	63.6	75.2	57.1	67.2
06/12/2023 09:15	62.9	77.0	55.5	67.2
06/12/2023 09:30	64.0	74.5	55.5	69.0
06/12/2023 09:45	64.7	74.5	49.1	68.4
06/12/2023 10:00	48.6	55.7	45.3	50.6
06/12/2023 10:15	49.4	62.3	46.3	51.2
06/12/2023 10:30	50.2	57.7	46.3	52.4
06/12/2023 10:45	61.1	72.3	48.0	66.1
06/12/2023 11:00	58.0	71.2	48.4	62.6
06/12/2023 11:15	60.3	67.3	52.1	63.2
06/12/2023 11:30	57.6	65.8	50.6	61.2
06/12/2023 11:45	56.7	66.2	51.0	59.9
06/12/2023 12:00	51.6	61.7	47.8	53.6
06/12/2023 12:15	51.1	61.4	47.8	52.9
06/12/2023 12:30	50.3	56.2	47.0	52.1
06/12/2023 12:45	50.5	58.4	47.8	52.2
06/12/2023 13:00	52.9	61.7	49.0	55.6
06/12/2023 13:15	57.7	69.4	51.8	60.9
06/12/2023 13:30	57.4	69.0	52.6	59.7
06/12/2023 13:45	57.8	65.7	53.1	60.5
06/12/2023 14:00	57.3	67.7	52.2	60.2

Period Start	L_{Aeq}	L_{AFmax}	L_{A90}	L_{A10}
06/12/2023 14:15	56.3	65.4	52.2	59.0
06/12/2023 14:30	53.9	64.2	50.7	55.0
06/12/2023 14:45	55.2	64.8	49.5	59.0
06/12/2023 15:00	51.8	65.8	48.8	53.3
06/12/2023 15:15	51.4	59.6	48.4	53.2

Table B-2: Measured Noise Levels at LT2

Period Start	L_{Aeq}	L_{AFmax}	L_{A90}	L_{A10}
05/12/2023 12:00	60.5	76.2	42.3	64.2
05/12/2023 12:15	57.6	73.9	41.0	60.4
05/12/2023 12:30	59.7	74.4	40.9	64.1
05/12/2023 12:45	61.0	77.1	41.4	65.2
05/12/2023 13:00	58.6	78.2	41.2	58.6
05/12/2023 13:15	59.3	76.7	40.6	62.2
05/12/2023 13:30	60.6	78.5	39.4	63.8
05/12/2023 13:45	60.0	77.1	40.7	62.1
05/12/2023 14:00	59.0	80.6	41.3	55.5
05/12/2023 14:15	59.6	75.2	41.7	63.2
05/12/2023 14:30	57.8	75.9	41.1	59.5
05/12/2023 14:45	60.5	78.8	41.9	62.9
05/12/2023 15:00	60.2	79.8	42.0	62.4
05/12/2023 15:15	59.6	74.9	41.5	63.7
05/12/2023 15:30	61.3	77.3	41.7	65.9
05/12/2023 15:45	62.3	82.2	41.5	65.9
05/12/2023 16:00	59.6	77.6	42.0	62.9
05/12/2023 16:15	60.0	77.9	40.9	64.3
05/12/2023 16:30	60.7	75.3	40.9	65.8
05/12/2023 16:45	59.0	74.4	41.2	62.7
05/12/2023 17:00	57.7	74.5	42.7	60.3
05/12/2023 17:15	60.1	77.3	42.6	64.3
05/12/2023 17:30	58.4	75.7	41.1	61.5
05/12/2023 17:45	59.8	76.8	41.8	64.2
05/12/2023 18:00	55.6	73.4	41.6	57.0
05/12/2023 18:15	59.5	79.3	41.6	61.0
05/12/2023 18:30	56.9	76.8	41.7	57.5
05/12/2023 18:45	58.8	77.1	41.9	59.4
05/12/2023 19:00	57.0	75.4	41.0	57.2

Period Start	L_{Aeq}	L_{AFmax}	L_{A90}	L_{A10}
05/12/2023 19:15	58.2	74.4	41.4	59.4
05/12/2023 19:30	56.6	75.1	40.4	56.8
05/12/2023 19:45	54.9	75.2	39.3	50.5
05/12/2023 20:00	57.4	75.3	39.5	57.0
05/12/2023 20:15	54.2	73.5	39.7	52.9
05/12/2023 20:30	54.7	78.2	39.9	50.8
05/12/2023 20:45	52.4	72.6	39.4	48.1
05/12/2023 21:00	50.9	70.3	39.3	48.0
05/12/2023 21:15	51.9	72.9	39.7	46.6
05/12/2023 21:30	54.1	75.0	38.6	50.3
05/12/2023 21:45	52.6	72.8	37.9	48.7
05/12/2023 22:00	48.7	73.4	37.1	40.9
05/12/2023 22:15	47.7	73.1	37.0	41.0
05/12/2023 22:30	42.3	64.4	36.7	39.8
05/12/2023 22:45	49.8	74.6	36.2	40.2
05/12/2023 23:00	43.1	66.7	36.3	39.1
05/12/2023 23:15	49.3	72.0	35.6	40.0
05/12/2023 23:30	54.3	79.4	36.0	41.5
05/12/2023 23:45	48.6	76.6	35.4	37.7
06/12/2023 00:00	48.3	75.3	34.9	37.2
06/12/2023 00:15	43.3	69.9	34.6	36.5
06/12/2023 00:30	35.9	47.0	34.8	36.8
06/12/2023 00:45	35.5	41.2	34.5	36.2
06/12/2023 01:00	35.5	43.1	34.5	36.3
06/12/2023 01:15	36.6	51.6	34.7	37.7
06/12/2023 01:30	34.4	40.1	33.5	35.2
06/12/2023 01:45	37.1	50.3	35.0	38.4
06/12/2023 02:00	38.4	51.5	35.8	40.7
06/12/2023 02:15	37.5	56.5	34.6	38.9
06/12/2023 02:30	34.9	43.0	33.6	35.9
06/12/2023 02:45	35.4	43.6	33.9	36.5
06/12/2023 03:00	35.1	41.0	33.8	36.1
06/12/2023 03:15	44.7	70.3	34.7	38.5
06/12/2023 03:30	35.8	40.1	34.8	36.5
06/12/2023 03:45	46.6	71.1	35.0	39.8
06/12/2023 04:00	35.6	42.1	34.5	36.3

Period Start	L_{Aeq}	L_{AFmax}	L_{A90}	L_{A10}
06/12/2023 04:15	36.1	47.3	34.1	37.6
06/12/2023 04:30	36.1	40.5	34.9	37.3
06/12/2023 04:45	37.1	45.4	35.8	38.2
06/12/2023 05:00	49.3	77.2	35.4	37.9
06/12/2023 05:15	50.0	72.0	36.8	41.6
06/12/2023 05:30	47.2	74.1	36.6	39.4
06/12/2023 05:45	54.3	77.0	37.2	44.3
06/12/2023 06:00	53.0	76.6	38.2	46.4
06/12/2023 06:15	47.6	71.9	38.6	45.3
06/12/2023 06:30	49.8	71.6	39.2	45.0
06/12/2023 06:45	55.9	74.7	40.5	54.7
06/12/2023 07:00	57.4	76.8	40.8	55.0
06/12/2023 07:15	58.0	76.3	41.8	59.0
06/12/2023 07:30	58.6	76.9	42.4	59.5
06/12/2023 07:45	57.3	76.5	43.6	59.3
06/12/2023 08:00	58.5	78.5	43.9	60.3
06/12/2023 08:15	57.9	77.9	43.9	57.8
06/12/2023 08:30	59.8	76.3	43.8	63.2
06/12/2023 08:45	58.9	76.4	43.5	59.9
06/12/2023 09:00	59.2	77.3	43.6	60.7
06/12/2023 09:15	59.4	75.1	43.6	63.7
06/12/2023 09:30	58.7	74.9	41.8	61.0
06/12/2023 09:45	59.9	76.6	41.8	64.1
06/12/2023 10:00	59.1	77.6	40.9	62.0
06/12/2023 10:15	57.0	76.3	41.5	57.5
06/12/2023 10:30	58.4	74.8	41.6	61.7
06/12/2023 10:45	59.5	76.7	42.2	62.3
06/12/2023 11:00	55.8	75.3	42.0	54.6
06/12/2023 11:15	58.3	75.2	40.7	61.9
06/12/2023 11:30	57.0	74.5	41.2	56.1
06/12/2023 11:45	57.4	74.9	41.6	59.5
06/12/2023 12:00	56.8	77.0	41.0	54.2
06/12/2023 12:15	58.6	75.0	42.2	60.4
06/12/2023 12:30	57.7	75.9	39.7	56.8
06/12/2023 12:45	57.1	76.4	39.9	58.4
06/12/2023 13:00	58.1	75.2	41.1	61.1

Period Start	L_{Aeq}	L_{AFmax}	L_{A90}	L_{A10}
06/12/2023 13:15	59.8	76.0	41.2	63.7
06/12/2023 13:30	56.9	77.2	42.0	58.8
06/12/2023 13:45	58.5	79.1	41.9	59.9
06/12/2023 14:00	57.2	74.5	42.1	58.7
06/12/2023 14:15	61.1	80.0	42.1	65.5
06/12/2023 14:30	60.1	79.4	43.2	64.4
06/12/2023 14:45	60.6	78.3	44.2	64.0
06/12/2023 15:00	59.9	76.4	44.6	63.7
06/12/2023 15:15	59.6	77.7	44.8	63.6
06/12/2023 15:30	60.9	77.3	44.8	64.7
06/12/2023 15:45	59.8	76.0	45.5	63.8

Table B-3: Measured Weather Data

Period Start	Temperature (C°)	Wind (m/s)	Rain (mm)
05/12/2023 15:15	4.9	0.03	0
05/12/2023 15:30	4.6	0.00	0
05/12/2023 15:45	4.1	0.02	0
05/12/2023 16:00	3.6	0.00	0
05/12/2023 16:15	3.1	0.06	0.14
05/12/2023 16:30	3.1	0.00	0
05/12/2023 16:45	3.1	0.06	0
05/12/2023 17:00	2.9	0.02	0
05/12/2023 17:15	2.6	0.05	0
05/12/2023 17:30	2.1	0.04	0
05/12/2023 17:45	1.9	0.05	0
05/12/2023 18:00	1.6	0.25	0
05/12/2023 18:15	1.1	0.04	0
05/12/2023 18:30	1.1	0.12	0
05/12/2023 18:45	1.0	0.04	0
05/12/2023 19:00	0.7	0.03	0
05/12/2023 19:15	0.5	0.09	0
05/12/2023 19:30	0.3	0.07	0
05/12/2023 19:45	0.0	0.14	0
05/12/2023 20:00	-0.1	0.05	0
05/12/2023 20:15	-0.2	0.07	0
05/12/2023 20:30	-0.3	0.07	0
05/12/2023 20:45	-0.2	0.12	0

Period Start	Temperature (C°)	Wind (m/s)	Rain (mm)
05/12/2023 21:00	0.0	0.03	0
05/12/2023 21:15	0.1	0.09	0
05/12/2023 21:30	0.2	0.07	0
05/12/2023 21:45	0.2	0.11	0
05/12/2023 22:00	0.4	0.17	0
05/12/2023 22:15	0.4	0.13	0
05/12/2023 22:30	0.5	0.18	0
05/12/2023 22:45	0.5	0.17	0
05/12/2023 23:00	0.6	0.19	0
05/12/2023 23:15	0.5	0.15	0
05/12/2023 23:30	0.5	0.11	0
05/12/2023 23:45	0.6	0.20	0
06/12/2023 00:00	0.5	0.19	0
06/12/2023 00:15	0.4	0.20	0
06/12/2023 00:30	0.4	0.11	0
06/12/2023 00:45	0.2	0.19	0
06/12/2023 01:00	0.0	0.07	0.01
06/12/2023 01:15	-0.1	0.19	0
06/12/2023 01:30	-0.4	0.10	0.02
06/12/2023 01:45	-0.5	0.05	0
06/12/2023 02:00	-0.5	0.07	0
06/12/2023 02:15	-0.4	0.15	0
06/12/2023 02:30	-0.5	0.15	0
06/12/2023 02:45	-0.6	0.19	0
06/12/2023 03:00	-0.8	0.19	0
06/12/2023 03:15	-0.9	0.11	0
06/12/2023 03:30	-1.1	0.09	0
06/12/2023 03:45	-1.2	0.09	0
06/12/2023 04:00	-1.2	0.12	0
06/12/2023 04:15	-1.3	0.11	0
06/12/2023 04:30	-1.4	0.05	0
06/12/2023 04:45	-1.6	0.08	0
06/12/2023 05:00	-1.7	0.12	0
06/12/2023 05:15	-1.7	0.12	0
06/12/2023 05:30	-1.7	0.15	0
06/12/2023 05:45	-1.6	0.09	0

Period Start	Temperature (C°)	Wind (m/s)	Rain (mm)
06/12/2023 06:00	-1.7	0.16	0
06/12/2023 06:15	-1.9	0.14	0
06/12/2023 06:30	-2.1	0.16	0
06/12/2023 06:45	-2.2	0.11	0
06/12/2023 07:00	-2.2	0.14	0
06/12/2023 07:15	-2.4	0.09	0
06/12/2023 07:30	-2.5	0.03	0
06/12/2023 07:45	-2.5	0.12	0
06/12/2023 08:00	-2.6	0.13	0
06/12/2023 08:15	-2.7	0.19	0
06/12/2023 08:30	-2.8	0.19	0
06/12/2023 08:45	-2.9	0.04	0
06/12/2023 09:00	-2.8	0.07	0
06/12/2023 09:15	-2.8	0.03	0
06/12/2023 09:30	-2.6	0.09	0
06/12/2023 09:45	-2.4	0.07	0
06/12/2023 10:00	-2.1	0.06	0
06/12/2023 10:15	-1.3	0.03	0
06/12/2023 10:30	-0.2	0.19	0
06/12/2023 10:45	0.5	0.03	0
06/12/2023 11:00	1.3	0.07	0
06/12/2023 11:15	1.9	0.20	0
06/12/2023 11:30	2.1	0.30	0
06/12/2023 11:45	2.1	0.51	0
06/12/2023 12:00	1.4	0.47	0
06/12/2023 12:15	1.5	0.34	0
06/12/2023 12:30	2.2	0.38	0
06/12/2023 12:45	2.1	0.53	0
06/12/2023 13:00	1.7	0.46	0
06/12/2023 13:15	1.6	0.34	0
06/12/2023 13:30	1.1	0.37	0
06/12/2023 13:45	1.1	0.39	0
06/12/2023 14:00	0.9	0.32	0
06/12/2023 14:15	1.0	0.31	0
06/12/2023 14:30	1.0	0.17	0
06/12/2023 14:45	1.0	0.12	0

Period Start	Temperature (C°)	Wind (m/s)	Rain (mm)
06/12/2023 15:00	0.8	0.02	0
06/12/2023 15:15	0.6	0.01	0
06/12/2023 15:30	0.3	0.03	0

Appendix C Noise Contour Maps

Noise Impact Assessment

Low Prudhoe

Thompsons of Prudhoe Limited

SLR Project No.: 414.V16466.00WA1

19 August 2025

Key

- Site Boundary
- Existing Building
- HGVs and Loading Shovel Movements
- Crusher

Daytime Sound Levels, $L_{Aeq\ 1hour}$ dB

- <= 40.0
- <= 45.0
- <= 50.0
- <= 55.0
- <= 60.0
- <= 65.0
- <= 70.0
- > 70.0

0 45 90 180 m

CLIENT: Tompsons of Prudhoe		
PROJECT: Prudhoe Transfer station		
TITLE: Operational Noise Levels @ 1.5m Above Ground		
DRG NO: 414.V16466.00WA1/Figure 1		REV: A
DRG SIZE: A3	SCALE: 1:3500	DATE: 19/08/2025
DRAWN BY: CG	CHECKED BY: NF	APPROVED BY: PB

SLR

Key

- Site Boundary
- Existing Building
- HGVs and Loading Shovel Movements
- Crusher

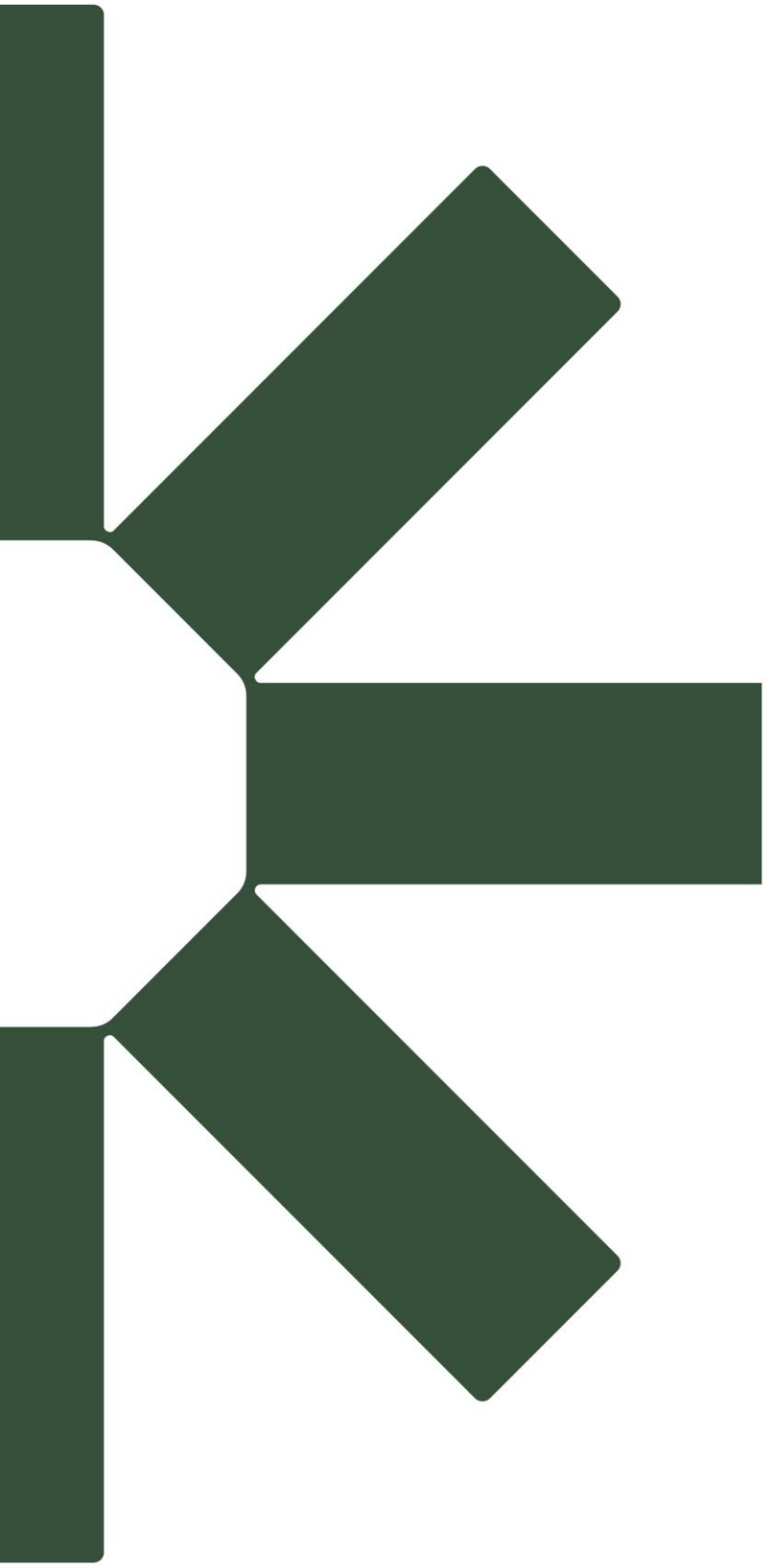
Daytime Sound Levels, $L_{Aeq\ 1hour}$ dB

- <= 40.0
- <= 45.0
- <= 50.0
- <= 55.0
- <= 60.0
- <= 65.0
- <= 70.0
- > 70.0

0 45 90 180 m

CLIENT	Tompsons of Prudhoe
PROJECT	Prudhoe Transfer station
TITLE	Operational Noise Levels @ 4.0m Above Ground
DRG NO	414.V16466.00WA1/Figure 2
REV	A
DRG SIZE	A3
SCALE	1:3500
DATE	19/08/2025
DRAWN BY	CG
CHECKED BY	NF
APPROVED BY	PB

SLR



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