

APP7/1

**Town and Country Planning Act 1990: Section 78 Appeals**

**(i) Proposed western extension and consolidation scheme**

**Appeal ref number APP/L6940/A/20/3265358**

**(ii) 'Section 73' time extension request**

**Appeal ref number APP/L6940/A/21/3282880**

**Craig yr Hesg Quarry, Pontypridd**

**Hanson UK**

**Proof of Evidence of Rachel Canham with regard to Noise**

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## **1 Qualifications and Credentials**

- 1.1 My name is Rachel Canham. I am a Director of Walker Beak Mason Limited, which specialises in acoustic consultancy. My professional address is Steepleton Lodge Barn, Long Lane, East Haddon, Northamptonshire, NN6 8DU.
- 1.2 WBM is an independent acoustic consultancy that deals with environmental assessments, architectural and building acoustics, and planning application and appeals work. WBM is a member of the Association of Noise Consultants and is an Associate Assessor Member of the Institute of Environmental Management and Assessment.
- 1.3 I hold the degrees of Bachelor of Engineering in Electroacoustics from Salford University in 1993 and a Master of Science in Environmental Acoustics from London South Bank University in 1998. I became a Chartered Engineer in 2003 and a Fellow of the Institute of Acoustics in 2011. I have been practicing as an acoustic consultant since 1993 and joined WBM in 1999.
- 1.4 Via WBM I have worked as an acoustic consultant for many of the major mineral extraction companies in the UK on a wide range of surface mineral workings, aggregate related plant sites, waste disposal and recycling projects as well as other industrial sites. I have produced environmental noise reports for planning applications, noise impact assessments and environmental statements.
- 1.5 WBM has been involved with noise issues at Craig yr Hesp Quarry since 2013, including undertaking routine noise monitoring, preparation of the noise chapters for the environmental statements for the western extension application (2015), the western extension Supplementary ES (2021), and the Section 73 application (2021). I prepared the noise chapter for the S73 application and assisted with the noise chapter for the western extension Supplementary ES. The noise chapters for the western extension were prepared by Dr Paul Cockcroft, who has since retired. I am therefore familiar with noise related issues at Craig yr Hesp Quarry and the noise related issues associated with the proposed western extension and Section 73 time extension applications.
- 1.6 The evidence that I have prepared and provide for this appeal is true and has been prepared and is given in accordance with the guidance of my professional institution (the Code of Conduct of the Institute of Acoustics) and I confirm that the opinions expressed are my true and professional opinions.

## 2 Scope of Evidence

- 2.1 My evidence deals with the noise arising from quarrying and processing activities at Craig yr Hesg Quarry, both from the existing site and the proposed western extension, and considers appropriate site noise limits for the assessment of such activities. This excludes noise from blasting; Dr R Farnfield will be dealing with the issue of blast vibration.
- 2.2 My evidence will address any noise related reasons for the refusals of the applications for the western extension and S73 time extension, and the further comments received from Rhondda Cynon Taf County Borough Council (RCT) with regard to noise as set out in their Statement of Case (SoC) and Supplementary Statement of Case (SSoC).
- 2.3 I will refer to previous noise measurements undertaken by WBM for the western extension application, the western extension Supplementary ES, and the Section 73 application as detailed in Section 5 of this document. I will also present additional baseline noise measurements undertaken by WBM in response to the Statement of Case from RCT. Within this proof I will refer to previous noise chapters prepared by WBM, including the 2015 noise chapter and appendices for the ES for the western extension (the 2015 western extension ES), the 2021 noise chapter and appendices for the supplementary ES for the western extension (the 2021 western extension SES) and the 2021 noise chapter and appendices for the ES for the S73 time extension (the 2021 S73 ES).
- 2.4 **In summary, the results of baseline noise surveys undertaken by WBM demonstrate that site noise limits were suggested for the adjacent sensitive receptors that are appropriate or, in some cases, conservative. Indeed, there is an argument for higher site noise limits at some receptors as set out in Sections 6 and 7 of this proof. The results of compliance site noise monitoring have demonstrated that the limits previously proposed by WBM have been complied with, and the results of site noise calculations demonstrate that these limits will continue to be met. Therefore there is no unacceptable noise impact on sensitive receptors due to operational site noise from Craig yr Hesg quarry.**
- 2.5 To aid understanding, a glossary of acoustic terms is provided in Appendix A.

### **3 Planning Policies and Guidance for Minerals and Noise**

#### ***TAN 11***

- 3.1 The primary planning guidance on noise is contained in Planning Guidance (Wales) Technical Advice Note (Wales) 11 Noise dated October 1997, abbreviated to TAN 11.
- 3.2 Paragraph 3 of TAN 11 states “*This note provides advice on how the planning system can be used to minimise the adverse impact of noise without placing unreasonable restrictions on development or addition unduly to the costs and administrative burdens of business...*”
- 3.3 TAN 11 does not refer specifically to noise from surface mineral workings. However, following extensive consultation and research, the Department of the Environment and The Welsh Office prepared guidelines on noise from mineral workings for Mineral Planning Authorities and Minerals Operators. The advice was contained in Minerals Planning Guidance Note 11 (MPG 11) dated April 1993. Parts of MPG11 remain extant in Wales, as discussed below.

#### ***MPG 11***

- 3.4 The government prepared guidelines on noise from mineral workings contained in Minerals Planning Guidance Note 11 “*The Control of Noise at Surface Mineral Workings*” dated April 1993. The aim of Minerals Planning Guidance Note 11 (MPG 11) as set out in paragraph 1 is “*to provide advice on how the planning system can be used to keep noise emissions from surface mineral workings within environmentally acceptable limits without imposing unreasonable burdens on minerals operators.*”
- 3.5 The guidance of MPG 11 has been superseded in part by Minerals Technical Advice Note 1 in Wales. Paragraphs 31 to 42 of MPG 11 are superseded but the remainder of the document is still valid.

#### ***MTAN1***

- 3.6 Minerals Technical Advice Note (MTAN) (Wales) 1: Aggregates issued by the Welsh Assembly Government in March 2004 includes paragraphs 85 to 88 headed “*Noise*” on pages 34 and 35. MTAN 1 supersedes paragraphs 31 to 42 of MPG 11, but the advice and site noise limits closely follow the advice contained in MPG 11 with daytime working hours defined as 0700-1900 and night-time hours as 1900-0700.

- 3.7 Paragraph 85 of MTAN 1 requires noise impacts to be minimised to acceptable levels, where aggregate extraction and related operations occur close to noise sensitive areas.
- 3.8 Paragraph 86 of MTAN 1 refers to MPG 11 and TAN 11.
- 3.9 Paragraph 87 of MTAN 1 states: *“The aggregates industry should aim to keep noise emissions at a level that reflects the highest possible environmental standards, taking all reasonable steps to achieve quieter working while having regard to the principles of BATNEEC – the best available technique not entailing excessive cost. MPAs should have regard to the background noise levels and the threshold at which significant effects are likely at noise sensitive areas and properties when considering the acceptability of proposals or setting site noise limits in a planning condition. Conditions on planning permissions should identify the noise sensitive properties at which site noise limits are set and establish a scheme of monitoring that identifies how, where and when noise is to be measured and how the results will be used and assessed.”*
- 3.10 Paragraph 88 of MTAN1 relates specifically to site noise limits and states: **“Site noise limits** – *site noise limits should relate to background noise levels<sup>54</sup>, subject to a maximum daytime site noise limit of 55 dB(A) where background noise levels exceed 45 dB(A). 55dB(A) is the lower limit of daytime noise levels where serious annoyance is caused. Where background noise is less than 45 dB(A), site noise limits should be defined as background noise levels plus 10 dB(A). Night-time working limits should not exceed 42 dB(A) at noise sensitive properties. Daytime working is defined as 0700-1900 hours and night-time as 1900-0700 hours. Site noise limits should be set in terms of  $L_{Aeq,T}$  over a 1-hour measuring period.  $L_{Aeq}$  is the noise index used to describe the “average” level of noise that varies with time (T) and should be measured “free-field” that is, at least 3.5 metres away from a façade to prevent reflection of noise by any façade that faces the noise source. During temporary and short-term operations higher levels may be reasonable but should not exceed 67dB(A) for periods of up to 8 weeks in a year at specified noise sensitive properties.*

<sup>54</sup>*Background noise is normally measured as  $L_{A90,T}$  or the noise level exceeded for 90% of the specified measurement period (T).”*

### **Local Authority Current Planning Conditions and Existing Site noise limits**

- 3.11 Following an Environment Act 1995 Review of Planning Conditions by RCT, conditions have been applied to Craig yr Hseg Quarry by decision notice ref: 08/1380/10, dated 24.04.2013. Condition numbers 18 to 22 relate to site noise limits and noise monitoring and the wording of those conditions is reproduced below.

- 3.12 Condition 18 states “Between the hours of 07:00 and 19:00 the free field Equivalent Continuous Noise Level  $L_{Aeq,T}$  due to operations within the site shall not exceed the relevant site noise limit specified in Table 1 below at each selected noise sensitive property. Measurements taken to verify compliance shall have regard to the effects of extraneous noise and shall be corrected for any such effects.”

Table 1

Receptor	No 36 Conway Close	No 3 Pen y Bryn	Flat above shop Garth Avenue	No 1 Rogart Terrace
Criteria	49 dB $L_{Aeq,1hr}$	47 dB $L_{Aeq,1hr}$	54 dB $L_{Aeq,1hr}$	55 dB $L_{Aeq,1hr}$

- 3.13 Condition 19 states “Between the hours of 19:00 and 07:00 the free field Equivalent Continuous Noise Level  $L_{Aeq,T}$  due to operations in the site shall not exceed 42 dB  $L_{Aeq,1hr}$  at each selected noise sensitive property specified in Table 1 above.”
- 3.14 Condition 20 states “Noise levels attributable to operations of a temporary nature on the periphery of the site such as the formation, removal or alteration of spoil tips, screening and storage embankments, measured at any noise sensitive property specified in Table 1 above, shall not exceed a level of 67dB  $L_{Aeq,1hr}$  (free field). These site noise limits shall only apply for a maximum of 8 weeks in any calendar year.”
- 3.15 Condition 21 states “Noise monitoring shall be undertaken at the properties listed in Table 1 or other representative properties biannually for the first 2 years from the date of the decision notice, then annually for the following three years. Thereafter, the frequency of monitoring shall be agreed with the LPA. The results of monitoring shall be submitted to the LPA, together with confirmation of action taken to remedy any breach of the limits set out in Table 1.”
- 3.16 Condition 22 states “Within three months of the date of this permission a noise management scheme for the site shall be submitted to and approved in writing by the LPA, which shall, if practicable, include the provision of measures to reduce noise levels from site operations including the provision of any perimeter bunds/barriers, and specify the locations and methodology for monitoring carried out as required by condition 21 above. All site operations and noise monitoring shall be carried out in accordance with the approved scheme, unless otherwise approved in writing by the LPA”.



## **4 Reasons for Refusal**

### ***Western Extension***

- 4.1 The stated reason for refusal of planning permission for the western extension was: “*Minerals Technical Advice Note (MTAN) 1: Aggregates (paragraphs 70 & 71) identifies a suitable minimum distance between hard rock quarries and sensitive development is 200m, and states that any reduction from this distance should be evidenced by clear and justifiable reasons. The proposed quarry extension encroaches within 200m of sensitive development and the Council does not consider that the applicant has provided sufficient evidence of clear and justifiable reasons for reducing the minimum distance in this case.*”
- 4.2 Noise was not specifically listed as a reason for refusal for the western extension, although it is noted that paragraph 71 of MTAN 1 includes the text “*...Research has indicated that people living close to mineral workings consider dust to be the main impact of mineral extraction and any processing operations, followed by traffic, and noise and vibration from blasting...*”
- 4.3 The reason for refusal for the western extension will be considered in the context of noise within this proof.

### ***S73 Time Extension***

- 4.4 The stated reason for refusal of planning permission for the S73 Time Extension was: “*The additional period of 6 years proposed for the working of the quarry unacceptably extends the period of mineral operations within 200m of sensitive development within Glyncoch. Glyncoch is a deprived community, and such communities are acknowledged as being disproportionately affected by health problems. The continuation of quarrying within 200m of that community extends the impacts of quarrying (especially in terms of noise, dust, and air quality) to the detriment of the amenity and well-being of residents contrary to the well-being goal of a healthier Wales as set out in the Well-being of Future Generations (Wales) Act 2015. The need for the mineral does not outweigh the amenity and well-being impacts*”
- 4.5 The reason for refusal for the S73 time extension will be addressed with regard to the impacts of quarrying in terms of noise within this proof.

### **RCT's Statement of Case**

- 4.6 RCT prepared a Statement of Case dated 26 January 2022 that considered both the western extension and S73 applications. RCT refers to the western extension application as Appeal A, and the S73 application as Appeal B.
- 4.7 With regard to noise, paragraph 3.8 of RCT's SoC states: *"In relation to noise, Chapter 9 of the Environmental Statement (May 2021) for Appeal B ("ES-B") does not present comprehensive and up to date background noise data (i.e. the noise conditions prevailing in the absence of any activity at the appeal site). What is described as "background noise levels" in ES-B in the surveys undertaken in December 2020 includes site activity. Whilst some additional noise measurements were undertaken in March 2021, for those taken at 26 Conway Close during the working week "the quarry was operating normally" (Appendix 9-6 of ES-B), and no measurements were undertaken at Rogart Terrace. In the absence of comprehensive background noise data, there is no robust assessment of the impact of site operations on nearby sensitive properties and uses. Whilst it is noted that site noise limits are proposed to be secured by a condition, the acceptability of those limits cannot be assessed without comprehensive and up to date background noise data. Any alternative limits would suffer from the same shortcoming"*
- 4.8 Paragraph 3.50 of RCT's SoC states: *"In relation to noise, the LPA repeats the shortcomings of ES-B, which are not satisfactorily resolved by any of the information presented in Chapter 3 of the Supplementary Environmental Statement (April 2021) for Appeal A ("The SES-A"). In addition, those shortcomings also apply to the extra survey locations at Cefn Heulog and Cefn Primary School".*
- 4.9 Paragraph 3.52 states: *"Moreover, having regard to the deficiencies in relation to the assessment of noise and dust impacts, and the failure to demonstrate that the amenities of nearby residents and other sensitive receptors can be adequately protected, the LPA does not consider that "clear and justifiable" reasons" have been provided for mineral extraction and the related processing and haulage activities to encroach within the 200 metre buffer zone identified in MTAN1"*
- 4.10 It is disputed that the background noise levels presented in the noise chapters prepared for both the western extension and S73 applications are not comprehensive or up to date. The 2021 western extension SES and the 2021 S73 ES include noise level data measured in 2021 at locations where current site activities were either not audible, or included measurements undertaken when the quarry site was not operating. The robustness of the background noise levels will be presented in this proof, including reference to additional noise monitoring undertaken in response to these comments.

4.11 It is noted that the officers within RCT recommended approval of the application for the western extension, but the members of the planning committee did not accept this recommendation and refused the application. Paragraph 3.3 of RCT's SoC includes the text: "...In light of the divergence from the officer advice, and with the making of an appeal against the LPA decision to refuse planning permission, the LPA has subsequently sought independent external planning advice from a planning consultancy...". It is understood that Wardell Armstrong are providing the external planning advice with regard to noise.

#### ***RCT's Supplementary Statement of Case***

4.12 RCT prepared a Supplementary Statement of Case dated 26 January 2022. There were no additional reasons for refusal specific to noise set out in this document.

#### ***S73 Appeal: List of Topics Highlighted by Inspector***

4.13 The Inspector has identified that the draft main issue in the S73 appeal is: "*The effect that varying the conditions would have on the living conditions of neighbouring occupiers, with particular reference to noise, dust and air quality, blasting and traffic*"

4.14 The Inspector has prepared a list of topics to be addressed. The topic most relevant to noise is:

- "*Living conditions considerations – How would the time extension impact on any receptors / what has changed to the impacts that were previously assessed as acceptable for them now to be unacceptable?*"

4.15 This topic will be addressed with regard to noise within this proof.

#### ***Wardell Armstrong Comments on Noise***

4.16 Rosie Pitt, Principal Environmental Engineer with Wardell Armstrong has been retained by RCT to review the noise chapters prepared by WBM for the 2015 western extension ES, 2021 western extension SES and the 2021 S73 ES.

4.17 In an email dated 23 February 2022, she confirmed the following points for consideration.

- “1. *The background noise measurements for the majority of the locations were taken over 15 minute periods. I note the reasoning behind this was to capture more measurements over a greater portion of the day. The Minerals Guidance – Guidance on the planning for mineral extraction in plan making and the application process states that  $L_{A901hour}$  should be used for the assessment of site noise limits. Although this guidance does not strictly apply in Wales, in the absence of specific guidance in Wales relating to the selection of the background noise monitoring periods, this is the most relevant guidance available. IEMA noise guidelines also state that if the desired indicator is  $L_{A901hour}$ , this cannot be obtained by averaging values that make up the hour, i.e.  $L_{A9015 mins}$  in this case.*
  
2. *It's also noted that although a number of measurements were taken at each location, the total monitored time at each location was approximately 1.5hrs. BS 7445 would suggest that this is not a broad enough measurement period to represent the noise levels over the relevant 12 hour operating period of the quarry. Specifically, section 5.4.3 states that the measurement time intervals should be chosen so that all significant variations of noise emissions and transmission are covered. As the measurements consider less than 15% of the total operating period, it is unlikely that all such variations could have been captured at each monitoring location. IEMA noise guidelines states that quiet sites tend to show a greater variation in ambient noise levels than inherently [noisy]\* sites. As a number of the locations are fairly quiet, a larger level of data would be considered appropriate to ensure that potential variation in noise levels is captured. [\* added by WBM]*
  
3. *The noise monitoring notes indicate that locations C and D didn't cover any periods where the quarry was not audible. These would therefore not be suitable to represent background noise levels at the receptors in the absence of any noise from the quarry.*
  
4. *Some data is then dismissed and the 2009 data used for setting the site noise limits. Noise monitoring data would normally be considered out of date after 2 years due to constant changes in noise levels over time. Can some explanation be provided as to why the 2009 data has been used instead of suitable up to date monitoring data.*
  
5. *At least 3 one hour measurements would be considered a suitable level of data to ascertain an appropriate site noise limit at the receptors and may resolve the above issues.*

6. *The proposed site noise limit at the new receptor location does not follow MTAN1 guidelines or the Minerals Guidance – Guidance on the planning for mineral extraction in plan making and the application process where background noise+10dB is the accepted site noise limit. It is noted that the 2021 data shows a higher background noise level than the 2015 data, however it is unclear from the assessment why the background noise levels would have increased by 5dB over this period of time. Further monitoring and/or explanation would be required to resolve any doubt over a suitable site noise limit in order to avoid any adverse impact at the receptors.”*

4.18 Responses to these points raised by Wardell Armstrong will be addressed within this proof.

## **5 Noise Surveys**

### ***Noise Survey Overview***

5.1 The site noise limits in the 2013 ROMP conditions were based on the baseline background noise levels undertaken by Entec in 2009.

5.2 The various noise surveys undertaken by WBM in the vicinity of Craig yr Hesg quarry and referenced in the 2015 western extension ES, 2021 western extension SES and the 2021 S73 ES have included the following:

- Routine noise monitoring at the four receptors in the 2013 ROMP conditions between 2013-2017
- Installed meters at Cefn Heulog and Conway Close in July 2014
- Noise sample measurements at the four 2013 ROMP conditions noise monitoring locations in December 2020
- Installed meters and sample measurements at Cefn Heulog and Conway Close in March 2021
- Noise sample measurements at two of the four 2013 ROMP conditions noise monitoring locations in March 2021 (without quarry operations)

5.3 Information about these surveys and the results are provided in this section. I will refer to previous noise chapters prepared by WBM, including the 2015 western extension ES, the 2021 western extension SES and the 2021 S73 ES.

- 5.4 In response to the RCT Statement of Case and comments from Wardell Armstrong, additional baseline noise measurements have also been undertaken in March 2022. The survey details and results of these measurements are provided in paragraphs 5.26 to 5.31 of this document.
- 5.5 A plan showing the various noise survey locations is provided in Appendix B.

***Routine Noise Monitoring 2013-2017***

- 5.6 In 2013, WBM was retained by Hanson to carry out routine noise monitoring for the four receptors identified in the 2013 permission to demonstrate compliance with the required site noise limits. WBM was also retained to prepare the noise monitoring scheme for the site. Publicly accessible noise monitoring locations were agreed with RCT for the noise monitoring, as tabulated below:

**Table 5.1: Routine Noise Monitoring Locations**

<b>Receptor identified in ROMP Condition 18</b>	<b>Specific location used for noise monitoring</b>	
No 36 Conway Close	A	By pavement and low wall south of No.23 Conway Close
No 3 Pen y Bryn	B	By break in fence at edge of road, west of No. 5 Pen y Bryn
Flat above shop Garth Avenue	C	Edge of grass bank above shop, end of roadway east of No. 113 Garth Avenue
No 1 Rogart Terrace	D	On path by site access road, west of 1 Rogart Terrace, about 5 metres to HGV movements on site access road

- 5.7 Within the noise monitoring scheme prepared by WBM, noise monitoring was to occur twice yearly for the first two years from the date of the decision notice, then annually for the following three years. Routine noise monitoring was therefore undertaken by WBM during the daytime on 06 April 2013, 22-23 November 2013, 10 July 2014, 09 December 2014, 08 June 2015, 30 June 2016 and 05 July 2017. All monitoring occurred during normal daytime hours for quarry operations at the receptor locations agreed with RCT and as described in Table 5.1 above.
- 5.8 Extracts from all of the WBM routine noise monitoring reports, presenting the noise survey data, summary of noise levels and the report conclusions are set out in Appendix 9.4 of the 2021 S73 ES.

- 5.9 The routine noise survey results from 2013 and 2014 are also referenced in the 2015 western extension ES.
- 5.10 The routine noise monitoring found that the overall measured noise levels or the estimated site noise levels were below the currently specified site noise limits for routine operations for all four locations. All of the site noise monitoring surveys have demonstrated compliance with the current site noise limits.
- 5.11 Site activities were inaudible for the majority of noise monitoring surveys at Conway Close and Pen y Bryn (Locations A and B), and were therefore not significant with regard to the background noise levels. The average background noise levels at these noise monitoring locations were 40 dB  $L_{A90,T}$  at Conway Close and 36 dB  $L_{A90,T}$  at Pen y Bryn.
- 5.12 For the noise monitoring undertaken for Garth Avenue and Rogart Terrace, site activities were audible and contributed to the background noise levels.

***Installed Meters July 2014***

- 5.13 Noise surveys were undertaken by WBM to support the noise impact assessment for the western extension. The surveys were undertaken 10 to 15 July 2014 and included installed sound level meters at Conway Close and Cefn Heulog. The main purpose of the surveys was to gain additional baseline noise data rather than a routine noise monitoring exercise (i.e. assessment against site noise limits).
- 5.14 The survey details and results from these measurements are presented in Appendices 10-3, 10-4 and 10-5 of the 2015 western extension ES. The results from additional sample measurements at the noise monitoring locations A to D, and noise measurements at some additional locations, are also set out in these appendices.
- 5.15 For Conway Close, the measured background noise levels were in the range 29-37 dB  $L_{A90,15min}$  during the hours of operation of the quarry. The average background noise level for Conway Close provided in the 2015 western extension ES was 36 dB  $L_{A90,T}$ , which took into account other noise data measured at Conway Close as well as the installed meter.

- 5.16 For Cefn Heulog, the measured background noise levels were in the range 28-42 dB  $L_{A90,T}$  during the hours of operation of the quarry. The average background noise level was 31 dB  $L_{A90,T}$ .

***Noise Sample Measurements December 2020***

- 5.17 Noise sample measurements during normal daytime quarry operations were undertaken on 08-09 December 2020 at the noise monitoring locations, A to D. These measurements demonstrated compliance with the current site noise limits. The survey details and results are set out in Appendices 3-2 and 3-3 of the 2021 western extension ES and Appendices 9.5 and 9.6 of the 2021 S73 ES.
- 5.18 As for the routine noise monitoring in 2013-2017, site activities were generally inaudible at Conway Close and Pen y Bryn. The range of background noise levels obtained during the December 2020 surveys were 40-45 dB  $L_{A90,T}$  at Conway Close and 35-36 dB  $L_{A90,T}$  at Pen y Bryn.
- 5.19 For the noise monitoring undertaken for Garth Avenue and Rogart Terrace, site activities were audible and contributed to the background noise levels.

***Installed Meters and Sample Measurements March 2021***

- 5.20 Following Hanson's decision to appeal RCT's refusal of planning permission, The Planning Inspectorate carried out an Assessment of Environmental Statement in January 2021 for the western extension application documents. The Inspector noted that the noise monitoring undertaken to support the application dated from 2014 and indicated that the survey results should be considered and the ES reviewed where necessary.
- 5.21 In response to the Inspector's comments, WBM carried out further noise measurements on 04-09 March 2021 as an update on baseline conditions. These included installed sound level meters at 26 Conway Close and Cefn Heulog. Additional sample measurements and observations were also undertaken at these locations. The survey details and results for both locations are set out in Appendices 3-2 and 3-4 of the 2021 western extension ES. The survey details and results for Conway Close only are presented in Appendices 9.5 and 9.6 of the 2021 S73 ES.



- 5.22 For Conway Close in March 2021, the measured background noise levels were in the range 30-47 dB  $L_{A90,T}$  during the hours of operation of the quarry. The average background noise level was 37 dB  $L_{A90,T}$ . The observations during the set up and collection of the installed meter indicated that current site activities were not audible at this location.
- 5.23 For Cefn Heulog in March 2021, the measured background noise levels were in the range 29-46 dB  $L_{A90,T}$  during the hours of operation of the quarry. The average background noise level was 36 dB  $L_{A90,T}$ . The observations during the set up and collection of the installed meter indicated that current site activities were also not audible at this location.

***Noise Sample Measurements Without Quarry Operations March 2021***

- 5.24 Additional sample noise measurements were undertaken on 09 March 2021 at the noise monitoring locations B and C (Pen y Bryn and Garth Avenue) during daytime operating hours of the quarry but at a time when site operations had ceased. This was to allow noise measurements to be obtained at these locations without any contribution from site activities. The survey details and results of these measurements are set out in Appendices 3-2 and 3-3 of the 2021 western extension ES and Appendices 9.5 and 9.6 of the 2021 S73 ES.
- 5.25 The range of background noise levels obtained during the March 2021 surveys were 34-35 dB  $L_{A90,T}$  at Pen y Bryn and 44-46 dB  $L_{A90,T}$  at Garth Avenue.

***Additional Baseline Noise Survey March 2022***

- 5.26 In response to the Statement of Case from RCT, and following discussions with Wardell Armstrong, WBM carried out additional baseline noise measurements in the vicinity of Craig yr Hesg Quarry when the asphalt plant was not operating and all quarry/processing operations (including loading and deliveries) had been shut down for the day, with only maintenance work on the drystone plant taking place. The measurements took place on Thursday 17 March 2022 between 8:30am and 5:30pm.

- 5.27 A sound level meter was installed at Cefn Heulog, at the location WBM has used previously for such measurements. WBM also obtained permission to install a sound level meter at Cefn Primary School. WBM was refused permission to locate a sound level meter at the rear of 26 Conway Close so carried out sample measurements at the agreed routine noise monitoring Location A. Sample measurements were also undertaken at the remaining routine noise monitoring locations B, C and D. The sound level meters used for the surveys were set to record 1 hour measurements.
- 5.28 Item 5 of the email from Rosie Pitt (Wardell Armstrong) dated 23 February 2022 stated: “At least 3 one hour measurements would be considered a suitable level of data to ascertain an appropriate site noise limit at the receptors and may resolve the above issues.” As such, WBM ensured that at least 3 x 1-hour measurements were obtained at each location, either from sample measurements or from the installed sound level meters.
- 5.29 For comparison purposes, simultaneous 15 minute samples were also undertaken during the measurements at Locations A, B, C and D.
- 5.30 The survey details, results and observations from these noise measurements are presented in Appendix C of this document. Summaries of the results are tabulated below.

**Table 5.2: Results from Installed Meters 17 March 2022**

Location	Period of Install	Average Results dB	
		L <sub>Aeq,1h</sub>	L <sub>A90,1h</sub>
Cefn Heulog	08:30-16:25	47	37
Cefn Primary School	08:45-16:15	45	38

**Table 5.3: Results from Sample Measurements 17 March 2022**

Location	Times of Measurements (hours starting)	Average Results dB			
		1 hour samples		15 min samples	
		Ambient L <sub>Aeq,1h</sub>	Background L <sub>A90,1h</sub>	Ambient L <sub>Aeq,15min</sub>	Background L <sub>A90,15min</sub>
A. Conway Close	10:59, 13:28, 16:32	46	38	47	38
B. Pen y Bryn	10:12, 12:44, 15:08	46	37	45	37
C. Garth Avenue	08:55, 11:22, 14:00	50	45	50	45
D. Rogart Terrace	09:35, 12:12, 14:59	57	53	57	53

5.31 WBM also measured 15 minute samples with a second sound level meter for the measurements at Location A, B, C and D. The average background level values from the 15 minute samples ( $L_{A90,15min}$ ) were the same as those from the 1 hour samples (see Table 5.3 above). This demonstrates that the use of 15 minute samples could, in the circumstances prevailing at these locations, can provide representative background noise level data.

## 6 Western Extension - Site noise limits for Receptors

6.1 For the western extension, WBM suggested site noise limits for six receptors within the 2015 western extension ES and 2021 western extension SES. These included the four existing receptor locations (Locations A to D) in the vicinity of the existing quarry and two additional receptors (Cefn Heulog and Cefn Primary School) in the vicinity of the western extension.

6.2 The following site noise limits were suggested by WBM within the 2015 western extension ES.

6.3 **Table 6.1: Suggested Site noise limit in the 2015 western Extension ES**

Receptor	Conway Close	Pen y Bryn	Garth Avenue	Rogart Terrace	Cefn Heulog	Cefn Primary School
<b>Suggested Site noise limit</b>	46 dB $L_{Aeq,1hr}$	47 dB $L_{Aeq,1hr}$	54 dB $L_{Aeq,1hr}$	55 dB $L_{Aeq,1hr}$	45 dB $L_{Aeq,1hr}$	45 dB $L_{Aeq,1hr}$

6.4 These suggested site noise limits were maintained within the 2021 western extension SES.

6.5 The suggested site noise limits were based on measurements undertaken by WBM and others at the various receptors or, in the case of the primary school and Cefn Heulog, appropriate guidance documents. The following sections provide commentary on site noise limits at each receptor.

### **Conway Close**

- 6.6 Conway Close is located to the north of the existing quarry, approx. 300m from the nearest edge of the quarry and around 600m from the main plant site.
- 6.7 Background noise levels were measured by others (Entec) in 2009 for the last ROMP. The average background noise level at this location used for the ROMP was 39 dB  $L_{A90,T}$ . This value was used to set the ROMP site noise limit at 36 Conway Close of 49 dB  $L_{Aeq,1h}$  within the 2013 determination of conditions for this site by RCT.
- 6.8 WBM carried out routine noise monitoring during 2013-2017 with 14 x 15-minute samples measured. The samples included measurements undertaken on a Saturday morning as well as on weekdays and comprised measurements in the hours starting 8am, 9am 10am, 12pm, 1pm, 2pm, 3pm and 4pm. A summary of the routine noise survey results for Conway Close is presented in Table D1 in Appendix D. These noise measurements were undertaken at Location A, the noise monitoring location agreed with RCT. For all but one of these samples, site activity was not audible. The average background noise level from these measurements was 40 dB  $L_{A90,T}$ , which is similar to the 2009 Entec average background noise level of 39 dB  $L_{A90,T}$ .
- 6.9 WBM carried out 3 x 15-minute sample measurements at Location A in December 2020 with samples in the hours starting 9am, 3pm and 5pm. Again, site activities were not audible. The results ranged from 40-45 dB  $L_{A90,T}$  for the background noise levels. These results are summarised in Table D2 in Appendix D.
- 6.10 Although the agreed noise monitoring Location A is suitable for manned sample measurements, it was not considered sufficiently secure to leave noise monitoring equipment unattended. WBM set up a data logging sound level meters at the rear of 26 Conway Close in 2014 and 2021. This is a different property to the one specified in the planning condition 18 (36 Conway Close), but in the same general location. It was considered by WBM that 26 Conway Close would be exposed to the same noise environment as 36 Conway Close.
- 6.11 Tabulated data from both install periods are presented in the 2015 western extension ES (for the 2014 survey) and the 2021 western extension SES (for the 2021 survey).

- 6.12 For the western extension appeal, the Inspector noted that the noise monitoring undertaken to support the application dated from 2014 and indicated that the survey results should be considered and the ES reviewed where necessary. The results from the March 2021 installed sound level meter gave an average background noise level over the hours of operation of 37 dB  $L_{A90,T}$ .
- 6.13 Additional measurement samples were obtained in the rear garden of 26 Conway Close whilst the installed meter was being set up and collected in March 2021 with 3 x 15-minute samples measured. As during the previous noise measurements, site activities were not audible. The results ranged from 32-40 dB  $L_{A90,T}$  for the background noise levels, which are in keeping with the average results from the installed meter. The results are summarised in Table D3 in Appendix D.
- 6.14 In March 2022, WBM was refused permission to locate a sound level meter at the rear of 26 Conway Close, so sample measurements were undertaken at the agreed compliance noise monitoring location at the end of Conway Close (Location A). 3 x 1-hour sample measurements were undertaken when the site was not operating. The results ranged from 37-38 dB  $L_{A90,1h}$ , with an average value of 38 dB  $L_{A90,1h}$ . The full survey details and results are presented in Appendix C.

#### Summary for Conway Close

- 6.15 The 2013 ROMP conditions specified a limit of 49 dB  $L_{Aeq,1h}$  for this location. The routine noise monitoring measurements obtained by WBM showed that this limit was clearly being met by current operations. Most noise measurements at this location showed that site activities were not audible, indicating that the results are representative of baseline conditions (no quarry noise). The average background noise level from the compliance noise monitoring results 2013-2017 (40 dB  $L_{A90,T}$ ) gave a similar result to that determined in 2009, on which the 2013 ROMP site noise limit is based.
- 6.16 The 2015 ES for the western extension suggested a site noise limit for this location of 46 dB  $L_{Aeq,1h}$ , i.e. a lower site noise limit than permitted in the 2013 ROMP conditions. This is based on an average background noise level of 36 dB  $L_{A90,T}$ , taking into account noise data measured by Entec as well as measurements undertaken by WBM. Based on the installed meter results in July 2014 it was considered that the average background noise levels presented in the western extension ES noise chapter were appropriate and representative.

- 6.17 The installed meter in 2021 had an average background noise level of 37 dB  $L_{A90,T}$ . Following MTAN 1, setting a limit on this value would result in a suggested site noise limit of 47 dB  $L_{Aeq,1h}$ . However, as the 2015 ES for the proposed quarry western extension had a suggested site noise limit of 46 dB  $L_{Aeq,1h}$  for Conway Close it was therefore considered appropriate to 'maintain' the 2015 ES suggested site noise limit for this location. This suggested site noise limit is 3 dB lower than the limit specified in the 2013 ROMP conditions (49 dB  $L_{Aeq,1h}$ ).
- 6.18 The additional measurements in March 2022, comprising 3 x 1-hour samples, had an average background noise level of 38 dB  $L_{A90,T}$ . The MTAN1 limit based on the 2022 data would be 48 dB  $L_{Aeq,1h}$ . This is 2 dB above the previously suggested site noise limit of 46 dB  $L_{Aeq,1h}$  for this location.
- 6.19 Therefore the limit of 46 dB  $L_{Aeq,1h}$  suggested for Conway Close in the 2015 western extension ES and also in the 2021 western extension SES is more stringent than required, based on the survey data from both 2021 and 2022.

### ***Pen y Bryn***

- 6.20 The properties on Pen y Bryn are located to the north of the existing quarry, approximately 200m from the nearest edge of the quarry and around 300m from the main plant site.
- 6.21 Background noise levels were measured by others (Entec) in 2009 for the last ROMP. The average background noise level at this location used for the ROMP assessment was 36.4dB  $L_{A90,T}$ . The site noise limit at this location is 47 dB  $L_{Aeq,1h}$  from with the 2013 ROMP determination of conditions for this site by RCT.
- 6.22 WBM carried out routine compliance noise monitoring during 2013-2017 with 14 x 15-minute samples measured. The samples included measurements undertaken on a Saturday morning as well as on weekdays, with measurements in the hours starting 7am, 9am, 10am, 12pm, 1pm, 2pm and 4pm. A summary of the routine noise survey results for Pen y Bryn is presented in Table D4 in Appendix D. These noise measurements were undertaken at Location B, the noise monitoring location agreed with RCT. For all but two of these samples, site activity was not audible. The average background noise level from these measurements was 36 dB  $L_{A90,T}$ , which is the same as the 2009 Entec average background noise level.

- 6.23 WBM carried out 3 x 15-minute sample measurements at Location B in December 2020 with samples in the hours starting 8am, 2pm and 5pm. Site activities were audible during one of these measurements, but not audible in the other samples. Excluding the sample where some site activity was audible, the results from these measurements had a background noise level of 35 dB  $L_{A90,T}$ . These results are summarised in Table D5 in Appendix D.
- 6.24 In March 2021, WBM was able to carry out sample measurements at Pen y Bryn during site operating hours, but when the site had finished operations early for the day (2 x 15-minute samples). The results ranged from 34-35 dB  $L_{A90,T}$  for the background noise levels. These results are also presented in Table D6 in Appendix D.
- 6.25 In March 2022, sample measurements were undertaken at Location B with 3 x 1-hour sample measurements undertaken when the site was not operating, see Appendix C. The results ranged from 36-37 dB  $L_{A90,1h}$ , with an average value of 37 dB  $L_{A90,1h}$ .

#### Summary for Pen y Bryn

- 6.26 The 2013 ROMP conditions specified a limit of 47 dB  $L_{Aeq,1h}$  for this location. The routine noise monitoring measurements obtained by WBM showed that this limit was clearly being met by current operations. Most noise measurements at this location showed that site activities were not audible, indicating that the results are generally representative of baseline. The average background noise level from the compliance noise monitoring results 2013-2017 (36 dB  $L_{A90,T}$ ) gave a similar result to that determined in 2009.
- 6.27 The samples undertaken in December 2020 and March 2021 also showed similar background noise levels with results of 34-35 dB  $L_{A90,T}$ .
- 6.28 The recent noise measurements in March 2022 had an average result of 37 dB  $L_{A90,1h}$ . The MTAN1 limit based on the 2022 data would be 47 dB  $L_{Aeq,1h}$ .
- 6.29 A limit of 47 dB  $L_{Aeq,1h}$  was suggested for this location in both the 2015 western extension ES and the 2021 western extension SES.
- 6.30 The background noise levels measured at Pen y Bryn show that the background noise levels here are fairly consistent and do not show sufficient variation to suggest that the existing site noise limit be altered. The maintained site noise limit of 47 dB  $L_{Aeq,1h}$  is therefore appropriate for this location.

### ***Garth Avenue***

- 6.31 The properties on Garth Avenue are located due north of the processing site and nearest to the primary crusher.
- 6.32 Background noise levels were measured by others (Entec) in 2009 for the last ROMP. The average background noise level at this location used for the ROMP was 43.8 dB  $L_{A90,T}$ . This value was used to set the site noise limit at this location of 54 dB  $L_{Aeq,1h}$  with the 2013 determination of conditions for this site by RCT.
- 6.33 For the routine noise measurements in 2013-2017 and sample measurements in December 2020, site activity was audible and contributed to the measured noise levels. All of these results demonstrated compliance with the current site noise limit for this location. The noise level data ( $L_{A90,T}$ ) from the routine noise measurements has not been included in the analysis of baseline levels for this location as it would be considered an influenced background noise level and therefore not representative of baseline.
- 6.34 In March 2021, WBM was able to carry out sample measurements at Garth Avenue during site operating hours, but when the site had finished operations early for the day (2 x 15-minute samples). The results ranged from 44-46 dB  $L_{A90,T}$  for the background noise levels. These results are presented in Table D7 in Appendix D.
- 6.35 In March 2022, sample measurements were undertaken at Location C (along Garth Avenue) with 3 x 1-hour sample measurements undertaken when the site was not operating, see Appendix C. The results ranged from 44-47 dB  $L_{A90,1h}$ , with an average value of 45 dB  $L_{A90,1h}$ .

### Summary for Garth Avenue

- 6.36 The 2013 ROMP conditions specified a limit of 54 dB  $L_{Aeq,1h}$  for this location. The routine noise monitoring measurements obtained by WBM showed that this limit was being met by current operations.
- 6.37 The samples undertaken in March 2021 without site operating had similar results to the average background noise levels measured in 2009, and on which the current site noise limits are based. A limit of 54 dB  $L_{Aeq,1h}$  was suggested for this location in the 2015 western extension ES and the 2021 western extension SES.



- 6.38 The recent noise measurements in March 2022 had an average result of 45 dB  $L_{A90,1h}$ . The MTAN1 limit based on the 2022 data would be 55 dB  $L_{Aeq,1h}$ . This is 1 dB above the suggested site noise limit of 54 dB  $L_{Aeq,1h}$  for this location.
- 6.39 Therefore the limit of 54 dB  $L_{Aeq,1h}$  suggested for Garth Avenue is more stringent than required, based on the survey data from 2022.

### ***Rogart Terrace***

- 6.40 The properties at Rogart Terrace are located adjacent to the site access road, off the B4273.
- 6.41 Background noise levels were measured by others (Entec) in 2009 for the last ROMP. The average background noise level at this location used for the ROMP was 52.5 dB  $L_{A90,T}$ . This value was used to set the site noise limit at this location of 55 dB  $L_{Aeq,1h}$  with the 2013 determination of conditions for this site by RCT.
- 6.42 The site noise limit at this location is at the maximum daytime site noise limit of 55 dB  $L_{Aeq,1h}$  as specified in MTAN1 where background sound levels exceed 45dB(A). In order for the site noise limit at Rogart Terrace to be less than 55 dB  $L_{Aeq,1h}$  would require the background noise levels without site activity to be 44 dB  $L_{A90,T}$  or less.
- 6.43 For the routine noise measurements in 2013-2017 and sample measurements in December 2020, site activity was audible and contributed to the measured noise levels. All of these results demonstrated compliance with the current site noise limit for this location. During these measurements, although site activity was audible, road traffic was the dominant noise source.
- 6.44 In March 2022, sample measurements were undertaken at Location D with 3 x 1-hour sample measurements undertaken when the site was not operating, see Appendix C. The results ranged from 52-54 dB  $L_{A90,1h}$ , with an average value of 53 dB  $L_{A90,1h}$ .

### **Summary for Rogart Terrace**

- 6.45 The 2013 ROMP conditions specified a limit of 55 dB  $L_{Aeq,1h}$  for this location. The routine noise monitoring measurements obtained by WBM showed that this limit was being met by current operations.

- 6.46 A limit of 55 dB  $L_{Aeq,1h}$  was suggested for this location in the 2015 western extension ES and the 2021 western extension SES.
- 6.47 The recent noise measurements in March 2022 had an average result of 53 dB  $L_{A90,1h}$ . The MTAN1 limit based on the 2022 data would be 55 dB  $L_{Aeq,1h}$ .
- 6.48 Therefore the suggested site noise limit of 55 dB  $L_{Aeq,1h}$  is appropriate for Rogart Terrace.

### ***Cefn Heulog***

- 6.49 Cefn Heulog is located some 250m to the north west of the proposed quarry extension, around 600m from the edge of the existing quarry and around 1km from the quarry plant. This receptor is only relevant for the western extension and has not been considered with regard to the S73 application.
- 6.50 WBM installed a sound level meter in the garden of this property in 2014 and in 2021. Tabulated data from both install periods are presented in the 2015 western extension ES (for the 2014 survey) and the 2021 western extension SES (for the 2021 survey).
- 6.51 The results of the noise survey in July 2014 gave an average background noise level of 31 dB  $L_{A90,T}$ . Following MTAN1 this would result in a site noise limit of 41 dB  $L_{Aeq,1h}$ , which would be below the MTAN1 night-time site noise limit of 42 dB  $L_{Aeq,1h}$ . Within the 2015 western extension ES, it was considered that the imposition of site noise limits lower than 45 dB  $L_{Aeq,1h}$  at the dwellings on Cefn Lane, would impose unreasonable restrictions on the mineral operator. A site noise limit of 45 dB  $L_{Aeq,1h}$  was suggested to avoid imposing an unreasonable burden on the mineral operator in accordance with advice in Tan11 (Paragraph 3).
- 6.52 For the western extension appeal, the Inspector noted that the noise monitoring undertaken to support the application dated from 2014 and indicated that the survey results should be considered and the ES reviewed where necessary. The result from the March 2021 installed sound level meter gave an average background noise level over the hours of operation of 36 dB  $L_{A90,T}$ .

- 6.53 Additional measurement samples were obtained in the garden of Cefn Heulog whilst the installed meter was being set up and collected in March 2021 with 4 x 15-minute samples measured. The results ranged from 34-42 dB  $L_{A90,T}$  for the background noise levels, which are in keeping with the average results from the installed meter. The results are summarised in Table D8 in Appendix D. Site activities were not audible, so these noise levels are representative of baseline conditions. This is to be expected considering the distance from the existing quarry (at least 600m for mineral extraction and around 1km for the processing plant).
- 6.54 In March 2022, WBM obtained permission to locate a sound level meter at the rear of Cefn Heulog. The sound level meter was installed from 08:30 to 16:25, with the meter set to record 1-hour samples. The results ranged from 36-40 dB  $L_{A90,1h}$ , with an average value of 37 dB  $L_{A90,1h}$ . The full survey details and results are presented in Appendix C. The results from 2022 are similar to the 2021 results and confirm that the background noise levels from 2021 are representative for this location.

#### Summary for Cefn Heulog

- 6.55 The 2015 western extension ES suggested a site noise limit for this location of 45 dB  $L_{Aeq,1h}$ .
- 6.56 The installed meter in 2021 had an average background noise level of 36 dB  $L_{A90,T}$ . Following MTAN 1, setting a limit on this value would result in a suggested site noise limit of 46 dB  $L_{Aeq,1h}$ . However, as the 2015 ES for the proposed quarry western extension had a suggested site noise limit of 45 dB  $L_{Aeq,1h}$  for Cefn Heulog, it was therefore considered appropriate to 'maintain' the 2015 ES suggested site noise limit for this location within the 2021 western extension SES.
- 6.57 The additional measurements from the installed meter in March 2022 had an average background noise level of 37 dB  $L_{A90,T}$ . The MTAN1 limit based on the 2022 data would be 47 dB  $L_{Aeq,1h}$ . This is 2 dB above the previously suggested site noise limit of 45 dB  $L_{Aeq,1h}$  for this location.
- 6.58 Therefore the limit of 45 dB  $L_{Aeq,1h}$  suggested for Cefn Heulog is more stringent than required, based on the survey data from 2022.

### ***Cefn Primary School***

- 6.59 Although this receptor is not residential, it is still considered as a sensitive development – paragraph 70 of MTAN 1 states: “...*Sensitive development is any building occupied by people on a regular basis and includes housing areas, hostels, meeting places, schools and hospitals where an acceptable standard of amenity should be expected...*”.
- 6.60 It is understood that WBM was unable to get permission to measure noise levels at the school in 2014, so the site noise limit for this location in the 2015 western extension ES is based on guidance provided in Building Bulletin 93 “*Acoustic Design of Schools, A Design Guide*” (BB93). WBM referred to BB93 to determine an acceptable standard of amenity for the school.
- 6.61 The 2015 western extension ES suggested a site noise limit of 45 dB  $L_{Aeq,1h}$  based on guidance provided in BB93 with the 2003 edition in force at the time of writing the 2015 noise chapter. Within section 2.3 of BB93 2003, it is stated: “*If the noise measurement survey shows that the ambient external noise levels on the site are below 45 dB  $L_{Aeq,30min}$ , and prediction work shows that they will remain below 45 dB  $L_{Aeq,30min}$  in the future, no special measures are likely to be necessary to protect the buildings or playing fields from external noise.*”
- 6.62 BB93 has subsequently been updated but the guidance on suitable external noise levels is similar.
- 6.63 In March 2022, WBM was granted permission to install a sound level meter at the school, which was located to the west side of the school buildings, near the car park, away from the playground (freefield). This location was agreed with the school as being suitable and secure, away from the main locations of pupils when they are outside, whilst also being representative of the school buildings. The install period was from 08:45 to 16.15 hours on 17 March 2022. The results ranged from 37 to 39 dB  $L_{A90,1h}$ , with an average value of 38 dB  $L_{A90,1h}$ .

Summary for Cefn Primary School

- 6.64 The 2015 western extension ES suggested site noise limit for this location of 45 dB  $L_{Aeq,1h}$  based on guidance in BB93. This limit was maintained for the 2021 western extension SES.
- 6.65 The additional measurements from the installed meter in March 2022 had an average background noise level of 38 dB  $L_{A90,T}$ . The MTAN1 limit based on the 2022 data would be 48 dB  $L_{Aeq,1h}$  at the school buildings. This is 3 dB above the previously suggested site noise limit of 45 dB  $L_{Aeq,1h}$  for this location.
- 6.66 Therefore the limit of 45 dB  $L_{Aeq,1h}$  suggested for Cefn Primary School is more stringent than required, based on the survey data from 2022.

***Summary***

- 6.67 The recent noise measurements in March 2022 were undertaken during a period in which the quarry was shut down. At least 3 x 1 hour samples were measured at all locations. The results from these additional noise measurements support the previously suggested site noise limits set out in the noise assessments presented for the western extension ES and SES. The following table presents a summary of the various limits and recent background noise levels measured at different locations.

**Table 6.2: Summary of Site Noise Limits**

	<b>Conway Close ("A")</b>	<b>Pen y Bryn ("B")</b>	<b>Garth Ave ("C")</b>	<b>Rogart Terrace ("D")</b>	<b>Cefn Heulog</b>	<b>Cefn Primary School</b>
Current 2013 ROMP site noise limits	49 dB L <sub>Aeq,1h</sub>	47 dB L <sub>Aeq,1h</sub>	54 dB L <sub>Aeq,1h</sub>	55 dB L <sub>Aeq,1h</sub>	n/a	n/a
March 2022 average background (site not operating)	38 dB L <sub>A90,1h</sub>	37 dB L <sub>A90,1h</sub>	45 dB L <sub>A90,1h</sub>	53 dB L <sub>A90,1h</sub>	37 dB L <sub>A90,1h</sub>	38 dB L <sub>A90,1h</sub>
MTAN1 site noise limits using 2022 data	48 dB L <sub>Aeq,1h</sub>	47 dB L <sub>Aeq,1h</sub>	55 dB L <sub>Aeq,1h</sub>	55 dB L <sub>Aeq,1h</sub>	47 dB L <sub>Aeq,1h</sub>	48 dB L <sub>Aeq,1h</sub>
Proposed site noise limits for western extension (2015 ES and 2021 SES)	46 dB L <sub>Aeq,1h</sub>	47 dB L <sub>Aeq,1h</sub>	54 dB L <sub>Aeq,1h</sub>	55 dB L <sub>Aeq,1h</sub>	45 dB L <sub>Aeq,1h</sub>	45 dB L <sub>Aeq,1h</sub>
Comment	Proposed site noise limit is 2dB more stringent than required using 2022 data	2022 data confirms that proposed site noise limit is appropriate	Proposed site noise limit is 1dB more stringent than required using 2022 data	2022 data confirms that proposed site noise limit is appropriate	Proposed site noise limit is 2dB more stringent than required using 2022 data	Proposed site noise limit is 3dB more stringent than required using 2022 data

6.68 So far as the most recent baseline data and application of relevant guidance suggest higher site noise limits for some receptors than those proposed for the western extension in the 2015 ES and 2021 SES, the Inquiry will need to consider whether the limits proposed in these documents would still comply with the tests for planning conditions (the site noise limits would be unchanged at Pen y Bryn and Rogart Terrace but would be higher at the other four receptors).

## **7 S73 - Site noise limits for Receptors**

- 7.1 For the S73 time extension, WBM suggested site noise limits for four receptors, Locations A to D. These were the same as the site noise limits proposed for the western extension and as set out in Table 6.2 above.
- 7.2 Site noise limits for Cefn Heulog and Cefn Primary School are not applicable due to the distance from the existing site.
- 7.3 The background noise levels and suggested site noise limits for Conway Close (Location A), Pen y Bryn (Location B), Garth Avenue (Location C) and Rogart Terrace (Location D) are presented in Section 6. Previous routine noise monitoring clearly demonstrates that noise from site activities is complying with the existing site noise limits. The site noise limits suggested for these receptors are appropriate or more stringent than required based on WBM's measured background noise levels, including the recent survey in March 2022 and guidance in MTAN1.
- 7.4 So far as the most recent baseline data and application of relevant guidance suggest higher site noise limits for some receptors than those proposed in the 2021 S73 ES, the Inquiry will need to consider whether the limits proposed in this document would still comply with the tests for planning conditions (the site noise limits would be unchanged at Pen y Bryn and Rogart Terrace but would be higher at the other two receptors).

## **8 Response to Reasons for Refusal**

### ***Western Extension***

- 8.1 As set out in paragraph 4.1, the reason for refusal for the western extension related to quarry activities occurring within 200m of sensitive development.
- 8.2 The distances between the quarry operations and the nearest noise sensitive receptors were considered by WBM and included in the calculations for the assessments undertaken for the western extension in 2015 and 2021. The noise calculations undertaken for the western extension considered site activities at the nearest receptors to the extension area, i.e. Conway Close, Pen y Bryn, Cefn Heulog and Cefn Primary School.

- 8.3 The shortest working distances between the respective receptors and the various items of plant and quarry activities have been used in the acoustic model for the site in order to calculate the reasonable worst case site noise levels, as set out in Section 10.7 of the 2015 western extension ES. Some of these activities are within 200m of receptors, as shown in Appendix 10-7 of the 2015 western extension ES.
- 8.4 As set out in Section 6 of this proof, site noise limits had been developed following the guidance in MTAN1 apart from Cefn Primary School and Cefn Heulog, where the previously suggested site noise limit was based on guidance from BB93 and TAN 11 respectively. Recent baseline noise measurements in March 2022 have shown that all of the suggested site noise limits are appropriate or more stringent than required following guidance in MTAN1.
- 8.5 MTAN1 requires noise impacts to be minimised to acceptable levels, where aggregate extraction and related operations occur close to noise sensitive areas. Achieving the site noise limits specified in MTAN1 should therefore indicate that site noise is at an acceptable level to avoid a significant effect at noise sensitive properties.
- 8.6 Section 10.7 of the 2015 western extension ES and Section 3.5 of the 2021 western extension SES show that all of the calculated reasonable worst case noise levels from site activity at the receptors used for the western extension meet the site noise limits previously suggested by WBM, as well as site noise limits that could be derived from the advice in MTAN 1 using baseline noise levels from the March 2022 survey undertaken when operations at the quarry had been shut down.
- 8.7 Therefore the noise assessments for the 2015 western extension ES and the 2021 western extension SES have demonstrated that noise from quarrying activities at the western extension including those within 200m of sensitive development will comply with appropriate site noise limits, should the appeal be allowed.

### ***S73 Time Extension***

- 8.8 As set out in paragraph 4.4 of this proof, the reason for refusal for the S73 time extension related to quarry activities occurring within 200m of sensitive development, extending the duration of the impact of noise from quarrying on the community to the detriment of the amenity and well-being of residents.



- 8.9 Routine noise monitoring undertaken by WBM in 2013-2017 demonstrates that site operations at the existing quarry complied with required site noise limits. This was also confirmed by additional measurements undertaken in December 2020.
- 8.10 The noise calculations undertaken for the S73 time extension considered site activities at the four receptors identified in the existing mineral planning permission, i.e. Locations A to D (Conway Close, Pen y Bryn, Garth Avenue and Rogart Terrace)
- 8.11 The distances between the quarry operations and the nearest noise sensitive receptors were considered by WBM and were included in the calculations for the assessment undertaken for the S73 time extension ES in 2021.
- 8.12 The shortest working distances between the respective receptors and the various items of plant and quarry activities have been used in the acoustic model for the site in order to calculate the reasonable worst case site noise levels. Some of these activities are within 200m of receptors.
- 8.13 As set out in Section 6 of this proof, site noise limits for these receptors had been suggested following the guidance in MTAN1. Recent noise measurements in March 2022 have shown that all of the suggested site noise limits are appropriate or, in some cases, more stringent than would be required if the MTAN1 guidance were applied to the March 2022 baseline data.
- 8.14 MTAN1 requires noise impacts to be minimised to acceptable levels, where aggregate extraction and related operations occur close to noise sensitive areas. Compliance with the site noise limits specified in MTAN1 should therefore indicate that site noise is at an acceptable level to avoid a significant effect at noise sensitive properties.
- 8.15 All of the calculated reasonable worst case existing site activity noise levels at receptors A to D have met the site noise limits suggested by WBM. The noise assessment has shown that operations within the existing site including those within 200m of sensitive development should comply with appropriate site noise limits.
- 8.16 Therefore, the noise assessment for the 2021 S73 ES has demonstrated that noise from existing site operations, including those within 200m of sensitive development, already comply with appropriate site noise limits and will continue to do so in the future, should the appeal be allowed.

## **9 Response to RCT Statement of Case**

- 9.1 Comments in the RCT Statement of Case (SoC) with regard to noise are reproduced in paragraphs 4.7-4.9 above. In summary the SoC claimed that the noise chapters did not present comprehensive or up to date noise data, and without this, there was no robust assessment of the impact of site operations on nearby sensitive properties. In addition, the noise assessments failed to demonstrate that noise sensitive receptors can be adequately protected.
- 9.2 The details set out in Sections 5, 6 and 7 of this proof provide comprehensive background noise levels and clearly demonstrate that the site noise limits suggested in the noise chapters for the western extension ES and SES, and the S73 time extension ES are either appropriate or, in some cases, more stringent than required, if following guidance in MTAN1.
- 9.3 The noise calculations undertaken for the western extension considered site activities at the nearest receptors to the extension area, i.e. Conway Close, Pen y Bryn, Cefn Heulog and Cefn Primary School.
- 9.4 The noise calculations undertaken for the S73 extension considered site activities at the four receptors around the existing quarry site, i.e. Conway Close, Pen y Bryn, Garth Avenue and Rogart Terrace.
- 9.5 The shortest working distances between the respective dwellings and the various items of fixed and mobile plant, have been used in the acoustic model for the site in order to calculate reasonable worst case site noise levels. Some of these activities are within 200m of receptors.
- 9.6 All of the calculated reasonable worst case site activity noise levels have shown compliance with the suggested site noise limits.

- 9.7 The suggested site noise limits for Locations A to D were arrived at following the guidance in MTAN1. For Cefn Primary School and Cefn Heulog, the previously suggested site noise limits were based on guidance from BB93 (in absence of baseline noise data) and advice in TAN 11 respectively. However, recent noise measurements in March 2022 have shown that the suggested site noise limits are appropriate or more stringent than required, if following guidance in MTAN1 at all locations. MTAN1 requires noise impacts to be minimised to acceptable levels, where aggregate extraction and related operations occur close to noise sensitive areas. Achieving the site noise limits specified in MTAN1 should therefore indicate that site noise is at an acceptable level to avoid a significant effect at noise sensitive properties.
- 9.8 Therefore, the March 2022 noise survey results have demonstrated that the site noise limits set out in the noise assessments for the 2015 western extension ES, the 2021 western extension SES and the 2021 S73 ES, are appropriate. Noise from existing site operations, including those within 200m of sensitive development, already comply with appropriate site noise limits and will continue to do so in the future, should the appeals be allowed.

## **10 Response to S73 Appeal: List of Topics Highlighted by Inspector**

- 10.1 As set out in paragraphs 4.13 and 4.14, the Inspector has prepared a list of topics to be addressed with regard to the S73 time extension. The topic most relevant to noise is:
- *“Living conditions considerations – How would the time extension impact on any receptors / what has changed to the impacts that were previously assessed as acceptable for them now to be unacceptable”*
- 10.2 The routine noise monitoring undertaken in 2013-2017 demonstrated that noise from quarry activities within the existing site complied with the required site noise limits.
- 10.3 This proof has demonstrated that the site noise limits suggested in the 2021 S73 ES remain acceptable; one of those limits (for Conway Close) is 3 dB more stringent than the limit currently in force for this location.
- 10.4 The calculated reasonable worst case noise levels from quarry activities from the nearest site activities to the receptor locations all comply with the suggested site noise limits.

- 10.5 The suggested site noise limits were arrived at following guidance in MTAN1. MTAN1 requires noise impacts to be minimised to acceptable levels, where aggregate extraction and related operations occur close to noise sensitive areas. Compliance with the site noise limits specified in MTAN1 should therefore indicate that site noise is at an acceptable level to avoid a significant effect at noise sensitive properties.
- 10.6 The noise assessment for the 2021 S73 ES has demonstrated that noise from existing site operations, including those within 200m of sensitive development, already comply with appropriate site noise limits and will continue to do so in the future, should the appeal be allowed.

## **11 Response to Wardell Armstrong Comments**

- 11.1 The comments from Rosie Pitt of Wardell Armstrong in her email of 23 February 2022 are reproduced below. I provided an informal response to these queries by email to Rosie Pitt on 11 March 2022. My updated responses to these comments are set out in this section.

### ***Comment 1***

- 11.2 *“1. The background noise measurements for the majority of the locations were taken over 15 minute periods. I note the reasoning behind this was to capture more measurements over a greater portion of the day. The Minerals Guidance – Guidance on the planning for mineral extraction in plan making and the application process states that  $L_{A901hour}$  should be used for the assessment of site noise limits. Although this guidance does not strictly apply in Wales, in the absence of specific guidance in Wales relating to the selection of the background noise monitoring periods, this is the most relevant guidance available. IEMA noise guidelines also state that if the desired indicator is  $L_{A901hour}$ , this cannot be obtained by averaging values that make up the hour, i.e.  $L_{A9015 mins}$  in this case.”*
- 11.3 The relevant document with regard to noise from aggregates sites in Wales is MTAN1 with noise addressed in paragraphs 85 to 88 (see paragraphs 3.6-3.10 of this proof). Site noise limits are considered in paragraph 88. Although MTAN1 does specify that site noise limits should be set in terms of the  $L_{Aeq,T}$  over a 1-hour measuring period, there is no requirement for the background noise levels to also be measured over a 1 hour period. MTAN1 supersedes paragraphs 31 to 42 of MPG11, although other parts of this document are still applicable. There is no minimum duration for background noise surveys set out in MPG11.

- 11.4 The comment with regard to IEMA is noted, however the full text of paragraph 5.16 of the IEMA Guidelines for Environmental Noise Impact Assessment 2014 states: “*It is good practice, where appropriate, to measure over shorter time periods even though the required indicator is to be averaged over a longer period. However, care is needed with any statistical indicators: the value over a longer period does not necessarily equal the average of the values for shorter periods that aggregate to the longer period. Thus, if the desired indicator is the LA90,1h, this cannot be obtained by averaging the 12 LA90,5min values that make up the hour of interest. The desired indicator can be strictly obtained only with an hourly measurement. **However, it should be noted, that in most circumstances the numerical difference between these two approaches is likely to be small.***” (emphasis added).
- 11.5 WBM normally take 15-minute samples for background noise measurements as it allows samples to be taken at more locations and at different times of the day; thus covering more of the operational period. As background noise level is fairly constant at most locations over the course of an hour allied to the experience of the surveyor in assessing the noise environment at each monitoring location, it is expected that there would not be significant variation in a measured background noise level between a 15-minute sample and a 1-hour sample.
- 11.6 It is, therefore, maintained that the representative background noise levels based on noise samples measured over 15 minute periods are as appropriate as those based on noise samples measured over a 1 hour period.
- 11.7 WBM carried out additional measurements in March 2022 with 1-hour samples measured at Locations A to D, with a second sound level meter used to measure 15 minute samples – see Appendix C. The average values from the 15 minute sample measurements were the same as those from the 1 hour samples. This demonstrates that the use of 15 minute samples can, and in this case does, provide representative data.

**Comment 2**

- 11.8 *“2. It’s also noted that although a number of measurements were taken at each location, the total monitored time at each location was approximately 1.5hrs. BS 7445 would suggest that this is not a broad enough measurement period to represent the noise levels over the relevant 12 hour operating period of the quarry. Specifically, section 5.4.3 states that the measurement time intervals should be chosen so that all significant variations of noise emissions and transmission are covered. As the measurements consider less than 15% of the total operating period, it is unlikely that all such variations could have been captured at each monitoring location. IEMA noise guidelines states that quiet sites tend to show a greater variation in ambient noise levels than inherently [noisy] sites. As a number of the locations are fairly quiet, a larger level of data would be considered appropriate to ensure that potential variation in noise levels is captured.”*
- 11.9 There are several locations where WBM has measured noise levels without audible site activity over a greater time period than 1.5 hours. These include Conway Close, Pen y Bryn and Cefn Heulog. It is my view that where site activity was not audible, measured background noise levels can be considered representative of baseline conditions without any contribution from the quarry
- 11.10 For Conway Close, the measurements have included:
- compliance noise monitoring at Location A in 2013-2017 comprising 13 x 15 minutes samples where site activity was not audible
  - noise samples in Dec 2020 at Location A comprising 3 x 15 minutes samples where site activity was not audible
  - installed meter in July 2014 and more recently in March 2021, and additional 3 x 15 minutes samples in March 2021 where site activity was not audible
- 11.11 For Pen y Bryn (Location B), the measurements have included:
- compliance noise monitoring 2013-2017 comprising 12 x 15 minutes samples where site activity was not audible
  - noise samples in Dec 2020 comprising 2 x 15 minutes samples where site activity was not audible
  - noise samples in March 2021 comprising 2 x 15 minutes samples during site operating hours but when activity at the quarry had ceased for the day

11.12 For Cefn Heulog, the measurements have included:

- installed meter in July 2014 and more recently in March 2021, and additional 4 x 15 minutes samples in March 2021 where site activity was not audible

11.13 The installed meters at Conway Close and Cefn Heulog measured noise levels continuously during the periods of the install. The noise samples were undertaken at different times throughout the day and it is considered that any potential variation in noise levels would be captured by these measurements.

11.14 In addition, baseline measurements comprising at least 3 x 1-hour samples were undertaken at all locations in March 2022.

**Comment 3**

11.15 *“3. The noise monitoring notes indicate that locations C and D didn’t cover any periods where the quarry was not audible. These would therefore not be suitable to represent background noise levels at the receptors in the absence of any noise from the quarry.”*

11.16 Location C is Garth Avenue and Location D is Rogart Terrace. Sample noise measurements without the site operating were measured at Garth Avenue in March 2021.

11.17 The properties on Garth Avenue (Location C) are located due north of the processing site and nearest to the primary crusher. For Garth Avenue, background noise levels were measured by others (Entec) in 2009 for the last ROMP. The average background noise level at this location used for the ROMP was 43.8 dB  $L_{A90,T}$ . This value was used to set the site noise limit at this location of 54 dB  $L_{Aeq,1h}$  with the 2013 determination of conditions for this site by RCT.

- 11.18 Noise sample measurements were undertaken at Garth Avenue in March 2021 during site operating hours, but at a time when site was not active (operations had stopped early) and therefore without any site activity, see paragraphs 5.24 and 5.25 of this proof. The measured background noise levels from these sample measurements were 44 & 46 dB  $L_{A90,15min}$ . The background noise levels measured without site operating are similar to the average background noise levels measured in 2009 by Entec and used to set the current ROMP site noise limits. It was considered by WBM that the baseline background noise levels measured at Garth Avenue did not show sufficient variation / reduction to suggest that the existing site noise limit be altered.
- 11.19 The properties on Rogart Terrace (Location D) are adjacent to the site entrance, off the B4273. Background noise levels were measured by others (Entec) in 2009 for the last ROMP. The average background noise level at this location used for the ROMP was 52.5 dB  $L_{A90,T}$ . This value was used to set the site noise limit at this location of 55 dB  $L_{Aeq,1h}$  with the 2013 ROMP determination of conditions for this site by RCT.
- 11.20 According to MTAN1, paragraph 88: “...*site noise limits should relate to the background noise levels, subject to a maximum daytime site noise limit of 55 dB(A) where background noise levels exceed 45 dB(A). 55 dB(A) is the lower limit of the daytime noise levels where serious annoyance is caused. Where background noise is less than 45 dB(A), site noise limits should be defined as background noise levels plus 10 dB(A)...*”
- 11.21 The site noise limit at Rogart Terrace is at the maximum value of 55 dB  $L_{Aeq,1h}$ . In order for the site noise limit to be less than 55 dB  $L_{Aeq,1h}$  it would be necessary for the background noise levels without site activity to be 44 dB  $L_{A90,T}$  or less. For noise measurements at this location, although site activity was audible, road traffic noise was the dominant noise source. It was considered by WBM that it is extremely unlikely that the background noise level without site activity would drop to below 45 dB  $L_{A90,T}$ .

#### **Comment 4**

- 11.22 “4. *Some data is then dismissed and the 2009 data used for setting the site noise limits. Noise monitoring data would normally be considered out of date after 2 years due to constant changes in noise levels over time. Can some explanation be provided as to why the 2009 data has been used instead of suitable up to date monitoring data.*”



- 11.23 I assume that Comment 4 refers to Conway Close. Within the 2015 western extension ES, the average background noise level for Conway Close took into account other noise data measured by Entec in 2009 as well as the results from the installed meter in July 2014.
- 11.24 However, the site noise limit proposed by WBM for Conway Close is supported by more recent noise survey results from 2021 and also 2022.

**Comment 5**

- 11.25 *“5. At least 3 one hour measurements would be considered a suitable level of data to ascertain an appropriate site noise limit at the receptors and may resolve the above issues.”*
- 11.26 It is my view that sufficient noise surveys had been undertaken in order to recommend appropriate site noise limits for each location. In addition, it is maintained that representative background noise levels based on noise samples measured over 15 minute periods were, in the circumstances prevailing at the receptor locations, as appropriate as those based on noise samples measured over a 1 hour period.
- 11.27 Notwithstanding the above, additional baseline noise levels were measured in March 2022 at all locations, comprising at least 3 x 1-hour samples. The measurements were undertaken during the day within normal site operating hours on a school term-time weekday, but at a time when there were no operations or quarrying activities on site. The survey details and results are presented in Appendix C and summarised in paragraph 5.26-5.31 of this proof.

**Comment 6**

- 11.28 *“6. The proposed site noise limit at the new receptor location does not follow MTAN1 guidelines or the Minerals Guidance – Guidance on the planning for mineral extraction in plan making and the application process where background noise+10dB is the accepted site noise limit. It is noted that the 2021 data shows a higher background noise level than the 2015 data, however it is unclear from the assessment why the background noise levels would have increased by 5dB over this period of time. Further monitoring and/or explanation would be required to resolve any doubt over a suitable site noise limit in order to avoid any adverse impact at the receptors.”*

- 11.29 It is assumed that Comment 6 refers to Cefn Heulog. The results of the noise surveys in July 2014 gave an average background noise level of 31 dB  $L_{A90,T}$ . Following MTAN1 would result in a site noise limit of 41 dB  $L_{Aeq,1h}$ . A daytime site noise of 41 dB  $L_{Aeq,1h}$  would be below the MTAN1 night-time site noise limit of 42 dB  $L_{Aeq,1h}$ . Within the 2015 western extension ES, it was considered that the imposition of site noise limits lower than 45 dB  $L_{Aeq,1h}$  at the dwellings on Cefn Lane, would impose unreasonable restrictions on the mineral operator. A site noise limit for Cefn Heulog of 45 dB  $L_{Aeq,1h}$  was initially suggested to avoid imposing an unreasonable burden on the mineral operator.
- 11.30 It should be noted that the Inspector indicated that the noise data from 2014 required consideration, hence WBM carried out an updated survey in March 2021.
- 11.31 The results from the installed sound level meter at this location in March 2021 gave an average background noise level of 36 dB  $L_{A90,T}$ . It is noted that the average background noise level measured in 2021 is 5 dB higher than that measured in 2014. In 2021 the equipment was left on site for several days to capture the noise levels and I have no reason to doubt the results. The noise level samples measured using a different sound level meter during the set up and collection of the installed meter had background noise levels that were in keeping with the background noise levels measured using the installed equipment.
- 11.32 Using the average background noise level of 36 dB  $L_{A90,T}$  could result in a site noise limit of 46 dB  $L_{Aeq,1h}$ , however within the 2021 western extension SES, it was considered appropriate to 'maintain' what has become a more conservative site noise limit of 45 dB  $L_{Aeq,1h}$  for this location as recommended in the 2015 ES.
- 11.33 The results from the most recent installed sound level meter at this location in March 2022 gave an average background noise level of 37 dB  $L_{A90,T}$ . The results of these further measurements are similar to the March 2021 average background noise level and therefore should resolve any doubt over the suitability of the background noise level and suggested site noise limit for this location.

## **12 Comments on Third Party Representations**

- 12.1 Various comments including objections have been received by RCT from statutory consultees and members of the public in response to both the western extension and S73 time extension applications.
- 12.2 The responses to the 2015 western extension ES were summarised in the RCT planning committee report dated 06 February 2020. Additional comments to the 2021 western extension SES have also been reviewed. The responses to the 2021 S73 ES were summarised in the RCT planning committee report dated 26 August 2021.

### ***Members of the Public***

- 12.3 With regard to responses regarding noise from members of the public / residents, these generally relate to:
- blasting,
  - HGVs on the highway, and
  - quarry activities within 200m of dwellings.
- 12.4 The impact from blasting is considered by Dr R Farnfield and highways matters are considered by Mr Jeremy Hurlestone.
- 12.5 With regard to site noise from quarry operations within 200m of dwellings, this has been considered and addressed in this proof. The noise assessments have shown that noise from site operations, including those within 200m of sensitive development, should comply with appropriate site noise limits.
- 12.6 There has also been a response referring to the inclusion of noise from the asphalt plant. This is included in the noise assessment for the S73 application.
- 12.7 Another response referred to the effect of noise on children at school. Noise from site activities affecting Cefn Primary School has been considered by the 2015 western extension ES and 2021 western extension SES with an appropriate site noise limit set to control noise impact, as set out in Section 6 of this proof.

### Consultees

12.8 The responses relating to noise from consultees are summarised in the table below, along with my comments.

**Table 12.1: Comment on Consultee Responses on Noise**

Organisation	Consultee Response	Comment
	<b>Western Extension</b>	
Cwm Taf University Health Board	Comments provided (no objection). Works may give rise to annoyance from visible dust, noise and vibration. It is unlikely that these would result in direct health effects but rather indirect well-being and quality of life effects	This proof has demonstrated that site noise due to quarry operations should comply with appropriate site noise limits
Ynysybwl and Coed y Cwm Community Council	Object due to traffic, environmental, noise and air pollution concerns, in particular HGV traffic.	This proof has demonstrated that site noise due to quarry operations including HGV movements on site road should comply with appropriate site noise limits. The noise from HGVs on the highway is not addressed in this proof but highways matters are considered by another witness (Mr J Hurlestone)
Pontypridd Town Council	Concerns raised regarding noise / vibration due to blasting	The noise from blasting is not addressed in this proof. The impact from blasting is considered by another witness (Dr R Farnfield)
	<b>S73 Time Extension</b>	
Cwm Taf Morgannwg University Health Board	Comments provided (no objection). Recommend that the operator seeks to engage proactively with local community residents with regard to information on the monitoring and mitigation of impacts e.g. noise and air quality.	The requirement for noise monitoring can be set in a suitable planning condition
Public Health Wales		
Pontypridd Town Council	Object on the following grounds Impact of Noise / Vibration, in particular in relation to HGV traffic and blasting	The noise from blasting or HGVs on the highway are not addressed in this proof. The impact from blasting is considered by Dr R Farnfield. Highways matters are considered by Mr J Hurlestone.

## **13 Summary and Conclusions**

- 13.1 This proof of evidence has addressed the reasons for the refusals of the applications for the western extension and S73 time extension in so far as they relate to noise impacts, and the further comments received from Rhondda Cynon Taf County Borough Council (RCT) with regard to noise as set out in their Statement of Case (SoC).
- 13.2 Summaries of previous noise measurements undertaken by WBM, along with the details and results of additional noise measurements undertaken in March 2022 are set out in this document.
- 13.3 The results from the March 2022 noise measurements support the previously suggested site noise limits set out in the noise assessments presented for the western extension ES and SES and the S73 time extension ES. The additional noise measurements confirmed that the suggested site noise limits are either appropriate or more stringent than required when following guidance in MTAN1.
- 13.4 The noise calculations undertaken by WBM for the western extension and S73 applications took into account the distances between the quarry operations and the nearest noise sensitive receptors. The shortest working distances between the respective receptors and the various items of plant and quarry activities have been used in the acoustic models for the site, with some of these activities taking place within 200m of receptors.
- 13.5 All of the calculated reasonable worst case site activity noise levels at the receptors used for the western extension and S73 application have been shown to meet the site noise limits previously suggested by WBM.
- 13.6 The noise assessments for the western extension and S73 time extension have demonstrated that noise from site activities complies with the current site noise limits for the existing site, and will continue to comply with appropriate site noise limits based on guidance in MTAN1, should the appeals be allowed.

- 13.7 In so far as the March 2022 baseline data and application of relevant guidance in MTAN1 suggest higher site noise limits for some receptors than those proposed in the 2015 ES and 2021 SES for the western extension and the 2021 ES for the S73 application, the Inquiry will need to consider whether the limits proposed in these documents would still comply with the tests for planning conditions. The site noise limits would be unchanged at Pen y Bryn and Rogart Terrace but would be higher at the remaining receptors.

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