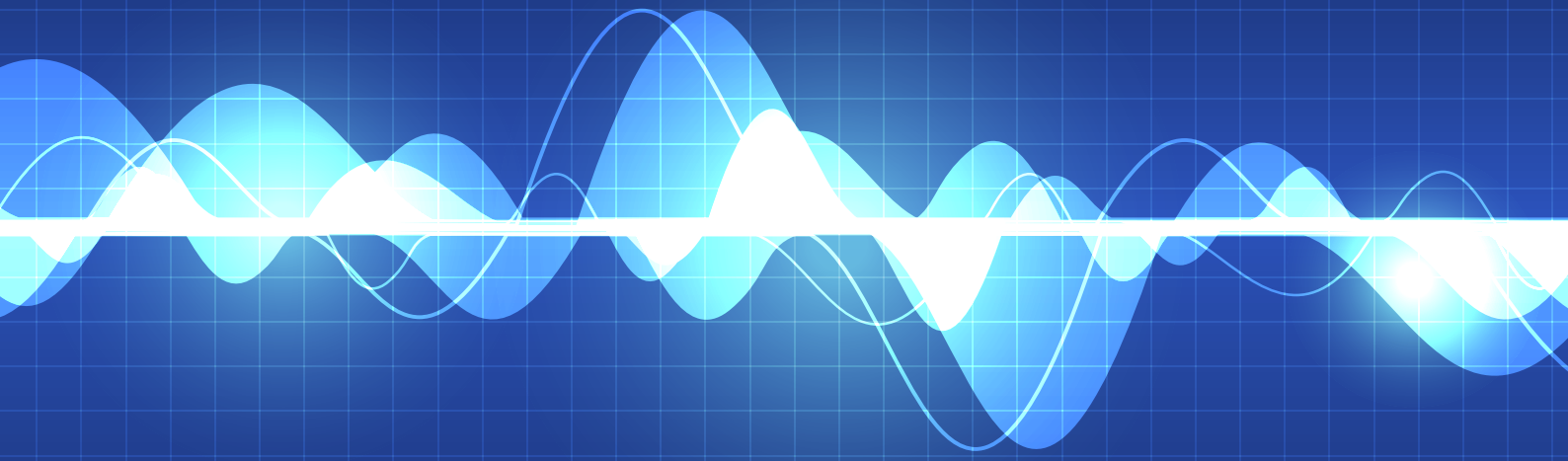
APPENDIX I

Noise and Vibration Impact Assessment

Tahmoor South Project

Amended Project - Noise and Vibration Impact Assessment

Prepared for Tahmoor Coal Pty Ltd
February 2020



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Southbank VIC 3006
T 03 9993 1905

PERTH
Level 6, 191 St Georges Terrace
Perth WA 6000

CANBERRA
Level 8, 121 Marcus Street
Canberra ACT 2600

Tahmoor South Project

Amended Project - Noise and vibration impact assessment

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Client

Tahmoor Coal Pty Ltd

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Prepared by	**Approved by**
	
Katie Teyhan Associate 11 February 2020	**Najah Ishac** Director 11 February 2020

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Executive Summary

ES1 Introduction

ES1.1 Background

Tahmoor Coal is seeking development consent for the continuation of mining at Tahmoor Mine, extending underground operations and associated infrastructure south, within the Bargo area. The proposed development seeks to extend the life of underground mining at Tahmoor Mine for an additional 13 years until approximately 2035.

An Environmental Impact Statement (EIS) was prepared to assess the potential environmental, economic and social impacts of the Project. The EIS for the Project was placed on public exhibition by the Department of Planning, Industry and Environment (DPIE) (formerly the Department of Planning and Environment (DPE)) from 23 January 2019 to 5 March 2019.

Key issues raised in submissions included concerns relating to the proposed extent of longwall mining, the magnitude of subsidence impacts and the extent of vegetation clearing required for the extension of the reject emplacement area (REA). In response to these and other issues raised in Government agency, local Council and stakeholders, and as a result of ongoing mine planning, several amendments have been made to the proposed development, to also further reduce the predicted environmental impacts of the Tahmoor South Project. A detailed description of the amended development is provided in the Amended Project Report (AECOM 2020).

This assessment has been prepared to assess the noise and vibration impacts of the amended project on existing noise-sensitive receptors in the area. This assessment considers and outlines the differences in impacts compared to the original project as presented in the EIS. In this way, it serves as an update to the Tahmoor South Project Noise and Vibration Impact Assessment (NVIA) (EMM, 2018) (Appendix M of the Tahmoor South EIS).

ES1.2 Submissions on the EIS

Matters for further consideration as requested by the DPIE and the submission received by the NSW Environment Protection Authority (EPA) have been addressed within this report.

A key difference between this assessment and the NVIA (EMM, 2018) presented in the EIS is the update in the noise assessment methodology. The noise assessment prepared for the EIS was undertaken in accordance with the Industrial Noise Policy (INP, 2000). At the request of the DPIE, this assessment has been prepared in accordance with the current NSW noise policy; Noise Policy for Industry (NPfI) (EPA, 2017).

Other key updates to the NVIA include provision of additional information regarding noise model validation and low frequency noise and consideration of a variety of stages of the reject emplacement area (REA) development over the entire duration of the amended project.

ES2 Noise assessment methodology

ES2.1 Operational noise assessment

Operational noise from the existing mine and the amended project have been assessed in accordance with the NPfI (EPA, 2017) and the Voluntary Land Acquisition and Mitigation Policy (VLAMP) (NSW Government, 2018) where relevant.

The methodology for applying the NPfI to existing sites is outlined in Section 6.1.1 of the NPfI and is summarised as follows as applicable to the amended project:

1. An initial evaluation of existing mine noise emissions was undertaken. Quarterly noise monitoring reports have indicated that measured mine noise emissions are in compliance with current noise limits. Further, a review of the Tahmoor Mine's complaints history shows a strong downward trend since 2010 with only one complaint related to noise recorded in 2018.

2. Project noise trigger levels (PNTLs) were established, in accordance with the NPfI, to set a benchmark level to assess the need to consider noise mitigation. These were primarily based on the results of contemporary ambient noise monitoring undertaken by EMM during June/July 2019 (as reported herein) and complemented by results of ambient noise monitoring undertaken by EMM during June 2018.

3. Tahmoor Coal noise emissions were predicted, having regard to noise-enhancing meteorological effects such as wind and temperature inversions as per the NPfI. Existing Tahmoor Mine noise emissions were validated via a comparison to detailed short-term measurements undertaken in Olive Lane as well as a comparison to results of historical noise compliance surveys.

4. Predicted noise emission levels from the amended project were then compared to PNTLs as well as existing noise emissions. The comparison of predicted levels to PNTLs found that Tahmoor Mine noise emissions were above the PNTLs at various noise-sensitive receptors surrounding the mine.

5. Given the preceding, an assessment of feasible and reasonable noise mitigation strategies was undertaken. Comparison of predicted mitigated mine noise levels to existing levels indicated a general improvement to noise emissions especially during the night-time. The exception to this is in some areas where noise levels will marginally increase due to the varying location of REA operations as well as operation of the additional haul truck and front-end loader during the day and evening to facilitate the restriction to night-time REA operations. Residual noise impacts for the existing mine and the various stages of the amened project were categorised in accordance with the VLAMP and showed a significant reduction in the number of properties significantly affected by Tahmoor Mine noise.

6. Achievable noise limits were determined for the amended project based on the locations utilised for existing noise compliance surveys. These will likely form the basis of revised noise goals for the amended project. This may involve negotiation between the regulator and proponent as well as consultation with the community.

7. It is proposed that compliance with the agreed noise limits will be monitored via a program similar to that already implemented by Tahmoor Coal. Performance of the site with regard to noise will continue to be reviewed and amended as required.

ES2.2 Construction noise assessment

The DPIE generally requires that noise emissions from construction associated with mining projects be assessed under the NPfI. This is usually because noise from construction activity associated with such projects is similar in nature to that generated by the operation of the project particularly for open-cut mining operations. In the case of the project, construction activities (ie establishment of the new ventilation shafts and fans) will be different in nature to operations that will occur at the ventilation shaft sites and those that occur at the pit-top area. Further, the proposed construction activity is temporary with both ventilation shafts (TSC1- upcast and TSC2 – downcast) planned to be operational within approximately three years from commencement of the project.

With reference to the EPA submission, noise associated with construction of the ventilation shafts and fans has been assessed in accordance with the NPfI and with reference to the Interim Construction Noise Guideline (ICNG) (DECC, 2009) and Assessing vibration: a technical guideline (DDEC, 2006).

ES3 Operational noise assessment

ES3.1 Project noise trigger levels

Project intrusive noise levels were established based on the results of recent ambient noise monitoring. Ambient and background noise levels were measured at five locations surrounding the mine representative of the nearest noise-sensitive receptors. Noise-sensitive receptors were categorised into noise-catchment areas with similar acoustic environments.

PNTLs were established as the most stringent of either the project intrusiveness or amenity noise levels. It is noted that the PNTLs are not to be applied as mandatory noise limits but are used to assess the potential level of impact and drive the process of assessing all feasible and reasonable noise control measures.

ES3.2 Noise modelling methodology

The operational noise model was validated against the results of short-term operator-attended noise surveys in Olive Lane and compared to results of historical noise compliance monitoring. The model was shown to be marginally over-predicting at the adopted validation locations and was considered appropriate for the purpose of determining noise impacts from the amended project providing, a conservative approach.

Operational noise levels were predicted under calm and noise-enhancing meteorological conditions. Three separate stages of REA development were considered representative of acoustically worst cases for residences surrounding the REA.

Based on the results of the quarterly noise compliance monitoring, LFN modifying factors have been applied to predicted mine noise emissions. These results indicate that low frequency noise above the current NPfI thresholds is present in the vicinity of Olive Lane (quarterly noise monitoring locations M3 and M4 – refer Figure 3.1) and the Wollondilly Anglican Church and College (location M2). The measured LFN levels at these locations indicate that a current modifying factor of +2dB applies during the day and +5dB applies during evening and night at assessment locations in these areas. These modifying factors have been included in the noise emission predictions.

ES3.3 Existing mine noise emissions and assessment of mitigation

Given that existing Tahmoor Mine noise emissions were measured and predicted to be above the PNTLs at various locations surrounding the mine, an assessment of reasonable and feasible mitigation has been undertaken. The aim of this assessment is to achieve the PNTLs. This was completed in accordance with the methodology provided in the NPfI for the assessment of noise emissions from existing sites.

The main operational noise sources at the site contributing to off-site noise levels are the CHPP and dozers at the pit-top and operation of the REA. Other significant sources that contribute to off-site noise emissions include rail loading activity (locomotives and loading coal into wagons), compressors and the reject haul truck. Mitigation options targeting these noise sources have been considered and, where assessed as both feasible and reasonable, were incorporated into the operational noise model.

ES3.4 Operational noise assessment summary

Table ES1 provides a summary of the number of assessment locations for each operational scenario (existing mine and each of the Stages considered) where predicted noise emissions are in the following categories:

- No more than 2 dB above PNTL;
- 3-5 dB above PNTL; and
- More than 5 dB above PNTL.

Table ES1 Assessment Locations

	Existing Tahmoor Mine			Stage 2 exc Constrn			Stage 2 Mit exc Constrn			Stage 4			Stage 4 Mitigated			Stage 5			Stage 5 Mitigated		
Noise-enhancing	**Day**	**Evening**	**Night**	**Day**	**Evening**	**Night**	**Day**	**Evening**	**Night**	**Day**	**Evening**	**Night**	**Day**	**Evening**	**Night**	**Day**	**Evening**	**Night**	**Day**	**Evening**	**Night**
No more than 2dB above PNTL	2753	2715	2650	2747	2704	2636	2753	2723	2734	2751	2709	2643	2757	2725	2734	2750	2711	2646	2756	2731	2735
3-5dB above PNTL	5	24	73	11	32	84	6	29	19	7	27	76	2	27	19	8	25	72	3	22	18
More than 5dB above PNTL	1	19	33	1	22	36	0	6	3	1	22	37	0	6	3	1	22	38	0	5	3
Calm																					
No more than 2dB above PNTL	2759	2745	2734	2758	2744	2734	2759	2757	2754	2759	2742	2733	2759	2754	2754	2759	2742	2733	2759	2755	2754
3-5dB above PNTL	0	12	17	1	12	17	0	1	2	0	15	18	0	4	2	0	15	18	0	3	2
More than 5dB above PNTL	0	1	5	0	2	5	0	0	0	0	1	5	0	0	0	0	1	5	0	0	0

Key points from the operational noise assessment are summarised as follows:

- As per the results presented in Appendix F, the mitigated Project is expected to reduce noise emissions at all assessment locations compared to existing levels by at least 2 dB and up to 18 dB at some assessment locations during the night-time period.

- Predicted noise levels from the amended project show a significant reduction in the number of privately-owned dwellings affected by mine noise emissions more than 5 dB above the relevant PNTL compared to existing mine noise; a maximum of six residences for operation of the mitigated, amended project compared to 33 for existing Tahmoor mine operations. Categorising residual noise impacts in accordance with the VLAMP noise impact categories results in three residential properties classified as significantly affected (refer Appendix G).

- Mine noise at the Anglican Church and school is predicted to reduce by at least 3 dB (mitigated scenario) compared to existing mine noise emission levels. Further, mine noise including mitigation measures are predicted to achieve the relevant amenity noise levels at these locations.

- In some cases, locations categorised as significant are relatively further from the mine than those with a moderate or marginal impact category. This is due to several factors including rounding of noise predictions, local topographical features and the relative PNTLs for these locations (intrusive and amenity).

To assist in the negotiation process that will likely be an outcome of this study Table ES2provides a summary of the predicted noise levels at ten locations around the mine which are representative of the potentially most exposed to mine noise. These locations (refer Figure 6.1) will likely become future noise compliance monitoring locations and have been selected primarily from the ten existing quarterly noise monitoring locations with the exceptions being M1 and M10. Location M1 is the service station located south of the Anglican College and is not considered appropriate given that it is not a noise-sensitive receptor and the close proximity of location M2. Given the proximity of M10 to the REA extension it is recommended that 80 Charlies Point Road would be a more appropriate noise monitoring location. Further, the nearest residential property to the south of the REA is the subject of negotiations for Tahmoor Coal to purchase.

Table ES2 Predicted 'achievable' noise levels (noise enhancing)

Location				PNTL			Existing			Project		
Ref.	X	Y	Description	Day	Eve	Night	Day	Eve	Night	Day	Eve	Night
C1	276653	6207152	Wollondilly Anglican Church	53	53	n/a	57	60	60	51	53	51
C2	276472.9	6207650	Western end of Olive Lane	47	47	43	52	55	55	47	49	46
C3	276741	6207616	Eastern end of Olive Lane	51	48	43	54	57	57	52	52	49
C4	276936.3	6208105	2900 Remembrance Drive	51	48	43	46	46	46	46	46	43
C5	278017.5	6208249	Southern end of Stratford Road	41	41	41	43	43	43	44	44	38
C6	278663.1	6208711	Eastern end of Hodgson Grove	40	40	35	39	39	39	40	40	32
C7	279273	6207883	Rockford Road	40	35	35	38	38	38	40	40	34
C8	279711.4	6207784	Kammer Place	40	35	35	33	33	33	35	35	<30
C9	277768	6205158	80 Charlies Point Road	40	39	35	37	37	37	38	38	32
C10	276577.5	6206476	3076 Remembrance Drive	49	42	35	43	43	43	43	43	41

Notes: 1. Noise level predictions presented in this table include the relevant LFN modifying factor.

ES3.5 Sleep disturbance

Maximum noise levels from existing operations have previously been the subject of a Pollution Reduction Program (PRP) relevant to the site. As described in the previous NVIA (EMM, 2018), engineered mitigation controls have been effectively implemented as part of the Tahmoor Mine's PRPs to reduce and control maximum noise events.

Noise reduction measures that have been considered as part of the mitigated Project will have the effect of further reducing maximum noise levels from site. These measures include the following as described in Section6.6:

- increased height of barrier adjacent to the north-western side of the rail loop;
- improvement to feed chute into rail wagons to reduce impact noise when loading of coal commences into each wagon;
- improvements to the CHPP cladding and/or plant and equipment within it;
- noise-suppression kit for dozers; and
- no activity (haulage or dozer) will occur in the REA during the night time.

Maximum noise levels have been predicted from the Project including the feasible and reasonable mitigation measures described above. Maximum noise level predictions from activities such as dozer operation or rail loading are provided in Table 8.1. for all residential assessment locations. Results indicate that the maximum noise level is not predicted to be above that which would trigger the need for a detailed assessment of maximum noise events as defined in the NPfI (i.e. L_{Amax} 52dB).

It is expected that both the frequency and level of maximum noise events from the amended project will be lower compared to the existing operation due to the mitigation measures to be implemented; including as a result of restricting operation of all equipment in the REA to day and evening only.

ES4 Construction noise assessment

Construction activity at the proposed ventilation shaft sites is likely to occur during the first three to four years of the project. Construction noise emissions were predicted based on the proposed construction schedule, including some activity proposed during the night-time, and the likely equipment to be utilised.

Feasible and reasonable mitigation measures have also been incorporated into the noise model for proposed night-time activities. Given that details regarding the type of construction equipment and methodologies are not yet finalised it is expected that these measures would include some or all of the following:

- regular reinforcement (such as at toolbox talks) of the need to minimise noise and vibration;
- avoiding the use of portable radios, public address systems or other methods of site communication that may unnecessarily impact upon residents;
- parking of vehicles using methods and locations to minimise noise;
- minimising the need for vehicles to enter and/or exit the site during the night;
- minimise the need for reversing for example, by arranging for one-way site traffic routes (largely achieved by site layout design); and

- use of temporary barriers around the drill rig to acoustically shield nearest potentially affected residential locations.

Noise emissions were predicted for Stage 2 of the REA including each construction scenario considered and compared to operational noise predictions for Stage 2 of the REA excluding construction. Table ES3provides a summary of the number of assessment locations where predicted noise emissions are in the following categories:

- No more than 2 dB above PNTL;
- 3-5 dB above PNTL; and
- More than 5 dB above PNTL.

Table ES3 Assessment locations – residual noise impacts

	Stage 2 excluding construction			Stage 2 + TSC1 Site Est.	Stage 2 + TSC1 Drilling			Stage 2 + TSC2 Site Est.	Stage 2 + TSC2 Drilling		
Noise-enhancing	**Day**	**Evening**	**Night**	**Day**	**Day**	**Evening**	**Night**	**Day**	**Day**	**Evening**	**Night**
No more than 2dB above PNTL	2745	2702	2635	2735	2743	2699	2634	2731	2744	2701	2634
3-5dB above PNTL	12	32	84	20	13	34	82	22	12	31	84
More than 5dB above PNTL	1	23	36	3	2	24	39	5	2	25	37

Construction activity expected to be undertaken concurrently with Stage 2 of the REA is predicted to result in a minor increase in the number of properties affected by noise more than 5dB above the PNTL compared to general mining activity during the same stage; up to four additional properties during the daytime, up to two additional properties during the evening and up to three additional properties during the night-time period.

As expected, the largest predicted increase in noise levels as a result of construction activity is limited to those properties in close proximity to the proposed ventilation shaft sites. With reference to the ICNG, total noise emissions are predicted to be below the Highly Noise Affected level at all residential properties during the daytime.

The two nearest private residences to the south of the REA and nearest to the ventilation fan sites are 80 and 185 Charlies Point Road. Night-time construction noise levels including unmitigated Stage 2 mining activities are predicted to be equal to or less than $L_{Aeq,15minute}$ 37 dB for each scenario considered at 80 Charlies Point Road. Night-time construction activity including unmitigated Stage 2 mining activities at 185 Charlies Point Road is predicted to generate up to $L_{Aeq,15minute}$ 49 dB. It is noted that Tahmoor Coal has commenced negotiations to purchase this property.

Noise from the outside-of-standard-hours activity will generally be continuous in nature and therefore given the magnitude of predicted L_{Aeq} construction noise levels, the maximum noise level (ie L_{Amax}) from this activity will be below the relevant sleep disturbance screening criteria at all nearby assessment locations.

Tahmoor Coal will actively manage construction noise levels. The construction noise management methods will be detailed in a construction noise management plan which will be developed prior to commencement of construction activities.

ES5 Vibration

ES5.1 Construction vibration

The potential for vibration impacts from construction activity was assessed in the previous NVIA. The EPA has requested additional consideration of likely vibration from the proposed drill rig.

The precise type and model of the drill rig to be used is not yet known. Notwithstanding, given the separation distance between the sites where drilling is proposed and the nearest residences (>200m), published literature shows that vibration levels from drilling activity will not be noticeable at the nearest residences. Further, vibration levels from drilling are expected be below levels likely to cause damage to structures.

ES5.2 Operational vibration

Vibration from operational activity is not expected to change and given the separation distance between the nearest residences to either the existing surface infrastructure site or the vent fan sites (>200 m), ground-borne vibration from existing equipment is not expected to be perceptible.

Notwithstanding, it is acknowledged that historical complaints have been received in relation to vibration from the existing vent fan. Results of recent vibration monitoring in close proximity to (at a distance of approximately 30 m from the southern side) the existing vent fan building indicate that peak vibration levels during normal operation of the facility were significantly below the level of human perception. Hence, it is not expected that vibration levels from the existing or proposed vent fans would cause disturbance at any residences.

ES6 Conclusion

EMM has prepared an updated NVIA for the Tahmoor Coal amended project in response to submissions received from relevant government agencies.

The noise impact assessment indicates that operational noise from Tahmoor Mine will improve as a result of the project with the incorporation of feasible and reasonable mitigation measures especially during the most sensitive night-time period.

Construction noise associated with the amended project is expected to increase general operational noise emissions in the vicinity of the proposed works; new ventilation shaft sites south of the REA. Tahmoor Coal will incorporate all feasible and reasonable measures to minimise potential construction noise impacts and actively manage construction activity through the preparation and implementation of a Construction Management Plan.

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1 Introduction

1.1 Background

Tahmoor Coal is seeking development consent for the continuation of mining at Tahmoor Mine, extending underground operations and associated infrastructure south, within the Bargo area. The proposed development seeks to extend the life of underground mining at Tahmoor Mine for an additional 13 years until approximately 2035.

In accordance with the requirements of the *Environmental Planning and Assessment Act 1979* (EP&A Act), the *Environmental Planning & Assessment Regulation 2000* (EP&A Regulation) and the Secretary's Environmental Assessment Requirements (SEARs) an Environmental Impact Statement (EIS) was prepared to assess the potential environmental, economic and social impacts of the Project. The EIS for the Project was placed on public exhibition by the Department of Planning, Industry and Environment (DPIE) (formerly the Department of Planning and Environment (DPE)) from 23 January 2019 to 5 March 2019.

Key issues raised in submissions included concerns relating to the proposed extent of longwall mining, the magnitude of subsidence impacts and the extent of vegetation clearing required for the expansion of the reject emplacement area (REA). In response to these and other issues raised in Government agency, local Council, stakeholder and community submissions, and as a result of ongoing mine planning, several amendments have been made to the proposed development, to also further reduce the predicted environmental impacts of the Tahmoor South Project.

The key amendments to the Project since public exhibition of the EIS are:

- A revised mine plan, including:
  - an amended longwall panel layout and the removal of LW109;
  - a reduction in the height of extraction within the longwall panels from up to 2.85 metres (m) to up to 2.6 m; and
  - a reduction in the proposed longwall width, from up to 305 m to approximately 285 m.
- A reduction in the total amount of Run-of-Mine (ROM) coal to be extracted over the Project life, from approximately 48 million tonnes (Mt) to approximately 43 Mt of ROM coal, comprising;
  - 30 Mt of coking coal product (reduced from 35 Mt);
  - 2 Mt of thermal coal product (reduced from 3.5 Mt)
- A revised extended REA; including:
  - a reduction in the additional capacity required to accommodate the Project;
  - a reduction in the REA extension footprint, from 43 ha to 11ha;
  - an increase in the final height of the REA (from RL 305 m to RL 310 m).
- Confirmation of the location and footprint of ancillary infrastructure associated with the ventilation shaft sites (e.g. the power connection easement for ventilation shaft site TSC1); and

- A continuation of the use of the existing upcast shaft (T2); although, operation will reduce from two fans during Tahmoor North operations to one fan once the new ventilation shafts and fans (TSC1 and TSC2) are in operation in Tahmoor South.

No amendments have been made to other key aspects of the Project as presented in the EIS for which approval is sought, such as the proposed annual coal extraction rate, mining method, traffic movements and employee numbers. A detailed description of the amended development is provided in the Amended Project Report (AECOM 2020).

1.2 Purpose of this report

This assessment has been prepared to assess the noise and vibration impacts of the amended project on existing noise-sensitive receptors in the area. The assessment considers and outlines the differences in impacts compared to the original project as presented in the EIS. In this way, it serves as an update to the Tahmoor South Project Noise and Vibration Impact Assessment (NVIA) (EMM, 2018) (Appendix M of the Tahmoor South EIS).

1.3 Amended project

The amended project would use longwall mining to extract coal from the Bulli seam within the bounds of CCL716 and CCL747. Coal extraction of up to four million tonnes of ROM coal per annum is proposed as part of the development with extraction of up to 43 Mt of ROM coal over the life of the Project. The amended project would produce approximately:

- 30 Mt coking coal product;
- 2 Mt thermal coal product; and
- 12 Mt of rejects.

These approximate market mix volumes include moisture and are therefore an estimate only. Once the coal has been extracted and brought to the surface, it would be processed at Tahmoor Mine's existing CHPP and coal clearance facilities, and then transported via the existing rail loop, the Main Southern Railway and the Moss Vale to Unanderra Railway to Port Kembla and Newcastle (from time to time) for Australian and international markets. Up to 200,000 tonnes per annum of either product coal or reject material is proposed to be transported to customers via road.

The amended development would use the existing surface infrastructure at the Tahmoor Mine surface facilities area. Some upgrades are proposed to facilitate the extension.

The amended development also incorporates the planning for rehabilitation and mine closure once mining ceases.

In summary, the key components of the amended development comprise:

- Longwall mining in the Central Domain;
- Mine development including underground development, vent shaft construction, pre-gas drainage and service connection;
- Upgrades to the existing surface facilities area including:
  - Upgrades to the CHPP;
  - Expansion of the existing REA;

- Additions to the existing bathhouses and associated access ways; and
- Upgrades to onsite and offsite service infrastructure, including electrical;

- Rail transport of product coal to Port Kembla and Newcastle (from time to time);
- Up to 200,000 tonnes per annum of either product coal or reject material is proposed to be transported to customers via road;
- Mine closure and rehabilitation; and
- Environmental management.

1.4 Submissions on the EIS

Matters for further consideration as requested by the DPIE and the submission received by the NSW Environment Protection Authority (EPA) have been addressed within this report. The DPIE requests regarding noise, together with how each matter has been addressed within this report, are summarised in Table 1.1. Due to the significant detail and overlap with the DPIE submission, the issues raised within the EPA submission are provided in Appendix A together with details of how it has been addressed within this report.

Table 1.1 DPIE Matters for further consideration

Matter	Response
The Department requests that Tahmoor Coal provide a revised noise and vibration assessment (NIA), prepared in accordance with the Noise Policy for Industry (NPfI), that addresses the concerns raised in EPA's submission.	Operational noise has been assessed in accordance with the NPfI as per this Amended Project NVIA. Responses to EPA submission are provided in Appendix A.
The revised NIA should comprehensively address the historic low-frequency noise issues at Tahmoor Mine. Priority should be placed on mitigating low-frequency noise emissions from the Coal Handling and Preparation Plant (CHPP), rather than only focusing on the overall (A-weighted) noise reductions. The NIA must clearly set out the assessment methods, modelling inputs, applied mitigation measures, and predicted outcomes. Alternative options to reduce low-frequency noise which have been explored by Tahmoor Coal should be presented and justified as to why they are not being implemented (eg relocation of CHPP).	Additional investigations have been undertaken (eg by Recognition Research Pty Ltd into potential cladding for the CHPP) and others are ongoing with regard to the potential reduction in low frequency noise (LFN) from the CHPP and other sources on site. Given the technical limitations in predicting LFN and since the LFN mitigation methods are still under investigation, only overall reductions expected in LFN have been adopted. Conservative assumptions have been made in this regard and explained further in Section 6.6. Consideration of feasible and reasonable mitigation measures are outlined in 6.6.
The revised NIA needs to provide a detailed noise assessment for the proposed activities over the entire duration of the project. All noise modelling inputs and assumptions should be set out, including details on how the noise model has been validated, to enable the Department and EPA to determine the full extent of potential noise impacts and the effectiveness of the proposed mitigation measures.	This Amended Project NVIA has considered three separate stages of the Project. Validation of the noise model is described in greater detail in Section 6.4. In summary, the validation of the model shows it is over predicting impacts by approximately 2dB, but conservatively calibration factors were not adopted.

Table 1.1 DPIE Matters for further consideration

Matter	Response
The NIA does not provide a clear description of existing mine activities and noise levels. Without this information, it is not possible to ascertain the likely change in noise arising from the proposed operation. The NIA must present existing mine noise levels with sufficient evidence and justification, taking into account noise monitoring undertaken at the site over many years by different consultants.	Validation of the noise model is described in greater detail in Section 6.4. Existing noise levels are presented in Appendix E together with indicative noise contours for existing mine activities.

2 Assessment Methodology

2.1 Applying the NPfI to existing sites

The NPfI provides a methodology for the assessment of noise from existing industrial sites. The NPfI acknowledges that some industrial sites were designed for higher allowable noise emissions than those outlined in current NSW noise policy and may have been in existence before neighbouring noise-sensitive developments. The range of mitigation options available for such sites can be limited or costly.

Section 6.1 of the NPfI states that, "*The project noise trigger levels should not be applied as mandatory noise limits. The project noise trigger level is the level used to assess noise impact and drive the process of assessing all feasible and reasonable control measures.*"

Where noise emissions from the existing site exceed the project noise trigger levels (PNTLs) as defined in the NPfI, the relevant regulatory authorities and proponent will determine achievable noise limits for the site through negotiation and discussion with relevant stakeholders as required.

The process for applying the NPfI to existing sites is outlined in Section 6.1.1 of the NPfI and is summarised as follows as applicable to the amended project:

1. Undertake an initial evaluation, including whether approvals/licences include noise limits and whether they are being met.

2. Establish relevant PNTLs, in accordance with the NPfI, to establish a benchmark level to assess the need to consider noise mitigation.

3. Measure/predict the noise levels produced by the source in question, having regard to meteorological effects such as wind and temperature inversions.

4. Compare the measured/predicted noise level with the PNTLs.

5. Where the PNTLs are exceeded, assess feasible and reasonable noise mitigation strategies.

6. Develop and refine achievable noise limits that will become goals for the project. This may involve interaction between the regulator and proponent as well as consultation with the community.

7. Monitor compliance with the agreed noise limits, and review and amend the noise performance of the site as required.

2.2 Operational noise limits -NPfI

Noise from industrial sites or processes in NSW is regulated by the local council, DPIE and/or the EPA and usually have a licence and/or development consent conditions stipulating noise limits. These limits are normally derived from operational noise levels applied at assessment locations. They are based on EPA guidelines (i.e. NPfI) or noise levels that can be achieved at a specific site following the application of all reasonable and feasible noise mitigation measures.

The reaction to noise is highly subjective. Hence, it is not possible to adopt noise levels that will guarantee that no one will experience an impact. Adherence with the PNTLs should not be interpreted to mean that industrial noise will be inaudible, or that all members of the community will find the noise acceptable. The PNTLs for industry provide a benchmark for assessing a proposed or existing industrial development.

Both the increase in noise level above background levels (ie the intrusiveness of a source) as well as the absolute level of noise are important factors in how a community will respond to noise from industrial sources. To ensure both of these factors are considered, the EPA provides two separate noise trigger levels: intrusiveness and amenity. The fundamental difference being intrusiveness noise levels apply over 15 minutes in any period (day, evening or night), whereas the amenity noise levels apply to the entire assessment period (day, evening or night).

2.2.1 Assessing intrusiveness

The intrusive noise trigger levels require that $L_{Aeq,15\ minute}$ noise levels from the site during the relevant operational periods (i.e. day, evening and night) do not exceed the rating background level (RBL) by more than 5 dB. The NPfI recommends that the intrusive noise trigger level for evening be set at no greater than the intrusive noise level for daytime and that the intrusive noise level for night-time should be no greater than the intrusive noise level for day or evening. Intrusive noise trigger levels are applicable at residential assessment locations only.

A long-term, unattended ambient noise survey was undertaken during June 2019 to complement the monitoring that was undertaken for the EIS.

2.2.2 Assessing Amenity

The amenity assessment is based on noise targets specific to land use and associated activities. The targets relate only to industrial-type noise and do not include road, rail and/or community noise. Where the measured existing industrial noise approaches the recommended amenity noise level, it needs to be demonstrated that noise levels from new industry will not contribute to existing industrial noise such that amenity noise levels are exceeded.

To ensure that total industrial noise levels remain within the recommended amenity noise levels for an area, the project amenity noise level for the subject development is the recommended amenity noise level (outlined in Table 2.2 of the NPfI) minus 5 dB.

Residences have been categorised in the NPfI rural, suburban or urban amenity categories as per the definitions provided in the NPfI.

An extract from the NPfI that relates to the amenity noise levels relevant to the project is given in Table 2.1.

Table 2.1 Amenity noise levels - Recommended L_{Aeq} noise levels from industrial noise sources

Type of receptor	Noise amenity area	Time of day[1]	Recommended $L_{Aeq(Period)}$ noise level, dB
Residence	Rural	Day	50
		Evening	45
		Night	40
	Suburban	Day	55
		Evening	45
		Night	40
	Urban	Day	60
		Evening	50
		Night	45
School classroom – internal	All	Noisiest 1-hour period when in use	35
Place of worship - internal	All	When in use	40

1. Daytime 7 am to 6 pm; Evening 6 pm to 10 pm; Night-time 10 pm to 7 am. On Sundays and Public Holidays, Daytime 8 am - 6 pm; Evening 6 pm - 10 pm; Night-time 10 pm - 8 am. The L_{Aeq} index corresponds to the level of noise equivalent to the energy average of noise levels occurring over a measurement period.

2.2.3 Project noise trigger levels

PNTLs are the lower of the derived intrusiveness and amenity levels.

It is commonly acknowledged and accepted amongst regulators and industry that average noise levels are typically 3 dB higher over a 15-minute worst case assessment period when compared to an entire day (11 hour), evening (4 hour) and night (8 hour) assessment period. This assumption is outlined in the NPfI and has been used in this assessment to standardise the time periods for the intrusive and amenity noise levels.

2.2.4 Low frequency noise

Fact sheet C of the NPfI (EPA 2017) provides guidelines for applying modifying factor corrections to account for low frequency noise emissions. The NPfI specifies that a difference of 15 dB or more between site 'C-weighted' and site 'A-weighted' noise emission levels identifies the potential for an unbalanced spectrum and potential increased annoyance.

Where a difference of 15 dB or more between site 'C-weighted' and site 'A-weighted' noise emission levels is identified, the one-third octave noise levels recorded should be compared to the values in Table C2 of the NPfI (EPA 2017), which has been reproduced in Table 2.2 below.

Table 2.2 One-third octave low-frequency noise thresholds

	One-third octave $L_{Zeq,15\ minute}$ threshold level												
Frequency (Hz)	**10**	**12.5**	**16**	**20**	**25**	**31.5**	**40**	**50**	**63**	**80**	**100**	**125**	**160**
dB (Z)	92	89	86	77	69	61	54	50	50	48	48	46	44

The following modifying factor correction is to be applied where the site 'C-weighted' and site 'A-weighted' noise emission level is 15 dB or more and:

- where any of the one-third octave noise levels in Table 2.2 are exceeded by up to and including 5 dB and cannot be mitigated, a 2 dB positive adjustment to measured/predicted A-weighted levels applies for the evening/night period; or

- where any of the one-third octave noise levels in Table 3.2 are exceeded by more than 5 dB and cannot be mitigated, a 5 dB positive adjustment to measured/predicted A-weighted levels applies for the evening/night period and a 2 dB positive adjustment applies for the daytime period.

2.2.5 Sleep disturbance

The difficulty in establishing an absolute noise level criterion that would correlate to an acceptable level of sleep disturbance is acknowledged by relevant governing authorities.

The NPfI suggests that a detailed maximum noise level event assessment should be undertaken where night-time noise levels at a residential location exceed:

- $L_{Aeq,15\ minute}$ 40 dB or the prevailing RBL plus 5 dB (whichever is the greater); and/or

- L_{Amax} 52 dB or the prevailing RBL plus 15 dB (whichever is the greater).

The NPfI also references guidance regarding potential for sleep disturbance provided in the RNP. The RNP calls upon a number of studies that have been conducted into the effect of maximum noise levels on sleep. The RNP provides the following conclusions from the research on sleep disturbance:

- maximum internal noise levels (L_{Amax}) below 50 to 55 dB are unlikely to awaken people from sleep; and

- one or two noise events per night, with maximum internal noise levels (L_{Amax}) of 65 to 70 dB, are not likely to affect health and wellbeing significantly.

It is commonly accepted by acoustic practitioners and regulatory bodies that a facade including a partially open window will reduce external noise levels by 10 dB. Therefore, external noise levels in the order of 60–65 dB calculated at the facade of a residence is unlikely to awaken people according to the RNP.

If noise levels over the NPfI screening levels are identified, then additional analysis would consider factors such as the maximum noise level, the extent to which the maximum noise level exceeds the rating background noise level, and the number of times this happens during the night-time period.

Other factors that may be important in assessing the extent of impacts on sleep include:

- how often high noise events will occur;

- the distribution of likely events across the night-time period and the existing ambient maximum events in the absence of the subject development;

- whether there are times of day when there is a clear change in the noise environment (such as during early-morning shoulder periods); and

- current scientific literature available at the time of the assessment regarding the impact of maximum noise level events at night.

2.3 Voluntary Land Acquisition and Mitigation Policy

The SEARs specifically reference the *Voluntary Land Acquisition and Mitigation Policy* (VLAMP) (DPE 2018). The VLAMP has been applied to the amended project in relation to the assessment of residual noise impacts and the process for negotiated agreements. Page 17 of the VLAMP states the following with regard to the application of voluntary mitigation and voluntary land acquisition:

> A consent authority can apply voluntary mitigation and voluntary land acquisition rights to reduce:
>
> - operational noise impacts of a development on privately owned land; and
> - rail noise impacts of a development on privately owned land near a non-network rail line (private rail line), that is on, or exclusively servicing and industrial site (see Appendix 3 of the RING);
>
> But not:
>
> - construction noise impacts, as these impacts are shorter term and can be controlled;
> - noise impacts on the public road or rail network; or
> - modifications of existing developments with legacy noise issues, where the modification would have beneficial or negligible noise impacts[13].
>
> [13] Noise issues for existing premises may be addressed through site-specific pollution reduction programs under the *Protection of the Environment Operations Act 1997*.

Of most interest is the last point above relating to legacy noise issues and the relative noise impact of the proposed operation compared to the existing development. Tahmoor Mine has been the subject of numerous pollution reduction programs (PRPs) in relation to noise, the outcomes of which have been accepted by the EPA and evidenced by a significant reduction in noise complaints over time (refer Section 3.3). Further, as this report shows, the noise emissions from the amended project are predicted to reduce compared to existing Tahmoor Mine operational noise emissions at all noise-sensitive receptors during the night-time period.

The characterisation of the noise impacts (as outlined in the VLAMP) are generally based on human perception to changes in noise levels as explained in the glossary of the acoustic terms in this report. For example, a change in noise level of 1 to 2 dB is typically indiscernible to the human ear. The characterisation of a residual noise impact of 0 to 2 dB above the PSNL is therefore considered negligible. This characterisation of residual noise impacts is outlined further in Table 2.3.

Table 2.3 VLAMP characterisation of noise impacts and potential treatments

If the predicted noise level minus the project noise trigger level is:	And the total cumulative industrial noise level is:	Characterisation of impacts	Potential treatment
All time periods 0-2 dB	Not applicable	Impacts are considered to be **negligible**	The exceedances would not be discernible by the average listener and therefore would not warrant receiver-based treatments or controls.
All time periods 3-5 dB	< recommended amenity noise level > recommended amenity noise level but the increase in	Impacts are considered to be **marginal**	Provide mechanical ventilation / comfort condition systems to enable windows to be closed

Table 2.3 VLAMP characterisation of noise impacts and potential treatments

If the predicted noise level minus the project noise trigger level is:	And the total cumulative industrial noise level is:	Characterisation of impacts	Potential treatment
	total cumulative industrial noise level resulting from development is <1 dB		without compromising internal air quality / amenity.
All time periods 3-5 dB	> recommended amenity noise level and the increase in total cumulative industrial noise level resulting from the development is >1dB	Impacts are considered to be **moderate**	As for marginal impacts but also upgraded façade elements like windows, doors or roof insulation, to further increase the ability of the building façade to reduce noise levels.
Day and evening > 5 dB	< recommended amenity noise level	Impacts are considered to be **moderate**	As for marginal impacts but also upgraded façade elements like windows, doors or roof insulation, to further increase the ability of the building façade to reduce noise levels.
Day and evening > 5 dB	> recommended amenity noise level	Impacts are considered to be **significant**	Provide mitigation as for moderate impacts and refer voluntary land acquisition provisions
Night > 5 dB	Not applicable	Impacts are considered to be **significant**	Provide mitigation as for moderate impacts and refer voluntary land acquisition provisions

Source: VLAMP (NSW Government, 2018)

2.4 Construction noise

The DPIE generally requires that noise emissions from construction associated with mining projects should be assessed under the NPfI. This is normally because noise from construction activity associated with such projects is similar in nature to that generated by the operation of the project particularly for open-cut mining operations. In the case of the project, construction activities (ie establishment of the new ventilation fans) will be different in nature to the operations that will occur at the ventilation fan sites and those that occur at the pit-top area. Further, the proposed construction activity is temporary and will be completed within three years with both vent fans (TSC1-upcast and TSC2 – downcast) planned to be operational by the end of 2024.

With reference to the EPA submission, noise associated with construction of the vent fans has been assessed in accordance with the NPfI; however, comparison has also been made to the construction noise targets as described here.

The Interim Construction Noise Guideline (ICNG) (DECC 2009) was jointly developed by NSW Government agencies including the EPA and the former DPE (now DPIE). The objectives of the guideline relevant to the planning process are to promote a clear understanding of ways to identify and minimise noise from construction and to identify 'feasible' and 'reasonable' management and mitigation measures where required. The guideline recommends standard construction hours where noise from construction activities is audible at residential premises (ie assessment locations):

- Monday to Friday 7 am to 6 pm;
- Saturday 8 am to 1 pm; and
- No construction work is to take place on Sundays or public holidays.

The ICNG acknowledges that works outside standard hours may be necessary; however, justification should be provided to the relevant authorities.

The ICNG provides a quantitative noise assessment approach, which is suited to major construction projects with a typical duration of more than three weeks. This method requires noise emission predictions from construction activities at the nearest assessment locations and assessment against ICNG recommended noise levels.

Table 2.4 provides noise management levels for residential assessment locations which have been adopted for the quantitative construction noise assessment. Due to the significant separation distance between the construction sites and the non-residential assessment locations (ie school and church) potential construction noise impacts at these locations will be negligible.

Table 2.4 ICNG construction noise management levels for residential land uses

Time of day	Management level $L_{Aeq(15\ minute)}$	Application
Recommended standard hours: Monday to Friday 7 am to 6 pm, Saturday 8 am to 1 pm, No work on Sundays or public holidays	Noise-affected RBL + 10 dB	The noise-affected level represents the point above which there may be some community reaction to noise. • Where the predicted or measured $L_{Aeq(15\text{-}min)}$ is greater than the noise-affected level, the proponent should apply all feasible and reasonable work practices to meet the noise affected level. • The proponent should also inform all potentially impacted residents of the nature of works to be carried out, the expected noise levels and duration, as well as contact details.
	Highly noise affected 75 dB	The highly noise-affected level represents the point above which there may be strong community reaction to noise. • Where noise is above this level, the relevant authority (consent, determining or regulatory) may require respite periods by restricting the hours that the very noisy activities can occur, taking into account: i) times identified by the community when they are less sensitive to noise (such as before and after school for works near schools, or mid-morning or mid-afternoon for works near residences); ii) if the community is prepared to accept a longer period of construction in exchange for restrictions on construction times.

Table 2.4 ICNG construction noise management levels for residential land uses

Time of day	Management level $L_{Aeq(15\ minute)}$	Application
Outside recommended standard hours	Noise-affected RBL + 5 dB	• A strong justification would typically be required for works outside the recommended standard hours. • The proponent should apply all feasible and reasonable work practices to meet the noise affected level. • Where all feasible and reasonable practices have been applied and noise is more than 5 dB above the noise-affected level, the proponent should negotiate with the community. • For guidance on negotiating agreements see Section 7.2.2 of the ICNG.

Source: ICNG (DECC 2009).

2.5 Road traffic noise

Road traffic volumes and routes associated with the amended project are unchanged from the original project assessed in the original NVIA prepared for the EIS (EMM 2018). As presented in the EIS, road traffic noise associated with construction and operation of the TSP is predicted to satisfy the requirements of the RNP. Hence, the amended project is not expected to generate road traffic noise impacts at the nearest potentially affected receivers.

2.6 Rail traffic noise

As presented in the EIS, there is no requirement to increase rail capacity between Tahmoor Mine and Port Kembla as a result of the amended project. As such, existing rail infrastructure and the number of allowable train movements will remain unchanged. Therefore, an assessment of off-site rail traffic noise is not considered necessary.

2.7 Operational and construction vibration

2.7.1 Human comfort

i General discussion on human perception of vibration

Humans can detect vibration levels which are well below those causing any risk of damage to a building or its contents.

The actual perception of motion or vibration may not, in itself, be disturbing or annoying. An individual's response to that perception, and whether the vibration is "normal" or "abnormal", depends very strongly on previous experience and expectations, and on other connotations associated with the perceived source of the vibration. For example, the vibration that a person responds to as "normal" in a car, bus or train is considerably higher than what is perceived as "normal" in a shop, office or dwelling.

Human tactile perception of random motion, as distinct from human comfort considerations, was investigated by Diekmann and subsequently updated in German Standard DIN 4150 Part 2 1975. On this basis, the resulting degrees of perception for humans are suggested by the vibration level categories given in Table 2.5.

Table 2.5 Peak vibration levels and human perception of motion

Approximate vibration level	Degree of perception
0.10 mm/s	Not felt
0.15 mm/s	Threshold of perception
0.35 mm/s	Barely noticeable
1.00 mm/s	Noticeable
2.20 mm/s	Easily noticeable
6.00 mm/s	Strongly noticeable
14.00 mm/s	Very strongly noticeable

Note: These approximate vibration levels (in floors of building) are for vibration having a frequency content in the range of 8 Hz to 80 Hz.

Table 2.5 suggests that people will just be able to feel floor vibration at levels of about 0.15 mm/s and that the motion becomes "noticeable" at a level of approximately 1 mm/s.

ii Vibration guideline

The NSW guideline for the assessment of vibration *Environmental Noise Management – Assessing Vibration: a technical guideline* (DEC 2006) (the guideline) is based on the British Standard BS 6472 – 2008, 'Evaluation of human exposure to vibration in buildings (1-80Hz)'.

The guideline presents preferred and maximum vibration values for the use in assessing human responses to vibration and provides recommendations for measurement and evaluation techniques. At vibration values below the preferred values, there is a low probability of adverse comment or disturbance to building occupants. Where all feasible and reasonable mitigation measures have been applied and vibration values are still beyond the maximum value, it is recommended that the operator negotiate directly with the affected community.

The guideline defines three vibration types and provides direction for assessing and evaluating the applicable criteria. Table 2.1 of the guideline provides examples of the three vibration types and has been reproduced in Table 2.6.

Table 2.6 Examples of types of vibration (from Table 2.1 of the guideline)

Continuous vibration	Impulsive vibration	Intermittent vibration
Machinery, steady road traffic, continuous construction activity (such as tunnel boring machinery).	Infrequent: Activities that create up to 3 distinct vibration events in an assessment period, eg occasional dropping of heavy equipment, occasional loading and unloading. Blasting is assessed using ANZECC (1990).	Trains, intermittent nearby construction activity, passing heavy vehicles, forging machines, impact pile driving, jack hammers. Where the number of vibration events in an assessment period is three or fewer these would be assessed against impulsive vibration criteria.

Intermittent vibration (as defined in Section 2.1 of the guideline) is assessed using the vibration dose concept which relates to vibration magnitude and exposure time.

Intermittent vibration is representative of construction activities such as impact hammering, rolling or general excavation work.

Section 2.4 of the guideline provides acceptable values for intermittent vibration in terms of vibration dose values (VDV) which requires the measurement of the overall weighted root mean square (rms) acceleration levels over the frequency range 1 Hz to 80 Hz. To calculate VDV the following formula is used (refer to Section 2.4.1 of the guideline):

$$VDV = \left[\int_0^T a^4(t)dt\right]^{0.25}$$

Where VDV is the vibration dose value in $m/s^{1.75}$, *a (t)* is the frequency-weighted rms of acceleration in m/s^2 and *T* is the total period of the day (in seconds) during which vibration may occur.

The acceptable VDV for intermittent vibration are reproduced in Table 2.7.

Table 2.7 Acceptable vibration dose values for intermittent vibration – human comfort

Location	Daytime		Night-time	
	Preferred value, $m/s^{1.75}$	Maximum value, $m/s^{1.75}$	Preferred value, $m/s^{1.75}$	Maximum value, $m/s^{1.75}$
Critical areas	0.10	0.20	0.10	0.20
Residences	0.20	0.40	0.13	0.26
Offices, schools, educational institutions and places of worship	0.40	0.80	0.40	0.80
Workshops	0.80	1.60	0.80	1.60

Notes: 1. Daytime is 7 am to 10 pm and night-time is 10 pm to 7 am.

2. These criteria are indicative only, and there may be a need to assess intermittent values against continuous or impulsive criteria for critical areas.

There is a low probability of adverse comment or disturbance to building occupants at vibration values below the preferred values. Adverse comment or complaints may be expected if vibration values approach the maximum values. The guideline recommends that activities should be designed to meet the preferred values where an area is not already exposed to vibration.

It is expected that consideration of transient vibration provides a worst-case scenario in terms of potential human-comfort vibration impacts. Continuous vibration has not been considered given the transient nature of operations and the relative separation to vibration-sensitive receptors. Impulsive vibration as defined in Table 2.6 can be caused by blasting which is not applicable to the general operations or construction phase of the Project.

2.7.2 Structural vibration

In terms of the most recent relevant vibration damage criteria, Australian Standard AS 2187.2 – 2006 'Explosives – Storage and Use – Use of Explosives' recommends that the frequency dependent guide values and assessment methods given in BS 7385 Part 2-1993 'Evaluation and measurement for vibration in buildings Part 2' be used as they are "applicable to Australian conditions".

The standard sets guide values for building vibration based on the lowest vibration levels above which damage has been credibly demonstrated. These levels are judged to be associated with a minimum risk of vibration induced damage, where minimal risk for a named effect is usually taken as a 95% probability of no effect.

Sources of vibration that are considered in BS 7385 include demolition, blasting (carried out during mineral extraction or construction excavation), piling, ground treatments (e.g. compaction), construction equipment, tunnelling, road and rail traffic and industrial machinery.

The recommended limits (guide values) for transient vibration to manage minimal risk of cosmetic damage to residential and industrial buildings are presented numerically in Table 2.8 and graphically in Figure 3.1.

Table 2.8 Transient vibration guide values for minimal risk of cosmetic damage

Line[1]	Type of building	Peak component particle velocity in frequency range of predominant pulse	
		4 Hz to 15 Hz	15 Hz and above
1	Reinforced or framed structures Industrial and heavy commercial buildings	50 mm/s	50 mm/s
2	Unreinforced or light framed structures Residential or light commercial type buildings	15 mm/s at 4 Hz increasing to 20 mm/s at 15 Hz	20 mm/s at 15 Hz increasing to 50 mm/s at 40 Hz and above

Notes: Refers to the "Line" in Figure 3.1.

The BS 7385 notes that the guide values in Table 2.8 relate predominantly to transient vibration which does not give rise to resonant responses in structures and low-rise buildings.

Where the dynamic loading caused by continuous vibration is such as to give rise to dynamic magnification due to resonance, especially at the lower frequencies where lower guide values apply, then the guide values in Table 2.8 may need to be reduced. Some construction activities (for example) are considered to have the potential to cause dynamic loading in some structures and therefore transient values in Table 2.8 have been reduced by 50% for assessment purposes, with a vibration screening criterion set at 7.5 mm/s.

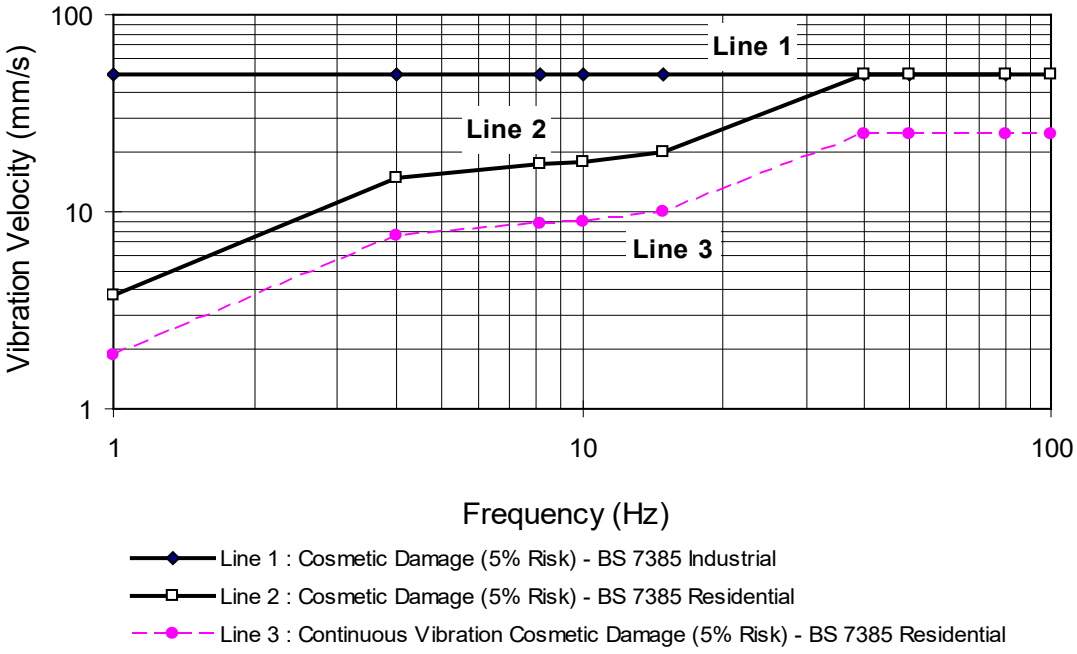


Figure 2.1 Graph of transient vibration guide values for cosmetic damage

In the lower frequency region where strains associated with a given vibration velocity magnitude are higher, the guide values for building types corresponding to Line 2 are reduced. Below a frequency of 4 Hz where a high displacement is associated with the relatively low peak component particle velocity value, a maximum displacement of 0.6 mm (zero to peak) is recommended. This displacement is equivalent to a vibration velocity of 3.7 mm/s at 1 Hz (as shown in Figure 3.1).

Fatigue considerations are also addressed in BS 7385 which concludes that unless calculation indicates that the magnitude and number of load reversals is significant (in respect of the fatigue life of building materials) then the guide values in Table 2.8 should not be reduced for fatigue considerations.

In order to assess the likelihood of cosmetic damage due to vibration, AS 2187 specifies that vibration measured should be undertaken at the base of the building and the highest of the orthogonal vibration components (transverse, longitudinal and vertical directions) should be compared with the criteria curves presented in Table 2.8.

It is noteworthy that in addition to the guide values nominated in Table 2.8, BS 7385 states that:

> Some data suggests that the probability of damage tends towards zero at 12.5 mm/s peak component particle velocity. This is not inconsistent with an extensive review of the case history information available in the UK.

Also that:

> A building of historical value should not (unless it is structurally unsound) be assumed to be more sensitive.

3 Existing mine noise

3.1 Existing noise criteria

The most recent development consent relating to existing operations at Tahmoor Mine with respect to noise criteria is the 1994 development consent. The noise conditions imposed by the 1994 consent are set out in conditions 73 and 74 of the Talbot J's judgment in *Kembla Coal & Coke Pty Limited v Wollondilly Shire Council (1994) NSWLEC 99* (7 September 1994). The consent contains the following conditions relating to noise emissions:

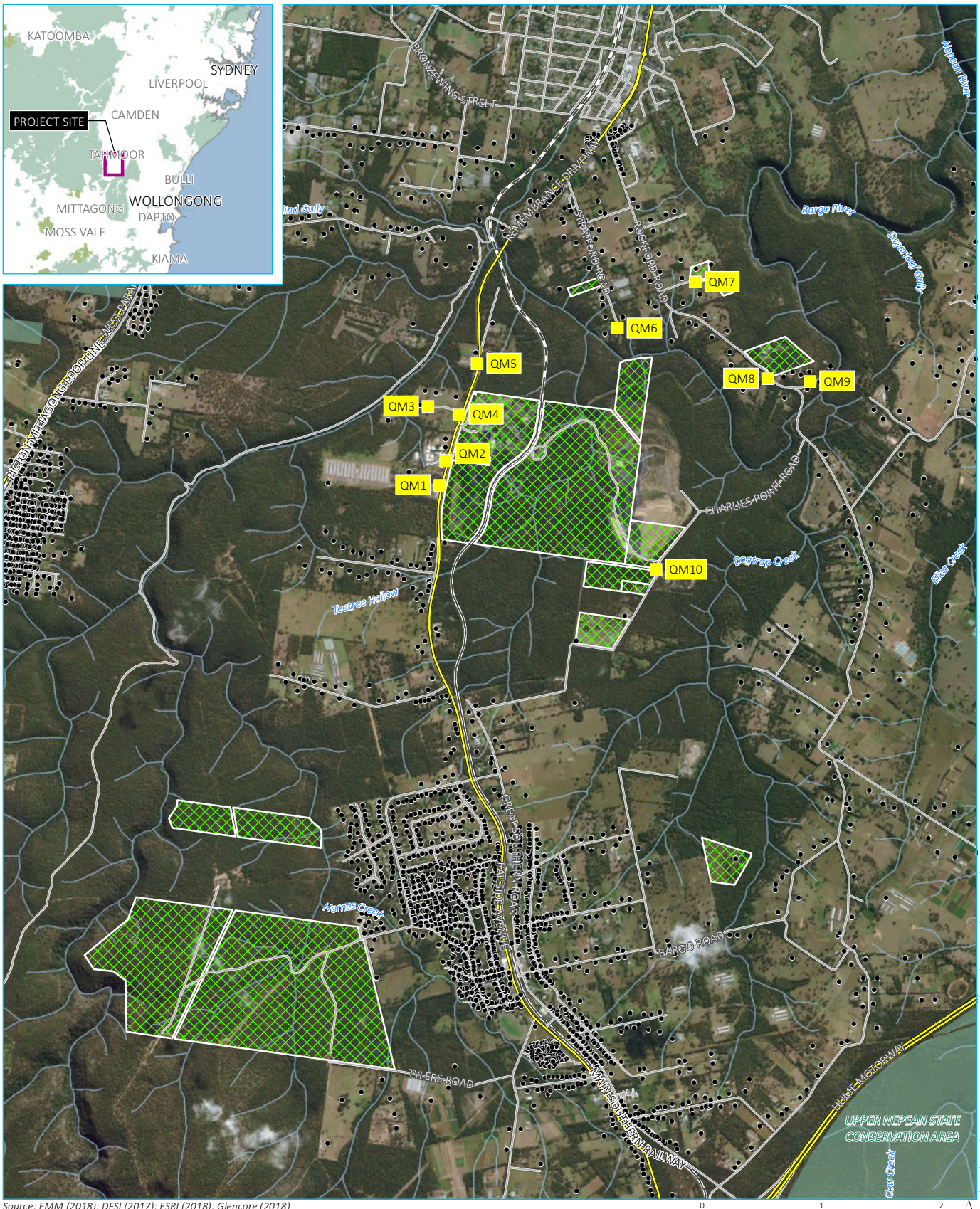
> Condition 73. The noise level emanating from Tahmoor Mine and any associated facilities, including the washery, stock pile area and rail loading facility, shall not exceed an L10 level of 45dBA when measured within 3 m of any residence.
>
> Condition 74. The noise emanating from operations at the refuse emplacement site shall not exceed an L10 of 37dBA or background +5dBA whichever is the greater when measured 3 m of any residence.

It is of note that the development consent does not contain any maximum noise event criteria for the night-time. Further, residential dwellings have been approved and built nearer to the mine than those that already existed at the time of the 1994 consent.

Environment Protection Licence 1389 (EPL 1389) does not contain any noise limits relevant to the site nor any requirement to monitor noise emissions. However, it has previously included a number of PRPs which are summarised in the previous NVIA (EMM, 2018).

3.2 Existing noise emissions

A summary of the quarterly noise monitoring results, as provided in the quarterly noise compliance reports, for the period between Q1 2014 and Q3 2019 (ie 23 rounds of monitoring) is shown in Table 3.1 together with the existing criteria applicable at each location. It is noted that noise criteria do not apply at some of the monitoring locations since they are not noise-sensitive receptors. Monitoring locations are shown in Figure 3.1.



Source: EMM (2018); DFSI (2017); ESRI (2018); Glencore (2018)

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GDA 1994 MGA Zone 56

N

KEY

- Assessment location
- Existing quarterly noise monitoring location
- Tahmoor-owned land
- Rail line
- Main road
- Local road
- Watercourse / drainage line
- NPWS reserve

Existing quarterly noise monitoring locations

Tahmoor Amended Project
Noise and vibration impact assessment
Figure 3.1

EMM
creating opportunities

Table 3.1 Summary of quarterly noise compliance monitoring reports

Date (dd/mm/yy)	Operations	Estimated L_{A10} site contribution									
		M1	M2	M3	M4	M5	M6	M7	M8	M9	M10
20/02/14	CPP fully operational. Dozer operating on the clean stockpile, train loading, impact noise from 2A-1F transfer building and transportation of material to the refuse area.	<48	<60	<45	<47	<47	<38	<35	<35	<35	<32
12/05/14	CPP fully operational. Washery building, dozer on clean stockpile, impact noise from 2A-1F transfer building.	<48	47	<42	<45	<40	<30	<30	<32	<30	<30
14/07/14	CPP operational. No trains. Washery, conveyors, coal falling on ROM stockpile and clean coal stockpile, dozer operating near clean coal stockpile.	<52	<53	<48	<48	<40	<30	<30	<33	<30	<30
29/10/14	CPP operational without coal. Train onsite. Dozer in reclaim area, vacuum pumps, co-gen plant, Shaft #2 vent system.	<50	<54	<47	<52	<46	40/ 41	35/ 36	32/ 33	<30	<30
11/02/15	CPP conveyors operational, washery shutdown at 2250. Conveyors, vacuum pumps, co-gen plant, shaft #2 vent system.	<46	<47	<42	<47	<42	40/ 41	<35	<34	<30	<36
23/06/15	CPP conveyors and washery operational. Conveyors, vacuum pumps, co-gen plant, shaft #2 vent system, dozer on clean stockpile.	54/ 55	55/ 56	44/ 45	47/ 48	<42	39/ 40	<30	<35	<30	<35
20/08/15	Washery and clean stockpile conveyors operational. Conveyors, vacuum pumps, co-gen plant, washery, shaft #2 vent sys, truck refuse service road, dozer at clean stockpile.	<50	<50	44/ 45	<45	<40	<35	<30	<33	<30	<30
19/10/15	CPP not operating, dozer working in clean coal stockpile. Vacuum pumps, co-gen plant, shaft #2 vent system, dozer.	<50	<50	<40	<40	<40	<35	<30	<30	<30	<35
11/02/16	CPP operating, dozer working in clean coal stockpile. CPP, vacuum pumps, co-gen plant, shaft #2 vent system, truck transporting product to refuse area, dozer.	<55	<50	<45	<45	<45	<35	<30	<30	<30	<35
19/04/16	CPP, vacuum pumps, co-gen plant, shaft #2 vent system and transporting product to refuse area.	<45	<46	<45	<46	<45	<40	<35	<40	<35	<35
16/08/16	CHPP, vacuum pumps, co-gen plant, dozer working clean coal stockpiles, shaft #2 vent systems, transporting product to refuse area.	53/ 54	53/ 54	<45	<48	<45	<40	<35	<35	<35	<45
3/11/16	CHPP, vacuum pumps, co-gen plant, dozer working clean coal stockpiles, shaft #2 vent systems, transporting product to refuse area.	50/ 51	55/ 57	<47	<50	<45	<40	<35	<35	<35	<45
20/02/17	vacuum pumps, co-gen plant, dozer working clean coal stockpiles and conveyors	54/ 55	56/ 57	<47	<50	<45	<40	<35	<37	<35	<35
1/05/17	Truck on private haul road (REA), #2 shaft vent system, dozer working clean coal stockpiles, falling coal, ROM transfer building 2A-1F and conveyors.	53/ 54	52/ 53	<45	<50	<40	<40	<35	<37	<35	<35

Table 3.1 Summary of quarterly noise compliance monitoring reports

Date (dd/mm/yy)	Operations	Estimated L_{A10} site contribution									
		M1	M2	M3	M4	M5	M6	M7	M8	M9	M10
11/09/17	REA haul truck, #2 shaft ventilation system, dozer working the ROM stockpile, falling coal clean coal stockpile, washery, transfer building 2A-1F and conveyors.	48/ 49	48/ 49	<42	<45	<35	<35	<35	<35	<35	<35
15/11/17	CPP fully operational. Dozer operating on the clean stockpile, train loading, impact noise from 2A-1F transfer building and transportation of material to the refuse area.	<48	<60	<45*	<47	<47	<38	<35	<35	<35	<32
29/01/18	CPP fully operational. Washery building, dozer on clean stockpile, impact noise from 2A-1F transfer building.	<48	47	<42**	<45	<40	<30	<30	<32	<30	<30
8/05/2018	Falling coal (clean coal stockpile), washery, transfer building 2A-1F, conveyors, REA haul truck and #2 shaft ventilation system.	50/ 51	50/ 51	<47*	<50	<35	<37	<35	<35*	<35	<35
24/07/2018	Washery was not operational, coal was being stockpiled on the ROM stockpile and no trains. Product impact from transfer buildings 2A-1F and 1F-3F, dozer working ROM, conveyors, #2 shaft vent system and co-gen plant.	<45	<45	<44*	<50	<40	<37	<35	<35*	<35	<35
29/11/2018	CHPP, dozer at ROM, clean coal conveyors and no trains. CHPP, dozer working ROM, REA haul truck, conveyors, #2 shaft vent system, coal falling on clean coal stockpile	<45	<46	<47**	<48	<40	<40*	<35	<40	<35	<35
21/03/2019	washery, dozer working at clean coal stockpile, conveyors, #2 shaft vent system, coal falling onto clean coal stockpile, onsite locomotives	<49	<53	<46**	<50	<43*	<35*	<35	<35	<35	<35
24/06/2019	washery, dozer working at clean coal stockpile, conveyors, #2 shaft vent system, coal falling onto clean coal stockpile.	<52	<56	<47**	<46	<45*	<37*	<35	<35	<35	<35
2/09/2019	Washery not operating. Dozer working at clean coal stockpile, conveyors, #2 shaft vent system, co-generation and vacuum plant, train onsite.	<56	<56	<42*	<46	<40*	<39*	<35	<35	<35	<35
	Noise criteria (Tahmoor mine)	**n/a**	**n/a**	**45**	**n/a**	**45**	**45**	**45**	**45**	**45**	**n/a**
	Noise criteria (refuse emplacement area)	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**37**	**37**	**37**	**37**	**n/a**

Source: The data shown here are as they are reported in the various quarterly monitoring reports prepared by Atkins Acoustics Pty Ltd.
* indicates the application of a +2dB modifying factor to account for LFN.
** indicates the application of a +5dB modifying factor to account for LFN.

Results of quarterly noise monitoring surveys indicate that noise levels are generally in compliance with the existing noise limits (i.e. within 2 dB) at the relevant residential monitoring locations i.e. M3, M5, M6, M7, M8 and M9. Results also show that existing mine noise emissions from site at the eastern end of Olive Lane (M4) are in the order of 45 to 50 dB[1] during calm conditions.

Measured night-time L_{Aeq} one-third octave band centre frequency levels (10-160 Hz), LFN threshold levels (NPfI) and C-A weighted levels for the quarterly attended noise monitoring periods from Quarter 4 2017 to Quarter 3 2019 are summarised in Appendix B based on the results presented in the quarterly monitoring reports. These results indicate that LFN above the current relevant NPfI thresholds is present in the vicinity of Olive Lane (locations M3 and M4) and the Wollondilly Anglican Church and College (location M2). The measured LFN levels at these locations indicate that a modifying factor of +2 dB and +5dB would apply at assessment locations in these areas during day and evening/night periods, respectively.

For the same monitoring periods, levels marginally above the relevant thresholds were also measured at quarterly monitoring locations M5, M6, M8 and M10 on occasion. It is not expected that these exceedances of the LFN threshold levels were due to operation of the Tahmoor Mine or the ventilation fan alone since exceedances were not consistent across all surveys. Hence, modifying factors for LFN have not been applied in these areas.

3.3 Complaints history

As an update to the summary provided in the original NVIA prepared for the EIS (EMM, 2018) Figure 3.2 shows the number of total community complaints (including those related to noise) in comparison to previous years sourced from the *Tahmoor Coal Pty Ltd Annual Review / Annual Environmental Management Report 2018*. The complaints history summary shows a strong downward trend since 2010 with only one complaint related to noise recorded in 2018.

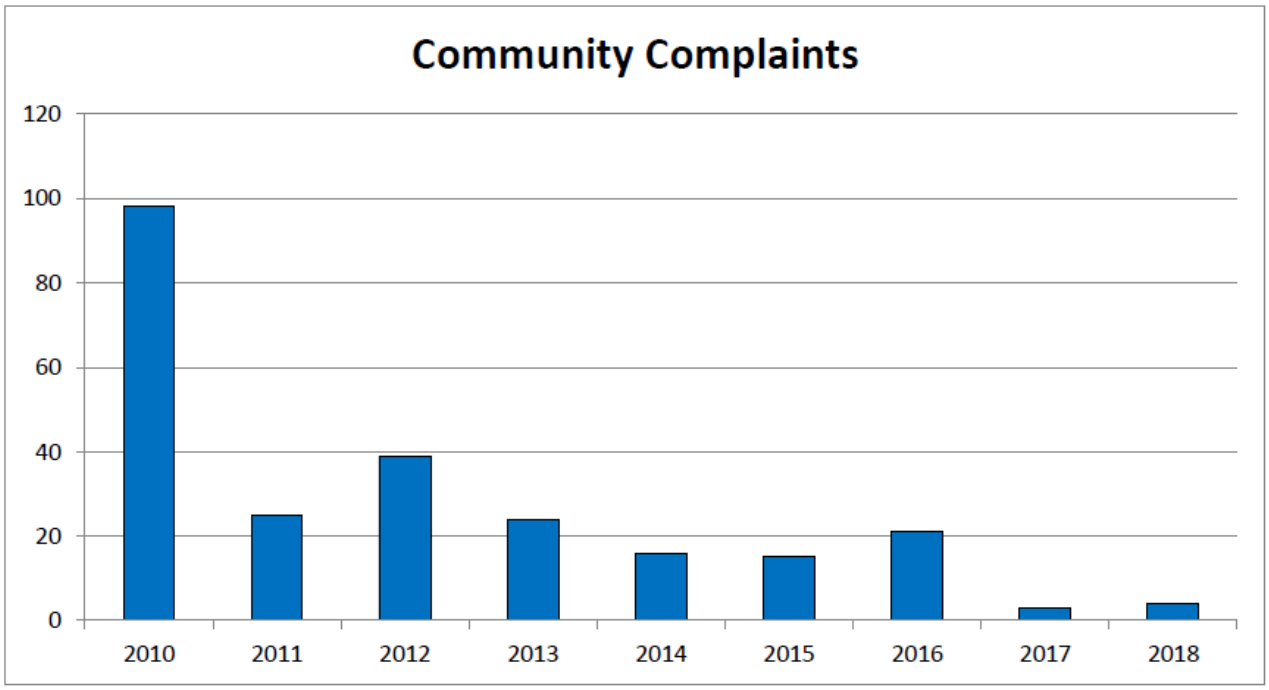

Figure 3.2 Number of community complaints

[1] It was not possible to accurately interpret site contribution as noise levels were reported as "less than" a number.

4 Existing acoustic environment

4.1 Assessment locations

The assessment locations from the original NVIA (EMM, 2018) have been updated for the purpose of this noise assessment; including consideration of some changes in land ownership.

For the assessment of noise from existing mining operations and the amended project, consideration has been given to the existing quarterly noise compliance monitoring locations (M1 to M10). Further, private dwellings (houses) and other noise-sensitive developments (eg Anglican Church and College) have been identified near the site and are referred to in this report as assessment locations. Assessment locations have been categorised in 11 noise catchment areas (NCA) based on similar ambient acoustic environments. These catchment areas are described further in Section 5.1.

Assessment locations and the relevant NCA are shown in Figure 4.1.





KEY

- Main road
- Local road
- Rail line
- Watercourse / drainage line

Noise monitoring locations

- EMM operator-attended noise surveys
- Unattended noise monitoring locations 2018
- Unattended noise monitoring locations 2019

Noise catchment area

- NCA1
- NCA1a
- NCA1b
- NCA2
- NCA3
- NCA4
- NCA4a
- NCA5
- NCA6
- NCA6a

Source: EMM (2019); DFSI (2017); GA (2011); ASGC (2006)

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Assessment, monitoring locations and NCA

Tahmoor South Project
Noise impact assessment
Figure 4.1
Map 1 of 2

EMM
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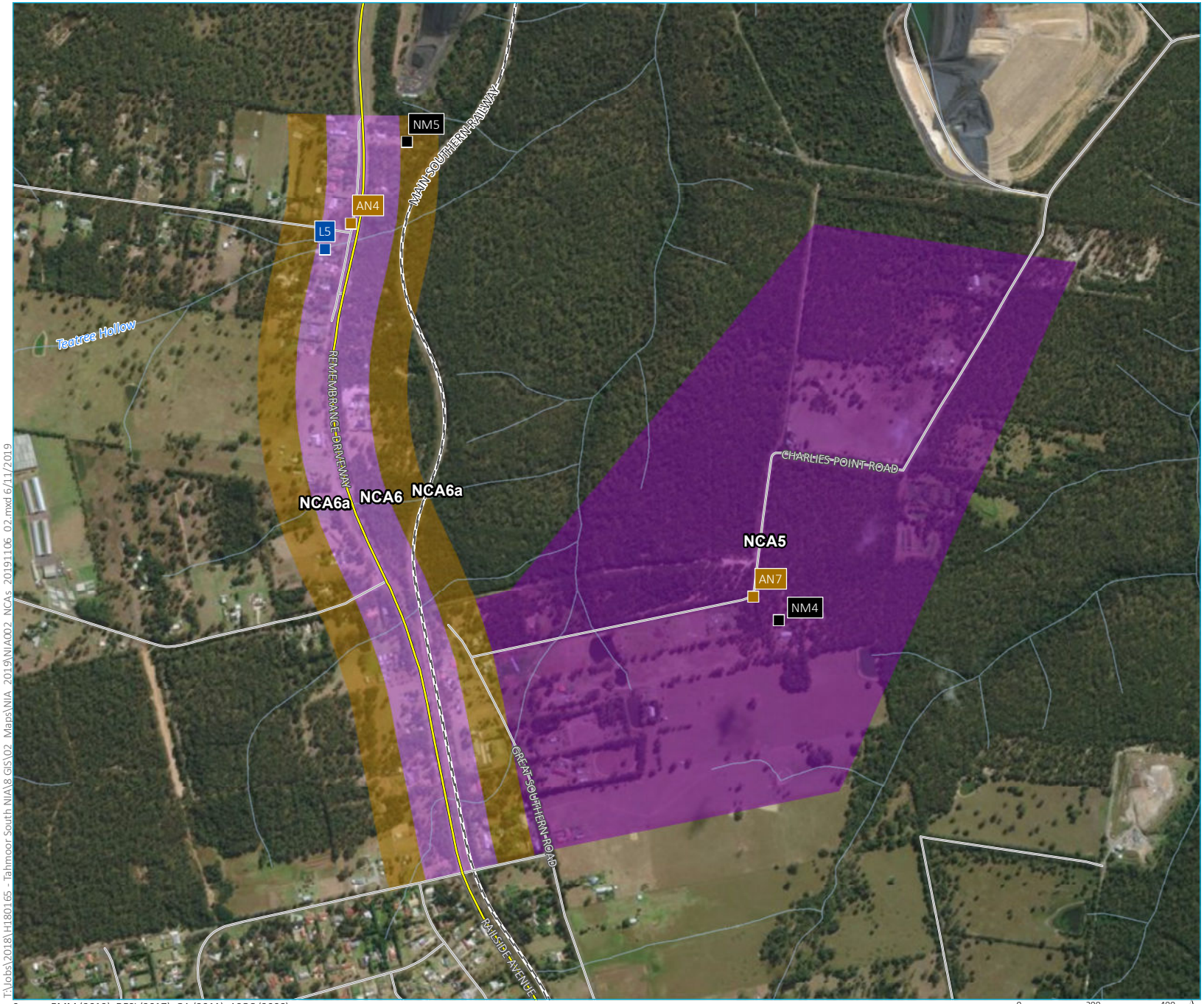



KEY

- Main road
- Local road
- Rail line
- Watercourse / drainage line

Noise monitoring locations

- EMM operator-attended noise surveys
- Unattended noise monitoring locations 2018
- Unattended noise monitoring locations 2019

Noise catchment area

- NCA1
- NCA1a
- NCA1b
- NCA2
- NCA3
- NCA4
- NCA4a
- NCA5
- NCA6
- NCA6a

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Source: EMM (2019); DFSI (2017); GA (2011); ASGC (2006)

0 200 400 m

GDA 1994 MGA Zone 56

N

Assessment, monitoring locations and NCA

Tahmoor South Project
Noise impact assessment
Figure 4.1
Map 2 of 2

EMM
creating opportunities

4.2 Existing ambient noise levels

To compliment the long-term ambient noise monitoring undertaken for the original NVIA (EMM, 2018) additional unattended noise monitoring was completed by EMM at five locations surrounding the site in June 2019.

The noise loggers were in place from 19 June to 4 July 2019 and were programmed to record statistical noise level indices continuously in 15-minute intervals. Calibration of each noise logger was checked prior to and following unattended noise monitoring. Drift in calibration did not exceed ±0.5 dB. The equipment carried appropriate and current NATA calibration certificates. Weather data for the unattended noise monitoring period was obtained from the onsite automatic weather station. The wind speed and the rainfall data were used to exclude noise data during periods of any rainfall and/or wind speeds in excess of 5 m/s (approximately 9 knots) in accordance with the methodology provided in the NPfI.

Figure 4.1 provides the location of all relevant long-term noise logger and short-term operator-attended noise monitoring locations.

A summary of the background and ambient noise monitoring results is provided in Table 4.1. Detailed graphs of the data obtained by EMM are provided in Appendix C.

Table 4.1 Summary of existing measured background and ambient noise levels (June-July 2019)

Monitoring location	Period[1]	RBL[2], dB	$L_{Aeq, period}$ noise level[3], dB
NM1 – 2 Olive Lane, Bargo	Day	46	54
	Evening	46	54
	Night	42	51
NM2 – 2897 Remembrance Drive, Bargo	Day	46	56
	Evening	44	53
	Night	42	51
NM3 – 125 Stratford Road, Tahmoor	Day	36	46
	Evening	38	54
	Night	39	47
NM4 – 80 Charlies Point Road, Bargo	Day	34	49
	Evening	34	43
	Night	30	43
NM5 – 3085 Remembrance Drive, Bargo	Logger failed		

Notes: 1. Day: 7 am to 6 pm Monday to Saturday; 8 am to 6 pm Sundays and public holidays; Evening: 6 pm to 10 pm; Night: 10 pm to 7 am.
2. The RBL is an NPfI term and is used represent the background noise level.
3. The energy averaged noise level over the measurement period and representative of general ambient noise.

Based on observations whilst on site, the main contributors to overall ambient levels are as follows:

- NM1 and NM2 - traffic on Remembrance Drive and noise from Tahmoor Mine;
- NM3 – rural activities and, to a lesser extent, Tahmoor Mine;
- NM4 – general rural activities and distant traffic; and
- NM5 – traffic on Remembrance Drive with some contribution from Tahmoor Mine.

For completeness the results of previous ambient noise monitoring undertaken by EMM in June 2018 have also been referenced in this report. A summary of results of previous ambient noise monitoring, as presented in detail in the previous NVIA (EMM, 2018), is reproduced in Table 4.2.

Table 4.2 Summary of previous background and ambient noise levels (June 2018)

Monitoring location	Period[1]	RBL[2], dB	Measured $L_{Aeq, period}$ noise level[3], dB
L1 2775 Remembrance Drive, Tahmoor (Ngara s/n: 878113)	Day	39	49
	Evening	37	47
	Night	30	46
L2 280 Rockford Road, Tahmoor (SVAN 979 s/n: 21095)	Day	30	44
	Evening	30	40
	Night	27	38
L3 70 Warrobyn Road, Bargo (SVAN 977 s/n: 59681)	Day	28	42
	Evening	31	39
	Night	29	38
L4 255 Bargo Road, Bargo (ARL 316 s/n: 16-207-005)	Day	33	51
	Evening	34	45
	Night	30	41
L5 3100 Remembrance Drive, Bargo (ARL 316 s/n: 16-207-030)	Day	44	59
	Evening	37	52
	Night	30	50

Notes: 1. Day: 7 am to 6 pm Monday to Saturday; 8 am to 6 pm Sundays and public holidays; Evening: 6 pm to 10 pm; Night: 10 pm to 7 am.
2. The RBL is an NPfI term and is used represent the background noise level.
3. The energy averaged noise level over the measurement period and representative of general ambient noise.

Operator-attended noise monitoring was also completed by EMM at the unattended noise logger locations and at offsite locations surrounding the site (refer Figure 4.1) during the 2018 and 2019 monitoring programs. A summary of the attended noise monitoring results is provided in Table 4.3. These surveys were undertaken using a Brüel & Kjær 2250 Type 1 sound analyser (serial number 2759405) or 2270 Type 1 sound analyser (serial number 3027603).

Table 4.3 Summary of attended noise monitoring results

Monitoring location	Date Start time	Time	Total measured noise levels (dB)			Site noise contribution exc. modifying factors, L_{Aeq} (dB)	Comments
			L_{Aeq}	L_{A90}	L_{Amax}		
L1	16/5/2018	16:00	46	41	66	<38	Traffic on Remembrance Dr dominant. Activity at Picton Power Lines site. Occasional dog bark and wind in trees. Train on main line. Tahmoor mine (dozer) just audible.
L5	16/5/2018	16:45	58	49	77	IA	Local resident activity, sheep bleating, passenger train on main line, traffic on Remembrance Drive, dog barking. Tahmoor mine not audible.
L4	16/5/2018	17:30	46	42	61	IA	Distant road traffic noise constant, dog barking, local resident activity, local traffic. Tahmoor mine not audible.
AN1	16/5/2018	22:15	46	43	58	44	Tahmoor site noise dominant (CHPP hum and conveyors) as well as traffic on Remembrance Drive. Tahmoor mine noise constant – no maximum noise events.
AN1	20/6/2019	00:45	45	42	56	44	Traffic on Remembrance Drive. CHPP constant. Distant frogs/ insects / birds. Dozer audible sometimes. Maximum level from site to 48
AN2	16/5/2018	22:45	53	49	66	50	Tahmoor site noise dominant (CHPP hum and conveyors) as well as traffic on Remembrance Drive. Tahmoor mine noise generally constant – train loading up to 53.
AN2	20/6/2019	00:45	53	46	68	47	Tahmoor CHPP constant. Traffic on Remembrance Dr. Dozer audible on occasion. Engine revs from site. Maximum noise level from site 48.
AN3	16/5/2018	23:14	48	34	73	36	Constant hum from Tahmoor mine, haul truck audible in REA, traffic on Remembrance Drive.
AN4	16/5/2018	23:50	50	31	69	IA	Train on main line, dogs barking and traffic on Remembrance Drive. Tahmoor mine not audible.

Table 4.3 Summary of attended noise monitoring results

Monitoring location	Date Start time	Time	Total measured noise levels (dB)			Site noise contribution exc. modifying factors, L_{Aeq} (dB)	Comments
			L_{Aeq}	L_{A90}	L_{Amax}		
L2	17/5/2018	9:45	39	30	55	<20	Distant aeroplanes, local residence activity, birds, traffic on Rockford Rd. Hum from Tahmoor mine just barely audible in lulls.
L3	17/5/2018	12:15	37	30	68	<30	Animals (sheep and dogs), dozer in REA just audible, birds, breeze in trees.
NM2	19/6/2019	14:28	56	51	78	40	Traffic on Remembrance Dr. Dogs barking. CHPP hum audible in traffic lulls. Bang from site to 52.
NM2	20/6/2019	00:20	47	43	62	45	Tahmoor CHPP constant. Traffic on Remembrance Drive, insects and train on main line. Maximum site contribution of 46.
NM5	19/6/2019	15:05	57	48	72	IA	Traffic on Remembrance Dr. Dogs barking/fighting. Freight trains on main line.
NM5	20/6/2019	01:07	54	38	69	36	Dogs barking almost continuously. Some insect noise. Traffic on Remembrance Dr. CHPP just audible, dozer audible on occasion. Maximum site noise to 40.
NM1	19/6/2019	15:45	50	47	60	<44	Traffic on Remembrance Dr. Distant dogs barking. Tahmoor mine hum audible during lulls in traffic. Children playing at nearby school. Aeroplane. No maximum noise events from site.
NM4	19/6/2019	16:25	47	37	71	IA	Distant traffic. Birds. Building works at residence. Local traffic. Aeroplane.
NM3	19/6/2019	17:06	44	42	64	<35	Residents tractor. Distant dogs barking. Mine hum. Birds. Reverse alarm from site just audible.
AN5	20/6/2019	23:22	36	32	62	<32	Truck at REA just audible. Train noise. Distant traffic. Car on Rockford Road. Some frogs and insects. Vent fan not audible.
AN6	20/6/2019	23:22	48	39	71	39	Vent fan hum. Distant dog barking. Car pass-by and distant traffic. Engine revs from site just audible.
NM3	20/6/2019	23:53	55	43	69	43	Rail noise. Dog barking. Insects and birds. Engine revs (truck in REA) to 48. Distant traffic to north.

Table 4.3 Summary of attended noise monitoring results

Monitoring location	Date Start time	Time	Total measured noise levels (dB)			Site noise contribution exc. modifying factors, L_{Aeq} (dB)	Comments
			L_{Aeq}	L_{A90}	L_{Amax}		
AN7	20/6/2019	01:32	40	<30	56	IA	Traffic on Remembrance Dr and distant dogs barking. Distant traffic; Hume Hwy. Train on main line. Tahmoor Mine inaudible.

1. Weather during daytime operator-attended noise surveys was generally calm with some wind gusts of up to 2m/s at microphone height from varying directions and with some cloud cover and no rainfall.
2. Weather during the night-time surveys was generally calm, less than 1m/s, at microphone height with no cloud cover or rainfall.

The existing noise environment west of the site, in Olive Lane, is dominated by noise from Tahmoor mine and traffic on Remembrance Drive. North of the site the existing noise environment is dominated by local traffic and some commercial activity with some contribution from Tahmoor mine. Noise levels at residences south of the site are dominated by traffic noise from Remembrance Drive and train noise. Noise levels in residential areas west of the site are dominated by typically rural sounds and local traffic. These observations were considered in the assignment of representative background noise levels and ultimately for the PNTLs for all areas.

5 Operational noise targets

5.1 Project noise trigger levels

5.1.1 Intrusiveness

The intrusiveness targets require that $L_{Aeq,15min}$ noise levels from site during the relevant operational periods (i.e. day, evening and night) do not exceed the relevant RBL by more than 5 dB. It is noted that where the RBL for the evening or night period is higher than day period RBL, the lower RBL for the day period has been adopted as the evening and night period RBLs in accordance with the NPfI. The RBLs utilised for determination of the intrusiveness target are based on the background noise monitoring results presented in Section 4.2 as follows:

- NCA1: this is the eastern area of Olive Lane; residences nearest to the Tahmoor Mine. It is represented by the ambient noise levels recorded at NM1 which was located approximately 100 m from Remembrance Drive.

- NCA1a: this is the western area of Olive Lane and also captures other residences at a similar distance from the Tahmoor Mine. Tahmoor Mine is the main contributor to ambient noise in this area. Based on the results of operator-attended noise surveys and noise modelling it is known that noise from site reduces by approximately 4 dB in this area compared to the logger location NM1. Hence, an adjustment of minus 4 dB has been made to the RBLs measured at NM1 to determine RBLs representative of this area.

- NCA1b: this is the area located west of NCA1a. The same approach as for NCA1a to establishing RBLs has been adopted here; an adjustment of minus 4 dB to the RBLs determined for NCA1a.

- NCA2: this area is representative of the nearest residential locations to the north of the mine. It is represented by the ambient noise levels recorded at NM2. Ambient noise levels here are dominated by traffic on Remembrance Drive and Tahmoor Mine.

- NCA3: this is the residential area adjacent to Remembrance Drive further north of the site than NCA2. It is represented by the ambient noise levels recorded at L1 and dominated by traffic noise from Remembrance Drive.

- NCA4: this is the area north of the REA and is represented by the ambient noise levels recorded at NM3. Ambient noise levels here are dominated by natural sounds and noise from Tahmoor Mine.

- NCA4a: this is the area north of NCA4 and south of NCA3. This area is less influenced by noise from the mine than NCA4 and less influenced by road traffic noise than NCA3. A conservative approach has been taken to establishing relevant background noise levels for this area; the minimum NPfI levels have been assumed for day and night and, for evening, a level of 35 dB has been assumed which is 3dB lower than that measured at NCA4 and 2dB lower than that measured at NCA3.

- NCA5: this is the area south of the REA and is represented by the ambient noise levels recorded at NM4. Noise levels in this area are dominated by natural sounds with some influence from distant traffic.

- NCA6: this is the area adjacent to (i.e. within 100m either side of) Remembrance Drive south of the mine. It is represented by the ambient noise levels recorded at L5 (noting that the noise logger that was located at NM5 failed).

- NCA6a: this is the area situated from 100m to 200m from Remembrance Drive south of the mine. Representative RBLs for this area have been determined by assuming a reduction to those measured at L5 based on the measurements undertaken at locations L5, AN4 and NM5.

- NCA7: this area is representative of all other typically rural locations within the project study area. Ambient noise levels in this area are consistent with the minimum level provided in the NPfI thus providing a conservative, yet realistic, assessment approach.

The above approach was adopted to assign equitable RBLs amongst assessment locations and to minimise the possibility of a sharp "step change" in final noise targets between near neighbours. The amended project intrusive noise levels determined from the RBLs for the noise catchment areas are presented in Table 5.1.

Table 5.1 Intrusive noise levels

NCA (representative logger location)	Measured / expected RBL, dB			Adopted RBL, dB			Project Intrusive noise level, $L_{Aeq,15min}$, dB		
	Day	Evening	Night	Day	Evening	Night	Day	Evening	Night
1	46	46	42	46	46	42	51	51	47
1a	42	42	38	42	42	38	47	47	43
1b	38	38	34	38	38	34	43	43	39
2	46	44	42	46	44	42	51	49	47
3	39	37	30	39	37	30	44	42	35
4	36	38	39	36	36	36	41	41	41
4a	35	35	30	35	35	30	40	40	35
5	34	34	30	35	34	30	40	39	35
6	44	37	30	44	37	30	49	42	35
6a	40	34	30	40	34	30	45	39	35
7	35	30	30	35	30	30	40	35	35

Notes: Day: 7 am to 6 pm Monday to Saturday; 8 am to 6 pm Sundays and public holidays; evening: 6 pm to 10 pm; night: all remaining periods.

5.1.2 Amenity

The assessment of amenity is based on noise targets specific to the land use. The targets relate only to industrial noise and exclude road or rail noise.

Assessment locations within NCA1, NCA1a, NCA1b, NCA2, NCA3, NCA4, NCA4a and NCA6 have been categorised in the NPfI (EPA 2017) suburban amenity category in accordance with the NPfI definition of a suburban receiver type (i.e. an area that has local traffic with characteristically intermittent traffic flows or with some limited commerce or industry). All other assessment locations (NCA5, NCA6a and NCA7) have been categorised in the NPfI rural amenity category in accordance with the definition of a rural receiver type; ie an area with an acoustical environment that is dominated by natural sounds and generally characterised by low background noise levels.

To ensure that total industrial noise levels remain within the recommended amenity noise levels for an area, the project amenity noise level for the amended development is typically the recommended amenity noise level (outlined in Table 2.2 of the NPfI) minus 5 dB. The NPfI provides several exceptions to this. Of relevance to the amended project is the situation where cumulative industrial noise is not a necessary consideration because other industrial and commercial activities are limited in the area. That is, Tahmoor Mine is the primary source of industrial noise in the area during all periods and certainly during the most sensitive night-time period. Hence, in determining

relevant project amenity noise levels, no adjustment has been made to the recommended amenity noise level provided in the NPfI.

It is commonly acknowledged and accepted amongst regulators and industry that average noise levels are typically 3 dB higher over a 15-minute worst case assessment period when compared to an entire day (11 hour), evening (4 hour) and night (8 hour) assessment period. This assumption is outlined in the NPfI and has been used in this assessment to standardise the time periods for the intrusive and amenity noise levels.

The corresponding recommended amenity levels for all assessment locations adopted for the amended project are given in Table 5.2.

Table 5.2 Project amenity noise levels

NCA or Receiver	Indicative area	Project amenity noise level ($L_{Aeq,15min}$) dB		
		Day	Evening	Night
1	Suburban	58	48	43
1a	Suburban	58	48	43
1b	Suburban	58	48	43
2	Suburban	58	48	43
3	Suburban	58	48	43
4	Suburban	58	48	43
4a	Suburban	58	48	43
5	Rural	53	48	43
6	Suburban	58	48	43
6a	Rural	53	48	43
7	Rural	53	48	43
College Administration	Commercial	68	-	-
College sports field	Active Recreation Area	58	-	-
College Classroom[2] (internal)	School (internal)	43 (internal) 53 (external)	-	-
Anglican Church	Place of worship (internal)	43 (internal) 53 (external)	43 (internal) 53 (external)	-

Notes: 1. Day: 7 am to 6 pm Monday to Saturday; 8 am to 6 pm Sundays and public holidays; evening: 6 pm to 10 pm; night: all remaining periods.
2. The recommended acceptable noise amenity level for an existing school affected by existing industrial noise sources has been established as per note to Table 2.2 of the NPfI. Amenity noise level for the College and Church applies "when in use" – it has been assumed the College operates during the day period only and the Church operates during day and evening only.

5.1.3 Project noise trigger levels

The project noise trigger levels (PNTLs) are the more stringent of either the project intrusive or amenity noise levels and are shown in Table 5.3.

Table 5.3 Project noise trigger levels, $L_{Aeq,15min}$

NCA / Receiver	Intrusive noise level, $L_{Aeq,15min}$, dB			Amenity noise level, $L_{Aeq,period}$, dB			PNTL, $L_{Aeq,15min}$, dB		
	Day	Evening	Night	Day	Evening	Night	Day	Evening	Night
1	51	51	47	58	48	43	51	48	43
1a	47	47	43	58	48	43	47	47	43
1b	43	43	39	58	48	43	43	43	39
2	51	49	47	58	48	43	51	48	43
3	44	42	35	58	48	43	44	42	35
4	41	41	41	58	48	43	41	41	41
4a	40	40	35	58	48	43	40	40	35
5	40	39	35	53	48	43	40	39	35
6	49	42	35	58	48	43	49	42	35
6a	45	39	35	53	48	43	45	39	35
7	40	35	35	53	48	43	40	35	35
College Admin	n/a	n/a	n/a	68	-	-	68	-	-
College Sports field	n/a	n/a	n/a	58	-	-	58	-	-
College classroom (internal)	n/a	n/a	n/a	43 (internal) 53 (external)	-	-	43 (internal) 53 (external)	-	-
Church (internal)	n/a	n/a	n/a	43 (internal) 53 (external)	43 (internal) 53 (external)	-	43 (internal) 53 (external)	43 (internal) 53 (external)	-

Notes: 1. Day: 7 am to 6 pm Monday to Saturday; 8 am to 6 pm Sundays and public holidays; evening: 6 pm to 10 pm; night is the remaining periods.

5.2 Sleep disturbance

Based on the guidance provided in the NPfI, Table 5.4 provides the sleep disturbance screening levels for the residential assessment locations.

Table 5.4 Sleep disturbance screening levels, residential assessment locations

NCA	Adopted RBL, dB	Sleep disturbance screening levels	
		$L_{Aeq,15min}$	L_{Amax}
1	42	47	57
1a	38	43	53
1b	34	40	52
2	42	47	57
3	30	40	52
4	36	41	52
4a	30	40	52
5	30	40	52
6	30	40	52
6a	30	40	52
7	30	40	52

Reference has also been made to the conclusions presented in the RNP.

6 Operational noise assessment

6.1 Overview

This section presents the methods and base parameters used to model noise emissions from the existing Tahmoor mine and the amended project, including the effects of noise-enhancing meteorological conditions.

Noise modelling was based on three-dimensional digitised ground contours of the surrounding land and surface infrastructure for the existing operations as well as construction and operational phases of the amended project. The construction and operational noise models represent snapshots, with equipment placed at various locations and heights, representing realistic scenarios.

Noise predictions were carried out using the ISO9613 algorithms within *iNoise* software, created by the same developers responsible for B&K's Predictor software. *iNoise* calculates total noise levels at assessment locations from concurrent operation of multiple noise sources. The model considers factors such as the lateral and vertical location of plant, source-to-receptor distances, ground effects, atmospheric absorption, topography of the site and surrounding area and applicable meteorological conditions.

Noise emission predictions for the College classrooms as well as the Anglican Church are external levels. A reduction of 10 dB from external to internal has been adopted assuming windows are open.

6.2 Meteorology

During certain weather conditions, mine noise emissions at the assessment locations may increase or decrease compared with noise during calm conditions. This is due to refraction caused by the varying speed of sound with increasing height above the ground that occurs during winds or where air temperature changes with height. A simple yet conservative approach has been selected for the consideration of potentially noise-enhancing weather conditions with reference to Fact Sheet D of the NPfI. Noise emissions from site have been predicted for both calm and noise-enhancing conditions as provided in Table 6.1.

Table 6.1 Modelled meteorological parameters

Assessment condition	Period	Temperature	Wind speed / Direction	Relative humidity	Stability Class
Calm	Day	20°C	n/a	70%	D
	Evening / Night	10°C	n/a	90%	D
Noise-enhancing	Day	20°C	3m/s Source to receiver	70%	D
	Evening / Night	10°C	2m/s Source to receiver	90%	F

This provides a conservative approach since the noise emissions predicted under noise-enhancing conditions are expected to represent the upper range of noise emissions from the mine.

6.3 Plant and equipment - existing mine and unmitigated Project

Table 6.2 summarises the operational noise sources and associated sound power levels used in the noise model. The equipment items and quantities are based on the current operations and those proposed for use as part of the Project. Most of the sound power data were obtained from noise measurements of existing activities at the site. Where this was not possible, sound power data has been obtained from an EMM database of similar plant and equipment.

Since the previous NVIA (EMM, 2018) some works have been undertaken on site to reduce noise emission levels. For example, a new dozer has been purchased with a reduced sound power level and the rail loading chute has been modified. Noise data for the new dozer was provided to EMM indicating a 3 dB reduction compared to the previously measured sound power level. The noise improvement as a result of the improved rail loading chute has been estimated as a reduction of 4 dB. Since it was not possible to validate the adopted sound power levels of the improved plant Tahmoor Coal has made a commitment to validate sound power levels of on-site plant and equipment as soon as practical.

Table 6.2 Operational acoustically significant plant and equipment and sound power levels

Item (number of)	Sound power level per item, $L_{Aeq,15min}$ dB	Included in modelled scenario	
		Existing	Project (Unmitigated)
Conveyors (various)	75/m	✓	✓
CHPP	115	✓	✓
D9 Dozer Stockpile (1)	112	✓	✓
Locomotives (2 per train)	105	✓	✓
Reject haul truck (1)	115	✓	✓
Reject loading	97	✓	✓
Reject haul truck -tipping	99	✓	✓
Ventilation fan Shaft 2	91	✓	✓
Ventilation fan TSC2	91	✗	✓
D9 Dozer ROM (1)	115	✓	✓
Dozer REA (1)	111	✓	✓
Gas plant	104	✓	✓
600t Coal bin feeders	90	✓	✓
Tunnel fan exhaust	86	✓	✓
5C tripper conveyor drive	91	✓	✓
Tunnel fan clean stockpile	70	✓	✓
7C conveyor drive building	101	✓	✓
Tunnel fan 4F	73	✓	✓
Water treatment tanks (2)	71	✓	✓
Flares (3)	82	✓	✓
Compressor building roof fans	99	✓	✓

Table 6.2 Operational acoustically significant plant and equipment and sound power levels

Item (number of)	Sound power level per item, $L_{Aeq,15min}$ dB	Included in modelled scenario	
		Existing	Project (Unmitigated)
ROM stockpile dump	98	✓	✓
Transfer building 3S-4C	95	✓	✓
Transfer building 3S-4S	95	✓	✓
Raw bin conveyor drive 3F	95	✓	✓
Transfer building 4F-3F	95	✓	✓
Co-gen plant	99	✓	✓
Transfer building 1F-3F	97	✓	✓
Transfer building 2A-1F	97	✓	✓
Rail loading	105	✓	✓
Champion compressors	105	✓	✓
Compressor building	91	✓	✓
Drift conveyor building	99	✓	✓
Raw coal silo	87	✓	✓
Winder building fan	90	✓	✓
Pumps (thickeners)	92	✓	✓
Watercart (1)	103	✓	✓

The following information regarding modelling assumptions have been provided to specifically address issues raised by the EPA in their submission on the EIS:

- A source height of 2 m has been adopted for all mobile equipment on site. Heights of fixed plant have been adopted from site drawings and observations made on site.
- Most sources on site are not directional in their nature; where sources may have a higher noise component in one particular direction an omni-directional source has been assumed at a sound power level equivalent to the higher noise component.
- The truck speed limit on site is 15km/hour. Trains are also generally limited to 15km/hour however can only travel at a maximum of 10km/hour whilst loading.
- The noise from wagons is negligible relative to the noise from locomotives whilst a train is on the loop and being loaded. Noise from two locomotives moving around the rail loop has been assumed as a line source.

6.4 Noise model validation

Noise from existing operations was modelled and compared to the results of operator-attended noise surveys undertaken by EMM in Olive Lane. Results of the model validation indicated that the model over-predicts impacts by approximately 2 dB. Calibration factors have not been applied within the model thus providing a conservative assessment approach.

A comparison of predicted noise emission levels to the historic compliance noise monitoring results, as provided in Table 3.1, was also undertaken, as shown in Table 6.3.

Table 6.3 Predicted noise levels compared to results of historic noise compliance monitoring

Location	Measured range of noise emissions (dB)	Predicted (including noise enhancing weather conditions) (dB)
M1	<45 to <56	55
M2	<45 to 56/57	60
M3	<40 to <47	55
M4	<40 to <52	57
M5	<35 to <47	47
M6	<35 to <43	43
M7	<30 to 35/36	39
M8	<32 to <40	38
M9	<30 to <35	33
M10	<30 to <45	37

Where noise compliance monitoring results are reported as “less than” a number it is not possible to provide a direct comparison to predicted noise emission levels. However, the predicted noise levels with the adoption of noise-enhancing weather conditions are approximately at the top end of the measured range or marginally over-predicting. It is noted that noise emissions are over-predicted in the order of 5 to 8 dB at M3 and M4. Given the close proximity of these receptors to the site it is believed that this is due to the fact that the model includes a dozer on the ROM stockpile which typically does not operate, although it is approved to, during the night-time. Further, the measured noise levels rarely capture train loading activity. Given that the detailed validation correlated well in Olive Lane (representative of M3 and M4) and the reasonable correlation of predicted and measured results at all other monitoring locations, , the operational noise model is considered appropriate for the purpose of determining noise impacts from the amended project and provides a conservative approach.

6.5 Operational scenarios

As described in Section 1.3, the Project would use the existing surface infrastructure at the Tahmoor Mine surface facilities area. The main change in terms of potential acoustic impacts includes the expansion of the REA with no acoustically significant changes to the existing surface facilities area.

This NVIA has considered the following stages of the Project:

- Stage 2 (approximately three years from project approval): representative of an acoustically worst-case for residences to the north and some to the east of the REA.
- Stage 4 (approximately six years from project approval): representative of an acoustically worst-case for residences to the south-east of the REA.
- Stage 5 (approximately nine years from project approval): representative of an acoustically worst-case for residences to the south of the REA.

Figures showing the indicative locations of assumed noise sources across the site for the existing operations and the three REA stages considered for the Project are provided in Appendix D. Further, noise sources in the REA have been modelled at the potentially highest RL i.e. 310m of the amended REA.

All sources were assumed to operate continuously during all periods (day, evening and night) for both the existing and unmitigated operational Project scenarios.

Based on the results of the quarterly noise compliance monitoring, LFN modifying factors have been applied to noise emissions predicted as described in Section 3.2. These results indicate that low frequency noise above the current relevant NPfI thresholds is present in the vicinity of Olive Lane (locations M3 and M4) and the Wollondilly Anglican Church and College (location M2). The measured LFN levels at these locations indicate that a current modifying factor of +2dB applies during the day and +5dB applies during evening and night at assessment locations in these areas. These modifying factors have been included in the noise emission predictions.

Results are presented in table format in Appendix E together with indicative noise contours for existing Tahmoor Mine operations. The results table provides the predicted noise emission level at each assessment location and a comparison to relevant PNTLs. A comparison of predicted noise emissions from the Project to predicted noise emissions from the existing Tahmoor mine operations is also provided. In addition, predicted noise impacts from all considered stages of the unmitigated amended project have been categorised as per Table 1 of the VLAMP with reference to noise predictions under noise-enhancing weather conditions. These categorisations are displayed spatially in Appendix E.

Further discussion of predicted noise emissions is provided in Section 6.8. Since PNTLs are predicted to be exceeded, an assessment of reasonable and feasible mitigation has been undertaken with the aim of achieving the PNTLs in accordance with the methodology provided in the NPfI for the assessment of noise emissions from existing sites.

6.6 Assessment of mitigation

Consideration of the feasibility and reasonableness of existing and additional noise mitigation measures has been undertaken with reference to the guidance provided in Section 3.4 of the NPfI. The NPfI also provides the following guidance on the application of noise mitigation to existing premises:

> The range of noise reduction strategies for existing situations is generally more limited than those available for new development at the planning stage. For example, spatial separation between the source and receiver is not an option for existing situations. The initial focus for existing sites should be operational procedures and prioritising noise-control measures that provide the greatest benefits to residents at least cost.

The main operational noise sources at the site contributing to off-site noise levels are the CHPP and dozers. Other significant sources that contribute to off-site noise emissions include rail loading activity (locomotives and loading coal into wagons), compressors and the reject haul truck. Mitigation options targeting these noise sources have been considered as provided in Table 6.4 Mitigation strategies have been considered in the following hierarchical approach:

1. control of noise at the source;

2. once the feasible and reasonable controls at the source are exhausted, controlling the transmission of noise; and

3. once source and transmission feasible and reasonable controls are exhausted, considering mitigation measures at the noise-sensitive receivers.

Table 6.4 Mitigation decision making matrix

Mitigation option	Feasible?	Reasonable?	Justification for adopting / disregarding and expected noise benefit
At-source controls			
CHPP improvements; this could be in the form of reducing openings, improved cladding, engineering design solutions to reduce noise emissions from CHPP plant and equipment or purchase of new equipment (or a combination of any of these).	Yes	Yes	These measures will require significant capital investment but are expected to result in a significant reduction to noise emissions from the CHPP. Preliminary investigations undertaken by Recognition Research Pty Ltd indicate that an overall reduction in CHPP noise could be achieved by building a new CHPP building envelope and that LFN could be reduced in Olive Lane. Being one of the main contributors to off-site mine noise emissions, controls to the CHPP will have the benefit of reducing mine noise at all neighbouring residences. Investigations are still underway into the most appropriate noise reduction methods for the CHPP. For the purpose of assessing noise from a mitigated CHPP an overall reduction in sound power level of 10dB has conservatively been adopted for the northern, western and southern facades. Further, it has been assumed that the LFN modifying factor would be reduced from +2 for day and +5dB for evening and night to 0 dB for day and +2dB for evening and night.
Noise suppression kit for ROM/stockpile dozer	Yes	Yes	The noise suppression kit is expected to result in a 4dB reduction to the overall dozer sound power level.
Use of only one dozer at night (either on the ROM or stockpile area)*	Yes	Yes	Being one of the main contributors to off-site mine noise emissions these controls to the dozer will have the benefit of reducing mine noise at all neighbouring residences.
Restrict dozer operation to northern section of stockpile area at night	Yes	Yes	This measure would be used in conjunction with the above measures and will also maximise the benefit of the proposed barrier around the coal stockpile area (refer below).
Extend conveyor to REA to negate the need for the rejects truck to use the northern section of haul road	Yes	No	This would provide negligible acoustic benefit at significant cost. There would be some benefit to residences north of the REA but increased impacts to the south due to increased truck activity in the southern area of REA.
Restrict activity in the REA to day and evening only – no haulage or dozer operation in REA at night	Yes	Yes	This will result in improved acoustic outcomes particularly for those residences north and south of the REA. To facilitate this operational restriction, an additional reject-haulage truck will be utilised during the day and evening periods. A front-end loader will also be required to load trucks from a stockpile near the current reject bin during the day and evening.
Purchase new, quieter haul truck	Yes	No	The option to restrict night-time haulage was preferred as it provides a greater acoustic benefit and reduces the need for additional capital expenditure. This option may be considered in the future if required.
Improvement to enclosure of Champion compressors.	Yes	Yes	The current Champion compressor enclosure is open on several sides. Full enclosure of these items is expected to result in an 8 dB reduction to the sound power level.
Control transmission of noise			
Relocation of CHPP to increase separation distance between CHPP and residents in Olive Lane	Yes	No	Relocation of the CHPP would require a significant and prohibitive capital cost as well as potential long-term down-time for the mine. Further, if the CHPP is moved further from Olive Lane it would inevitably be nearer to other residences.

Table 6.4 Mitigation decision making matrix

Mitigation option	Feasible?	Reasonable?	Justification for adopting / disregarding and expected noise benefit
Barrier around coal stockpile area	Yes	Yes	The barrier would be located along the western side of the existing stockpile area (indicative extents are shown in Appendix D) and be in the form of 3 shipping containers stacked on each other. The barrier would have maximum benefit to reduce noise from the dozer when the dozer is operating in the northern section of the stockpile area (refer above). This barrier is predicted to reduce noise emissions from the dozer at the nearest noise-sensitive receptors by up to 5dB under noise-enhancing weather conditions.
Extended barrier around southern end of coal stockpile area	No	No	The required height of the barrier to provide any material acoustic benefit would not be feasible to build. A feasible height (eg 4 shipping containers stacked on each other) would provide negligible acoustic benefit.
Improve performance (increase height) of bund to shield northern section of rail loop	Yes	Yes	This barrier would have the benefit of further reducing locomotive engine noise and noise from wheel/track interaction when rail loading is occurring.
Mitigation at the receptor			
Receptor mitigation	Yes	No	There have been a significantly reduced number of complaints received with regard to noise over the previous several years and from only one resident in Olive Lane. The amended project will result in improved night-time noise emissions compared to existing emissions at all assessment locations. Tahmoor Coal Pty Ltd will negotiate with those receptors identified as being significantly impacted by mine noise. The type of mitigation measures that could be implemented at the residences will depend on the outcomes of relevant negotiations.

*There may be rare situations where the use of two dozers will be required, e.g. during times when stock is at peak levels, however this will be a rare event and avoided where practicable.

It is anticipated that all the feasible and reasonable noise mitigation measures identified above will be adopted. The implementation of all noise mitigation measures proposed will require significant operational planning, engineering design and, in some cases, significant capital investment. Tahmoor Coal will require an appropriate timeline to coordinate and implement all these measures. Further information in this regard is provided as follows:

- **CHPP improvements**: Tahmoor Coal will commence investigations and concept design study for this work in 2020. Feasibility study works, including consideration of various options, is anticipated to continue through the first two years of the project. It is estimated that the CHPP mitigation measures could be implemented within approximately three years of physical commencement of the Project.

  Based on advice provided by Recognition Research and our own experience there are many examples of where LFN has been successfully reduced from industrial sites; e.g. CHPP at Newstan Colliery, mine ventilation fans at Illawarra Colliery and the foundry in Marrickville.

- **Dozers**: the use of only one dozer at night as well as the restriction to operating area for the stockpile dozer would be implemented upon approval of the project. The noise suppression kit for the dozer would be procured and installed within the first 12 months after approval of the project.

- **Restriction of REA operations**: to enable the restriction of REA operations to day and evening only modifications are required to the conveyor as well as the procurement of a front-end loader to assist with

loading the second haul truck. It is anticipated that the design, procurement and installation process would be completed within approximately three years of physical commencement of the Project.

- **Compressors**: the upgrade to the compressor enclosure would be installed within approximately two years after approval of the project.

- **Barriers**: improvements to the bund shielding the rail loop as well as design/construction of the barrier around the stockpile area are expected to be completed within three years after approval of the project.

6.7 Operational noise assessment – mitigated Project

Table 6.5 summarises the operational noise sources and associated sound power levels used in the noise model for each of the stages considered for the amended project including all feasible and reasonable noise mitigation measures. Figures showing the indicative locations of modelled noise sources and noise barriers are provided in Appendix D. It is noted that these figures show the locations of all noise sources that operate during day, evening or night-time periods. The operational status of each item during each period is indicated in Table 6.5. It is noted that construction activity associated with the new ventilation fans will primarily occur during Stage 2 of the REA. Assessment of noise from this activity has been undertaken in accordance with the NPfI and with reference to the ICNG (refer Section 7).

Table 6.5 Acoustically significant plant and equipment and sound power levels – Mitigated TSP

Item	Sound power level per item, dB(A)	Operational during this period		
		Day	Evening	Night
Conveyors	75/m	✓	✓	✓
CHPP	109	✓	✓	✓
D9 Dozer Stockpile	112	✓	✓	✓
Locomotives (2 per train)	105	✓	✓	✓
Reject haul truck	115	✓ (2)	✓ (2)	✗
Reject loading from bin	97	✓	✓	✗
Reject loading by loader	107	✓	✓	✗
Reject haul truck -tipping	99	✓	✓	✗
Ventilation fan (Shaft 2)	91	✓	✓	✓
Ventilation fan (TSC2)	91	✓	✓	✓
D9 Dozer ROM	115	✓	✓	✗
Dozer REA	111	✓	✓	✗
Gas plant	104	✓	✓	✓
600t Coal bin feeders	90	✓	✓	✓
Tunnel fan exhaust	86	✓	✓	✓
5C tripper conveyor drive	91	✓	✓	✓
Tunnel fan clean stockpile	70	✓	✓	✓
7C conveyor drive building	101	✓	✓	✓

Table 6.5 Acoustically significant plant and equipment and sound power levels – Mitigated TSP

Item	Sound power level per item, dB(A)	Operational during this period		
		Day	Evening	Night
Tunnel fan (4F)	73	✓	✓	✓
Water treatment tanks (2)	71	✓	✓	✓
Flares (3)	82	✓	✓	✓
Compressor building roof fans	99	✓	✓	✓
ROM stockpile dump	98	✓	✓	✓
Transfer building (3S-4C)	95	✓	✓	✓
Transfer building (3S-4S)	95	✓	✓	✓
Raw bin conveyor drive (3F)	95	✓	✓	✓
Transfer building (4F-3F)	95	✓	✓	✓
Co-gen plant	99	✓	✓	✓
Transfer building (1F-3F)	97	✓	✓	✓
Transfer building (2A-1F)	97	✓	✓	✓
Rail loading	105	✓	✓	✓
Champion compressors	97	✓	✓	✓
Compressor building	91	✓	✓	✓
Drift conveyor building	99	✓	✓	✓
Raw coal silo	87	✓	✓	✓
Winder building fan	90	✓	✓	✓
Pumps (thickeners)	92	✓	✓	✓
Watercart (1)	103	✓	✓	✓

Noise emission predictions are presented in table format in Appendix F together with indicative noise contours. For simplicity and due to the significant number of assessment locations modelled, detailed single-point results have only been provided where noise emissions under noise-enhancing weather conditions are predicted to be above the PNTL.

The results table provides the predicted noise emission level at each assessment location and a comparison to relevant PNTLs. A comparison of predicted noise emissions from each stage of the mitigated Project to predicted noise emissions from the existing Tahmoor mine operations is also provided.

In addition, predicted noise impacts from all considered stages of the mitigated amended project have been categorised as per Table 1 of the VLAMP with reference to noise predictions under noise-enhancing weather conditions. These categorisations are displayed spatially in Appendix F.

6.8 Operational noise assessment summary

Table 6.6 provides a summary of the number of assessment locations for each operational scenario (existing mine and each of the Stages considered) where predicted noise emissions are in the following categories:

- No more than 2 dB above PNTL;
- 3-5 dB above PNTL; and
- More than 5 dB above PNTL.

Table 6.6 Assessment Locations

	Existing Tahmoor Mine			Stage 2 exc Constrn			Stage 2 Mit exc Constrn			Stage 4			Stage 4 Mitigated			Stage 5			Stage 5 Mitigated		
Noise-enhancing	**Day**	**Evening**	**Night**	**Day**	**Evening**	**Night**	**Day**	**Evening**	**Night**	**Day**	**Evening**	**Night**	**Day**	**Evening**	**Night**	**Day**	**Evening**	**Night**	**Day**	**Evening**	**Night**
No more than 2dB above PNTL	2753	2715	2650	2747	2704	2636	2753	2723	2734	2751	2709	2643	2757	2725	2734	2750	2711	2646	2756	2731	2735
3-5dB above PNTL	5	24	73	11	32	84	6	29	19	7	27	76	2	27	19	8	25	72	3	22	18
More than 5dB above PNTL	1	19	33	1	22	36	0	6	3	1	22	37	0	6	3	1	22	38	0	5	3
Calm																					
No more than 2dB above PNTL	2759	2745	2734	2758	2744	2734	2759	2757	2754	2759	2742	2733	2759	2754	2754	2759	2742	2733	2759	2755	2754
3-5dB above PNTL	0	12	17	1	12	17	0	1	2	0	15	18	0	4	2	0	15	18	0	3	2
More than 5dB above PNTL	0	1	5	0	2	5	0	0	0	0	1	5	0	0	0	0	1	5	0	0	0

Key points from the operational noise assessment are summarised as follows:

- As per the results presented in Appendix F, the mitigated Project is expected to reduce noise emissions at all assessment locations compared to existing levels by at least 2 dB and up to 18 dB at all assessment locations during the night-time period.

- Predicted noise levels from the amended project show a significant reduction in the number of privately-owned dwellings affected by mine noise emissions more than 5 dB above the relevant PNTL compared to existing mine noise; a maximum of 6 residences for operation of the mitigated, amended project compared to 33 for existing Tahmoor mine operations. Categorising residual noise impacts in accordance with the VLAMP noise impact categories results in three residential properties classified as significantly affected (refer Appendix G).

- Mine noise at the Anglican Church and school are predicted to reduce by at least 3 dB (mitigated scenario) compared to existing mine noise emission levels. Further, mine noise including mitigation measures are predicted to achieve the relevant amenity noise levels at these locations.

- In some cases, locations categorised as significant are relatively further from the mine than those with a moderate or marginal impact category. This is due to several factors including rounding of noise predictions, local topographical features and the relative PNTLs for these locations (intrusive and amenity).

- The results presented here do not include construction activity at the vent fan sites. This is discussed further in Section 7.

Tahmoor Coal will continue to investigate options for further noise mitigation into the future including, but not limited to, the following:

- consideration of a new haul truck for use in the REA with the inclusion of noise attenuation and/or noise specification in the supply contract;

- additional investigations regarding mitigation for the CHPP; and

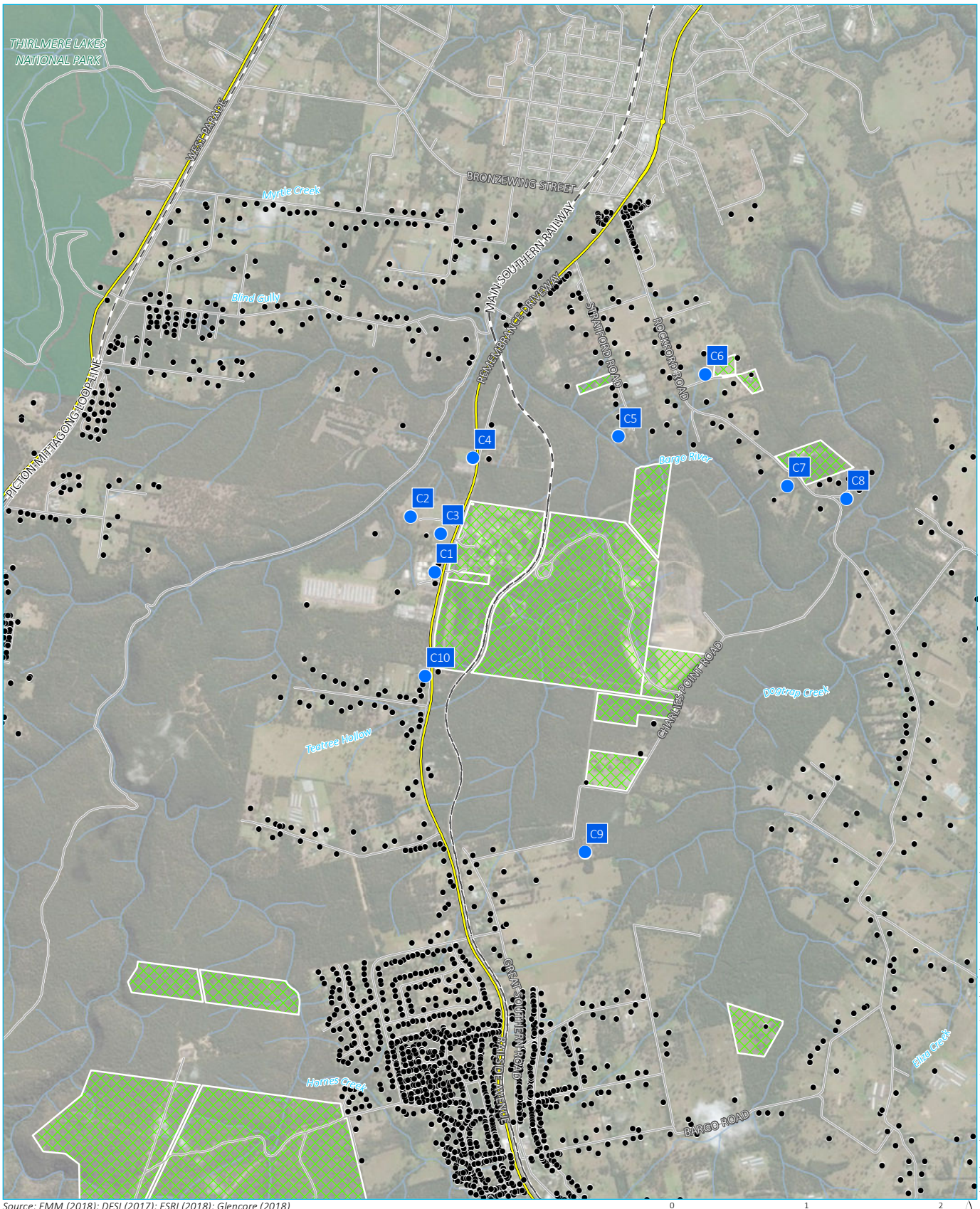
- consideration of noise mitigation initiatives in the purchase and/or design of all new equipment as well as any new site buildings and access roads.

To assist in the negotiation process that will likely be an outcome of this study Table 6.7 provides a summary of the predicted noise levels at ten locations around the mine. These locations (refer Figure 6.1 have been selected from the ten existing quarterly noise monitoring locations with the exceptions being M1 and M10. Location M1 is the service station located south of the Anglican College and is not considered necessary given that it is not a noise-sensitive receptor and the close proximity of location M2. Given the proximity of M10 to the REA extension it is recommended that 80 Charlies Point Road would be a more appropriate noise monitoring location. Further, the nearest residential property to the south of the REA is the subject of negotiations for Tahmoor Coal Pty Ltd to purchase.

Table 6.7 Predicted 'achievable' noise levels (noise enhancing)

Location				PNTL			Existing			Project		
Ref.	X	Y	Description	Day	Eve	Night	Day	Eve	Night	Day	Eve	Night
C1	276653	6207152	Wollondilly Anglican Church	53	53	n/a	57	60	60	51	53	51
C2	276472.9	6207650	Western end of Olive Lane	47	47	43	52	55	55	47	49	46
C3	276741	6207616	Eastern end of Olive Lane	51	48	43	54	57	57	52	52	49
C4	276936.3	6208105	2900 Remembrance Drive	51	48	43	46	46	46	46	46	43
C5	278017.5	6208249	Southern end of Stratford Road	41	41	41	43	43	43	44	44	38
C6	278663.1	6208711	Eastern end of Hodgson Grove	40	40	35	39	39	39	40	40	32
C7	279273	6207883	Rockford Road	40	35	35	38	38	38	40	40	34
C8	279711.4	6207784	Kammer Place	40	35	35	33	33	33	35	35	<30
C9	277768	6205158	80 Charlies Point Road	40	39	35	37	37	37	38	38	32
C10	276577.5	6206476	3076 Remembrance Drive	49	42	35	43	43	43	43	43	41

Notes: 1. Noise level predictions presented in this table include the relevant LFN modifying factor.



Source: EMM (2018); DFSI (2017); ESRI (2018); Glencore (2018)

0 1 2 km

GDA 1994 MGA Zone 56

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KEY

- Location for achievable noise levels
- Assessment location
- Tahmoor-owned land
- Rail line
- Main road
- Local road
- Watercourse / drainage line
- NPWS reserve

Achievable noise level locations

Tahmoor South Project
Noise impact assessment
Figure 6.1

EMM
creating opportunities

7 Construction noise assessment

7.1 Construction activity

Construction activity at the proposed vent fan sites is likely to occur during the first three to four years of the project with both vent fans operational approximately four years post approval. An indicative schedule is provided in Table 7.1.

Table 7.1 Indicative ventilation fan construction schedule

Activity	Approximate duration (up to)	Comments
TSC1 (upcast ventilation fan)		
Site establishment	9 months	Daytime only
Mobilise drill rig and shaft construction including drilling, lining and de-watering	17 months	This task will require 24-hour activity due to practical considerations of drilling.
Fan construction	7 months	Daytime only
Demobilisation and rehabilitation	2-4 months	Done in parallel with end of fan construction works. Daytime only
TSC2 (downcast ventilation fan)		
Site establishment	9 months	Completed in parallel with completion of TSC1. Daytime only.
Mobilise drill rig and shaft construction including drilling, lining and de-watering	15 months	Rig is dis-assembled from TSC1 site and moved to TSC2 site. This task will require 24-hour activity due to practical considerations of drilling.
Fan construction	18 months	Daytime only with the exception of approximately one month during commissioning when 24/7 operation will be required.
Demobilisation and rehabilitation	2-3 months	Done in parallel with end of fan construction works. Daytime only

7.2 Construction noise modelling

As for operational noise, construction noise predictions were carried out using the ISO9613 algorithms within *iNoise* software, and a simple yet conservative approach has been selected for the consideration of potentially noise-enhancing weather conditions with reference to Fact Sheet D of the NPfI. Construction noise emissions have been predicted for noise-enhancing conditions as provided in Table 6.1. This provides a conservative approach since the noise emissions predicted under noise-enhancing conditions are expected to represent the upper range of construction noise emissions.

7.3 Construction plant and equipment

Of the construction stages described in Table 7.1 the site establishment phase will represent an acoustically worst-case scenario for daytime activity. Shaft construction (i.e. drilling) is the only component of the construction schedule proposed to occur during the night-time period.

The construction noise impact assessment has adopted sound power levels from the EMM noise database for plant and equipment items used on similar projects. Plant and equipment items, sound power levels and quantities adopted in the noise modelling are summarised in Table 7.2.

Table 7.2 Typical construction plant and equipment

Stage	Plant and equipment items	Quantity (worst case per 15-min period)	A-weighted sound power level per item, dB
Site establishment works (standard hours)[1]	Excavator	1	104
	Dozer	1	110
	Light vehicle	4	76
	FEL	1	105
	Road truck (deliveries)	1	103
	Dump truck	2	108
	Grader	1	108
	Roller	1	116
	Compactor	1	112
	Crane	1	102
	Forklift	1	106
	Water truck	1	96
	Generator	2	98
Drilling (standard hours)[1]	Drill	1	102
	Hydraulic power pack	1	87
	Compressor	1	100
	Water circulation pumps	2	77
	Excavator	1	104
	Front end loader	1	105
	Crane	1	102
	Welding equipment	1	95
Drilling (outside standard hours)	Drill	1	102
	Hydraulic power pack	1	87
	Compressor	1	100
	Water circulation pumps	2	77

1. Standard hours: Monday to Friday 7 am to 6 pm, Saturday 8 am to 1 pm and no construction work on Sundays or public holidays.
2. Plant and equipment items have been assumed to operate continuously in any 15-minute period unless otherwise specified.
3. Sound power levels have been sourced from an EMM database of similar equipment.

Due to the proposed schedule, noise emissions from construction activity have been modelled concurrently with mine noise emissions associated with Stage 2 of the REA.

Feasible and reasonable mitigation measures have also been incorporated into the noise model for proposed night-time activities. Given that details regarding the type of construction equipment and methodologies are not yet finalised it is expected that these measures would include some or all of the following:

- regular reinforcement (such as at toolbox talks) of the need to minimise noise and vibration;
- avoiding the use of portable radios, public address systems or other methods of site communication that may unnecessarily impact upon residents;
- parking of vehicles in locations and ways to minimise noise;
- minimising the need for vehicles to enter and/or exit the site during the night;
- minimise the need for reversing for example, by arranging for one-way site traffic routes (largely achieved by site layout design); and
- use of temporary barriers around the drill rig to acoustically shield nearest potentially affected residential locations.

7.4 Construction noise modelling results

Noise emission predictions are presented in table format in Appendix H. For simplicity and due to the significant number of assessment locations modelled, detailed single-point results have only been provided where noise emissions under noise-enhancing weather conditions are predicted to be above the PNTL.

The results table provides the predicted noise emission level at each assessment location as well as a comparison to relevant PNTLs and to the noise emissions from the unmitigated Stage 2 scenario excluding construction activity.

Table 7.3 provides a summary of the number of assessment locations for Stage 2 excluding construction as well as each construction scenario considered where predicted noise emissions are in the following categories:

- No more than 2 dB above PNTL;
- 3-5 dB above PNTL; and
- More than 5 dB above PNTL.

Construction activity expected to be undertaken concurrently with Stage 2 of the amended project is predicted to result in a minor increase in the number of properties affected by noise more than 5dB above the PNTL compared to general mining activity during the same stage; up to four additional properties during the daytime, up to two additional properties during the evening and up to three additional properties during the night-time period.

As expected, the largest predicted increase in noise levels as a result of construction activity are limited to those properties in close proximity to the proposed ventilation sites. With reference to the ICNG, total noise emissions are predicted to be below the Highly Noise Affected level at all residential properties during the daytime.

The two nearest private residences to the south of the REA and nearest to the ventilation fan sites are 80 and 185 Charlies Point Road. Night-time construction noise levels including unmitigated Stage 2 mining activities are predicted to be equal to or less than $L_{Aeq,15minute}$ 37 dB for each scenario considered at 80 Charlies Point Road. Night-time construction activity including unmitigated Stage 2 mining activities at 185 Charlies Point Road is predicted to generate up to $L_{Aeq,15minute}$ 49 dB. It is noted that Tahmoor Coal has commenced negotiations to purchase this property.

Noise from the outside-of-standard-hours activity will generally be continuous in nature and therefore given the magnitude of predicted L_{Aeq} construction noise levels, the maximum noise level (ie L_{Amax}) from this activity is predicted to be below the relevant sleep disturbance screening criteria at all nearby assessment locations.

Tahmoor Coal will actively manage construction noise levels. The construction noise management methods will be detailed in a construction noise management plan which will be developed prior to commencement of construction activities and include, but not be limited to, the following:

- a detailed assessment of feasible and reasonable work practices that will be implemented to minimise noise impacts;
- strategies to promptly deal with and address noise complaints;
- procedures for notifying nearby residents of forthcoming works that are likely to produce noise impacts; and
- consideration of respite periods.

Table 7.3 Assessment locations – residual noise impacts

	Stage 2 excluding construction			Stage 2 + TSC1 Site Est.	Stage 2 + TSC1 Drilling			Stage 2 + TSC2 Site Est.	Stage 2 + TSC2 Drilling		
Noise-enhancing	**Day**	**Evening**	**Night**	**Day**	**Day**	**Evening**	**Night**	**Day**	**Day**	**Evening**	**Night**
No more than 2dB above PNTL	2745	2702	2635	2735	2743	2699	2634	2731	2744	2701	2634
3-5dB above PNTL	12	32	84	20	13	34	82	22	12	31	84
More than 5dB above PNTL	1	23	36	3	2	24	39	5	2	25	37

8 Sleep disturbance assessment

8.1 Existing maximum noise events

The current development consent and EPL 1389 do not contain any limits with regard to night-time maximum noise levels and maximum noise events from the mine are not recorded during the quarterly operator-attended noise compliance surveys.

Based on the results of operator-attended noise surveys undertaken by EMM in Olive Lane, existing maximum noise levels from Tahmoor Mine are in the order of L_{Amax} 53 dB from general dozer activity or loading coal into rail wagons.

8.2 Previous and proposed noise mitigation

Maximum noise levels from existing operations have previously been the subject of a PRP relevant to the site. As described in the previous NVIA (EMM, 2018), engineered mitigation controls have been effectively implemented as part of the Tahmoor Mine's PRPs to reduce and control maximum noise events. Controls specific to the reduction of maximum noise events that have been implemented over time include the following:

- laminated transfer chutes at conveyor transfer points;
- lagging of the reject stone bin;
- limit switches to ensure the stone bin levels are maintained at not less than 30% full to avoid impact noises associated with empty bins;
- replacement of mobile plant reversing alarms with low level, broad-spectrum alarms (colloquially referred to as "quackers"); and
- installation of an onsite real-time noise monitor.

Noise reduction measures that have been considered as part of the mitigated Project will have the effect of further reducing maximum noise levels from site. These measures include the following as described in Section6.6:

- increased height of barrier adjacent to the north-western side of the rail loop;
- improvement to feed chute into rail wagons to reduce impact noise when loading of coal commences into each wagon;
- improvements to the CHPP cladding and/or plant and equipment within it;
- noise-suppression kit for dozer; and
- no activity (haulage or dozer) will occur in the REA during the night time.

8.3 Future maximum noise events

It is expected that both the frequency and level of maximum noise events from the amended project will be lower compared to the existing operation due to the mitigation measures to be implemented; including as a result of restricting operation of equipment in the REA to day and evening only.

Maximum noise levels have been predicted from the amended project including the feasible and reasonable mitigation measures described above. Maximum noise level predictions from activities such as dozer operation or rail loading (assuming a maximum sound power level of 122 dB) are provided in Table 8.1for all residential assessment locations where maximum noise levels are predicted to be higher than 50dB. Results indicate that the maximum noise level is not predicted to be above that which would trigger the need for a detailed assessment of maximum noise events (i.e. the NPfI L_{Amax} 52dB) at any residential assessment location.

Table 8.1 Predicted maximum noise levels including mitigation from amended project

Location	Predicted L_{Amax} noise level (dB)	Maximum trigger level (dB)
2 Olive Lane	54	57
4 Olive Lane	52	53
6 Olive Lane	51	53
7 Olive Lane	52	53
3010 Remembrance Drive	52	53

9 Vibration assessment

9.1 Construction vibration

The potential for vibration impacts from construction activity was assessed in the previous NVIA. The EPA has requested additional consideration of likely vibration from the proposed drill rig.

The precise type and model of the drill rig to be used is not yet known. Notwithstanding, given the separation distance between the sites where drilling is proposed and the nearest residences (>200m), published literature shows that vibration levels from drilling activity will not be noticeable at the nearest residences. Further, vibration levels from drilling are expected be below levels likely to cause damage to structures.

9.2 Operational vibration

Vibration from operational activity is not expected to change and given the separation distance between the nearest residences to either the existing surface infrastructure site or the vent fan sites (>200 m), ground-borne vibration from existing equipment is not expected to be perceptible.

Notwithstanding, it is acknowledged that historical complaints have been received in relation to vibration from the existing vent fan. EMM has undertaken operator-attended vibration monitoring in close proximity to (at a distance of approximately 30 m from the southern side of the existing vent fan building) during normal operation of the facility. Tri-axial vibration levels were monitored for approximately 15-minutes on 19 June 2019 using a INFRA v12 vibration monitor. Given the constant nature of operation of the vent fan it is considered that the 15-minute survey captured vibration levels during typical operations.

The peak vibration levels during the survey did not exceed 0.035 mm/s which is significantly below the level of human perception. It is not expected that vibration levels from the existing or proposed vent fans would cause disturbance at the nearest residences.

10 Conclusion

EMM has assessed the noise and vibration impacts of the amended project on existing noise-sensitive receptors in the area. This NVIA report serves as an update to the Tahmoor South Project Noise and Vibration Impact Assessment (NVIA) (EMM, 2018) (Appendix M of the Tahmoor South EIS).

Matters for further consideration as requested by the DPIE and the submission received by the NSW Environment Protection Authority (EPA) have been addressed within this report.

The noise impact assessment indicates that operational noise from Tahmoor Mine will improve as a result of the project with the incorporation of feasible and reasonable mitigation measures especially during the most sensitive night-time period.

Construction noise associated with the amended project is expected to increase general operational noise emissions in the vicinity of the proposed works; new ventilation fan sites south of the REA. Tahmoor Coal will incorporate all feasible and reasonable measures to minimise potential construction noise impacts and actively manage construction activity through the preparation and implementation of a Construction Management Plan.

Glossary

Technical terms typically utilised in a noise assessment report are explained in Table 10.1.

Table 10.1 Glossary of acoustic terms and abbreviations

Abbreviation or term	Definition
ABL	The assessment background level (ABL) is defined in the INP as a single figure background level for each assessment period (day, evening and night). It is the tenth percentile of the measured L_{A90} statistical noise levels.
Amenity noise level	The amenity noise levels relate to the overall level of industrial noise subject to land zoning or use
A-weighting	There are several different weightings utilised for describing noise, the most common being the 'A-weighting'. This attempts to closely approximate the frequency response of the human ear.
Day period	Monday–Saturday: 7.00 am to 6.00 pm, on Sundays and public holidays: 8.00 am to 6.00 pm.
dB	Noise is measured in units called decibels (dB).
DPIE	NSW Department of Planning, Industry and Environment
EA	Environmental assessment
EMM	EMM Consulting Pty Limited
EP&A Act	NSW *Environmental and Planning Assessment Act 1979* (NSW)
EPA	NSW Environment Protection Authority (formerly the Department of Environment, Climate Change and Water).
Evening period	Monday–Saturday: 6.00 pm to 10.00 pm, on Sundays and public holidays
ICNG	Interim Construction Noise Guideline
Intrusive noise level	The intrusive noise level refers to noise that intrudes above the background level by more than 5 dB.
L_{A1}	The A-weighted noise level exceeded for 1% of the time.
L_{A10}	The A-weighted noise level which is exceeded 10% of the time. It is roughly equivalent to the average of maximum noise level.
L_{A90}	The A-weighted noise level that is exceeded 90% of the time. Commonly referred to as the background noise level.
L_{Aeq}	The A-weighted energy average noise level. This is the equivalent continuous sound pressure level over a given period. The $L_{Aeq(15\text{-}minute)}$ descriptor refers to an L_{Aeq} noise level measured over a 15 minute period.
L_{Amax}	The maximum A-weighted sound pressure level received during a measurement interval.
Night period	Monday–Saturday: 10.00 pm to 7.00 am, on Sundays and public holidays: 10.00 pm to 8.00 am.
NMP	Noise management plan
PNTL	The project noise trigger levels (PNTLs) are targets for a particular industrial noise source or industry. The PNTLs are the lower of either the project intrusive noise level or project amenity noise level.
POEO Act	NSW *Protection of the Environment Operations Act 1997* (NSW)
RBL	The rating background level (RBL) is an overall single value background level representing each assessment period over the whole monitoring period. The RBL is used to determine the intrusiveness criteria for noise assessment purposes and is the median of the average background levels.
RNP	Road Noise Policy

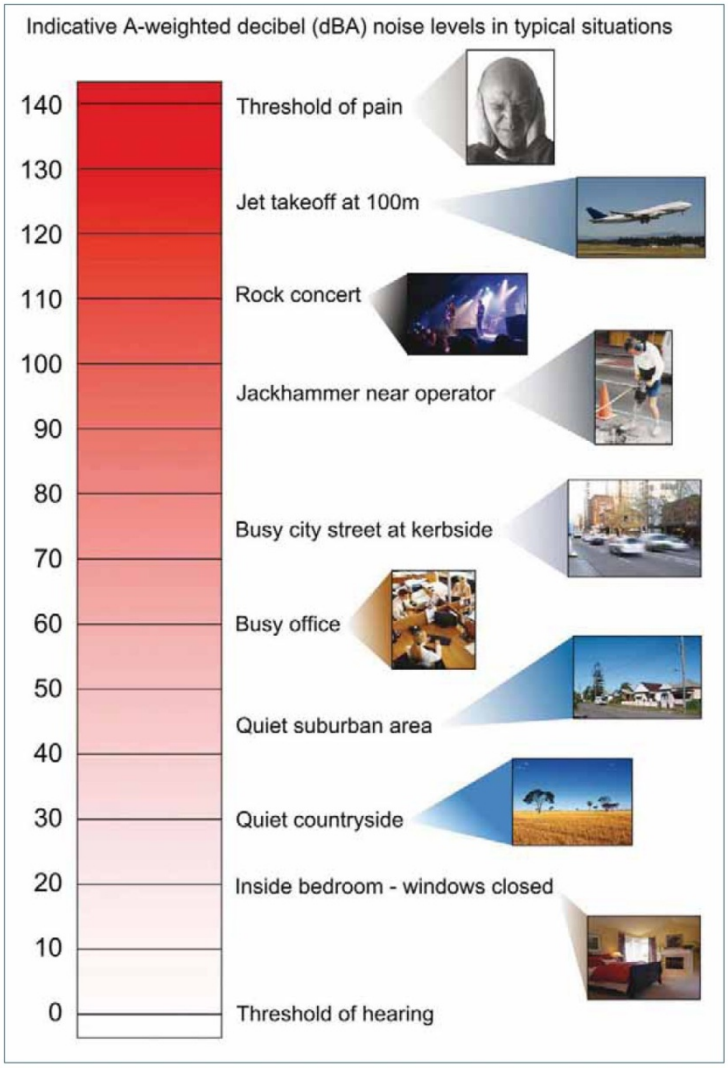
Table 10.1 Glossary of acoustic terms and abbreviations

Abbreviation or term	Definition
Sound power level (L_w)	A measure of the total power radiated by a source. The sound power of a source is a fundamental property of the source and is independent of the surrounding environment.
Temperature inversion	A meteorological condition where the atmospheric temperature increases with altitude.

It is useful to have an appreciation of decibels (dB), the unit of noise measurement. Table 10.2 gives an indication as to what an average person perceives about changes in noise levels. Examples of common noise levels are provided in Figure 10.1.

Table 10.2 Perceived change in noise

Change in sound level (dB)	Perceived change in noise
3	just perceptible
5	noticeable difference
10	twice (or half) as loud
15	large change
20	four times (or quarter) as loud



Source: Road Noise Policy (Department of Environment, Climate Change and Water 2011)

Figure 10.1 Common noise levels

References

NSW Environment Protection Authority (EPA) 2000, *NSW Industrial Noise Policy* (INP)

NSW Environment Protection Authority (EPA) 2017, *Noise Policy for Industry*

NSW Government 2018, *Voluntary Land Acquisition and Mitigation Policy For State Significant Mining, Petroleum and Extractive Industry Developments* (VLAMP)

NSW EPA 2013, *Rail Infrastructure Noise Guideline* (RING)

NSW Department of Environment Climate Change and Water (DECCW) 2011, *Road Noise Policy* (RNP)

NSW Environmental Protection Authority (EPA) 2009, *The Interim Construction Noise Guideline* (ICNG)

Department of Environment and Conservation NSW 2006, *Assessing Vibration: a technical guideline*

BS 6472 – 2008 *"Evaluation of human exposure to vibration in buildings (1-80Hz)"*

German Standard DIN 4150 Part 2 1975

Australian Standard AS 2187.2 - 2006 "*Explosives* - Storage *and Use* - *Use of Explosives*"

BS 7385 Part 2-1993 *"Evaluation and measurement for vibration in buildings Part 2*"

Appendix A

EPA Submission

EPA Ref	EPA Comment	EMM Response	Relevant section of Amended Project NVIA
Low frequency noise			
1	The NIA has not fully applied the Noise Policy for Industry (NPfI) Fact Sheet C method for analysis of LFN. The NIA should assess if LFN corrections are applicable at all receivers.	Additional operator-attended noise monitoring data has been provided in the Amended Project NVIA and analysed with regard to existing low frequency noise emissions. Based on the results of operator-attended noise monitoring appropriate LFN modifying factors have been determined in accordance with the methodology outlined in the NPfI Fact Sheet C. This resulted in 2dB or 5dB adjustments for specific assessment locations.	Section 3.2 and Appendix B
2	Details on proposed mitigation and management of LFN is required. The NIA states that mitigation of the coal handling and processing plant (CHPP) will achieve up to 10 dBA overall. The NIA should state what C weighted noise level reduction will be achieved.	Additional investigations have been undertaken (e.g. by Recognition Research Pty Ltd into potential cladding for the CHPP) and others are ongoing with regard to the potential reduction in low frequency noise from the CHPP and other sources on site. Given the technical limitations in predicting LFN and since the LFN mitigation methods are still under investigation it is difficult to accurately predict likely reductions in LFN. Conservative assumptions have been made in this regard and explained further in the Amended Project NVIA.	Section 6.6
3	LFN and other modifying factors should be assessed at all receivers. For example, more evidence should be provided for not applying the LFN adjustment at measurement location M8. The noise source identified at 40 and 50 Hz should be identified as either existing mine noise or extraneous noise.	Additional noise monitoring data has been provided and analysed with regard to existing LFN emissions.	Section 3.2 and Appendix B
Modelling and predicted impacts			
4	The NIA has only considered one assessment scenario over the proposed 11-year project lifetime. The NIA should provide a worst-case analysis for different stages or modes of operations, including but not limited to: a. The initial 3 years of Tahmoor South Project (TSP) where it has assumed that no mitigation will be implemented. b. The total noise levels from mine operation, existing vent operation and proposed vent fan construction. c. Progressive development of the Rejects Emplacement Area (REA). d. Use of haul trucks instead of conveyors to move product and run-of-mine (ROM) coal. e. Operation of the existing upcast vent fan (T2) as part of the TSP.	The Amended Project NVIA has considered the following stages of the TSP: - Existing Tahmoor Mine operations: where it is assumed that no mitigation will be implemented. - Stage 2 (2023): representative of an acoustically worst-case for residences to the north and some to the east of the REA. - Stage 4 (2026): representative of an acoustically worst-case for residences to the south-east of the REA. - Stage 5 (2029): representative of an acoustically worst-case for residences to the south of the REA. Stages 2, 4 and 5 include operation of the existing upcast vent fan (T2). Noise associated with construction of the vent fans has also been considered during Stage 2 of the REA. The use of haul trucks to move product and run-of-mine (ROM) coal instead of conveyors is not proposed.	Section 6 and Section 7
5	Construction of vent fans should be assessed as an operational noise source in accordance with the Industrial Noise Policy (INP). EPA considers that the vent site establish works will utilise similar equipment to that used on the REA and is sufficiently close enough to the REA that the character of the noise will be similar to operational noise from the REA at receivers to the south	Noise associated with construction of the vent fans has been modelled and assessed during Stage 2 of the REA in accordance with the NPfI.	Section 7
6	An accurate representation of the locations of equipment on the extended REA should be included in the modelling. The use of a single modelled location of equipment on the REA does not represent operations across the area of the extended REA and there is significant potential for the noise levels to be higher at receivers than reported.	As for EPA submission Point 4, three separate stages of REA development have been considered representative of likely acoustically worst-case areas.	Section 6
7	Appendix B noise source modelling maps should be accurately labelled to identify equipment and the dozers and on-site haul trucks moving on and between the stockpiles (product and ROM). This should be included in the revised model to derive a worst-case scenario at receivers.	As for EPA submission Point 4, the use of haul trucks to move product and run-of-mine (ROM) coal instead of conveyors is not proposed.	Section 6 and Appendix D

EPA Ref	EPA Comment	EMM Response	Relevant section of Amended Project NVIA
8	All new equipment, buildings and processes should be included in the TSP noise prediction scenario, such as additional plant and new belt filter press building. This includes the: a. Additional mobile plant required for coal handling; b. Upgrades to the onsite and offsite service infrastructure (such as belt filter press building, vacuum pumps and gas plant); c. Mine closure and rehabilitation activities. The NIA does not indicate if the additional mobile plant, rehabilitation or service infrastructure upgrades have been considered. The NIA should confirm and if appropriate, include these sources in the model.	(As for EPA submission Point 4) There is no additional mobile plant required for coal handling. Upgrades of relevant plant will be relatively minor and have negligible impact on noise emissions. Progressive mine rehabilitation activities have been modelled and assessed in the REA.	Section 6
9	The lists of plant and equipment (Tables 7.1 and 7.3) should indicate how many of each item were included in the model. The model should include water carts that are likely to be used on the site (at stockpiles and REA).	Table has been updated to make it clear how many of each item have been considered and water cart operation has been included.	Section 6.3 and Section 6.7
10	The proponent should provide clarification on the following matters: a. source heights used in the modelling; b. how the conveyor sound power levels were reported (e.g. per metre or total); c. how directionality of noise sources was accounted for in the noise modelling; d. the modelled truck and train speeds; e. how wagons were accounted for in the model; f. why the noise source for rail loop only covers less than half of loop and g. references to validate the sound power level of plant and equipment (for example, if they are derived from on-site measurements or from other sources).	Modelling parameters are described in further detail in the Amended Project NVIA.	Section 6.3
11	The assessment of the Church and College receivers should: a. include passive or active recreation areas as required by the INP; b. provide justification for the assumed 25 dB outside to inside correction for the Church and College buildings; c. indicate if the predicted noise levels at the assessment point, 50 m to the south of the Church is representative and d. identify and, if appropriate, assess the other buildings on the College grounds.	The sporting field of the College has been assessed as an active recreation area, consistent with the definitions of the NPfI. The assumed external-to-internal reduction for the College and Church buildings has been simplified and further explained. The assessment locations relevant to the Church and the school have been revised. The nearest school classroom has also beed added to the assessment.	Section 4.1 and Section 6
12	The assessment location maps (Figure 5.1) should have the assessment location defined as per the INP; i.e. the most-affected point on or within the residential property boundary - or, if that is more than 30 m from the residence, at the most-affected point within 30 m of the residence and not closer than 3 m.	Assessment locations have been approximated from aerial photography and Lidar surveys and are considered representative of the most-affected point within 30m of each residence. At the separation distances between the mine noise sources and each reciever, changes of up to 30m, if relevant, will not alter the final noise impact outcomes.	Section 4.1 and Section 6
13	A description of the modelling calculation method used in the NIA should be provided. A validation of the model's performance should be provided by comparing the predicted levels against measured existing levels (broadband and low frequency noise). Any calibration factors applied to the model should be stated and fully justified.	Validation of the noise model is desribed in greater detail in the Amended Project NVIA. Additional data has also been provided with regard to the assessment of LFN as per EPA Submission Point 1. In summary, the vaidation of the model shows it is over predicting impacts by apporximatley 2dB, but conservatively calibration factors were not adopted.	Section 6
14	The NIA should demonstrate the impacts for each day, evening and night period. Because predicted noise levels are significantly greater than the project specific noise levels (PSNL) and the mitigation differs depending on the time period, the impacts need to be described for each period.	Impacts have been described per period.	Section 6 and Appendices E and F
15	Noise contour maps in Appendix D should show the extent of the TSP areas of activity - not only the existing footprint.	Noise contour maps have been revised based on the additional REA stages considered.	Appendices D, E and F
Mitigation and VLAMP			

EPA Ref	EPA Comment	EMM Response	Relevant section of Amended Project NVIA
16	Justification should be provided for the 3-year timeframe to implement all mitigation during which time substantially higher impacts were predicted.	The implementation of all noise mitigation measures proposed will require significant operational planning, engineering design and, in some cases, significant capital investment. Simec will require an appropriate timeline to coordinate and implement all these measures.	Section 6.6
17	The definition of residual impacts, mitigation and application of VLAMP rely on the predicted difference between noise from the existing mine and the predicted impact of the proposed development. The noise contribution from the operation of the existing mine should be provided.	Existing mine noise emissions have been provided together with further detail regarding validation of the operational noise model.	Section 6
18	The VLAMP states that at-receiver mitigation should be considered where impacts are greater than negligible. There are 131 receivers predicted to have a greater than negligible impact, but the NIA proposes mitigation at only two residential receivers. The proponent should provide justification for not considering more than two receivers for at-receiver mitigation.	The noise impact assessment has been significantly revised. Justification has been provided within the Amended Project NVIA regarding at-receiver mitigation.	Section 6.6
19	The proposed mitigation scenario is contingent on ceasing REA operations during the night. A residual impact analysis should be provided for other time periods. In addition, the proponent needs to clarify why the source location map in Appendix B for the mitigated scenario (Figure B.3) includes sources in the REA, which is intended to be operated during daytime period only. Figure B.3 should also illustrate the proposed extent of the TSP REA.	Predicted impacts have been provided for day, evening and night-time period. Source location maps indicate the location of all sources regardless of their operating times. Table 6.5 indicates what periods the various equipment is operational. The source location maps have been updated to include the proposed extent of the amended project REA.	Section 6 and Appendix D
20	The barrier mitigation (increased height of the northern bund and a proposed barrier adjacent to the stockpiles) described in Table 7.2 should indicate the assumed attenuation provided by the barriers. In addition, the proponent should review and, if appropriate, amend the source location maps (Appendix B), which indicate the northern bund running parallel to the rail line. Satellite maps of the surface infrastructure (Figure 3.3 in the EIS) indicate that the bund runs behind the water recycling plant and vent shaft 3, not parallel to the rail line, which will impact the effectiveness of the assumed barrier attenuation.	The predicted reduction in site noise emissions achieved by the proposed bunds has been provided. The bund has been revised and is shown in the Amended Project NVIA. The location of the bund provided in the NVIA should be viewed as indicative only and will be subject to detailed engineering design. The attenuation of the bund is not assumed, but rather is as per modelling using ISO9613 within iNoise.	Section 6 and Appendix D
21	Additional compliance/achievable noise levels for the purposes of VLAMP should be nominated for receivers immediately south of the mine in the vicinity of Coolah Road and for receivers located adjacent to the proposed new vent shafts. The NIA states that negotiation is ongoing with two properties near to the new vent shafts, however these negotiations have not been completed. The NIA should state the residual impact and achievable noise level. Note: The VLAMP is administered by the DPE. However, the NIA relies on the implementation of the VLAMP to manage potential noise impacts from the development.	An additional compliance monitoring location has been proposed in the vicinity of Coolah Road and the existing compliance monitoring location south of the REA has been revised. 215 Charlies Point Road, the nearest residential property to the south of the REA has been purchased by Tahmoor. 185 Charlies Point Road, the nearest residential property to the north of the new vent fan site is under negotiation; terms have been agreed for purchase of the property and contracts are being prepared. The residual impact has been determined for this property and presented in the NVIA.	Section 6
Existing mine noise			

EPA Ref	EPA Comment	EMM Response	Relevant section of Amended Project NVIA
22	Justification should be provided for the discrepancies of existing mine noise in the NIA. For example, at 7 Olive Lane: a. Table 7.6 (night) states the existing mine noise is LAeq(15minutes) 58 dBA (including LFN modifying factor) under enhancing meteorological conditions, equivalent to 53 dBA without the modifying factor; b. Table 4.1 states that the existing L10 is between 40 to 48 dBA at M3 but no meteorological conditions or measurement period are provided; c. Table 5.2 states the existing LAeq(15minutes) is 44 dBA with no meteorological conditions or measurement period provided and d. Chapter 4.1 states that the mine is generally in compliance with the existing consent limit of L10 45 dBA. These discrepancies indicate a difference of up to a 13 dB in the reported level of noise for existing operations. The predicted noise levels are at least 5 dB above measured levels for existing noise at most impacted receivers. The NIA relies on the predicted reduction in noise level based on the difference between existing noise levels from current operation and the predicted noise levels from the proposed development to support the proposal and mitigation strategy. Based on the evidence in the NIA, the EPA considers that the proposed mitigation has been overestimated.	Additional clarification has been provided regarding existing mine noise levels together with more detail regarding validation of the noise model. The proposed mitigation measures and their resulting noise reduction is also clarified.	Sections 3 and 6
Sleep disturbance			
23	The proponent should provide predicted LAmax noise levels.	Additional information has been provided regarding sleep disturbance assessment and is now consistent with the assessment requirements contained in the NPfI.	Section 8
24	The NIA states that the existing LAmax was measured as 53 dBA at Olive Lane, but the existing LAeq(15minutes) at 6 Olive Lane in Appendix C is 57 dBA. This requires clarification.	As for Point 23	Section 8
25	The existing maximum noise level of LAmax 53 dBA from dozers and coal loading into wagons exceeds the screening criteria at Olive Lane. The extent of exceedance of the screening criteria at other locations should be provided. The noise contours presented in Figure D.1 show that LAeq(15minutes) noise levels are above 45 dBA at a number of receivers, therefore the extent of the screening criteria could be much larger.	As for Point 23	Section 8
26	Evidence should be provided to support the claim that the frequency and level of noise events will reduce under the TSP.	As for Point 23	Section 8
27	Further details are required on mitigation measures to reduce maximum noise level events, including the predicted reduction.	As for Point 23	Section 8
28	Justification should be provided to demonstrate that measurements from 2012 used in the NIA are appropriate. The 2012 EIS was not submitted to the DPE and is not available for review. Monitoring graphs and summaries in Appendix A should be included for all measurements used to set rating background level (RBL).	Measurements from 2012 are now not relied upon for the purpose of setting operational noise criteria. More recent data is available and was used for this purpose.	No longer relevant since contemporary monitoring has been undertaken
29	Further details should be provided for how the mine noise was excluded from the long-term noise measurements presented in Table 5.1, and what contribution the "limited operations" had on the background noise measurements. Unattended measurements at risk of being influenced by the mine should be sufficiently supported by attended measurements or other methods during the day, evening and night periods to demonstrate the influence of the mine.	This is no longer relevant since the 2012 measurements are now not utilised in the assessment. Notwithstanding, it is important to note that an NPfI approach has been adopted and hence the existing mine noise can be included in determining the existing background noise levels, once compliance with existing noise limits is established.	No longer relevant since contemporary monitoring has been undertaken in accordance with the NPfI and includes existing mine noise.

EPA Ref	EPA Comment	EMM Response	Relevant section of Amended Project NVIA
30	The monitoring data should be consistently reported. For example, M13 and M24 should be reported in Table 5.1, Locations M2 and M8 should be shown in Figure 5.1 and the reasons for using M2 to represent M8 and not M24, which appears to be further away from the road.	Monitoring data utilised for the purpose of establishing relevant noise criteria has been updated.	No longer applicable.
31	Justification should be provided as to why the existing meteorological stations on the site and at the Tahmoor South site were not used to monitor meteorological conditions during the noise monitoring and that the location used at L2 is suitable.	The purpose of the met station at L2 (relevant to the June 2018 monitoring) was to determine when noise data should be excluded due to high wind speeds and/or rainfall. Data captured at (or near) the microphone is far more relevant for this purpose than the onsite weather station. The existing meteorological station was utilised for the purpose of data exclusion for the ambient monitoring conducted in June 2019.	Section 4
Vibration			
32	Specification of what type of drill will be used for the drill sites should be provided and an assessment of vibration impact of this drill should be undertaken, or justification provided for why it is not necessary.	The specific drill type is not yet known. Assessment of vibration from a typical drill rig has been included in the Amended Project NVIA.	Section 9
33	The EPA's input to the SEARs identifies that complaints have been issued relating to vibration from existing vents shafts. The vibration impact from existing vents should be included in the NIA as a worst-case scenario and the potential for vibration from the proposed vent shafts addressed.	Results of operator-attended vibration monitoring adjacent to the existing vent fan have been presented in the Amended Project NVIA. Potential vibration impacts from the proposed vent shafts have been assessed.	Section 9

Appendix B

Quarterly noise monitoring results - LFN

Location M1		Q4 '17	Q1 '18	Q2 '18	Q3 '18	Q4 '18	Q1 '19	Q2 '19	Q3 '19
C-A weighted		18	24	21.1	24	18	18	17	6.2
1/3 Oct band	Threshold	Z-weighted noise levels, dB							
10	92	70	66	66	59.3	60.7	66.4	64	52.1
12.5	89	77	77	77.6	73.6	73.9	75.4	74.4	64.2
16	86	79	80	80	75.4	76.4	76.9	74.8	68.4
20	77	60	60	57.1	55.9	55.9	58.1	55.6	51.9
25	69	72	75	73.4	62.4	68.7	70	70.7	65.6
31.5	61	73	77	74.5	64.2	70.9	71.2	72.1	68.2
40	54	63	65	64.2	56.6	63.9	63.9	61.9	61.9
50	50	55	59	57.6	54	59.6	59	54.3	57.7
63	50	50	59	53.9	52.7	53.1	57.9	52.9	57.1
80	48	57	53	47.3	47.1	50.6	53.5	50.6	53
100	48	58	51	46.8	46.3	47.2	50.1	56.3	49.8
125	46	46	45	43.9	40.2	43.1	49.1	44.8	48.9
160	44	51	45	42.7	37.8	41.1	45.5	43	45.4

Location M2		Q4 '17	Q1 '18	Q2 '18	Q3 '18	Q4 '18	Q1 '19	Q2 '19	Q3 '19
C-A weighted		20	24	21.1	25	22	17	17	15.6
1/3 Oct band	Threshold	Z-weighted noise levels, dB							
10	92	70	67	65.2	63.8	63.6	67.5	65.9	53.2
12.5	89	79	80	77.9	76.6	77.5	78.8	77.9	67.6
16	86	82	82	82.9	80.2	79.9	81.3	80.6	72.8
20	77	63	63	61.6	60.8	60.3	61.2	60	55
25	69	72	75	72.4	72.3	72.5	71.3	73.5	66.9
31.5	61	73	77	73.9	65.9	71.6	71.7	74	68.7
40	54	66	68	66.1	58.2	64.1	68	64.8	66
50	50	61	63	61.8	54	60.8	61.7	59.3	60.4
63	50	56	58	58.8	53.4	56	60.7	57.3	59.9
80	48	60	56	55.7	48	54.3	56.1	58.6	55.6
100	48	61	53	51.4	47.4	53.8	56.9	62.6	56.6
125	46	48	46	50.4	46	48.2	59.3	50.2	59.1
160	44	49	46	48	43.7	46.4	50.5	49	50.4

Location M3		Q4 '17	Q1 '18	Q2 '18	Q3 '18	Q4 '18	Q1 '19	Q2 '19	Q3 '19
C-A weighted		21	22	15.7	20	15	18	18	17.5
1/3 Oct band	Threshold	Z-weighted noise levels, dB							
10	92	64	64	63.4	60.8	59.8	64.3	62.6	50
12.5	89	68	69	71.4	68.7	68.2	71.8	71.6	60.6
16	86	73	74	72.5	74.3	73.5	74.5	74.6	66
20	77	57	59	54	61.3	56.3	57.6	55.7	51.4
25	69	61	65	58.4	61.5	61.2	60.8	63.7	56.4
31.5	61	64	70	56.4	65.4	64.8	62.7	64.1	59.7
40	54	57	62	58.1	58.9	60.7	60.1	59.9	58.1
50	50	52	56	54.8	54.5	55.6	53.9	55.3	52.6
63	50	46	53	48.5	49.7	52.7	55.1	52	54.3
80	48	46	51	48.4	48	53.2	51.8	50.6	51.3
100	48	44	46	46.9	47.2	54.6	49.1	50.3	48.8
125	46	40	43	50.5	42.8	48.1	45.5	44.6	45.3
160	44	37	41	41.7	40.4	45.4	41.1	42.9	41

Location M4		Q4 '17	Q1 '18	Q2 '18	Q3 '18	Q4 '18	Q1 '19	Q2 '19	Q3 '19
C-A weighted		19	24	17	20	18	19	15	14.4
1/3 Oct band	Threshold	Z-weighted noise levels, dB							
10	92	67	67	68	66.2	64.1	66.7	66.5	52.4
12.5	89	74	74	78	76.3	74.2	76	75.8	64.8
16	86	77	77	78.9	78.1	76.8	79.5	75.6	71
20	77	61	61	59	64	58	60.6	58.4	54.4
25	69	68	72	64.2	72.1	69.1	68.3	71.7	63.9
31.5	61	68	72	64.9	66.9	68.9	68.7	71.2	65.7
40	54	58	63	62.3	60.5	61.8	61.2	61.4	59.2
50	50	52	56	59.1	59	58.7	57.3	56.9	56
63	50	49	56	54.1	57	54.6	55.4	55.9	54.6
80	48	49	51	53.8	48	54.9	53.5	53.4	53
100	48	52	49	55.9	47.6	57	51.8	54.6	51.5
125	46	48	47	52.2	46	49.6	49.9	50.7	49.7
160	44	46	46	49	43.9	49.4	47.8	48.8	47.7

Location M5		Q4 '17	Q1 '18	Q2 '18	Q3 '18	Q4 '18	Q1 '19	Q2 '19	Q3 '19
C-A weighted		26	22	15.8	21	16	17	18	15
1/3 Oct band	Threshold	Z-weighted noise levels, dB							
10	92	63	65	63.3	62.3	60.6	66.2	64.8	51.9
12.5	89	69	68	74	70.2	67.5	71.7	72.4	60.5
16	86	76	75	81.9	76.9	73.2	78.2	79.5	69.7
20	77	59	58	58.5	57.4	54.6	59.1	58.5	52.9
25	69	58	59	61.8	58.8	57.5	60.7	63.6	56.3
31.5	61	59	62	62.7	60.4	53.6	61.2	63.2	58.2
40	54	47	48	52.8	50.3	50.3	52.2	52.1	50.2
50	50	43	46	50	48.7	49.9	50	49.7	48.7
63	50	41	48	50.7	51	48.6	51.6	51.3	50.8
80	48	35	41	50.9	48.6	46.7	46.7	46.7	46.2
100	48	35	40	51.9	45.7	48.1	46.2	47.1	45.9
125	46	32	37	51.2	42.9	45	45.9	45.5	45.7
160	44	30	36	47.9	42.7	43.4	43.1	45.2	43

Location M6		Q4 '17	Q1 '18	Q2 '18	Q3 '18	Q4 '18	Q1 '19	Q2 '19	Q3 '19
C-A weighted		20	20	18.9	19	16	20	18	16.6
1/3 Oct band	Threshold	Z-weighted noise levels, dB							
10	92	67	68	69.6	72.4	64.2	70.6	64.8	56.3
12.5	89	65	66	68.1	70.4	69.4	70.7	69	59.5
16	86	68	66	68.9	73.6	73.3	73.7	73.3	65.2
20	77	53	57	57.2	59.9	51.1	55.6	51.6	49.4
25	69	55	56	56.7	61	52.8	53.5	54.6	49.1
31.5	61	55	57	56.5	60.8	53.8	52.1	55.9	49.1
40	54	44	44	53.9	50.6	54.2	57.7	56.8	55.7
50	50	40	47	49.6	49.3	49.5	52.8	50.3	51.5
63	50	37	40	49.8	45.8	48.2	48	49.3	47.2
80	48	38	39	47.2	44	49.1	40.9	45	40.4
100	48	31	34	47.4	46.6	46.8	44.4	44.5	44.1
125	46	27	31	42.6	44.2	43.2	41.4	40.5	41.2
160	44	25	30	38.7	40.9	39.8	38.3	37.8	38.2

Location M7		Q4 '17	Q1 '18	Q2 '18	Q3 '18	Q4 '18	Q1 '19	Q2 '19	Q3 '19
C-A weighted		16	18	19.4	14	15	17	19	15.2
1/3 Oct band	Threshold	Z-weighted noise levels, dB							
10	92	67	68	71.1	66.4	66.6	72.3	69.1	58
12.5	89	70	65	70.3	64.9	69.3	72.5	68.6	61.3
16	86	64	62	64.6	62.9	68.8	67.6	63.3	59.1
20	77	59	56	56.9	54.2	53.1	55.8	53.8	49.6
25	69	58	54	56.6	52.1	55.5	57.6	55.5	53.2
31.5	61	54	48	50.6	46.2	49.5	50	51.9	47
40	54	53	42	48.3	41	48.2	47.8	50.8	45.8
50	50	50	47	45.3	37.8	44.4	46.1	45.2	44.8
63	50	46	36	39.6	36.8	45.3	43.4	46.9	42.6
80	48	42	31	39.5	37.4	47.3	40.4	47.7	39.9
100	48	37	28	37.8	33.6	43.8	37.5	43.5	37.2
125	46	44	27	34.4	33.4	44.2	35.4	44.9	35.2
160	44	40	26	30	31.8	38.6	35.3	38.1	35.2

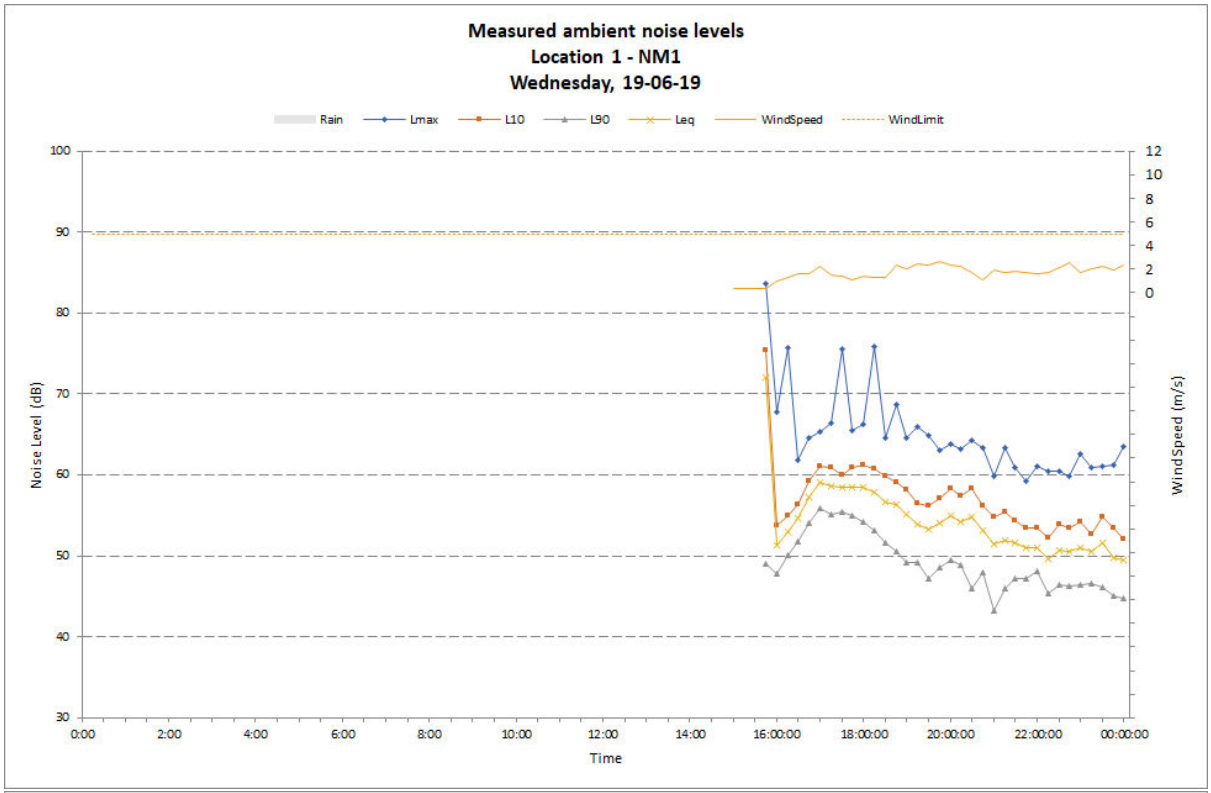
Location M8		Q4 '17	Q1 '18	Q2 '18	Q3 '18	Q4 '18	Q1 '19	Q2 '19	Q3 '19
C-A weighted		27	27	28.6	24	10	19	22	26.8
1/3 Oct band	Threshold	Z-weighted noise levels, dB							
10	92	79	79	79.7	76.7	77.3	80.3	77.4	66
12.5	89	76	77	77.2	73.1	77.2	77.6	75.4	66.4
16	86	68	68	69	66	68.6	70	68.1	61.5
20	77	66	68	66.6	64.5	63	64.3	62.1	58.1
25	69	63	64	66.4	61.6	63.5	64.4	63.8	60
31.5	61	56	57	58.7	54.7	55.9	55.9	56.2	52.9
40	54	52	55	53.6	54.3	53.5	52.5	52.1	50.5
50	50	48	52	50.6	52.8	49	49	49.9	47.7
63	50	41	44	45.8	43.4	44.9	44.2	47.2	43.4
80	48	41	51	44.2	41.2	42.8	40.8	45.9	40.3
100	48	39	40	41.2	37.8	41.1	37	41.7	36.7
125	46	35	40	41.9	36.7	40.2	36.3	40.9	36.1
160	44	28	31	32.2	41	35.8	32.1	40.8	32

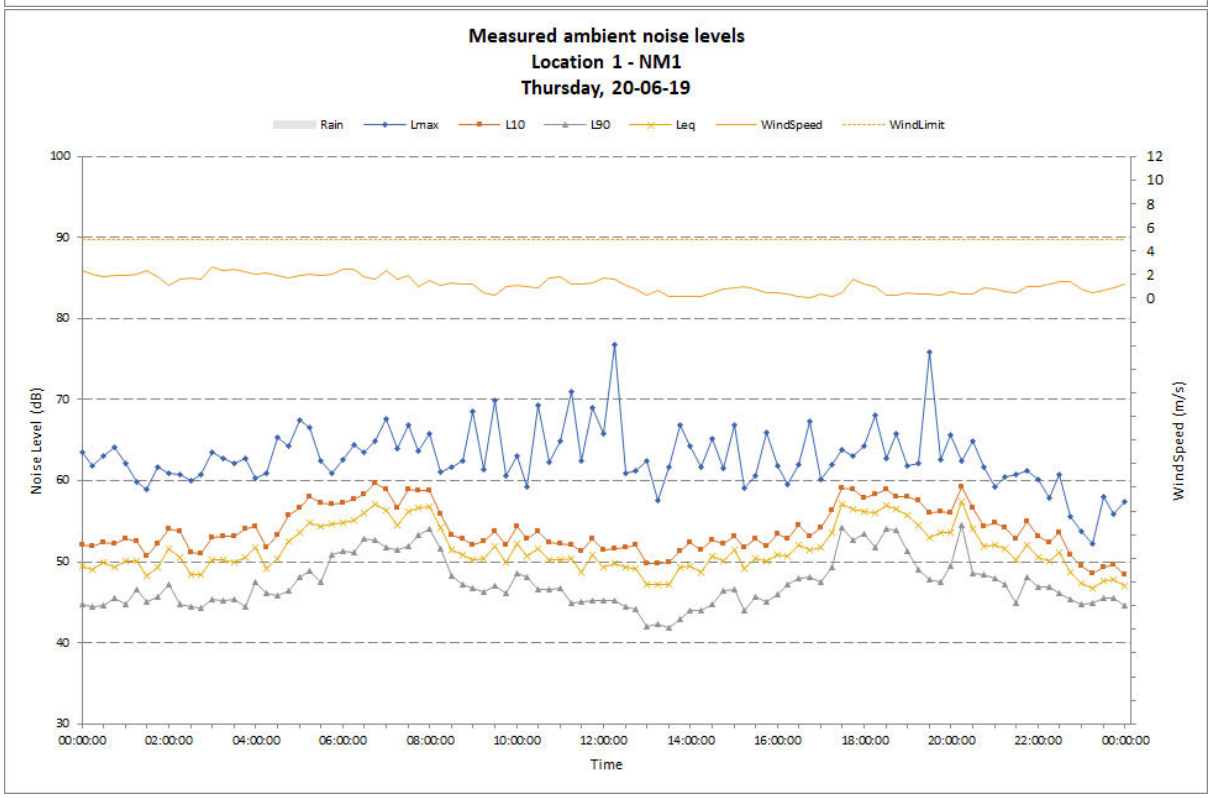
Location M9		Q4 '17	Q1 '18	Q2 '18	Q3 '18	Q4 '18	Q1 '19	Q2 '19	Q3 '19
C-A weighted		27	18	25.4	21	20	17	19	21.1
1/3 Oct band	Threshold	Z-weighted noise levels, dB							
10	92	72	73	74.3	70.5	71.7	75.4	71.9	61.1
12.5	89	69	69	72.1	67.8	69.4	70.4	69.1	59.2
16	86	63	63	66.2	61.9	66.7	66.7	65.6	58.2
20	77	41	64	63.2	62.7	59.8	61.3	59.1	55.1
25	69	55	56	58.8	55.6	56.1	56.3	55.6	51.9
31.5	61	49	49	51.5	50.7	49.2	49.2	48.5	46.2
40	54	42	44	49	42.7	46.1	43.8	43.1	41.8
50	50	36	41	41.5	40.1	40.9	41.2	41.9	39.9
63	50	32	33	38.3	36.9	39.8	37.2	45.2	36.4
80	48	34	32	45.1	35.6	40.8	36.8	42.8	36.3
100	48	28	32	36.5	31.9	38.7	34.3	37.9	34
125	46	23	28	29.3	32	37	31.8	38.7	31.6
160	44	23	31	31.5	34	34.8	29.2	38.1	29.1

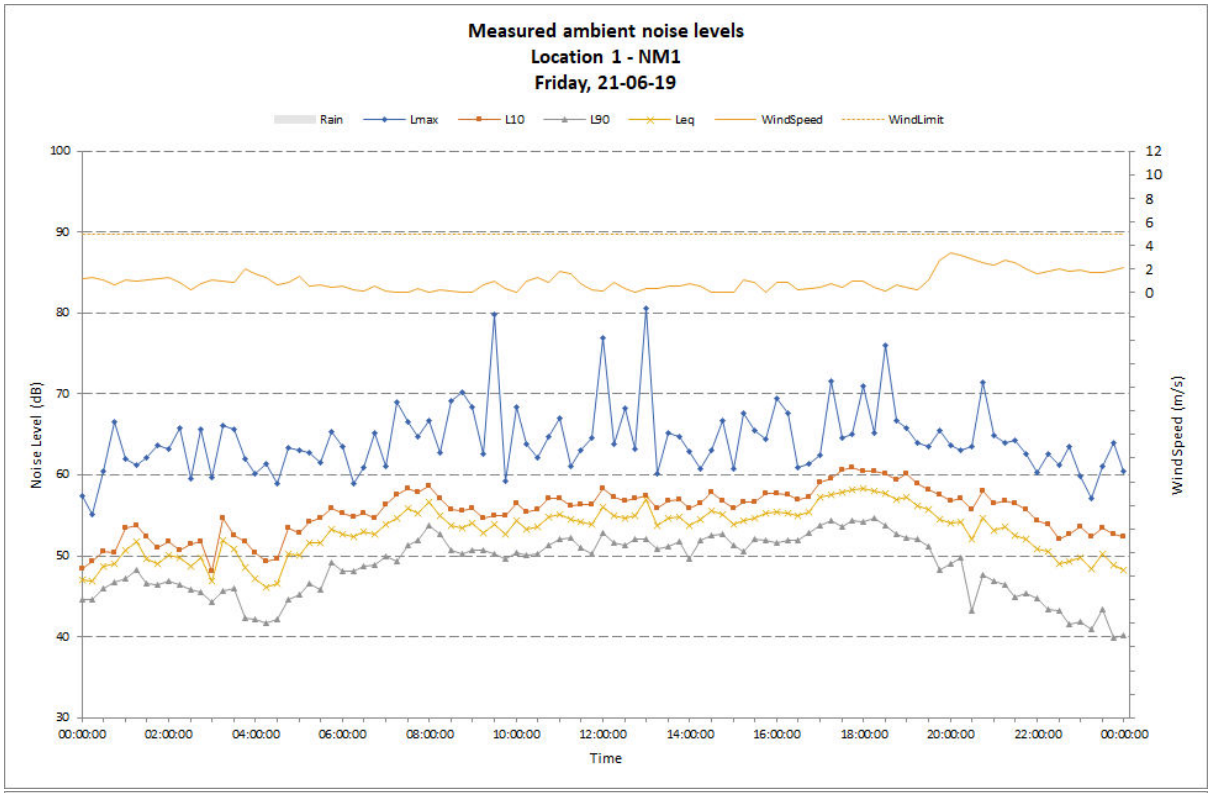
Location M10		Q4 '17	Q1 '18	Q2 '18	Q3 '18	Q4 '18	Q1 '19	Q2 '19	Q3 '19
C-A weighted		29	24	23.9	18	2	10	24	19.1
1/3 Oct band	Threshold	Z-weighted noise levels, dB							
10	92	64	64	67.5	56.3	56.2	62.4	56.6	48.1
12.5	89	68	66	70	59.7	68.4	69.3	67.4	58.1
16	86	70	68	72.9	62.6	72.1	72.3	71	63.8
20	77	52	53	52.9	45.8	47.3	50.2	48.2	44
25	69	60	59	57.9	50.9	61	60.3	62.1	55.9
31.5	61	60	59	56.6	50.9	59.5	59.4	62.6	56.4
40	54	45	43	45.1	43.5	44.1	43.3	45.4	41.3
50	50	41	39	45.7	42.9	38.6	40.6	40.2	39.3
63	50	37	35	44.8	39.8	38.2	42.9	37.9	42.1
80	48	39	34	40.9	43.1	39.9	40.9	38.6	40.4
100	48	38	32	38.9	32.2	34.7	36.5	41.9	36.2
125	46	28	31	37.2	28.8	31.7	32.2	32.5	32
160	44	25	29	36.7	27.4	34.3	29.8	34.1	29.7

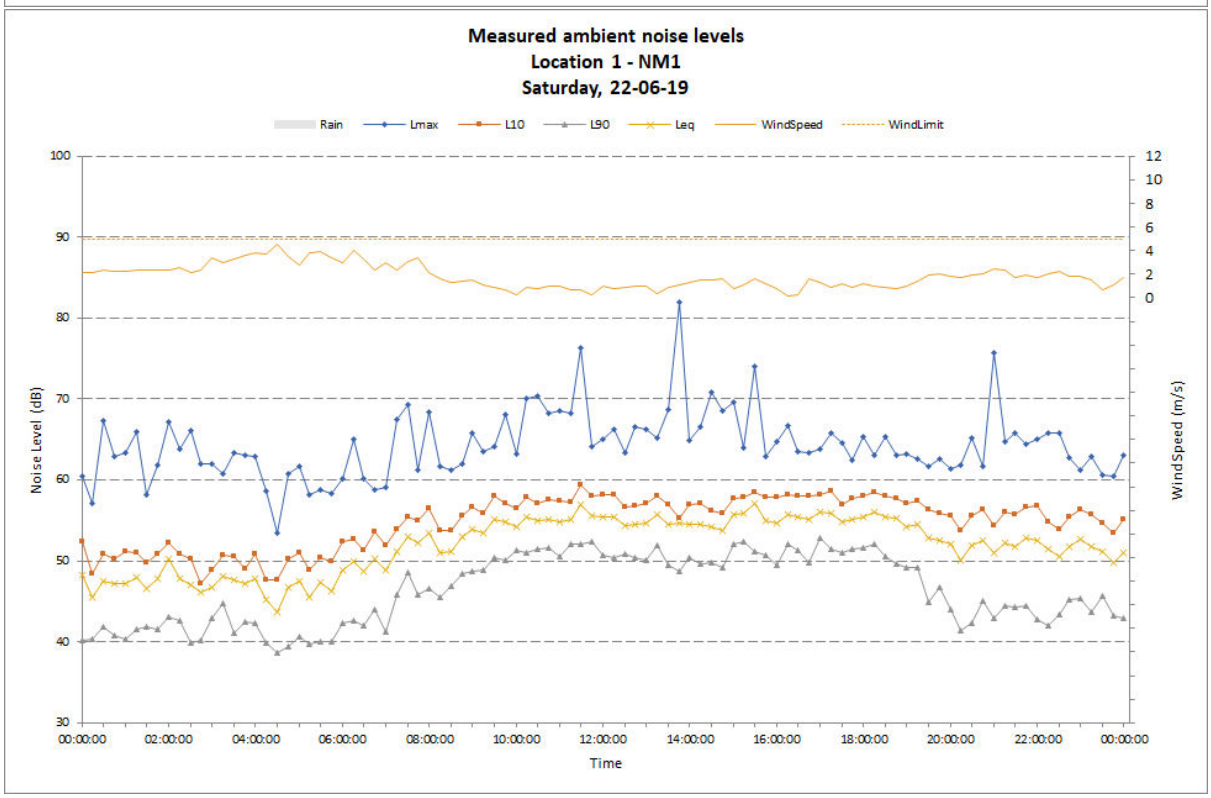
Appendix C

Ambient noise monitoring results


Measured ambient noise levels
Location 1 - NM1
Wednesday, 19-06-19
Rain
Lmax
L10
L90
Leq
WindSpeed
WindLimit
Noise Level (dB)
WindSpeed (m/s)
Time
0:00
2:00
4:00
6:00
8:00
10:00
12:00
14:00
16:00:00
18:00:00
20:00:00
22:00:00
00:00:00


Measured ambient noise levels
Location 1 - NM1
Thursday, 20-06-19
Rain
Lmax
L10
L90
Leq
WindSpeed
WindLimit
Noise Level (dB)
WindSpeed (m/s)
Time
00:00:00
02:00:00
04:00:00
06:00:00
08:00:00
10:00:00
12:00:00
14:00:00
16:00:00
18:00:00
20:00:00
22:00:00
00:00:00


Measured ambient noise levels
Location 1 - NM1
Friday, 21-06-19
Rain
Lmax
L10
L90
Leq
WindSpeed
WindLimit
Noise Level (dB)
WindSpeed (m/s)
Time
00:00:00
02:00:00
04:00:00
06:00:00
08:00:00
10:00:00
12:00:00
14:00:00
16:00:00
18:00:00
20:00:00
22:00:00
00:00:00


Measured ambient noise levels
Location 1 - NM1
Saturday, 22-06-19
Rain
Lmax
L10
L90
Leq
WindSpeed
WindLimit
Noise Level (dB)
WindSpeed (m/s)
Time
00:00:00
02:00:00
04:00:00
06:00:00
08:00:00
10:00:00
12:00:00
14:00:00
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22:00:00
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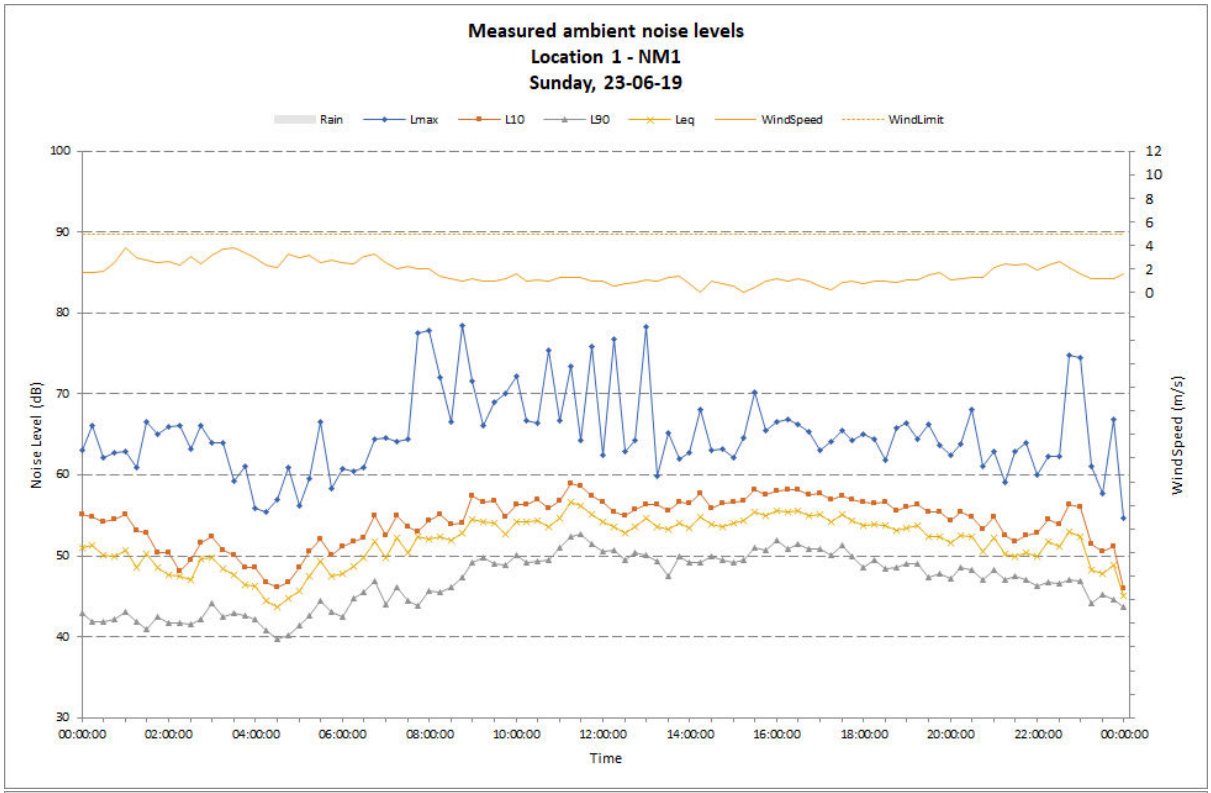
Measured ambient noise levels
Location 1 - NM1
Sunday, 23-06-19
Rain
Lmax
L10
L90
Leq
WindSpeed
WindLimit
Noise Level (dB)
WindSpeed (m/s)
Time
00:00:00
02:00:00
04:00:00
06:00:00
08:00:00
10:00:00
12:00:00
14:00:00
16:00:00
18:00:00
20:00:00
22:00:00
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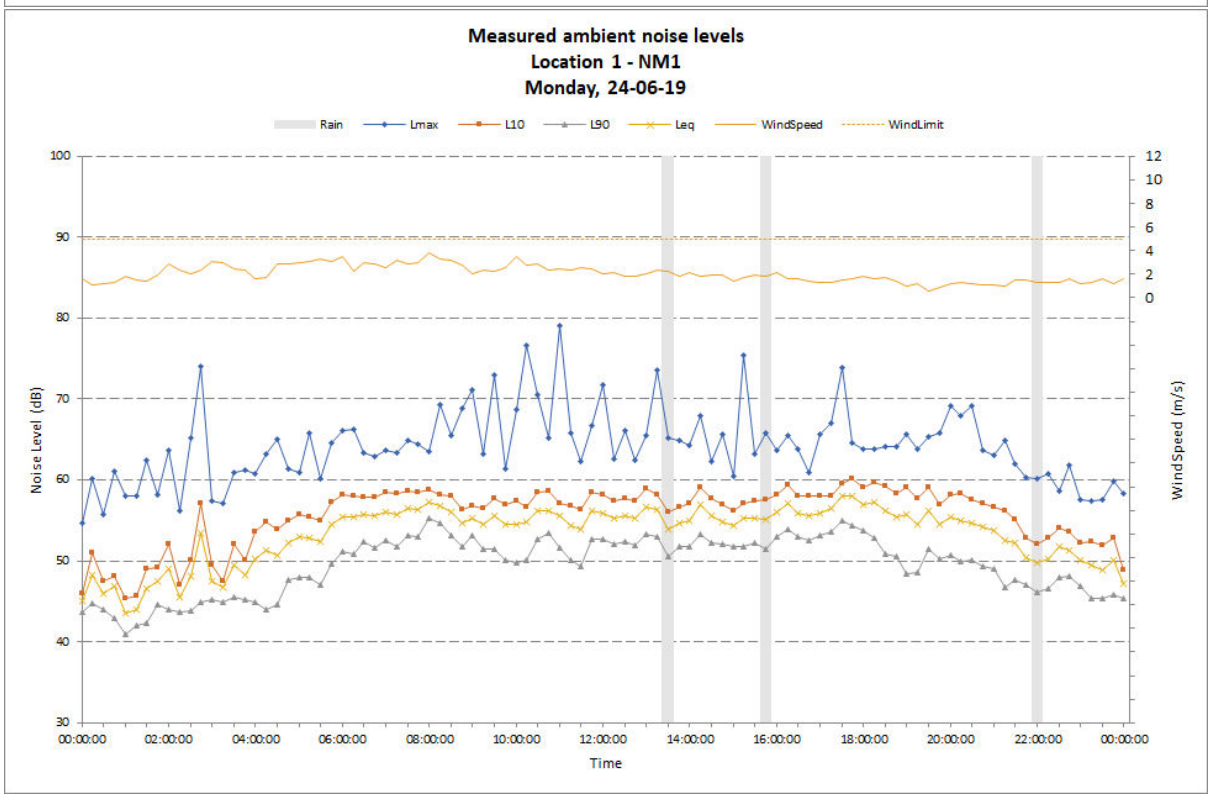
Measured ambient noise levels
Location 1 - NM1
Monday, 24-06-19
Rain
Lmax
L10
L90
Leq
WindSpeed
WindLimit
Noise Level (dB)
WindSpeed (m/s)
Time
00:00:00
02:00:00
04:00:00
06:00:00
08:00:00
10:00:00
12:00:00
14:00:00
16:00:00
18:00:00
20:00:00
22:00:00
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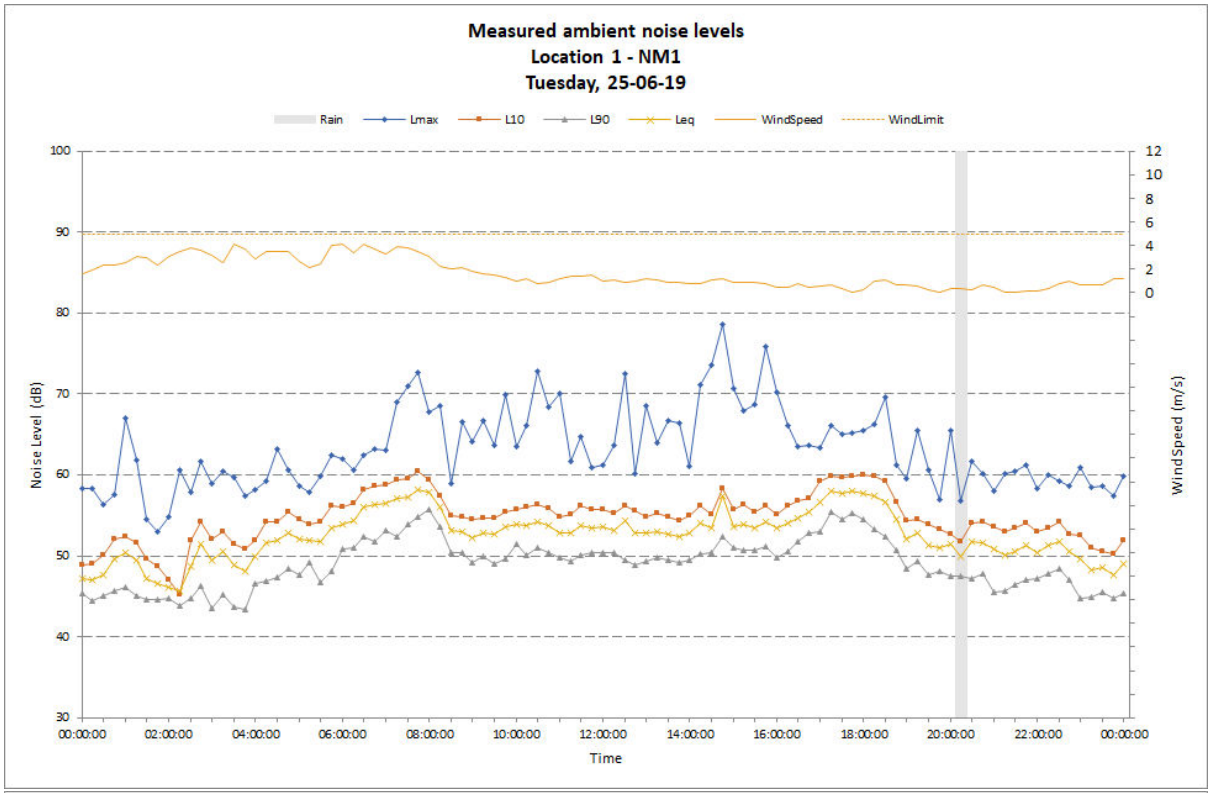
Measured ambient noise levels
Location 1 - NM1
Tuesday, 25-06-19
Rain
Lmax
L10
L90
Leq
WindSpeed
WindLimit
Noise Level (dB)
WindSpeed (m/s)
Time
100
90
80
70
60
50
40
30
12
10
8
6
4
2
0
00:00:00
02:00:00
04:00:00
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10:00:00
12:00:00
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18:00:00
20:00:00
22:00:00
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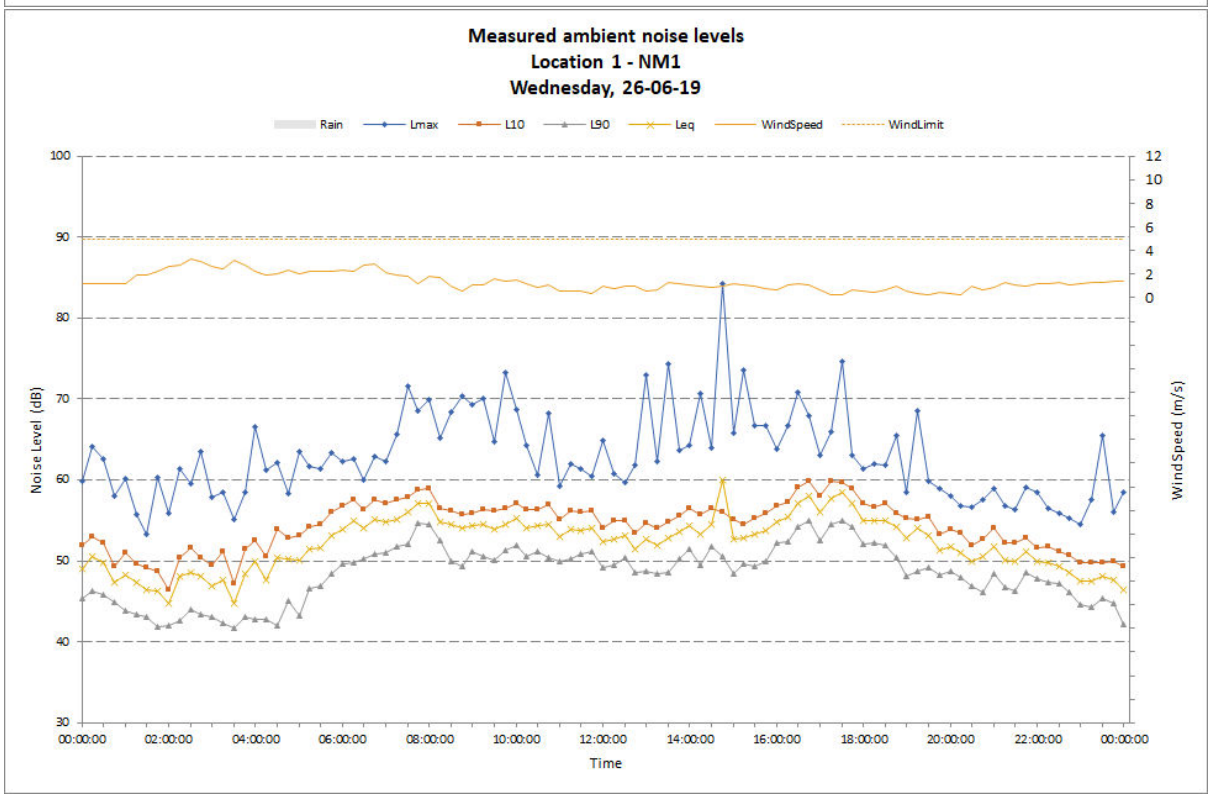
Measured ambient noise levels
Location 1 - NM1
Wednesday, 26-06-19
Rain
Lmax
L10
L90
Leq
WindSpeed
WindLimit
Noise Level (dB)
WindSpeed (m/s)
Time
100
90
80
70
60
50
40
30
12
10
8
6
4
2
0
00:00:00
02:00:00
04:00:00
06:00:00
08:00:00
10:00:00
12:00:00
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18:00:00
20:00:00
22:00:00
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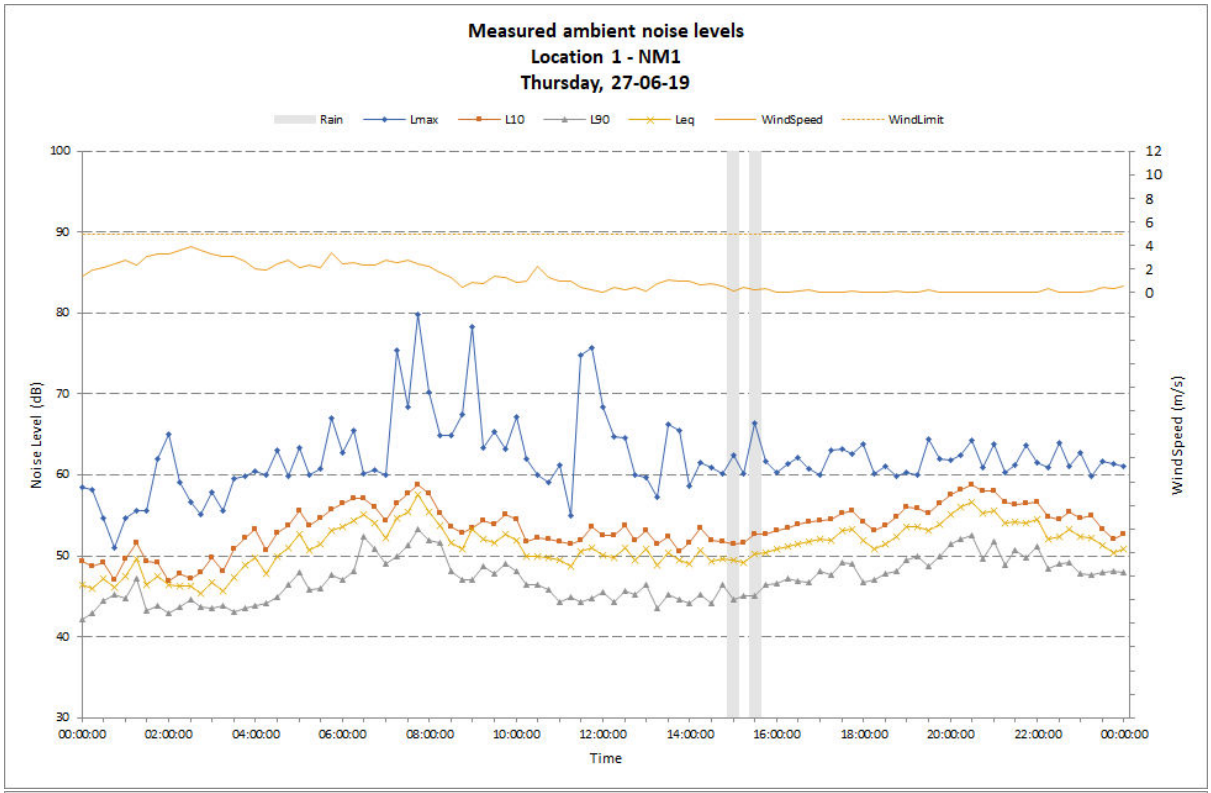
Measured ambient noise levels
Location 1 - NM1
Thursday, 27-06-19
Rain
Lmax
L10
L90
Leq
WindSpeed
WindLimit
Noise Level (dB)
WindSpeed (m/s)
Time
100
90
80
70
60
50
40
30
12
10
8
6
4
2
0
00:00:00
02:00:00
04:00:00
06:00:00
08:00:00
10:00:00
12:00:00
14:00:00
16:00:00
18:00:00
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22:00:00
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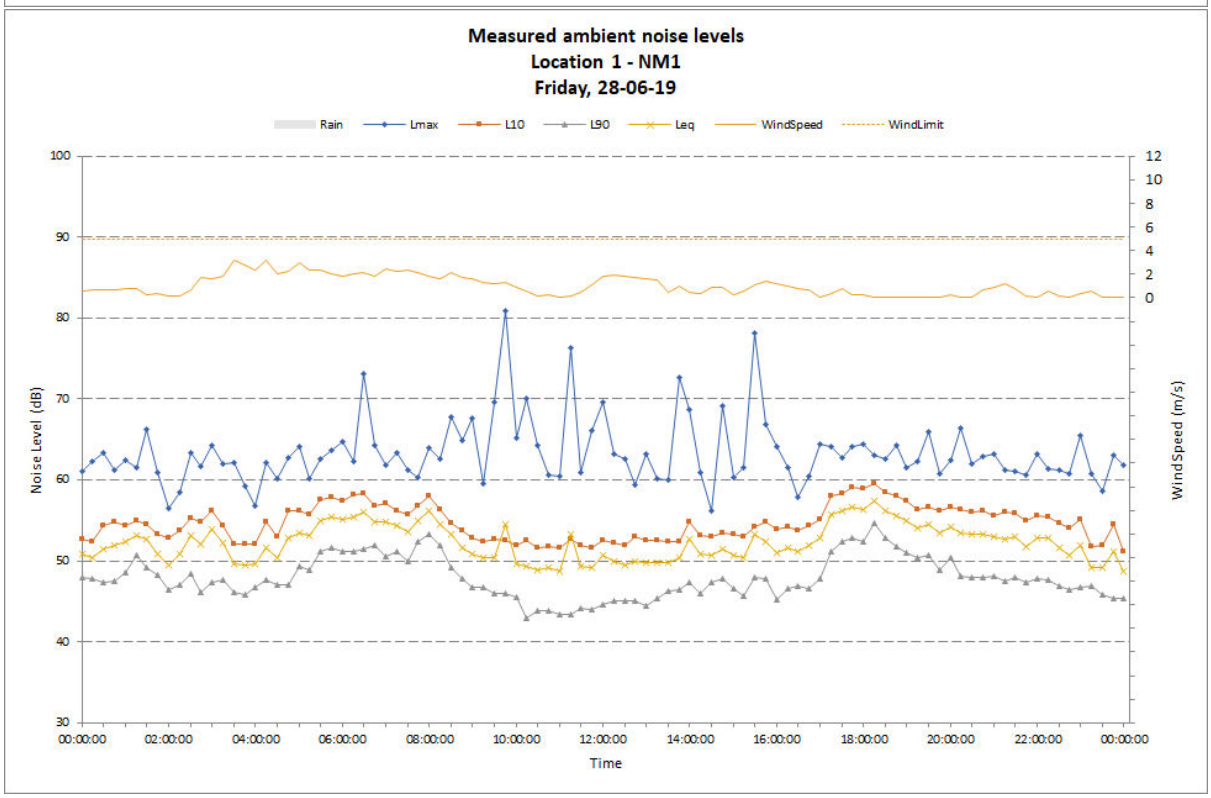
Measured ambient noise levels
Location 1 - NM1
Friday, 28-06-19
Rain
Lmax
L10
L90
Leq
WindSpeed
WindLimit
Noise Level (dB)
WindSpeed (m/s)
Time
100
90
80
70
60
50
40
30
12
10
8
6
4
2
0
00:00:00
02:00:00
04:00:00
06:00:00
08:00:00
10:00:00
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14:00:00
16:00:00
18:00:00
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22:00:00
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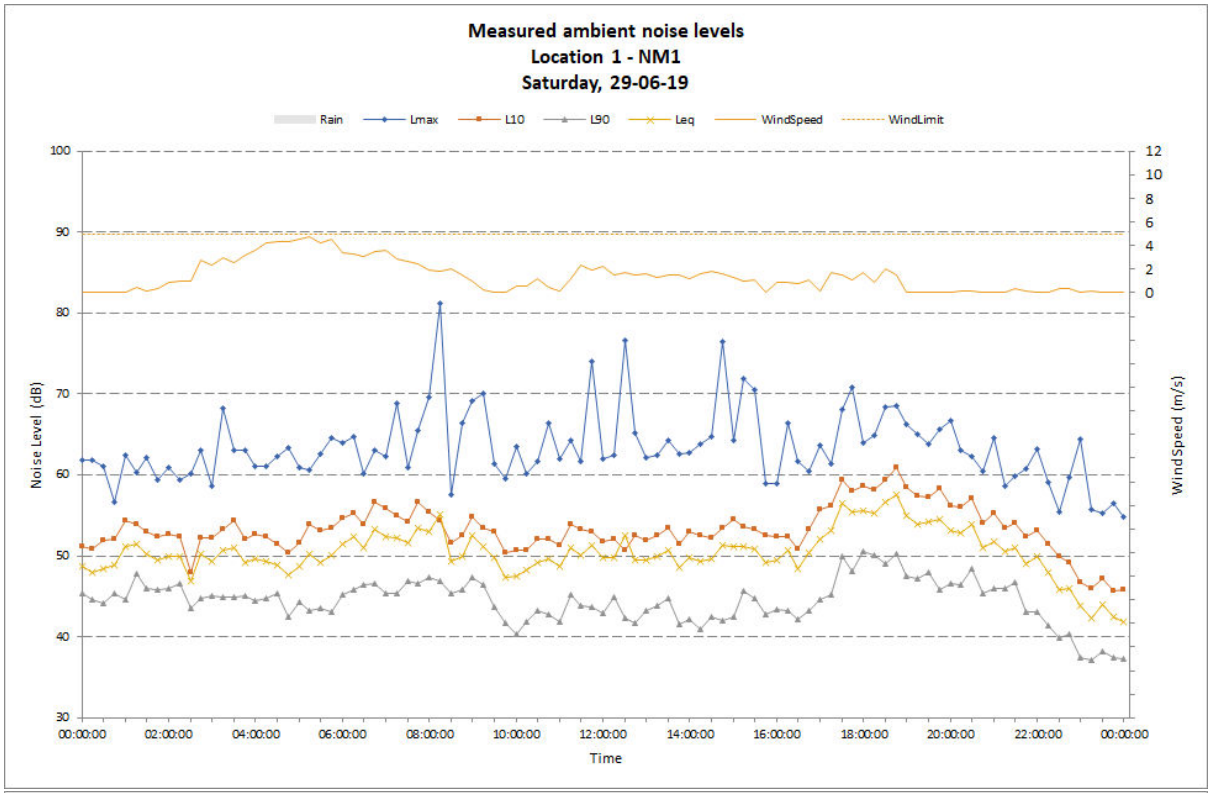
Measured ambient noise levels
Location 1 - NM1
Saturday, 29-06-19
Rain
Lmax
L10
L90
Leq
WindSpeed
WindLimit
Noise Level (dB)
WindSpeed (m/s)
Time
00:00:00
02:00:00
04:00:00
06:00:00
08:00:00
10:00:00
12:00:00
14:00:00
16:00:00
18:00:00
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22:00:00
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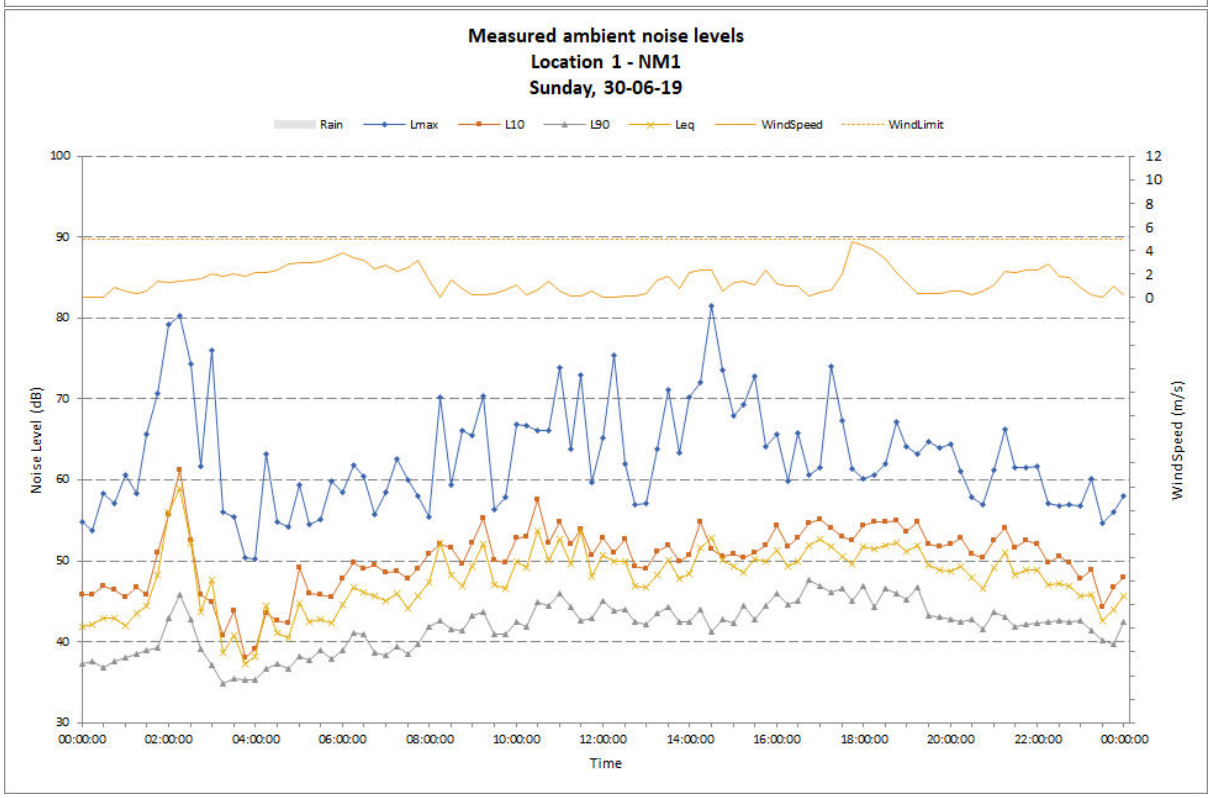
Measured ambient noise levels
Location 1 - NM1
Sunday, 30-06-19
Rain
Lmax
L10
L90
Leq
WindSpeed
WindLimit
Noise Level (dB)
WindSpeed (m/s)
Time
00:00:00
02:00:00
04:00:00
06:00:00
08:00:00
10:00:00
12:00:00
14:00:00
16:00:00
18:00:00
20:00:00
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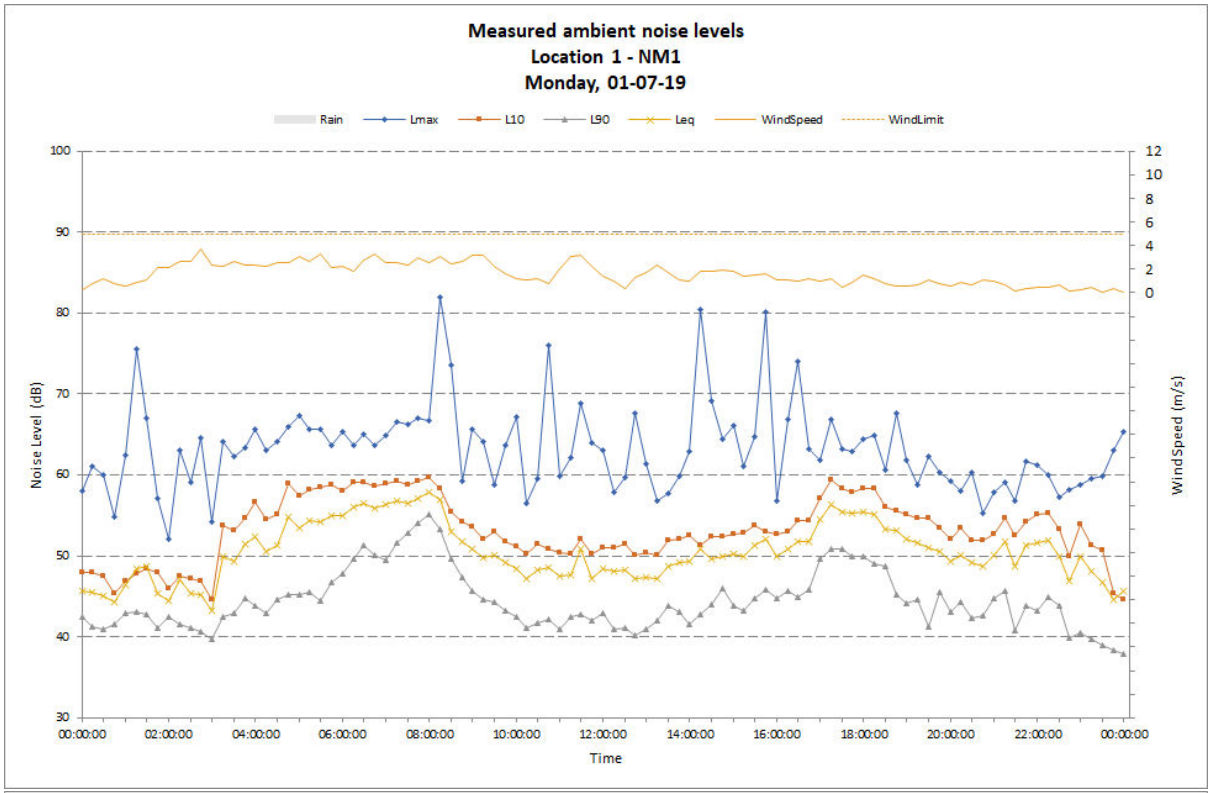
Measured ambient noise levels
Location 1 - NM1
Monday, 01-07-19
Rain
Lmax
L10
L90
Leq
WindSpeed
WindLimit
Noise Level (dB)
WindSpeed (m/s)
Time
00:00:00
02:00:00
04:00:00
06:00:00
08:00:00
10:00:00
12:00:00
14:00:00
16:00:00
18:00:00
20:00:00
22:00:00
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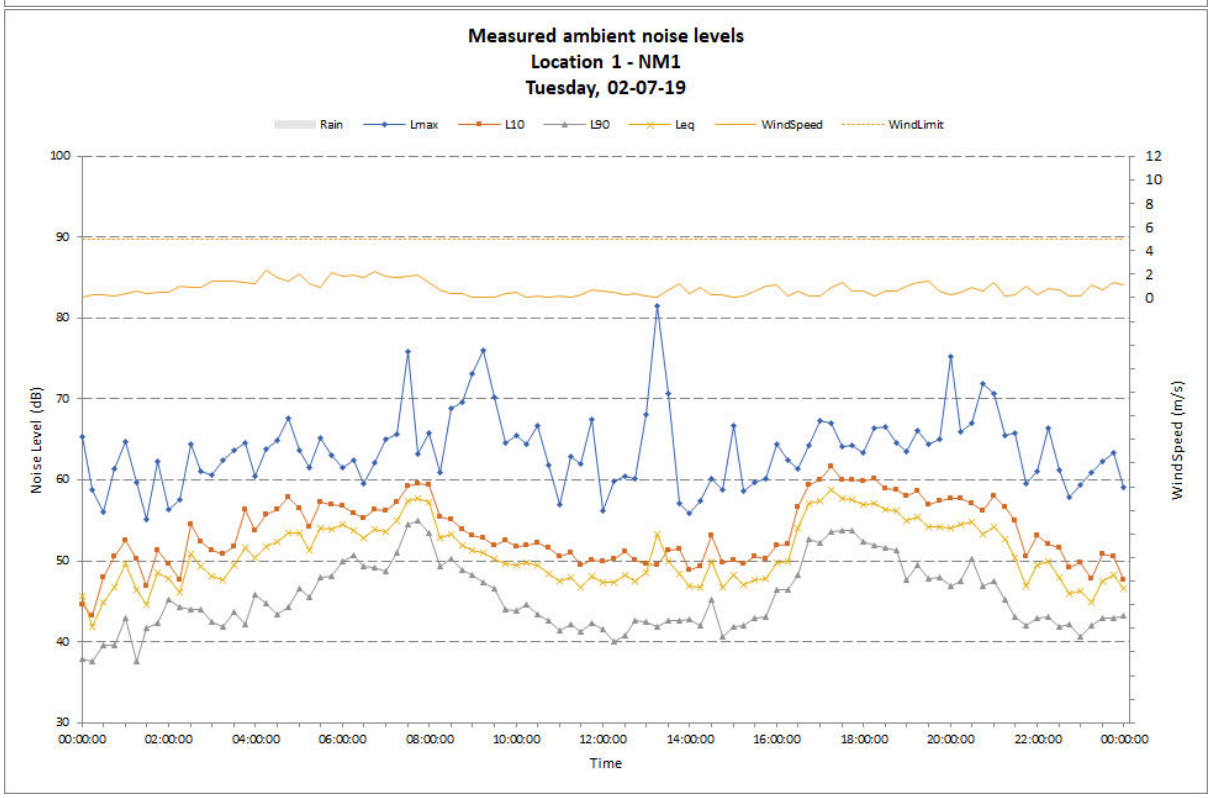
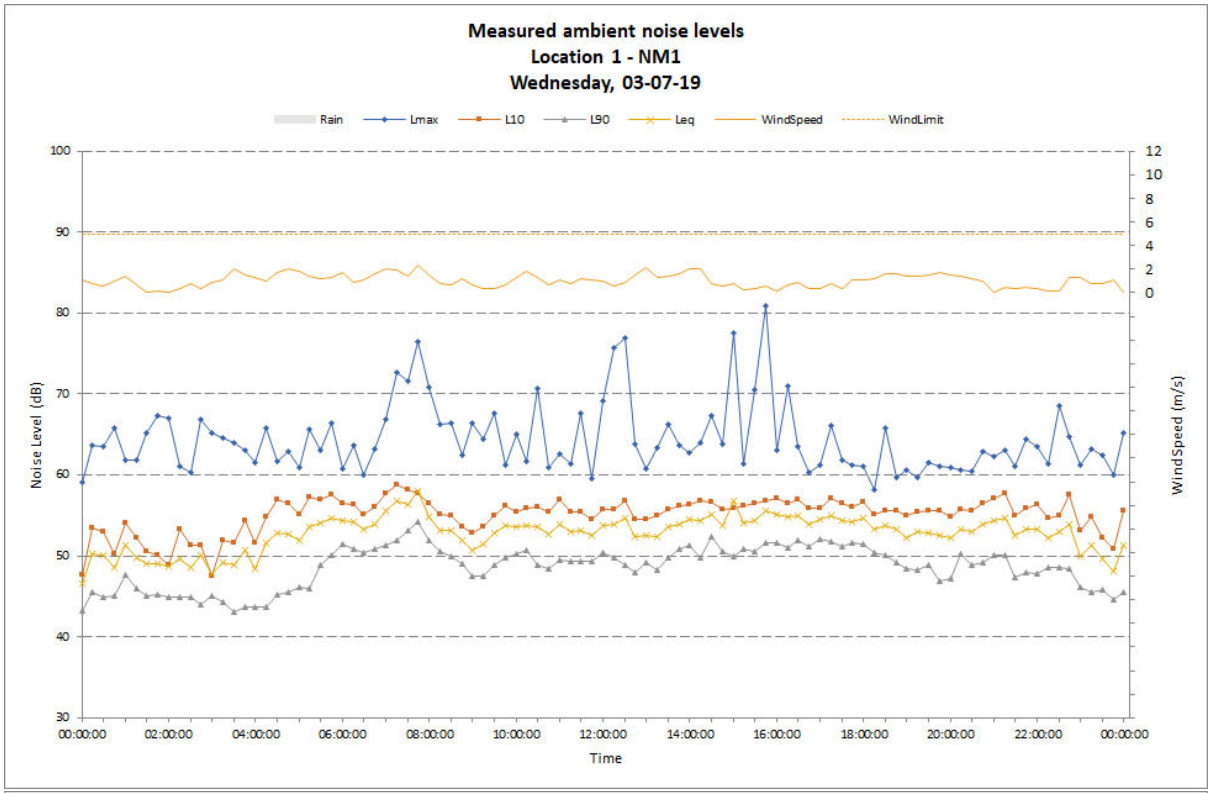

Measured ambient noise levels
Location 1 - NM1
Tuesday, 02-07-19
Rain
Lmax
L10
L90
Leq
WindSpeed
WindLimit
Noise Level (dB)
WindSpeed (m/s)
Time
00:00:00
02:00:00
04:00:00
06:00:00
08:00:00
10:00:00
12:00:00
14:00:00
16:00:00
18:00:00
20:00:00
22:00:00
00:00:00


Measured ambient noise levels
Location 1 - NM1
Wednesday, 03-07-19
Rain
Lmax
L10
L90
Leq
WindSpeed
WindLimit
Noise Level (dB)
WindSpeed (m/s)
Time
00:00:00
02:00:00
04:00:00
06:00:00
08:00:00
10:00:00
12:00:00
14:00:00
16:00:00
18:00:00
20:00:00
22:00:00
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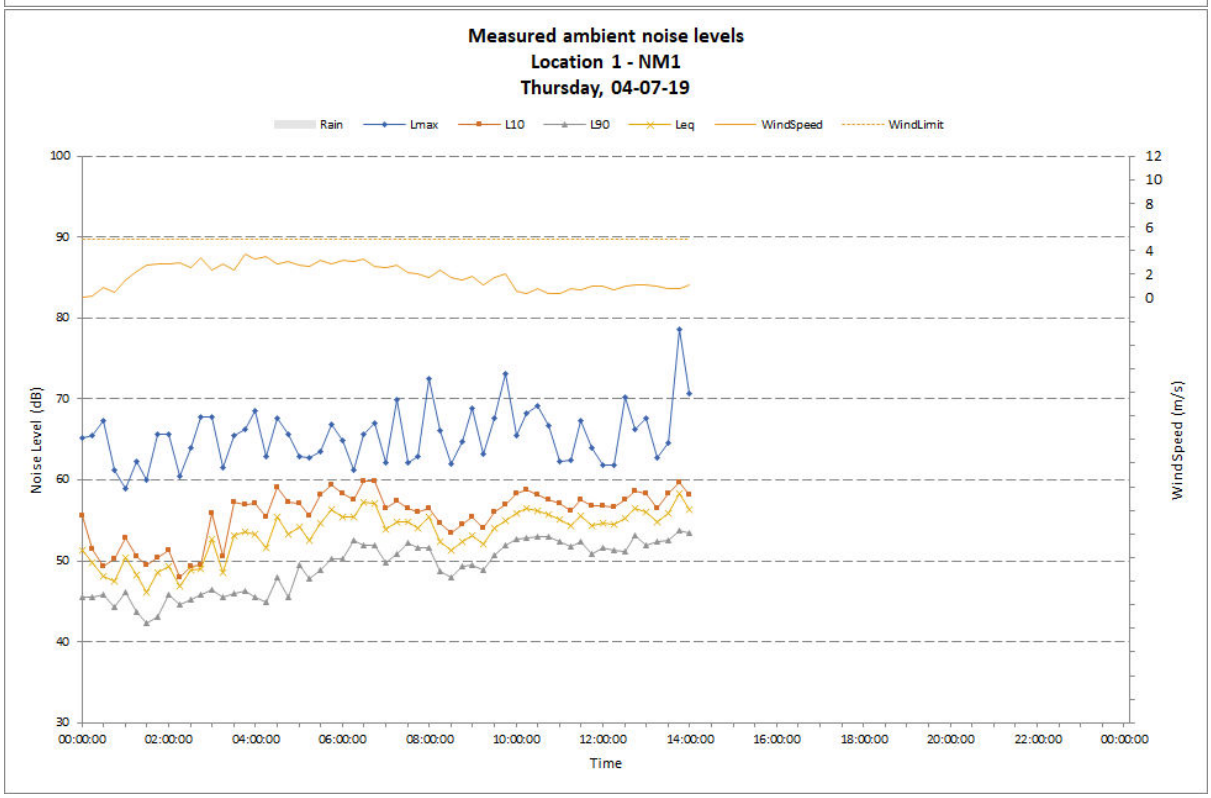
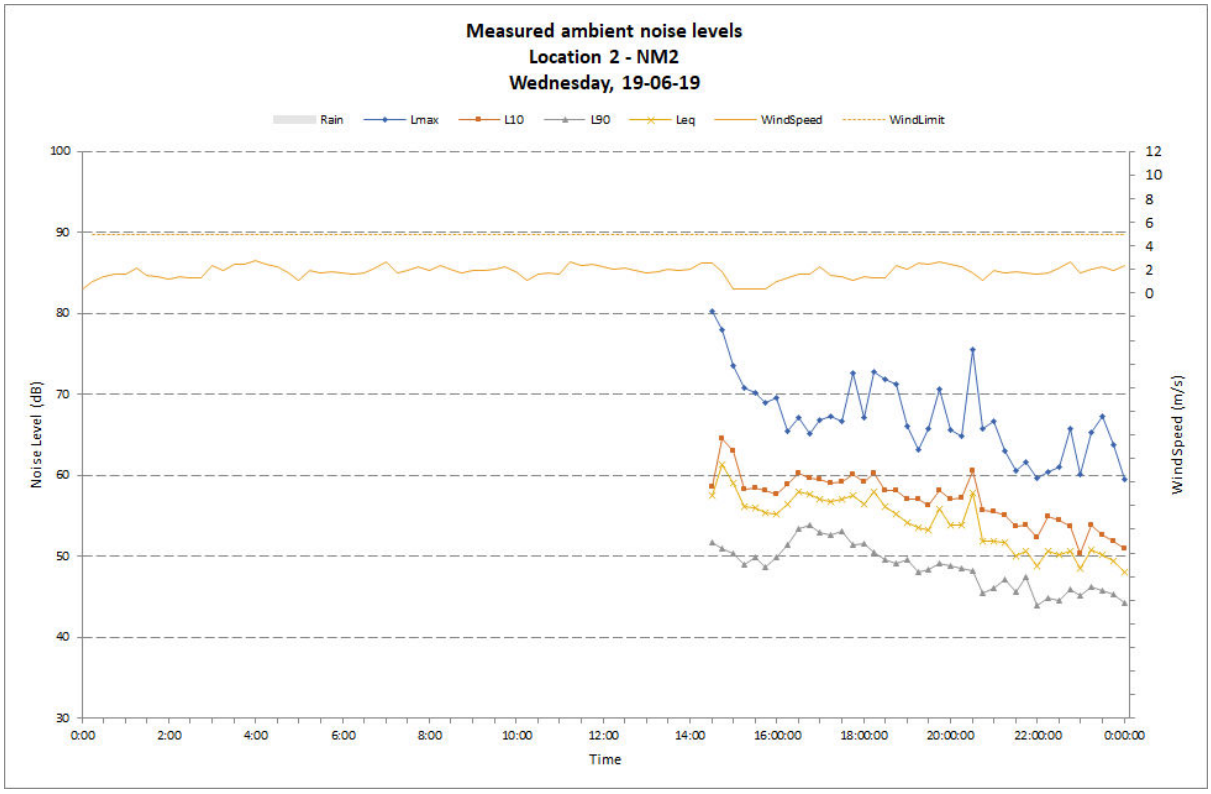
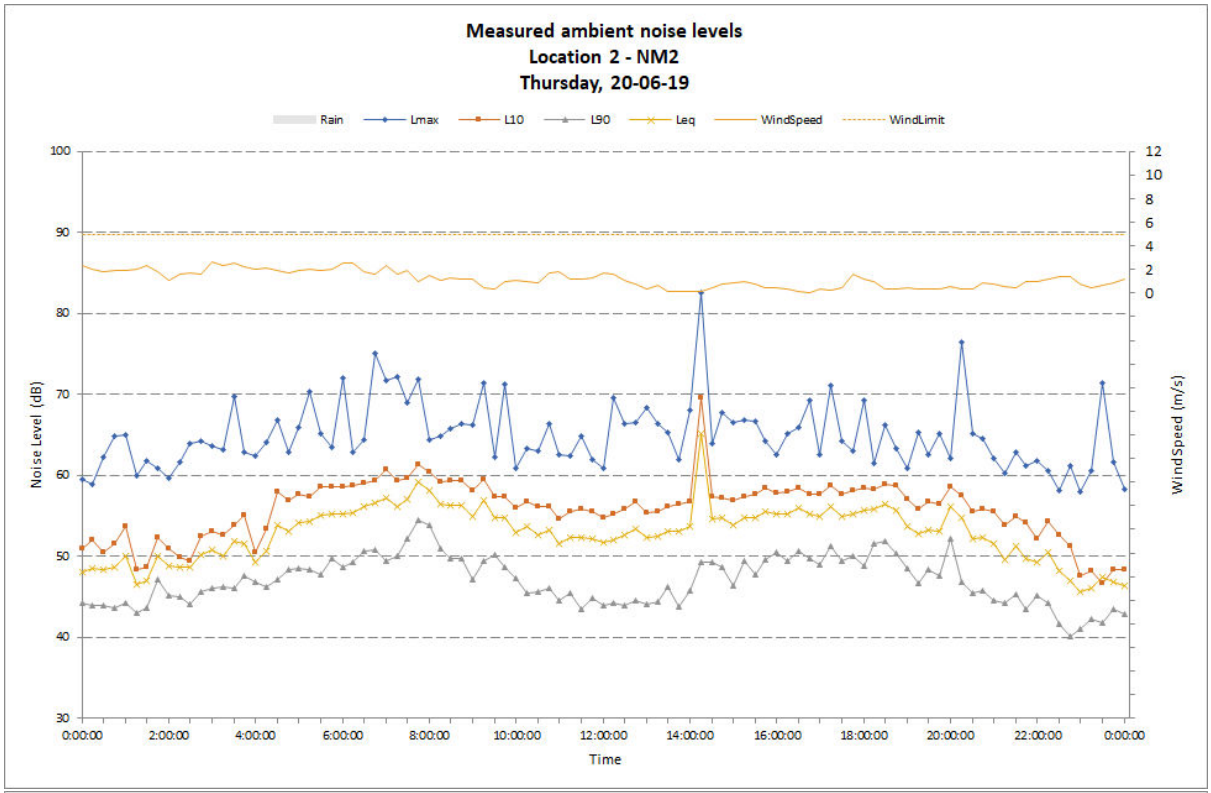
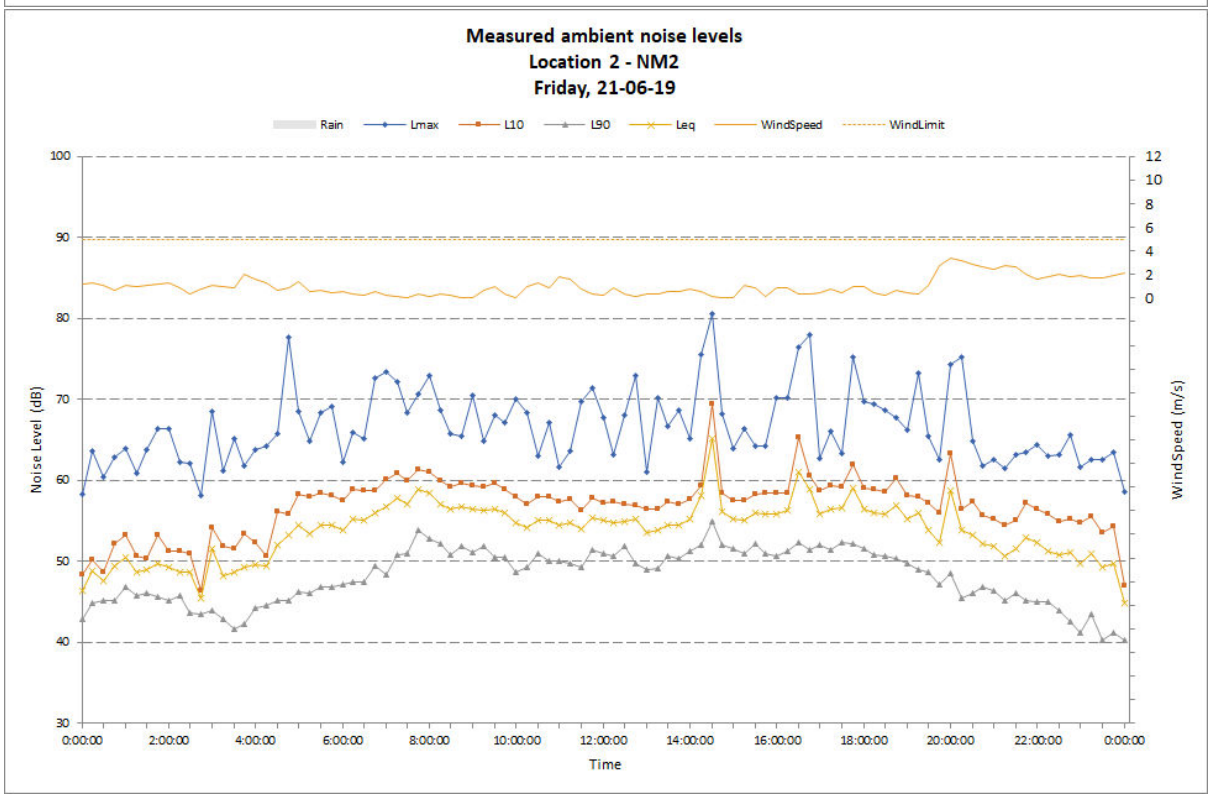
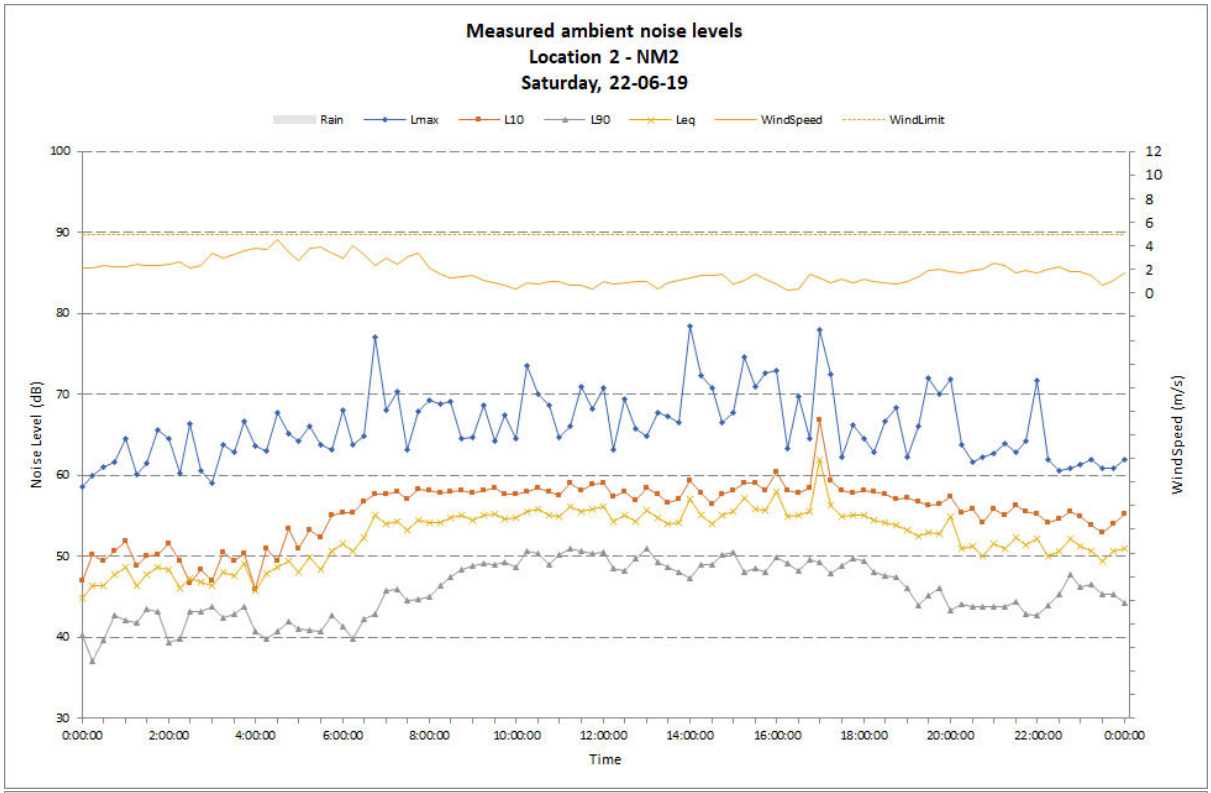

Measured ambient noise levels
Location 1 - NM1
Thursday, 04-07-19
Rain
Lmax
L10
L90
Leq
WindSpeed
WindLimit
Noise Level (dB)
WindSpeed (m/s)
Time
00:00:00
02:00:00
04:00:00
06:00:00
08:00:00
10:00:00
12:00:00
14:00:00
16:00:00
18:00:00
20:00:00
22:00:00
00:00:00


Measured ambient noise levels
Location 2 - NM2
Wednesday, 19-06-19
Rain
Lmax
L10
L90
Leq
WindSpeed
WindLimit
Noise Level (dB)
WindSpeed (m/s)
Time
100
90
80
70
60
50
40
30
12
10
8
6
4
2
0
0:00
2:00
4:00
6:00
8:00
10:00
12:00
14:00
16:00:00
18:00:00
20:00:00
22:00:00
0:00:00


Measured ambient noise levels
Location 2 - NM2
Thursday, 20-06-19
Rain
Lmax
L10
L90
Leq
WindSpeed
WindLimit
Noise Level (dB)
WindSpeed (m/s)
Time
0:00:00
2:00:00
4:00:00
6:00:00
8:00:00
10:00:00
12:00:00
14:00:00
16:00:00
18:00:00
20:00:00
22:00:00
0:00:00


Measured ambient noise levels
Location 2 - NM2
Friday, 21-06-19
Rain
Lmax
L10
L90
Leq
WindSpeed
WindLimit
Noise Level (dB)
WindSpeed (m/s)
Time
0:00:00
2:00:00
4:00:00
6:00:00
8:00:00
10:00:00
12:00:00
14:00:00
16:00:00
18:00:00
20:00:00
22:00:00
0:00:00


Measured ambient noise levels
Location 2 - NM2
Saturday, 22-06-19
Rain
Lmax
L10
L90
Leq
WindSpeed
WindLimit
Noise Level (dB)
WindSpeed (m/s)
Time
0:00:00
2:00:00
4:00:00
6:00:00
8:00:00
10:00:00
12:00:00
14:00:00
16:00:00
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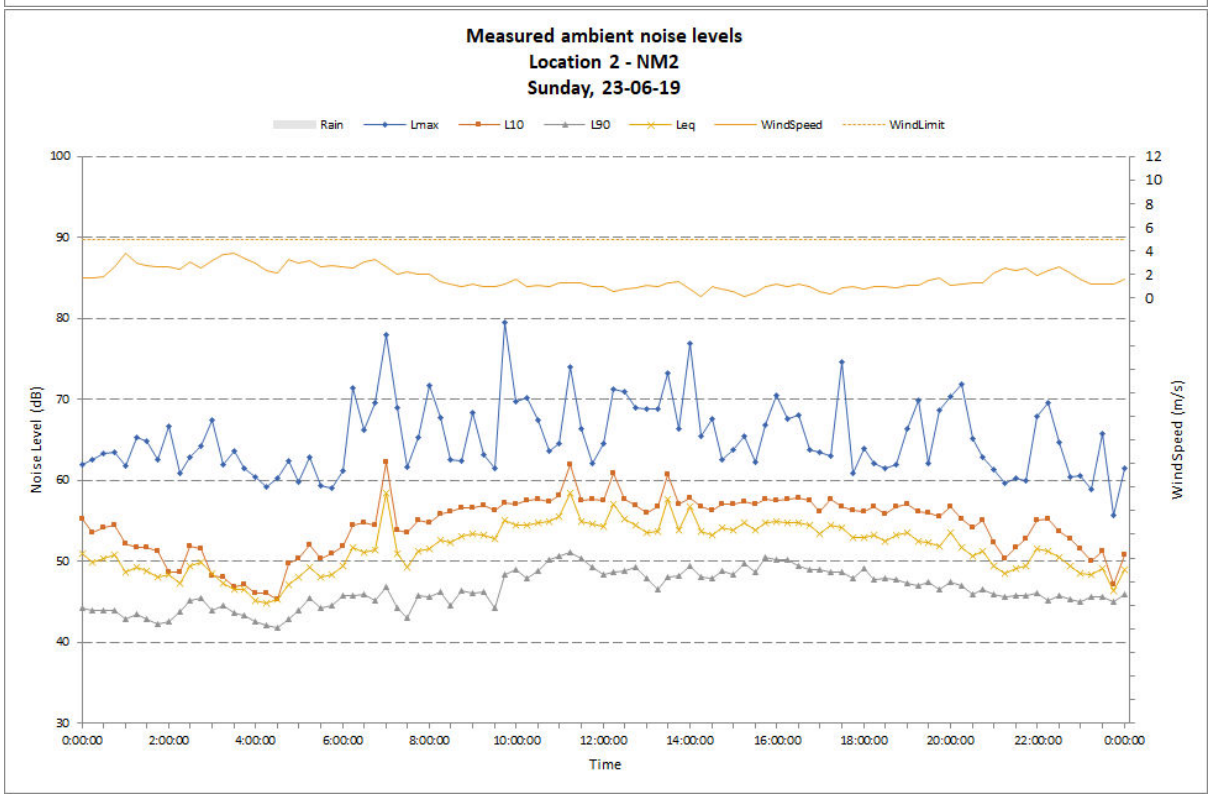
22:00:00
0:00:00


Measured ambient noise levels
Location 2 - NM2
Sunday, 23-06-19
Rain
Lmax
L10
L90
Leq
WindSpeed
WindLimit
Noise Level (dB)
WindSpeed (m/s)
Time
0:00:00
2:00:00
4:00:00
6:00:00
8:00:00
10:00:00
12:00:00
14:00:00
16:00:00
18:00:00
20:00:00
22:00:00
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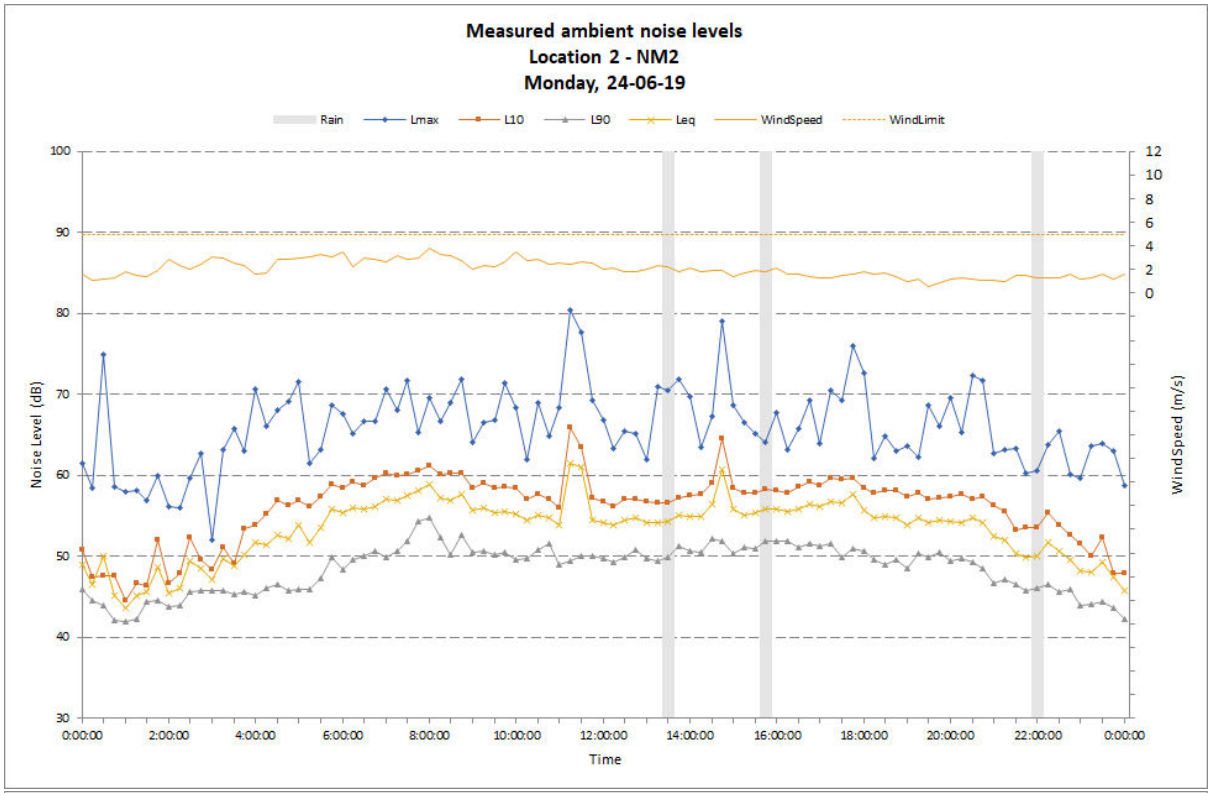
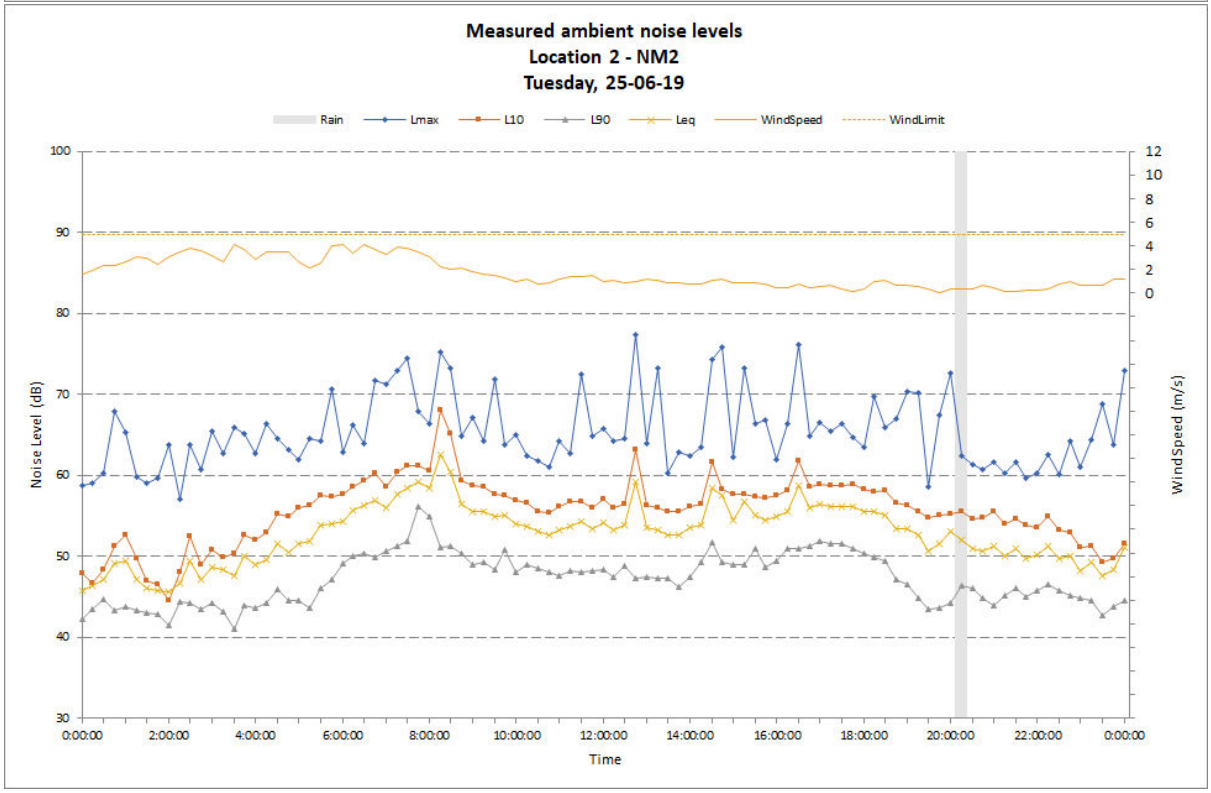
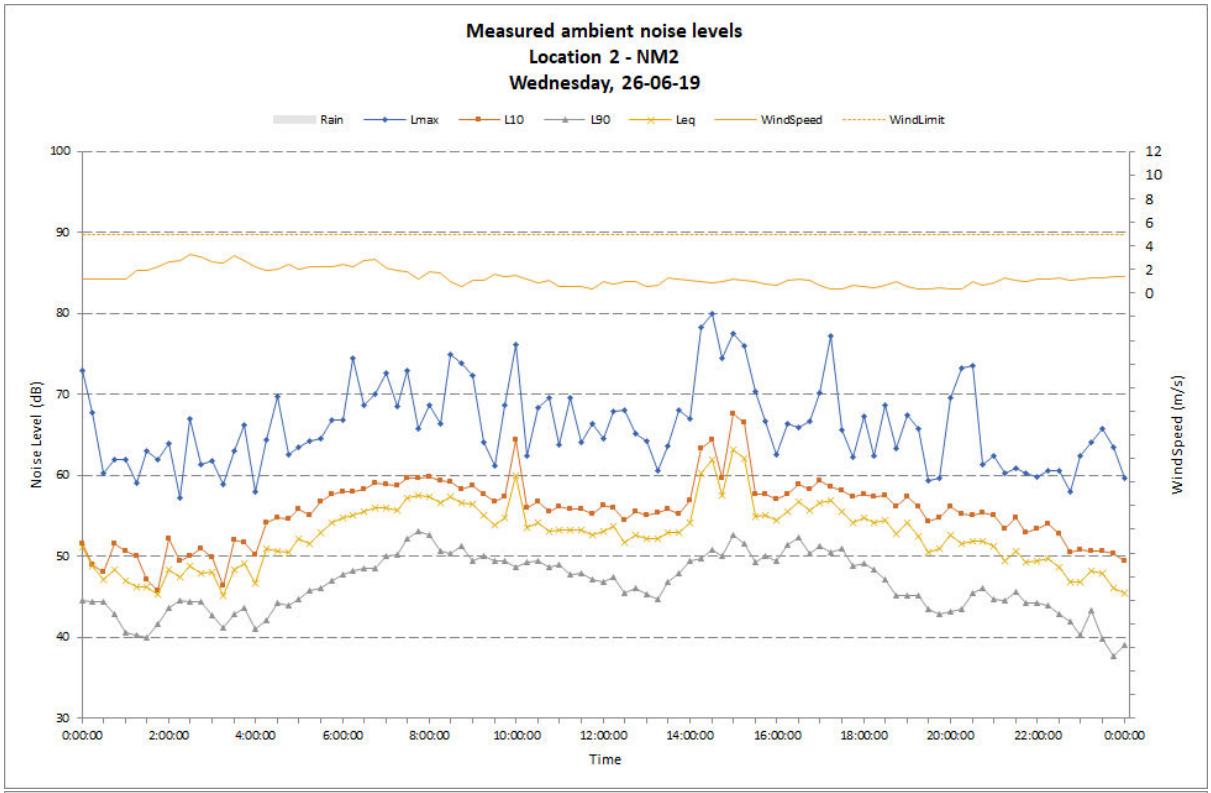
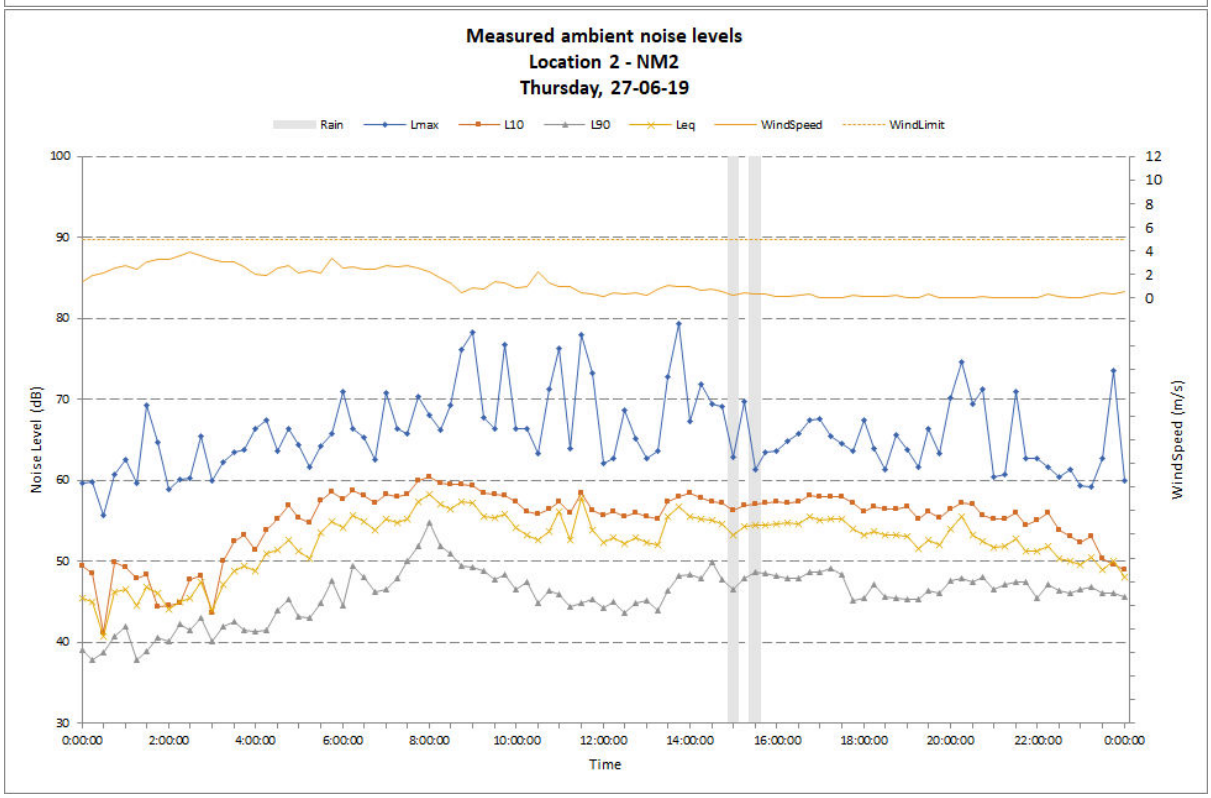
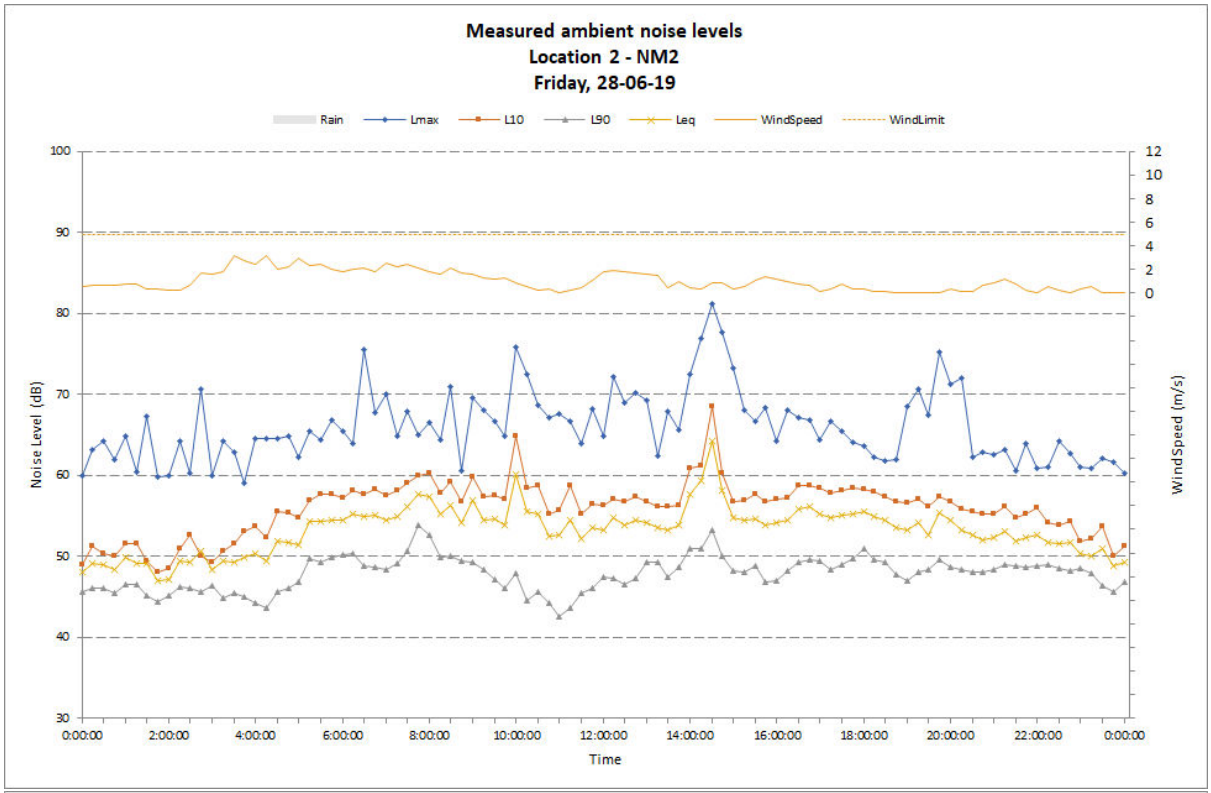

Measured ambient noise levels
Location 2 - NM2
Monday, 24-06-19
Rain
Lmax
L10
L90
Leq
WindSpeed
WindLimit
Noise Level (dB)
WindSpeed (m/s)
Time
0:00:00
2:00:00
4:00:00
6:00:00
8:00:00
10:00:00
12:00:00
14:00:00
16:00:00
18:00:00
20:00:00
22:00:00
0:00:00


Measured ambient noise levels
Location 2 - NM2
Tuesday, 25-06-19
Rain
Lmax
L10
L90
Leq
WindSpeed
WindLimit
Noise Level (dB)
WindSpeed (m/s)
Time
0:00:00
2:00:00
4:00:00
6:00:00
8:00:00
10:00:00
12:00:00
14:00:00
16:00:00
18:00:00
20:00:00
22:00:00
0:00:00


Measured ambient noise levels
Location 2 - NM2
Wednesday, 26-06-19
Rain
Lmax
L10
L90
Leq
WindSpeed
WindLimit
Noise Level (dB)
WindSpeed (m/s)
Time


Measured ambient noise levels
Location 2 - NM2
Thursday, 27-06-19
Rain
Lmax
L10
L90
Leq
WindSpeed
WindLimit
Noise Level (dB)
WindSpeed (m/s)
Time


Measured ambient noise levels
Location 2 - NM2
Friday, 28-06-19
Rain
Lmax
L10
L90
Leq
WindSpeed
WindLimit
Noise Level (dB)
WindSpeed (m/s)
Time
0:00:00
2:00:00
4:00:00
6:00:00
8:00:00
10:00:00
12:00:00
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22:00:00
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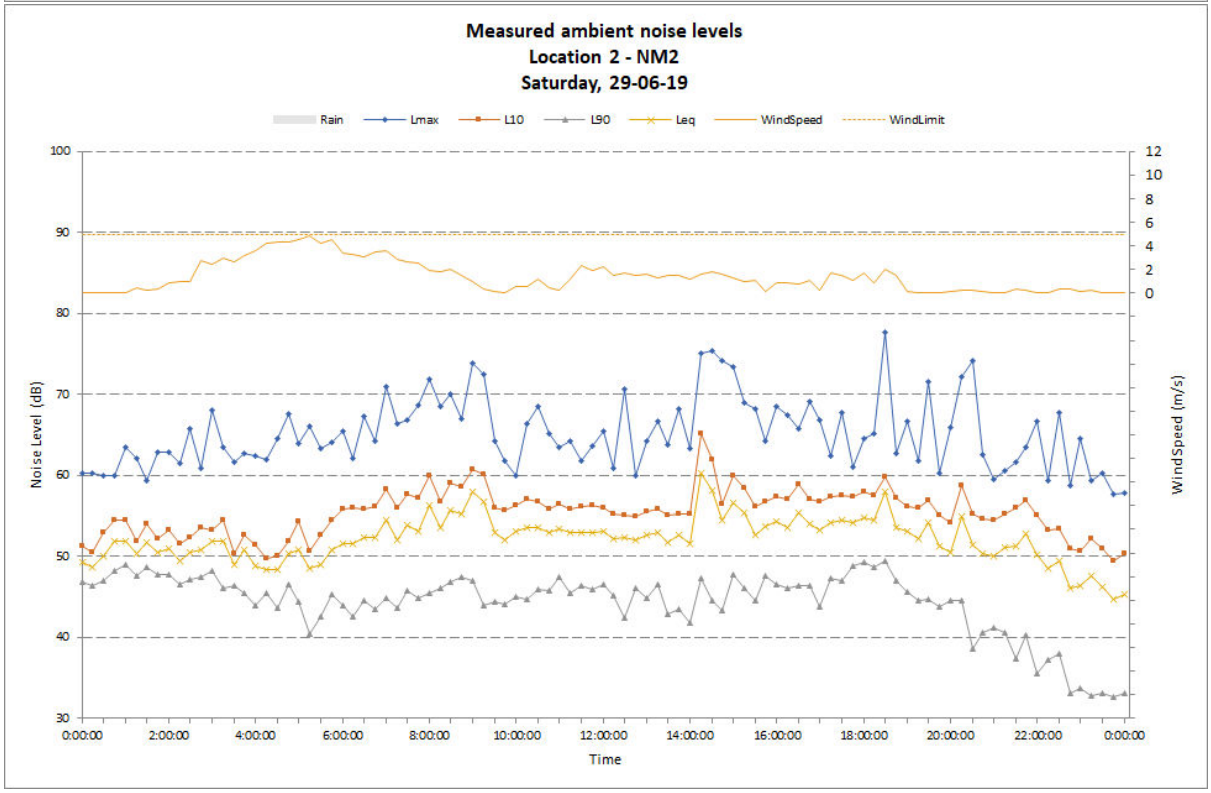
Measured ambient noise levels
Location 2 - NM2
Saturday, 29-06-19
Rain
Lmax
L10
L90
Leq
WindSpeed
WindLimit
Noise Level (dB)
WindSpeed (m/s)
Time
0:00:00
2:00:00
4:00:00
6:00:00
8:00:00
10:00:00
12:00:00
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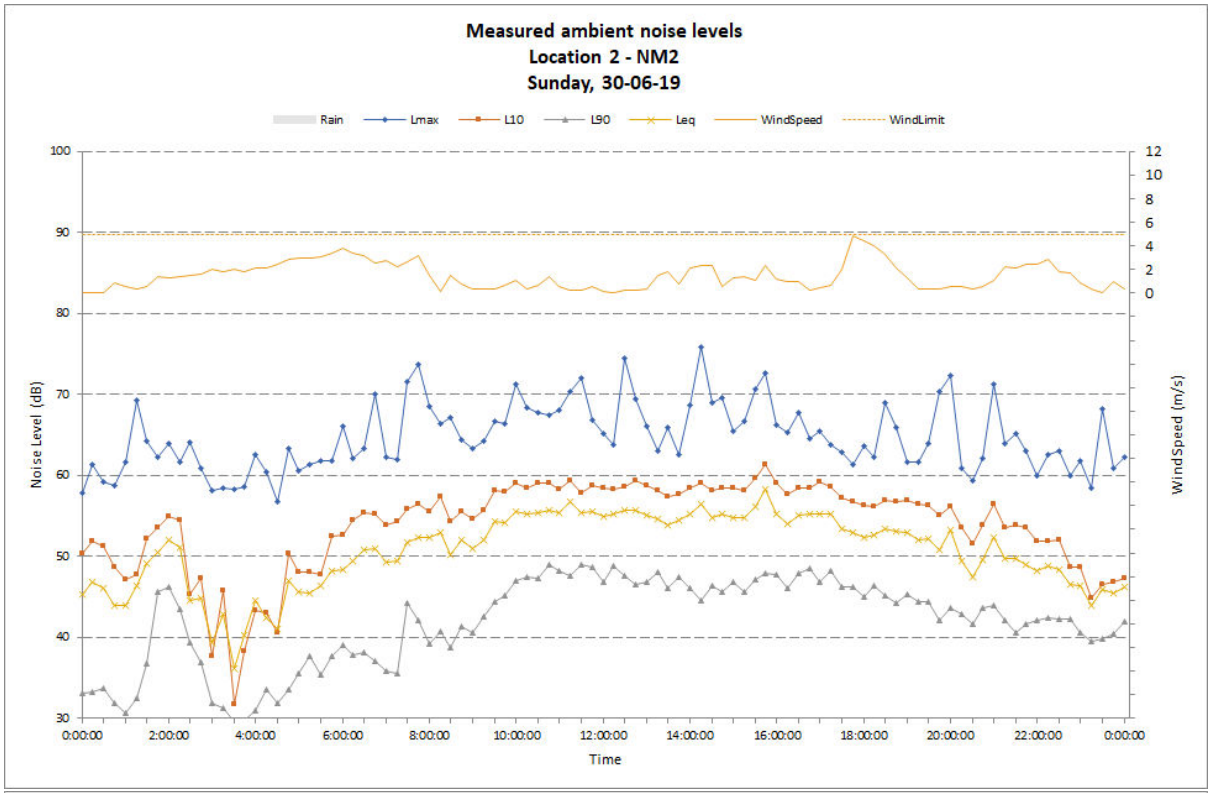
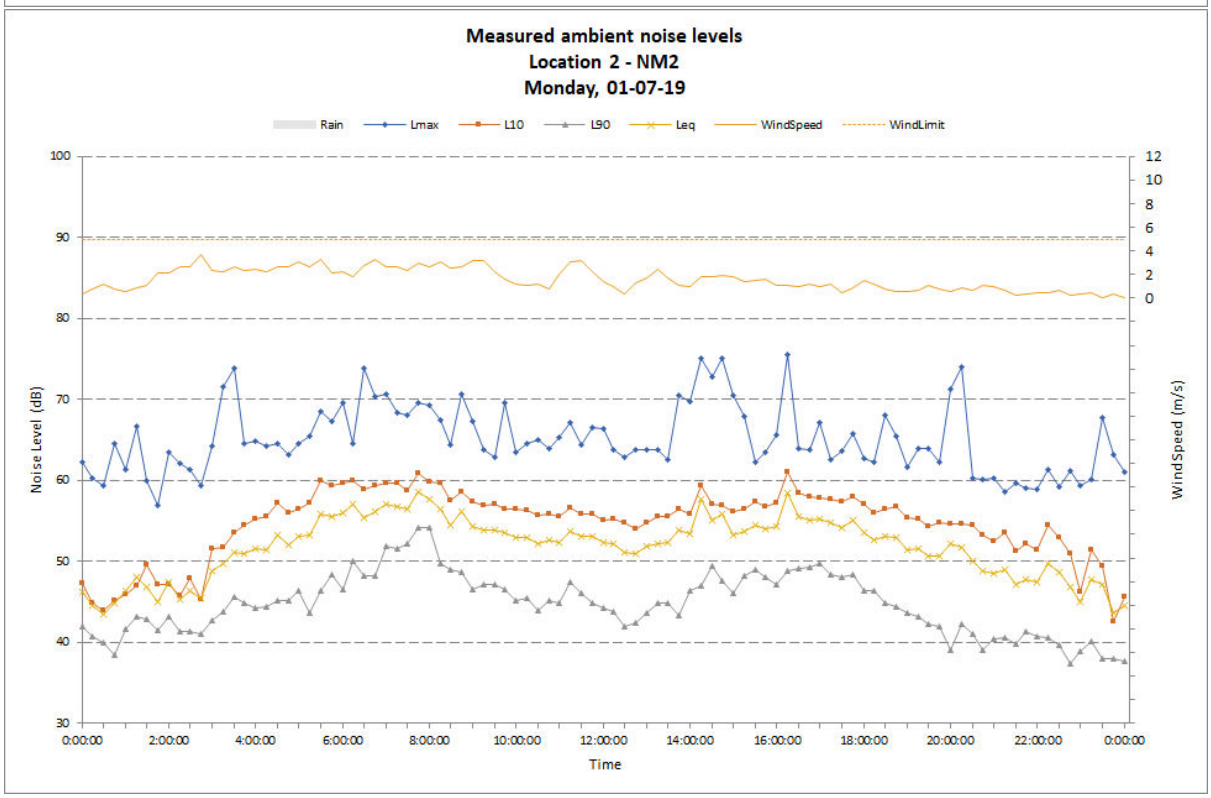
22:00:00
0:00:00


Measured ambient noise levels
Location 2 - NM2
Sunday, 30-06-19
Rain
Lmax
L10
L90
Leq
WindSpeed
WindLimit
Noise Level (dB)
WindSpeed (m/s)
Time
0:00:00
2:00:00
4:00:00
6:00:00
8:00:00
10:00:00
12:00:00
14:00:00
16:00:00
18:00:00
20:00:00
22:00:00
0:00:00


Measured ambient noise levels
Location 2 - NM2
Monday, 01-07-19
Rain
Lmax
L10
L90
Leq
WindSpeed
WindLimit
Noise Level (dB)
WindSpeed (m/s)
Time
0:00:00
2:00:00
4:00:00
6:00:00
8:00:00
10:00:00
12:00:00
14:00:00
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22:00:00
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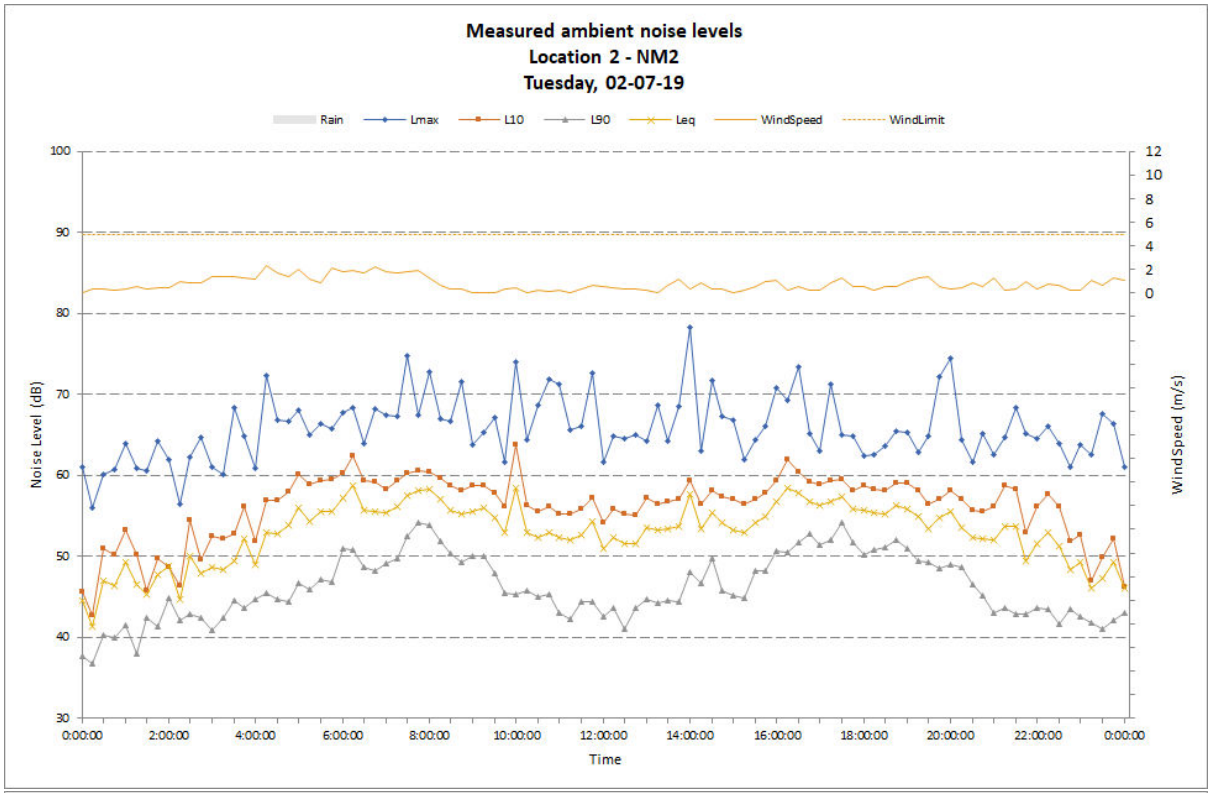
Measured ambient noise levels
Location 2 - NM2
Tuesday, 02-07-19
Rain
Lmax
L10
L90
Leq
WindSpeed
WindLimit
Noise Level (dB)
WindSpeed (m/s)
Time
0:00:00
2:00:00
4:00:00
6:00:00
8:00:00
10:00:00
12:00:00
14:00:00
16:00:00
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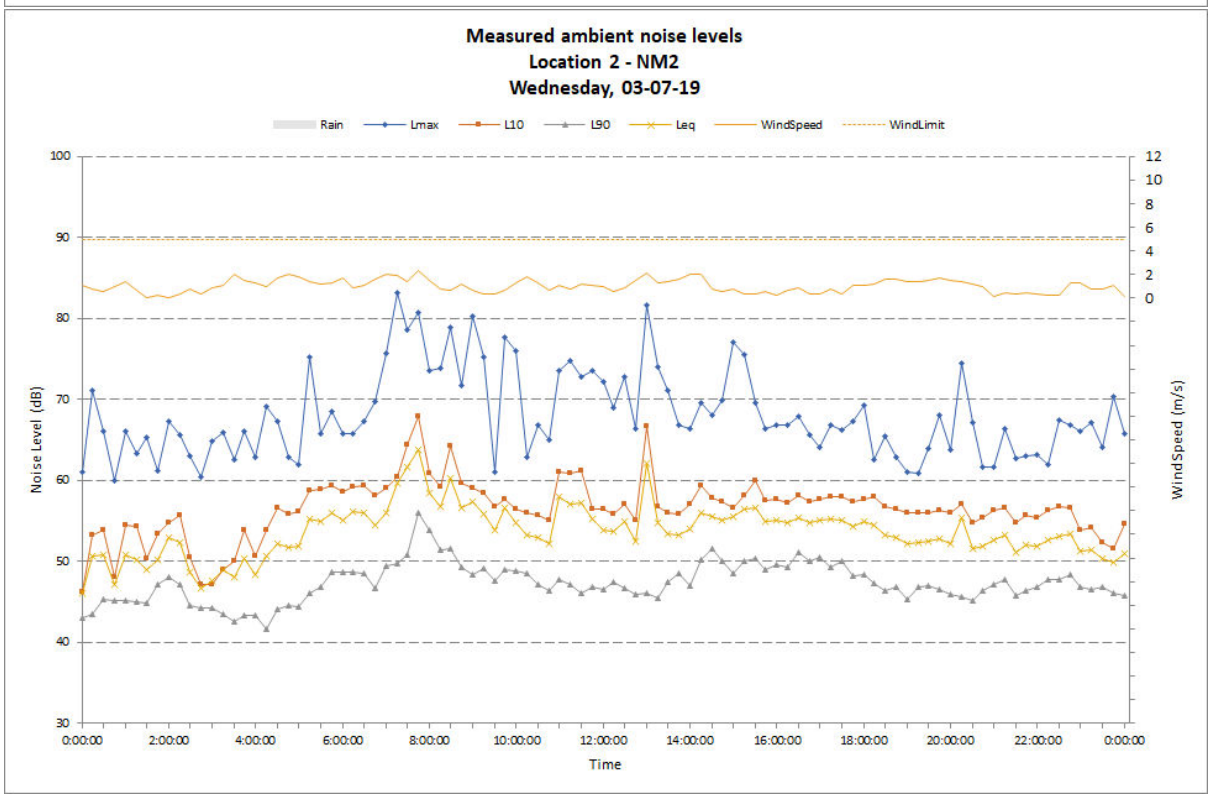
22:00:00
0:00:00


Measured ambient noise levels
Location 2 - NM2
Wednesday, 03-07-19
Rain
Lmax
L10
L90
Leq
WindSpeed
WindLimit
Noise Level (dB)
WindSpeed (m/s)
Time
0:00:00
2:00:00
4:00:00
6:00:00
8:00:00
10:00:00
12:00:00
14:00:00
16:00:00
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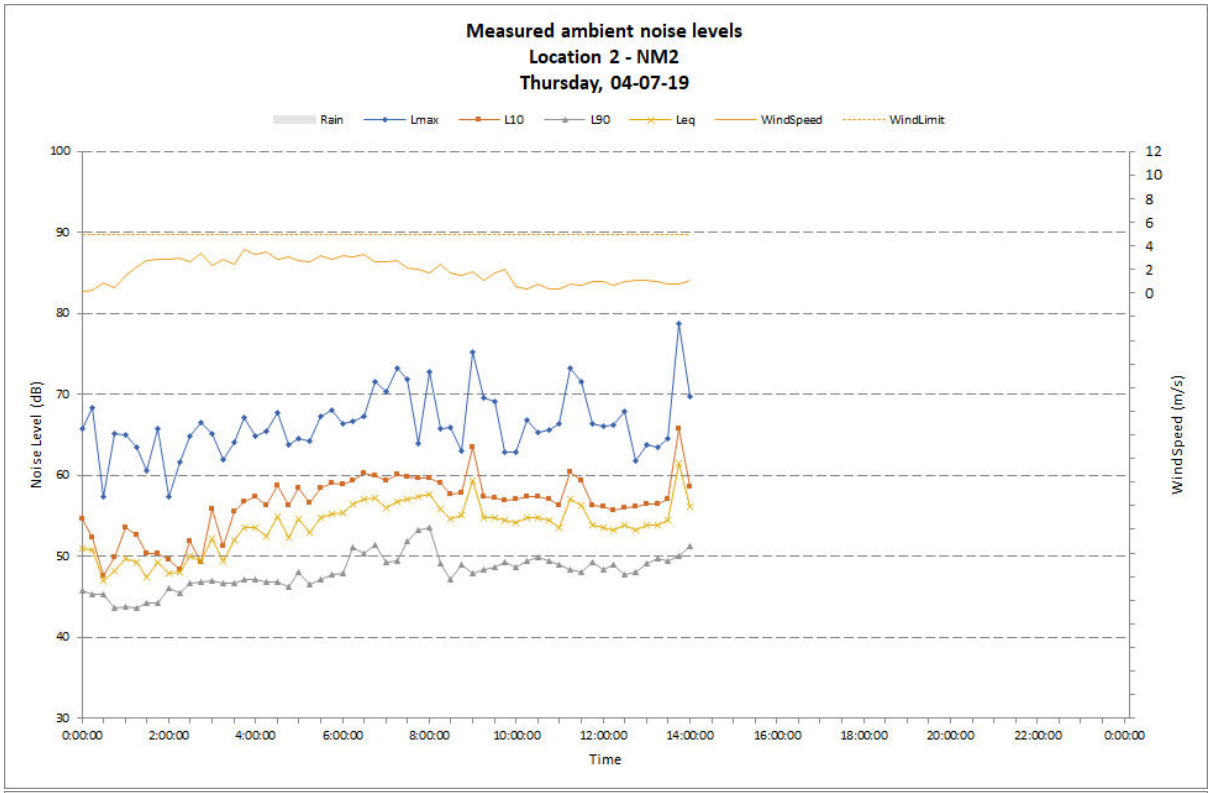
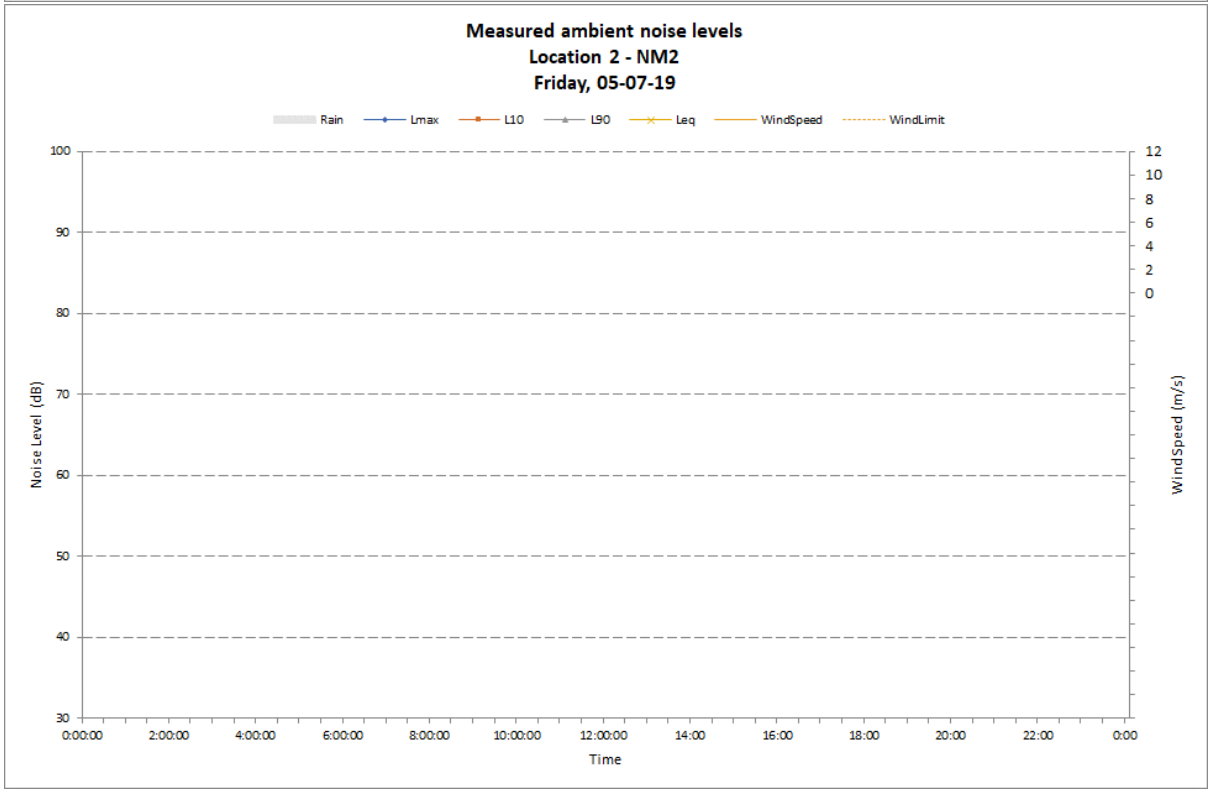
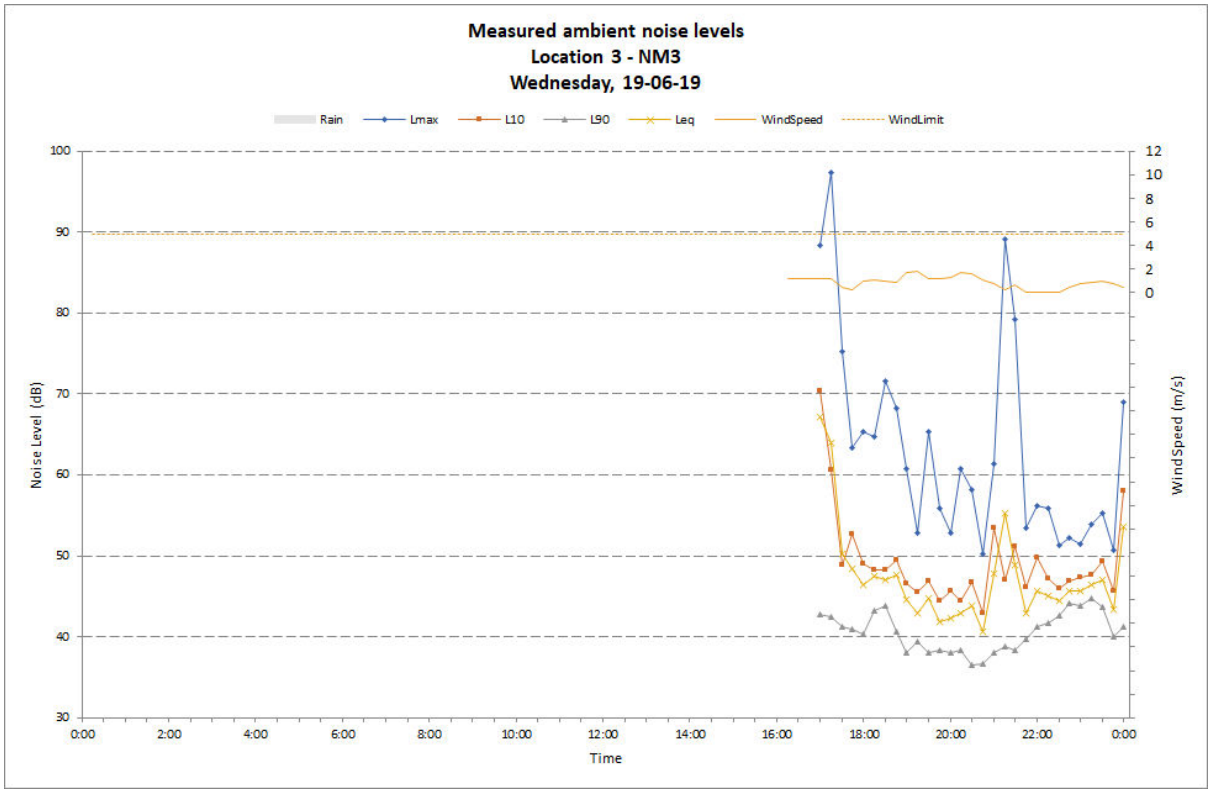
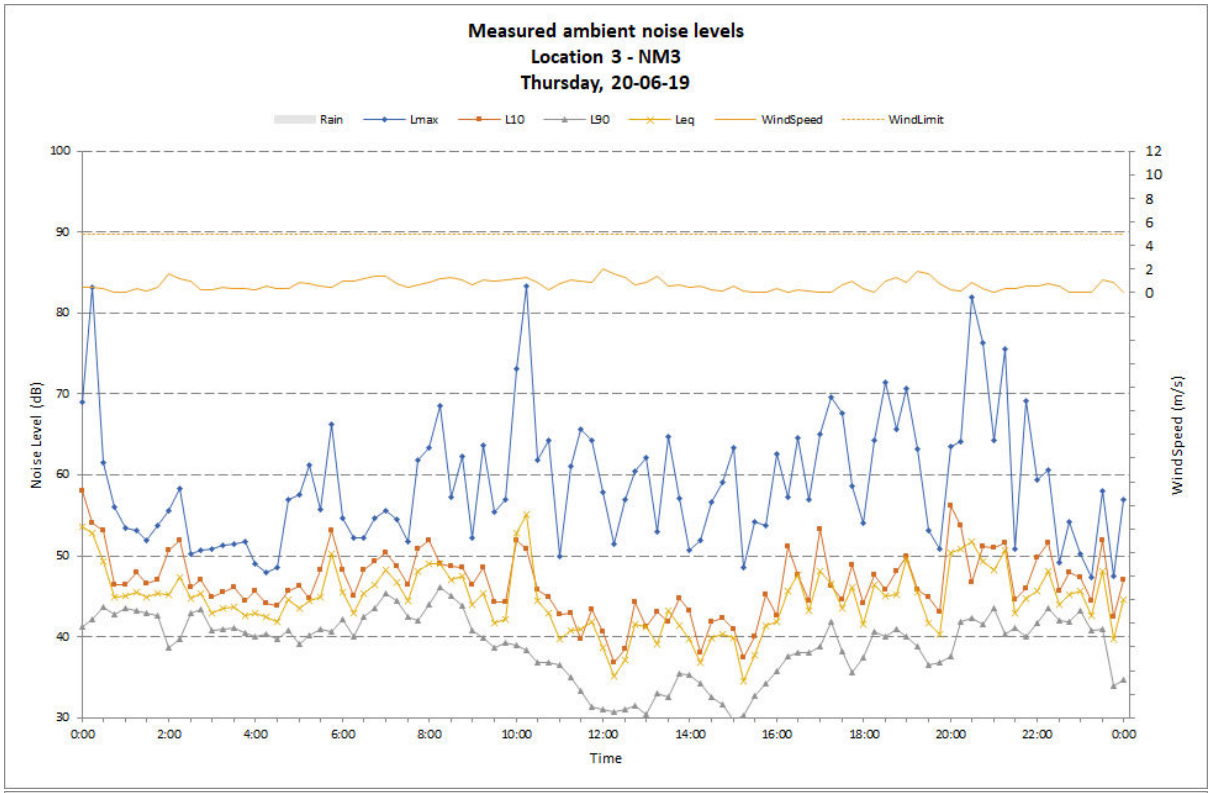
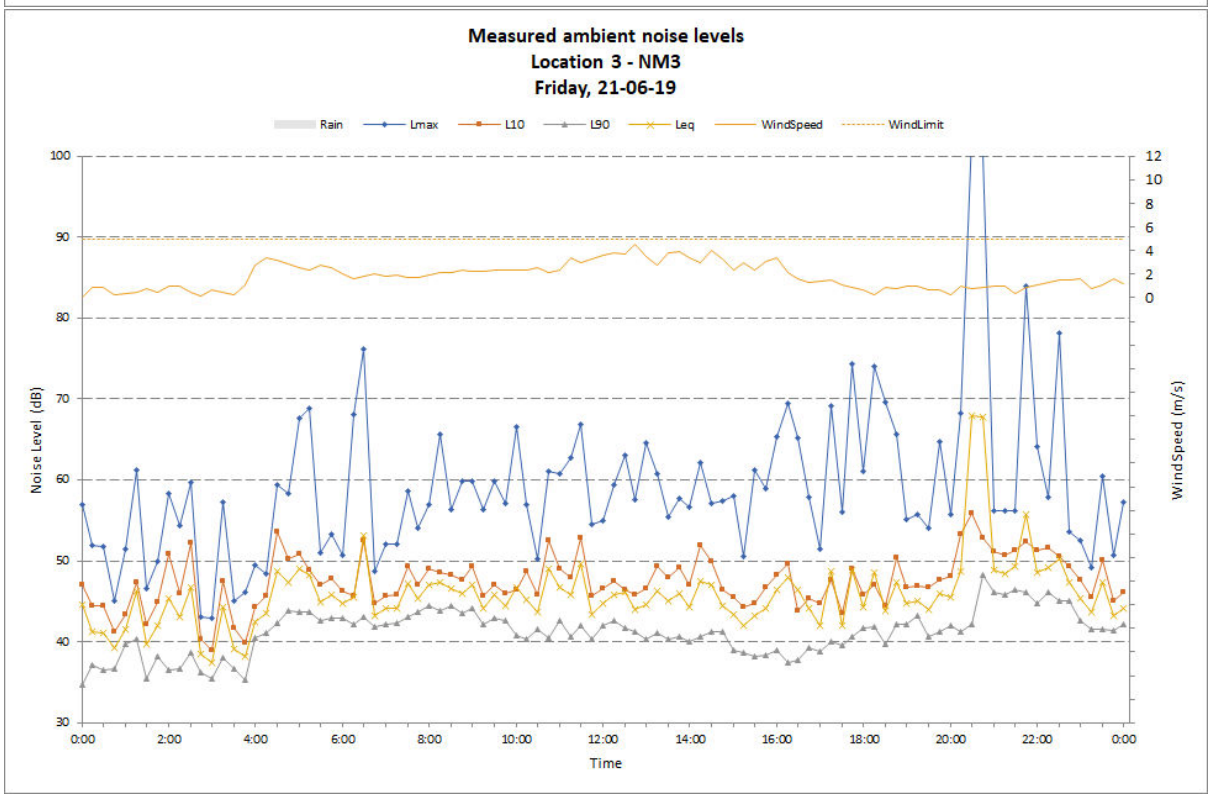
22:00:00
0:00:00

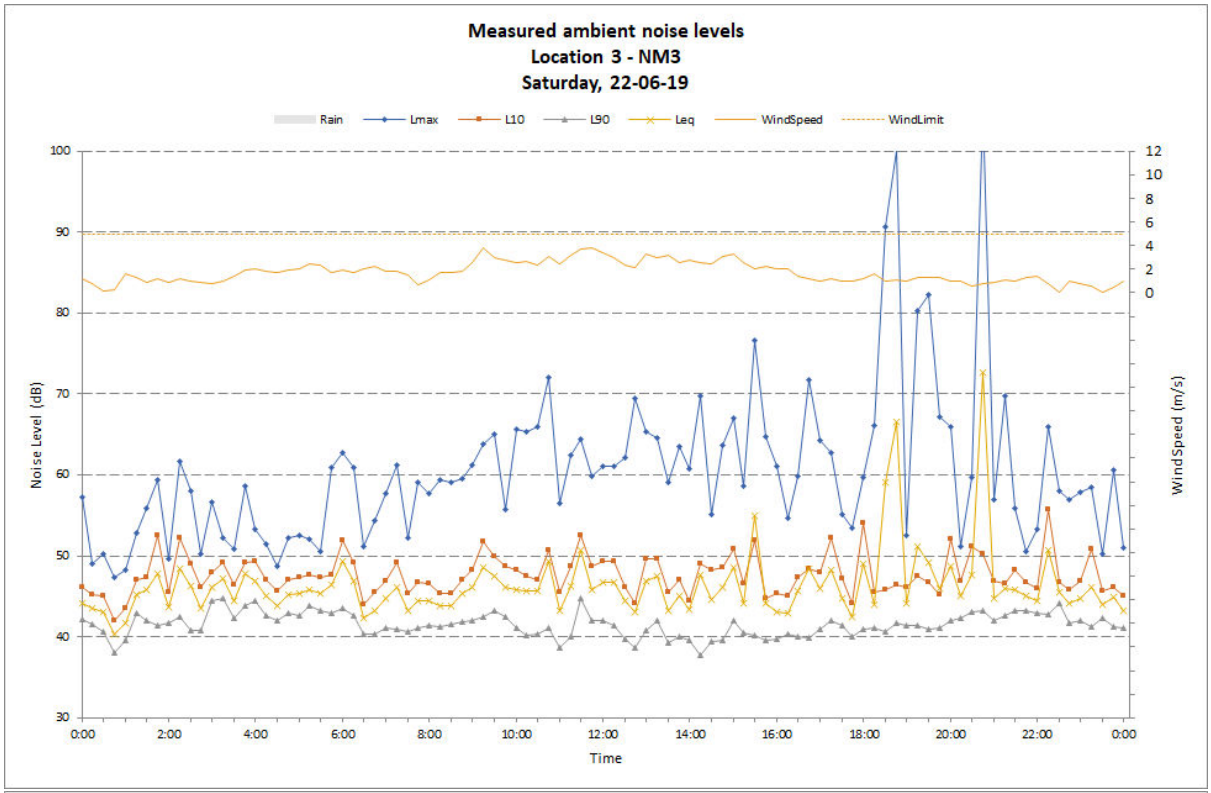

Measured ambient noise levels
Location 2 - NM2
Thursday, 04-07-19
Rain
Lmax
L10
L90
Leq
WindSpeed
WindLimit
Noise Level (dB)
WindSpeed (m/s)
Time
0:00:00
2:00:00
4:00:00
6:00:00
8:00:00
10:00:00
12:00:00
14:00:00
16:00:00
18:00:00
20:00:00
22:00:00
0:00:00

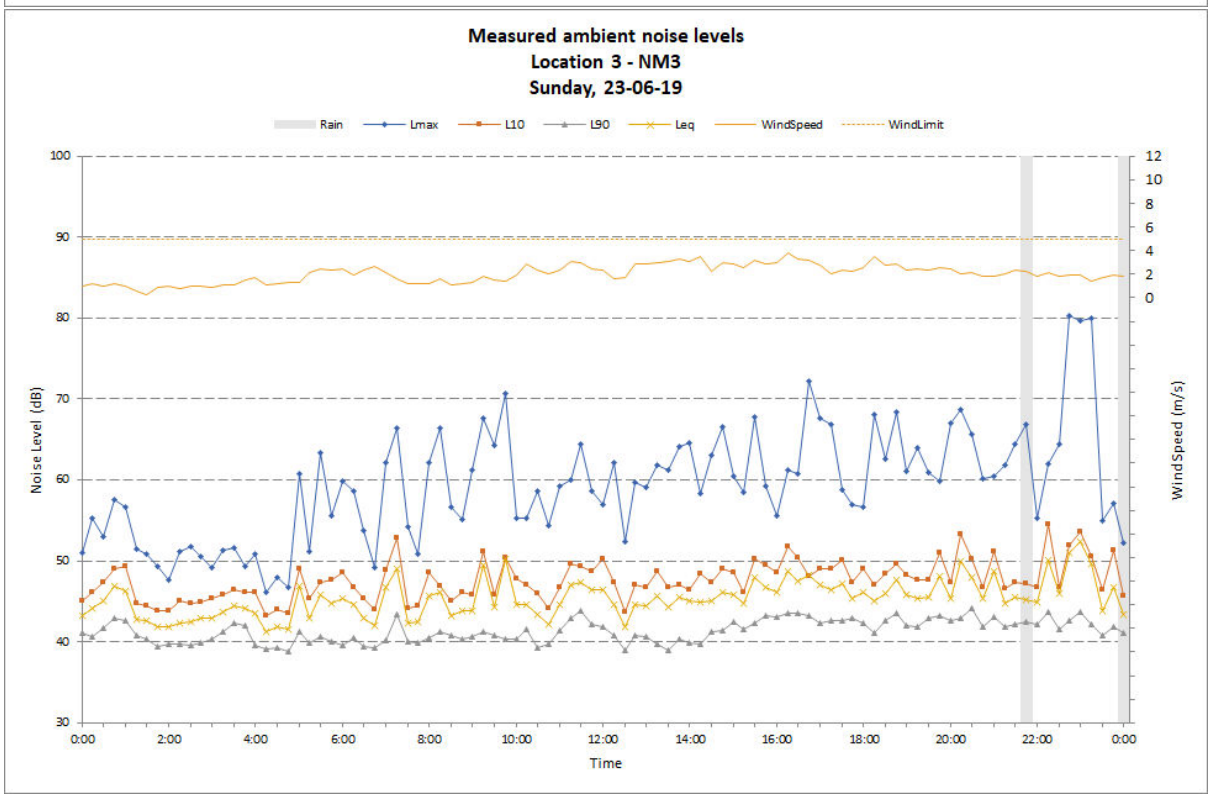

Measured ambient noise levels
Location 2 - NM2
Friday, 05-07-19
Rain
Lmax
L10
L90
Leq
WindSpeed
WindLimit
Noise Level (dB)
WindSpeed (m/s)
Time
0:00:00
2:00:00
4:00:00
6:00:00
8:00:00
10:00:00
12:00:00
14:00
16:00
18:00
20:00
22:00
0:00

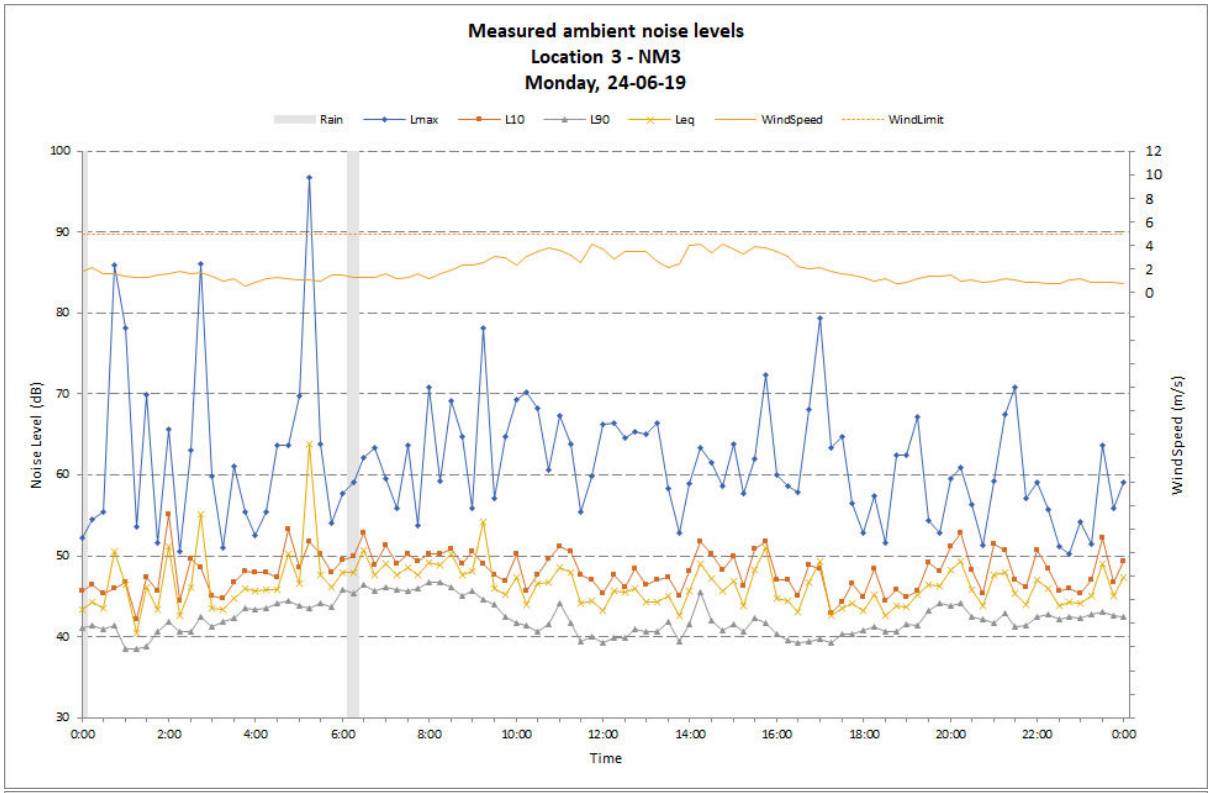

Measured ambient noise levels
Location 3 - NM3
Wednesday, 19-06-19
Rain
Lmax
L10
L90
Leq
WindSpeed
WindLimit
Noise Level (dB)
WindSpeed (m/s)
Time
100
90
80
70
60
50
40
30
12
10
8
6
4
2
0
0:00
2:00
4:00
6:00
8:00
10:00
12:00
14:00
16:00
18:00
20:00
22:00
0:00

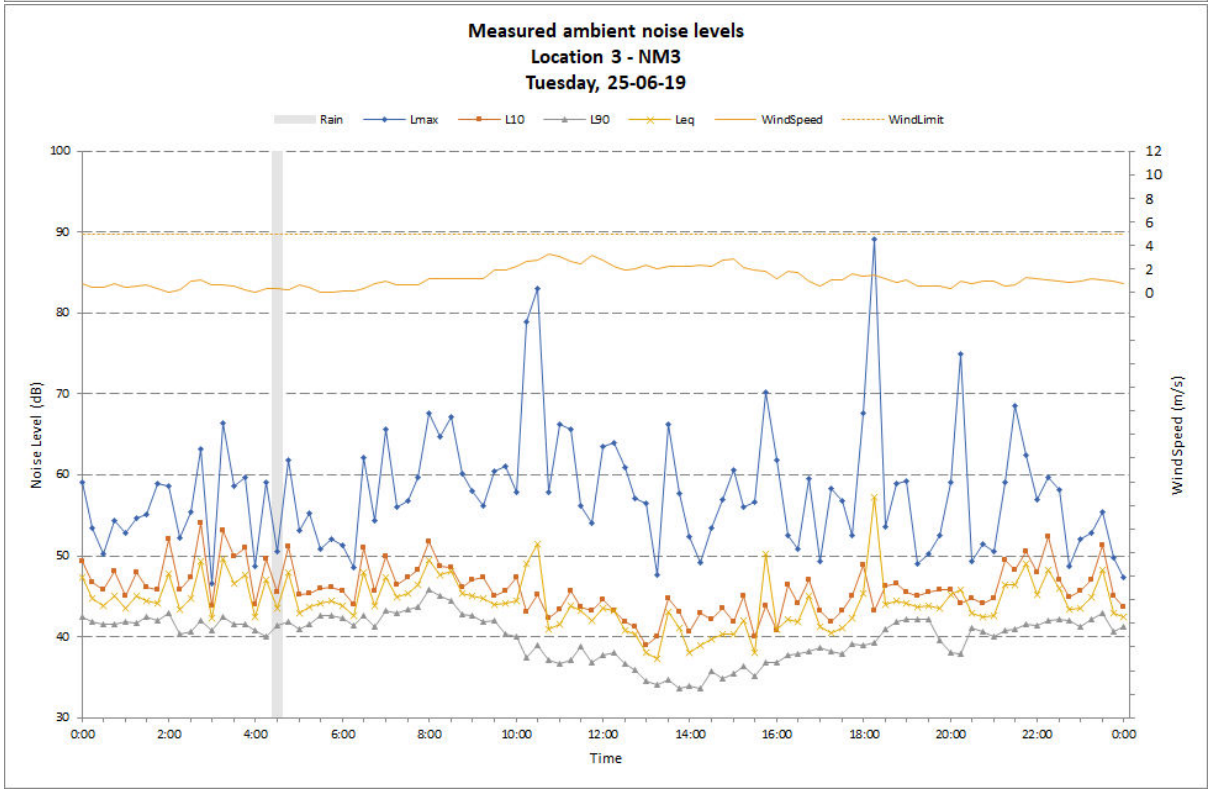

Measured ambient noise levels
Location 3 - NM3
Thursday, 20-06-19
Rain
Lmax
L10
L90
Leq
WindSpeed
WindLimit
Noise Level (dB)
WindSpeed (m/s)
Time
0:00
2:00
4:00
6:00
8:00
10:00
12:00
14:00
16:00
18:00
20:00
22:00
0:00

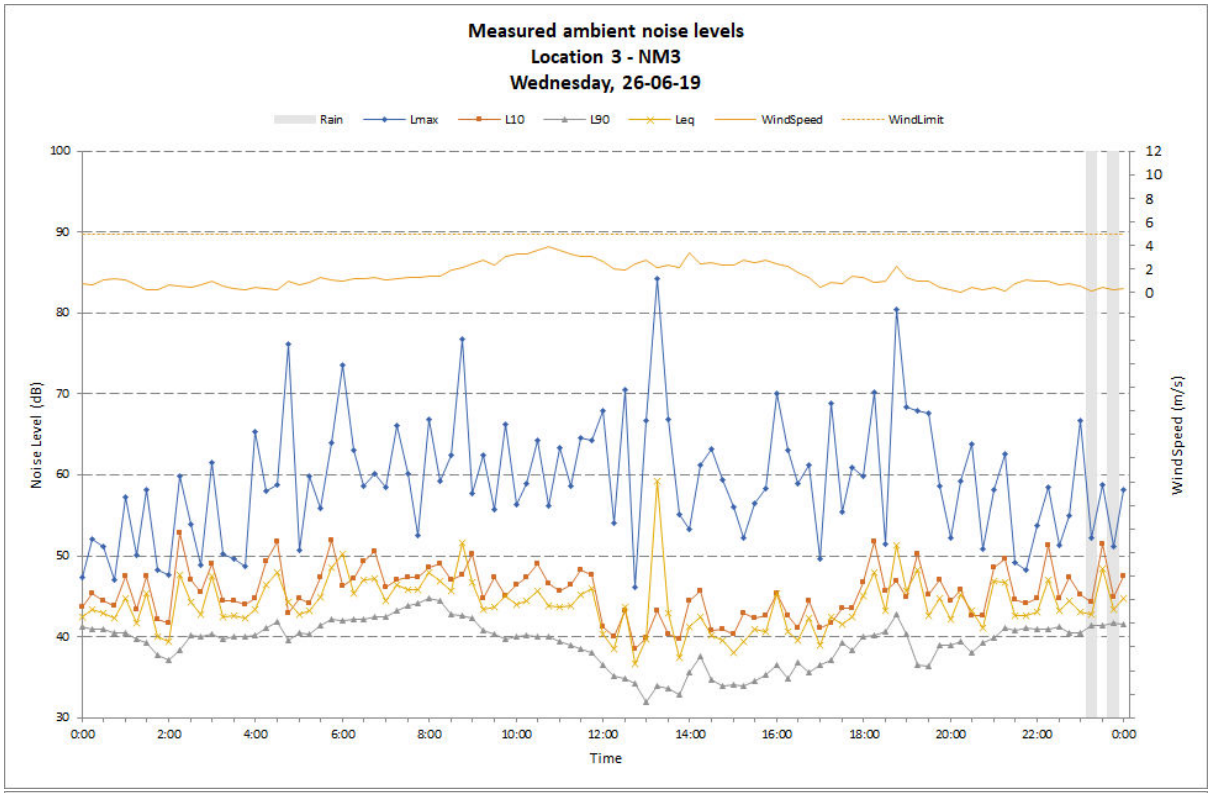

Measured ambient noise levels
Location 3 - NM3
Friday, 21-06-19
Rain
Lmax
L10
L90
Leq
WindSpeed
WindLimit
Noise Level (dB)
WindSpeed (m/s)
Time
0:00
2:00
4:00
6:00
8:00
10:00
12:00
14:00
16:00
18:00
20:00
22:00
0:00

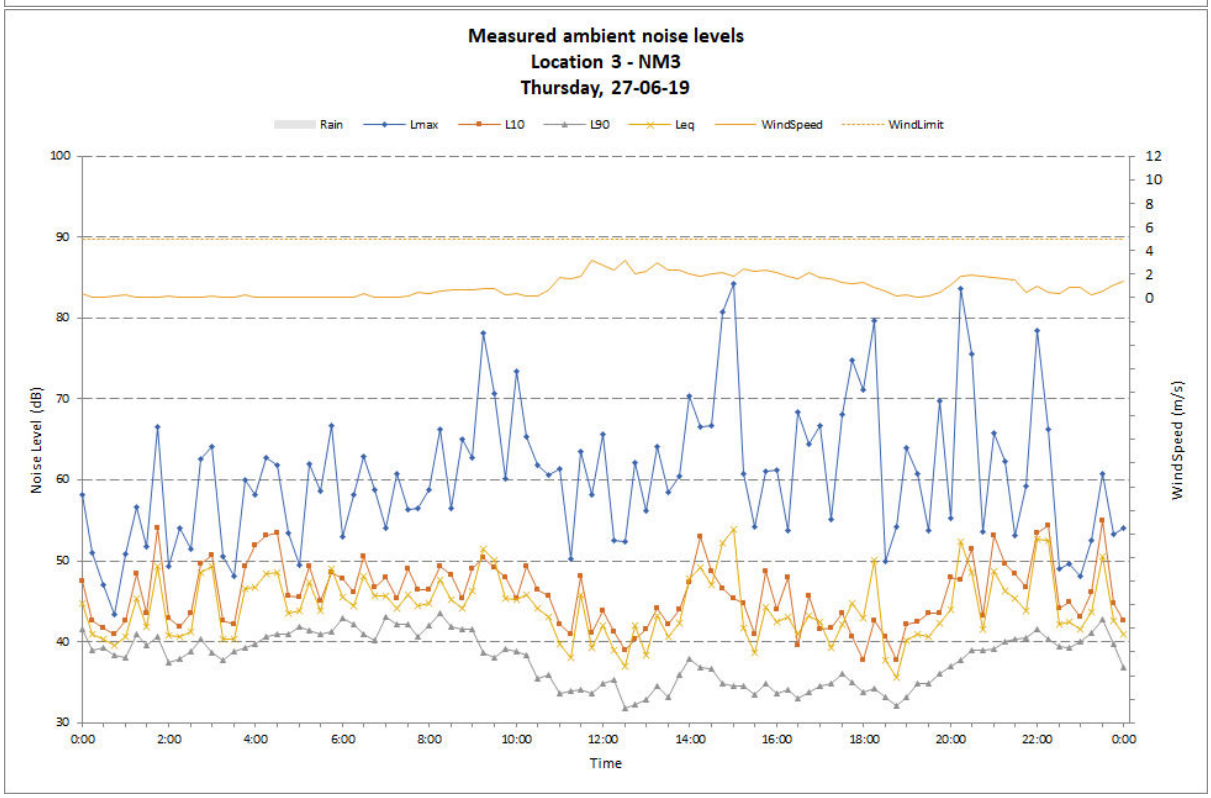

Measured ambient noise levels
Location 3 - NM3
Saturday, 22-06-19
Rain
Lmax
L10
L90
Leq
WindSpeed
WindLimit
Noise Level (dB)
WindSpeed (m/s)
Time
0:00
2:00
4:00
6:00
8:00
10:00
12:00
14:00
16:00
18:00
20:00
22:00
0:00

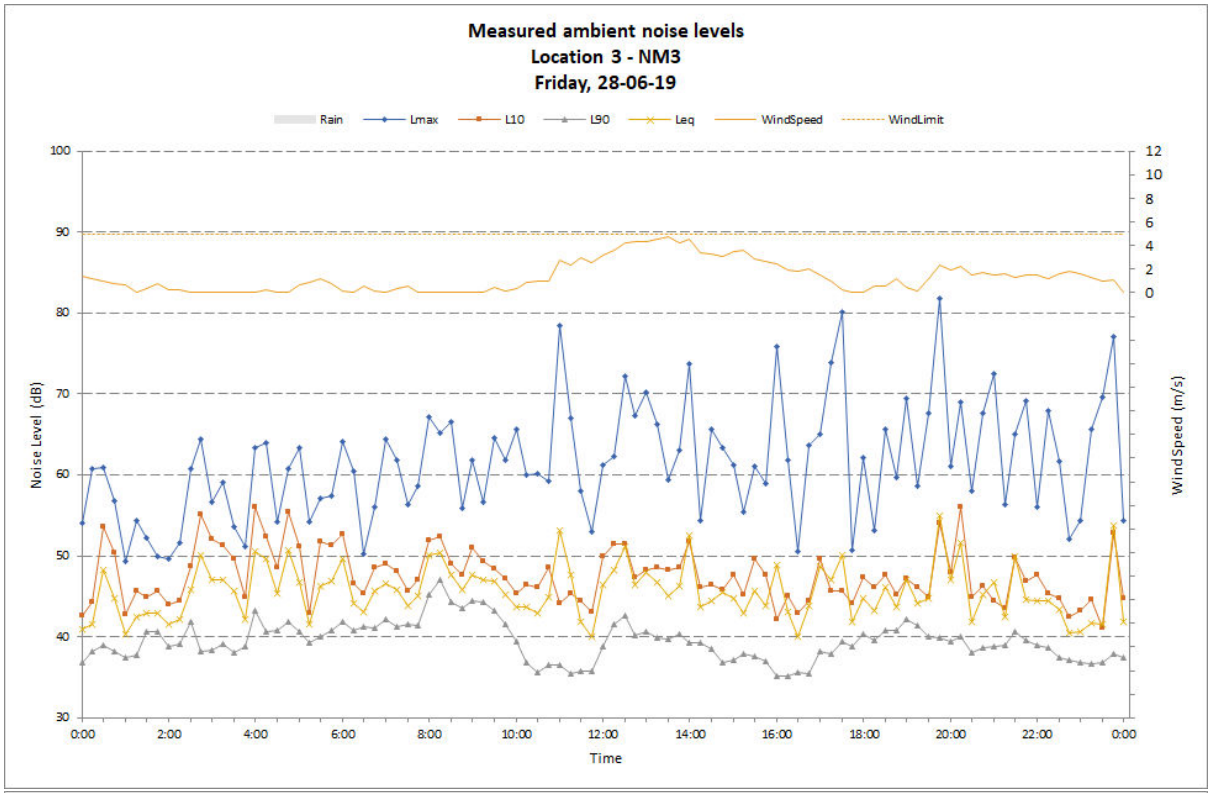

Measured ambient noise levels
Location 3 - NM3
Sunday, 23-06-19
Rain
Lmax
L10
L90
Leq
WindSpeed
WindLimit
Noise Level (dB)
WindSpeed (m/s)
Time
0:00
2:00
4:00
6:00
8:00
10:00
12:00
14:00
16:00
18:00
20:00
22:00
0:00

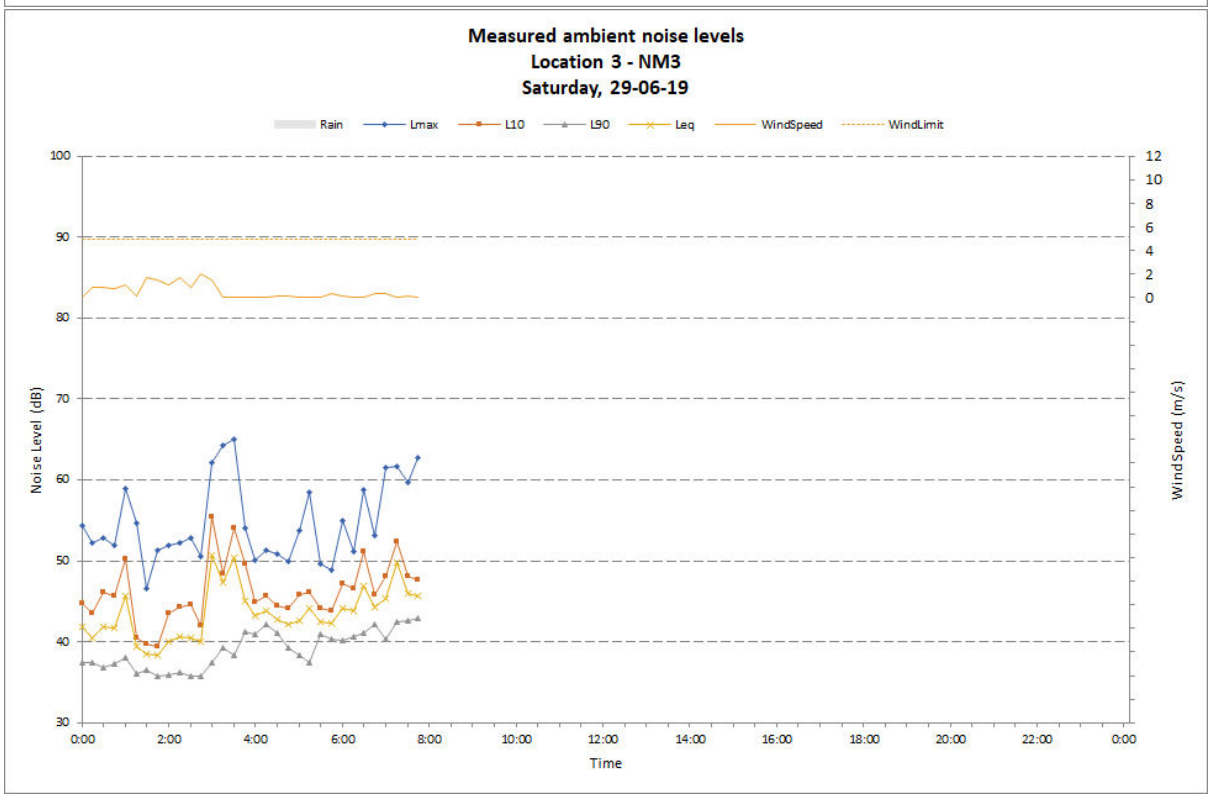

Measured ambient noise levels
Location 3 - NM3
Monday, 24-06-19
Rain
Lmax
L10
L90
Leq
WindSpeed
WindLimit
Noise Level (dB)
WindSpeed (m/s)
Time
0:00
2:00
4:00
6:00
8:00
10:00
12:00
14:00
16:00
18:00
20:00
22:00
0:00

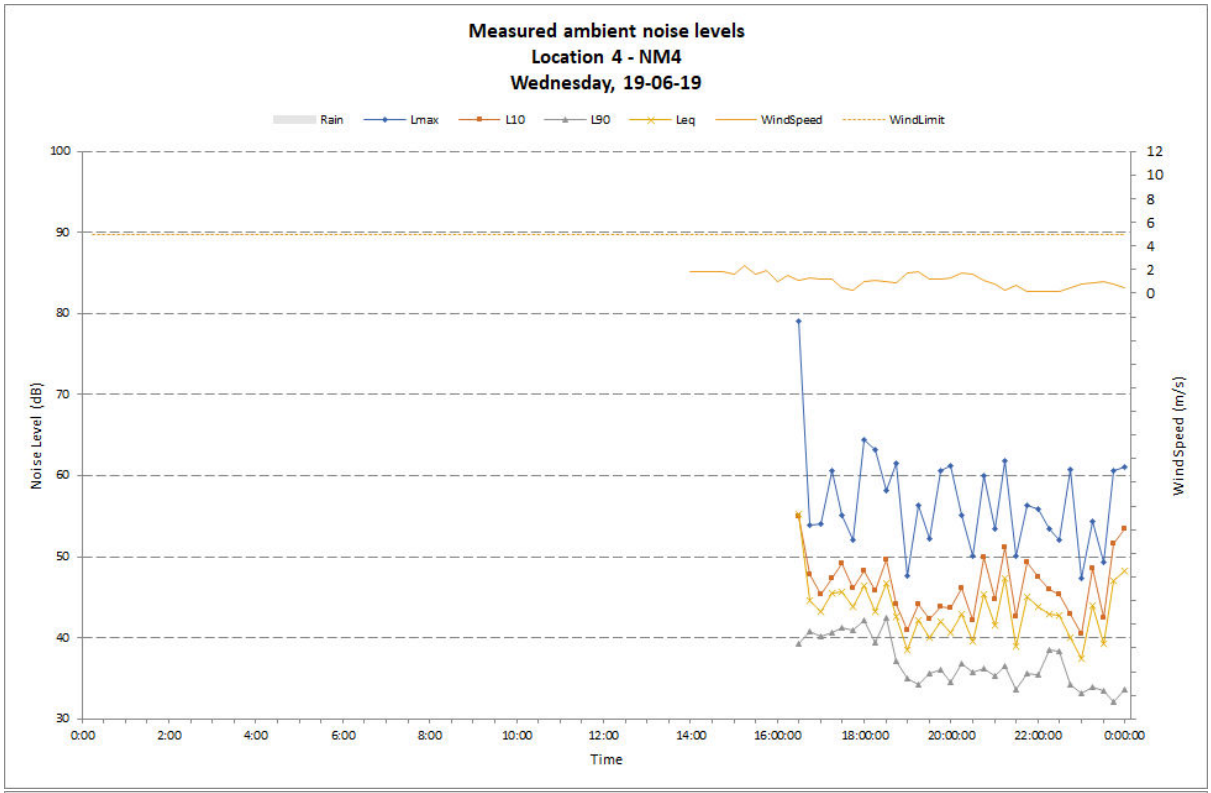

Measured ambient noise levels
Location 3 - NM3
Tuesday, 25-06-19
Rain
Lmax
L10
L90
Leq
WindSpeed
WindLimit
Noise Level (dB)
WindSpeed (m/s)
Time
0:00
2:00
4:00
6:00
8:00
10:00
12:00
14:00
16:00
18:00
20:00
22:00
0:00

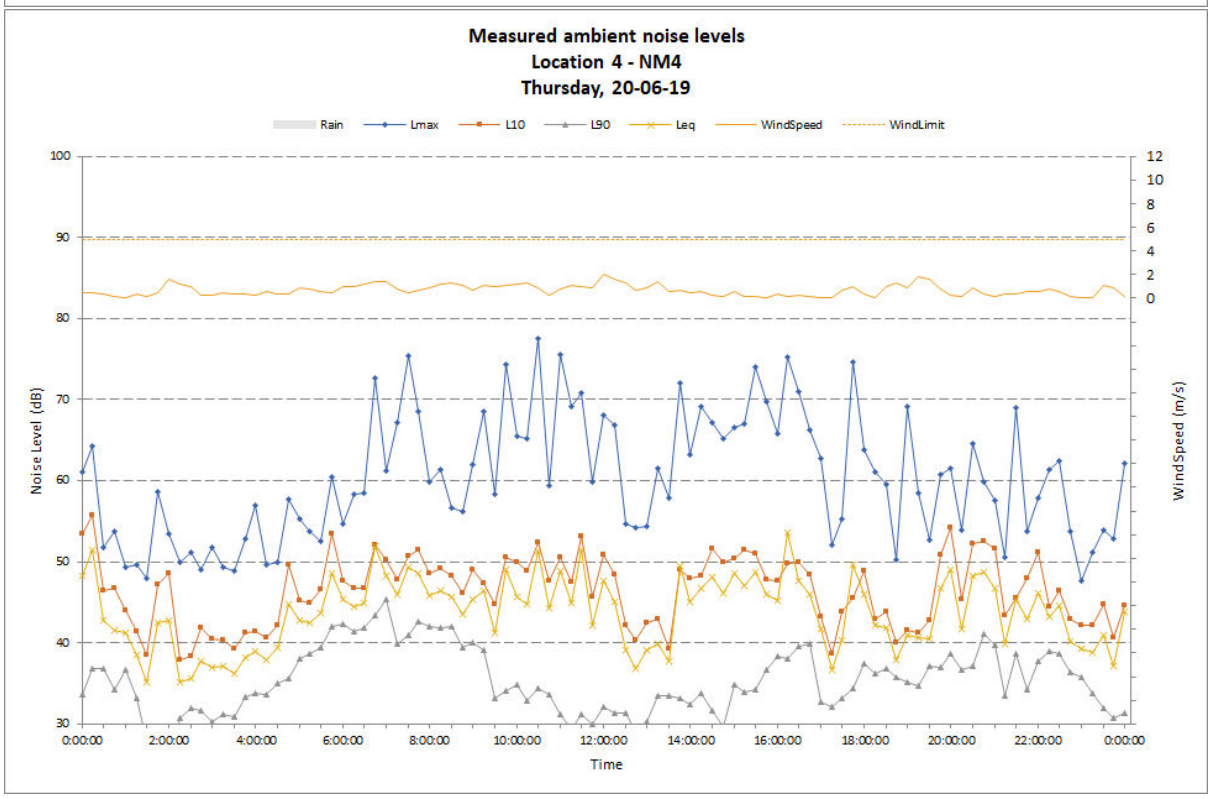

Measured ambient noise levels
Location 3 - NM3
Wednesday, 26-06-19
Rain
Lmax
L10
L90
Leq
WindSpeed
WindLimit
Noise Level (dB)
WindSpeed (m/s)
Time
0:00
2:00
4:00
6:00
8:00
10:00
12:00
14:00
16:00
18:00
20:00
22:00
0:00

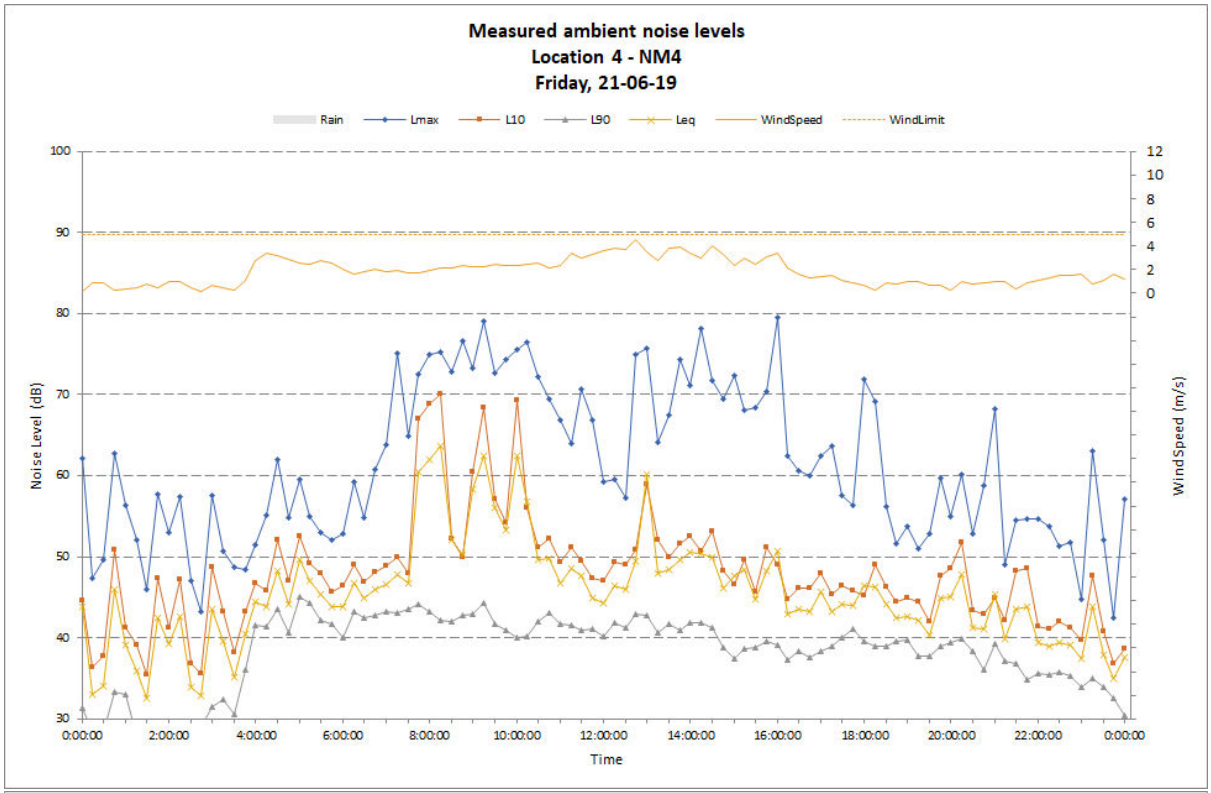

Measured ambient noise levels
Location 3 - NM3
Thursday, 27-06-19
Rain
Lmax
L10
L90
Leq
WindSpeed
WindLimit
Noise Level (dB)
WindSpeed (m/s)
Time
0:00
2:00
4:00
6:00
8:00
10:00
12:00
14:00
16:00
18:00
20:00
22:00
0:00

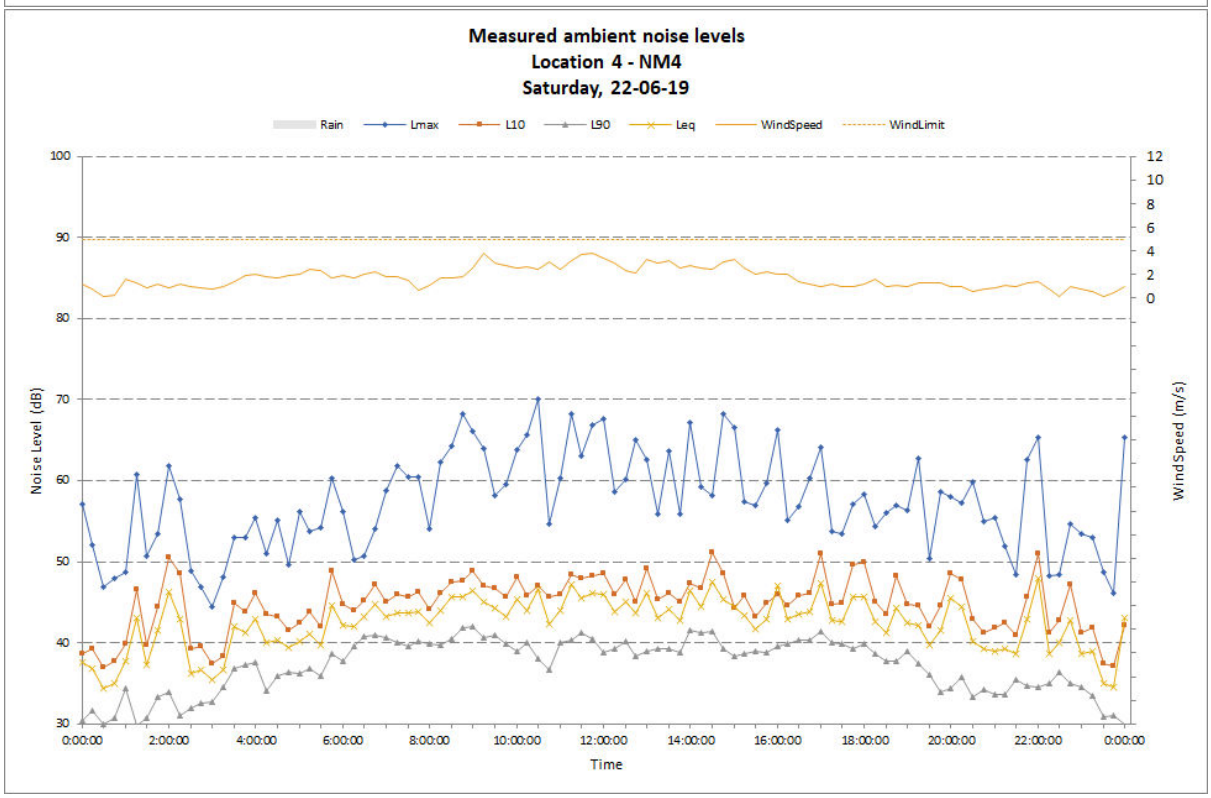

Measured ambient noise levels
Location 3 - NM3
Friday, 28-06-19
Rain
Lmax
L10
L90
Leq
WindSpeed
WindLimit
Noise Level (dB)
WindSpeed (m/s)
Time

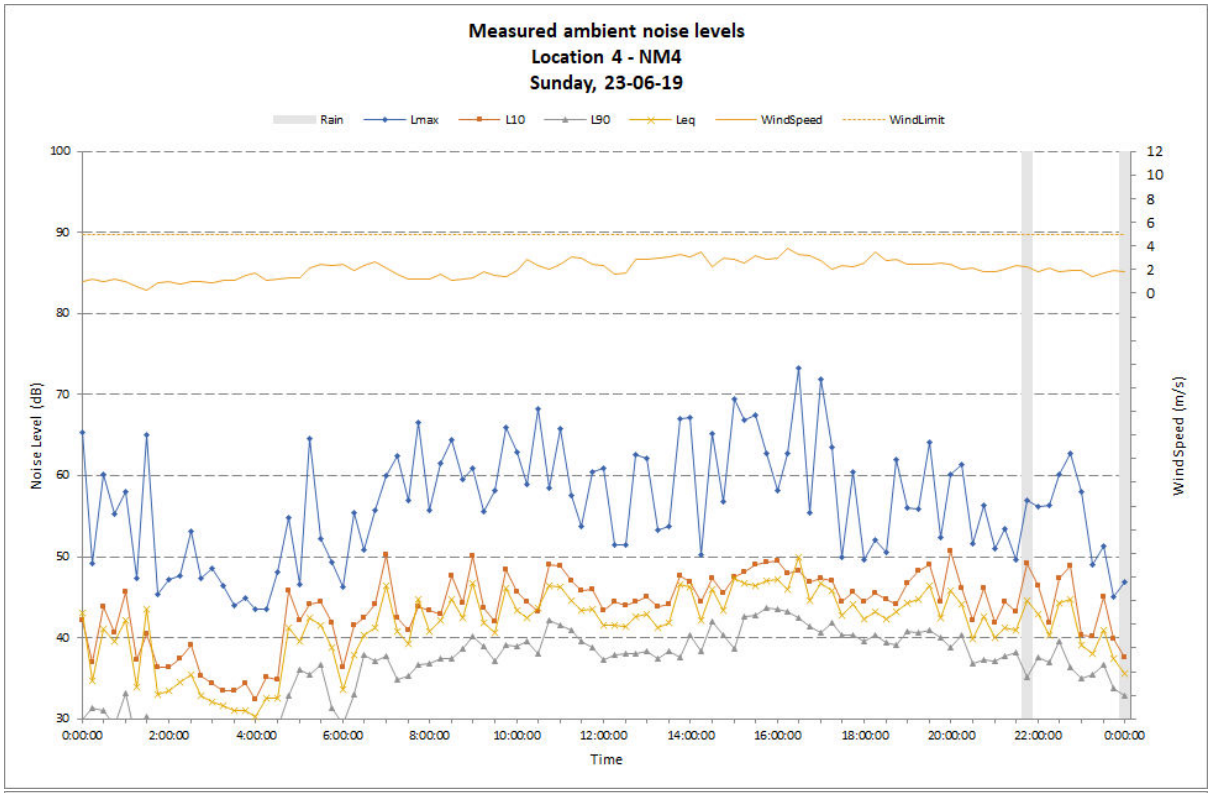

Measured ambient noise levels
Location 3 - NM3
Saturday, 29-06-19
Rain
Lmax
L10
L90
Leq
WindSpeed
WindLimit
Noise Level (dB)
WindSpeed (m/s)
Time

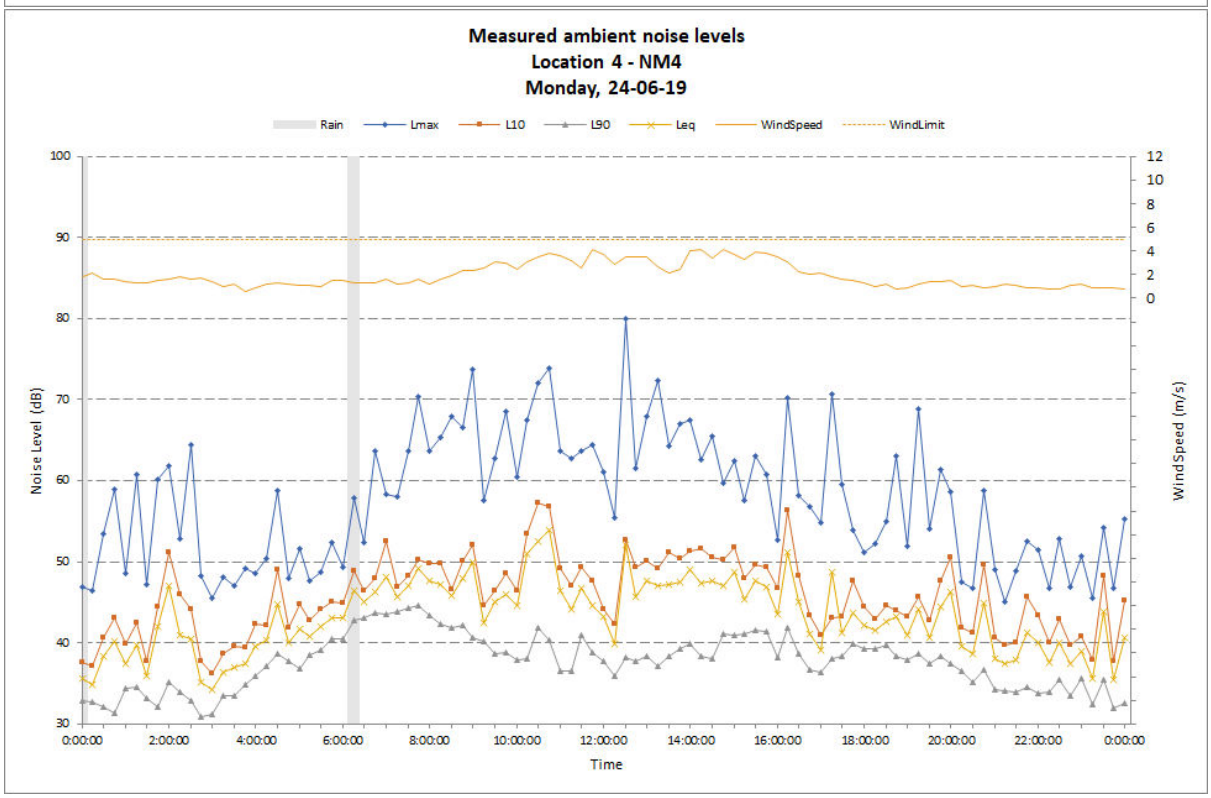

Measured ambient noise levels
Location 4 - NM4
Wednesday, 19-06-19
Rain
Lmax
L10
L90
Leq
WindSpeed
WindLimit
Noise Level (dB)
WindSpeed (m/s)
Time
0:00
2:00
4:00
6:00
8:00
10:00
12:00
14:00
16:00:00
18:00:00
20:00:00
22:00:00
0:00:00

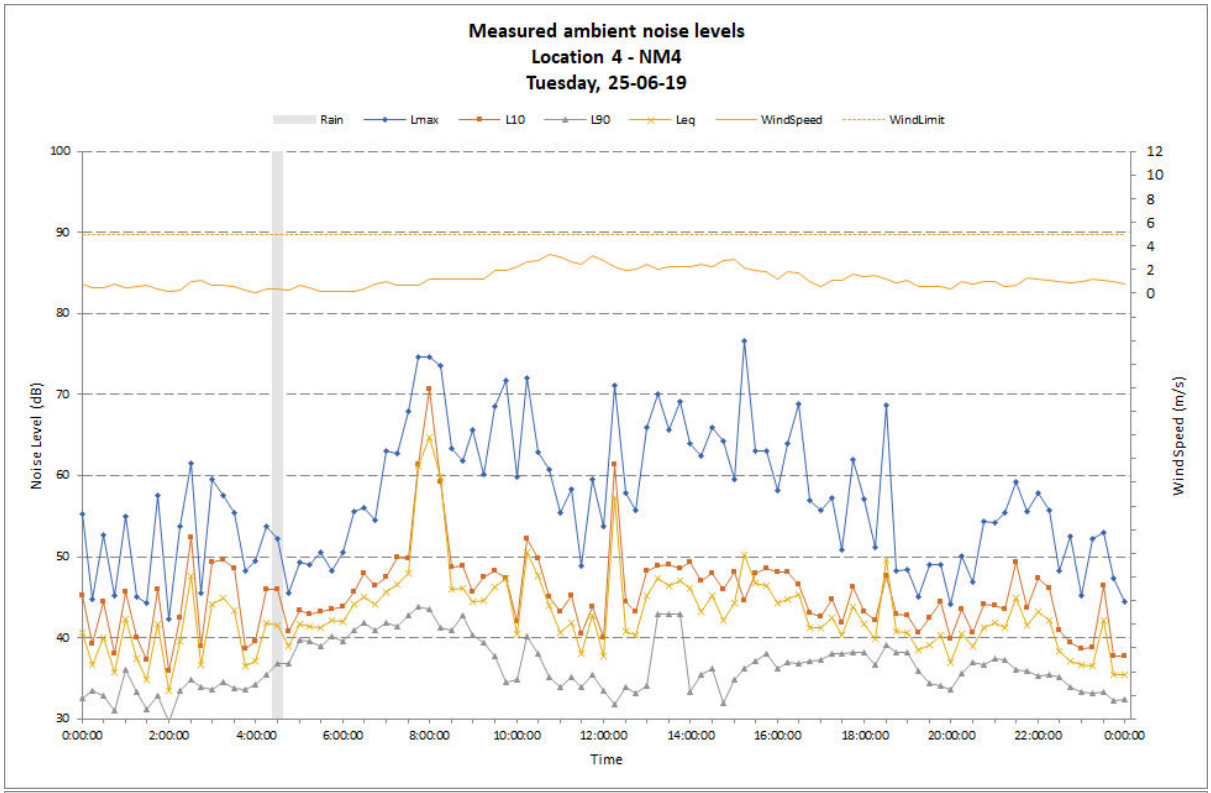

Measured ambient noise levels
Location 4 - NM4
Thursday, 20-06-19
Rain
Lmax
L10
L90
Leq
WindSpeed
WindLimit
Noise Level (dB)
WindSpeed (m/s)
Time
0:00:00
2:00:00
4:00:00
6:00:00
8:00:00
10:00:00
12:00:00
14:00:00
16:00:00
18:00:00
20:00:00
22:00:00
0:00:00

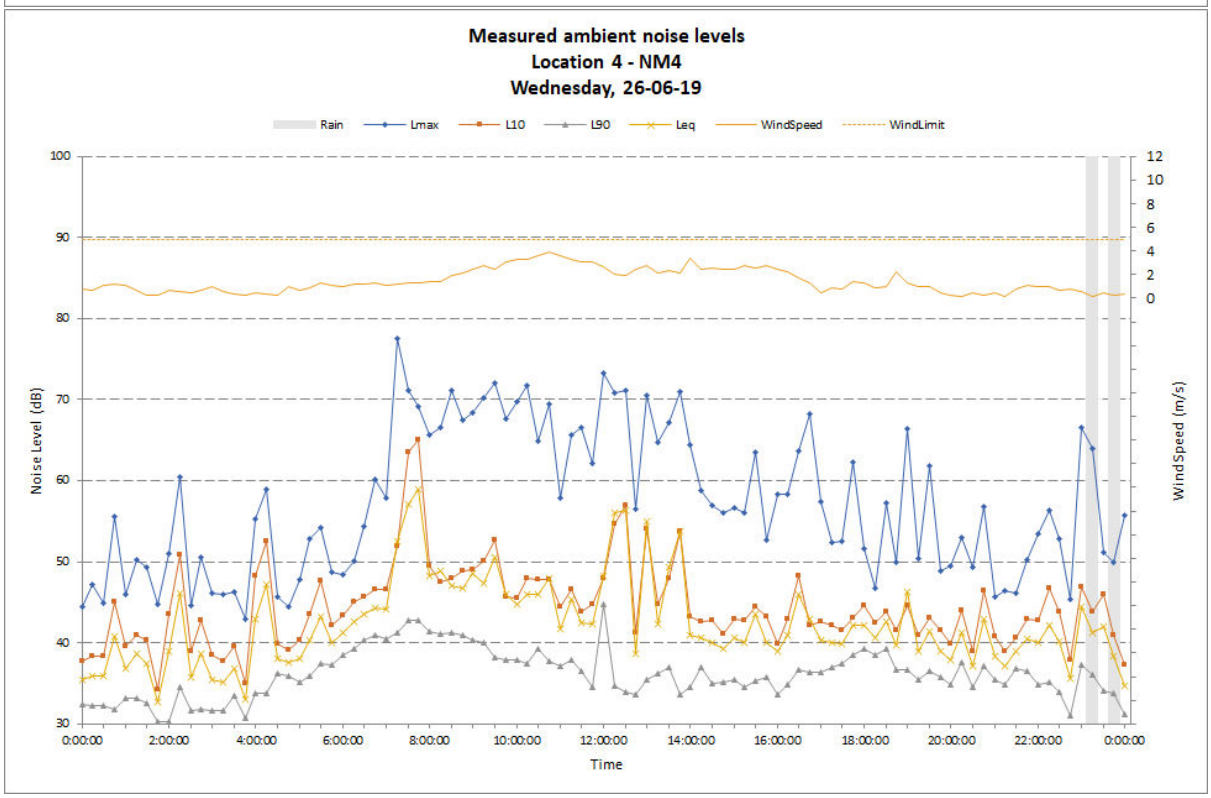

Measured ambient noise levels
Location 4 - NM4
Friday, 21-06-19
Rain
Lmax
L10
L90
Leq
WindSpeed
WindLimit
Noise Level (dB)
WindSpeed (m/s)
Time
0:00:00
2:00:00
4:00:00
6:00:00
8:00:00
10:00:00
12:00:00
14:00:00
16:00:00
18:00:00
20:00:00
22:00:00
0:00:00

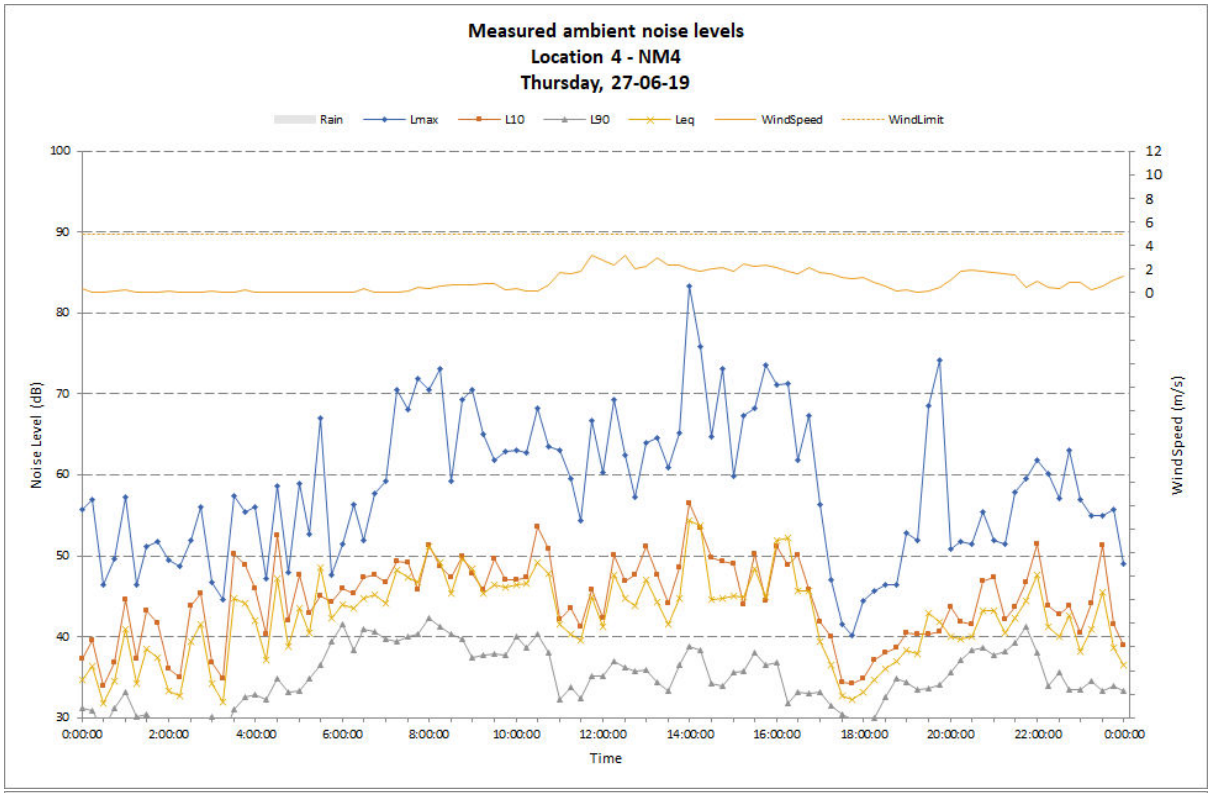

Measured ambient noise levels
Location 4 - NM4
Saturday, 22-06-19
Rain
Lmax
L10
L90
Leq
WindSpeed
WindLimit
Noise Level (dB)
WindSpeed (m/s)
Time
0:00:00
2:00:00
4:00:00
6:00:00
8:00:00
10:00:00
12:00:00
14:00:00
16:00:00
18:00:00
20:00:00
22:00:00
0:00:00


Measured ambient noise levels
Location 4 - NM4
Sunday, 23-06-19
Rain
Lmax
L10
L90
Leq
WindSpeed
WindLimit
Noise Level (dB)
WindSpeed (m/s)
Time
0:00:00
2:00:00
4:00:00
6:00:00
8:00:00
10:00:00
12:00:00
14:00:00
16:00:00
18:00:00
20:00:00
22:00:00
0:00:00


Measured ambient noise levels
Location 4 - NM4
Monday, 24-06-19
Rain
Lmax
L10
L90
Leq
WindSpeed
WindLimit
Noise Level (dB)
WindSpeed (m/s)
Time
0:00:00
2:00:00
4:00:00
6:00:00
8:00:00
10:00:00
12:00:00
14:00:00
16:00:00
18:00:00
20:00:00
22:00:00
0:00:00


Measured ambient noise levels
Location 4 - NM4
Tuesday, 25-06-19
Rain
Lmax
L10
L90
Leq
WindSpeed
WindLimit
Noise Level (dB)
WindSpeed (m/s)
Time
0:00:00
2:00:00
4:00:00
6:00:00
8:00:00
10:00:00
12:00:00
14:00:00
16:00:00
18:00:00
20:00:00
22:00:00
0:00:00


Measured ambient noise levels
Location 4 - NM4
Wednesday, 26-06-19
Rain
Lmax
L10
L90
Leq
WindSpeed
WindLimit
Noise Level (dB)
WindSpeed (m/s)
Time
0:00:00
2:00:00
4:00:00
6:00:00
8:00:00
10:00:00
12:00:00
14:00:00
16:00:00
18:00:00
20:00:00
22:00:00
0:00:00


Measured ambient noise levels
Location 4 - NM4
Thursday, 27-06-19
Rain
Lmax
L10
L90
Leq
WindSpeed
WindLimit
Noise Level (dB)
WindSpeed (m/s)
Time
0:00:00
2:00:00
4:00:00
6:00:00
8:00:00
10:00:00
12:00:00
14:00:00
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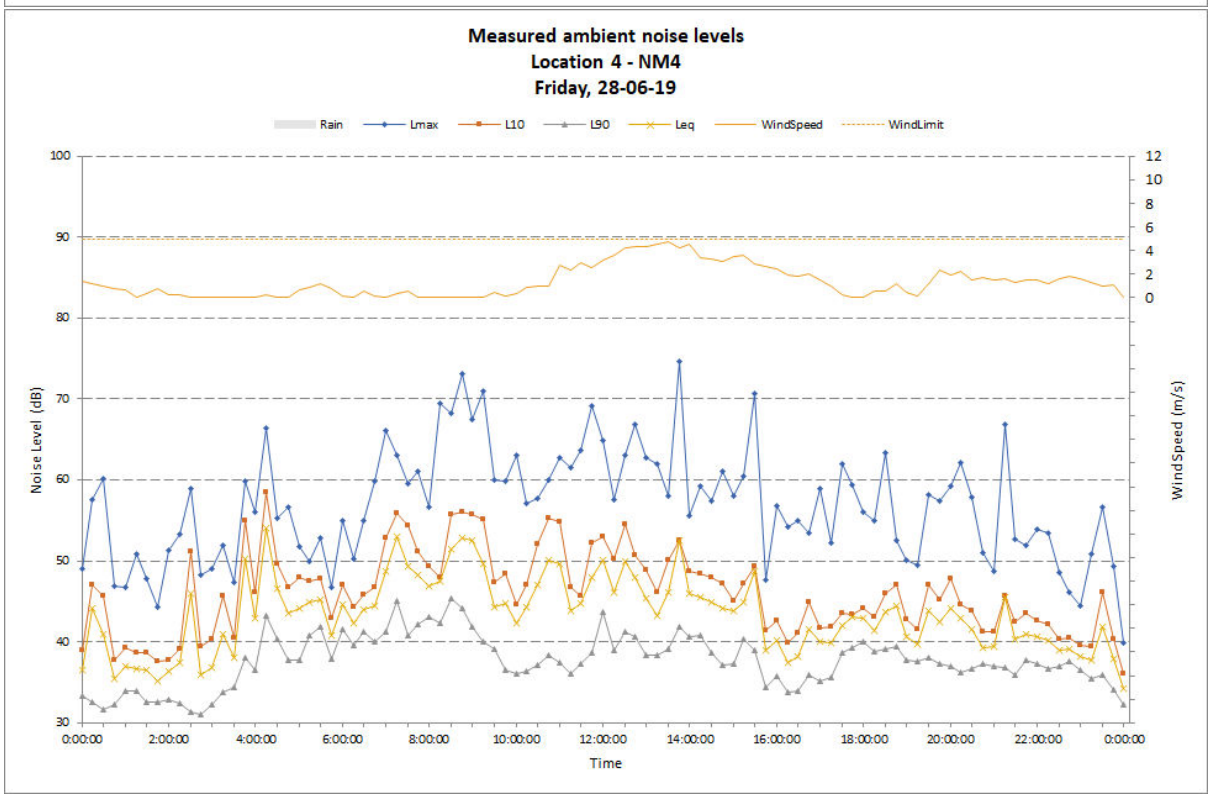
22:00:00
0:00:00


Measured ambient noise levels
Location 4 - NM4
Friday, 28-06-19
Rain
Lmax
L10
L90
Leq
WindSpeed
WindLimit
Noise Level (dB)
WindSpeed (m/s)
Time
0:00:00
2:00:00
4:00:00
6:00:00
8:00:00
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14:00:00
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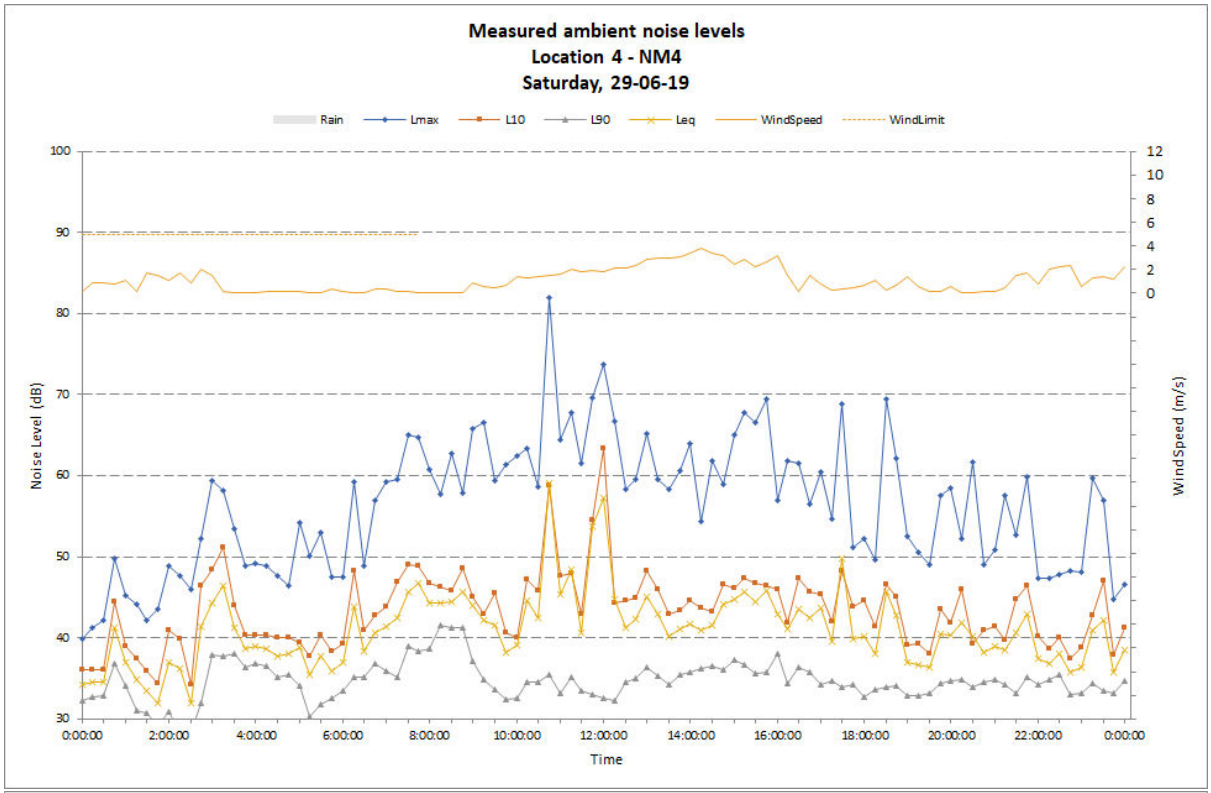
22:00:00
0:00:00


Measured ambient noise levels
Location 4 - NM4
Saturday, 29-06-19
Rain
Lmax
L10
L90
Leq
WindSpeed
WindLimit
Noise Level (dB)
WindSpeed (m/s)
Time
0:00:00
2:00:00
4:00:00
6:00:00
8:00:00
10:00:00
12:00:00
14:00:00
16:00:00
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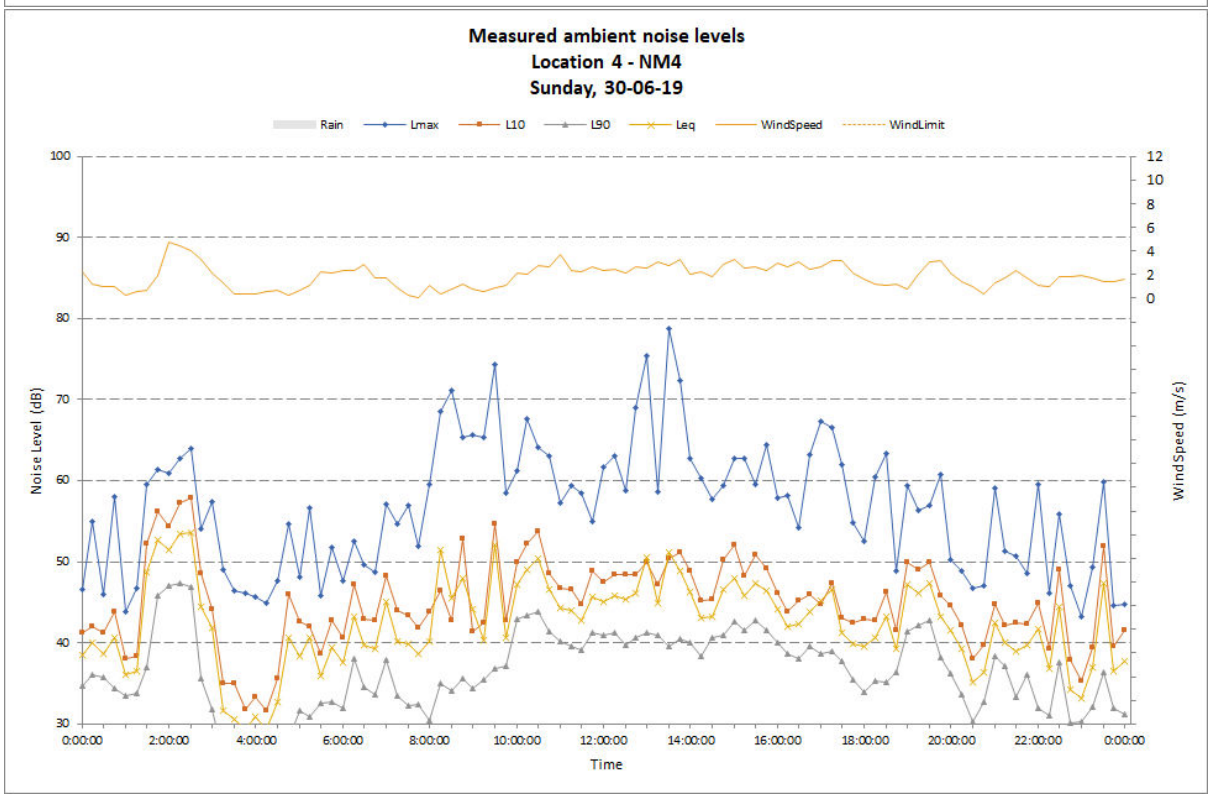
22:00:00
0:00:00


Measured ambient noise levels
Location 4 - NM4
Sunday, 30-06-19
Rain
Lmax
L10
L90
Leq
WindSpeed
WindLimit
Noise Level (dB)
WindSpeed (m/s)
Time
0:00:00
2:00:00
4:00:00
6:00:00
8:00:00
10:00:00
12:00:00
14:00:00
16:00:00
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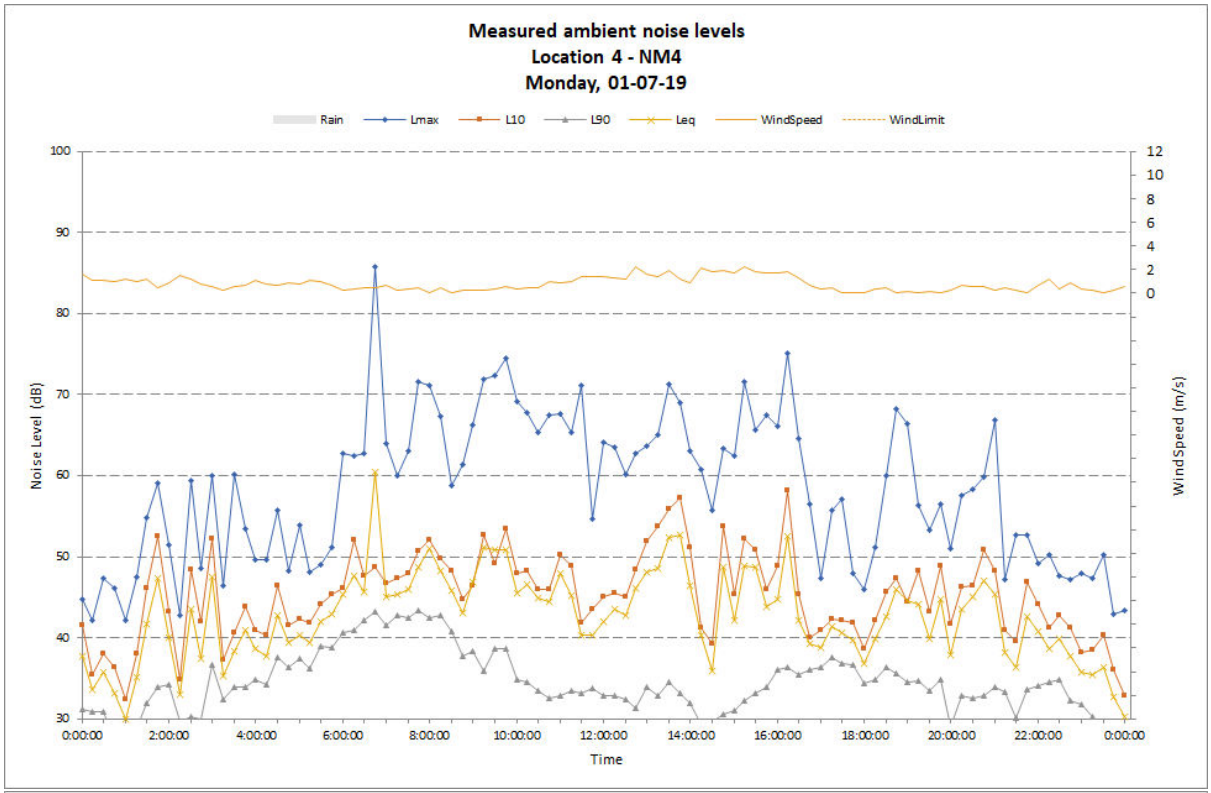
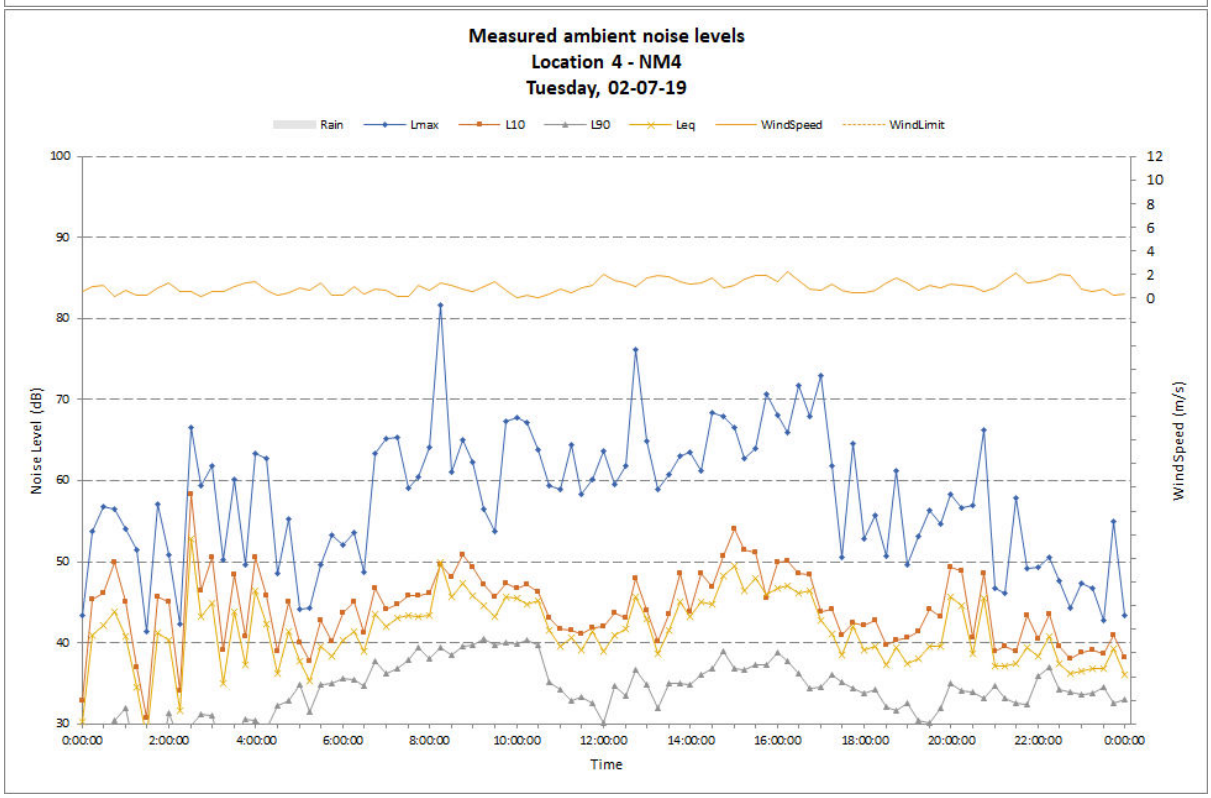
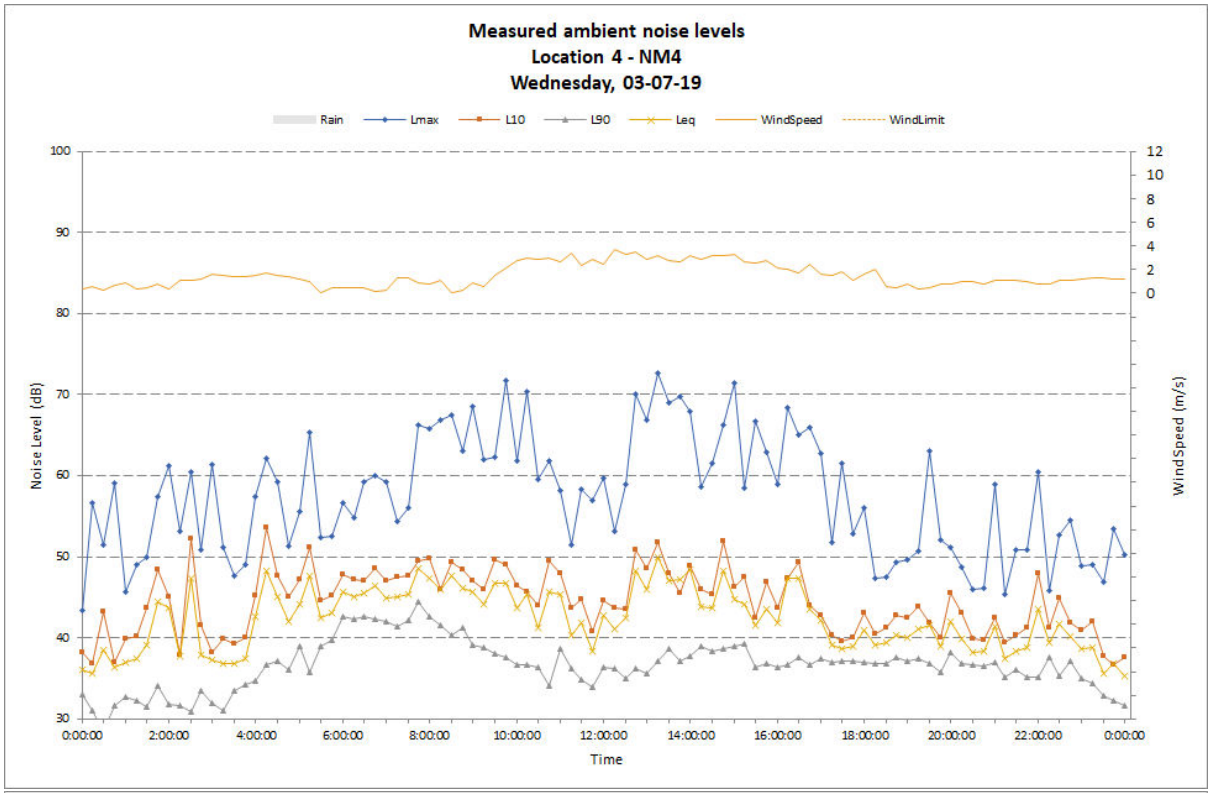
20:00:00
22:00:00
0:00:00


Measured ambient noise levels
Location 4 - NM4
Monday, 01-07-19
Rain
Lmax
L10
L90
Leq
WindSpeed
WindLimit
Noise Level (dB)
WindSpeed (m/s)
Time
0:00:00
2:00:00
4:00:00
6:00:00
8:00:00
10:00:00
12:00:00
14:00:00
16:00:00
18:00:00
20:00:00
22:00:00
0:00:00


Measured ambient noise levels
Location 4 - NM4
Tuesday, 02-07-19
Rain
Lmax
L10
L90
Leq
WindSpeed
WindLimit
Noise Level (dB)
WindSpeed (m/s)
Time
0:00:00
2:00:00
4:00:00
6:00:00
8:00:00
10:00:00
12:00:00
14:00:00
16:00:00
18:00:00
20:00:00
22:00:00
0:00:00


Measured ambient noise levels
Location 4 - NM4
Wednesday, 03-07-19
Rain
Lmax
L10
L90
Leq
WindSpeed
WindLimit
Noise Level (dB)
WindSpeed (m/s)
Time
0:00:00
2:00:00
4:00:00
6:00:00
8:00:00
10:00:00
12:00:00
14:00:00
16:00:00
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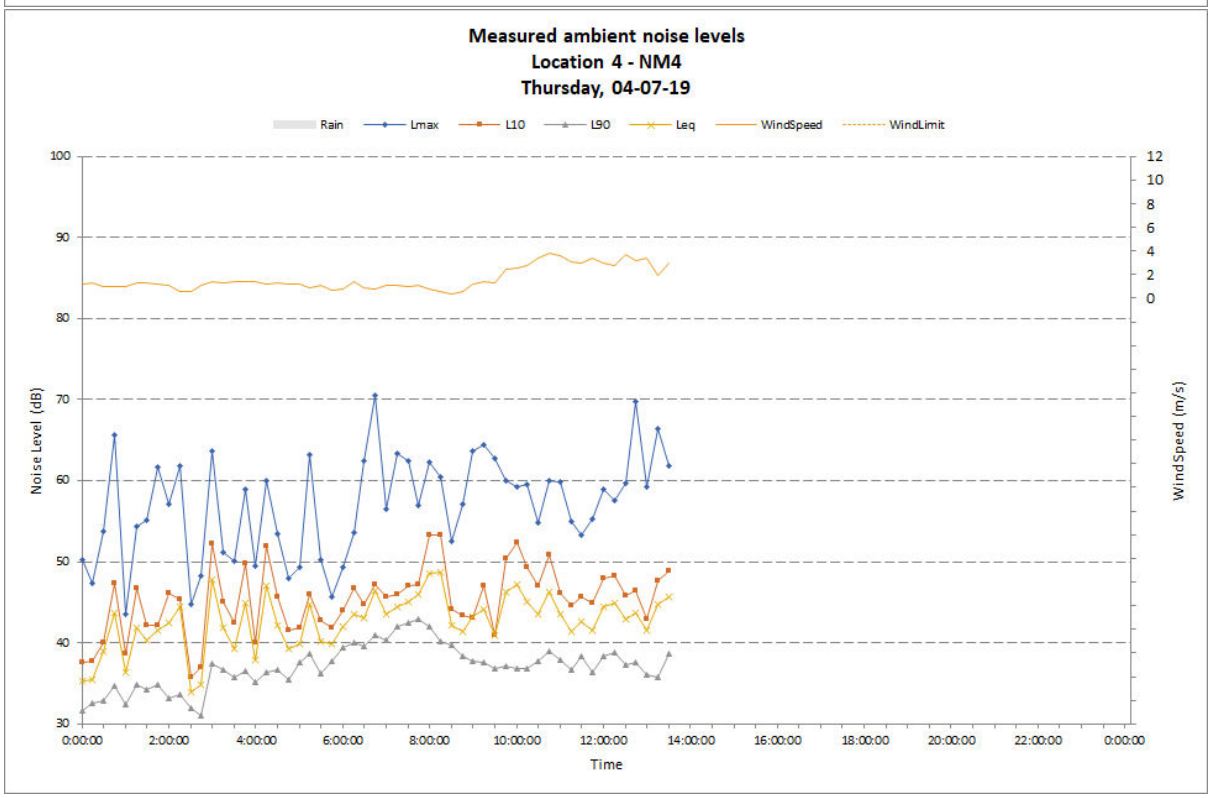
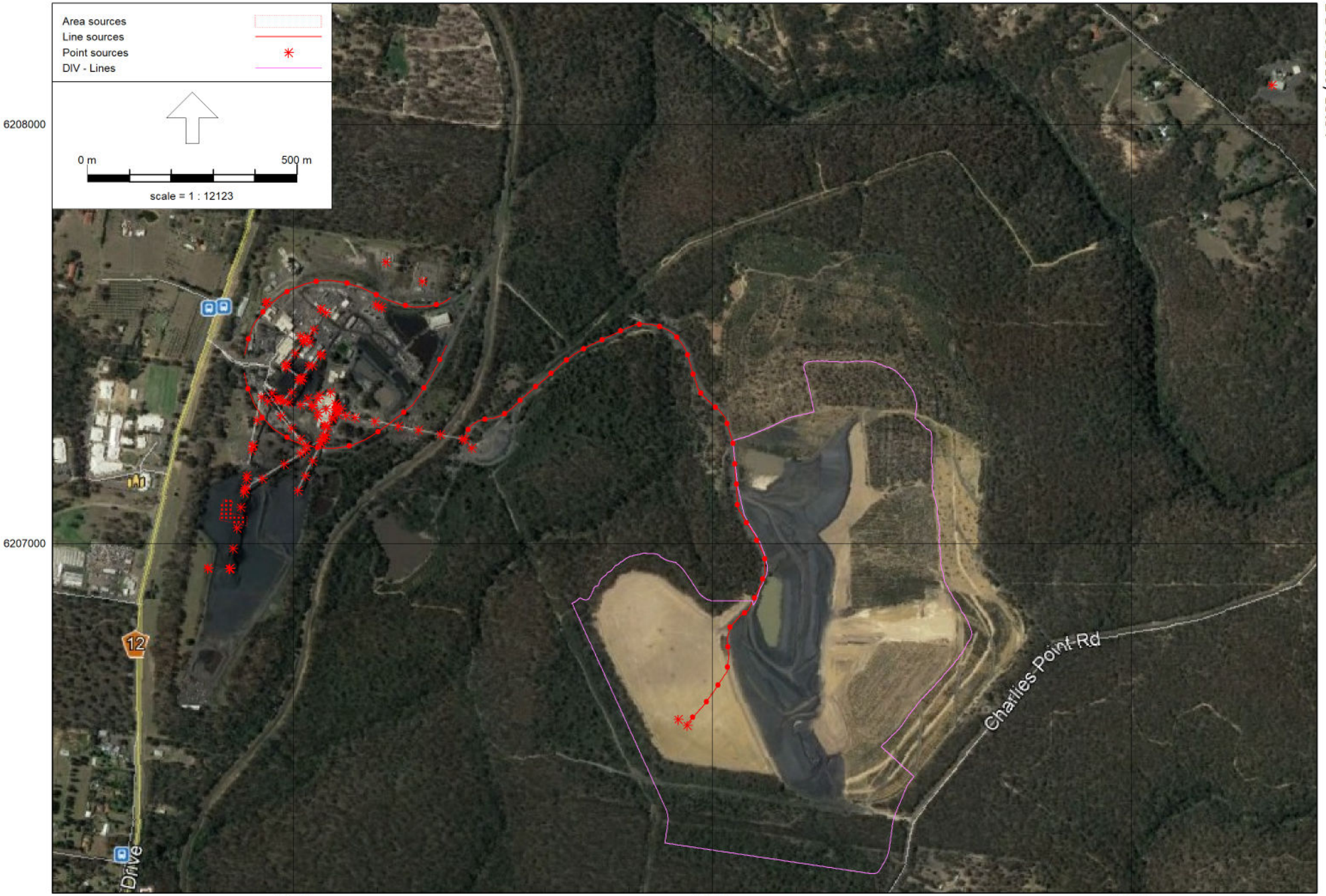
22:00:00
0:00:00


Measured ambient noise levels
Location 4 - NM4
Thursday, 04-07-19
Rain
Lmax
L10
L90
Leq
WindSpeed
WindLimit
Noise Level (dB)
WindSpeed (m/s)
Time
0:00:00
2:00:00
4:00:00
6:00:00
8:00:00
10:00:00
12:00:00
14:00:00
16:00:00
18:00:00
20:00:00
22:00:00
0:00:00

Appendix D

Noise Modelling - source locations



Source locations - Existing Tahmoor mine
2 Dec 2019, 13:54

EMM Consulting Pty Ltd

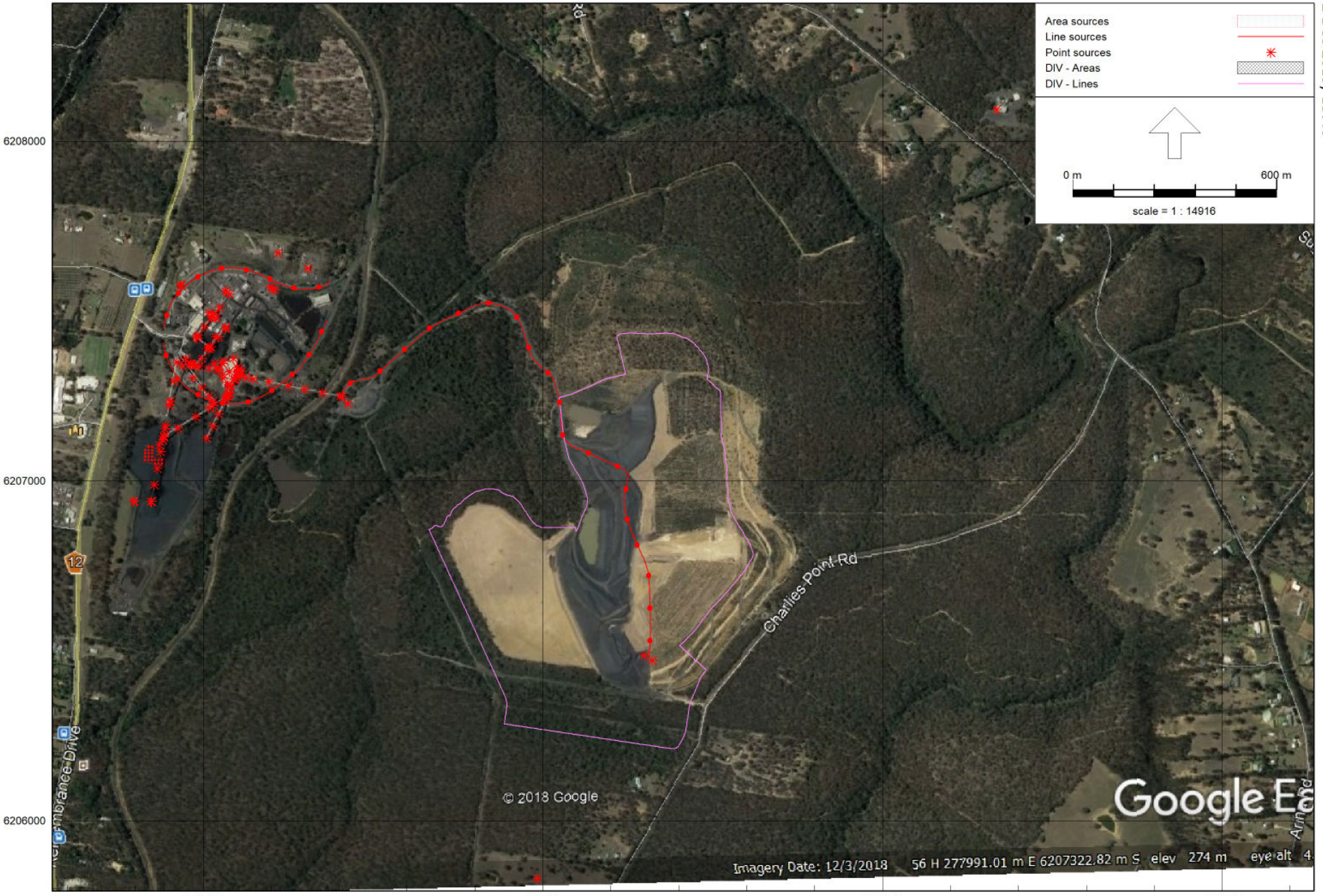
Industrial noise - ISO 9613.1/2, [H180165 Tahmoor NIA NPfl - Existing - Inv2ms] , iNoise V2019.1 Enterprise. Licensed to Baselinenviro Pty Limited - Australia



Source locations - Stage 2
2 Dec 2019, 15:32

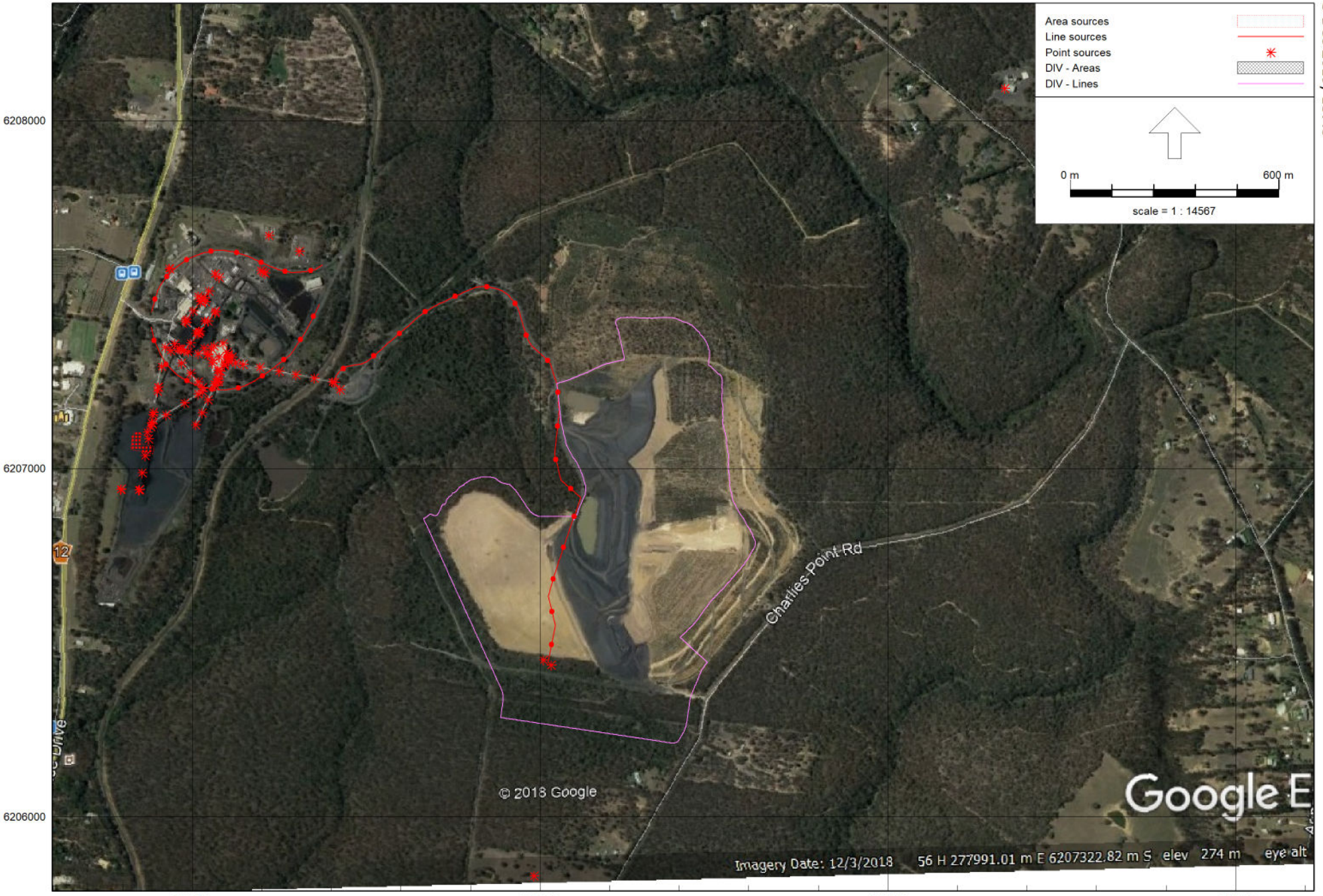
EMM Consulting Pty Ltd

Source locations - Stage 4
2 Dec 2019, 15:46



Industrial noise - ISO 9613.1/2, [H180165 Tahmoor NIA NPfl - Stage 4 - Inv2ms] , iNoise V2019.1 Enterprise. Licensed to Baselinenviro Pty Limited - Australia

EMM Consulting Pty Ltd



Source locations - Stage 5
3 Dec 2019, 13:45

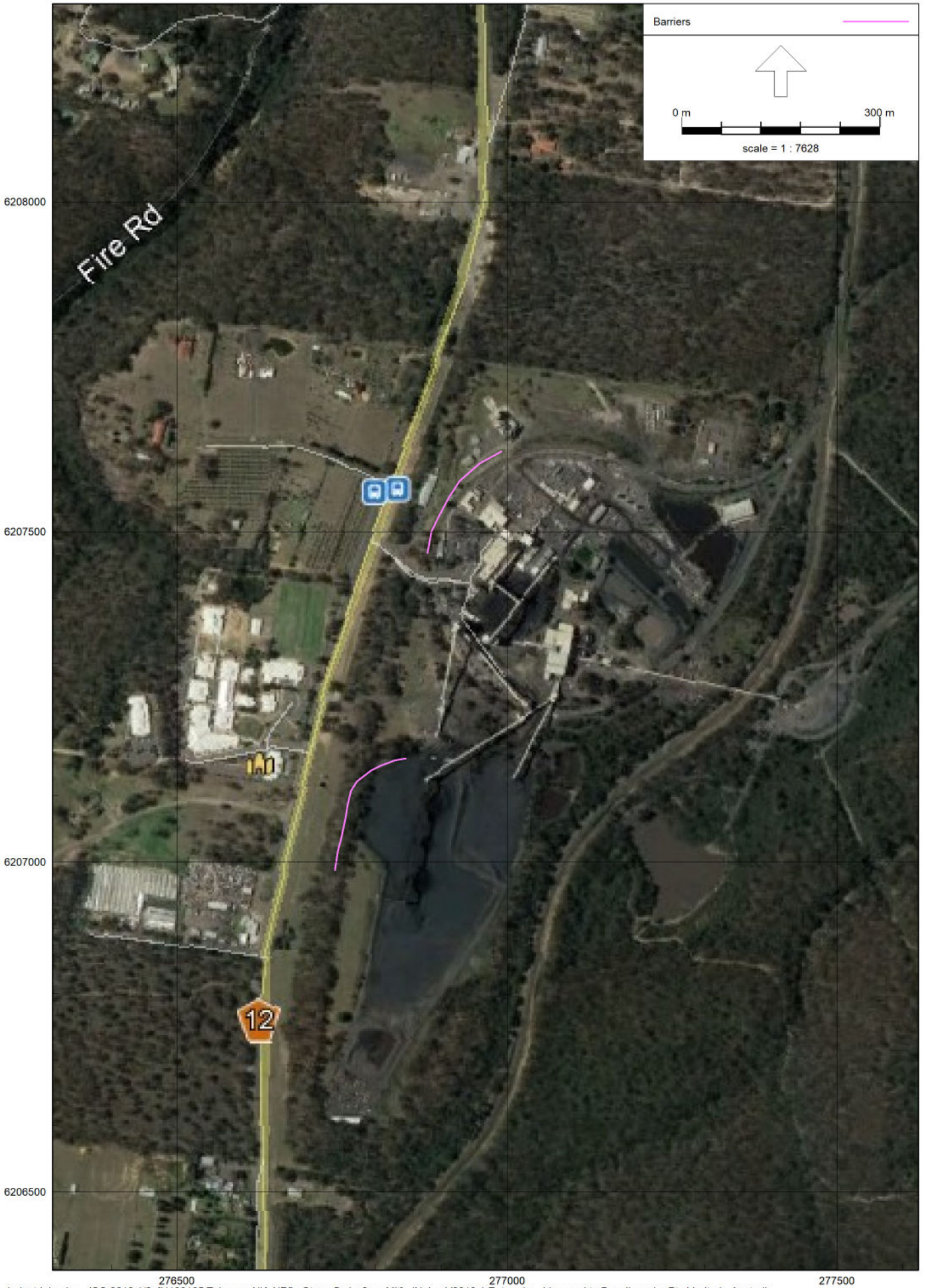
EMM Consulting Pty Ltd

Industrial noise - ISO 9613.1/2, [H180165 Tahmoor NIA NPfl - Stage 5 - Inv2ms] , iNoise V2019.1 Enterprise. Licensed to Baselinenviro Pty Limited - Australia

Noise barriers - indicative locations

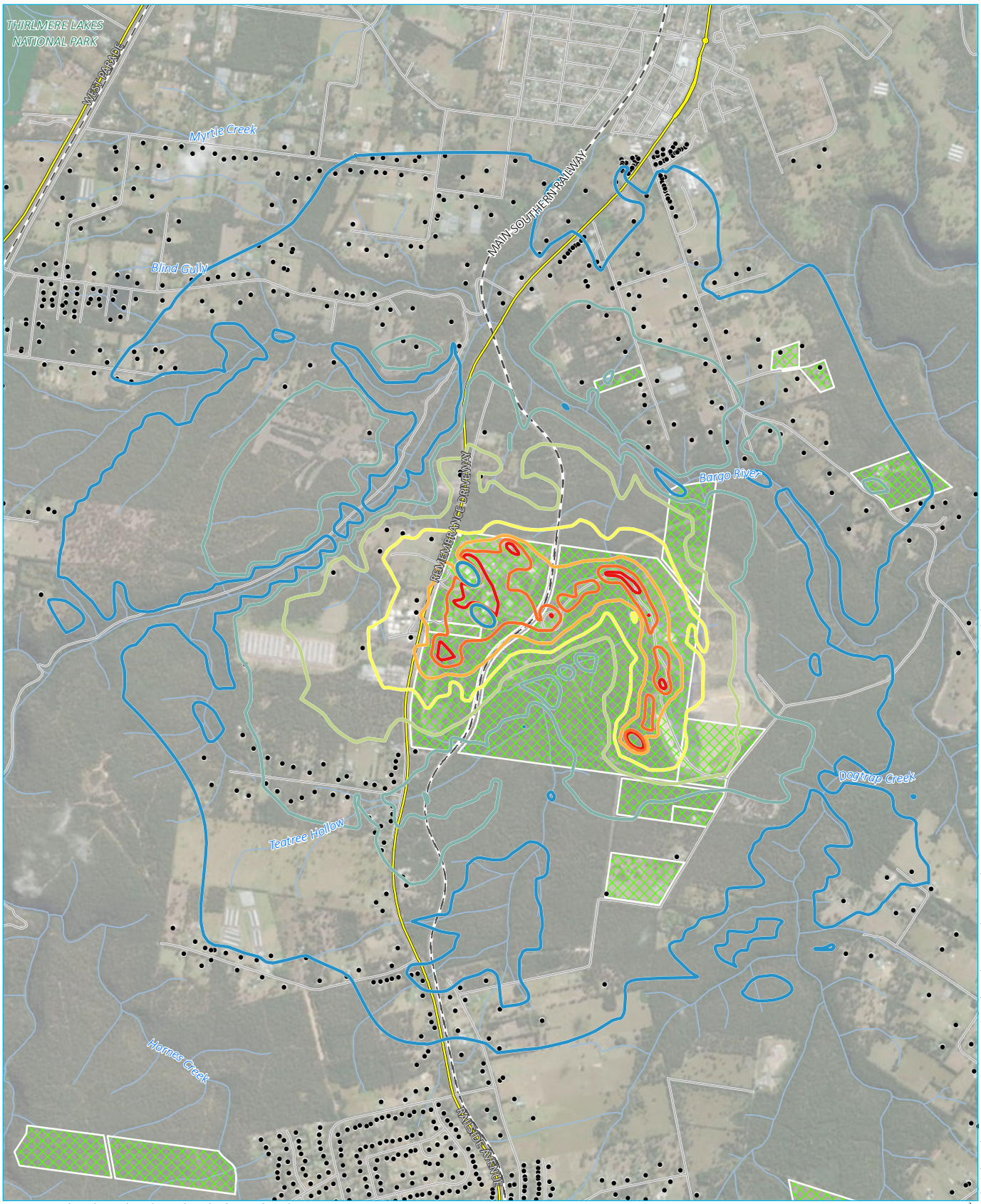
3 Dec 2019, 14:04

EMM Consulting Pty Ltd



Appendix E

Noise Modelling Results - Existing Tahmoor Mine and unmitigated amended project



Source: EMM (2019); DFSI (2017); ESRI (2018); Glencore (2018)

0 0.5 1 km

GDA 1994 MGA Zone 56

N

T:\Jobs\2018\H180165 - Tahmoor South NIA\8 GIS\02_Maps\NIA_2019\NIA006_NoiseContoursExisting_20191113_01.mxd 5/12/2019

KEY

- Assessment location
- Rail line
- Main road
- Local road
- Watercourse/drainage line
- Tahmoor-owned land
- NPWS reserve

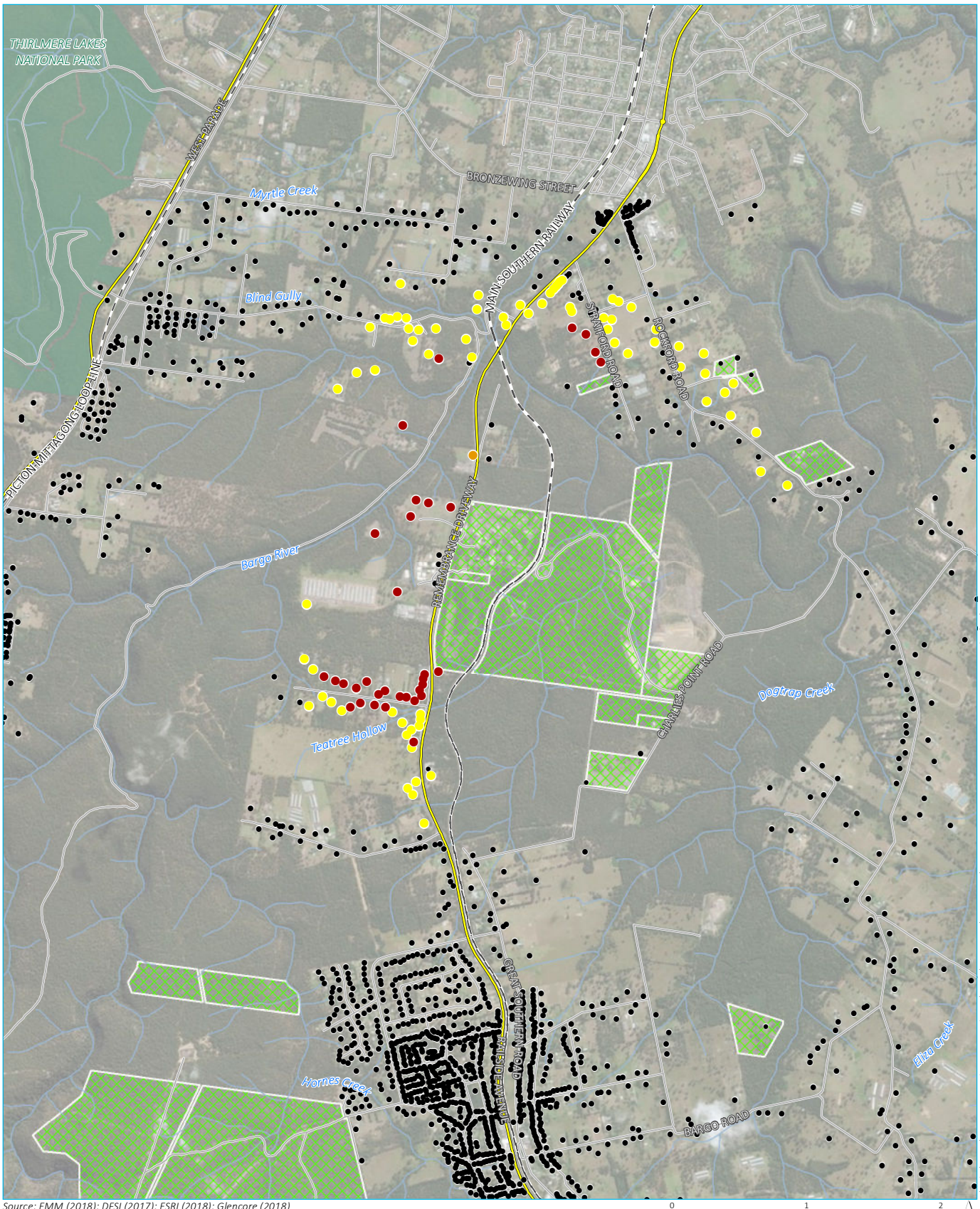
Existing noise contours (dB, $L_{Aeq(15\text{-}min)}$)

- 35
- 40
- 45
- 50
- 55
- 60
- 65

Existing Tahmoor Mine – noise-enhancing weather – night time

Tahmoor Amended Project
Noise and vibration impact assessment
Figure E.1

EMM
creating opportunities



Source: EMM (2018); DFSI (2017); ESRI (2018); Glencore (2018)

0 1 2 km

GDA 1994 MGA Zone 56

N

T:\Jobs\2018\H180165 - Tahmoor South NIA\8 GIS\02_Maps\NIA_2019\NIA004_NoiseCategoryExisting_20191106_01.mxd 4/12/2019

KEY

- Rail line
- Main road
- Local road
- Watercourse / drainage line
- Tahmoor-owned land
- NPWS reserve

Noise impact category (existing)

- Negligible or none
- Marginal
- Moderate
- Significant

Noise impact categories - Existing

Tahmoor Amended Project
Noise and vibration impact assessment
Figure E.2

EMM
creating opportunities

							Existing Inv2ms									
				PNTL			PANL			Predicted			Compare to PNTL			Compare to PANL			Impact category
X	**Y**	**NCA**	**Property Details**	**Day**	**Evening**	**Night**				**Day**	**Eve**	**Nt**	**Day**	**Eve**	**Nt**				
276541	6205265	6a		45	39	35	53	48	43	37	37	37	-8	-2	2	-16	-11	-6	
276575	6205367	6		49	42	35	58	48	43	38	38	38	-11	-4	3	-20	-10	-5	Marginal
276554	6206319	6	3092 Remembrance Drive, Bargo	49	42	35	58	48	43	41	41	41	-8	-1	6	-17	-7	-2	Significant
277085	6205176	5		40	39	35	53	48	43	36	36	36	-4	-3	1	-17	-12	-7	
277407	6204949	5		40	39	35	53	48	43	36	36	36	-4	-3	1	-17	-12	-7	
276877	6205084	6		49	42	35	58	48	43	36	36	36	-13	-6	1	-22	-12	-7	
276934	6205134	6a		45	39	35	53	48	43	36	36	36	-9	-3	1	-17	-12	-7	
276540	6206361	6	3088 Remembrance Drive, Bargo	49	42	35	58	48	43	43	43	43	-6	1	8	-15	-5	0	Significant
277768	6205158	5	80 Charlies Point Road (to replace M10? - south of new vent fan)	40	39	35	53	48	43	37	37	37	-3	-2	2	-16	-11	-6	
276282	6206354	7		40	35	35	53	48	43	42	42	42	2	7	7	-11	-6	-1	Significant
276908	6205007	6a		45	39	35	53	48	43	36	36	36	-9	-3	1	-17	-12	-7	
276475	6205171	7		40	35	35	53	48	43	36	36	36	-4	1	1	-17	-12	-7	
276025	6206230	7		40	35	35	53	48	43	41	41	41	1	6	6	-12	-7	-2	Significant
276203	6206248	7		40	35	35	53	48	43	41	41	41	1	6	6	-12	-7	-2	Significant
275650	6206273	7		40	35	35	53	48	43	37	37	37	-3	2	2	-16	-11	-6	
275960	6206210	7		40	35	35	53	48	43	40	40	40	0	5	5	-13	-8	-3	Marginal
275817	6206314	7		40	35	35	53	48	43	40	40	40	0	5	5	-13	-8	-3	Marginal
276443	6206305	6a	10 Caloola Road, Bargo	45	39	35	53	48	43	41	41	41	-4	2	6	-12	-7	-2	Significant
275717	6206243	7		40	35	35	53	48	43	39	39	39	-1	4	4	-14	-9	-4	Marginal
276562	6206400	6	3084 Remembrance Drive, Bargo	49	42	35	58	48	43	43	43	43	-6	1	8	-15	-5	0	Significant
276535	6206093	6		49	42	35	58	48	43	40	40	40	-9	-2	5	-18	-8	-3	Marginal
276513	6205179	7		40	35	35	53	48	43	37	37	37	-3	2	2	-16	-11	-6	
276489	6205580	6		49	42	35	58	48	43	39	39	39	-11	-4	4	-20	-10	-5	Marginal
276761	6204984	6		49	42	35	58	48	43	36	36	36	-13	-6	1	-22	-12	-7	
276566	6206441	6	3080 Remembrance Drive, Bargo	49	42	35	58	48	43	43	43	43	-6	1	8	-15	-5	0	Significant
276503	6206283	6a	4 Caloola Road, Bargo	45	39	35	53	48	43	42	42	42	-3	3	7	-11	-6	-1	Significant
276548	6206179	6		49	42	35	58	48	43	40	40	40	-9	-2	5	-18	-8	-3	Marginal
276964	6205064	6a		45	39	35	53	48	43	36	36	36	-9	-3	1	-17	-12	-7	
276353	6205240	7		40	35	35	53	48	43	36	36	36	-4	1	1	-17	-12	-7	
276578	6206476	6	(C10) 3076 Remembrance Drive, Bargo	49	42	35	58	48	43	43	43	43	-6	1	8	-15	-5	0	Significant
276234	6206331	7		40	35	35	53	48	43	42	42	42	2	7	7	-11	-6	-1	Significant
275460	6206459	7		40	35	35	53	48	43	36	36	36	-4	1	1	-17	-12	-7	
275684	6206590	7		40	35	35	53	48	43	38	38	38	-2	3	3	-15	-10	-5	Marginal
275911	6206428	7		40	35	35	53	48	43	42	42	42	2	7	7	-11	-6	-1	Significant
275827	6206462	7		40	35	35	53	48	43	41	41	41	1	6	6	-12	-7	-2	Significant
276148	6206425	7		40	35	35	53	48	43	43	43	43	3	8	8	-10	-5	0	Significant
276069	6206375	7		40	35	35	53	48	43	42	42	42	2	7	7	-11	-6	-1	Significant
279143	6205635	7		40	35	35	53	48	43	36	36	36	-4	1	1	-17	-12	-7	
276479	6206066	6		49	42	35	58	48	43	40	40	40	-9	-2	5	-18	-8	-3	Marginal
276445	6206028	6a		45	39	35	53	48	43	40	40	40	-5	1	5	-13	-8	-3	Marginal
276483	6205929	6	3130 Remembrance Dr, Bargo	49	42	35	58	48	43	40	40	40	-9	-2	5	-18	-8	-3	Marginal
276336	6206196	7		40	35	35	53	48	43	40	40	40	0	5	5	-13	-8	-3	Marginal
276511	6205678	6		49	42	35	58	48	43	39	39	39	-10	-3	4	-19	-9	-4	Marginal
276412	6206118	6a		45	39	35	53	48	43	40	40	40	-5	1	5	-13	-8	-3	Marginal
276393	6206315	7	20 Caloola Road, Bargo	40	35	35	53	48	43	42	42	42	2	7	7	-11	-6	-1	Significant
276286	6206235	7		40	35	35	53	48	43	41	41	41	1	6	6	-12	-7	-2	Significant

										Existing Inv2ms									
				PNTL			PANL			Predicted			Compare to PNTL			Compare to PANL			Impact category
X	**Y**	**NCA**	**Property Details**	**Day**	**Evening**	**Night**				**Day**	**Eve**	**Nt**	**Day**	**Eve**	**Nt**				
276098	6206262	7		40	35	35	53	48	43	41	41	41	1	6	6	-12	-7	-2	Significant
276719	6205090	6		49	42	35	58	48	43	36	36	36	-13	-6	1	-22	-12	-7	
275882	6206268	7		40	35	35	53	48	43	40	40	40	0	5	5	-13	-8	-3	Marginal
276581	6205199	6a		45	39	35	53	48	43	37	37	37	-8	-2	2	-16	-11	-6	
276436	6205168	7		40	35	35	53	48	43	36	36	36	-4	1	1	-17	-12	-7	
276770	6204938	6		49	42	35	58	48	43	36	36	36	-13	-6	1	-22	-12	-7	
276678	6206499	6	3085 Remembrance Drive, Bargo	49	42	35	58	48	43	41	41	41	-8	-1	6	-17	-7	-2	Significant
276451	6205627	6a		45	39	35	53	48	43	38	38	38	-7	-1	3	-15	-10	-5	Marginal
275700	6206997	1b		43	43	39	58	48	43	40	42	42	-3	-1	3	-18	-6	-1	Marginal
276375	6207092	1a	3010 Remembrance Drive, Bargo	47	47	43	58	48	43	49	49	49	2	2	6	-9	1	6	Significant
275746	6206513	7		40	35	35	53	48	43	39	39	39	-1	4	4	-14	-9	-4	Marginal
275975	6206407	7		40	35	35	53	48	43	42	42	42	2	7	7	-11	-6	-1	Significant
276512	6207774	1a	6 Olive Lane, Bargo (western end of Olive Lane)	47	47	43	58	48	43	51	54	54	4	7	11	-7	6	11	Significant
276770	6207717	1	2 Olive Lane, Bargo	51	48	43	58	48	43	54	57	57	3	9	14	-4	9	14	Significant
276604	6207752	1a	4 Olive Lane, Bargo	47	47	43	58	48	43	52	55	55	5	8	12	-6	7	12	Significant
276206	6207523	1b	3 Olive Lane, Bargo	43	43	39	58	48	43	49	52	52	6	9	13	-9	4	9	Significant
276473	6207650	1a	7 Olive Lane, Bargo (M3 - western end of Olive Lane)	47	47	43	58	48	43	52	55	55	5	8	12	-6	7	12	Significant
279534	6205803	7		40	35	35	53	48	43	36	36	36	-4	1	1	-17	-12	-7	
276496	6205974	6	3126 Remembrance Dr, Bargo	49	42	35	58	48	43	41	41	41	-8	-1	6	-17	-7	-2	Significant
278287	6208946	4a		40	40	35	58	48	43	39	39	39	-1	-1	4	-19	-9	-4	Marginal
278296	6209044	4a		40	40	35	58	48	43	38	38	38	-2	-2	3	-20	-10	-5	Marginal
277937	6209041	4a		40	40	35	58	48	43	40	40	40	0	0	5	-18	-8	-3	Marginal
278230	6209116	4a		40	40	35	58	48	43	36	36	36	-4	-4	1	-22	-12	-7	
278874	6208640	4a		40	40	35	58	48	43	38	38	38	-2	-2	3	-20	-10	-5	Marginal
278070	6208626	4		41	41	41	58	48	43	42	42	42	1	1	1	-16	-6	-1	
278467	6208913	4a		40	40	35	58	48	43	38	38	38	-2	-2	3	-20	-10	-5	Marginal
278663	6208711	4a	M7 - eastern end of Hodgson Grove	40	40	35	58	48	43	39	39	39	-1	-1	4	-19	-9	-4	Marginal
278904	6208828	4a		40	40	35	58	48	43	37	37	37	-3	-3	2	-21	-11	-6	
277886	6208795	4a		40	40	35	58	48	43	41	41	41	1	1	6	-17	-7	-2	Significant
277183	6209074	3		44	42	35	58	48	43	39	39	39	-5	-3	4	-19	-9	-4	Marginal
277536	6209341	3		44	42	35	58	48	43	38	38	38	-6	-4	3	-20	-10	-5	Marginal
277569	6209377	3		44	42	35	58	48	43	38	38	38	-6	-4	3	-20	-10	-5	Marginal
277777	6209005	4a		40	40	35	58	48	43	41	41	41	1	1	6	-18	-8	-3	Significant
277599	6209409	3		44	42	35	58	48	43	38	38	38	-7	-5	3	-21	-11	-6	Marginal
278651	6208864	4a		40	40	35	58	48	43	38	38	38	-2	-2	3	-20	-10	-5	Marginal
278481	6208763	4a		40	40	35	58	48	43	40	40	40	0	0	5	-18	-8	-3	Marginal
277675	6209054	4a		40	40	35	58	48	43	41	41	41	1	1	6	-18	-8	-3	Significant
277554	6209361	3		44	42	35	58	48	43	38	38	38	-6	-4	3	-20	-10	-5	Marginal
277658	6209204	3		44	42	35	58	48	43	39	39	39	-5	-3	4	-19	-9	-4	Marginal
277670	6209175	3		44	42	35	58	48	43	39	39	39	-5	-3	4	-19	-9	-4	Marginal
277615	6209417	3		44	42	35	58	48	43	37	37	37	-7	-5	2	-21	-11	-6	
276570	6209899	7		40	35	35	53	48	43	36	36	36	-4	1	1	-17	-12	-7	
276606	6208858	7		40	35	35	53	48	43	40	40	40	0	5	5	-13	-8	-3	Marginal
277846	6208869	4a		40	40	35	58	48	43	41	41	41	1	1	6	-17	-7	-2	Significant
277634	6209436	3		44	42	35	58	48	43	36	36	36	-8	-6	1	-22	-12	-7	
276207	6208736	7		40	35	35	53	48	43	38	38	38	-2	3	3	-15	-10	-5	Marginal

							Existing Inv2ms									
				PNTL			PANL			Predicted			Compare to PNTL			Compare to PANL			Impact category
X	Y	NCA	Property Details	Day	Evening	Night				Day	Eve	Nt	Day	Eve	Nt				
276319	6209116	7		40	35	35	53	48	43	38	38	38	-2	3	3	-15	-10	-5	Marginal
277582	6209394	3		44	42	35	58	48	43	38	38	38	-6	-4	3	-20	-10	-5	Marginal
276533	6209038	7		40	35	35	53	48	43	39	39	39	-1	4	4	-14	-9	-4	Marginal
276441	6209125	7		40	35	35	53	48	43	38	38	38	-2	3	3	-15	-10	-5	Marginal
276737	6209794	7		40	35	35	53	48	43	36	36	36	-4	1	1	-17	-12	-7	
276458	6209046	7		40	35	35	53	48	43	39	39	39	-1	4	4	-14	-9	-4	Marginal
276375	6209133	7		40	35	35	53	48	43	38	38	38	-2	3	3	-15	-10	-5	Marginal
276663	6209046	7		40	35	35	53	48	43	39	39	39	-1	4	4	-14	-9	-4	Marginal
277958	6209355	3		44	42	35	58	48	43	37	37	37	-7	-5	2	-21	-11	-6	
276909	6208791	3		44	42	35	58	48	43	36	36	36	-8	-6	1	-22	-12	-7	
276929	6208832	3		44	42	35	58	48	43	38	38	38	-6	-4	3	-20	-10	-5	Marginal
277977	6209266	4a		40	40	35	58	48	43	38	38	38	-2	-2	3	-20	-10	-5	Marginal
278018	6209251	4a		40	40	35	58	48	43	38	38	38	-2	-2	3	-20	-10	-5	Marginal
277851	6209190	4a		40	40	35	58	48	43	37	37	37	-3	-3	2	-21	-11	-6	
277834	6209771	3		44	42	35	58	48	43	36	36	36	-8	-6	1	-22	-12	-7	
276977	6209297	3		44	42	35	58	48	43	38	38	38	-6	-4	3	-20	-10	-5	Marginal
276488	6208953	7		40	35	35	53	48	43	39	39	39	-1	4	4	-14	-9	-4	Marginal
277637	6208618	4		41	41	41	58	48	43	42	42	42	1	1	1	-16	-6	-1	
276683	6208822	7		40	35	35	53	48	43	41	41	41	1	6	6	-12	-7	-2	Significant
276675	6209894	7		40	35	35	53	48	43	36	36	36	-4	1	1	-17	-12	-7	
276699	6209919	7		40	35	35	53	48	43	36	36	36	-4	1	1	-17	-12	-7	
276943	6209689	7		40	35	35	53	48	43	36	36	36	-4	1	1	-17	-12	-7	
276597	6209813	7		40	35	35	53	48	43	36	36	36	-4	1	1	-17	-12	-7	
276848	6209925	7		40	35	35	53	48	43	36	36	36	-4	1	1	-17	-12	-7	
277112	6209583	7		40	35	35	53	48	43	37	37	37	-3	2	2	-16	-11	-6	
277161	6209132	3		44	42	35	58	48	43	38	38	38	-6	-4	3	-20	-10	-5	Marginal
276840	6209669	7		40	35	35	53	48	43	36	36	36	-4	1	1	-17	-12	-7	
276814	6209696	7		40	35	35	53	48	43	36	36	36	-4	1	1	-17	-12	-7	
277059	6209721	7		40	35	35	53	48	43	36	36	36	-4	1	1	-17	-12	-7	
277242	6209655	7		40	35	35	53	48	43	36	36	36	-4	1	1	-17	-12	-7	
276793	6209461	7		40	35	35	53	48	43	37	37	37	-3	2	2	-16	-11	-6	
276950	6209800	7		40	35	35	53	48	43	36	36	36	-5	1	1	-18	-13	-8	
277452	6209234	3		44	42	35	58	48	43	38	38	38	-6	-4	3	-20	-10	-5	Marginal
276801	6209563	7		40	35	35	53	48	43	37	37	37	-3	2	2	-16	-11	-6	
276806	6209580	7		40	35	35	53	48	43	37	37	37	-3	2	2	-16	-11	-6	
276711	6209399	7		40	35	35	53	48	43	37	37	37	-3	2	2	-16	-11	-6	
276509	6209349	7		40	35	35	53	48	43	37	37	37	-3	2	2	-16	-11	-6	
276652	6209402	7		40	35	35	53	48	43	37	37	37	-3	2	2	-16	-11	-6	
276296	6209413	7		40	35	35	53	48	43	36	36	36	-4	1	1	-17	-12	-7	
277968	6209115	4a		40	40	35	58	48	43	39	39	39	-1	-1	4	-19	-9	-4	Marginal
276885	6208969	3		44	42	35	58	48	43	39	39	39	-5	-3	4	-19	-9	-4	Marginal
277510	6209310	3		44	42	35	58	48	43	39	39	39	-5	-3	4	-19	-9	-4	Marginal
277289	6209222	3		44	42	35	58	48	43	38	38	38	-6	-4	3	-20	-10	-5	Marginal
276967	6209192	3		44	42	35	58	48	43	38	38	38	-6	-4	3	-20	-10	-5	Marginal
277027	6209628	7		40	35	35	53	48	43	36	36	36	-4	1	1	-17	-12	-7	
276501	6209823	7		40	35	35	53	48	43	36	36	36	-4	1	1	-17	-12	-7	

										Existing Inv2ms									
				PNTL			PANL			Predicted			Compare to PNTL			Compare to PANL			Impact category
X	Y	NCA	Property Details	Day	Evening	Night				Day	Eve	Nt	Day	Eve	Nt				
276453	6209832	7		40	35	35	53	48	43	36	36	36	-4	1	1	-17	-12	-7	
276733	6209543	7		40	35	35	53	48	43	37	37	37	-3	2	2	-16	-11	-6	
275859	6209313	7		40	35	35	53	48	43	36	36	36	-4	1	1	-17	-12	-7	
275928	6208599	7		40	35	35	53	48	43	38	38	38	-2	3	3	-15	-10	-5	Marginal
276170	6209058	7		40	35	35	53	48	43	38	38	38	-2	3	3	-15	-10	-5	Marginal
275968	6209369	7		40	35	35	53	48	43	36	36	36	-4	1	1	-17	-12	-7	
275973	6209386	7		40	35	35	53	48	43	36	36	36	-4	1	1	-17	-12	-7	
275940	6209269	7		40	35	35	53	48	43	36	36	36	-4	1	1	-17	-12	-7	
275923	6209277	7		40	35	35	53	48	43	36	36	36	-4	1	1	-17	-12	-7	
276092	6209152	7		40	35	35	53	48	43	37	37	37	-3	2	2	-16	-11	-6	
275731	6209126	7		40	35	35	53	48	43	36	36	36	-4	1	1	-17	-12	-7	
276368	6209832	7		40	35	35	53	48	43	36	36	36	-4	1	1	-17	-12	-7	
275294	6208702	7		40	35	35	53	48	43	36	36	36	-4	1	1	-17	-12	-7	
275669	6209080	7		40	35	35	53	48	43	36	36	36	-4	1	1	-17	-12	-7	
275507	6209032	7		40	35	35	53	48	43	36	36	36	-4	1	1	-17	-12	-7	
275863	6209145	7		40	35	35	53	48	43	36	36	36	-4	1	1	-17	-12	-7	
275218	6208798	7		40	35	35	53	48	43	36	36	36	-4	1	1	-17	-12	-7	
276302	6209841	7		40	35	35	53	48	43	36	36	36	-4	1	1	-17	-12	-7	
275043	6208624	7		40	35	35	53	48	43	36	36	36	-4	1	1	-17	-12	-7	
276073	6208717	7		40	35	35	53	48	43	39	39	39	-1	4	4	-14	-9	-4	Marginal
275942	6209122	7		40	35	35	53	48	43	37	37	37	-3	2	2	-16	-11	-6	
275631	6209237	7		40	35	35	53	48	43	36	36	36	-4	1	1	-17	-12	-7	
275212	6208707	7		40	35	35	53	48	43	36	36	36	-4	1	1	-17	-12	-7	
276224	6209139	7		40	35	35	53	48	43	37	37	37	-3	2	2	-16	-11	-6	
275449	6209086	7		40	35	35	53	48	43	36	36	36	-4	1	1	-17	-12	-7	
275716	6209242	7		40	35	35	53	48	43	36	36	36	-4	1	1	-17	-12	-7	
278166	6208380	4		41	41	41	58	48	43	43	43	43	2	2	2	-15	-5	0	
278809	6208573	4a		40	40	35	58	48	43	39	39	39	-1	-1	4	-19	-9	-4	Marginal
279043	6208273	4a		40	40	35	58	48	43	39	39	39	-1	-1	4	-19	-9	-4	Marginal
277972	6208608	4		41	41	41	58	48	43	42	42	42	1	1	1	-16	-6	-1	
278377	6208334	4		41	41	41	58	48	43	42	42	42	1	1	1	-16	-6	-1	
278269	6208288	4		41	41	41	58	48	43	43	43	43	2	2	2	-15	-5	0	
278021	6208391	4		41	41	41	58	48	43	43	43	43	2	2	2	-15	-5	0	
277995	6208547	4		41	41	41	58	48	43	42	42	42	1	1	1	-16	-6	-1	
278853	6208399	4a		40	40	35	58	48	43	39	39	39	-1	-1	4	-19	-9	-4	Marginal
279273	6207883	7	M8 - Rockford Rd, near existing vent fan	40	35	35	53	48	43	38	38	38	-2	3	3	-15	-10	-5	Marginal
277054	6208082	2	2897 Remembrance Drive, Bargo	51	48	43	58	48	43	45	45	45	-6	-3	2	-13	-3	2	
276936	6208105	2	2900 Remembrance Drive, Bargo	51	48	43	58	48	43	46	46	46	-5	-2	3	-12	-2	3	Moderate
277076	6208332	2	2885 Remembrance Drive, Bargo	51	48	43	58	48	43	44	44	44	-7	-4	1	-14	-4	1	
277997	6208487	4		41	41	41	58	48	43	43	43	43	2	2	2	-15	-5	0	
278017	6208249	4	M6 - southern end of Stratford Rd	41	41	41	58	48	43	43	43	43	2	2	2	-15	-5	0	
278673	6208503	4a		40	40	35	58	48	43	39	39	39	-1	-1	4	-19	-9	-4	Marginal
279586	6207924	7		40	35	35	53	48	43	36	36	36	-5	1	1	-18	-13	-8	
279511	6207887	7		40	35	35	53	48	43	36	36	36	-4	1	1	-17	-12	-7	
276413	6208329	7		40	35	35	53	48	43	41	41	41	1	6	6	-12	-7	-2	Significant
278254	6209374	4a		40	40	35	58	48	43	37	37	37	-3	-3	2	-21	-11	-6	

							Existing Inv2ms									
				PNTL			PANL			Predicted			Compare to PNTL			Compare to PANL			Impact category
X	**Y**	**NCA**	**Property Details**	**Day**	**Evening**	**Night**				**Day**	**Eve**	**Nt**	**Day**	**Eve**	**Nt**				
278176	6209576	3		44	42	35	58	48	43	36	36	36	-8	-6	1	-22	-12	-7	
278153	6209625	3		44	42	35	58	48	43	36	36	36	-8	-6	1	-22	-12	-7	
278294	6209306	4a		40	40	35	58	48	43	36	36	36	-4	-4	1	-22	-12	-7	
277348	6209158	3		44	42	35	58	48	43	39	39	39	-5	-3	4	-19	-9	-4	Marginal
278098	6209773	3		44	42	35	58	48	43	36	36	36	-8	-6	1	-22	-12	-7	
278117	6209717	3		44	42	35	58	48	43	36	36	36	-8	-6	1	-22	-12	-7	
278107	6209753	3		44	42	35	58	48	43	36	36	36	-8	-6	1	-22	-12	-7	
278115	6209734	3		44	42	35	58	48	43	36	36	36	-8	-6	1	-22	-12	-7	
278085	6208863	4a		40	40	35	58	48	43	40	40	40	0	0	5	-18	-8	-3	Marginal
277990	6208940	4a		40	40	35	58	48	43	39	39	39	-1	-1	4	-19	-9	-4	Marginal
278114	6209205	4a		40	40	35	58	48	43	38	38	38	-2	-2	3	-20	-10	-5	Marginal
278144	6209663	3		44	42	35	58	48	43	36	36	36	-8	-6	1	-22	-12	-7	
278129	6209696	3		44	42	35	58	48	43	36	36	36	-8	-6	1	-22	-12	-7	
278131	6209680	3		44	42	35	58	48	43	36	36	36	-8	-6	1	-22	-12	-7	
277811	6209160	4a		40	40	35	58	48	43	37	37	37	-3	-3	2	-21	-11	-6	
276281	6209124	7		40	35	35	53	48	43	38	38	38	-2	3	3	-15	-10	-5	Marginal
277679	6209292	3		44	42	35	58	48	43	36	36	36	-8	-6	1	-22	-12	-7	
276398	6209381	7		40	35	35	53	48	43	38	38	38	-2	3	3	-15	-10	-5	Marginal
277907	6209126	4a		40	40	35	58	48	43	39	39	39	-1	-1	4	-19	-9	-4	Marginal
276317	6209532	7		40	35	35	53	48	43	37	37	37	-3	2	2	-16	-11	-6	
276542	6205187	6a		45	39	35	53	48	43	37	37	37	-8	-2	2	-16	-11	-6	
276547	6206139	6		49	42	35	58	48	43	40	40	40	-9	-2	5	-18	-8	-3	Marginal
276625	6205725	6		49	42	35	58	48	43	40	40	40	-9	-2	5	-18	-8	-3	Marginal
279074	6207983	7		40	35	35	53	48	43	38	38	38	-2	3	3	-15	-10	-5	Marginal
278182	6205888	5	185 Charlies Point Road, Bargo (under negotiation)	40	39	35	53	48	43	36	36	36	-4	-3	1	-17	-12	-7	

							Existing Inv2ms									
				PNTL			PANL			Predicted			Compare to PNTL			Compare to PANL			Impact category
X	**Y**	**NCA**	**Property Details**	**Day**	**Evening**	**Night**				**Day**	**Eve**	**Nt**	**Day**	**Eve**	**Nt**				
276541	6205265	6a		45	39	35	53	48	43	37	37	37	-8	-2	2	-16	-11	-6	
276575	6205367	6		49	42	35	58	48	43	38	38	38	-11	-4	3	-20	-10	-5	Marginal
276554	6206319	6	3092 Remembrance Drive, Bargo	49	42	35	58	48	43	41	41	41	-8	-1	6	-17	-7	-2	Significant
277085	6205176	5		40	39	35	53	48	43	36	36	36	-4	-3	1	-17	-12	-7	
277407	6204949	5		40	39	35	53	48	43	36	36	36	-4	-3	1	-17	-12	-7	
276877	6205084	6		49	42	35	58	48	43	36	36	36	-13	-6	1	-22	-12	-7	
276934	6205134	6a		45	39	35	53	48	43	36	36	36	-9	-3	1	-17	-12	-7	
276540	6206361	6	3088 Remembrance Drive, Bargo	49	42	35	58	48	43	43	43	43	-6	1	8	-15	-5	0	Significant
277768	6205158	5	80 Charlies Point Road (to replace M10? - south of new vent fan)	40	39	35	53	48	43	37	37	37	-3	-2	2	-16	-11	-6	
276282	6206354	7		40	35	35	53	48	43	42	42	42	2	7	7	-11	-6	-1	Significant
276908	6205007	6a		45	39	35	53	48	43	36	36	36	-9	-3	1	-17	-12	-7	
276475	6205171	7		40	35	35	53	48	43	36	36	36	-4	1	1	-17	-12	-7	
276025	6206230	7		40	35	35	53	48	43	41	41	41	1	6	6	-12	-7	-2	Significant
276203	6206248	7		40	35	35	53	48	43	41	41	41	1	6	6	-12	-7	-2	Significant
275650	6206273	7		40	35	35	53	48	43	37	37	37	-3	2	2	-16	-11	-6	
275960	6206210	7		40	35	35	53	48	43	40	40	40	0	5	5	-13	-8	-3	Marginal
275817	6206314	7		40	35	35	53	48	43	40	40	40	0	5	5	-13	-8	-3	Marginal
276443	6206305	6a	10 Caloola Road, Bargo	45	39	35	53	48	43	41	41	41	-4	2	6	-12	-7	-2	Significant
275717	6206243	7		40	35	35	53	48	43	39	39	39	-1	4	4	-14	-9	-4	Marginal
276562	6206400	6	3084 Remembrance Drive, Bargo	49	42	35	58	48	43	43	43	43	-6	1	8	-15	-5	0	Significant
276535	6206093	6		49	42	35	58	48	43	40	40	40	-9	-2	5	-18	-8	-3	Marginal
276513	6205179	7		40	35	35	53	48	43	37	37	37	-3	2	2	-16	-11	-6	
276489	6205580	6		49	42	35	58	48	43	39	39	39	-11	-4	4	-20	-10	-5	Marginal
276761	6204984	6		49	42	35	58	48	43	36	36	36	-13	-6	1	-22	-12	-7	
276566	6206441	6	3080 Remembrance Drive, Bargo	49	42	35	58	48	43	43	43	43	-6	1	8	-15	-5	0	Significant
276503	6206283	6a	4 Caloola Road, Bargo	45	39	35	53	48	43	42	42	42	-3	3	7	-11	-6	-1	Significant
276548	6206179	6		49	42	35	58	48	43	40	40	40	-9	-2	5	-18	-8	-3	Marginal
276964	6205064	6a		45	39	35	53	48	43	36	36	36	-9	-3	1	-17	-12	-7	
276353	6205240	7		40	35	35	53	48	43	36	36	36	-4	1	1	-17	-12	-7	
276578	6206476	6	(C10) 3076 Remembrance Drive, Bargo	49	42	35	58	48	43	43	43	43	-6	1	8	-15	-5	0	Significant
276234	6206331	7		40	35	35	53	48	43	42	42	42	2	7	7	-11	-6	-1	Significant
275460	6206459	7		40	35	35	53	48	43	36	36	36	-4	1	1	-17	-12	-7	
275684	6206590	7		40	35	35	53	48	43	38	38	38	-2	3	3	-15	-10	-5	Marginal
275911	6206428	7		40	35	35	53	48	43	42	42	42	2	7	7	-11	-6	-1	Significant
275827	6206462	7		40	35	35	53	48	43	41	41	41	1	6	6	-12	-7	-2	Significant
276148	6206425	7		40	35	35	53	48	43	43	43	43	3	8	8	-10	-5	0	Significant
276069	6206375	7		40	35	35	53	48	43	42	42	42	2	7	7	-11	-6	-1	Significant
279143	6205635	7		40	35	35	53	48	43	36	36	36	-4	1	1	-17	-12	-7	
276479	6206066	6		49	42	35	58	48	43	40	40	40	-9	-2	5	-18	-8	-3	Marginal
276445	6206028	6a		45	39	35	53	48	43	40	40	40	-5	1	5	-13	-8	-3	Marginal
276483	6205929	6	3130 Remembrance Dr, Bargo	49	42	35	58	48	43	40	40	40	-9	-2	5	-18	-8	-3	Marginal
276336	6206196	7		40	35	35	53	48	43	40	40	40	0	5	5	-13	-8	-3	Marginal
276511	6205678	6		49	42	35	58	48	43	39	39	39	-10	-3	4	-19	-9	-4	Marginal
276412	6206118	6a		45	39	35	53	48	43	40	40	40	-5	1	5	-13	-8	-3	Marginal
276393	6206315	7	20 Caloola Road, Bargo	40	35	35	53	48	43	42	42	42	2	7	7	-11	-6	-1	Significant
276286	6206235	7		40	35	35	53	48	43	41	41	41	1	6	6	-12	-7	-2	Significant

										Existing Inv2ms									
				PNTL			PANL			Predicted			Compare to PNTL			Compare to PANL			Impact category
X	**Y**	**NCA**	**Property Details**	**Day**	**Evening**	**Night**				**Day**	**Eve**	**Nt**	**Day**	**Eve**	**Nt**				
276098	6206262	7		40	35	35	53	48	43	41	41	41	1	6	6	-12	-7	-2	Significant
276719	6205090	6		49	42	35	58	48	43	36	36	36	-13	-6	1	-22	-12	-7	
275882	6206268	7		40	35	35	53	48	43	40	40	40	0	5	5	-13	-8	-3	Marginal
276581	6205199	6a		45	39	35	53	48	43	37	37	37	-8	-2	2	-16	-11	-6	
276436	6205168	7		40	35	35	53	48	43	36	36	36	-4	1	1	-17	-12	-7	
276770	6204938	6		49	42	35	58	48	43	36	36	36	-13	-6	1	-22	-12	-7	
276678	6206499	6	3085 Remembrance Drive, Bargo	49	42	35	58	48	43	41	41	41	-8	-1	6	-17	-7	-2	Significant
276451	6205627	6a		45	39	35	53	48	43	38	38	38	-7	-1	3	-15	-10	-5	Marginal
275700	6206997	1b		43	43	39	58	48	43	40	42	42	-3	-1	3	-18	-6	-1	Marginal
276375	6207092	1a	3010 Remembrance Drive, Bargo	47	47	43	58	48	43	49	49	49	2	2	6	-9	1	6	Significant
275746	6206513	7		40	35	35	53	48	43	39	39	39	-1	4	4	-14	-9	-4	Marginal
275975	6206407	7		40	35	35	53	48	43	42	42	42	2	7	7	-11	-6	-1	Significant
276512	6207774	1a	6 Olive Lane, Bargo (western end of Olive Lane)	47	47	43	58	48	43	51	54	54	4	7	11	-7	6	11	Significant
276770	6207717	1	2 Olive Lane, Bargo	51	48	43	58	48	43	54	57	57	3	9	14	-4	9	14	Significant
276604	6207752	1a	4 Olive Lane, Bargo	47	47	43	58	48	43	52	55	55	5	8	12	-6	7	12	Significant
276206	6207523	1b	3 Olive Lane, Bargo	43	43	39	58	48	43	49	52	52	6	9	13	-9	4	9	Significant
276473	6207650	1a	7 Olive Lane, Bargo (M3 - western end of Olive Lane)	47	47	43	58	48	43	52	55	55	5	8	12	-6	7	12	Significant
279534	6205803	7		40	35	35	53	48	43	36	36	36	-4	1	1	-17	-12	-7	
276496	6205974	6	3126 Remembrance Dr, Bargo	49	42	35	58	48	43	41	41	41	-8	-1	6	-17	-7	-2	Significant
278287	6208946	4a		40	40	35	58	48	43	39	39	39	-1	-1	4	-19	-9	-4	Marginal
278296	6209044	4a		40	40	35	58	48	43	38	38	38	-2	-2	3	-20	-10	-5	Marginal
277937	6209041	4a		40	40	35	58	48	43	40	40	40	0	0	5	-18	-8	-3	Marginal
278230	6209116	4a		40	40	35	58	48	43	36	36	36	-4	-4	1	-22	-12	-7	
278874	6208640	4a		40	40	35	58	48	43	38	38	38	-2	-2	3	-20	-10	-5	Marginal
278070	6208626	4		41	41	41	58	48	43	42	42	42	1	1	1	-16	-6	-1	
278467	6208913	4a		40	40	35	58	48	43	38	38	38	-2	-2	3	-20	-10	-5	Marginal
278663	6208711	4a	M7 - eastern end of Hodgson Grove	40	40	35	58	48	43	39	39	39	-1	-1	4	-19	-9	-4	Marginal
278904	6208828	4a		40	40	35	58	48	43	37	37	37	-3	-3	2	-21	-11	-6	
277886	6208795	4a		40	40	35	58	48	43	41	41	41	1	1	6	-17	-7	-2	Significant
277183	6209074	3		44	42	35	58	48	43	39	39	39	-5	-3	4	-19	-9	-4	Marginal
277536	6209341	3		44	42	35	58	48	43	38	38	38	-6	-4	3	-20	-10	-5	Marginal
277569	6209377	3		44	42	35	58	48	43	38	38	38	-6	-4	3	-20	-10	-5	Marginal
277777	6209005	4a		40	40	35	58	48	43	41	41	41	1	1	6	-18	-8	-3	Significant
277599	6209409	3		44	42	35	58	48	43	38	38	38	-7	-5	3	-21	-11	-6	Marginal
278651	6208864	4a		40	40	35	58	48	43	38	38	38	-2	-2	3	-20	-10	-5	Marginal
278481	6208763	4a		40	40	35	58	48	43	40	40	40	0	0	5	-18	-8	-3	Marginal
277675	6209054	4a		40	40	35	58	48	43	41	41	41	1	1	6	-18	-8	-3	Significant
277554	6209361	3		44	42	35	58	48	43	38	38	38	-6	-4	3	-20	-10	-5	Marginal
277658	6209204	3		44	42	35	58	48	43	39	39	39	-5	-3	4	-19	-9	-4	Marginal
277670	6209175	3		44	42	35	58	48	43	39	39	39	-5	-3	4	-19	-9	-4	Marginal
277615	6209417	3		44	42	35	58	48	43	37	37	37	-7	-5	2	-21	-11	-6	
276570	6209899	7		40	35	35	53	48	43	36	36	36	-4	1	1	-17	-12	-7	
276606	6208858	7		40	35	35	53	48	43	40	40	40	0	5	5	-13	-8	-3	Marginal
277846	6208869	4a		40	40	35	58	48	43	41	41	41	1	1	6	-17	-7	-2	Significant
277634	6209436	3		44	42	35	58	48	43	36	36	36	-8	-6	1	-22	-12	-7	
276207	6208736	7		40	35	35	53	48	43	38	38	38	-2	3	3	-15	-10	-5	Marginal

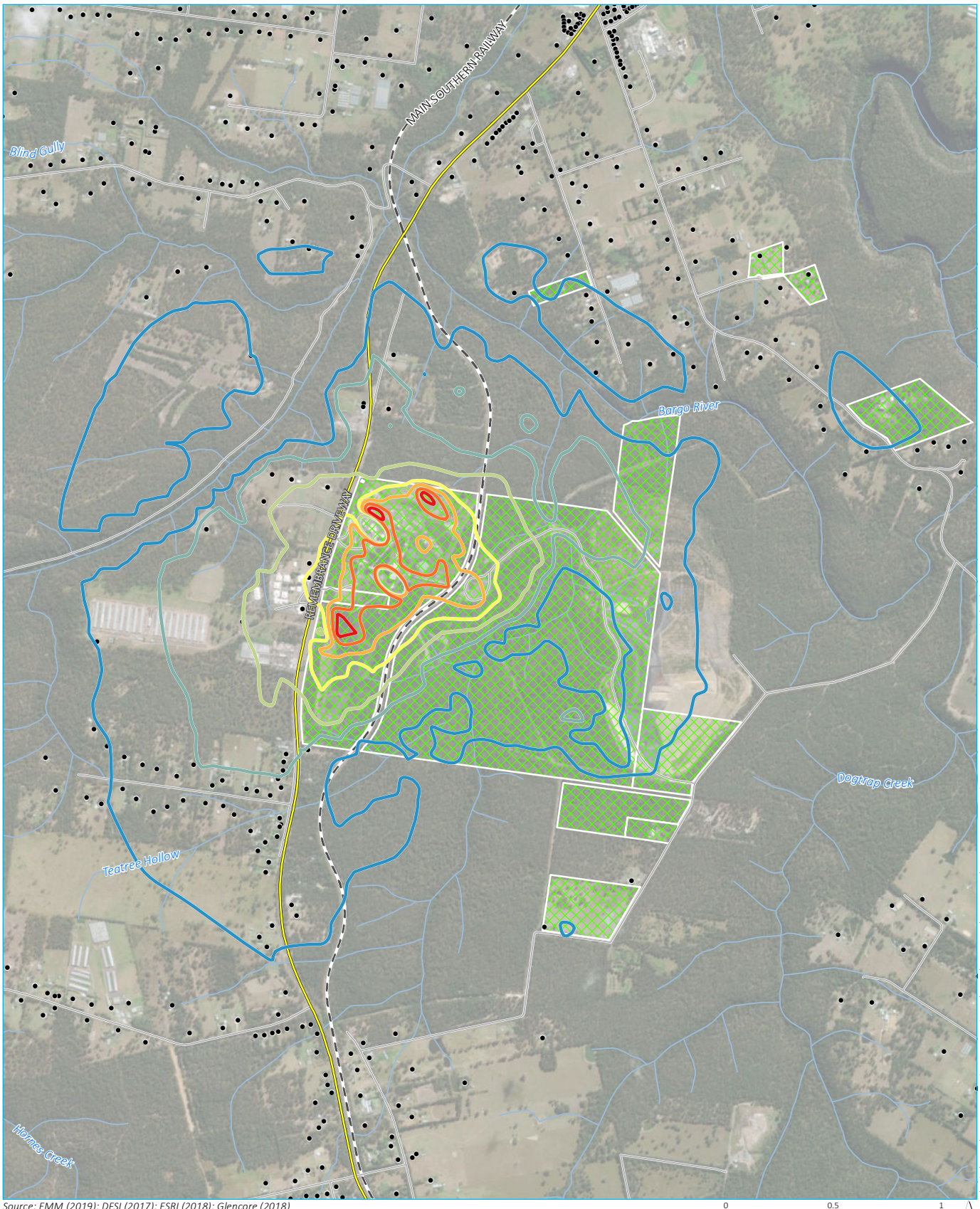
							Existing Inv2ms									
				PNTL			PANL			Predicted			Compare to PNTL			Compare to PANL			Impact category
X	Y	NCA	Property Details	Day	Evening	Night				Day	Eve	Nt	Day	Eve	Nt				
276319	6209116	7		40	35	35	53	48	43	38	38	38	-2	3	3	-15	-10	-5	Marginal
277582	6209394	3		44	42	35	58	48	43	38	38	38	-6	-4	3	-20	-10	-5	Marginal
276533	6209038	7		40	35	35	53	48	43	39	39	39	-1	4	4	-14	-9	-4	Marginal
276441	6209125	7		40	35	35	53	48	43	38	38	38	-2	3	3	-15	-10	-5	Marginal
276737	6209794	7		40	35	35	53	48	43	36	36	36	-4	1	1	-17	-12	-7	
276458	6209046	7		40	35	35	53	48	43	39	39	39	-1	4	4	-14	-9	-4	Marginal
276375	6209133	7		40	35	35	53	48	43	38	38	38	-2	3	3	-15	-10	-5	Marginal
276663	6209046	7		40	35	35	53	48	43	39	39	39	-1	4	4	-14	-9	-4	Marginal
277958	6209355	3		44	42	35	58	48	43	37	37	37	-7	-5	2	-21	-11	-6	
276909	6208791	3		44	42	35	58	48	43	36	36	36	-8	-6	1	-22	-12	-7	
276929	6208832	3		44	42	35	58	48	43	38	38	38	-6	-4	3	-20	-10	-5	Marginal
277977	6209266	4a		40	40	35	58	48	43	38	38	38	-2	-2	3	-20	-10	-5	Marginal
278018	6209251	4a		40	40	35	58	48	43	38	38	38	-2	-2	3	-20	-10	-5	Marginal
277851	6209190	4a		40	40	35	58	48	43	37	37	37	-3	-3	2	-21	-11	-6	
277834	6209771	3		44	42	35	58	48	43	36	36	36	-8	-6	1	-22	-12	-7	
276977	6209297	3		44	42	35	58	48	43	38	38	38	-6	-4	3	-20	-10	-5	Marginal
276488	6208953	7		40	35	35	53	48	43	39	39	39	-1	4	4	-14	-9	-4	Marginal
277637	6208618	4		41	41	41	58	48	43	42	42	42	1	1	1	-16	-6	-1	
276683	6208822	7		40	35	35	53	48	43	41	41	41	1	6	6	-12	-7	-2	Significant
276675	6209894	7		40	35	35	53	48	43	36	36	36	-4	1	1	-17	-12	-7	
276699	6209919	7		40	35	35	53	48	43	36	36	36	-4	1	1	-17	-12	-7	
276943	6209689	7		40	35	35	53	48	43	36	36	36	-4	1	1	-17	-12	-7	
276597	6209813	7		40	35	35	53	48	43	36	36	36	-4	1	1	-17	-12	-7	
276848	6209925	7		40	35	35	53	48	43	36	36	36	-4	1	1	-17	-12	-7	
277112	6209583	7		40	35	35	53	48	43	37	37	37	-3	2	2	-16	-11	-6	
277161	6209132	3		44	42	35	58	48	43	38	38	38	-6	-4	3	-20	-10	-5	Marginal
276840	6209669	7		40	35	35	53	48	43	36	36	36	-4	1	1	-17	-12	-7	
276814	6209696	7		40	35	35	53	48	43	36	36	36	-4	1	1	-17	-12	-7	
277059	6209721	7		40	35	35	53	48	43	36	36	36	-4	1	1	-17	-12	-7	
277242	6209655	7		40	35	35	53	48	43	36	36	36	-4	1	1	-17	-12	-7	
276793	6209461	7		40	35	35	53	48	43	37	37	37	-3	2	2	-16	-11	-6	
276950	6209800	7		40	35	35	53	48	43	36	36	36	-5	1	1	-18	-13	-8	
277452	6209234	3		44	42	35	58	48	43	38	38	38	-6	-4	3	-20	-10	-5	Marginal
276801	6209563	7		40	35	35	53	48	43	37	37	37	-3	2	2	-16	-11	-6	
276806	6209580	7		40	35	35	53	48	43	37	37	37	-3	2	2	-16	-11	-6	
276711	6209399	7		40	35	35	53	48	43	37	37	37	-3	2	2	-16	-11	-6	
276509	6209349	7		40	35	35	53	48	43	37	37	37	-3	2	2	-16	-11	-6	
276652	6209402	7		40	35	35	53	48	43	37	37	37	-3	2	2	-16	-11	-6	
276296	6209413	7		40	35	35	53	48	43	36	36	36	-4	1	1	-17	-12	-7	
277968	6209115	4a		40	40	35	58	48	43	39	39	39	-1	-1	4	-19	-9	-4	Marginal
276885	6208969	3		44	42	35	58	48	43	39	39	39	-5	-3	4	-19	-9	-4	Marginal
277510	6209310	3		44	42	35	58	48	43	39	39	39	-5	-3	4	-19	-9	-4	Marginal
277289	6209222	3		44	42	35	58	48	43	38	38	38	-6	-4	3	-20	-10	-5	Marginal
276967	6209192	3		44	42	35	58	48	43	38	38	38	-6	-4	3	-20	-10	-5	Marginal
277027	6209628	7		40	35	35	53	48	43	36	36	36	-4	1	1	-17	-12	-7	
276501	6209823	7		40	35	35	53	48	43	36	36	36	-4	1	1	-17	-12	-7	

										Existing Inv2ms									
				PNTL			PANL			Predicted			Compare to PNTL			Compare to PANL			Impact category
X	Y	NCA	Property Details	Day	Evening	Night				Day	Eve	Nt	Day	Eve	Nt				
276453	6209832	7		40	35	35	53	48	43	36	36	36	-4	1	1	-17	-12	-7	
276733	6209543	7		40	35	35	53	48	43	37	37	37	-3	2	2	-16	-11	-6	
275859	6209313	7		40	35	35	53	48	43	36	36	36	-4	1	1	-17	-12	-7	
275928	6208599	7		40	35	35	53	48	43	38	38	38	-2	3	3	-15	-10	-5	Marginal
276170	6209058	7		40	35	35	53	48	43	38	38	38	-2	3	3	-15	-10	-5	Marginal
275968	6209369	7		40	35	35	53	48	43	36	36	36	-4	1	1	-17	-12	-7	
275973	6209386	7		40	35	35	53	48	43	36	36	36	-4	1	1	-17	-12	-7	
275940	6209269	7		40	35	35	53	48	43	36	36	36	-4	1	1	-17	-12	-7	
275923	6209277	7		40	35	35	53	48	43	36	36	36	-4	1	1	-17	-12	-7	
276092	6209152	7		40	35	35	53	48	43	37	37	37	-3	2	2	-16	-11	-6	
275731	6209126	7		40	35	35	53	48	43	36	36	36	-4	1	1	-17	-12	-7	
276368	6209832	7		40	35	35	53	48	43	36	36	36	-4	1	1	-17	-12	-7	
275294	6208702	7		40	35	35	53	48	43	36	36	36	-4	1	1	-17	-12	-7	
275669	6209080	7		40	35	35	53	48	43	36	36	36	-4	1	1	-17	-12	-7	
275507	6209032	7		40	35	35	53	48	43	36	36	36	-4	1	1	-17	-12	-7	
275863	6209145	7		40	35	35	53	48	43	36	36	36	-4	1	1	-17	-12	-7	
275218	6208798	7		40	35	35	53	48	43	36	36	36	-4	1	1	-17	-12	-7	
276302	6209841	7		40	35	35	53	48	43	36	36	36	-4	1	1	-17	-12	-7	
275043	6208624	7		40	35	35	53	48	43	36	36	36	-4	1	1	-17	-12	-7	
276073	6208717	7		40	35	35	53	48	43	39	39	39	-1	4	4	-14	-9	-4	Marginal
275942	6209122	7		40	35	35	53	48	43	37	37	37	-3	2	2	-16	-11	-6	
275631	6209237	7		40	35	35	53	48	43	36	36	36	-4	1	1	-17	-12	-7	
275212	6208707	7		40	35	35	53	48	43	36	36	36	-4	1	1	-17	-12	-7	
276224	6209139	7		40	35	35	53	48	43	37	37	37	-3	2	2	-16	-11	-6	
275449	6209086	7		40	35	35	53	48	43	36	36	36	-4	1	1	-17	-12	-7	
275716	6209242	7		40	35	35	53	48	43	36	36	36	-4	1	1	-17	-12	-7	
278166	6208380	4		41	41	41	58	48	43	43	43	43	2	2	2	-15	-5	0	
278809	6208573	4a		40	40	35	58	48	43	39	39	39	-1	-1	4	-19	-9	-4	Marginal
279043	6208273	4a		40	40	35	58	48	43	39	39	39	-1	-1	4	-19	-9	-4	Marginal
277972	6208608	4		41	41	41	58	48	43	42	42	42	1	1	1	-16	-6	-1	
278377	6208334	4		41	41	41	58	48	43	42	42	42	1	1	1	-16	-6	-1	
278269	6208288	4		41	41	41	58	48	43	43	43	43	2	2	2	-15	-5	0	
278021	6208391	4		41	41	41	58	48	43	43	43	43	2	2	2	-15	-5	0	
277995	6208547	4		41	41	41	58	48	43	42	42	42	1	1	1	-16	-6	-1	
278853	6208399	4a		40	40	35	58	48	43	39	39	39	-1	-1	4	-19	-9	-4	Marginal
279273	6207883	7	M8 - Rockford Rd, near existing vent fan	40	35	35	53	48	43	38	38	38	-2	3	3	-15	-10	-5	Marginal
277054	6208082	2	2897 Remembrance Drive, Bargo	51	48	43	58	48	43	45	45	45	-6	-3	2	-13	-3	2	
276936	6208105	2	2900 Remembrance Drive, Bargo	51	48	43	58	48	43	46	46	46	-5	-2	3	-12	-2	3	Moderate
277076	6208332	2	2885 Remembrance Drive, Bargo	51	48	43	58	48	43	44	44	44	-7	-4	1	-14	-4	1	
277997	6208487	4		41	41	41	58	48	43	43	43	43	2	2	2	-15	-5	0	
278017	6208249	4	M6 - southern end of Stratford Rd	41	41	41	58	48	43	43	43	43	2	2	2	-15	-5	0	
278673	6208503	4a		40	40	35	58	48	43	39	39	39	-1	-1	4	-19	-9	-4	Marginal
279586	6207924	7		40	35	35	53	48	43	36	36	36	-5	1	1	-18	-13	-8	
279511	6207887	7		40	35	35	53	48	43	36	36	36	-4	1	1	-17	-12	-7	
276413	6208329	7		40	35	35	53	48	43	41	41	41	1	6	6	-12	-7	-2	Significant
278254	6209374	4a		40	40	35	58	48	43	37	37	37	-3	-3	2	-21	-11	-6	

							Existing Inv2ms									
				PNTL			PANL			Predicted			Compare to PNTL			Compare to PANL			Impact category
X	**Y**	**NCA**	**Property Details**	**Day**	**Evening**	**Night**				**Day**	**Eve**	**Nt**	**Day**	**Eve**	**Nt**				
278176	6209576	3		44	42	35	58	48	43	36	36	36	-8	-6	1	-22	-12	-7	
278153	6209625	3		44	42	35	58	48	43	36	36	36	-8	-6	1	-22	-12	-7	
278294	6209306	4a		40	40	35	58	48	43	36	36	36	-4	-4	1	-22	-12	-7	
277348	6209158	3		44	42	35	58	48	43	39	39	39	-5	-3	4	-19	-9	-4	Marginal
278098	6209773	3		44	42	35	58	48	43	36	36	36	-8	-6	1	-22	-12	-7	
278117	6209717	3		44	42	35	58	48	43	36	36	36	-8	-6	1	-22	-12	-7	
278107	6209753	3		44	42	35	58	48	43	36	36	36	-8	-6	1	-22	-12	-7	
278115	6209734	3		44	42	35	58	48	43	36	36	36	-8	-6	1	-22	-12	-7	
278085	6208863	4a		40	40	35	58	48	43	40	40	40	0	0	5	-18	-8	-3	Marginal
277990	6208940	4a		40	40	35	58	48	43	39	39	39	-1	-1	4	-19	-9	-4	Marginal
278114	6209205	4a		40	40	35	58	48	43	38	38	38	-2	-2	3	-20	-10	-5	Marginal
278144	6209663	3		44	42	35	58	48	43	36	36	36	-8	-6	1	-22	-12	-7	
278129	6209696	3		44	42	35	58	48	43	36	36	36	-8	-6	1	-22	-12	-7	
278131	6209680	3		44	42	35	58	48	43	36	36	36	-8	-6	1	-22	-12	-7	
277811	6209160	4a		40	40	35	58	48	43	37	37	37	-3	-3	2	-21	-11	-6	
276281	6209124	7		40	35	35	53	48	43	38	38	38	-2	3	3	-15	-10	-5	Marginal
277679	6209292	3		44	42	35	58	48	43	36	36	36	-8	-6	1	-22	-12	-7	
276398	6209381	7		40	35	35	53	48	43	38	38	38	-2	3	3	-15	-10	-5	Marginal
277907	6209126	4a		40	40	35	58	48	43	39	39	39	-1	-1	4	-19	-9	-4	Marginal
276317	6209532	7		40	35	35	53	48	43	37	37	37	-3	2	2	-16	-11	-6	
276542	6205187	6a		45	39	35	53	48	43	37	37	37	-8	-2	2	-16	-11	-6	
276547	6206139	6		49	42	35	58	48	43	40	40	40	-9	-2	5	-18	-8	-3	Marginal
276625	6205725	6		49	42	35	58	48	43	40	40	40	-9	-2	5	-18	-8	-3	Marginal
279074	6207983	7		40	35	35	53	48	43	38	38	38	-2	3	3	-15	-10	-5	Marginal
278182	6205888	5	185 Charlies Point Road, Bargo (under negotiation)	40	39	35	53	48	43	36	36	36	-4	-3	1	-17	-12	-7	

Appendix F

Noise Modelling results - Mitigated amended project



Source: EMM (2019); DFSI (2017); ESRI (2018); Glencore (2018)

0 0.5 1 km

GDA 1994 MGA Zone 56

N

T:\Jobs\2018\H180165 - Tahmoor South NIA\8 GIS\02_Maps\NIA_2019\NIA007_ProposedStage2Contours_20191113_01.mxd 5/12/2019

KEY

- Assessment location
- Rail line
- Main road
- Local road
- Watercourse/drainage line
- Tahmoor-owned land

Existing noise contours (dB, $L_{Aeq(15\text{-}min)}$)

- 35
- 40
- 45
- 50
- 55
- 60
- 65

Proposed Tahmoor Mine – Stage 2 – noise-enhancing weather – night time

Tahmoor Amended Project
Noise and vibration impact assessment
Figure F.1

EMM
creating opportunities

									Stage 2 Inv2ms exc Constrn Mitigated													Stage 4 Inv2ms Mitigated												Stage 5 Inv2ms Mitigated											
				PNTL			PANL			Predicted			Compare to PNTL			Compare to PANL			Compare to Existing			Impact category	Predicted			Compare to PNTL			Compare to PANL			Compare to Existing			Impact category	Predicted			Compare to PNTL			Compare to PANL			Compare to Existing			Impact Category
X	Y	NCA	Property Details	Day	Evening	Night				Day	Eve	Nt	Day	Eve	Nt	Day	Eve	Nt	Day	Eve	Nt		Day	Eve	Nt	Day	Eve	Nt	Day	Eve	Nt	Day	Eve	Nt		Day	Eve	Nt	Day	Eve	Nt	Day	Eve	Nt	Day	Eve	Nt	
279156	6205332	7		40	35	35	53	48	43	33	33	27	-7	-2	-8	-20	-15	-16	-1	-1	-7		37	37	27	-3	2	-8	-16	-11	-16	3	3	-7		36	36	27	-4	1	-8	-17	-12	-16	1	1	-7	
279300	6205322	7		40	35	35	53	48	43	33	33	27	-7	-2	-8	-20	-15	-16	-1	-1	-8		37	37	27	-3	2	-8	-16	-11	-16	3	3	-7		35	35	26	-5	0	-9	-18	-13	-17	1	1	-8	
276554	6206319	6	3092 Remembrance Drive, Bargo	49	42	35	58	48	43	41	41	39	-8	-1	4	-17	-7	-4	0	0	-2	Marginal	41	41	39	-8	-1	4	-17	-7	-4	0	0	-2	Marginal	41	41	39	-8	-1	4	-17	-7	-4	0	0	-2	Marginal
276540	6206361	6	3088 Remembrance Drive, Bargo	49	42	35	58	48	43	41	41	40	-8	-1	5	-17	-7	-3	-1	-1	-3	Marginal	42	42	40	-7	0	5	-16	-6	-3	-1	-1	-3	Marginal	42	42	40	-7	0	5	-16	-6	-3	-1	-1	-3	Marginal
276282	6206354	7		40	35	35	53	48	43	41	41	39	1	6	4	-12	-7	-4	-1	-1	-3	Moderate	42	42	39	2	7	4	-11	-6	-4	-1	-1	-3	Moderate	41	41	39	1	6	4	-12	-7	-4	-1	-1	-3	Moderate
276475	6205171	7		40	35	35	53	48	43	35	35	33	-5	0	-2	-18	-13	-10	-1	-1	-4		36	36	33	-4	1	-2	-17	-12	-10	0	0	-4		36	36	33	-4	1	-2	-17	-12	-10	-1	-1	-4	
276025	6206230	7		40	35	35	53	48	43	40	40	38	0	5	3	-13	-8	-5	-1	-1	-3	Marginal	40	40	38	0	5	3	-13	-8	-5	-1	-1	-3	Marginal	40	40	38	0	5	3	-13	-8	-5	-1	-1	-3	Marginal
276203	6206248	7		40	35	35	53	48	43	40	40	38	0	5	3	-13	-8	-5	-1	-1	-3	Marginal	40	40	38	0	5	3	-13	-8	-5	-1	-1	-3	Marginal	40	40	38	0	5	3	-13	-8	-5	-1	-1	-3	Marginal
275650	6206273	7		40	35	35	53	48	43	36	36	33	-4	1	-2	-17	-12	-10	-1	-1	-4		37	37	33	-3	2	-2	-16	-11	-10	-1	-1	-4		37	37	33	-4	2	-2	-17	-12	-10	-1	-1	-4	
275960	6206210	7		40	35	35	53	48	43	39	39	37	-1	4	2	-14	-9	-6	-2	-2	-3	Marginal	39	39	37	-1	4	2	-14	-9	-6	-1	-1	-3	Marginal	39	39	37	-1	4	2	-14	-9	-6	-1	-1	-3	Marginal
275817	6206314	7		40	35	35	53	48	43	38	38	36	-2	3	1	-15	-10	-7	-2	-2	-5	Marginal	38	38	36	-2	3	1	-15	-10	-7	-2	-2	-5	Marginal	38	38	36	-2	3	1	-15	-10	-7	-2	-2	-5	Marginal
276443	6206305	6a	10 Caloola Road, Bargo	45	39	35	53	48	43	41	41	39	-4	2	4	-12	-7	-4	-1	-1	-3	Marginal	41	41	39	-4	2	4	-12	-7	-4	0	0	-3	Marginal	41	41	39	-4	2	4	-12	-7	-4	0	0	-3	Marginal
275717	6206243	7		40	35	35	53	48	43	37	37	35	-3	2	0	-16	-11	-8	-2	-2	-4		38	38	35	-2	3	0	-15	-10	-8	-1	-1	-4	Marginal	37	37	35	-3	2	0	-16	-11	-8	-2	-2	-4	
276562	6206400	6	3084 Remembrance Drive, Bargo	49	42	35	58	48	43	42	42	40	-7	0	5	-16	-6	-3	-1	-1	-3	Marginal	42	42	40	-7	0	5	-16	-6	-3	-1	-1	-3	Marginal	42	42	40	-7	0	5	-16	-6	-3	-1	-1	-3	Marginal
276513	6205179	7		40	35	35	53	48	43	35	35	33	-5	0	-2	-18	-13	-10	-1	-1	-3		36	36	33	-4	1	-2	-17	-12	-10	0	0	-3		36	36	33	-4	1	-2	-17	-12	-10	-1	-1	-4	
275468	6205365	7		40	35	35	53	48	43	34	34	31	-6	-1	-4	-19	-14	-12	-1	-1	-4		34	34	31	-6	-1	-4	-19	-14	-12	-1	-1	-4		34	34	31	-6	-1	-4	-19	-14	-12	-1	-1	-4	
275651	6205240	7		40	35	35	53	48	43	33	33	30	-7	-2	-5	-20	-15	-13	-1	-1	-4		34	34	30	-6	-1	-5	-19	-14	-13	-1	-1	-4		34	34	30	-7	-2	-5	-20	-15	-13	-1	-1	-4	
275521	6205352	7		40	35	35	53	48	43	34	34	31	-6	-1	-4	-19	-14	-12	-1	-1	-4		34	34	31	-6	-1	-4	-19	-14	-12	-1	-1	-4		34	34	31	-6	-1	-4	-19	-14	-12	-1	-1	-4	
276566	6206441	6	3080 Remembrance Drive, Bargo	49	42	35	58	48	43	42	42	41	-7	0	6	-16	-6	-2	-1	-1	-2	Significant	43	43	41	-6	1	6	-15	-5	-2	0	0	-2	Significant	42	42	41	-7	0	6	-16	-6	-2	0	0	-2	Significant
275502	6205295	7		40	35	35	53	48	43	33	33	31	-7	-2	-4	-20	-15	-12	-1	-1	-4		34	34	31	-6	-1	-4	-19	-14	-12	-1	-1	-4		34	34	31	-6	-1	-4	-19	-14	-12	-1	-1	-4	
276503	6206283	6a	4 Caloola Road, Bargo	45	39	35	53	48	43	41	41	39	-4	2	4	-12	-7	-4	-1	-1	-3	Marginal	41	41	39	-4	2	4	-12	-7	-4	-1	-1	-3	Marginal	41	41	39	-4	2	4	-12	-7	-4	-1	-1	-3	Marginal
275674	6205311	7		40	35	35	53	48	43	33	33	30	-7	-2	-5	-20	-15	-13	-1	-1	-4		34	34	30	-6	-1	-5	-19	-14	-13	0	0	-4		34	34	30	-6	-1	-5	-19	-14	-13	-1	-1	-4	
276353	6205240	7		40	35	35	53	48	43	34	34	32	-6	-1	-3	-19	-14	-11	-2	-2	-4		35	35	32	-5	0	-3	-18	-13	-11	0	0	-4		35	35	32	-5	0	-3	-18	-13	-11	-1	-1	-4	
275411	6205400	7		40	35	35	53	48	43	34	34	31	-6	-1	-4	-19	-14	-12	-1	-1	-4		34	34	31	-6	-1	-4	-19	-14	-12	-1	-1	-4		34	34	31	-6	-1	-4	-19	-14	-12	-1	-1	-4	
276283	6205202	7		40	35	35	53	48	43	33	33	31	-7	-2	-4	-20	-15	-12	-1	-1	-4		35	35	31	-5	0	-4	-18	-13	-12	0	0	-4		34	34	31	-6	-1	-4	-19	-14	-12	0	0	-4	
275845	6205320	7		40	35	35	53	48	43	34	34	32	-6	-1	-3	-19	-14	-11	-1	-1	-4		35	35	32	-5	0	-3	-18	-13	-11	-1	-1	-4		34	34	32	-6	-1	-3	-19	-14	-11	-1	-1	-4	
276578	6206476	6	(C10) 3076 Remembrance Drive, Bargo	49	42	35	58	48	43	42	42	41	-7	0	6	-16	-6	-2	-1	-1	-2	Significant	43	43	41	-6	1	6	-15	-5	-2	0	0	-2	Significant	43	43	41	-6	1	6	-15	-5	-2	0	0	-2	Significant
275765	6205295	7		40	35	35	53	48	43	34	34	31	-6	-1	-4	-19	-14	-12	-1	-1	-4		34	34	31	-6	-1	-4	-19	-14	-12	-1	-1	-4		34	34	31	-6	-1	-4	-19	-14	-12	-1	-1	-4	
276234	6206331	7		40	35	35	53	48	43	41	41	39	1	6	4	-12	-7	-4	-1	-1	-3	Moderate	41	41	39	1	6	4	-12	-7	-4	-1	-1	-3	Moderate	41	41	39	1	6	4	-12	-7	-4	-1	-1	-3	Moderate
275460	6206459	7		40	35	35	53	48	43	35	35	32	-5	0	-3	-18	-13	-11	-1	-1	-4		35	35	32	-5	0	-3	-18	-13	-11	-1	-1	-4		35	35	32	-5	0	-3	-18	-13	-11	-1	-1	-4	
275684	6206590	7		40	35	35	53	48	43	37	37	34	-3	2	-1	-16	-11	-9	-1	-1	-4		37	37	34	-3	2	-1	-16	-11	-9	-1	-1	-4		37	37	34	-3	2	-1	-16	-11	-9	-1	-1	-4	
275911	6206428	7		40	35	35	53	48	43	39	39	37	-1	4	2	-14	-9	-6	-2	-2	-5	Marginal	40	40	37	0	5	2	-13	-8	-6	-2	-2	-5	Marginal	39	39	37	-1	4	2	-14	-9	-6	-2	-2	-5	Marginal
275827	6206462	7		40	35	35	53	48	43	39	39	36	-1	4	1	-14	-9	-7	-2	-2	-5	Marginal	39	39	36	-1	4	1	-14	-9	-7	-2	-2	-5	Marginal	39	39	36	-1	4	1	-14	-9	-7	-2	-2	-5	Marginal
276148	6206425	7		40	35	35	53	48	43	42	42	40	2	7	5	-12	-7	-3	-1	-1	-3	Moderate	42	42	40	2	7	5	-11	-6	-3	-1	-1	-3	Moderate	42	42	40	2	7	5	-11	-6	-3	-1	-1	-3	Moderate
276069	6206375	7		40	35	35	53	48	43	41	41	39	1	6	4	-12	-7	-4	-2	-2	-3	Moderate	41	41	39	1	6	4	-12	-7	-4	-1	-1	-3	Moderate	41	41	39	1	6	4	-12	-7	-4	-1	-1	-3	Moderate
279143	6205635	7		40	35	35	53	48	43	33	33	25	-7	-2	-10	-20	-15	-18	-2	-2	-10		39	39	25	-1	4	-10	-14	-9	-18	3	3	-10	Marginal	37	37	25	-4	2	-10	-17	-12	-18	1	1	-11	
280163	6206363	7		40	35	35	53	48	43	33	33	24	-7	-2	-11	-20	-15	-19	1	1	-8		35	35	24	-5	0	-11	-18	-13	-19	3	3	-8		31	31	24	-9	-4	-11	-22	-17	-19	-1	-1	-8	
279544	6205585	7		40	35	35	53	48	43	33	33	25	-7	-2	-10	-20	-15	-18	-1	-1	-9		37	37	25	-3	2	-10	-16	-11	-18	3	3	-9		35	35	25	-5	0	-10	-18	-13	-18	1	1	-9	
279392	6205771	7		40	35	35	53	48	43	35	35	26	-5	0	-9	-18	-13	-17	-1	-1	-10		39	39	26	-1	4	-9	-14	-9	-17	3	3	-9	Marginal	36	36	26	-4	1	-9	-17	-12	-17	0	0	-10	
280059	6206680	7		40	35	35	53	48	43	34	34	25	-6	-1	-10	-19	-14	-18	3	3	-7		35	35	25	-5	0	-10	-18	-13	-18	3	3	-7		32	32	25	-8	-3	-10	-21	-16	-18	1	1	-7	
280114	6206567	7		40	35	35	53	48	43	34	34	25	-6	-1	-10	-19	-14	-18	1	1	-8		35	35	25	-5	0	-10	-18	-13	-18	3	3	-8		32	32	25	-8	-3	-10	-21	-16	-18	0	0	-8	
276445	6206028	6a		45	39	35	53	48	43	39	39	37	-6	0	2	-14	-9	-6	-1	-1	-3		39	39	37	-6	0	2	-14	-9	-6	-1	-1	-3		39	39	37	-6	0	2	-14	-9	-6	-1	-1	-3	
276336	6206196	7		40	35	35	53	48	43	39	39	37	-1	4	2	-14	-9	-6	0	0	-3	Marginal	40	40	37	0	5	2	-13	-8	-6	0	0	-3	Marginal	40	40	37	0	5	2	-13	-8	-6	0	0	-3	Marginal
276412	6206118	6a		45	39	35	53	48	43	39	39	37	-6	0	2	-14	-9	-6	-1	-1	-3		39	39	37	-6	0	2	-14	-9	-6	-1	-1	-3		39	39	37	-6	0	2	-14	-9	-6	-1	-1	-3	
276393	6206315	7	20 Caloola Road, Bargo	40	35	35	53	48	43	41	41	39	1	6	4	-12	-7	-4	-1	-1	-3	Moderate	41	41	39	1	6	4	-12	-7	-4	-1	-1	-3	Moderate	41	41	39	1	6	4	-12	-7	-4	-1	-1	-3	Moderate
276286	6206235	7		40	35	35	53	48	43	40	40	37	0	5	2	-13	-8	-6	-1	-1	-3	Marginal	40	40	37	0	5	2	-13	-8	-6	-1	-1	-3	Marginal	40	40	37	0	5	2	-13	-8	-6	-1	-1	-3	Marginal
275506	6206307	7		40	35	35	53	48	43	35	35	32	-5	0	-3	-18	-13	-11	-1	-1	-4		35	35	32	-5	0	-3	-18	-13	-11	-1	-1	-4		35	35	32	-5	0	-3	-18	-13	-11	-1	-1	-4	
276098	6206262	7		40	35	35	53	48	43	40	40	38	0	5	3	-13	-8	-5	-1	-1	-3	Marginal	41	41	38	1	6	3	-12	-7	-5	-1	-1	-3	Moderate	40	40	38	0	5	3	-13	-8	-5	-1	-1	-3	Marginal
275882	6206268	7		40	35	35	53	48	43	38	38	36	-2	3	1	-15	-10	-7	-2	-2	-4	Marginal	39	39	36	-1	4	1	-14	-9	-7	-2	-2	-4	Marginal	38	38	36	-2	3	1	-15	-10	-7	-2	-2	-4	Marginal
276436	6205168	7		40	35	35	53	48	43	35	35	33	-5	0	-2	-18	-13	-10	-1	-1	-4		36	36	33	-4	1	-2	-17	-12	-10	0	0	-4		36	36	33	-4	1	-2	-17	-12	-10	-1	-1	-4	
276678	6206499	6	3085 Remembrance Drive, Bargo	49	42	35	58	48	43	41	41	39	-8	-1	4	-17	-7	-4	-1	-1	-2	Marginal	41	41	39	-8	-1	4	-17	-7	-4	0	0	-2	Marginal	40	40	37	-9	-2	2	-18	-8	-6	-1	-1	-4	
275586	6205338	7		40	35	35	53	48	43	34	34	31	-6	-1	-4	-19	-14	-12	-1	-1	-4		34	34	31	-6	-1	-4	-19	-14	-12	-1	-1	-4		34	34	31	-6	-1	-4	-19	-14	-12	-1	-1	-4	
276451	6205627	6a		45	39	35	53	48	43	38	38	36	-7	-1	1	-15	-10	-7	-1	-1	-3		38	38	36	-7	-1	1	-15	-10	-7	0	0	-3		38	38	36	-7	-1	1	-15	-10	-7	0	0	-3	
276375	6207092	1a	3010 Remembrance Drive, Bargo	47	47	43	58	48	43	47	47	45	0	0	2	-11	-1	2	-3	-3	-5		47	47	45	0	0	2	-11	-1	2	-3	-3	-4		47	47	45	0	0	2	-11	-1	2	-3	-3	-4	
275796	6205195	7		40	35	35	53	48	43	33	33	31	-7	-2	-4	-20	-15	-12	-1	-1	-3		34	34	31	-6	-1	-4	-19	-14	-12	0	0	-3		34	34	31	-6	-1	-4	-19	-14	-12	-1	-1	-3	
275746	6206513	7		40	35	35	53	48	43	38	38	35	-3	3	0	-16	-11	-8	-1	-1	-4	Marginal	38	38	35	-2	3	0	-15	-10	-8	-1	-1	-4	Marginal	38	38	35	-2	3	0	-15	-10	-8	-1	-1	-4	Marginal
275975	6206407	7		40	35	35	53	48	43	40	40	37	0	5	2	-13	-8	-6	-2	-2	-4	Marginal	40	40	37	0	5	2	-13	-8	-6	-2	-2	-4	Marginal	40	40	37	0	5	2	-13	-8	-6	-2	-2	-4	Marginal
276512	6207774	1a	6 Olive Lane, Bargo (western end of Olive Lane)	47	47	43	58	48	43	46	48	45	-1	1	2	-12	0	2	-4	-5	-8		46	48	45	-1	1	2	-12	0	2	-4	-5	-8		46	48	45	-1	1	2	-12	0	2	-4	-5	-8	
276770	6207717	1	2 Olive Lane, Bargo	51	48	43	58	48	43	50	52	49	-1	4	6	-8	4	6	-4	-5	-8	Significant	50	52	49	-1	4	6	-8	4	6	-4	-5	-8	Significant	50	52	49	-1	4	6	-8	4	6	-4	-5	-8	Significant
276604	6207752	1a	4 Olive Lane, Bargo	47	47	43	58	48	43	48	50	47	1	3	4	-10	2	4	-4	-5	-8	Moderate	48	50	47	1	3	4	-10	2	4	-4	-5	-8	Moderate	48	50	47	1	3	4	-10	2	4	-4	-5	-8	Moderate
276206	6207523	1b	3 Olive Lane, Bargo	43	43	39	58	48	43	44	46	44	1	3	5	-14	-2	1	-4	-5	-8	Moderate	44	46	44	1	3	5	-14	-2	1	-5	-6	-8	Moderate	44	46	44	1	3	5	-14	-2	1	-5	-6	-8	Moderate
276473	6207650	1a	7 Olive Lane, Bargo (M3 - western end of Olive Lane)	47	47	43	58	48	43	47	49	46	0	2	3	-11	1	3	-4	-5	-8	Moderate	47	49	46	0	2	3	-11	1	3	-4	-5	-8	Moderate	47	49	46	0	2	3	-11	1	3	-4	-5	-8	Moderate
279534	6205803	7		40	35	35	53	48	43	34	34	26	-6	-1	-9	-19	-14	-17	-1	-1	-10		38	38	26	-2	3	-9	-15	-10	-17	2	2	-10	Marginal	35	35	25	-5	0	-10	-18	-13	-18	-1	-1	-10	
279647	6205708	7		40	35	35	53	48	43	33	33	25	-7	-2	-10	-20	-15	-18	-2	-2	-10		37	37	25	-3	2	-10	-16	-11	-18	2	2	-10		34	34	25	-6	-1	-10	-19	-14	-18	-1	-1	-10	
280054	6206939	7		40	35	35	53	48	43	35	35	25	-5	0	-10	-18	-13	-18	3	3	-6		35	35	25	-5	0	-10	-18	-13	-18	4	4	-6		32	32	25	-8	-3	-10	-21	-16	-18	1	1	-6	
280225	6206624	7		40	35	35	53	48	43	33	33	24	-7	-2	-11	-20	-15	-19	1	1	-8		34	34	24	-6	-1	-11	-19	-14	-19	3	3	-8		31	31	24	-9	-4	-11	-22	-17	-19	-1	-1	-8	
280020	6206795	7		40	35	35	53	48	43	35	35	25	-5	0	-10	-18	-13	-18	3	3	-6		35	35	25	-5	0	-10	-18	-13	-18	4	4	-6		32	32	25	-8	-3	-10	-21	-16	-18	1	1	-6	
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									Stage 2 Inv2ms exc Constrn Mitigated													Stage 4 Inv2ms Mitigated												Stage 5 Inv2ms Mitigated											
				PNTL			PANL			Predicted			Compare to PNTL			Compare to PANL			Compare to Existing			Impact category	Predicted			Compare to PNTL			Compare to PANL			Compare to Existing			Impact category	Predicted			Compare to PNTL			Compare to PANL			Compare to Existing			Impact Category
X	Y	NCA	Property Details	Day	Evening	Night				Day	Eve	Nt	Day	Eve	Nt	Day	Eve	Nt	Day	Eve	Nt		Day	Eve	Nt	Day	Eve	Nt	Day	Eve	Nt	Day	Eve	Nt		Day	Eve	Nt	Day	Eve	Nt	Day	Eve	Nt	Day	Eve	Nt	
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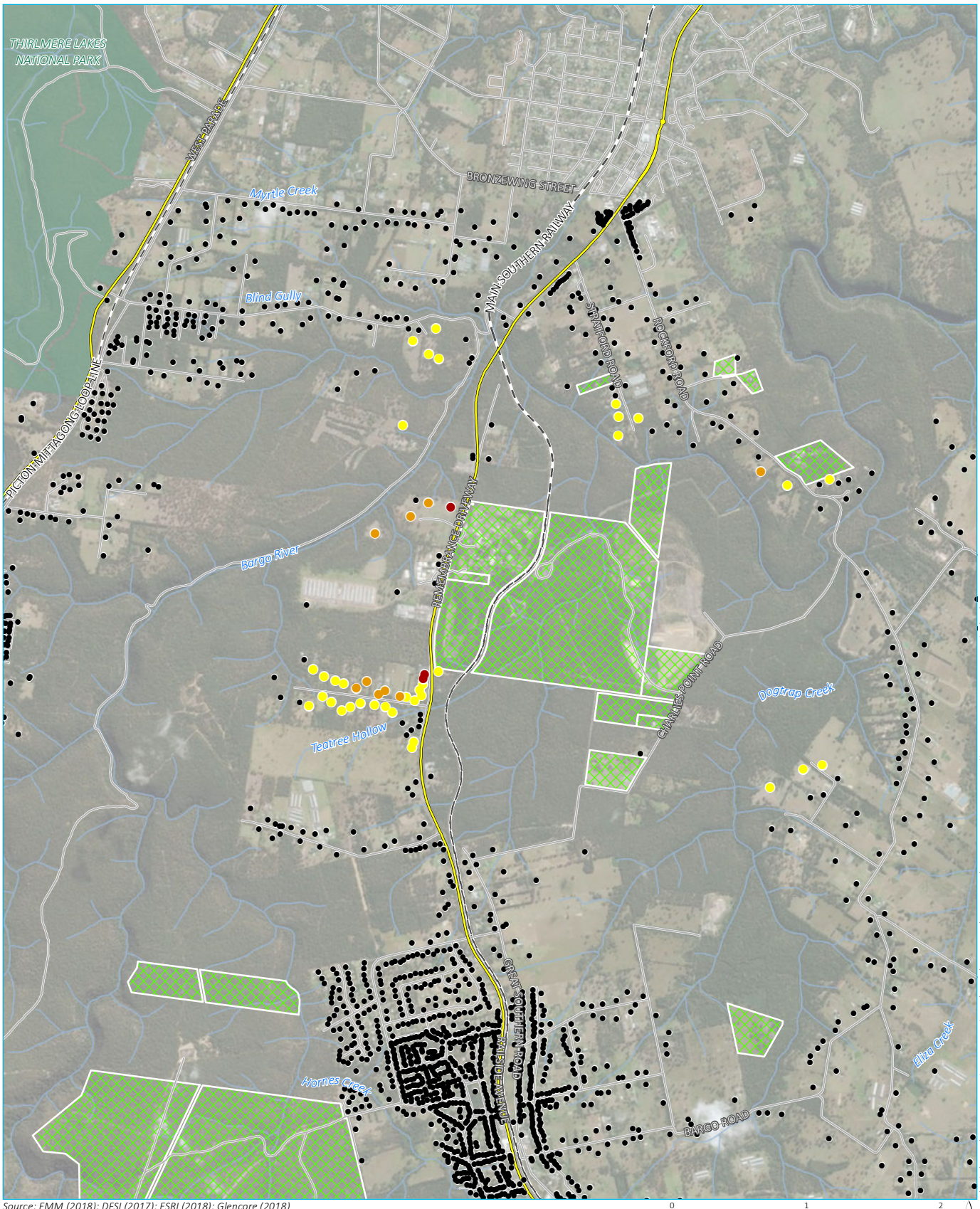
276368	6209832	7		40	35	35	53	48	43	35	35	29	-5	0	-6	-18	-13	-14	-1	-1	-7		35	35	29	-5	0	-6	-18	-13	-14	-1	-1	-7		35	35	29	-5	0	-6	-18	-13	-14	-1	-1	-7	
275294	6208702	7		40	35	35	53	48	43	33	33	30	-7	-2	-5	-20	-15	-13	-2	-2	-6		34	34	30	-6	-1	-5	-19	-14	-13	-2	-2	-6		33	33	30	-7	-2	-5	-20	-15	-13	-3	-3	-6	
275669	6209080	7		40	35	35	53	48	43	34	34	30	-6	-1	-5	-19	-14	-13	-2	-2	-6		34	34	30	-6	-1	-5	-19	-14	-13	-2	-2	-6		34	34	30	-6	-1	-5	-19	-14	-13	-3	-3	-6	
275507	6209032	7		40	35	35	53	48	43	34	34	30	-6	-1	-5	-19	-14	-13	-2	-2	-6		34	34	30	-6	-1	-5	-19	-14	-13	-2	-2	-6		33	33	30	-7	-2	-5	-20	-15	-13	-3	-3	-6	
275863	6209145	7		40	35	35	53	48	43	34	34	31	-6	-1	-4	-19	-14	-12	-2	-2	-6		35	35	31	-5	0	-4	-18	-13	-12	-2	-2	-6		34	34	31	-6	-1	-4	-19	-14	-12	-2	-2	-6	
276217	6209821	7		40	35	35	53	48	43	35	35	28	-5	0	-7	-18	-13	-15	-1	-1	-7		35	35	29	-5	0	-6	-18	-13	-14	-1	-1	-7		35	35	29	-6	-1	-6	-19	-14	-14	-1	-1	-7	
276302	6209841	7		40	35	35	53	48	43	35	35	29	-5	0	-6	-18	-13	-14	-1	-1	-7		35	35	29	-5	0	-6	-18	-13	-14	-1	-1	-7		35	35	29	-5	0	-6	-18	-13	-14	-1	-1	-7	
276073	6208717	7		40	35	35	53	48	43	37	37	34	-3	2	-1	-16	-11	-9	-2	-2	-6		37	37	34	-3	2	-1	-16	-11	-9	-2	-2	-6		37	37	34	-3	2	-1	-16	-11	-9	-3	-3	-6	
275942	6209122	7		40	35	35	53	48	43	35	35	31	-5	0	-4	-18	-13	-12	-2	-2	-6		35	35	31	-5	0	-4	-18	-13	-12	-2	-2	-6		35	35	31	-5	0	-4	-18	-13	-12	-2	-2	-6	
275631	6209237	7		40	35	35	53	48	43	33	33	30	-7	-2	-5	-20	-15	-13	-2	-2	-6		33	33	30	-7	-2	-5	-20	-15	-13	-2	-2	-6		33	33	30	-7	-2	-5	-20	-15	-13	-3	-3	-6	
275212	6208707	7		40	35	35	53	48	43	33	33	30	-7	-2	-5	-20	-15	-13	-3	-3	-6		33	33	30	-7	-2	-5	-20	-15	-13	-3	-3	-6		33	33	30	-7	-2	-5	-20	-15	-13	-3	-3	-6	
276224	6209139	7		40	35	35	53	48	43	36	36	32	-4	1	-3	-17	-12	-11	-2	-2	-5		36	36	32	-4	1	-3	-17	-12	-11	-2	-2	-5		35	35	32	-5	0	-3	-18	-13	-11	-3	-3	-5	
275449	6209086	7		40	35	35	53	48	43	33	33	30	-7	-2	-5	-20	-15	-13	-2	-2	-6		33	33	30	-7	-2	-5	-20	-15	-13	-2	-2	-6		33	33	30	-7	-2	-5	-20	-15	-13	-3	-3	-6	
275903	6209412	7		40	35	35	53	48	43	33	33	30	-7	-2	-5	-20	-15	-13	-2	-2	-6		34	34	30	-6	-1	-5	-19	-14	-13	-2	-2	-6		33	33	30	-7	-2	-5	-20	-15	-13	-2	-2	-6	
275716	6209242	7		40	35	35	53	48	43	33	33	30	-7	-2	-5	-20	-15	-13	-2	-2	-6		34	34	30	-6	-1	-5	-19	-14	-13	-2	-2	-6		33	33	30	-7	-2	-5	-20	-15	-13	-3	-3	-6	
275982	6209664	7		40	35	35	53	48	43	33	33	29	-7	-2	-6	-20	-15	-14	-1	-1	-6		33	33	29	-7	-2	-6	-20	-15	-14	-2	-2	-6		33	33	29	-7	-2	-6	-20	-15	-14	-2	-2	-6	
275774	6209409	7		40	35	35	53	48	43	33	33	29	-7	-2	-6	-20	-15	-14	-2	-2	-6		33	33	29	-7	-2	-6	-20	-15	-14	-2	-2	-6		33	33	29	-7	-2	-6	-20	-15	-14	-2	-2	-6	
278166	6208380	4		41	41	41	58	48	43	44	44	36	3	3	-5	-14	-4	-7	1	1	-7	Marginal	43	43	36	2	2	-5	-15	-5	-7	0	0	-7		44	44	36	3	3	-5	-14	-4	-7	1	1	-6	Marginal
278809	6208573	4a		40	40	35	58	48	43	40	40	32	0	0	-3	-18	-8	-11	1	1	-7		39	39	32	-1	-1	-3	-19	-9	-11	0	0	-7		39	39	32	-1	-1	-3	-19	-9	-11	0	0	-6	
279043	6208273	4a		40	40	35	58	48	43	41	41	33	1	1	-2	-17	-7	-10	2	2	-6		39	39	33	-1	-1	-2	-19	-9	-10	0	0	-6		39	39	33	-1	-1	-2	-19	-9	-10	0	0	-5	
278383	6208506	4		41	41	41	58	48	43	42	42	34	1	1	-7	-16	-6	-9	1	1	-7		41	41	34	0	0	-7	-17	-7	-9	0	0	-7		41	41	35	0	0	-6	-17	-7	-8	0	0	-6	
277972	6208608	4		41	41	41	58	48	43	43	43	35	2	2	-6	-15	-5	-8	1	1	-6		42	42	35	1	1	-6	-16	-6	-8	1	1	-6		43	43	36	2	2	-5	-15	-5	-7	1	1	-6	
278377	6208334	4		41	41	41	58	48	43	44	44	35	3	3	-6	-14	-4	-8	2	2	-7	Marginal	42	42	35	1	1	-6	-16	-6	-8	1	1	-7		42	42	36	1	1	-5	-16	-6	-7	1	1	-6	
278269	6208288	4		41	41	41	58	48	43	44	44	36	3	3	-5	-14	-4	-7	2	2	-7	Marginal	43	43	36	2	2	-5	-15	-5	-7	0	0	-7		43	43	36	2	2	-5	-15	-5	-7	0	0	-6	
278021	6208391	4		41	41	41	58	48	43	45	45	36	4	4	-5	-13	-3	-7	1	1	-7	Marginal	44	44	36	3	3	-5	-14	-4	-7	1	1	-7	Marginal	44	44	37	3	3	-4	-14	-4	-6	1	1	-7	Marginal
277995	6208547	4		41	41	41	58	48	43	43	43	36	2	2	-5	-15	-5	-7	1	1	-7		43	43	36	2	2	-5	-15	-5	-7	0	0	-7		43	43	36	2	2	-5	-15	-5	-7	0	0	-6	
278853	6208399	4a		40	40	35	58	48	43	41	41	33	1	1	-2	-17	-7	-10	2	2	-6		40	40	33	0	0	-2	-18	-8	-10	0	0	-6		39	39	33	-1	-1	-2	-19	-9	-10	0	0	-6	
279273	6207883	7	M8 - Rockford Rd, near existing vent fan	40	35	35	53	48	43	40	40	34	0	5	-1	-13	-8	-9	3	3	-3	Marginal	38	38	34	-2	3	-1	-15	-10	-9	1	1	-3	Marginal	38	38	34	-2	3	-1	-15	-10	-9	0	0	-3	Marginal
278470	6208274	4		41	41	41	58	48	43	42	42	33	1	1	-8	-16	-6	-10	3	3	-6		40	40	33	-1	-1	-8	-18	-8	-10	1	1	-6		40	40	33	-1	-1	-8	-18	-8	-10	1	1	-6	
278573	6208183	4		41	41	41	58	48	43	40	40	33	-1	-1	-8	-18	-8	-10	1	1	-6		39	39	33	-2	-2	-8	-19	-9	-10	0	0	-6		39	39	33	-2	-2	-8	-19	-9	-10	0	0	-6	
278440	6208475	4		41	41	41	58	48	43	42	42	34	1	1	-7	-16	-6	-9	1

							Stage 2 Inv2ms exc Constrn Mitigated												Stage 4 Inv2ms Mitigated												Stage 5 Inv2ms Mitigated											
				PNTL			PANL			Predicted			Compare to PNTL			Compare to PANL			Compare to Existing			Impact category	Predicted			Compare to PNTL			Compare to PANL			Compare to Existing			Impact category	Predicted			Compare to PNTL			Compare to PANL			Compare to Existing			Impact Category
X	Y	NCA	Property Details	Day	Evening	Night				Day	Eve	Nt	Day	Eve	Nt	Day	Eve	Nt	Day	Eve	Nt		Day	Eve	Nt	Day	Eve	Nt	Day	Eve	Nt	Day	Eve	Nt		Day	Eve	Nt	Day	Eve	Nt	Day	Eve	Nt				
279520	6207710	7		40	35	35	53	48	43	35	35	29	-5	0	-6	-18	-13	-14	2	2	-5		34	34	29	-6	-1	-6	-19	-14	-14	1	1	-5		34	34	29	-6	-1	-6	-19	-14	-14	0	0	-5	
279655	6207903	7		40	35	35	53	48	43	37	37	30	-3	2	-5	-16	-11	-13	3	3	-4		36	36	30	-4	1	-5	-17	-12	-13	2	2	-4		35	35	30	-5	0	-5	-18	-13	-13	1	1	-4	
279586	6207924	7		40	35	35	53	48	43	38	38	32	-2	3	-3	-15	-10	-11	3	3	-4	Marginal	36	36	32	-4	1	-3	-17	-12	-11	1	1	-4		36	36	32	-4	1	-3	-17	-12	-11	0	0	-4	
279511	6207887	7		40	35	35	53	48	43	39	39	33	-1	4	-2	-14	-9	-10	3	3	-3	Marginal	37	37	33	-3	2	-2	-16	-11	-10	1	1	-3		36	36	33	-4	1	-2	-17	-12	-10	0	0	-3	
276413	6208329	7		40	35	35	53	48	43	38	38	35	-2	3	0	-15	-10	-8	-3	-3	-6	Marginal	38	38	35	-2	3	0	-15	-10	-8	-3	-3	-6	Marginal	35	35	32	-5	0	-3	-18	-13	-11	-6	-6	-8	
279728	6207929	7		40	35	35	53	48	43	34	34	28	-6	-1	-7	-19	-14	-15	2	2	-5		35	35	28	-5	0	-7	-18	-13	-15	2	2	-5		33	33	28	-7	-2	-7	-20	-15	-15	1	1	-4	
279904	6207975	7		40	35	35	53	48	43	35	35	28	-5	0	-7	-18	-13	-15	3	3	-4		34	34	28	-6	-1	-7	-19	-14	-15	2	2	-4		33	33	28	-7	-2	-7	-20	-15	-15	1	1	-4	
279808	6207845	7		40	35	35	53	48	43	33	33	27	-7	-2	-8	-20	-15	-16	1	1	-5		34	34	27	-6	-1	-8	-19	-14	-16	2	2	-5		32	32	27	-8	-3	-8	-21	-16	-16	0	0	-5	
278085	6208863	4a		40	40	35	58	48	43	40	40	33	0	0	-2	-18	-8	-10	1	1	-6		40	40	33	0	0	-2	-18	-8	-10	0	0	-6		40	40	34	0	0	-1	-18	-8	-9	0	0	-6	
277990	6208940	4a		40	40	35	58	48	43	40	40	33	0	0	-2	-18	-8	-10	1	1	-6		40	40	33	0	0	-2	-18	-8	-10	0	0	-6		40	40	34	0	0	-1	-18	-8	-9	1	1	-6	
278114	6209205	4a		40	40	35	58	48	43	38	38	32	-2	-2	-3	-20	-10	-11	0	0	-7		38	38	32	-2	-2	-3	-20	-10	-11	-1	-1	-6		38	38	32	-2	-2	-3	-20	-10	-11	0	0	-6	
278855	6209897	7		40	35	35	53	48	43	33	33	27	-7	-2	-8	-20	-15	-16	0	0	-6		32	32	27	-8	-3	-8	-21	-16	-16	-1	-1	-6		32	32	27	-8	-3	-8	-21	-16	-16	-1	-1	-6	
279002	6209862	7		40	35	35	53	48	43	33	33	26	-7	-2	-9	-20	-15	-17	0	0	-6		32	32	26	-8	-3	-9	-21	-16	-17	-1	-1	-6		32	32	27	-8	-3	-8	-21	-16	-16	-1	-1	-6	
276281	6209124	7		40	35	35	53	48	43	36	36	32	-4	1	-3	-17	-12	-11	-2	-2	-5		36	36	32	-4	1	-3	-17	-12	-11	-2	-2	-5		35	35	32	-5	0	-3	-18	-13	-11	-2	-2	-5	
276432	6209913	7		40	35	35	53	48	43	34	34	28	-6	-1	-7	-19	-14	-15	-1	-1	-7		34	34	29	-6	-1	-7	-19	-14	-15	-1	-1	-7		34	34	29	-6	-1	-6	-19	-14	-14	-1	-1	-6	
276398	6209381	7		40	35	35	53	48	43	37	37	31	-3	2	-4	-16	-11	-12	-1	-1	-7		37	37	31	-3	2	-4	-16	-11	-12	-1	-1	-7		37	37	31	-3	2	-4	-16	-11	-12	-1	-1	-7	
277907	6209126	4a		40	40	35	58	48	43	39	39	33	-1	-1	-2	-19	-9	-10	0	0	-7		39	39	33	-1	-1	-2	-19	-9	-10	0	0	-6		39	39	33	-1	-1	-2	-19	-9	-10	0	0	-6	
276317	6209532	7		40	35	35	53	48	43	36	36	30	-4	1	-5	-17	-12	-13	-1	-1	-7		36	36	30	-4	1	-5	-17	-12	-13	-1	-1	-7		36	36	30	-4	1	-5	-17	-12	-13	-1	-1	-7	
275501	6205353	7		40	35	35	53	48	43	34	34	31	-6	-1	-4	-19	-14	-12	-1	-1	-4		34	34	31	-6	-1	-4	-19	-14	-12	-1	-1	-4		34	34	31	-6	-1	-4	-19	-14	-12	-1	-1	-4	
276047	6205308	7		40	35	35	53	48	43	34	34	31	-6	-1	-4	-19	-14	-12	-1	-1	-4		35	35	31	-5	0	-4	-18	-13	-12	0	0	-3		34	34	31	-6	-1	-4	-19	-14	-12	0	0	-4	
279074	6207983	7		40	35	35	53	48	43	41	41	33	1	6	-2	-12	-7	-10	3	3	-4	Moderate	38	38	33	-2	3	-2	-15	-10	-10	1	1	-4	Marginal	38	38	34	-2	3	-1	-15	-10	-9	0	0	-4	Marginal
280346	6207535	7		40	35	35	53	48	43	33	33	24	-7	-2	-11	-20	-15	-19	2	2	-6		33	33	24	-7	-2	-11	-20	-15	-19	2	2	-6		31	31	24	-9	-4	-11	-22	-17	-19	0	0	-6	
276653	6207152	Anglic	Anglican Church (M2)	53	53	n/a	53	53	n/a	51	53	51	-2	0		-2	0		-6	-7	-8		51	53	51	-2	0		-2	0		-6	-7	-8		51	53	51	-2	0		-2	0		-6	-7	-8	

Appendix G

Residual noise impacts



Source: EMM (2018); DFSI (2017); ESRI (2018); Glencore (2018)

0 1 2 km

GDA 1994 MGA Zone 56

N

T:\Jobs\2018\H180165 - Tahmoor South NIA\8 GIS\02_Maps\NIA_2019\NIA005_NoiseCategoryAllStages_20191106_01.mxd 4/12/2019

KEY

- Rail line
- Main road
- Local road
- Watercourse / drainage line
- Tahmoor-owned land
- NPWS reserve

Noise impact category (all stages)

- Negligible or none
- Marginal
- Moderate
- Significant

Noise impact categories - Tahmoor Amended Project (all stages)

Appendix G

EMM creating opportunities

Appendix H

Construction noise modelling results

			PNTL				PANL			Stage 2 Noise-enhancing without mitigation									Stage 2 Inv2ms + TSC1 Site Est			Stage 2 Inv2ms + TSC1 Drilling (Construction mitigated)									Stage 2 Inv2ms TSC2 Site Est									Stage 2 Inv2ms TSC2 Drill								
										Predicted			Compare to PNTL			Compare to PANL			Predicted	Compare to PNTL	Compare to Unmit S2	Predicted			Compare to PNTL			Compare to Unmit S2	Predicted	Compare to PNTL	Compare to Unmit S2	Predicted			Compare to PNTL			Compare to Unmit S2								
X	Y	Property Details	Day	Evening	Night				Day	Eve	Nt	Day	Eve	Nt	Day	Eve	Nt	Day			Day	Eve	Nt	Day	Eve	Nt				Day			Day	Eve	Nt	Day	Eve	Nt								
276125	6204051		40	35	35	53	48	43	31	31	31	-9	-4	-4	-22	-17	-12	34	-6		3	31	31	31	-9	-4	-4	0	0	0	33	-7		2	31	31	31	-9	-4	-4	0	0	0
276287	6204323		40	35	35	53	48	43	32	32	32	-8	-3	-3	-21	-16	-11	35	-5		3	33	32	32	-7	-3	-3	0	0	0	34	-6		2	33	32	32	-7	-3	-3	0	0	0
276241	6204252		40	35	35	53	48	43	32	32	32	-8	-3	-3	-21	-16	-11	35	-5		3	32	32	32	-8	-3	-3	0	0	0	34	-6		2	32	32	32	-8	-3	-3	0	0	0
276262	6204113		40	35	35	53	48	43	32	32	32	-8	-3	-3	-21	-16	-11	34	-6		3	32	32	32	-8	-3	-3	0	0	0	33	-7		2	32	32	32	-8	-3	-3	0	0	0
276165	6203983		40	35	35	53	48	43	31	31	31	-9	-4	-4	-22	-17	-12	34	-6		3	31	31	31	-9	-4	-4	0	0	0	33	-7		2	31	31	31	-9	-4	-4	0	0	0
276251	6204175		40	35	35	53	48	43	32	32	32	-8	-3	-3	-21	-16	-11	35	-5		3	32	32	32	-8	-3	-3	0	0	0	34	-6		2	32	32	32	-8	-3	-3	0	0	0
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277000	6203701		40	35	35	53	48	43	30	30	30	-10	-5	-5	-23	-18	-13	36	-4		5	31	31	31	-9	-4	-4	1	0	0	35	-5		5	31	31	31	-9	-4	-4	1	0	0

			PNTL			PANL			Stage 2 Noise-enhancing without mitigation									Stage 2 Inv2ms + TSC1 Site Est			Stage 2 Inv2ms + TSC1 Drilling (Construction mitigated)									Stage 2 Inv2ms TSC2 Site Est						Stage 2 Inv2ms TSC2 Drill								
									Predicted			Compare to PNTL			Compare to PANL			Predicted	Compare to PNTL	Compare to Unmit S2	Predicted	Compare to PNTL			Compare to Unmit S2			Predicted	Compare to PNTL	Compare to Unmit S2				Predicted			Compare to PNTL			Compare to Unmit S2		
X	Y	Property Details	Day	Evening	Night	Day	Eve	Nt	Day	Eve	Nt	Day	Eve	Nt	Day	Eve	Nt	Day	Day	Day	Day	Eve	Nt	Day	Eve	Nt				Day	Day		Day	Eve	Nt	Day	Eve	Nt			
277096	6203782		40	35	35	53	48	43	30	30	30	-10	-5	-5	-23	-18	-13	35	-5	5	31	30	30	-9	-5	-5	1	0	0	35	-5	5	31	31	31	-9	-4	-4	1	0	0
276903	6203773		40	35	35	53	48	43	31	31	31	-9	-4	-4	-22	-17	-12	36	-4	6	32	31	31	-8	-4	-4	1	0	0	35	-5	4	31	31	31	-9	-4	-4	1	0	0
276929	6204280		40	35	35	53	48	43	32	32	32	-8	-3	-3	-21	-16	-11	37	-3	4	33	33	33	-7	-2	-2	1	0	0	35	-5	3	33	33	33	-7	-2	-2	0	0	0
277007	6204170		40	35	35	53	48	43	32	32	32	-8	-3	-3	-21	-16	-11	36	-4	4	33	32	32	-7	-3	-3	1	0	0	35	-5	3	32	32	32	-8	-3	-3	0	0	0
276905	6203536		40	35	35	53	48	43	30	30	30	-10	-5	-5	-23	-18	-13	35	-5	5	31	30	30	-9	-5	-5	1	0	0	34	-6	4	31	30	30	-9	-5	-5	1	0	0
277102	6203592		40	35	35	53	48	43	30	30	30	-10	-5	-5	-23	-18	-13	35	-5	5	31	30	30	-9	-5	-5	1	0	0	35	-5	5	31	30	30	-9	-5	-5	1	0	0
277003	6203723		40	35	35	53	48	43	31	31	31	-9	-4	-5	-22	-17	-13	36	-4	5	31	31	31	-9	-4	-4	1	0	0	35	-5	5	31	31	31	-9	-4	-4	1	0	0
276805	6203750		40	35	35	53	48	43	31	31	31	-9	-4	-4	-22	-17	-12	36	-4	5	31	31	31	-9	-4	-4	1	0	0	35	-5	4	31	31	31	-9	-4	-4	1	0	0
277000	6203494		40	35	35	53	48	43	30	30	30	-10	-5	-5	-23	-18	-13	35	-5	5	31	30	30	-9	-5	-5	1	0	0	34	-6	4	30	30	30	-10	-5	-5	1	0	0
276397	6203994		40	35	35	53	48	43	31	31	31	-9	-4	-4	-22	-17	-12	34	-6	2	32	31	31	-8	-4	-4	0	0	0	33	-7	2	32	31	31	-8	-4	-4	0	0	0
277305	6203968		40	35	35	53	48	43	30	30	30	-10	-5	-5	-23	-18	-13	36	-4	6	31	30	30	-9	-5	-5	1	0	0	36	-4	6	31	30	30	-9	-5	-5	1	0	0
277309	6204051		40	35	35	53	48	43	32	32	32	-8	-3	-3	-21	-16	-11	37	-3	5	33	32	32	-7	-3	-3	1	0	0	37	-3	5	33	32	32	-7	-3	-3	1	0	0
276429	6204228		40	35	35	53	48	43	32	32	32	-8	-3	-3	-21	-16	-11	36	-4	4	33	32	32	-7	-3	-3	1	0	0	34	-6	2	32	32	32	-8	-3	-3	0	0	0
276993	6203680		40	35	35	53	48	43	30	30	30	-10	-5	-5	-23	-18	-13	36	-4	5	31	31	31	-9	-4	-4	1	0	0	35	-5	5	31	31	31	-9	-4	-4	1	0	0
276481	6203972		40	35	35	53	48	43	31	31	31	-9	-4	-4	-22	-17	-12	34	-6	3	32	31	31	-8	-4	-4	0	0	0	33	-7	2	32	31	31	-8	-4	-4	0	0	0
276446	6204094		40	35	35	53	48	43	32	32	32	-8	-3	-3	-21	-16	-11	35	-5	3	32	32	32	-8	-3	-3	1	0	0	34	-6	2	32	32	32	-8	-3	-3	0	0	0
276893	6203881		40	35	35	53	48	43	31	31	31	-9	-4	-4	-22	-17	-12	36	-4	5	32	31	31	-8	-4	-4	1	0	0	36	-4	5	32	31	31	-8	-4	-4	1	0	0
276877	6203818		40	35	35	53	48	43	31	31	31	-9	-4	-4	-22	-17	-12	36	-4	5	32	31	31	-8	-4	-4	1	0	0	35	-5	4	32	31	31	-8	-4	-4	1	0	0
277310	6204032		40	35	35	53	48	43	32	32	32	-8	-3	-3	-21	-16	-11	37	-3	5	33	32	32	-7	-3	-3	1	0	0	37	-3	5	33	32	32	-7	-3	-3	1	0	0
277050	6203879		40	35	35	53	48	43	31	31	31	-9	-4	-4	-22	-17	-12	36	-4	5	32	31	31	-8	-4	-4	1	0	0	36	-4	5	32	31	31	-8	-4	-4	1	0	0
277078	6203723		40	35	35	53	48	43	31	31	31	-9	-4	-4	-22	-17	-12	35	-5	5	31	31	31	-9	-4	-4	1	0	0	35	-5	5	31	31	31	-9	-4	-4	1	0	0
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276952	6203480		40	35	35	53	48	43	30	30	30	-10	-5	-5	-23	-18	-13	35	-5	5	31	30	30	-9	-5	-5	1	0	0	34	-6	4	30	30	30	-10	-5	-5	1	0	0
277010	6203873		40	35	35	53	48	43	31	31	31	-9	-4	-4	-22	-17	-12	36	-4	5	32	31	31	-8	-4	-4	1	0	0	36	-4	5	32	31	31	-8	-4	-4	1	0	0
276965	6203990		40	35	35	53	48	43	31	31	31	-9	-4	-4	-22	-17	-12	36	-4	5	32	31	31	-8	-4	-4	1	0	0	36	-4	5	32	32	32	-8	-3	-3	1	0	0
276703	6203651		40	35	35	53	48	43	30	30	30	-10	-5	-5	-23	-18	-13	33	-7	3	31	30	30	-9	-5	-5	0	0	0	32	-8	2	30	30	30	-10	-5	-5	0	0	0
276870	6203716		40	35	35	53	48	43	31	31	30	-10	-5	-5	-23	-18	-13	36	-4	5	31	31	31	-9	-4	-4	1	0	0	35	-5	4	31	31	31	-9	-4	-4	1	0	0
277304	6204082		40	35	35	53	48	43	32	32	32	-8	-3	-3	-21	-16	-11	37	-3	5	33	32	32	-7	-3	-3	1	0	0	37	-3	5	33	32	32	-7	-3	-3	1	0	0
277228	6203942		40	35	35	53	48	43	31	31	31	-9	-4	-4	-22	-17	-12	36	-4	5	32	31	31	-8	-4	-4	1	0	0	37	-3	5	32	32	32	-8	-3	-3	1	0	0
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277054	6203808		40	35	35	53	48	43	31	31	31	-9	-4	-4	-22	-17	-12	36	-4	5	32	31	31	-8	-4	-4	1	0	0	36	-4	5	32	31	31	-8	-4	-4	1	0	0
276357	6204346		40	35	35	53	48	43	33	33	33	-7	-2	-2	-20	-15	-10	36	-4	3	33	33	33	-7	-2	-2	0	0	0	35	-5	2	33	33	33	-7	-2	-2	0	0	0
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276840	6204417		40	35	35	53	48	43	33	33	33	-7	-2	-2	-20	-15	-10	37	-3	4	34	33	33	-6	-2	-2	1	0	0	36	-4	3	34	33	33	-6	-2	-2	0	0	0
276722	6204424		40	35	35	53	48	43	33	33	33	-7	-2	-2	-20	-15	-10	36	-4	3	34	33	33	-6	-2	-2	0	0	0	36	-4	3	33	33	33	-7	-2	-2	0	0	0
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276482	6204482		40	35	35	53	48	43	33	33	33	-7	-2	-2	-20	-15	-10	36	-4	3	34	33	33	-6	-2	-2	0	0	0	35	-5	2	34	33	33	-6	-2	-2	0	0	0
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279300	6205322		40	35	35	53	48	43	33	33	33	-7	-2	-2	-20	-15	-10	42	2	9	35	33	33	-5	-2	-2	2	1	1	45	5	12	37	34	34	-3	-1	-1	4	1	1
278203	6204085		40	35	35	53	48	43	31	31	31	-9	-4	-4	-22	-17	-12	39	-1	8	33	32	31	-7	-3	-4	2	1	1	36	-4	5	32	31	31	-8	-4	-4	1	0	0
278145	6204022		40	35	35	53	48	43	31	31	31	-9	-4	-4	-22	-17	-12	38	-2	8	32	31	31	-8	-4	-4	2	1	1	36	-4	5	32	31	31	-8	-4	-4	1	0	0
276178	6204076		40	35	35	53	48	43	31	31	31	-9	-4	-4	-22	-17	-12	34	-6	3	32	31	31	-8	-4	-4	0	0	0	33	-7	2	31	31	31	-9	-4	-4	0	0	0
276165	6204127		40	35	35	53	48	43	31	31	31	-9	-4	-4	-22	-17	-12	34	-6	3	32	31	31	-8	-4	-4	0	0	0	33	-7	2	32	31	31	-8	-4	-4	0	0	0
276248	6204204		40	35	35	53	48	43	32	32	32	-8	-3	-3	-21	-16	-11	35	-5	3	32	32	32	-8	-3	-3	0	0	0	34	-6	2	32	32	32	-8	-3	-3	0	0	0
276148	6204170		40	35	35	53	48	43	31	31	31	-9	-4	-4	-22	-17	-12	35	-5	3	32	31	31	-8	-4	-4	0	0	0	33	-7	2	32	31	31	-8	-4	-4	0	0	0
275989	6204304		40	35	35	53	48	43	32	32	32	-8	-3	-3	-21	-16	-11	35	-5	3	32	32	32	-8	-3	-3	0	0	0	33	-7	2	32	32	32	-8	-3	-3	0	0	0
276661	6204288		40	35	35	53	48	43	33	33	33	-7	-2	-2	-20	-15	-10	36	-4	3	33	33	33	-7	-2	-2	0	0	0	35	-5	2	33	33	33	-7	-2	-2	0	0	0
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276757	6204207		40	35	35	53	48	43	32	32	32	-8	-3	-3	-21	-16	-11	36	-4	4	33	32	32	-7	-3	-3	1	0	0	35	-5	3	33	32	32	-7	-3	-3	0	0	0
276921	6203962		40	35	35	53	48	43	31	31	31	-9	-4	-4	-22	-17	-12	36	-4	5	32	31	31	-8	-4	-4	1	0	0	36	-4	5	32	32	32	-8	-3	-3	1	0	0
276759	6203957		40	35	35	53	48	43	31	31	31	-9	-4	-4	-22	-17	-12	35	-5	4	32	31	31	-8	-4	-4	1	0	0	36	-4	4	32	32	32	-8	-3	-3	1	0	0
276007	6204256		40	35	35	53	48	43	31	31	31	-9	-4	-4	-22	-17	-12	35	-5	3	32	31	31	-8	-4	-4	0	0	0	33	-7	2	32	31	31	-8	-4	-4	0	0	0
277129	6203872		40	35	35	53	48	43	31	31	31	-9	-4	-4	-22	-17	-12	36	-4	5	32	31	31	-8	-4	-4	1	0	0	36	-4	5	32	31	31	-8	-4	-4	1	0	0
276564	6203909		40	35	35	53	48	43	31	31	31	-9	-4	-4	-22	-17	-12	34	-6	3	32	31	31	-8	-4	-4	0	0	0	33	-7	2	31	31	31	-9	-4	-4	0	0	0
276933	6203657		40	35	35	53	48	43	30	30	30	-10	-5	-5	-23	-18	-13	36	-4	5	31	31	31	-9	-4	-4	1	0	0	35	-5	4	31	31	31	-9	-4	-4	1	0	0
276688	6203942		40	35	35	53	48	43	31	31	31	-9	-4	-4	-22	-17	-12	36	-4	5	32	31	31	-8	-4	-4	1	0	0	35	-5	4	32	32	32	-8	-3	-3	1	0	0
276708	6204295		40	35	35	53	48	43	33	33	33	-7	-2	-2	-20	-15	-10	36	-4	3	33	33	33	-7	-2	-2	0	0	0	35	-5	2	33	33	33	-7	-2	-2	0	0	0
277105	6203707		40	35	35	53	48	43	30	30	30	-10	-5	-5	-23	-18	-13	35	-5	5	31	31	31	-9	-4	-4	1	0	0	35	-5	5	31	31	31	-9	-4	-4	1	0	0
276393	6204222		40	35	35	53	48	43	32	32	32	-8	-3	-3	-21	-16	-11	36	-4	3	33	32	32	-7	-3	-3	0	0	0	34	-6	2	32	32	32	-8	-3	-3	0	0	0
276389	6204038		40	35	35	53	48	43	32	32	32	-8	-3	-3	-21	-16	-11	35	-5	3	32	32	32	-8	-3	-3	0	0	0	33	-7	2	32	32	32	-8	-3	-3	0	0	0
276864	6203690		40	35	35	53	48	43	30	30	30	-10	-5	-5	-23	-18	-13	36	-4	5	31	31	31	-9	-4	-4	1	0	0	35	-5	4	31	31	31	-9	-4	-4	1	0	0
277718	6203686		40	35	35	53	48	43	30	30	30	-10	-5	-5	-23	-18	-13	36	-4	5	31	30	30	-9	-5	-5	1	0	0	36	-4	6	31	30	30	-9	-5	-5	1	0	0
278002	6204056		40	35	35	53	48	43	31	31	31	-9	-4	-4	-22	-17	-12	38	-2	7	32	31	31	-8	-4	-4	2	0	0	36	-4	5	32	31	31	-8	-4	-4	1	0	0
277305	6203653		40	35	35	53	48	43	30	30	30	-10	-5	-5	-23	-18	-13	35	-5	4	31	30	30	-9	-5	-5	1	0	0	35	-5	5	31	31	31	-9	-4	-4	1	0	0
277384	6204137		40	35	35	53	48	43	32	32	32	-8	-3	-3	-21	-16	-11	37	-3	5	33	32	32	-7	-3	-3	1	0	0	36	-4	4	33	32	32	-7	-3	-3	1	0	0
277830	6203946		40	35	35	53	48	43	31	31	31	-9	-4	-5	-22	-17	-13	37	-3	6	32	31	31	-8	-4	-4	1	0	0	37	-3	7	32	31	31	-8	-4	-4	1	0	0
277631	6203698		40	35	35	53	48	43	30	30	30	-10	-5	-5	-23	-18	-13	35	-5	5	31	30	30	-9	-5	-5	1	0	0	36	-4	6	31	30	30	-9	-5	-5	1	0	0
278110	6203970		40	35	35	53	48	43	30	30	30	-10	-5	-5	-23	-18	-13	38	-2	7	32	31	31	-8	-4	-4	2	1	1	36	-4	5	31	31	31	-9	-4	-4	1	0	0
277902	6203925		40	35	35	53	48	43	30	30	30	-10	-5	-5	-23	-18	-13	37	-3	7	32	31	31	-8	-4	-4	1	0	0	38	-2	7	32	31	31	-8	-4	-4	1	0	0
277668	6203879		40	35	35	53	48	43	30	30	30	-10	-5	-5	-23	-18	-13	36	-4	6	31	30	30	-9	-5	-5	1	0	0	36	-4	6	31	30	30	-9	-5	-5	1	0	0
277619	6203790		40	35	35	53	48	43	30	30	30	-10	-5	-5	-23	-18	-13	36	-4	5	31	31	31	-9	-4	-4	1	0	0	36	-4	5	31	31	30	-9	-4	-5	1	0	0
276935	6203537		40	35	35	53	48	43	30	30	30	-10	-5	-5	-23	-18	-13	35	-5	5	31	30	30	-9	-5	-5	1	0	0	34	-6	4	31	30	30	-9	-5	-5	1	0	0
277445	6204108		40	35	35	53	48	43	32	32	32	-8	-3	-3	-21	-16	-11	37	-3	5	33	32	32	-7	-3	-3	1	0	0	37	-3	5	33	32	32	-7	-3	-3	1	0	0
277134	6204386		40	35	35	53	48	43	33	33	33	-7	-2	-2	-20	-15	-10	37	-3	4	34	33	33	-6	-2	-2	1	0	0	37	-3	3	34	33	33	-6	-2	-2	0	0	0
277612	6203727		40	35	35	53	48	43	30	30	30	-10	-5	-5	-23	-18	-13	35	-5	5	31	30	30	-9	-5	-5	1	0	0	36	-4	6	31	31	31	-9	-4	-4	1	0	0
276737	6203785		40	35	35	53	48	43	31	31	31	-9	-4	-4	-22	-17	-12	36	-4	5	32	31	31	-8	-4	-4	1	0	0	35	-5	4	31	31	31	-9	-4	-4	1	0	0

			PNTL			PANL			Stage 2 Noise-enhancing without mitigation									Stage 2 Inv2ms + TSC1 Site Est			Stage 2 Inv2ms + TSC1 Drilling (Construction mitigated)									Stage 2 Inv2ms TSC2 Site Est			Stage 2 Inv2ms TSC2 Drill					
									Predicted			Compare to PNTL			Compare to PANL			Predicted	Compare to PNTL	Compare to Unmit S2	Predicted			Compare to PNTL			Compare to Unmit S2	Predicted	Compare to PNTL	Compare to Unmit S2	Predicted			Compare to PNTL			Compare to Unmit S2		
X	Y	Property Details	Day	Evening	Night				Day	Eve	Nt	Day	Eve	Nt	Day	Eve	Nt	Day	Day	Day	Day	Eve	Nt	Day	Eve	Nt				Day	Day		Day	Eve	Nt	Day	Eve	Nt			
277934	6203569		40	35	35	53	48	43	30	30	30	-10	-5	-5	-23	-18	-13	35	-5	5	31	30	30	-9	-5	-5	1	0	0	34	-6	4	30	30	30	-10	-5	-5	1	0	0
278004	6203917		40	35	35	53	48	43	30	30	30	-10	-5	-5	-23	-18	-13	37	-3	7	32	31	31	-8	-4	-4	1	1	1	35	-5	5	31	30	30	-9	-5	-5	1	0	0
278085	6204119		40	35	35	53	48	43	31	31	31	-9	-4	-4	-22	-17	-12	39	-1	8	33	32	32	-7	-3	-3	2	1	1	36	-4	5	32	31	31	-8	-4	-4	1	0	0
277656	6203651		40	35	35	53	48	43	30	30	30	-10	-5	-5	-23	-18	-13	35	-5	5	31	30	30	-9	-5	-5	1	0	0	36	-4	6	31	30	30	-9	-5	-5	1	0	0
277384	6204036		40	35	35	53	48	43	32	32	32	-8	-3	-3	-21	-16	-11	37	-3	5	33	32	32	-7	-3	-3	1	0	0	37	-3	5	33	32	32	-7	-3	-3	1	0	0
277752	6204032		40	35	35	53	48	43	31	31	31	-9	-4	-4	-22	-17	-12	37	-3	6	32	31	31	-8	-4	-4	1	0	0	37	-3	7	32	31	31	-8	-4	-4	1	0	0
276523	6204398		40	35	35	53	48	43	33	33	33	-7	-2	-2	-20	-15	-10	37	-3	3	34	33	33	-6	-2	-2	0	0	0	35	-5	2	33	33	33	-7	-2	-2	0	0	0
276629	6204273		40	35	35	53	48	43	33	33	33	-7	-2	-2	-20	-15	-10	36	-4	3	33	33	33	-7	-2	-2	0	0	0	35	-5	2	33	33	33	-7	-2	-2	0	0	0
276487	6204390		40	35	35	53	48	43	33	33	33	-7	-2	-2	-20	-15	-10	36	-4	3	33	33	33	-7	-2	-2	0	0	0	35	-5	2	33	33	33	-7	-2	-2	0	0	0
276553	6204153		40	35	35	53	48	43	32	32	32	-8	-3	-3	-21	-16	-11	35	-5	3	33	32	32	-7	-3	-3	0	0	0	34	-6	2	32	32	32	-8	-3	-3	0	0	0
276769	6203626		40	35	35	53	48	43	30	30	30	-10	-5	-5	-23	-18	-13	35	-5	5	31	30	30	-9	-5	-5	1	0	0	34	-6	4	31	30	30	-9	-5	-5	1	0	0
276659	6204069		40	35	35	53	48	43	32	32	32	-8	-3	-3	-21	-16	-11	36	-4	4	32	32	32	-8	-3	-3	1	0	0	36	-4	4	32	32	32	-8	-3	-3	1	0	0
276548	6204257		40	35	35	53	48	43	32	32	32	-8	-3	-3	-21	-16	-11	36	-4	3	33	32	32	-7	-3	-3	0	0	0	35	-5	2	33	32	32	-7	-3	-3	0	0	0
276605	6204056		40	35	35	53	48	43	32	32	32	-8	-3	-3	-21	-16	-11	36	-4	4	32	32	32	-8	-3	-3	1	0	0	35	-5	3	32	32	32	-8	-3	-3	0	0	0
276510	6204255		40	35	35	53	48	43	32	32	32	-8	-3	-3	-21	-16	-11	36	-4	3	33	32	32	-7	-3	-3	0	0	0	35	-5	2	33	32	32	-7	-3	-3	0	0	0
277448	6204019		40	35	35	53	48	43	32	32	32	-8	-3	-3	-21	-16	-11	37	-3	5	33	32	32	-7	-3	-3	1	0	0	37	-3	5	33	32	32	-7	-3	-3	1	0	0
276614	6203916		40	35	35	53	48	43	31	31	31	-9	-4	-4	-22	-17	-12	36	-4	4	32	31	31	-8	-4	-4	1	0	0	35	-5	4	32	31	31	-8	-4	-4	1	0	0
276833	6203955		40	35	35	53	48	43	31	31	31	-9	-4	-4	-22	-17	-12	35	-5	4	32	31	31	-8	-4	-4	1	0	0	36	-4	4	32	32	32	-8	-3	-3	1	0	0
276736	6204036		40	35	35	53	48	43	32	32	32	-8	-3	-3	-21	-16	-11	36	-4	4	32	32	32	-8	-3	-3	1	0	0	36	-4	4	32	32	32	-8	-3	-3	1	0	0
276874	6203967		40	35	35	53	48	43	31	31	31	-9	-4	-4	-22	-17	-12	35	-5	4	32	31	31	-8	-4	-4	1	0	0	36	-4	4	32	32	32	-8	-3	-3	1	0	0
276801	6203932		40	35	35	53	48	43	31	31	31	-9	-4	-4	-22	-17	-12	36	-4	4	32	31	31	-8	-4	-4	1	0	0	36	-4	4	32	31	31	-8	-4	-4	1	0	0
277643	6203672		40	35	35	53	48	43	30	30	30	-10	-5	-5	-23	-18	-13	35	-5	5	31	30	30	-9	-5	-5	1	0	0	36	-4	6	31	30	30	-9	-5	-5	1	0	0
277693	6203824		40	35	35	53	48	43	31	31	30	-9	-4	-5	-22	-17	-13	36	-4	6	32	31	31	-8	-4	-4	1	0	0	37	-3	6	32	31	31	-8	-4	-4	1	0	0
277713	6203768		40	35	35	53	48	43	30	30	30	-10	-5	-5	-23	-18	-13	36	-4	6	31	30	30	-9	-5	-5	1	0	0	36	-4	6	31	31	31	-9	-4	-4	1	0	0
277384	6204098		40	35	35	53	48	43	32	32	32	-8	-3	-3	-21	-16	-11	37	-3	5	33	32	32	-7	-3	-3	1	0	0	37	-3	5	33	32	32	-7	-3	-3	1	0	0
277741	6203636		40	35	35	53	48	43	30	30	30	-10	-5	-5	-23	-18	-13	35	-5	5	31	30	30	-9	-5	-5	1	0	0	36	-4	6	31	30	30	-9	-5	-5	1	0	0
276710	6203744		40	35	35	53	48	43	31	31	31	-9	-4	-4	-22	-17	-12	36	-4	5	31	31	31	-9	-4	-4	1	0	0	35	-5	4	31	31	31	-9	-4	-4	1	0	0
277058	6204005		40	35	35	53	48	43	32	32	32	-8	-3	-3	-21	-16	-11	36	-4	5	32	32	32	-8	-3	-3	1	0	0	36	-4	5	32	32	32	-8	-3	-3	1	0	0
276717	6203946		40	35	35	53	48	43	31	31	31	-9	-4	-4	-22	-17	-12	36	-4	4	32	31	31	-8	-4	-4	1	0	0	35	-5	4	32	32	32	-8	-3	-3	1	0	0
277120	6203930		40	35	35	53	48	43	31	31	31	-9	-4	-4	-22	-17	-12	36	-4	5	32	31	31	-8	-4	-4	1	0	0	36	-4	5	32	32	32	-8	-3	-3	1	0	0
276991	6204007		40	35	35	53	48	43	31	31	31	-9	-4	-4	-22	-17	-12	36	-4	5	32	32	32	-8	-3	-3	1	0	0	36	-4	5	32	32	32	-8	-3	-3	1	0	0
277046	6204034		40	35	35	53	48	43	32	32	32	-8	-3	-3	-21	-16	-11	36	-4	5	32	32	32	-8	-3	-3	1	0	0	37	-3	5	32	32	32	-8	-3	-3	1	0	0
276944	6204070		40	35	35	53	48	43	32	32	32	-8	-3	-3	-21	-16	-11	36	-4	4	32	32	32	-8	-3	-3	1	0	0	35	-5	4	32	32	32	-8	-3	-3	1	0	0
276923	6203734		40	35	35	53	48	43	31	31	31	-9	-4	-4	-22	-17	-12	36	-4	6	32	31	31	-8	-4	-4	1	0	0	35	-5	5	31	31	31	-9	-4	-4	1	0	0
276648	6203936		40	35	35	53	48	43	31	31	31	-9	-4	-4	-22	-17	-12	36	-4	4	32	31	31	-8	-4	-4	1	0	0	35	-5	4	32	32	32	-8	-3	-3	1	0	0
277293	6203594		40	35	35	53	48	43	30	30	30	-10	-5	-5	-23	-18	-13	35	-5	4	31	30	30	-9	-5	-5	1	0	0	35	-5	5	31	30	30	-9	-5	-5	1	0	0
277899	6204030		40	35	35	53	48	43	31	31	31	-9	-4	-5	-22	-17	-13	38	-2	7	32	31	31	-8	-4	-4	1	0	0	37	-3	7	32	31	31	-8	-4	-4	1	1	1
277611	6203840		40	35	35	53	48	43	30	30	30	-10	-5	-5	-23	-18	-13	35	-5	5	31	30	30	-9	-5	-5	1	0	0	36	-4	6	31	30	30	-9	-5	-5	1	0	0
276936	6203629		40	35	35	53	48	43	30	30	30	-10	-5	-5	-23	-18	-13	36	-4	5	31	31	31	-9	-4	-4	1	0	0	35	-5	4	31	31	31	-9	-4	-4	1	0	0
277384	6204073		40	35	35	53	48	43	32	32	32	-8	-3	-3	-21	-16	-11	37	-3	5	33	32	32	-7	-3	-3	1	0	0	37	-3	6	33	32	32	-7	-3	-3	1	0	0
277819	6204015		40	35	35	53	48	43	31	31	31	-9	-4	-4	-22	-17	-12	37	-3	7	32	31	31	-8	-4	-4	1	0	0	38	-2	7	32	31	31	-8	-4	-4	2	1	1
277299	6203613		40	35	35	53	48	43	30	30	30	-10	-5	-5	-23	-18	-13	35	-5	4	31	30	30	-9	-5	-5	1	0	0	35	-5	5	31	31	31	-9	-4	-4	1	0	0
277389	6204010		40	35	35	53	48	43	32	32	32	-8	-3	-3	-21	-16	-11	37	-3	5	33	32	32	-7	-3	-3	1	0	0	37	-3	5	33	32	32	-7	-3	-3	1	0	0
276771	6203698		40	35	35	53	48	43	30	30	30	-10	-5	-5	-23	-18	-13	36	-4	5	31	31	31	-9	-4	-4	1	0	0	35	-5	4	31	31	31	-9	-4	-4	1	0	0
276661	6204016		40	35	35	53	48	43	32	32	32	-8	-3	-3	-21	-16	-11	36	-4	4	32	32	32	-8	-3	-3	1	0	0	36	-4	4	32	32	32	-8	-3	-3	1	0	0
276761	6203792		40	35	35	53	48	43	31	31	31	-9	-4	-4	-22	-17	-12	36	-4	5	32	31	31	-8	-4	-4	1	0	0	35	-5	4	31	31	31	-9	-4	-4	1	0	0
276831	6204167		40	35	35	53	48	43	32	32	32	-8	-3	-3	-21	-16	-11	36	-4	4	33	32	32	-7	-3	-3	1	0	0	36	-4	4	33	32	32	-7	-3	-3	1	0	0
276952	6203755		40	35	35	53	48	43	31	31	31	-9	-4	-4	-22	-17	-12	36	-4	6	32	31	31	-8	-4	-4	1	0	0	35	-5	5	31	31	31	-9	-4	-4	1	0	0
276942	6203522		40	35	35	53	48	43	30	30	30	-10	-5	-5	-23	-18	-13	35	-5	5	31	30	30	-9	-5	-5	1	0	0	34	-6	4	31	30	30	-9	-5	-5	1	0	0
276575	6205367		49	42	35	58	48	43	38	38	38	-11	-4	3	-20	-10	-5	41	-8	4	38	38	38	-11	-4	3	1	0	0	38	-11	1	38	38	38	-11	-4	3	0	0	0
276654	6205211		49	42	35	58	48	43	35	35	35	-14	-7	0	-23	-13	-8	38	-11	3	35	35	35	-14	-7	0	0	0	0	36	-13	1	35	35	35	-14	-7	0	0	0	0
276789	6204904		49	42	35	58	48	43	35	35	35	-14	-7	0	-23	-13	-8	39	-10	4	36	35	35	-13	-7	0	1	0	0	38	-11	3	36	35	35	-13	-7	0	0	0	0
276623	6204174		40	35	35	53	48	43	32	32	32	-8	-3	-3	-21	-16	-11	36	-4	4	33	32	32	-7	-3	-3	1	0	0	34	-6	2	32	32	32	-8	-3	-3	0	0	0
276589	6204265		40	35	35	53	48	43	33	33	33	-7	-2	-2	-20	-15	-10	36	-4	3	33	33	33	-7	-2	-2	0	0	0	35	-5	2	33	33	33	-7	-2	-2	0	0	0
277248	6204496		40	35	35	53	48	43	34	34	34	-6	-1	-1	-19	-14	-9	39	-1	5	34	34	34	-6	-1	-1	1	0	0	37	-3	4	34	34	34	-6	-1	-1	1	0	0
276554	6206319	3092 Remembrance Drive, Bargo	49	42	35	58	48	43	41	41	41	-8	-1	6	-17	-7	-2	41	-8	0	41	41	41	-8	-1	6	0	0	0	41	-8	0	41	41	41	-8	-1	6	0	0	0
276679	6204542		40	35	35	53	48	43	34	34	34	-6	-1	-1	-19	-14	-9	37	-3	3	34	34	34	-6	-1	-1	0	0	0	36	-4	2	34	34	34	-6	-1	-1	0	0	0
277085	6205176		40	39	35	53	48	43	35	35	35	-5	-4	0	-18	-13	-8	37	-3	2	36	35	35	-4	-4	0	0	0	0	37	-3	1	36	35	35	-4	-4	0	0	0	0
276744	6204556		45	39	35	53	48	43	34	34	34	-11	-5	-1	-19	-14	-9	37	-8	4	34	34	34	-11	-5	-1	1	0	0	36	-9	3	34	34	34	-11	-5	-1	0	0	0
277407	6204949		40	39	35	53	48	43	35	35	35	-5	-4	0	-18	-13	-8	42	2	7	37	36	36	-3	-3	1	1	0	0	40	0	5	36	35	35	-4	-4	0	1	0	0
276877	6205084		49	42	35	58	48	43	36	36	36	-13	-6	1	-22	-12	-7	39	-10	3	37	36	36	-12	-6	1	0	0	0	38	-11	2	36	36	36	-13	-6	1	0	0	0
276934	6205134		45	39	35	53	48	43	36	36	36	-9	-3	1	-17	-12	-7	40	-5	3	37	36	36	-8	-3	1	0	0	0	38	-7	2	36	36	36	-9	-3	1	0	0	0
276540	6206361	3088 Remembrance Drive, Bargo	49	42	35	58	48	43	43	43	43	-6	1	8	-15	-5	0	44	-5	1	43	43	43	-6	1	8	0	0	0	43	-6	0	43	43	43	-6	1	8	0	0	0
277768	6205158	80 Charlies Point Road (to replace M10? - south	40	39	35	53	48	43	36	36	36	-4	-3	1	-17	-12	-7	49	9	13	41	37	37	1	-2	2	4	1	1	47	7	11	39	37	37	-1	-2	2	3	1	1
277163	6204604		40	39	35	53	48	43	34	34	34	-6	-5	-1	-19	-14	-9	39	-1	5	35	34	34	-5	-5	-1	1	0	0	38	-2	4	35	34	34	-5	-5	-1	1	0	0
277182	6204619		40	39	35	53	48	43	34	34	34	-6	-5	-1	-19	-14	-9	39	-1	5	35	34	34	-5	-5	-1	1	0	0	38	-2	4	35	34	34	-5	-5	-1	1	0	0
276736	6204132		40	35	35	53	48	43	32	32	32	-8	-3	-3	-21	-16	-11	36	-4	4	33	32	32	-7	-3	-3	1	0	0	36	-4	4	33	32	32	-7	-3	-3	1	0	0
276282	6206354		40	35	35	53	48	43	42	42	42	2	7	7	-11	-6	-1	43	3	1	43	42	42	3	7	7	0	0	0	43	3	1	42	42	42	2	7	7	0	0	0
276908	6205007		45	39	35	53	48	43	35	35	35	-10	-4	0	-18	-13	-8	39	-6	4	36	36	35	-9	-3	0	1	0	0	38	-7	3	36	36	35	-9	-3	0	0	0	0
276475	6205171		40	35	35	53	48	43	36	36	36	-4	1	1	-17	-12	-7	40	0	3	37	36	36	-3	1	1	1	0	0	37	-3	1	36	36	36	-4	1	1	0	0	0
276025	6206230		40	35	35	53	48	43	41	41	41	1	6	6	-12	-7	-2	42	2	1	41	41	41	1	6	6	0	0	0	42	2	1	41	41	41	1	6	6	0	0	0
276691	6205220		49	42	35	58	48	43	33	33	33	-16	-9	-2	-25	-15	-10	37	-12	4	34	33	33	-15	-9	-2	1	0	0	35	-14	2	34	33	33	-15	-9	-2	0	0	0
276203	6206248		40	35	35	53	48	43	41	41	41	1	6	6	-12	-7	-2	42	2	1	41	41	41	1	6	6	0	0	0	42	2	1	41	41	41	1	6	6	0	0	0
277165	6205011		40	39	35	53	48	43	35	35	35	-5	-4	-1	-18	-13	-9	38	-2	3	35	35	35	-5	-4	0	0	0	0	39	-1	4	35	35	35	-5	-4	0	1	0	0
275650	6206273		40	35	35	53	48	43	38	38	38	-2	3	3	-15	-10	-5	38	-2	1	38	38	38	-2	3	3	0	0	0	38	-2	0	38	38	38	-2	3	3	0	0	0
275960	6206210		40	35	35	53	48	43	41	41	40	1	6	5	-12	-7	-3	42	2	1	41	41	40	1	6	5	0	0	0	41	1	1	41	41	40	1	6	5	0	0	0
275817	6206314		40	35	35	53	48	43	40	40	40	0	5	5	-13	-8	-3	41	1	1	41	41	40	1	6	5	0	0	0	41	1	1	41	40	40	1	5	5	0	0	0
276443	6206305	10 Caloola Road, Bargo	45	39	35	53	48	43	41	41	41	-4	2	6	-12	-7	-2	43	-2	2	42	41	41	-3	2	6	0	0	0	42	-3	1	42	41	41	-3	2	6	0	0	0
275717	6206243		40	35	35	53	48	43	39	39	39	-1	4	4	-14	-9	-4	40	0	1	39	39	39	-1	4	4	0	0	0	40	0	1	39	39	39	-1	4	4	0	0	0
276562	6206400	3084 Remembrance Drive, Bargo	49	42	35	58	48	43	43	43	43	-6	1	8	-15	-5	0	44	-5	1	43	43	43	-6	1	8	0	0	0	44	-5	0	43	43	43	-6	1	8	0	0	0
276535	6206093		49	42	35	58	48	43	40	40	40	-9	-2	5	-18	-8	-3	41	-8	0	40	40	40	-9	-2	5	0	0	0	40	-9	0	40	40	40	-9	-2	5	0	0	0
276513	6205179		40	35	35	53	48	43	36	36	36	-4	1	1	-17	-12	-7	40	0	3	37	37	37	-3	2	2	0	0	0	37	-3	1	37	37	36	-3	2	1	0	0	0
275468	6205365		40	35	35	53	48	43	35	35	35	-5	0	0	-18	-13	-8	37	-3	2	35	35	35	-5	0	0	0	0	0	37	-3	2	35	35	35	-5	0	0	0	0	0
277064	6204655		45	39	35	53	48	43	34	34	34	-11	-5	-1	-19	-14	-9	38	-7	4	35	34	34	-10	-5	-1	1	0	0	38	-7	3	35	34	34	-10	-5	-1	0	0	0

			PNTL			PANL			Stage 2 Noise-enhancing without mitigation									Stage 2 Inv2ms + TSC1 Site Est			Stage 2 Inv2ms + TSC1 Drilling (Construction mitigated)									Stage 2 Inv2ms TSC2 Site Est				Stage 2 Inv2ms TSC2 Drill					
									Predicted			Compare to PNTL			Compare to PANL			Predicted	Compare to PNTL	Compare to Unmit S2	Predicted			Compare to PNTL			Compare to Unmit S2		Predicted	Compare to PNTL	Compare to Unmit S2	Predicted			Compare to PNTL			Compare to Unmit S2		
X	Y	Property Details	Day	Evening	Night	Day	Eve	Nt	Day	Eve	Nt	Day	Eve	Nt	Day	Eve	Nt	Day			Day	Eve	Nt	Day	Eve	Nt				Day			Day	Eve	Nt	Day	Eve	Nt			
277161	6204790		40	39	35	53	48	43	35	35	35	-5	-4	0	-18	-13	-8	40	0	5	36	35	35	-4	-4	0	1	0	0	39	-1	4	35	35	35	-5	-4	0	1	0	0
276713	6204858		45	39	35	53	48	43	35	35	35	-10	-4	0	-18	-13	-8	39	-6	4	36	35	35	-9	-4	0	1	0	0	37	-8	2	35	35	35	-10	-4	0	0	0	0
275651	6205240		40	35	35	53	48	43	35	35	34	-5	0	-1	-18	-13	-9	37	-3	3	35	35	35	-5	0	0	0	0	0	36	-4	2	35	35	34	-5	0	-1	0	0	0
276489	6205580		49	42	35	58	48	43	39	39	39	-10	-3	4	-19	-9	-4	42	-7	4	39	39	39	-10	-3	4	1	0	0	41	-8	2	39	39	39	-10	-3	4	0	0	0
275521	6205352		40	35	35	53	48	43	35	35	35	-5	0	0	-18	-13	-8	37	-3	2	35	35	35	-5	0	0	0	0	0	37	-3	2	35	35	35	-5	0	0	0	0	0
276944	6204752		49	42	35	58	48	43	35	35	34	-14	-7	-1	-23	-13	-9	38	-11	3	35	35	35	-14	-7	0	0	0	0	38	-11	3	35	35	35	-14	-7	0	0	0	0
276685	6204691		45	39	35	53	48	43	34	34	34	-11	-5	-1	-19	-14	-9	38	-7	3	35	34	34	-10	-5	-1	0	0	0	37	-8	2	35	34	34	-10	-5	-1	0	0	0
276761	6204984		49	42	35	58	48	43	36	36	36	-13	-6	1	-22	-12	-7	40	-9	4	36	36	36	-13	-6	1	1	0	0	38	-11	2	36	36	36	-13	-6	1	0	0	0
276566	6206441	3080 Remembrance Drive, Bargo	49	42	35	58	48	43	43	43	43	-6	1	8	-15	-5	0	44	-5	1	43	43	43	-6	1	8	0	0	0	44	-5	1	43	43	43	-6	1	8	0	0	0
276923	6204892		45	39	35	53	48	43	35	35	35	-10	-4	0	-18	-13	-8	38	-7	3	35	35	35	-10	-4	0	0	0	0	38	-7	3	35	35	35	-10	-4	0	0	0	0
275502	6205295		40	35	35	53	48	43	35	35	34	-5	0	-1	-18	-13	-9	37	-3	2	35	35	35	-5	0	0	0	0	0	36	-4	2	35	35	35	-5	0	0	0	0	0
276503	6206283	4 Caloola Road, Bargo	45	39	35	53	48	43	42	42	42	-3	3	7	-11	-6	-1	42	-3	1	42	42	42	-3	3	7	0	0	0	42	-3	0	42	42	42	-3	3	7	0	0	0
276548	6206179		49	42	35	58	48	43	40	40	40	-9	-2	5	-18	-8	-3	41	-8	0	40	40	40	-9	-2	5	0	0	0	40	-9	0	40	40	40	-9	-2	5	0	0	0
276964	6205064		45	39	35	53	48	43	36	36	36	-9	-3	1	-17	-12	-7	39	-6	3	36	36	36	-9	-3	1	0	0	0	38	-7	2	36	36	36	-9	-3	1	0	0	0
275282	6205483		40	35	35	53	48	43	33	33	33	-7	-2	-2	-20	-15	-10	34	-6	1	33	33	33	-7	-2	-2	0	0	0	34	-6	1	33	33	33	-7	-2	-2	0	0	0
276128	6205178		40	35	35	53	48	43	34	34	34	-6	-1	-1	-19	-14	-9	38	-2	4	35	34	34	-5	-1	-1	1	0	0	36	-4	2	34	34	34	-6	-1	-1	0	0	0
275674	6205311		40	35	35	53	48	43	34	34	34	-6	-1	-1	-19	-14	-9	37	-3	3	35	35	34	-5	0	-1	0	0	0	36	-4	2	35	34	34	-5	-1	-1	0	0	0
276353	6205240		40	35	35	53	48	43	36	36	36	-4	1	1	-17	-12	-7	39	-1	4	36	36	36	-4	1	1	1	0	0	36	-4	1	36	36	36	-4	1	1	0	0	0
275411	6205400		40	35	35	53	48	43	35	35	35	-5	0	0	-18	-13	-8	37	-3	2	35	35	35	-5	0	0	0	0	0	36	-4	1	35	35	35	-5	0	0	0	0	0
276283	6205202		40	35	35	53	48	43	35	35	35	-5	0	0	-18	-13	-8	39	-1	4	35	35	35	-5	0	0	1	0	0	35	-5	1	35	35	35	-5	0	0	0	0	0
275845	6205320		40	35	35	53	48	43	35	35	35	-5	0	0	-18	-13	-8	38	-2	3	36	35	35	-4	0	0	0	0	0	37	-3	2	36	35	35	-4	0	0	0	0	0
276578	6206476	(C10) 3076 Remembrance Drive, Bargo	49	42	35	58	48	43	43	43	43	-6	1	8	-15	-5	0	44	-5	1	43	43	43	-6	1	8	0	0	0	44	-5	1	43	43	43	-6	1	8	0	0	0
275923	6205140		40	35	35	53	48	43	34	34	34	-6	-1	-1	-19	-14	-9	38	-2	4	35	34	34	-5	-1	-1	1	0	0	36	-4	2	34	34	34	-6	-1	-1	0	0	0
275765	6205295		40	35	35	53	48	43	35	35	35	-5	0	0	-18	-13	-8	38	-2	3	35	35	35	-5	0	0	0	0	0	37	-3	2	35	35	35	-5	0	0	0	0	0
276234	6206331		40	35	35	53	48	43	42	42	42	2	7	7	-11	-6	-1	43	3	1	42	42	42	2	7	7	0	0	0	43	3	1	42	42	42	2	7	7	0	0	0
275460	6206459		40	35	35	53	48	43	36	36	36	-4	1	1	-17	-12	-7	37	-3	1	36	36	36	-4	1	1	0	0	0	36	-4	1	36	36	36	-4	1	1	0	0	0
275684	6206590		40	35	35	53	48	43	38	38	38	-2	3	3	-15	-10	-5	38	-2	1	38	38	38	-2	3	3	0	0	0	38	-2	0	38	38	38	-2	3	3	0	0	0
275911	6206428		40	35	35	53	48	43	42	42	42	2	7	7	-11	-6	-1	42	2	1	42	42	42	2	7	7	0	0	0	42	2	1	42	42	42	2	7	7	0	0	0
275827	6206462		40	35	35	53	48	43	41	41	41	1	6	6	-12	-7	-2	42	2	1	41	41	41	1	6	6	0	0	0	42	2	1	41	41	41	1	6	6	0	0	0
276148	6206425		40	35	35	53	48	43	43	43	43	3	8	8	-10	-5	0	44	4	1	43	43	43	3	8	8	0	0	0	44	4	1	43	43	43	3	8	8	0	0	0
276069	6206375		40	35	35	53	48	43	42	42	42	2	7	7	-11	-6	-1	43	3	1	42	42	42	2	7	7	0	0	0	43	3	1	42	42	42	2	7	7	0	0	0
279713	6204797		40	35	35	53	48	43	31	31	31	-9	-4	-4	-22	-17	-12	38	-2	7	32	31	31	-8	-4	-4	1	0	0	39	-1	8	33	31	31	-7	-4	-4	2	1	1
279143	6205635		40	35	35	53	48	43	32	32	32	-8	-3	-3	-21	-16	-11	44	4	11	36	33	33	-4	-2	-2	4	1	1	48	8	15	39	34	34	-1	-1	-1	6	2	2
280163	6206363		40	35	35	53	48	43	32	32	32	-8	-3	-3	-21	-16	-11	35	-5	2	33	32	32	-7	-3	-3	0	0	0	36	-4	4	33	32	32	-7	-3	-3	1	0	0
279544	6205585		40	35	35	53	48	43	33	33	33	-7	-2	-2	-20	-15	-10	41	1	7	35	34	34	-5	-1	-1	2	0	0	43	3	10	36	34	34	-4	-1	-1	3	1	1
280155	6206098		40	35	35	53	48	43	32	32	32	-8	-3	-3	-21	-16	-11	35	-5	3	32	32	32	-8	-3	-3	0	0	0	36	-4	5	33	32	32	-7	-3	-3	1	0	0
279392	6205771		40	35	35	53	48	43	34	34	34	-6	-1	-1	-19	-14	-9	42	2	8	36	34	34	-4	-1	-1	2	0	0	45	5	11	38	35	35	-2	0	0	4	1	1
279709	6205359		40	35	35	53	48	43	32	32	32	-8	-3	-3	-21	-16	-11	39	-1	7	33	32	32	-7	-3	-3	2	0	0	41	1	10	34	33	33	-6	-2	-2	3	1	1
279893	6204655		40	35	35	53	48	43	30	30	30	-10	-5	-5	-23	-18	-13	36	-4	6	31	30	30	-9	-5	-5	1	0	0	38	-2	8	32	30	30	-8	-5	-5	2	1	1
279958	6205143		40	35	35	53	48	43	30	30	30	-10	-5	-5	-23	-18	-13	35	-5	4	31	30	30	-9	-5	-5	1	0	0	36	-4	6	31	30	30	-9	-5	-5	1	0	0
280149	6206175		40	35	35	53	48	43	32	32	32	-8	-3	-3	-21	-16	-11	35	-5	3	32	32	32	-8	-3	-3	0	0	0	36	-4	4	33	32	32	-7	-3	-3	1	0	0
279788	6204923		40	35	35	53	48	43	31	31	31	-9	-4	-4	-22	-17	-12	38	-2	7	32	31	31	-8	-4	-4	1	0	0	39	-1	9	33	31	31	-7	-4	-4	2	1	1
280085	6205669		40	35	35	53	48	43	31	31	31	-9	-4	-4	-22	-17	-12	35	-5	4	31	31	31	-9	-4	-4	1	0	0	37	-3	6	32	31	31	-8	-4	-4	1	0	0
280161	6206042		40	35	35	53	48	43	32	32	32	-8	-3	-3	-21	-16	-11	35	-5	3	32	32	32	-8	-3	-3	0	0	0	36	-4	5	32	32	32	-8	-3	-3	1	0	0
280059	6206680		40	35	35	53	48	43	34	34	34	-6	-1	-1	-19	-14	-9	36	-4	2	34	34	34	-6	-1	-1	0	0	0	37	-3	3	34	34	34	-6	-1	-1	0	0	0
280114	6206567		40	35	35	53	48	43	33	33	33	-7	-2	-2	-20	-15	-10	35	-5	2	33	33	33	-7	-2	-2	0	0	0	37	-3	3	34	33	33	-6	-2	-2	1	0	0
280212	6206223		40	35	35	53	48	43	32	32	32	-8	-3	-3	-21	-16	-11	35	-5	3	32	32	32	-8	-3	-3	0	0	0	36	-4	4	33	32	32	-7	-3	-3	1	0	0
280108	6205777		40	35	35	53	48	43	31	31	31	-9	-4	-4	-22	-17	-12	35	-5	4	32	31	31	-8	-4	-4	1	0	0	37	-3	5	32	31	31	-8	-4	-4	1	0	0
280133	6205982		40	35	35	53	48	43	32	32	32	-8	-3	-3	-21	-16	-11	35	-5	3	32	32	32	-8	-3	-3	0	0	0	37	-3	5	32	32	32	-8	-3	-3	1	0	0
280195	6206296		40	35	35	53	48	43	32	32	32	-8	-3	-3	-21	-16	-11	35	-5	3	32	32	32	-8	-3	-3	0	0	0	36	-4	4	33	32	32	-7	-3	-3	1	0	0
279877	6204813		40	35	35	53	48	43	30	30	30	-10	-5	-5	-23	-18	-13	37	-3	6	32	31	31	-8	-4	-4	1	0	0	38	-2	8	32	31	31	-8	-4	-4	2	1	1
280149	6205895		40	35	35	53	48	43	31	31	31	-9	-4	-4	-22	-17	-12	35	-5	3	32	31	31	-8	-4	-4	0	0	0	36	-4	5	32	31	31	-8	-4	-4	1	0	0
276479	6206066		49	42	35	58	48	43	40	40	40	-9	-2	5	-18	-8	-3	42	-7	2	40	40	40	-9	-2	5	0	0	0	40	-9	0	40	40	40	-9	-2	5	0	0	0
277090	6204435		40	35	35	53	48	43	33	33	33	-7	-2	-2	-20	-15	-10	38	-2	4	34	33	33	-6	-2	-2	1	0	0	37	-3	3	34	33	33	-6	-2	-2	0	0	0
276445	6206028		45	39	35	53	48	43	40	40	40	-5	1	5	-13	-8	-3	42	-3	2	40	40	40	-5	1	5	0	0	0	41	-4	1	40	40	40	-5	1	5	0	0	0
276483	6205929	3130 Remembrance Dr, Bargo	49	42	35	58	48	43	40	40	40	-9	-2	5	-18	-8	-3	43	-6	3	41	40	40	-8	-2	5	0	0	0	42	-7	2	40	40	40	-9	-2	5	0	0	0
276336	6206196		40	35	35	53	48	43	40	40	40	0	5	5	-13	-8	-3	42	2	1	40	40	40	0	5	5	0	0	0	40	0	0	40	40	40	0	5	5	0	0	0
274217	6209258		40	35	35	53	48	43	32	32	32	-8	-3	-3	-21	-16	-11	32	-8	0	32	32	32	-8	-3	-3	0	0	0	32	-8	0	32	32	32	-8	-3	-3	0	0	0
274167	6209350		40	35	35	53	48	43	31	31	31	-9	-4	-4	-22	-17	-12	32	-8	0	31	31	31	-9	-4	-4	0	0	0	32	-8	0	31	31	31	-9	-4	-4	0	0	0
274274	6209610		40	35	35	53	48	43	31	31	31	-9	-4	-4	-22	-17	-12	31	-9	0	31	31	31	-9	-4	-4	0	0	0	31	-9	0	31	31	31	-9	-4	-4	0	0	0
274526	6209906		40	35	35	53	48	43	31	31	31	-9	-4	-4	-22	-17	-12	31	-9	0	31	31	31	-9	-4	-4	0	0	0	31	-9	0	31	31	31	-9	-4	-4	0	0	0
274325	6209745		40	35	35	53	48	43	31	31	31	-9	-4	-4	-22	-17	-12	31	-9	0	31	31	31	-9	-4	-4	0	0	0	31	-9	0	31	31	31	-9	-4	-4	0	0	0
273580	6208390		40	35	35	53	48	43	31	31	30	-9	-4	-5	-22	-17	-13	31	-9	1	31	31	31	-9	-4	-4	0	0	0	31	-9	1	31	31	31	-9	-4	-4	0	0	0
273580	6208367		40	35	35	53	48	43	31	31	31	-9	-4	-5	-22	-17	-13	31	-9	1	31	31	31	-9	-4	-4	0	0	0	31	-9	1	31	31	31	-9	-4	-4	0	0	0
276128	6204246		40	35	35	53	48	43	32	32	32	-8	-3	-3	-21	-16	-11	35	-5	3	32	32	32	-8	-3	-3	0	0	0	33	-7	2	32	32	32	-8	-3	-3	0	0	0
276020	6204180		40	35	35	53	48	43	31	31	31	-9	-4	-4	-22	-17	-12	34	-6	3	32	31	31	-8	-4	-4	0	0	0	33	-7	2	31	31	31	-9	-4	-4	0	0	0
276043	6204141		40	35	35	53	48	43	31	31	31	-9	-4	-4	-22	-17	-12	34	-6	3	31	31	31	-9	-4	-4	0	0	0	33	-7	2	31	31	31	-9	-4	-4	0	0	0
277227	6203578		40	35	35	53	48	43	30	30	30	-10	-5	-5	-23	-18	-13	35	-5	5	31	30	30	-9	-5	-5	1	0	0	35	-5	5	31	30	30	-9	-5	-5	1	0	0
276009	6204220		40	35	35	53	48	43	31	31	31	-9	-4	-4	-22	-17	-12	35	-5	3	32	31	31	-8	-4	-4	0	0	0	33	-7	2	31	31	31	-9	-4	-4	0	0	0
276045	6204055		40	35	35	53	48	43	31	31	31	-9	-4	-4	-22	-17	-12	34	-6	3	31	31	31	-9	-4	-4	0	0	0	32	-8	2	31	31	31	-9	-4	-4	0	0	0
276074	6204010		40	35	35	53	48	43	31	31	31	-9	-4	-4	-22	-17	-12	34	-6	3	31	31	31	-9	-4	-4	0	0	0	32	-8	2	31	31	31	-9	-4	-4	0	0	0
277356	6204385		40	35	35	53	48	43	33	33	33	-7	-2	-2	-20	-15	-10	38	-2	5	34	33	33	-6	-2	-2	1	0	0	37	-3	4	34	33	33	-6	-2	-2	1	0	0
277228	6203920		40	35	35	53	48	43	31	31	31	-9	-4	-4	-22	-17	-12	36	-4	5	32	31	31	-8	-4	-4	1	0	0	36	-4	5	32	32	32	-8	-3	-3	1	0	0
277021	6204108		40	35	35	53	48	43	32	32	32	-8	-3	-3	-21	-16	-11	36	-4	4	32	32	32	-8	-3	-3	1	0	0	35	-5	3	32	32	32	-8	-3	-3	0	0	0
277026	6204068		40	35	35	53	48	43	32	32	32	-8	-3	-3	-21	-16	-11	36	-4	4	32	32	32	-8	-3	-3	1	0	0	36	-4	5	32	32	32	-8	-3	-3	1	0	0
276995	6203517		40	35	35	53	48	43	30	30	30	-10	-5	-5	-23	-18	-13	35	-5	5	31	30	30	-9	-5	-5	1	0	0	34	-6	4	31	30	30	-9	-5	-5	1	0	0
277123	6203953		40	35	35	53	48	43	31	31	31	-9	-4	-4	-22	-17	-12	36	-4	5	32	31	31	-8	-4	-4	1	0	0	36	-4	5	32	32	32	-8	-3	-3	1	0	0
276458	6204144		40	35	35	53	48	43	32	32	32	-8	-3	-3	-21	-16	-11	36	-4	3	33	32	32	-7	-3	-3	0	0	0	34	-6	2	32	32	32	-8	-3	-3	0	0	0
277385	6204052		40	35	35	53	48	43	32	32	32	-8	-3	-3	-21	-16	-11	37	-3	5	33	32	32	-7	-3	-3	1	0	0	37	-3	5	33	32	32	-7	-3	-3	1	0	0
277606	6203761		40	35	35	53	48	43	30	30	30	-10	-5	-5	-23	-18	-13	35	-5	5	31	30	30	-9	-5	-5	1	0	0	36	-4	6	31	30	30	-9	-5	-5	1	0	0
276906	6203829		40	35	35	53	48	43	31	31	31	-9	-4	-4	-22	-17	-12	36	-4	6	32	31	31	-8	-4	-4	1	0	0	35	-5	5	32	31	31	-8	-4	-4	1	0	0
276653	6204197		40	35	35	53	48	43	32	32	32	-8	-3	-3	-21	-16	-11	36	-4	4	33	32	32	-7	-3	-3	1	0	0	35	-5	2	33	32	32	-7	-3	-3	0	0	0
276514	6204156		40	35	35	53	48	43	32	32	32	-8	-3	-3	-21	-16	-11	35	-5	3	33	32	32	-7	-3	-3	0	0	0	34	-6	2	32	32	32	-8	-3	-3	0	0	0
276578	6204177		40	35	35	53	48	43	32	32	32	-8	-3	-3	-21	-16	-11	36	-4	3	33	32	32	-7	-3	-3	1	0	0	34	-6	2	32	32	32	-8	-3	-3	0	0	0

			PNTL			PANL			Stage 2 Noise-enhancing without mitigation									Stage 2 Inv2ms + TSC1 Site Est			Stage 2 Inv2ms + TSC1 Drilling (Construction mitigated)									Stage 2 Inv2ms TSC2 Site Est						Stage 2 Inv2ms TSC2 Drill					
									Predicted			Compare to PNTL			Compare to PANL			Predicted	Compare to PNTL	Compare to Unmit S2	Predicted	Compare to PNTL			Compare to Unmit S2			Predicted	Compare to PNTL	Compare to Unmit S2				Predicted			Compare to PNTL			Compare to Unmit S2		
X	Y	Property Details	Day	Evening	Night	Day	Eve	Nt	Day	Eve	Nt	Day	Eve	Nt	Day	Eve	Nt	Day	Day	Day	Day	Eve	Nt	Day	Eve	Nt	Day	Eve	Nt	Day	Day	Day	Day	Eve	Nt	Day	Eve	Nt	Day	Eve	Nt
277242	6203730		40	35	35	53	48	43	30	30	30	-10	-5	-5	-23	-18	-13	35	-5	5	31	30	30	-9	-5	-5	1	0	0	35	-5	5	31	30	30	-9	-5	-5	1	0	0
277085	6203818		40	35	35	53	48	43	31	31	31	-9	-4	-4	-22	-17	-12	36	-4	5	32	31	31	-8	-4	-4	1	0	0	36	-4	5	32	31	31	-8	-4	-4	1	0	0
276398	6204340		40	35	35	53	48	43	33	33	33	-7	-2	-2	-20	-15	-10	36	-4	3	33	33	33	-7	-2	-2	0	0	0	35	-5	2	33	33	33	-7	-2	-2	0	0	0
277029	6203801		40	35	35	53	48	43	31	31	31	-9	-4	-4	-22	-17	-12	36	-4	5	32	31	31	-8	-4	-4	1	0	0	36	-4	5	32	31	31	-8	-4	-4	1	0	0
277308	6203693		40	35	35	53	48	43	31	31	30	-9	-4	-5	-22	-17	-13	35	-5	5	31	31	31	-9	-4	-4	1	0	0	36	-4	5	31	31	31	-9	-4	-4	1	0	0
277100	6203870		40	35	35	53	48	43	31	31	31	-9	-4	-4	-22	-17	-12	36	-4	5	32	31	31	-8	-4	-4	1	0	0	36	-4	5	32	31	31	-8	-4	-4	1	0	0
276985	6203586		40	35	35	53	48	43	30	30	30	-10	-5	-5	-23	-18	-13	35	-5	5	31	30	30	-9	-5	-5	1	0	0	35	-5	5	31	30	30	-9	-5	-5	1	0	0
277108	6203616		40	35	35	53	48	43	30	30	30	-10	-5	-5	-23	-18	-13	35	-5	5	31	31	31	-9	-4	-4	1	0	0	35	-5	5	31	30	30	-9	-5	-5	1	0	0
276882	6203489		40	35	35	53	48	43	30	30	30	-10	-5	-5	-23	-18	-13	35	-5	5	31	30	30	-9	-5	-5	1	0	0	34	-6	4	30	30	30	-10	-5	-5	1	0	0
277309	6203674		40	35	35	53	48	43	30	30	30	-10	-5	-5	-23	-18	-13	35	-5	5	31	31	31	-9	-4	-4	1	0	0	35	-5	5	31	31	31	-9	-4	-4	1	0	0
276856	6203527		40	35	35	53	48	43	30	30	30	-10	-5	-5	-23	-18	-13	35	-5	5	31	30	30	-9	-5	-5	1	0	0	34	-6	4	31	30	30	-9	-5	-5	1	0	0
276764	6203738		40	35	35	53	48	43	30	30	30	-10	-5	-5	-23	-18	-13	36	-4	5	31	31	31	-9	-4	-4	1	0	0	35	-5	4	31	31	31	-9	-4	-4	1	0	0
277390	6203980		40	35	35	53	48	43	31	31	31	-9	-4	-4	-22	-17	-12	36	-4	5	32	31	31	-8	-4	-4	1	0	0	36	-4	5	32	31	31	-8	-4	-4	1	0	0
277507	6203605		40	35	35	53	48	43	30	30	30	-10	-5	-5	-23	-18	-13	35	-5	5	31	30	30	-9	-5	-5	1	0	0	35	-5	5	31	30	30	-9	-5	-5	1	0	0
277165	6204287		40	35	35	53	48	43	32	32	32	-8	-3	-3	-21	-16	-11	37	-3	5	33	32	32	-7	-3	-3	1	0	0	36	-4	4	33	32	32	-7	-3	-3	1	0	0
276599	6204411		40	35	35	53	48	43	33	33	33	-7	-2	-2	-20	-15	-10	37	-3	4	34	33	33	-6	-2	-2	1	0	0	35	-5	2	33	33	33	-7	-2	-2	0	0	0
276511	6205678		49	42	35	58	48	43	39	39	39	-10	-3	4	-19	-9	-4	43	-6	3	40	39	39	-9	-3	4	0	0	0	41	-8	2	39	39	39	-10	-3	4	0	0	0
277100	6204845		40	39	35	53	48	43	35	35	35	-5	-4	0	-18	-13	-8	39	-1	4	36	35	35	-4	-4	0	1	0	0	39	-1	4	35	35	35	-5	-4	0	1	0	0
277249	6204005		40	35	35	53	48	43	32	32	32	-8	-3	-3	-21	-16	-11	37	-3	5	32	32	32	-8	-3	-3	1	0	0	37	-3	5	33	32	32	-7	-3	-3	1	0	0
276412	6206118		45	39	35	53	48	43	40	40	40	-5	1	5	-13	-8	-3	40	-5	0	40	40	40	-5	1	5	0	0	0	40	-5	0	40	40	40	-5	1	5	0	0	0
276393	6206315	20 Caloola Road, Bargo	40	35	35	53	48	43	42	42	42	2	7	7	-11	-6	-1	44	4	1	42	42	42	2	7	7	0	0	0	43	3	1	42	42	42	2	7	7	0	0	0
276286	6206235		40	35	35	53	48	43	41	41	41	1	6	6	-12	-7	-2	42	2	2	41	41	41	1	6	6	0	0	0	42	2	1	41	41	41	1	6	6	0	0	0
275506	6206307		40	35	35	53	48	43	36	36	35	-4	1	0	-17	-12	-8	36	-4	1	36	36	35	-4	1	0	0	0	0	36	-4	1	36	36	35	-4	1	0	0	0	0
276098	6206262		40	35	35	53	48	43	42	42	42	2	7	7	-11	-6	-2	43	3	1	42	42	42	2	7	7	0	0	0	42	2	1	42	42	42	2	7	7	0	0	0
276719	6205090		49	42	35	58	48	43	36	36	36	-13	-6	1	-22	-12	-7	39	-10	3	37	36	36	-12	-6	1	0	0	0	38	-11	2	36	36	36	-13	-6	1	0	0	0
275882	6206268		40	35	35	53	48	43	41	41	40	1	6	5	-12	-7	-3	42	2	1	41	41	40	1	6	5	0	0	0	41	1	1	41	41	40	1	6	5	0	0	0
276581	6205199		45	39	35	53	48	43	37	37	37	-8	-2	2	-16	-11	-6	40	-5	3	37	37	37	-8	-2	2	1	0	0	38	-7	1	37	37	37	-8	-2	2	0	0	0
276436	6205168		40	35	35	53	48	43	36	36	36	-4	1	1	-17	-12	-7	40	0	3	37	36	36	-3	1	1	0	0	0	37	-3	1	36	36	36	-4	1	1	0	0	0
275345	6205332		40	35	35	53	48	43	31	31	31	-9	-4	-4	-22	-17	-12	33	-7	2	31	31	31	-9	-4	-4	0	0	0	32	-8	1	31	31	31	-9	-4	-4	0	0	0
276770	6204938		49	42	35	58	48	43	35	35	35	-14	-7	0	-23	-13	-8	40	-9	4	36	36	36	-13	-6	1	1	0	0	38	-11	2	36	36	36	-13	-6	1	0	0	0
276678	6206499	3085 Remembrance Drive, Bargo	49	42	35	58	48	43	41	41	41	-8	-1	6	-17	-7	-2	43	-6	2	41	41	41	-8	-1	6	0	0	0	42	-7	1	41	41	41	-8	-1	6	0	0	0
275586	6205338		40	35	35	53	48	43	35	35	35	-5	0	0	-18	-13	-8	37	-3	2	35	35	35	-5	0	0	0	0	0	37	-3	2	35	35	35	-5	0	0	0	0	0
276451	6205627		45	39	35	53	48	43	38	38	38	-7	-1	3	-15	-10	-5	42	-3	4	39	39	38	-6	0	3	1	0	0	41	-4	2	39	38	38	-6	-1	3	0	0	0
275700	6206997		43	43	39	58	48	43	40	42	42	-3	-1	3	-18	-6	-1	40	-3	0	40	42	42	-3	-1	3	0	0	0	40	-3	0	40	42	42	-3	-1	3	0	0	0
276375	6207092	3010 Remembrance Drive, Bargo	47	47	43	58	48	43	50	50	50	3	3	7	-8	2	7	50	3	0	50	50	50	3	3	7	0	0	0	50	3	0	50	50	50	3	3	7	0	0	0
275796	6205195		40	35	35	53	48	43	34	34	34	-6	-1	-1	-19	-14	-9	37	-3	3	35	34	34	-5	-1	-1	0	0	0	37	-3	2	35	34	34	-5	-1	-1	0	0	0
275746	6206513		40	35	35	53	48	43	39	39	39	-1	4	4	-14	-9	-4	40	0	0	39	39	39	-1	4	4	0	0	0	39	-1	0	39	39	39	-1	4	4	0	0	0
275975	6206407		40	35	35	53	48	43	42	42	42	2	7	7	-11	-6	-1	43	3	1	42	42	42	2	7	7	0	0	0	43	3	1	42	42	42	2	7	7	0	0	0
276512	6207774	6 Olive Lane, Bargo (western end of Olive Lane)	47	47	43	58	48	43	51	54	54	4	7	11	-7	6	11	51	4	0	51	54	54	4	7	11	0	0	0	51	4	0	51	54	54	4	7	11	0	0	0
276770	6207717	2 Olive Lane, Bargo	51	48	43	58	48	43	54	57	57	3	9	14	-4	9	14	54	3	0	54	57	57	3	9	14	0	0	0	54	3	0	54	57	57	3	9	14	0	0	0
276604	6207752	4 Olive Lane, Bargo	47	47	43	58	48	43	52	55	55	5	8	12	-6	7	12	52	5	0	52	55	55	5	8	12	0	0	0	52	5	0	52	55	55	5	8	12	0	0	0
276206	6207523	3 Olive Lane, Bargo	43	43	39	58	48	43	49	52	52	6	9	13	-9	4	9	49	6	0	49	52	52	6	9	13	0	0	0	49	6	0	49	52	52	6	9	13	0	0	0
276473	6207650	7 Olive Lane, Bargo (M3 - western end of Olive L	47	47	43	58	48	43	52	55	55	5	8	12	-6	7	12	52	5	0	52	55	55	5	8	12	0	0	0	52	5	0	52	55	55	5	8	12	0	0	0
279534	6205803		40	35	35	53	48	43	34	34	34	-6	-1	-1	-19	-14	-9	41	1	7	35	34	34	-5	-1	-1	2	0	0	44	4	10	37	34	34	-3	-1	-1	3	1	1
279647	6205708		40	35	35	53	48	43	33	33	33	-7	-2	-2	-20	-15	-10	38	-2	5	34	33	33	-6	-2	-2	1	0	0	40	0	7	34	33	33	-6	-2	-2	2	0	0
280594	6206732		40	35	35	53	48	43	31	31	31	-9	-4	-4	-22	-17	-12	34	-6	3	31	31	31	-9	-4	-4	0	0	0	35	-5	4	32	31	31	-8	-4	-4	1	0	0
280054	6206939		40	35	35	53	48	43	34	34	34	-6	-1	-1	-19	-14	-9	36	-4	2	34	34	34	-6	-1	-1	0	0	0	37	-3	3	34	34	34	-6	-1	-1	0	0	0
280702	6206822		40	35	35	53	48	43	31	31	31	-9	-4	-4	-22	-17	-12	32	-8	2	31	31	31	-9	-4	-4	0	0	0	33	-7	3	31	31	31	-9	-4	-4	0	0	0
280225	6206624		40	35	35	53	48	43	33	33	33	-7	-2	-2	-20	-15	-10	36	-4	3	33	33	33	-7	-2	-2	0	0	0	36	-4	3	33	33	33	-7	-2	-2	0	0	0
280347	6206267		40	35	35	53	48	43	31	31	31	-9	-4	-4	-22	-17	-12	34	-6	3	32	31	31	-8	-4	-4	0	0	0	35	-5	4	32	31	31	-8	-4	-4	1	0	0
280243	6206483		40	35	35	53	48	43	32	32	32	-8	-3	-3	-21	-16	-11	35	-5	2	33	32	32	-7	-3	-3	0	0	0	36	-4	4	33	32	32	-7	-3	-3	1	0	0
280291	6206699		40	35	35	53	48	43	32	32	32	-8	-3	-3	-21	-16	-11	36	-4	3	33	33	33	-7	-2	-2	0	0	0	36	-4	4	33	33	33	-7	-2	-2	1	0	0
280020	6206795		40	35	35	53	48	43	34	34	34	-6	-1	-1	-19	-14	-9	36	-4	2	34	34	34	-6	-1	-1	0	0	0	37	-3	3	35	34	34	-5	-1	-1	0	0	0
279445	6205566		40	35	35	53	48	43	33	33	33	-7	-2	-2	-20	-15	-10	41	1	8	35	33	33	-5	-2	-2	2	1	1	44	4	11	36	34	34	-4	-1	-1	4	1	1
280010	6206469		40	35	35	53	48	43	33	33	33	-7	-2	-2	-20	-15	-10	36	-4	2	34	33	33	-6	-2	-2	0	0	0	37	-3	4	34	34	34	-6	-1	-1	1	0	0
280368	6205827		40	35	35	53	48	43	30	30	30	-10	-5	-5	-23	-18	-13	33	-7	3	31	30	30	-9	-5	-5	0	0	0	35	-5	5	31	30	30	-9	-5	-5	1	0	0
280039	6206406		40	35	35	53	48	43	33	33	33	-7	-2	-2	-20	-15	-10	36	-4	2	33	33	33	-7	-2	-2	0	0	0	37	-3	4	34	33	33	-6	-2	-2	1	0	0
280321	6205705		40	35	35	53	48	43	30	30	30	-10	-5	-5	-23	-18	-13	34	-6	4	31	30	30	-9	-5	-5	1	0	0	35	-5	5	31	30	30	-9	-5	-5	1	0	0
279803	6207063		40	35	35	53	48	43	36	36	36	-4	1	1	-17	-12	-7	37	-3	1	36	36	36	-4	1	1	0	0	0	38	-2	2	36	36	36	-4	1	1	0	0	0
280495	6207234		40	35	35	53	48	43	32	32	32	-8	-3	-3	-21	-16	-11	34	-6	3	32	32	32	-8	-3	-3	0	0	0	35	-5	4	32	32	32	-8	-3	-3	1	0	0
280320	6205991		40	35	35	53	48	43	31	31	31	-9	-4	-4	-22	-17	-12	34	-6	3	31	31	31	-9	-4	-4	0	0	0	35	-5	5	32	31	31	-8	-4	-4	1	0	0
279792	6205445		40	35	35	53	48	43	32	32	32	-8	-3	-3	-21	-16	-11	39	-1	7	33	32	32	-7	-3	-3	1	0	0	41	1	9	34	32	32	-6	-3	-3	2	1	1
280257	6205433		40	35	35	53	48	43	30	30	30	-10	-5	-5	-23	-18	-13	34	-6	4	31	30	30	-9	-5	-5	1	0	0	35	-5	5	31	30	30	-9	-5	-5	1	0	0
280144	6205405		40	35	35	53	48	43	30	30	30	-10	-5	-5	-23	-18	-13	34	-6	4	31	31	31	-9	-4	-4	1	0	0	36	-4	5	31	31	31	-9	-4	-4	1	0	0
279863	6207235		40	35	35	53	48	43	35	35	35	-5	0	0	-18	-13	-8	37	-3	1	36	35	35	-4	0	0	0	0	0	37	-3	2	36	35	35	-4	0	0	0	0	0
280373	6207789		40	35	35	53	48	43	33	33	33	-7	-2	-2	-20	-15	-10	34	-6	1	33	33	33	-7	-2	-2	0	0	0	34	-6	1	33	33	33	-7	-2	-2	0	0	0
280264	6207607		40	35	35	53	48	43	34	34	34	-6	-1	-1	-19	-14	-9	35	-5	2	34	34	34	-6	-1	-1	0	0	0	35	-5	2	34	34	34	-6	-1	-1	0	0	0
276496	6205974	3126 Remembrance Dr, Bargo	49	42	35	58	48	43	41	41	40	-9	-2	5	-18	-8	-3	43	-6	2	41	41	41	-8	-1	6	0	0	0	42	-7	1	41	41	40	-8	-1	5	0	0	0
278400	6208685		41	41	41	58	48	43	41	41	41	0	0	0	-17	-7	-2	41	0	0	41	41	41	0	0	0	0	0	0	41	0	0	41	41	41	0	0	0	0	0	0
278348	6208730		41	41	41	58	48	43	41	41	41	0	0	0	-17	-7	-2	41	0	0	41	41	41	0	0	0	0	0	0	41	0	0	41	41	41	0	0	0	0	0	0
278287	6208946		40	40	35	58	48	43	40	40	40	0	0	0	-18	-8	-3	40	0	0	40	40	40	0	0	5	0	0	0	40	0	0	40	40	40	0	0	5	0	0	0
278296	6209044		40	40	35	58	48	43	39	39	39	-1	-1	4	-19	-9	-4	39	-1	0	39	39	39	-1	-1	4	0	0	0	39	-1	0	39	39	39	-1	-1	4	0	0	0
277937	6209041		40	40	35	58	48	43	40	40	40	0	0	5	-18	-8	-3	40	0	0	40	40	40	0	0	5	0	0	0	40	0	0	40	40	40	0	0	5	0	0	0
278230	6209116		40	40	35	58	48	43	37	37	37	-3	-3	2	-21	-11	-6	37	-3	0	37	37	37	-3	-3	2	0	0	0	37	-3	0	37	37	37	-3	-3	2	0	0	0
278874	6208640		40	40	35	58	48	43	40	40	39	-1	-1	4	-19	-9	-4	40	0	0	40	40	39	0	0	4	0	0	0	40	0	0	40	40	39	0	0	4	0	0	0
278070	6208626		41	41	41	58	48	43	42	42	42	1	1	1	-16	-6	-1	42	1	0	42	42	42	1	1	1	0	0	0	42	1	0	42	42	42	1	1	1	0	0	0
278467	6208913		40	40	35	58	48	43	38	38	38	-2	-2	3	-20	-10	-5	39	-1	0	38	38	38	-2	-2	3	0	0	0	39	-1	0	38	38	38	-2	-2	3	0	0	0
278663	6208711	M7 - eastern end of Hodgson Grove	40	40	35	58	48	43	40	40	40	0	0	5	-18	-8	-3	40	0	0	40	40	40	0	0	5	0	0	0	40	0	0	40	40	40	0	0	5	0	0	0
278348	6208866		41	41	41	58	48	43	40	40	40	-1	-1	-1	-18	-8	-3	40	-1	0	40	40	40	-1	-1	-1	0	0	0	40	-1	0	40	40	40	-1	-1	-1	0	0	0
278422	6209106		40	40	35	58	48	43	36	36	36	-4	-4	1	-22	-12	-7	36	-4	0	36	36	36	-4	-4	1	0	0	0	36	-4	0	36	36	36	-4	-4	1	0	0	0
278904	6208828		40	40	35	58	48	43	38	38	38	-2	-2	3	-20	-10	-5	39	-1	0	38	38	38	-2	-2	3	0	0	0	39	-1	0	38	38	38	-2	-2	3	0	0	0
277886	6208795		40	40	35	58	48	43	41	41	41	1	1	6	-17	-7	-2	41	1	0	41	41	41	1	1	6	0	0	0	41	1	0	41	41	41	1	1	6	0	0	0
277183	6209074		44	42	35	58	48	43	39	39	39	-5	-3	4	-19	-9	-4	39	-5	0	39	39	39	-5	-3	4	0	0	0	39	-5	0	39	39	39	-5	-3	4	0	0	0
277536	6209341		44	42	35	58	48	43	38	38	38	-6	-4	3	-20	-10	-5	39	-5	0	38	38	38	-6	-4	3	0	0	0	39	-5	0	38	38	38	-6	-4	3	0	0	0

			PNTL			PANL			Stage 2 Noise-enhancing without mitigation									Stage 2 Inv2ms + TSC1 Site Est			Stage 2 Inv2ms + TSC1 Drilling (Construction mitigated)									Stage 2 Inv2ms TSC2 Site Est			Stage 2 Inv2ms TSC2 Drill								
									Predicted			Compare to PNTL			Compare to PANL			Predicted	Compare to PNTL	Compare to Unmit S2	Predicted			Compare to PNTL			Compare to Unmit S2		Predicted	Compare to PNTL	Compare to Unmit S2	Predicted			Compare to PNTL			Compare to Unmit S2		
X	Y	Property Details	Day	Evening	Night	Day	Eve	Nt	Day	Eve	Nt	Day	Eve	Nt	Day	Eve	Nt	Day	Day	Day	Day	Eve	Nt	Day	Eve	Nt	Day	Eve	Nt	Day	Day	Day	Day	Eve	Nt	Day	Eve	Nt	Day	Eve	Nt
277569	6209377		44	42	35	58	48	43	38	38	38	-6	-4	3	-20	-10	-5	38	-6	0	38	38	38	-6	-4	3	0	0	0	38	-6	0	38	38	38	-6	-4	3	0	0	0
277777	6209005		40	40	35	58	48	43	41	41	41	1	1	6	-17	-7	-2	41	1	0	41	41	41	1	1	6	0	0	0	41	1	0	41	41	41	1	1	6	0	0	0
277599	6209409		44	42	35	58	48	43	38	38	38	-6	-4	3	-20	-10	-5	38	-6	0	38	38	38	-6	-4	3	0	0	0	38	-6	0	38	38	38	-6	-4	3	0	0	0
278651	6208864		40	40	35	58	48	43	39	39	39	-1	-1	4	-19	-9	-4	39	-1	0	39	39	39	-1	-1	4	0	0	0	39	-1	0	39	39	39	-1	-1	4	0	0	0
278481	6208763		40	40	35	58	48	43	40	40	40	0	0	5	-18	-8	-3	41	1	0	40	40	40	0	0	5	0	0	0	41	1	0	40	40	40	0	0	5	0	0	0
277675	6209054		40	40	35	58	48	43	41	41	41	1	1	6	-17	-7	-2	41	1	0	41	41	41	1	1	6	0	0	0	41	1	0	41	41	41	1	1	6	0	0	0
277554	6209361		44	42	35	58	48	43	38	38	38	-6	-4	3	-20	-10	-5	38	-6	0	38	38	38	-6	-4	3	0	0	0	38	-6	0	38	38	38	-6	-4	3	0	0	0
277658	6209204		44	42	35	58	48	43	39	39	39	-5	-3	4	-19	-9	-4	39	-5	0	39	39	39	-5	-3	4	0	0	0	39	-5	0	39	39	39	-5	-3	4	0	0	0
277670	6209175		44	42	35	58	48	43	39	39	39	-5	-3	4	-19	-9	-4	39	-5	0	39	39	39	-5	-3	4	0	0	0	39	-5	0	39	39	39	-5	-3	4	0	0	0
277649	6209455		44	42	35	58	48	43	35	35	35	-9	-7	0	-23	-13	-8	35	-9	0	35	35	35	-9	-7	0	0	0	0	35	-9	0	35	35	35	-9	-7	0	0	0	0
276491	6209911		40	35	35	53	48	43	36	36	35	-4	1	0	-17	-12	-8	36	-4	0	36	36	36	-4	1	1	0	0	0	36	-4	0	36	36	35	-4	1	0	0	0	0
277557	6209545		44	42	35	58	48	43	34	34	34	-10	-8	-1	-24	-14	-9	34	-10	0	34	34	34	-10	-8	-1	0	0	0	34	-10	0	34	34	34	-10	-8	-1	0	0	0
277615	6209417		44	42	35	58	48	43	38	38	38	-6	-4	3	-20	-10	-5	38	-6	0	38	38	38	-6	-4	3	0	0	0	38	-6	0	38	38	38	-6	-4	3	0	0	0
276570	6209899		40	35	35	53	48	43	36	36	36	-4	1	1	-17	-12	-7	36	-4	0	36	36	36	-4	1	1	0	0	0	36	-4	0	36	36	36	-4	1	1	0	0	0
276606	6208858		40	35	35	53	48	43	40	40	40	0	5	5	-13	-8	-3	41	1	0	40	40	40	0	5	5	0	0	0	40	0	0	40	40	40	0	5	5	0	0	0
277846	6208869		40	40	35	58	48	43	41	41	41	1	1	6	-17	-7	-2	41	1	0	41	41	41	1	1	6	0	0	0	41	1	0	41	41	41	1	1	6	0	0	0
277634	6209436		44	42	35	58	48	43	36	36	36	-8	-6	1	-22	-12	-7	36	-8	0	36	36	36	-8	-6	1	0	0	0	36	-8	0	36	36	36	-8	-6	1	0	0	0
276207	6208736		40	35	35	53	48	43	38	38	38	-2	3	3	-15	-10	-5	39	-1	0	38	38	38	-2	3	3	0	0	0	38	-2	0	38	38	38	-2	3	3	0	0	0
276319	6209116		40	35	35	53	48	43	38	38	38	-2	3	3	-15	-10	-5	38	-2	0	38	38	38	-2	3	3	0	0	0	38	-2	0	38	38	38	-2	3	3	0	0	0
277582	6209394		44	42	35	58	48	43	38	38	38	-6	-4	3	-20	-10	-5	38	-6	0	38	38	38	-6	-4	3	0	0	0	38	-6	0	38	38	38	-6	-4	3	0	0	0
276533	6209038		40	35	35	53	48	43	39	39	39	-1	4	4	-14	-9	-4	39	-1	0	39	39	39	-1	4	4	0	0	0	39	-1	0	39	39	39	-1	4	4	0	0	0
276441	6209125		40	35	35	53	48	43	38	38	38	-2	3	3	-15	-10	-5	39	-1	0	38	38	38	-2	3	3	0	0	0	38	-2	0	38	38	38	-2	3	3	0	0	0
276737	6209794		40	35	35	53	48	43	36	36	36	-4	1	1	-17	-12	-7	36	-4	0	36	36	36	-4	1	1	0	0	0	36	-4	0	36	36	36	-4	1	1	0	0	0
276458	6209046		40	35	35	53	48	43	39	39	39	-1	4	4	-14	-9	-4	39	-1	0	39	39	39	-1	4	4	0	0	0	39	-1	0	39	39	39	-1	4	4	0	0	0
276375	6209133		40	35	35	53	48	43	38	38	38	-2	3	3	-15	-10	-5	38	-2	0	38	38	38	-2	3	3	0	0	0	38	-2	0	38	38	38	-2	3	3	0	0	0
276663	6209046		40	35	35	53	48	43	39	39	39	-1	4	4	-14	-9	-4	39	-1	0	39	39	39	-1	4	4	0	0	0	39	-1	0	39	39	39	-1	4	4	0	0	0
277958	6209355		44	42	35	58	48	43	37	37	37	-7	-5	2	-21	-11	-6	37	-7	0	37	37	37	-7	-5	2	0	0	0	37	-7	0	37	37	37	-7	-5	2	0	0	0
276909	6208791		44	42	35	58	48	43	36	36	36	-8	-6	1	-22	-12	-7	36	-8	0	36	36	36	-8	-6	1	0	0	0	36	-8	0	36	36	36	-8	-6	1	0	0	0
276929	6208832		44	42	35	58	48	43	38	38	38	-6	-4	3	-20	-10	-5	38	-6	0	38	38	38	-6	-4	3	0	0	0	38	-6	0	38	38	38	-6	-4	3	0	0	0
277977	6209266		40	40	35	58	48	43	39	39	39	-1	-1	4	-19	-9	-4	39	-1	0	39	39	39	-1	-1	4	0	0	0	39	-1	0	39	39	39	-1	-1	4	0	0	0
278018	6209251		40	40	35	58	48	43	39	39	39	-1	-1	4	-19	-9	-4	39	-1	0	39	39	39	-1	-1	4	0	0	0	39	-1	0	39	39	39	-1	-1	4	0	0	0
277851	6209190		40	40	35	58	48	43	38	38	38	-2	-2	3	-20	-10	-5	38	-2	0	38	38	38	-2	-2	3	0	0	0	38	-2	0	38	38	38	-2	-2	3	0	0	0
277834	6209771		44	42	35	58	48	43	36	36	36	-8	-6	1	-22	-12	-7	36	-8	0	36	36	36	-8	-6	1	0	0	0	36	-8	0	36	36	36	-8	-6	1	0	0	0
276977	6209297		44	42	35	58	48	43	38	38	38	-6	-4	3	-20	-10	-5	38	-6	0	38	38	38	-6	-4	3	0	0	0	38	-6	0	38	38	38	-6	-4	3	0	0	0
276488	6208953		40	35	35	53	48	43	40	40	39	0	5	4	-13	-8	-4	40	0	0	40	40	39	0	5	4	0	0	0	40	0	0	40	40	39	0	5	4	0	0	0
277637	6208618		41	41	41	58	48	43	42	42	42	1	1	1	-16	-6	-1	42	1	0	42	42	42	1	1	1	0	0	0	43	2	0	42	42	42	1	1	1	0	0	0
276683	6208822		40	35	35	53	48	43	41	41	41	1	6	6	-12	-7	-2	41	1	0	41	41	41	1	6	6	0	0	0	41	1	0	41	41	41	1	6	6	0	0	0
276675	6209894		40	35	35	53	48	43	36	36	36	-4	1	1	-17	-12	-7	36	-4	0	36	36	36	-4	1	1	0	0	0	36	-4	0	36	36	36	-4	1	1	0	0	0
276699	6209919		40	35	35	53	48	43	36	36	36	-4	1	1	-17	-12	-7	36	-4	0	36	36	36	-4	1	1	0	0	0	36	-4	0	36	36	36	-4	1	1	0	0	0
277432	6209437		44	42	35	58	48	43	34	34	34	-10	-8	-1	-24	-14	-9	34	-10	0	34	34	34	-10	-8	-1	0	0	0	35	-9	0	34	34	34	-10	-8	-1	0	0	0
276943	6209689		40	35	35	53	48	43	36	36	36	-4	1	1	-17	-12	-7	37	-3	0	36	36	36	-4	1	1	0	0	0	36	-4	0	36	36	36	-4	1	1	0	0	0
277934	6209547		44	42	35	58	48	43	35	35	35	-9	-7	0	-23	-13	-8	35	-9	0	35	35	35	-9	-7	0	0	0	0	36	-8	0	35	35	35	-9	-7	0	0	0	0
276597	6209813		40	35	35	53	48	43	36	36	36	-4	1	1	-17	-12	-7	37	-3	0	36	36	36	-4	1	1	0	0	0	37	-3	0	36	36	36	-4	1	1	0	0	0
276848	6209925		40	35	35	53	48	43	36	36	36	-4	1	1	-17	-12	-7	36	-4	0	36	36	36	-4	1	1	0	0	0	36	-4	0	36	36	36	-4	1	1	0	0	0
277112	6209583		40	35	35	53	48	43	37	37	37	-3	2	2	-16	-11	-6	37	-3	0	37	37	37	-3	2	2	0	0	0	37	-3	0	37	37	37	-3	2	2	0	0	0
277161	6209132		44	42	35	58	48	43	38	38	38	-6	-4	3	-20	-10	-5	38	-6	0	38	38	38	-6	-4	3	0	0	0	38	-6	0	38	38	38	-6	-4	3	0	0	0
276334	6209925		40	35	35	53	48	43	35	35	35	-5	0	0	-18	-13	-8	36	-4	0	35	35	35	-5	0	0	0	0	0	35	-5	0	35	35	35	-5	0	0	0	0	0
276840	6209669		40	35	35	53	48	43	36	36	36	-4	1	1	-17	-12	-7	37	-3	0	36	36	36	-4	1	1	0	0	0	36	-4	0	36	36	36	-4	1	1	0	0	0
276814	6209696		40	35	35	53	48	43	36	36	36	-4	1	1	-17	-12	-7	36	-4	0	36	36	36	-4	1	1	0	0	0	36	-4	0	36	36	36	-4	1	1	0	0	0
277059	6209721		40	35	35	53	48	43	36	36	36	-4	1	1	-17	-12	-7	36	-4	0	36	36	36	-4	1	1	0	0	0	36	-4	0	36	36	36	-4	1	1	0	0	0
277253	6209893		40	35	35	53	48	43	35	35	35	-5	0	0	-18	-13	-8	36	-4	0	35	35	35	-5	0	0	0	0	0	36	-4	0	35	35	35	-5	0	0	0	0	0
277242	6209655		40	35	35	53	48	43	37	37	37	-3	2	2	-16	-11	-6	37	-3	0	37	37	37	-3	2	2	0	0	0	37	-3	0	37	37	37	-3	2	2	0	0	0
276793	6209461		40	35	35	53	48	43	37	37	37	-3	2	2	-16	-11	-6	38	-2	0	37	37	37	-3	2	2	0	0	0	37	-3	0	37	37	37	-3	2	2	0	0	0
276950	6209800		40	35	35	53	48	43	36	36	36	-4	1	1	-17	-12	-7	36	-4	0	36	36	36	-4	1	1	0	0	0	36	-4	0	36	36	36	-4	1	1	0	0	0
277088	6209839		40	35	35	53	48	43	36	36	36	-4	1	1	-17	-12	-7	36	-4	0	36	36	36	-4	1	1	0	0	0	36	-4	0	36	36	36	-4	1	1	0	0	0
277452	6209234		44	42	35	58	48	43	39	39	39	-5	-3	4	-19	-9	-4	39	-5	0	39	39	39	-5	-3	4	0	0	0	39	-5	0	39	39	39	-5	-3	4	0	0	0
276801	6209563		40	35	35	53	48	43	37	37	37	-3	2	2	-16	-11	-6	37	-3	0	37	37	37	-3	2	2	0	0	0	37	-3	0	37	37	37	-3	2	2	0	0	0
276806	6209580		40	35	35	53	48	43	37	37	37	-3	2	2	-16	-11	-6	37	-3	0	37	37	37	-3	2	2	0	0	0	37	-3	0	37	37	37	-3	2	2	0	0	0
276711	6209399		40	35	35	53	48	43	38	38	38	-2	3	3	-15	-10	-5	38	-2	0	38	38	38	-2	3	3	0	0	0	38	-2	0	38	38	38	-2	3	3	0	0	0
276509	6209349		40	35	35	53	48	43	37	37	37	-3	2	2	-16	-11	-6	38	-2	0	37	37	37	-3	2	2	0	0	0	37	-3	0	37	37	37	-3	2	2	0	0	0
276652	6209402		40	35	35	53	48	43	37	37	37	-3	2	2	-16	-11	-6	38	-2	0	38	37	37	-2	2	2	0	0	0	38	-2	0	37	37	37	-3	2	2	0	0	0
276296	6209413		40	35	35	53	48	43	37	37	37	-3	2	2	-16	-11	-6	37	-3	0	37	37	37	-3	2	2	0	0	0	37	-3	0	37	37	37	-3	2	2	0	0	0
277968	6209115		40	40	35	58	48	43	40	40	40	0	0	5	-18	-8	-3	40	0	0	40	40	40	0	0	5	0	0	0	40	0	0	40	40	40	0	0	5	0	0	0
276885	6208969		44	42	35	58	48	43	39	39	39	-5	-3	4	-19	-9	-4	39	-5	0	39	39	39	-5	-3	4	0	0	0	40	-4	0	39	39	39	-5	-3	4	0	0	0
277510	6209310		44	42	35	58	48	43	39	39	39	-5	-3	4	-19	-9	-4	39	-5	0	39	39	39	-5	-3	4	0	0	0	39	-5	0	39	39	39	-5	-3	4	0	0	0
277289	6209222		44	42	35	58	48	43	39	39	39	-5	-3	4	-19	-9	-4	39	-5	0	39	39	39	-5	-3	4	0	0	0	39	-5	0	39	39	39	-5	-3	4	0	0	0
276967	6209192		44	42	35	58	48	43	38	38	38	-6	-4	3	-20	-10	-5	38	-6	0	38	38	38	-6	-4	3	0	0	0	38	-6	0	38	38	38	-6	-4	3	0	0	0
277027	6209628		40	35	35	53	48	43	37	37	37	-3	2	2	-16	-11	-6	37	-3	0	37	37	37	-3	2	2	0	0	0	37	-3	0	37	37	37	-3	2	2	0	0	0
276501	6209823		40	35	35	53	48	43	36	36	36	-4	1	1	-17	-12	-7	36	-4	0	36	36	36	-4	1	1	0	0	0	36	-4	0	36	36	36	-4	1	1	0	0	0
276453	6209832		40	35	35	53	48	43	36	36	36	-4	1	1	-17	-12	-7	36	-4	0	36	36	36	-4	1	1	0	0	0	36	-4	0	36	36	36	-4	1	1	0	0	0
276733	6209543		40	35	35	53	48	43	37	37	37	-3	2	2	-16	-11	-6	37	-3	0	37	37	37	-3	2	2	0	0	0	37	-3	0	37	37	37	-3	2	2	0	0	0
275154	6209491		40	35	35	53	48	43	34	34	34	-6	-1	-1	-19	-14	-9	34	-6	0	34	34	34	-6	-1	-1	0	0	0	34	-6	0	34	34	34	-6	-1	-1	0	0	0
275859	6209313		40	35	35	53	48	43	36	36	36	-4	1	1	-17	-12	-7	36	-4	0	36	36	36	-4	1	1	0	0	0	36	-4	0	36	36	36	-4	1	1	0	0	0
275701	6209909		40	35	35	53	48	43	33	33	33	-7	-2	-2	-20	-15	-10	33	-7	0	33	33	33	-7	-2	-2	0	0	0	33	-7	0	33	33	33	-7	-2	-2	0	0	0
275928	6208599		40	35	35	53	48	43	38	38	38	-2	3	3	-15	-10	-5	39	-1	0	38	38	38	-2	3	3	0	0	0	39	-1	0	38	38	38	-2	3	3	0	0	0
274639	6208701		40	35	35	53	48	43	34	34	34	-6	-1	-1	-19	-14	-9	35	-5	0	34	34	34	-6	-1	-1	0	0	0	34	-6	0	34	34	34	-6	-1	-1	0	0	0
276170	6209058		40	35	35	53	48	43	38	38	38	-2	3	3	-15	-10	-5	38	-2	0	38	38	38	-2	3	3	0	0	0	38	-2	0	38	38	38	-2	3	3	0	0	0
274659	6209021		40	35	35	53	48	43	33	33	33	-7	-2	-2	-20	-15	-10	34	-6	0	33	33	33	-7	-2	-2	0	0	0	34	-6	0	33	33	33	-7	-2	-2	0	0	0
274745	6209927		40	35	35	53	48	43	31	31	31	-9	-4	-4	-22	-17	-12	32	-8	0	31	31	31	-9	-4	-4	0	0	0	31	-9	0	31	31	31	-9	-4	-4	0	0	0
276085	6209938		40	35	35	53	48	43	34	34	34	-6	-1	-1	-19	-14	-9	34	-6	0	34	34	34	-6	-1	-1	0	0	0	34	-6	0	34	34	34	-6	-1	-1	0	0	0
275160	6209689		40	35	35	53	48	43	33	33	33	-7	-2	-2	-20	-15	-10	33	-7	0	33	33	33	-7	-2	-2	0	0	0	33	-7	0	33	33	33	-7	-2	-2	0	0	0
274664	6209081		40	35	35	53	48	43	33	33	33	-7	-2	-2	-20	-15	-10	34	-6	0	33	33	33	-7	-2	-2	0	0	0	34	-6	0	33	33	33	-7	-2	-2	0	0	0
275056	6209737		40	35	35	53	48	43	33	33	32	-7	-2	-3	-20	-15	-11	33	-7	0	33	33	33	-7	-2	-2	0	0	0	33	-7	0	33	33	32	-7	-2	-3	0	0	0
275968	6209369		40	35	35	53	48	43	36	36	36	-4	1	1	-17	-12	-7	36	-4	0	36	36	36	-4	1	1	0	0	0	36	-4	0	36	36	36	-4	1	1	0	0	0

			PNTL			PANL			Stage 2 Noise-enhancing without mitigation									Stage 2 Inv2ms + TSC1 Site Est			Stage 2 Inv2ms + TSC1 Drilling (Construction mitigated)									Stage 2 Inv2ms TSC2 Site Est			Stage 2 Inv2ms TSC2 Drill					
									Predicted			Compare to PNTL			Compare to PANL			Predicted	Compare to PNTL	Compare to Unmit S2	Predicted			Compare to PNTL			Compare to Unmit S2		Predicted	Compare to PNTL	Compare to Unmit S2	Predicted			Compare to PNTL			Compare to Unmit S2		
X	Y	Property Details	Day	Evening	Night				Day	Eve	Nt	Day	Eve	Nt	Day	Eve	Nt	Day	Day	Day	Day	Eve	Nt	Day	Eve	Nt				Day	Day		Day	Eve	Nt	Day	Eve	Nt			
275973	6209386		40	35	35	53	48	43	36	36	36	-4	1	1	-17	-12	-7	36	-4	0	36	36	36	-4	1	1	0	0	0	36	-4	0	36	36	36	-4	1	1	0	0	0
275940	6209269		40	35	35	53	48	43	36	36	36	-4	1	1	-17	-12	-7	37	-3	0	36	36	36	-4	1	1	0	0	0	36	-4	0	36	36	36	-4	1	1	0	0	0
275923	6209277		40	35	35	53	48	43	36	36	36	-4	1	1	-17	-12	-7	36	-4	0	36	36	36	-4	1	1	0	0	0	36	-4	0	36	36	36	-4	1	1	0	0	0
274688	6209838		40	35	35	53	48	43	31	31	31	-9	-4	-4	-22	-17	-12	32	-8	0	31	31	31	-9	-4	-4	0	0	0	32	-8	0	31	31	31	-9	-4	-4	0	0	0
274617	6209529		40	35	35	53	48	43	32	32	32	-8	-3	-3	-21	-16	-11	32	-8	0	32	32	32	-8	-3	-3	0	0	0	32	-8	0	32	32	32	-8	-3	-3	0	0	0
275069	6209100		40	35	35	53	48	43	35	35	35	-5	0	0	-18	-13	-8	35	-5	0	35	35	35	-5	0	0	0	0	0	35	-5	0	35	35	35	-5	0	0	0	0	0
276092	6209152		40	35	35	53	48	43	37	37	37	-3	2	2	-16	-11	-6	37	-3	0	37	37	37	-3	2	2	0	0	0	37	-3	0	37	37	37	-3	2	2	0	0	0
275992	6209797		40	35	35	53	48	43	34	34	34	-6	-1	-1	-19	-14	-9	35	-5	0	34	34	34	-6	-1	-1	0	0	0	35	-5	0	34	34	34	-6	-1	-1	0	0	0
274647	6209063		40	35	35	53	48	43	33	33	33	-7	-2	-2	-20	-15	-10	34	-6	0	33	33	33	-7	-2	-2	0	0	0	34	-6	0	33	33	33	-7	-2	-2	0	0	0
275886	6209821		40	35	35	53	48	43	34	34	34	-6	-1	-1	-19	-14	-9	34	-6	0	34	34	34	-6	-1	-1	0	0	0	34	-6	0	34	34	34	-6	-1	-1	0	0	0
274588	6209062		40	35	35	53	48	43	33	33	33	-7	-2	-2	-20	-15	-10	34	-6	0	33	33	33	-7	-2	-2	0	0	0	34	-6	0	33	33	33	-7	-2	-2	0	0	0
274861	6209063		40	35	35	53	48	43	34	34	34	-6	-1	-1	-19	-14	-9	34	-6	0	34	34	34	-6	-1	-1	0	0	0	34	-6	0	34	34	34	-6	-1	-1	0	0	0
274273	6208903		40	35	35	53	48	43	33	33	32	-7	-2	-3	-20	-15	-11	33	-7	0	33	33	32	-7	-2	-3	0	0	0	33	-7	0	33	33	32	-7	-2	-3	0	0	0
274730	6209158		40	35	35	53	48	43	33	33	33	-7	-2	-2	-20	-15	-10	34	-6	0	33	33	33	-7	-2	-2	0	0	0	34	-6	0	33	33	33	-7	-2	-2	0	0	0
275396	6209936		40	35	35	53	48	43	32	32	32	-8	-3	-3	-21	-16	-11	33	-7	0	32	32	32	-8	-3	-3	0	0	0	33	-7	0	32	32	32	-8	-3	-3	0	0	0
275315	6209547		40	35	35	53	48	43	34	34	34	-6	-1	-1	-19	-14	-9	34	-6	0	34	34	34	-6	-1	-1	0	0	0	34	-6	0	34	34	34	-6	-1	-1	0	0	0
275484	6209214		40	35	35	53	48	43	35	35	35	-5	0	0	-18	-13	-8	36	-4	0	36	36	35	-4	1	0	0	0	0	36	-4	0	35	35	35	-5	0	0	0	0	0
275331	6209978		40	35	35	53	48	43	32	32	32	-8	-3	-3	-21	-16	-11	33	-7	0	32	32	32	-8	-3	-3	0	0	0	32	-8	0	32	32	32	-8	-3	-3	0	0	0
274411	6208813		40	35	35	53	48	43	33	33	33	-7	-2	-2	-20	-15	-10	34	-6	0	33	33	33	-7	-2	-2	0	0	0	34	-6	0	33	33	33	-7	-2	-2	0	0	0
276064	6209795		40	35	35	53	48	43	35	35	35	-5	0	0	-18	-13	-8	35	-5	0	35	35	35	-5	0	0	0	0	0	35	-5	0	35	35	35	-5	0	0	0	0	0
274948	6209678		40	35	35	53	48	43	33	33	32	-7	-2	-3	-20	-15	-11	33	-7	0	33	33	32	-7	-2	-3	0	0	0	33	-7	0	33	33	32	-7	-2	-3	0	0	0
274540	6209093		40	35	35	53	48	43	33	33	33	-7	-2	-2	-20	-15	-10	33	-7	0	33	33	33	-7	-2	-2	0	0	0	33	-7	0	33	33	33	-7	-2	-2	0	0	0
275524	6209936		40	35	35	53	48	43	33	33	33	-7	-2	-2	-20	-15	-10	33	-7	0	33	33	33	-7	-2	-2	0	0	0	33	-7	0	33	33	33	-7	-2	-2	0	0	0
274939	6209096		40	35	35	53	48	43	34	34	34	-6	-1	-1	-19	-14	-9	34	-6	0	34	34	34	-6	-1	-1	0	0	0	34	-6	0	34	34	34	-6	-1	-1	0	0	0
274730	6209128		40	35	35	53	48	43	33	33	33	-7	-2	-2	-20	-15	-10	34	-6	0	33	33	33	-7	-2	-2	0	0	0	34	-6	0	33	33	33	-7	-2	-2	0	0	0
274587	6209097		40	35	35	53	48	43	33	33	33	-7	-2	-2	-20	-15	-10	33	-7	0	33	33	33	-7	-2	-2	0	0	0	33	-7	0	33	33	33	-7	-2	-2	0	0	0
275221	6209177		40	35	35	53	48	43	35	35	35	-5	0	0	-18	-13	-8	35	-5	0	35	35	35	-5	0	0	0	0	0	35	-5	0	35	35	35	-5	0	0	0	0	0
274821	6209156		40	35	35	53	48	43	34	34	33	-6	-1	-2	-19	-14	-10	34	-6	0	34	34	33	-6	-1	-2	0	0	0	34	-6	0	34	34	33	-6	-1	-2	0	0	0
274796	6209075		40	35	35	53	48	43	34	34	34	-6	-1	-1	-19	-14	-9	34	-6	0	34	34	34	-6	-1	-1	0	0	0	34	-6	0	34	34	34	-6	-1	-1	0	0	0
274527	6209057		40	35	35	53	48	43	33	33	33	-7	-2	-2	-20	-15	-10	33	-7	0	33	33	33	-7	-2	-2	0	0	0	33	-7	0	33	33	33	-7	-2	-2	0	0	0
274539	6209299		40	35	35	53	48	43	32	32	32	-8	-3	-3	-21	-16	-11	33	-7	0	32	32	32	-8	-3	-3	0	0	0	33	-7	0	32	32	32	-8	-3	-3	0	0	0
274902	6208737		40	35	35	53	48	43	35	35	35	-5	0	0	-18	-13	-8	35	-5	0	35	35	35	-5	0	0	0	0	0	35	-5	0	35	35	35	-5	0	0	0	0	0
274960	6208643		40	35	35	53	48	43	35	35	35	-5	0	0	-18	-13	-8	36	-4	0	35	35	35	-5	0	0	0	0	0	36	-4	0	35	35	35	-5	0	0	0	0	0
274408	6208799		40	35	35	53	48	43	33	33	33	-7	-2	-2	-20	-15	-10	34	-6	0	33	33	33	-7	-2	-2	0	0	0	34	-6	0	33	33	33	-7	-2	-2	0	0	0
275731	6209126		40	35	35	53	48	43	37	37	36	-3	2	1	-16	-11	-7	37	-3	0	37	37	37	-3	2	2	0	0	0	37	-3	0	37	37	36	-3	2	1	0	0	0
276368	6209832		40	35	35	53	48	43	36	36	36	-4	1	1	-17	-12	-7	36	-4	0	36	36	36	-4	1	1	0	0	0	36	-4	0	36	36	36	-4	1	1	0	0	0
275294	6208702		40	35	35	53	48	43	36	36	36	-4	1	1	-17	-12	-7	36	-4	0	36	36	36	-4	1	1	0	0	0	36	-4	0	36	36	36	-4	1	1	0	0	0
275669	6209080		40	35	35	53	48	43	37	37	36	-3	2	1	-16	-11	-7	37	-3	0	37	37	36	-3	2	1	0	0	0	37	-3	0	37	37	36	-3	2	1	0	0	0
275507	6209032		40	35	35	53	48	43	36	36	36	-4	1	1	-17	-12	-7	37	-3	0	36	36	36	-4	1	1	0	0	0	36	-4	0	36	36	36	-4	1	1	0	0	0
274328	6208923		40	35	35	53	48	43	33	33	33	-7	-2	-2	-20	-15	-10	33	-7	0	33	33	33	-7	-2	-2	0	0	0	33	-7	0	33	33	33	-7	-2	-2	0	0	0
274663	6209167		40	35	35	53	48	43	33	33	33	-7	-2	-2	-20	-15	-10	34	-6	0	33	33	33	-7	-2	-2	0	0	0	33	-7	0	33	33	33	-7	-2	-2	0	0	0
274528	6209200		40	35	35	53	48	43	33	33	33	-7	-2	-2	-20	-15	-10	33	-7	0	33	33	33	-7	-2	-2	0	0	0	33	-7	0	33	33	33	-7	-2	-2	0	0	0
274950	6209140		40	35	35	53	48	43	34	34	34	-6	-1	-1	-19	-14	-9	34	-6	0	34	34	34	-6	-1	-1	0	0	0	34	-6	0	34	34	34	-6	-1	-1	0	0	0
274435	6208980		40	35	35	53	48	43	33	33	33	-7	-2	-2	-20	-15	-10	33	-7	0	33	33	33	-7	-2	-2	0	0	0	33	-7	0	33	33	33	-7	-2	-2	0	0	0
274670	6209125		40	35	35	53	48	43	33	33	33	-7	-2	-2	-20	-15	-10	34	-6	0	33	33	33	-7	-2	-2	0	0	0	34	-6	0	33	33	33	-7	-2	-2	0	0	0
274923	6208980		40	35	35	53	48	43	34	34	34	-6	-1	-1	-19	-14	-9	35	-5	0	34	34	34	-6	-1	-1	0	0	0	35	-5	0	34	34	34	-6	-1	-1	0	0	0
274808	6209102		40	35	35	53	48	43	34	34	34	-6	-1	-1	-19	-14	-9	34	-6	0	34	34	34	-6	-1	-1	0	0	0	34	-6	0	34	34	34	-6	-1	-1	0	0	0
274865	6209144		40	35	35	53	48	43	34	34	34	-6	-1	-1	-19	-14	-9	34	-6	0	34	34	34	-6	-1	-1	0	0	0	34	-6	0	34	34	34	-6	-1	-1	0	0	0
275390	6209212		40	35	35	53	48	43	35	35	35	-5	0	0	-18	-13	-8	35	-5	0	35	35	35	-5	0	0	0	0	0	35	-5	0	35	35	35	-5	0	0	0	0	0
274682	6209229		40	35	35	53	48	43	33	33	33	-7	-2	-2	-20	-15	-10	33	-7	0	33	33	33	-7	-2	-2	0	0	0	33	-7	0	33	33	33	-7	-2	-2	0	0	0
274581	6209186		40	35	35	53	48	43	33	33	33	-7	-2	-2	-20	-15	-10	33	-7	0	33	33	33	-7	-2	-2	0	0	0	33	-7	0	33	33	33	-7	-2	-2	0	0	0
274535	6209138		40	35	35	53	48	43	33	33	33	-7	-2	-2	-20	-15	-10	33	-7	0	33	33	33	-7	-2	-2	0	0	0	33	-7	0	33	33	33	-7	-2	-2	0	0	0
274606	6209242		40	35	35	53	48	43	33	33	33	-7	-2	-2	-20	-15	-10	33	-7	0	33	33	33	-7	-2	-2	0	0	0	33	-7	0	33	33	33	-7	-2	-2	0	0	0
274861	6208805		40	35	35	53	48	43	35	35	35	-5	0	0	-18	-13	-8	35	-5	0	35	35	35	-5	0	0	0	0	0	35	-5	0	35	35	35	-5	0	0	0	0	0
275863	6209145		40	35	35	53	48	43	37	37	37	-3	2	2	-16	-11	-6	37	-3	0	37	37	37	-3	2	2	0	0	0	37	-3	0	37	37	37	-3	2	2	0	0	0
276217	6209821		40	35	35	53	48	43	36	36	36	-4	1	1	-17	-12	-7	36	-4	0	36	36	36	-4	1	1	0	0	0	36	-4	0	36	36	36	-4	1	1	0	0	0
275259	6209439		40	35	35	53	48	43	34	34	34	-6	-1	-1	-19	-14	-9	34	-6	0	34	34	34	-6	-1	-1	0	0	0	34	-6	0	34	34	34	-6	-1	-1	0	0	0
275218	6208798		40	35	35	53	48	43	36	36	36	-4	1	1	-17	-12	-7	36	-4	0	36	36	36	-4	1	1	0	0	0	36	-4	0	36	36	36	-4	1	1	0	0	0
275181	6208809		40	35	35	53	48	43	36	36	36	-4	1	1	-17	-12	-7	36	-4	0	36	36	36	-4	1	1	0	0	0	36	-4	0	36	36	36	-4	1	1	0	0	0
275022	6209227		40	35	35	53	48	43	34	34	34	-6	-1	-1	-19	-14	-9	34	-6	0	34	34	34	-6	-1	-1	0	0	0	34	-6	0	34	34	34	-6	-1	-1	0	0	0
274961	6209241		40	35	35	53	48	43	34	34	34	-6	-1	-1	-19	-14	-9	34	-6	0	34	34	34	-6	-1	-1	0	0	0	34	-6	0	34	34	34	-6	-1	-1	0	0	0
276302	6209841		40	35	35	53	48	43	36	36	36	-4	1	1	-17	-12	-7	36	-4	0	36	36	36	-4	1	1	0	0	0	36	-4	0	36	36	36	-4	1	1	0	0	0
274980	6209000		40	35	35	53	48	43	34	34	34	-6	-1	-1	-19	-14	-9	35	-5	0	34	34	34	-6	-1	-1	0	0	0	35	-5	0	34	34	34	-6	-1	-1	0	0	0
274611	6209304		40	35	35	53	48	43	32	32	32	-8	-3	-3	-21	-16	-11	33	-7	0	32	32	32	-8	-3	-3	0	0	0	33	-7	0	32	32	32	-8	-3	-3	0	0	0
275451	6209966		40	35	35	53	48	43	32	32	32	-8	-3	-3	-21	-16	-11	33	-7	0	33	32	32	-7	-3	-3	0	0	0	33	-7	0	32	32	32	-8	-3	-3	0	0	0
274599	6209133		40	35	35	53	48	43	33	33	33	-7	-2	-2	-20	-15	-10	33	-7	0	33	33	33	-7	-2	-2	0	0	0	33	-7	0	33	33	33	-7	-2	-2	0	0	0
274723	6209080		40	35	35	53	48	43	34	34	33	-7	-2	-2	-20	-15	-10	34	-6	0	34	34	33	-6	-1	-2	0	0	0	34	-6	0	34	34	33	-6	-1	-2	0	0	0
274675	6209285		40	35	35	53	48	43	33	33	33	-7	-2	-2	-20	-15	-10	33	-7	0	33	33	33	-7	-2	-2	0	0	0	33	-7	0	33	33	33	-7	-2	-2	0	0	0
274713	6209031		40	35	35	53	48	43	34	34	34	-6	-1	-1	-19	-14	-9	34	-6	0	34	34	34	-6	-1	-1	0	0	0	34	-6	0	34	34	34	-6	-1	-1	0	0	0
274283	6208959		40	35	35	53	48	43	32	32	32	-8	-3	-3	-21	-16	-11	33	-7	0	33	32	32	-7	-3	-3	0	0	0	33	-7	0	32	32	32	-8	-3	-3	0	0	0
274436	6208958		40	35	35	53	48	43	33	33	33	-7	-2	-2	-20	-15	-10	33	-7	0	33	33	33	-7	-2	-2	0	0	0	33	-7	0	33	33	33	-7	-2	-2	0	0	0
274858	6209100		40	35	35	53	48	43	34	34	34	-6	-1	-1	-19	-14	-9	34	-6	0	34	34	34	-6	-1	-1	0	0	0	34	-6	0	34	34	34	-6	-1	-1	0	0	0
274511	6208956		40	35	35	53	48	43	33	33	33	-7	-2	-2	-20	-15	-10	34	-6	0	33	33	33	-7	-2	-2	0	0	0	34	-6	0	33	33	33	-7	-2	-2	0	0	0
274999	6209050		40	35	35	53	48	43	34	34	34	-6	-1	-1	-19	-14	-9	35	-5	0	34	34	34	-6	-1	-1	0	0	0	35	-5	0	34	34	34	-6	-1	-1	0	0	0
275043	6208624		40	35	35	53	48	43	36	36	36	-4	1	1	-17	-12	-7	36	-4	0	36	36	36	-4	1	1	0	0	0	36	-4	0	36	36	36	-4	1	1	0	0	0
276073	6208717		40	35	35	53	48	43	40	40	40	0	5	5	-13	-8	-3	40	0	0	40	40	40	0	5	5	0	0	0	40	0	0	40	40	40	0	5	5	0	0	0
275942	6209122		40	35	35	53	48	43	37	37	37	-3	2	2	-16	-11	-6	37	-3	0	37	37	37	-3	2	2	0	0	0	37	-3	0	37	37	37	-3	2	2	0	0	0
275631	6209237		40	35	35	53	48	43	36	36	36	-4	1	1	-17	-12	-7	36	-4	0	36	36	36	-4	1	1	0	0	0	36	-4	0	36	36	36	-4	1	1	0	0	0
276126	6209839		40	35	35	53	48	43	35	35	34	-5	0	-1	-18	-13	-9	35	-5	0	35	35	34	-5	0	-1	0	0	0	35	-5	0	35	35	34	-5	0	-1	0	0	0
275212	6208707		40	35	35	53	48	43	36	36	36	-4	1	1	-17	-12	-7	36	-4	0	36	36	36	-4	1	1	0	0	0	36	-4	0	36	36	36	-4	1	1	0	0	0
275575	6209901		40	35	35	53	48	43	33	33	33	-7	-2	-2	-20	-15	-10	33	-7	0	33	33	33	-7	-2	-2	0	0	0	33	-7	0	33	33	33	-7	-2	-2	0	0	0
275078	6209855		40	35	35	53	48	43	32	32	32	-8	-3	-3	-21	-16	-11	33	-7	0	32	32	32	-8	-3	-3	0	0	0	32	-8	0	32	32	32	-8	-3	-3	0	0	0
275112	6209998		40	35	35	53	48	43	32	32	32	-8	-3	-3	-21	-16	-11	32	-8	0	32	32	32	-8	-3	-3	0	0	0	32	-8	0	32	32	32	-8	-3	-3	0	0	0
274824	6209640		40	35	35	53	48	43	32	32	32	-8	-3	-3	-21	-16	-11	33	-7	0	32	32	32	-8	-3	-3	0	0	0	33	-7	0	32	32	32	-8	-3	-3	0	0	0

			PNTL			PANL			Stage 2 Noise-enhancing without mitigation									Stage 2 Inv2ms + TSC1 Site Est			Stage 2 Inv2ms + TSC1 Drilling (Construction mitigated)									Stage 2 Inv2ms TSC2 Site Est			Stage 2 Inv2ms TSC2 Drill					
									Predicted			Compare to PNTL			Compare to PANL			Predicted	Compare to PNTL	Compare to Unmit S2	Predicted			Compare to PNTL			Compare to Unmit S2		Predicted	Compare to PNTL	Compare to Unmit S2	Predicted			Compare to PNTL			Compare to Unmit S2		
X	Y	Property Details	Day	Evening	Night				Day	Eve	Nt	Day	Eve	Nt	Day	Eve	Nt	Day	Day	Day	Day	Eve	Nt	Day	Eve	Nt				Day	Day		Day	Eve	Nt	Day	Eve	Nt			
275541	6209229		40	35	35	53	48	43	36	36	36	-4	1	1	-17	-12	-7	36	-4	0	36	36	36	-4	1	1	0	0	0	36	-4	0	36	36	36	-4	1	1	0	0	0
274645	6209682		40	35	35	53	48	43	32	32	32	-8	-3	-3	-21	-16	-11	32	-8	0	32	32	32	-8	-3	-3	0	0	0	32	-8	0	32	32	32	-8	-3	-3	0	0	0
275852	6209639		40	35	35	53	48	43	35	35	34	-5	0	-1	-18	-13	-9	35	-5	0	35	35	34	-5	0	-1	0	0	0	35	-5	0	35	35	34	-5	0	-1	0	0	0
276224	6209139		40	35	35	53	48	43	38	38	38	-2	3	3	-15	-10	-5	38	-2	0	38	38	38	-2	3	3	0	0	0	38	-2	0	38	38	38	-2	3	3	0	0	0
275756	6209907		40	35	35	53	48	43	33	33	33	-7	-2	-2	-20	-15	-10	34	-6	0	33	33	33	-7	-2	-2	0	0	0	33	-7	0	33	33	33	-7	-2	-2	0	0	0
275058	6208796		40	35	35	53	48	43	35	35	35	-5	0	0	-18	-13	-8	36	-4	0	35	35	35	-5	0	0	0	0	0	36	-4	0	35	35	35	-5	0	0	0	0	0
275076	6208754		40	35	35	53	48	43	36	36	36	-4	1	1	-17	-12	-7	36	-4	0	36	36	36	-4	1	1	0	0	0	36	-4	0	36	36	36	-4	1	1	0	0	0
274511	6208854		40	35	35	53	48	43	33	33	33	-7	-2	-2	-20	-15	-10	34	-6	0	33	33	33	-7	-2	-2	0	0	0	34	-6	0	33	33	33	-7	-2	-2	0	0	0
274531	6208942		40	35	35	53	48	43	33	33	33	-7	-2	-2	-20	-15	-10	34	-6	0	33	33	33	-7	-2	-2	0	0	0	34	-6	0	33	33	33	-7	-2	-2	0	0	0
274828	6208674		40	35	35	53	48	43	35	35	35	-5	0	0	-18	-13	-8	35	-5	0	35	35	35	-5	0	0	0	0	0	35	-5	0	35	35	35	-5	0	0	0	0	0
275449	6209086		40	35	35	53	48	43	36	36	36	-4	1	1	-17	-12	-7	36	-4	0	36	36	36	-4	1	1	0	0	0	36	-4	0	36	36	36	-4	1	1	0	0	0
274690	6209580		40	35	35	53	48	43	32	32	32	-8	-3	-3	-21	-16	-11	33	-7	0	32	32	32	-8	-3	-3	0	0	0	32	-8	0	32	32	32	-8	-3	-3	0	0	0
275633	6209912		40	35	35	53	48	43	33	33	33	-7	-2	-2	-20	-15	-10	33	-7	0	33	33	33	-7	-2	-2	0	0	0	33	-7	0	33	33	33	-7	-2	-2	0	0	0
275903	6209412		40	35	35	53	48	43	36	36	36	-4	1	1	-17	-12	-7	36	-4	0	36	36	36	-4	1	1	0	0	0	36	-4	0	36	36	36	-4	1	1	0	0	0
274955	6209845		40	35	35	53	48	43	32	32	32	-8	-3	-3	-21	-16	-11	32	-8	0	32	32	32	-8	-3	-3	0	0	0	32	-8	0	32	32	32	-8	-3	-3	0	0	0
274884	6209564		40	35	35	53	48	43	33	33	33	-7	-2	-2	-20	-15	-10	33	-7	0	33	33	33	-7	-2	-2	0	0	0	33	-7	0	33	33	33	-7	-2	-2	0	0	0
275239	6209970		40	35	35	53	48	43	32	32	32	-8	-3	-3	-21	-16	-11	33	-7	0	32	32	32	-8	-3	-3	0	0	0	32	-8	0	32	32	32	-8	-3	-3	0	0	0
274751	6209505		40	35	35	53	48	43	32	32	32	-8	-3	-3	-21	-16	-11	33	-7	0	33	33	32	-7	-2	-3	0	0	0	33	-7	0	33	33	32	-7	-2	-3	0	0	0
275716	6209242		40	35	35	53	48	43	36	36	36	-4	1	1	-17	-12	-7	36	-4	0	36	36	36	-4	1	1	0	0	0	36	-4	0	36	36	36	-4	1	1	0	0	0
275982	6209664		40	35	35	53	48	43	35	35	35	-5	0	0	-18	-13	-8	35	-5	0	35	35	35	-5	0	0	0	0	0	35	-5	0	35	35	35	-5	0	0	0	0	0
274957	6209949		40	35	35	53	48	43	32	32	32	-8	-3	-3	-21	-16	-11	32	-8	0	32	32	32	-8	-3	-3	0	0	0	32	-8	0	32	32	32	-8	-3	-3	0	0	0
274949	6209973		40	35	35	53	48	43	32	32	32	-8	-3	-3	-21	-16	-11	32	-8	0	32	32	32	-8	-3	-3	0	0	0	32	-8	0	32	32	32	-8	-3	-3	0	0	0
274829	6209248		40	35	35	53	48	43	33	33	33	-7	-2	-2	-20	-15	-10	34	-6	0	33	33	33	-7	-2	-2	0	0	0	34	-6	0	33	33	33	-7	-2	-2	0	0	0
274706	6208797		40	35	35	53	48	43	34	34	34	-6	-1	-1	-19	-14	-9	35	-5	0	34	34	34	-6	-1	-1	0	0	0	34	-6	0	34	34	34	-6	-1	-1	0	0	0
275774	6209409		40	35	35	53	48	43	35	35	35	-5	0	0	-18	-13	-8	36	-4	0	35	35	35	-5	0	0	0	0	0	35	-5	0	35	35	35	-5	0	0	0	0	0
275220	6209091		40	35	35	53	48	43	35	35	35	-5	0	0	-18	-13	-8	35	-5	0	35	35	35	-5	0	0	0	0	0	35	-5	0	35	35	35	-5	0	0	0	0	0
275078	6209187		40	35	35	53	48	43	34	34	34	-6	-1	-1	-19	-14	-9	35	-5	0	34	34	34	-6	-1	-1	0	0	0	35	-5	0	34	34	34	-6	-1	-1	0	0	0
275200	6209865		40	35	35	53	48	43	32	32	32	-8	-3	-3	-21	-16	-11	33	-7	0	33	32	32	-7	-3	-3	0	0	0	33	-7	0	32	32	32	-8	-3	-3	0	0	0
274541	6208723		40	35	35	53	48	43	34	34	34	-6	-1	-1	-19	-14	-9	34	-6	0	34	34	34	-6	-1	-1	0	0	0	34	-6	0	34	34	34	-6	-1	-1	0	0	0
274714	6208999		40	35	35	53	48	43	34	34	34	-6	-1	-1	-19	-14	-9	34	-6	0	34	34	34	-6	-1	-1	0	0	0	34	-6	0	34	34	34	-6	-1	-1	0	0	0
275925	6209973		40	35	35	53	48	43	33	33	33	-7	-2	-2	-20	-15	-10	34	-6	0	33	33	33	-7	-2	-2	0	0	0	33	-7	0	33	33	33	-7	-2	-2	0	0	0
274293	6208942		40	35	35	53	48	43	33	33	32	-7	-2	-3	-20	-15	-11	33	-7	0	33	33	32	-7	-2	-3	0	0	0	33	-7	0	33	33	32	-7	-2	-3	0	0	0
274243	6208921		40	35	35	53	48	43	32	32	32	-8	-3	-3	-21	-16	-11	33	-7	0	32	32	32	-8	-3	-3	0	0	0	33	-7	0	32	32	32	-8	-3	-3	0	0	0
274296	6208987		40	35	35	53	48	43	32	32	32	-8	-3	-3	-21	-16	-11	33	-7	0	32	32	32	-8	-3	-3	0	0	0	33	-7	0	32	32	32	-8	-3	-3	0	0	0
274218	6208729		40	35	35	53	48	43	33	33	33	-7	-2	-2	-20	-15	-10	33	-7	0	33	33	33	-7	-2	-2	0	0	0	33	-7	0	33	33	33	-7	-2	-2	0	0	0
274174	6208626		40	35	35	53	48	43	33	33	33	-7	-2	-2	-20	-15	-10	33	-7	0	33	33	33	-7	-2	-2	0	0	0	33	-7	0	33	33	33	-7	-2	-2	0	0	0
274125	6208572		40	35	35	53	48	43	32	32	32	-8	-3	-3	-21	-16	-11	33	-7	1	32	32	32	-8	-3	-3	0	0	0	33	-7	0	32	32	32	-8	-3	-3	0	0	0
274248	6208555		40	35	35	53	48	43	33	33	33	-7	-2	-2	-20	-15	-10	33	-7	0	33	33	33	-7	-2	-2	0	0	0	33	-7	0	33	33	33	-7	-2	-2	0	0	0
274181	6208567		40	35	35	53	48	43	33	33	32	-7	-2	-3	-20	-15	-11	33	-7	1	33	33	33	-7	-2	-2	0	0	0	33	-7	0	33	33	33	-7	-2	-2	0	0	0
274299	6208601		40	35	35	53	48	43	33	33	33	-7	-2	-2	-20	-15	-10	34	-6	0	33	33	33	-7	-2	-2	0	0	0	34	-6	0	33	33	33	-7	-2	-2	0	0	0
274228	6208872		40	35	35	53	48	43	32	32	32	-8	-3	-3	-21	-16	-11	33	-7	0	32	32	32	-8	-3	-3	0	0	0	33	-7	0	32	32	32	-8	-3	-3	0	0	0
274495	6209268		40	35	35	53	48	43	32	32	32	-8	-3	-3	-21	-16	-11	33	-7	0	32	32	32	-8	-3	-3	0	0	0	33	-7	0	32	32	32	-8	-3	-3	0	0	0
273144	6207103		40	35	35	53	48	43	30	30	30	-10	-5	-5	-23	-18	-13	31	-9	1	31	30	30	-9	-5	-5	0	0	0	31	-9	1	31	30	30	-9	-5	-5	0	0	0
273104	6206959		40	35	35	53	48	43	30	30	30	-10	-5	-5	-23	-18	-13	31	-9	1	30	30	30	-10	-5	-5	0	0	0	31	-9	1	30	30	30	-10	-5	-5	0	0	0
273219	6207062		40	35	35	53	48	43	31	31	31	-9	-4	-4	-22	-17	-12	31	-9	1	31	31	31	-9	-4	-4	0	0	0	31	-9	1	31	31	31	-9	-4	-4	0	0	0
273193	6207068		40	35	35	53	48	43	31	31	31	-9	-4	-4	-22	-17	-12	31	-9	1	31	31	31	-9	-4	-4	0	0	0	31	-9	1	31	31	31	-9	-4	-4	0	0	0
273374	6207108		40	35	35	53	48	43	31	31	31	-9	-4	-4	-22	-17	-12	32	-8	1	31	31	31	-9	-4	-4	0	0	0	32	-8	1	31	31	31	-9	-4	-4	0	0	0
273379	6207159		40	35	35	53	48	43	30	30	30	-10	-5	-5	-23	-18	-13	31	-9	1	30	30	30	-10	-5	-5	0	0	0	31	-9	1	30	30	30	-10	-5	-5	0	0	0
273154	6207121		40	35	35	53	48	43	30	30	30	-10	-5	-5	-23	-18	-13	31	-9	1	31	31	30	-9	-4	-5	0	0	0	31	-9	1	31	31	30	-9	-4	-5	0	0	0
273166	6207141		40	35	35	53	48	43	31	31	30	-9	-4	-5	-22	-17	-13	31	-9	1	31	31	31	-9	-4	-4	0	0	0	31	-9	1	31	31	30	-9	-4	-5	0	0	0
273137	6207000		40	35	35	53	48	43	30	30	30	-10	-5	-5	-23	-18	-13	31	-9	1	30	30	30	-10	-5	-5	0	0	0	31	-9	1	30	30	30	-10	-5	-5	0	0	0
273076	6206992		40	35	35	53	48	43	30	30	30	-10	-5	-5	-23	-18	-13	31	-9	1	30	30	30	-10	-5	-5	0	0	0	31	-9	1	30	30	30	-10	-5	-5	0	0	0
274207	6207497		40	35	35	53	48	43	33	33	33	-7	-2	-2	-20	-15	-10	34	-6	1	33	33	33	-7	-2	-2	0	0	0	34	-6	1	33	33	33	-7	-2	-2	0	0	0
273050	6207187		40	35	35	53	48	43	30	30	30	-10	-5	-5	-23	-18	-13	31	-9	1	30	30	30	-10	-5	-5	0	0	0	31	-9	1	30	30	30	-10	-5	-5	0	0	0
274190	6207364		40	35	35	53	48	43	33	33	33	-7	-2	-2	-20	-15	-10	34	-6	1	33	33	33	-7	-2	-2	0	0	0	34	-6	1	33	33	33	-7	-2	-2	0	0	0
273128	6207073		40	35	35	53	48	43	30	30	30	-10	-5	-5	-23	-18	-13	31	-9	1	31	30	30	-9	-5	-5	0	0	0	31	-9	1	30	30	30	-10	-5	-5	0	0	0
273139	6207094		40	35	35	53	48	43	30	30	30	-10	-5	-5	-23	-18	-13	31	-9	1	31	30	30	-9	-5	-5	0	0	0	31	-9	1	30	30	30	-10	-5	-5	0	0	0
273190	6207186		40	35	35	53	48	43	31	31	30	-9	-4	-5	-22	-17	-13	31	-9	1	31	31	30	-9	-4	-5	0	0	0	31	-9	1	31	31	30	-9	-4	-5	0	0	0
273571	6207682		40	35	35	53	48	43	31	31	31	-9	-4	-4	-22	-17	-12	31	-9	1	31	31	31	-9	-4	-4	0	0	0	31	-9	1	31	31	31	-9	-4	-4	0	0	0
273192	6207176		40	35	35	53	48	43	31	31	30	-9	-4	-5	-22	-17	-13	31	-9	1	31	31	30	-9	-4	-5	0	0	0	31	-9	1	31	31	30	-9	-4	-5	0	0	0
273159	6207130		40	35	35	53	48	43	31	31	30	-10	-5	-5	-23	-18	-13	31	-9	1	31	31	30	-9	-4	-5	0	0	0	31	-9	1	31	31	30	-9	-4	-5	0	0	0
273197	6207209		40	35	35	53	48	43	31	31	30	-9	-4	-5	-22	-17	-13	31	-9	1	31	31	31	-9	-4	-4	0	0	0	31	-9	1	31	31	31	-9	-4	-4	0	0	0
274039	6207692		40	35	35	53	48	43	33	33	32	-8	-3	-3	-21	-16	-11	33	-7	1	33	33	32	-7	-2	-3	0	0	0	33	-7	1	33	33	32	-7	-2	-3	0	0	0
273149	6207112		40	35	35	53	48	43	30	30	30	-10	-5	-5	-23	-18	-13	31	-9	1	31	31	30	-9	-4	-5	0	0	0	31	-9	1	31	30	30	-9	-5	-5	0	0	0
273103	6207039		40	35	35	53	48	43	30	30	30	-10	-5	-5	-23	-18	-13	31	-9	1	30	30	30	-10	-5	-5	0	0	0	31	-9	1	30	30	30	-10	-5	-5	0	0	0
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273097	6207029		40	35	35	53	48	43	30	30	30	-10	-5	-5	-23	-18	-13	31	-9	1	30	30	30	-10	-5	-5	0	0	0	31	-9	1	30	30	30	-10	-5	-5	0	0	0
273195	6207195		40	35	35	53	48	43	31	31	30	-9	-4	-5	-22	-17	-13	31	-9	1	31	31	31	-9	-4	-4	0	0	0	31	-9	1	31	31	30	-9	-4	-5	0	0	0
273134	6206960		40	35	35	53	48	43	30	30	30	-10	-5	-5	-23	-18	-13	31	-9	1	30	30	30	-10	-5	-5	0	0	0	31	-9	1	30	30	30	-10	-5	-5	0	0	0
273321	6207110		40	35	35	53	48	43	31	31	31	-9	-4	-4	-22	-17	-12	32	-8	1	31	31	31	-9	-4	-4	0	0	0	32	-8	1	31	31	31	-9	-4	-4	0	0	0
274304	6207923		40	35	35	53	48	43	32	32	32	-8	-3	-3	-21	-16	-11	32	-8	0	32	32	32	-8	-3	-3	0	0	0	32	-8	0	32	32	32	-8	-3	-3	0	0	0
273261	6207117		40	35	35	53	48	43	31	31	31	-9	-4	-4	-22	-17	-12	31	-9	1	31	31	31	-9	-4	-4	0	0	0	31	-9	1	31	31	31	-9	-4	-4	0	0	0
273280	6207184		40	35	35	53	48	43	31	31	31	-9	-4	-4	-22	-17	-12	32	-8	1	31	31	31	-9	-4	-4	0	0	0	31	-9	1	31	31	31	-9	-4	-4	0	0	0
273167	6207021		40	35	35	53	48	43	31	31	30	-9	-4	-5	-22	-17	-13	31	-9	1	31	31	31	-9	-4	-4	0	0	0	31	-9	1	31	31	31	-9	-4	-4	0	0	0
274231	6207879		40	35	35	53	48	43	33	33	33	-7	-2	-2	-20	-15	-10	33	-7	0	33	33	33	-7	-2	-2	0	0	0	33	-7	0	33	33	33	-7	-2	-2	0	0	0
274263	6208481		40	35	35	53	48	43	33	33	33	-7	-2	-2	-20	-15	-10	33	-7	0	33	33	33	-7	-2	-2	0	0	0	33	-7	0	33	33	33	-7	-2	-2	0	0	0
274220	6208487		40	35	35	53	48	43	33	33	33	-7	-2	-2	-20	-15	-10	33	-7	0	33	33	33	-7	-2	-2	0	0	0	33	-7	0	33	33	33	-7	-2	-2	0	0	0
274171	6208494		40	35	35	53	48	43	33	33	33	-7	-2	-2	-20	-15	-10	33	-7	1	33	33	33	-7	-2	-2	0	0	0	33	-7	0	33	33	33	-7	-2	-2	0	0	0
274104	6208506		40	35	35	53	48	43	32	32	32	-8	-3	-3	-21	-16	-11	33	-7	1	32	32	32	-8	-3	-3	0	0	0	33	-7	0	32	32	32	-8	-3	-3	0	0	0
274087	6208446		40	35	35	53	48	43	32	32	32	-8	-3	-3	-21	-16	-11	33	-7	1	32	32	32	-8	-3	-3	0	0	0	33	-7	0	32	32	32	-8	-3	-3	0	0	0
274120	6208413		40	35	35	53	48	43	33	33	33	-7	-2	-2	-20	-15	-10	33	-7	1	33	33	33	-7	-2	-2	0	0	0	33	-7	0	33	33	33	-7	-2	-2	0	0	0
274046	6208409		40	35	35	53	48	43	31	31	31	-9	-4	-4	-22	-17	-12	32	-8	1	31	31	31	-9	-4	-4	0	0	0	32	-8	1	31	31	31	-9	-4	-4	0	0	0
274179	6208427		40	35	35	53	48	43	33	33	33	-7	-2	-2	-20	-15	-10	33	-7	1	33	33	33	-7	-2	-2	0	0	0	33	-7	0	33	33	33	-7	-2	-2	0	0	0
274227	6208424		40	35	35	53	48	43	33	33	33	-7	-2	-2	-20	-15	-10	33	-7	1	33	33	33	-7	-2	-2	0	0	0	33	-7	0	33	33	33	-7	-2	-2	0	0	0

			PNTL				PANL		Stage 2 Noise-enhancing without mitigation									Stage 2 Inv2ms + TSC1 Site Est			Stage 2 Inv2ms + TSC1 Drilling (Construction mitigated)									Stage 2 Inv2ms TSC2 Site Est			Stage 2 Inv2ms TSC2 Drill					
									Predicted			Compare to PNTL			Compare to PANL			Predicted	Compare to PNTL	Compare to Unmit S2	Predicted			Compare to PNTL			Compare to Unmit S2	Predicted	Compare to PNTL	Compare to Unmit S2	Predicted			Compare to PNTL			Compare to Unmit S2		
X	Y	Property Details	Day	Evening	Night				Day	Eve	Nt	Day	Eve	Nt	Day	Eve	Nt	Day	Day	Day	Day	Eve	Nt	Day	Eve	Nt				Day	Day		Day	Eve	Nt			
274076	6208377		40	35	35	53	48	43	32	32	32	-8	-3	-3	-21	-16	-11	33	-7	1	32	32	32	-8	-3	-3	0	0	0	33	-7	0	32	32	32	-8	-3	-3	0	0	0
274148	6208366		40	35	35	53	48	43	33	33	33	-7	-2	-2	-20	-15	-10	33	-7	1	33	33	33	-7	-2	-2	0	0	0	33	-7	0	33	33	33	-7	-2	-2	0	0	0
274195	6208360		40	35	35	53	48	43	33	33	33	-7	-2	-2	-20	-15	-10	33	-7	1	33	33	33	-7	-2	-2	0	0	0	33	-7	0	33	33	33	-7	-2	-2	0	0	0
274074	6208311		40	35	35	53	48	43	32	32	32	-8	-3	-3	-21	-16	-11	33	-7	1	33	33	32	-7	-2	-3	0	0	0	33	-7	1	33	33	32	-7	-2	-3	0	0	0
274137	6208298		40	35	35	53	48	43	33	33	33	-7	-2	-2	-20	-15	-10	33	-7	1	33	33	33	-7	-2	-2	0	0	0	33	-7	0	33	33	33	-7	-2	-2	0	0	0
274197	6208285		40	35	35	53	48	43	33	33	33	-7	-2	-2	-20	-15	-10	34	-6	1	33	33	33	-7	-2	-2	0	0	0	33	-7	0	33	33	33	-7	-2	-2	0	0	0
274032	6208258		40	35	35	53	48	43	30	30	30	-10	-5	-5	-23	-18	-13	31	-9	1	30	30	30	-10	-5	-5	0	0	0	31	-9	1	30	30	30	-10	-5	-5	0	0	0
274093	6208243		40	35	35	53	48	43	33	33	32	-7	-2	-3	-20	-15	-11	33	-7	1	33	33	32	-7	-2	-3	0	0	0	33	-7	1	33	33	32	-7	-2	-3	0	0	0
274152	6208228		40	35	35	53	48	43	33	33	33	-7	-2	-2	-20	-15	-10	33	-7	1	33	33	33	-7	-2	-2	0	0	0	33	-7	1	33	33	33	-7	-2	-2	0	0	0
273622	6207671		40	35	35	53	48	43	31	31	31	-9	-4	-4	-22	-17	-12	32	-8	1	31	31	31	-9	-4	-4	0	0	0	32	-8	1	31	31	31	-9	-4	-4	0	0	0
273089	6206964		40	35	35	53	48	43	30	30	30	-10	-5	-5	-23	-18	-13	31	-9	1	30	30	30	-10	-5	-5	0	0	0	31	-9	1	30	30	30	-10	-5	-5	0	0	0
273087	6207004		40	35	35	53	48	43	30	30	30	-10	-5	-5	-23	-18	-13	31	-9	1	30	30	30	-10	-5	-5	0	0	0	31	-9	1	30	30	30	-10	-5	-5	0	0	0
274450	6207873		40	35	35	53	48	43	31	31	31	-9	-4	-4	-22	-17	-12	31	-9	0	31	31	31	-9	-4	-4	0	0	0	31	-9	0	31	31	31	-9	-4	-4	0	0	0
273873	6207831		40	35	35	53	48	43	32	32	32	-8	-3	-3	-21	-16	-11	32	-8	1	32	32	32	-8	-3	-3	0	0	0	32	-8	1	32	32	32	-8	-3	-3	0	0	0
273934	6207961		40	35	35	53	48	43	32	32	32	-8	-3	-3	-21	-16	-11	33	-7	1	32	32	32	-8	-3	-3	0	0	0	33	-7	1	32	32	32	-8	-3	-3	0	0	0
274004	6207945		40	35	35	53	48	43	33	33	32	-8	-3	-3	-21	-16	-11	33	-7	1	33	33	32	-7	-2	-3	0	0	0	33	-7	1	33	33	32	-7	-2	-3	0	0	0
274006	6207883		40	35	35	53	48	43	33	33	32	-7	-2	-3	-20	-15	-11	33	-7	1	33	33	32	-7	-2	-3	0	0	0	33	-7	1	33	33	32	-7	-2	-3	0	0	0
273941	6207850		40	35	35	53	48	43	32	32	32	-8	-3	-3	-21	-16	-11	33	-7	1	32	32	32	-8	-3	-3	0	0	0	33	-7	1	32	32	32	-8	-3	-3	0	0	0
273209	6207004		40	35	35	53	48	43	31	31	31	-9	-4	-4	-22	-17	-12	31	-9	1	31	31	31	-9	-4	-4	0	0	0	31	-9	1	31	31	31	-9	-4	-4	0	0	0
274230	6207586		40	35	35	53	48	43	33	33	33	-7	-2	-2	-20	-15	-10	34	-6	1	33	33	33	-7	-2	-2	0	0	0	34	-6	1	33	33	33	-7	-2	-2	0	0	0
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273816	6207890		40	35	35	53	48	43	32	32	32	-8	-3	-3	-21	-16	-11	32	-8	1	32	32	32	-8	-3	-3	0	0	0	32	-8	1	32	32	32	-8	-3	-3	0	0	0
273890	6207952		40	35	35	53	48	43	32	32	32	-8	-3	-3	-21	-16	-11	33	-7	1	32	32	32	-8	-3	-3	0	0	0	33	-7	1	32	32	32	-8	-3	-3	0	0	0
278166	6208380		41	41	41	58	48	43	44	44	44	3	3	3	-14	-4	1	44	3	0	44	44	44	3	3	3	0	0	0	44	3	0	44	44	44	3	3	3	0	0	0
278809	6208573		40	40	35	58	48	43	40	40	40	0	0	5	-18	-8	-3	40	0	0	40	40	40	0	0	5	0	0	0	40	0	0	40	40	40	0	0	5	0	0	0
279043	6208273		40	40	35	58	48	43	41	41	41	1	1	6	-17	-7	-2	41	1	0	41	41	41	1	1	6	0	0	0	41	1	0	41	41	41	1	1	6	0	0	0
278383	6208506		41	41	41	58	48	43	42	42	42	1	1	1	-16	-6	-1	42	1	0	42	42	42	1	1	1	0	0	0	42	1	0	42	42	42	1	1	1	0	0	0
277972	6208608		41	41	41	58	48	43	42	42	42	1	1	1	-16	-6	-1	43	2	0	42	42	42	1	1	1	0	0	0	43	2	0	42	42	42	1	1	1	0	0	0
278377	6208334		41	41	41	58	48	43	43	43	43	2	2	2	-15	-5	0	43	2	0	43	43	43	2	2	2	0	0	0	43	2	0	43	43	43	2	2	2	0	0	0
278269	6208288		41	41	41	58	48	43	44	44	44	3	3	3	-14	-4	1	44	3	0	44	44	44	3	3	3	0	0	0	44	3	0	44	44	44	3	3	3	0	0	0
278021	6208391		41	41	41	58	48	43	44	44	44	3	3	3	-14	-4	1	44	3	0	44	44	44	3	3	3	0	0	0	44	3	0	44	44	44	3	3	3	0	0	0
277995	6208547		41	41	41	58	48	43	43	43	43	2	2	2	-15	-5	0	43	2	0	43	43	43	2	2	2	0	0	0	43	2	0	43	43	43	2	2	2	0	0	0
278853	6208399		40	40	35	58	48	43	41	41	41	1	1	6	-17	-7	-2	41	1	0	41	41	41	1	1	6	0	0	0	41	1	0	41	41	41	1	1	6	0	0	0
279273	6207883	M8 - Rockford Rd, near existing vent fan	40	35	35	53	48	43	40	40	40	0	5	5	-13	-8	-3	40	0	0	40	40	40	0	5	5	0	0	0	41	1	0	40	40	40	0	5	5	0	0	0
278470	6208274		41	41	41	58	48	43	42	42	41	1	1	0	-17	-7	-2	42	1	0	42	42	41	1	1	0	0	0	0	42	1	0	42	42	41	1	1	0	0	0	0
277054	6208082	2897 Remembrance Drive, Bargo	51	48	43	58	48	43	45	45	45	-6	-3	2	-13	-3	2	45	-6	0	45	45	45	-6	-3	2	0	0	0	45	-6	0	45	45	45	-6	-3	2	0	0	0
276936	6208105	2900 Remembrance Drive, Bargo	51	48	43	58	48	43	47	47	47	-4	-1	4	-11	-1	4	47	-4	0	47	47	47	-4	-1	4	0	0	0	47	-4	0	47	47	47	-4	-1	4	0	0	0
278573	6208183		41	41	41	58	48	43	40	40	40	-1	-1	-1	-18	-8	-3	41	0	0	40	40	40	-1	-1	-1	0	0	0	41	0	0	40	40	40	-1	-1	-1	0	0	0
278440	6208475		41	41	41	58	48	43	42	42	42	1	1	1	-16	-6	-1	42	1	0	42	42	42	1	1	1	0	0	0	42	1	0	42	42	42	1	1	1	0	0	0
279060	6208093		41	41	41	58	48	43	41	41	41	0	0	0	-17	-7	-2	41	0	0	41	41	41	0	0	0	0	0	0	42	1	0	41	41	41	0	0	0	0	0	0
277076	6208332	2885 Remembrance Drive, Bargo	51	48	43	58	48	43	44	44	44	-7	-4	1	-14	-4	1	44	-7	0	44	44	44	-7	-4	1	0	0	0	44	-7	0	44	44	44	-7	-4	1	0	0	0
278720	6208341		41	41	41	58	48	43	42	42	42	1	1	1	-16	-6	-1	42	1	0	42	42	42	1	1	1	0	0	0	42	1	0	42	42	42	1	1	1	0	0	0
278780	6208318		41	41	41	58	48	43	42	42	42	1	1	1	-16	-6	-1	42	1	0	42	42	42	1	1	1	0	0	0	42	1	0	42	42	42	1	1	1	0	0	0
277997	6208487		41	41	41	58	48	43	44	44	44	3	3	3	-14	-4	1	44	3	0	44	44	44	3	3	3	0	0	0	44	3	0	44	44	44	3	3	3	0	0	0
278017	6208249	M6 - southern end of Stratford Rd	41	41	41	58	48	43	44	44	44	3	3	3	-14	-4	1	44	3	0	44	44	44	3	3	3	0	0	0	44	3	0	44	44	44	3	3	3	0	0	0
278914	6208214		41	41	41	58	48	43	41	41	41	0	0	0	-17	-7	-2	42	1	0	41	41	41	0	0	0	0	0	0	42	1	0	41	41	41	0	0	0	0	0	0
278673	6208503		40	40	35	58	48	43	41	41	41	1	1	6	-17	-7	-2	41	1	0	41	41	41	1	1	6	0	0	0	41	1	0	41	41	41	1	1	6	0	0	0
279711	6207784	M9 - Kammer Pl	40	35	35	53	48	43	34	34	34	-6	-1	-1	-19	-14	-9	34	-6	0	34	34	34	-6	-1	-1	0	0	0	36	-4	2	34	34	34	-6	-1	-1	0	0	0
279520	6207710		40	35	35	53	48	43	35	35	35	-5	0	0	-18	-13	-8	35	-5	0	35	35	35	-5	0	0	0	0	0	37	-3	2	35	35	35	-5	0	0	0	0	0
279655	6207903		40	35	35	53	48	43	37	37	37	-3	2	2	-16	-11	-6	37	-3	0	37	37	37	-3	2	2	0	0	0	38	-2	1	37	37	37	-3	2	2	0	0	0
279586	6207924		40	35	35	53	48	43	38	38	38	-2	3	3	-15	-10	-5	38	-2	0	38	38	38	-2	3	3	0	0	0	39	-1	1	38	38	38	-2	3	3	0	0	0
279511	6207887		40	35	35	53	48	43	39	39	39	-1	4	4	-14	-9	-4	39	-1	0	39	39	39	-1	4	4	0	0	0	39	-1	1	39	39	39	-1	4	4	0	0	0
274564	6207889		40	35	35	53	48	43	31	31	31	-9	-4	-4	-22	-17	-12	32	-8	0	31	31	31	-9	-4	-4	0	0	0	32	-8	0	31	31	31	-9	-4	-4	0	0	0
274598	6207873		40	35	35	53	48	43	33	33	33	-7	-2	-2	-20	-15	-10	33	-7	0	33	33	33	-7	-2	-2	0	0	0	33	-7	0	33	33	33	-7	-2	-2	0	0	0
276413	6208329		40	35	35	53	48	43	41	41	41	1	6	6	-12	-7	-2	41	1	0	41	41	41	1	6	6	0	0	0	41	1	0	41	41	41	1	6	6	0	0	0
274522	6207400		40	35	35	53	48	43	35	35	35	-5	0	0	-18	-13	-8	35	-5	1	35	35	35	-5	0	0	0	0	0	35	-5	1	35	35	35	-5	0	0	0	0	0
274294	6207652		40	35	35	53	48	43	34	34	34	-6	-1	-1	-19	-14	-9	34	-6	1	34	34	34	-6	-1	-1	0	0	0	34	-6	1	34	34	34	-6	-1	-1	0	0	0
279728	6207929		40	35	35	53	48	43	34	34	34	-6	-1	-1	-19	-14	-9	34	-6	0	34	34	34	-6	-1	-1	0	0	0	35	-5	1	34	34	34	-6	-1	-1	0	0	0
279904	6207975		40	35	35	53	48	43	35	35	35	-5	0	0	-18	-13	-8	35	-5	0	35	35	35	-5	0	0	0	0	0	36	-4	1	35	35	35	-5	0	0	0	0	0
279808	6207845		40	35	35	53	48	43	33	33	33	-7	-2	-2	-20	-15	-10	33	-7	0	33	33	33	-7	-2	-2	0	0	0	35	-5	2	33	33	33	-7	-2	-2	0	0	0
277418	6209766		44	42	35	58	48	43	36	36	36	-8	-6	1	-22	-12	-7	36	-8	0	36	36	36	-8	-6	1	0	0	0	36	-8	0	36	36	36	-8	-6	1	0	0	0
277656	6209721		44	42	35	58	48	43	34	34	34	-10	-8	-1	-24	-14	-9	34	-10	0	34	34	34	-10	-8	-1	0	0	0	34	-10	0	34	34	34	-10	-8	-1	0	0	0
278010	6209695		44	42	35	58	48	43	36	36	35	-8	-6	0	-22	-12	-8	36	-8	0	36	36	35	-8	-6	0	0	0	0	36	-8	0	36	36	35	-8	-6	0	0	0	0
278254	6209374		40	40	35	58	48	43	37	37	37	-3	-3	2	-21	-11	-6	37	-3	0	37	37	37	-3	-3	2	0	0	0	38	-2	0	37	37	37	-3	-3	2	0	0	0
278115	6209799		44	42	35	58	48	43	36	36	36	-8	-6	1	-22	-12	-7	36	-8	0	36	36	36	-8	-6	1	0	0	0	36	-8	0	36	36	36	-8	-6	1	0	0	0
278101	6209837		44	42	35	58	48	43	36	36	35	-9	-7	0	-23	-13	-8	36	-8	0	36	36	35	-8	-6	0	0	0	0	36	-8	0	36	36	35	-8	-6	0	0	0	0
278525	6209243		40	40	35	58	48	43	35	35	35	-5	-5	0	-23	-13	-8	35	-5	0	35	35	35	-5	-5	0	0	0	0	35	-5	0	35	35	35	-5	-5	0	0	0	0
278400	6209195		40	40	35	58	48	43	34	34	34	-6	-6	-1	-24	-14	-9	35	-5	0	34	34	34	-6	-6	-1	0	0	0	35	-5	0	34	34	34	-6	-6	-1	0	0	0
278176	6209576		44	42	35	58	48	43	37	37	37	-7	-5	2	-21	-11	-6	37	-7	0	37	37	37	-7	-5	2	0	0	0	37	-7	0	37	37	37	-7	-5	2	0	0	0
278153	6209625		44	42	35	58	48	43	37	37	37	-7	-5	2	-21	-11	-6	37	-7	0	37	37	37	-7	-5	2	0	0	0	37	-7	0	37	37	37	-7	-5	2	0	0	0
278596	6209271		40	40	35	58	48	43	34	34	34	-6	-6	-1	-24	-14	-9	35	-5	0	34	34	34	-6	-6	-1	0	0	0	35	-5	0	34	34	34	-6	-6	-1	0	0	0
278052	6209914		44	42	35	58	48	43	33	33	33	-11	-9	-2	-25	-15	-10	33	-11	0	33	33	33	-11	-9	-2	0	0	0	33	-11	0	33	33	33	-11	-9	-2	0	0	0
278294	6209306		40	40	35	58	48	43	37	37	37	-3	-3	2	-21	-11	-6	37	-3	0	37	37	37	-3	-3	2	0	0	0	37	-3	0	37	37	37	-3	-3	2	0	0	0
277348	6209158		44	42	35	58	48	43	39	39	39	-5	-3	4	-19	-9	-4	40	-4	0	39	39	39	-5	-3	4	0	0	0	40	-4	0	39	39	39	-5	-3	4	0	0	0
273256	6206723		40	35	35	53	48	43	31	31	31	-9	-4	-4	-22	-17	-12	31	-9	1	31	31	31	-9	-4	-4	0	0	0	31	-9	1	31	31	31	-9	-4	-4	0	0	0
273161	6206686		40	35	35	53	48	43	30	30	30	-10	-5	-5	-23	-18	-13	31	-9	1	30	30	30	-10	-5	-5	0	0	0	31	-9	1	30	30	30	-10	-5	-5	0	0	0
273213	6206630		40	35	35	53	48	43	30	30	30	-10	-5	-5	-23	-18	-13	31	-9	1	31	31	30	-9	-4	-5	0	0	0	31	-9	1	31	30	30	-9	-5	-5	0	0	0
273431	6206760		40	35	35	53	48	43	31	31	31	-9	-4	-4	-22	-17	-12	32	-8	1	31	31	31	-9	-4	-4	0	0	0	32	-8	1	31	31	31	-9	-4	-4	0	0	0
273371	6206656		40	35	35	53	48	43	31	31	31	-9	-4	-4	-22	-17	-12	32	-8	1	31	31	31	-9	-4	-4	0	0	0	32	-8	1	31	31	31	-9	-4	-4	0	0	0
273209	6206728		40	35	35	53	48	43	31	31	30	-9	-4	-5	-22	-17	-13	31	-9	0	31	31	30	-9	-4	-5	0	0	0	31	-9	0	31	31	30	-9	-4	-5	0	0	0
273283	6206394		40	35	35	53	48	43	30	30	30	-10	-5	-5	-23	-18	-13	31	-9	1	31	31	30	-9	-4	-5	0	0	0	31	-9	1	31	31	30	-9	-4	-5	0	0	0
273195	6206731		40	35	35	53	48	43	30	30	30	-10	-5	-5	-23	-18	-13	31	-9	0	30	30	30	-10	-5	-5	0	0	0	31	-9	0	30	30	30	-10	-5	-5	0	0	0
273238	6206676		40	35	35	53	48	43	31	31	31	-9	-4	-4	-22	-17	-12	31	-9	1	31	31	31	-9	-4	-4	0	0	0	31	-9	1	31	31	31	-9	-4	-4	0	0	0

			PNTL			PANL			Stage 2 Noise-enhancing without mitigation									Stage 2 Inv2ms + TSC1 Site Est			Stage 2 Inv2ms + TSC1 Drilling (Construction mitigated)									Stage 2 Inv2ms TSC2 Site Est						Stage 2 Inv2ms TSC2 Drill					
									Predicted			Compare to PNTL			Compare to PANL			Predicted	Compare to PNTL	Compare to Unmit S2	Predicted			Compare to PNTL			Compare to Unmit S2	Predicted	Compare to PNTL	Compare to Unmit S2	Predicted			Compare to PNTL			Compare to Unmit S2		
X	Y	Property Details	Day	Evening	Night	Day	Eve	Nt	Day	Eve	Nt	Day	Eve	Nt	Day	Eve	Nt	Day	Day	Day	Day	Eve	Nt	Day	Eve	Nt				Day	Day		Day	Eve	Nt	Day	Eve	Nt			
273141	6206740		40	35	35	53	48	43	30	30	30	-10	-5	-5	-23	-18	-13	31	-9	0	30	30	30	-10	-5	-5	0	0	0	31	-9	0	30	30	30	-10	-5	-5	0	0	0
273136	6206691		40	35	35	53	48	43	30	30	30	-10	-5	-5	-23	-18	-13	31	-9	0	30	30	30	-10	-5	-5	0	0	0	30	-10	0	30	30	30	-10	-5	-5	0	0	0
273270	6206571		40	35	35	53	48	43	31	31	30	-9	-4	-5	-22	-17	-13	31	-9	1	31	31	31	-9	-4	-4	0	0	0	31	-9	1	31	31	31	-9	-4	-4	0	0	0
273452	6206700		40	35	35	53	48	43	31	31	31	-9	-4	-4	-22	-17	-12	32	-8	1	31	31	31	-9	-4	-4	0	0	0	32	-8	1	31	31	31	-9	-4	-4	0	0	0
273164	6206472		40	35	35	53	48	43	30	30	30	-10	-5	-5	-23	-18	-13	31	-9	1	30	30	30	-10	-5	-5	0	0	0	31	-9	1	30	30	30	-10	-5	-5	0	0	0
273481	6206726		40	35	35	53	48	43	31	31	31	-9	-4	-4	-22	-17	-12	32	-8	1	31	31	31	-9	-4	-4	0	0	0	32	-8	1	31	31	31	-9	-4	-4	0	0	0
273219	6206465		40	35	35	53	48	43	30	30	30	-10	-5	-5	-23	-18	-13	31	-9	1	30	30	30	-10	-5	-5	0	0	0	31	-9	1	30	30	30	-10	-5	-5	0	0	0
273141	6206796		40	35	35	53	48	43	30	30	30	-10	-5	-5	-23	-18	-13	31	-9	1	30	30	30	-10	-5	-5	0	0	0	31	-9	1	30	30	30	-10	-5	-5	0	0	0
273144	6206842		40	35	35	53	48	43	30	30	30	-10	-5	-5	-23	-18	-13	31	-9	1	31	30	30	-9	-5	-5	0	0	0	31	-9	1	31	30	30	-9	-5	-5	0	0	0
273188	6206845		40	35	35	53	48	43	31	31	30	-9	-4	-5	-22	-17	-13	31	-9	1	31	31	30	-9	-4	-5	0	0	0	31	-9	1	31	31	30	-9	-4	-5	0	0	0
273072	6206794		40	35	35	53	48	43	30	30	30	-10	-5	-5	-23	-18	-13	31	-9	1	30	30	30	-10	-5	-5	0	0	0	31	-9	1	30	30	30	-10	-5	-5	0	0	0
273275	6206885		40	35	35	53	48	43	30	30	30	-10	-5	-5	-23	-18	-13	30	-10	0	30	30	30	-10	-5	-5	0	0	0	30	-10	0	30	30	30	-10	-5	-5	0	0	0
273203	6206403		40	35	35	53	48	43	30	30	30	-10	-5	-5	-23	-18	-13	31	-9	1	30	30	30	-10	-5	-5	0	0	0	31	-9	1	30	30	30	-10	-5	-5	0	0	0
273083	6206644		40	35	35	53	48	43	30	30	30	-10	-5	-5	-23	-18	-13	31	-9	1	30	30	30	-10	-5	-5	0	0	0	31	-9	1	30	30	30	-10	-5	-5	0	0	0
273352	6206941		40	35	35	53	48	43	30	30	30	-10	-5	-5	-23	-18	-13	31	-9	0	30	30	30	-10	-5	-5	0	0	0	31	-9	0	30	30	30	-10	-5	-5	0	0	0
273074	6206747		40	35	35	53	48	43	30	30	30	-10	-5	-5	-23	-18	-13	31	-9	1	30	30	30	-10	-5	-5	0	0	0	31	-9	1	30	30	30	-10	-5	-5	0	0	0
273305	6206663		40	35	35	53	48	43	31	31	31	-9	-4	-4	-22	-17	-12	32	-8	1	31	31	31	-9	-4	-4	0	0	0	31	-9	1	31	31	31	-9	-4	-4	0	0	0
273282	6206616		40	35	35	53	48	43	31	31	31	-9	-4	-4	-22	-17	-12	31	-9	1	31	31	31	-9	-4	-4	0	0	0	31	-9	1	31	31	31	-9	-4	-4	0	0	0
273245	6206728		40	35	35	53	48	43	31	31	31	-9	-4	-4	-22	-17	-12	31	-9	1	31	31	31	-9	-4	-4	0	0	0	31	-9	1	31	31	31	-9	-4	-4	0	0	0
273231	6206726		40	35	35	53	48	43	31	31	30	-9	-4	-5	-22	-17	-13	31	-9	1	31	31	31	-9	-4	-4	0	0	0	31	-9	1	31	31	31	-9	-4	-4	0	0	0
273172	6206681		40	35	35	53	48	43	30	30	30	-10	-5	-5	-23	-18	-13	31	-9	1	30	30	30	-10	-5	-5	0	0	0	31	-9	1	30	30	30	-10	-5	-5	0	0	0
273358	6206659		40	35	35	53	48	43	31	31	31	-9	-4	-4	-22	-17	-12	32	-8	1	31	31	31	-9	-4	-4	0	0	0	32	-8	1	31	31	31	-9	-4	-4	0	0	0
273100	6206641		40	35	35	53	48	43	30	30	30	-10	-5	-5	-23	-18	-13	31	-9	1	30	30	30	-10	-5	-5	0	0	0	31	-9	1	30	30	30	-10	-5	-5	0	0	0
273021	6206896		40	35	35	53	48	43	30	30	30	-10	-5	-5	-23	-18	-13	31	-9	1	30	30	30	-10	-5	-5	0	0	0	31	-9	1	30	30	30	-10	-5	-5	0	0	0
273203	6206893		40	35	35	53	48	43	31	31	31	-9	-4	-4	-22	-17	-12	31	-9	1	31	31	31	-9	-4	-4	0	0	0	31	-9	1	31	31	31	-9	-4	-4	0	0	0
273050	6206920		40	35	35	53	48	43	30	30	30	-10	-5	-5	-23	-18	-13	31	-9	1	30	30	30	-10	-5	-5	0	0	0	31	-9	1	30	30	30	-10	-5	-5	0	0	0
273252	6206887		40	35	35	53	48	43	31	31	31	-9	-4	-4	-22	-17	-12	31	-9	1	31	31	31	-9	-4	-4	0	0	0	31	-9	1	31	31	31	-9	-4	-4	0	0	0
273052	6206802		40	35	35	53	48	43	30	30	30	-10	-5	-5	-23	-18	-13	31	-9	1	30	30	30	-10	-5	-5	0	0	0	31	-9	1	30	30	30	-10	-5	-5	0	0	0
273078	6206847		40	35	35	53	48	43	30	30	30	-10	-5	-5	-23	-18	-13	31	-9	1	30	30	30	-10	-5	-5	0	0	0	31	-9	1	30	30	30	-10	-5	-5	0	0	0
273494	6206834		40	35	35	53	48	43	32	32	31	-8	-3	-4	-21	-16	-12	32	-8	1	32	32	31	-8	-3	-4	0	0	0	32	-8	1	32	32	31	-8	-3	-4	0	0	0
273244	6206463		40	35	35	53	48	43	30	30	30	-10	-5	-5	-23	-18	-13	31	-9	1	31	30	30	-9	-5	-5	0	0	0	31	-9	1	30	30	30	-10	-5	-5	0	0	0
273489	6206792		40	35	35	53	48	43	31	31	31	-9	-4	-4	-22	-17	-12	32	-8	1	32	32	31	-8	-3	-4	0	0	0	32	-8	1	32	32	31	-8	-3	-4	0	0	0
273252	6206512		40	35	35	53	48	43	30	30	30	-10	-5	-5	-23	-18	-13	31	-9	1	31	31	30	-9	-4	-5	0	0	0	31	-9	1	31	31	30	-9	-4	-5	0	0	0
273391	6206710		40	35	35	53	48	43	31	31	31	-9	-4	-4	-22	-17	-12	32	-8	1	31	31	31	-9	-4	-4	0	0	0	32	-8	1	31	31	31	-9	-4	-4	0	0	0
273432	6206705		40	35	35	53	48	43	31	31	31	-9	-4	-4	-22	-17	-12	32	-8	1	31	31	31	-9	-4	-4	0	0	0	32	-8	1	31	31	31	-9	-4	-4	0	0	0
273393	6206978		40	35	35	53	48	43	30	30	30	-10	-5	-5	-23	-18	-13	31	-9	0	30	30	30	-10	-5	-5	0	0	0	31	-9	0	30	30	30	-10	-5	-5	0	0	0
273354	6206611		40	35	35	53	48	43	31	31	31	-9	-4	-4	-22	-17	-12	32	-8	1	31	31	31	-9	-4	-4	0	0	0	32	-8	1	31	31	31	-9	-4	-4	0	0	0
273181	6206897		40	35	35	53	48	43	31	31	30	-9	-4	-5	-22	-17	-13	31	-9	1	31	31	31	-9	-4	-4	0	0	0	31	-9	1	31	31	30	-9	-4	-5	0	0	0
273051	6206754		40	35	35	53	48	43	30	30	30	-10	-5	-5	-23	-18	-13	31	-9	1	30	30	30	-10	-5	-5	0	0	0	31	-9	1	30	30	30	-10	-5	-5	0	0	0
273208	6206837		40	35	35	53	48	43	31	31	31	-9	-4	-4	-22	-17	-12	31	-9	0	31	31	31	-9	-4	-4	0	0	0	31	-9	1	31	31	31	-9	-4	-4	0	0	0
273165	6206842		40	35	35	53	48	43	30	30	30	-10	-5	-5	-23	-18	-13	31	-9	1	31	30	30	-9	-5	-5	0	0	0	31	-9	1	31	30	30	-9	-5	-5	0	0	0
273063	6206830		40	35	35	53	48	43	30	30	30	-10	-5	-5	-23	-18	-13	31	-9	1	30	30	30	-10	-5	-5	0	0	0	31	-9	1	30	30	30	-10	-5	-5	0	0	0
273108	6206415		40	35	35	53	48	43	30	30	30	-10	-5	-5	-23	-18	-13	31	-9	1	30	30	30	-10	-5	-5	0	0	0	31	-9	1	30	30	30	-10	-5	-5	0	0	0
273186	6206471		40	35	35	53	48	43	30	30	30	-10	-5	-5	-23	-18	-13	31	-9	1	30	30	30	-10	-5	-5	0	0	0	31	-9	1	30	30	30	-10	-5	-5	0	0	0
273055	6206652		40	35	35	53	48	43	30	30	30	-10	-5	-5	-23	-18	-13	31	-9	1	30	30	30	-10	-5	-5	0	0	0	31	-9	1	30	30	30	-10	-5	-5	0	0	0
273269	6206723		40	35	35	53	48	43	31	31	31	-9	-4	-4	-22	-17	-12	31	-9	1	31	31	31	-9	-4	-4	0	0	0	31	-9	1	31	31	31	-9	-4	-4	0	0	0
273415	6206701		40	35	35	53	48	43	31	31	31	-9	-4	-4	-22	-17	-12	32	-8	1	31	31	31	-9	-4	-4	0	0	0	32	-8	1	31	31	31	-9	-4	-4	0	0	0
273147	6206687		40	35	35	53	48	43	30	30	30	-10	-5	-5	-23	-18	-13	31	-9	0	30	30	30	-10	-5	-5	0	0	0	31	-9	0	30	30	30	-10	-5	-5	0	0	0
273259	6206562		40	35	35	53	48	43	31	31	30	-9	-4	-5	-22	-17	-13	31	-9	1	31	31	31	-9	-4	-4	0	0	0	31	-9	1	31	31	31	-9	-4	-4	0	0	0
273346	6206659		40	35	35	53	48	43	31	31	31	-9	-4	-4	-22	-17	-12	32	-8	1	31	31	31	-9	-4	-4	0	0	0	32	-8	1	31	31	31	-9	-4	-4	0	0	0
273201	6206518		40	35	35	53	48	43	30	30	30	-10	-5	-5	-23	-18	-13	31	-9	1	30	30	30	-10	-5	-5	0	0	0	31	-9	1	30	30	30	-10	-5	-5	0	0	0
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273373	6206710		40	35	35	53	48	43	31	31	31	-9	-4	-4	-22	-17	-12	32	-8	1	31	31	31	-9	-4	-4	0	0	0	32	-8	1	31	31	31	-9	-4	-4	0	0	0
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273362	6206993		40	35	35	53	48	43	31	31	31	-9	-4	-4	-22	-17	-12	31	-9	0	31	31	31	-9	-4	-4	0	0	0	31	-9	0	31	31	31	-9	-4	-4	0	0	0
273158	6206898		40	35	35	53	48	43	30	30	30	-10	-5	-5	-23	-18	-13	31	-9	1	31	31	30	-9	-4	-5	0	0	0	31	-9	1	31	31	30	-9	-4	-5	0	0	0
273024	6206758		40	35	35	53	48	43	30	30	30	-10	-5	-5	-23	-18	-13	31	-9	1	30	30	30	-10	-5	-5	0	0	0	31	-9	1	30	30	30	-10	-5	-5	0	0	0
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273145	6206638		40	35	35	53	48	43	30	30	30	-10	-5	-5	-23	-18	-13	31	-9	1	30	30	30	-10	-5	-5	0	0	0	31	-9	1	30	30	30	-10	-5	-5	0	0	0
273286	6206456		40	35	35	53	48	43	31	31	30	-9	-4	-5	-22	-17	-13	31	-9	1	31	31	31	-9	-4	-4	0	0	0	31	-9	1	31	31	31	-9	-4	-4	0	0	0
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273146	6206526		40	35	35	53	48	43	30	30	30	-10	-5	-5	-23	-18	-13	31	-9	1	30	30	30	-10	-5	-5	0	0	0	31	-9	1	30	30	30	-10	-5	-5	0	0	0
273247	6206402		40	35	35	53	48	43	30	30	30	-10	-5	-5	-23	-18	-13	31	-9	1	30	30	30	-10	-5	-5	0	0	0	31	-9	1	30	30	30	-10	-5	-5	0	0	0
273179	6206413		40	35	35	53	48	43	30	30	30	-10	-5	-5	-23	-18	-13	31	-9	1	30	30	30	-10	-5	-5	0	0	0	31	-9	1	30	30	30	-10	-5	-5	0	0	0
273491	6206809		40	35	35	53	48	43	32	32	31	-9	-4	-4	-22	-17	-12	32	-8	1	32	32	31	-8	-3	-4	0	0	0	32	-8	1	32	32	31	-8	-3	-4	0	0	0
273130	6206586		40	35	35	53	48	43	30	30	30	-10	-5	-5	-23	-18	-13	31	-9	1	30	30	30	-10	-5	-5	0	0	0	31	-9	1	30	30	30	-10	-5	-5	0	0	0
273294	6206563		40	35	35	53	48	43	31	31	31	-9	-4	-4	-22	-17	-12	31	-9	1	31	31	31	-9	-4	-4	0	0	0	31	-9	1	31	31	31	-9	-4	-4	0	0	0
273377	6206610		40	35	35	53	48	43	31	31	31	-9	-4	-4	-22	-17	-12	32	-8	1	31	31	31	-9	-4	-4	0	0	0	32	-8	1	31	31	31	-9	-4	-4	0	0	0
273121	6206799		40	35	35	53	48	43	30	30	30	-10	-5	-5	-23	-18	-13	31	-9	1	30	30	30	-10	-5	-5	0	0	0	31	-9	1	30	30	30	-10	-5	-5	0	0	0
273102	6206788		40	35	35	53	48	43	30	30	30	-10	-5	-5	-23	-18	-13	31	-9	1	30	30	30	-10	-5	-5	0	0	0	31	-9	1	30	30	30	-10	-5	-5	0	0	0
273088	6206880		40	35	35	53	48	43	30	30	30	-10	-5	-5	-23	-18	-13	31	-9	1	30	30	30	-10	-5	-5	0	0	0	31	-9	1	30	30	30	-10	-5	-5	0	0	0
273106	6206852		40	35	35	53	48	43	30	30	30	-10	-5	-5	-23	-18	-13	31	-9	1	30	30	30	-10	-5	-5	0	0	0	31	-9	1	30	30	30	-10	-5	-5	0	0	0
273164	6206522		40	35	35	53	48	43	30	30	30	-10	-5	-5	-23	-18	-13	31	-9	1	30	30	30	-10	-5	-5	0	0	0	31	-9	1	30	30	30	-10	-5	-5	0	0	0
273184	6206519		40	35	35	53	48	43	30	30	30	-10	-5	-5	-23	-18	-13	31	-9	1	30	30	30	-10	-5	-5	0	0	0	31	-9	1	30	30	30	-10	-5	-5	0	0	0
273040	6206700		40	35	35	53	48	43	30	30	30	-10	-5	-5	-23	-18	-13	31	-9	1	30	30	30	-10	-5	-5	0	0	0	31	-9	1	30	30	30	-10	-5	-5	0	0	0
273487	6206753		40	35	35	53	48	43	31	31	31	-9	-4	-4	-22	-17	-12	32	-8	1	31	31	31	-9	-4	-4	0	0	0	32	-8	1	31	31	31	-9	-4	-4	0	0	0
273464	6206699		40	35	35	53	48	43	31	31	31	-9	-4	-4	-22	-17	-12	32	-8	1	31	31	31	-9	-4	-4	0	0	0	32	-8	1	31	31	31	-9	-4	-4	0	0	0
273334	6206614		40	35	35	53	48	43	31	31	31	-9	-4	-4	-22	-17	-12	32	-8	1	31	31	31	-9	-4	-4	0	0	0	31	-9	1	31	31	31	-9	-4	-4	0	0	0
273289	6206717		40	35	35	53	48	43	31	31	31	-9	-4	-4	-22	-17	-12	32	-8	1	31	31	31	-9	-4	-4	0	0	0	31	-9	1	31	31	31	-9	-4	-4	0	0	0
273111	6206687		40	35	35	53	48	43	30	30	30	-10	-5	-5	-23	-18	-13	31	-9	1	30	30	30	-10	-5	-5	0	0	0	31	-9	1	30	30	30	-10	-5	-5	0	0	0
273124	6206692		40	35	35	53	48	43	30	30	30	-10	-5	-5	-23	-18	-13	30	-10	0	30	30	30	-10	-5	-5	0	0	0	30	-10	0	30	30	30	-10	-5	-5	0	0	0
273117	6206741		40	35	35	53	48	43	30	30	30	-10	-5	-5	-23	-18	-13	31	-9	1	30	30	30	-10	-5	-5	0	0	0	31	-9	1	30	30	30	-10	-5	-5	0	0	0
273310	6206613		40	35	35	53	48	43	31	31	31	-9	-4	-4	-22	-17	-12	32	-8	1	31	31	31	-9	-4	-4	0	0	0	31	-9	1	31	31	31	-9	-4	-4	0	0	0

			PNTL			PANL			Stage 2 Noise-enhancing without mitigation									Stage 2 Inv2ms + TSC1 Site Est			Stage 2 Inv2ms + TSC1 Drilling (Construction mitigated)									Stage 2 Inv2ms TSC2 Site Est						Stage 2 Inv2ms TSC2 Drill					
									Predicted			Compare to PNTL			Compare to PANL			Predicted	Compare to PNTL	Compare to Unmit S2	Predicted			Compare to PNTL			Compare to Unmit S2	Predicted	Compare to PNTL	Compare to Unmit S2	Predicted			Compare to PNTL			Compare to Unmit S2		
X	Y	Property Details	Day	Evening	Night				Day	Eve	Nt	Day	Eve	Nt	Day	Eve	Nt	Day	Day	Day	Day	Eve	Nt	Day	Eve	Nt				Day	Day		Day	Eve	Nt	Day	Eve	Nt			
273229	6206891		40	35	35	53	48	43	31	31	31	-9	-4	-4	-22	-17	-12	31	-9	1	31	31	31	-9	-4	-4	0	0	0	31	-9	1	31	31	31	-9	-4	-4	0	0	0
273263	6206671		40	35	35	53	48	43	31	31	31	-9	-4	-4	-22	-17	-12	31	-9	1	31	31	31	-9	-4	-4	0	0	0	31	-9	1	31	31	31	-9	-4	-4	0	0	0
273400	6206605		40	35	35	53	48	43	31	31	31	-9	-4	-4	-22	-17	-12	32	-8	1	31	31	31	-9	-4	-4	0	0	0	32	-8	1	31	31	31	-9	-4	-4	0	0	0
273091	6206698		40	35	35	53	48	43	30	30	30	-10	-5	-5	-23	-18	-13	31	-9	1	30	30	30	-10	-5	-5	0	0	0	31	-9	1	30	30	30	-10	-5	-5	0	0	0
273479	6206695		40	35	35	53	48	43	31	31	31	-9	-4	-4	-22	-17	-12	32	-8	1	31	31	31	-9	-4	-4	0	0	0	32	-8	1	31	31	31	-9	-4	-4	0	0	0
273220	6206679		40	35	35	53	48	43	30	30	30	-10	-5	-5	-23	-18	-13	31	-9	1	31	31	30	-9	-4	-5	0	0	0	31	-9	1	31	31	30	-9	-4	-5	0	0	0
273125	6206640		40	35	35	53	48	43	30	30	30	-10	-5	-5	-23	-18	-13	31	-9	1	30	30	30	-10	-5	-5	0	0	0	31	-9	1	30	30	30	-10	-5	-5	0	0	0
273129	6206743		40	35	35	53	48	43	30	30	30	-10	-5	-5	-23	-18	-13	31	-9	0	30	30	30	-10	-5	-5	0	0	0	31	-9	0	30	30	30	-10	-5	-5	0	0	0
273096	6206749		40	35	35	53	48	43	30	30	30	-10	-5	-5	-23	-18	-13	31	-9	1	30	30	30	-10	-5	-5	0	0	0	31	-9	1	30	30	30	-10	-5	-5	0	0	0
273238	6206565		40	35	35	53	48	43	30	30	30	-10	-5	-5	-23	-18	-13	31	-9	1	31	31	30	-9	-4	-5	0	0	0	31	-9	1	31	31	30	-9	-4	-5	0	0	0
273265	6206402		40	35	35	53	48	43	30	30	30	-10	-5	-5	-23	-18	-13	31	-9	1	31	30	30	-9	-5	-5	0	0	0	31	-9	1	31	30	30	-9	-5	-5	0	0	0
273365	6206611		40	35	35	53	48	43	31	31	31	-9	-4	-4	-22	-17	-12	32	-8	1	31	31	31	-9	-4	-4	0	0	0	32	-8	1	31	31	31	-9	-4	-4	0	0	0
273309	6206713		40	35	35	53	48	43	31	31	31	-9	-4	-4	-22	-17	-12	32	-8	1	31	31	31	-9	-4	-4	0	0	0	32	-8	1	31	31	31	-9	-4	-4	0	0	0
273402	6206703		40	35	35	53	48	43	31	31	31	-9	-4	-4	-22	-17	-12	32	-8	1	31	31	31	-9	-4	-4	0	0	0	32	-8	1	31	31	31	-9	-4	-4	0	0	0
273498	6206415		40	35	35	53	48	43	31	31	31	-9	-4	-4	-22	-17	-12	32	-8	1	31	31	31	-9	-4	-4	0	0	0	32	-8	1	31	31	31	-9	-4	-4	0	0	0
273101	6206908		40	35	35	53	48	43	30	30	30	-10	-5	-5	-23	-18	-13	31	-9	1	30	30	30	-10	-5	-5	0	0	0	31	-9	1	30	30	30	-10	-5	-5	0	0	0
273323	6206390		40	35	35	53	48	43	31	31	31	-9	-4	-4	-22	-17	-12	31	-9	1	31	31	31	-9	-4	-4	0	0	0	31	-9	1	31	31	31	-9	-4	-4	0	0	0
273346	6206754		40	35	35	53	48	43	31	31	31	-9	-4	-4	-22	-17	-12	32	-8	1	31	31	31	-9	-4	-4	0	0	0	32	-8	1	31	31	31	-9	-4	-4	0	0	0
273453	6206802		40	35	35	53	48	43	31	31	31	-9	-4	-4	-22	-17	-12	32	-8	1	31	31	31	-9	-4	-4	0	0	0	32	-8	1	31	31	31	-9	-4	-4	0	0	0
273251	6206673		40	35	35	53	48	43	31	31	31	-9	-4	-4	-22	-17	-12	31	-9	1	31	31	31	-9	-4	-4	0	0	0	31	-9	1	31	31	31	-9	-4	-4	0	0	0
273195	6206679		40	35	35	53	48	43	30	30	30	-10	-5	-5	-23	-18	-13	31	-9	1	31	30	30	-9	-5	-5	0	0	0	31	-9	1	30	30	30	-10	-5	-5	0	0	0
273224	6206404		40	35	35	53	48	43	30	30	30	-10	-5	-5	-23	-18	-13	31	-9	1	30	30	30	-10	-5	-5	0	0	0	31	-9	1	30	30	30	-10	-5	-5	0	0	0
273191	6206633		40	35	35	53	48	43	30	30	30	-10	-5	-5	-23	-18	-13	31	-9	1	30	30	30	-10	-5	-5	0	0	0	31	-9	1	30	30	30	-10	-5	-5	0	0	0
273141	6206479		40	35	35	53	48	43	30	30	30	-10	-5	-5	-23	-18	-13	31	-9	1	30	30	30	-10	-5	-5	0	0	0	31	-9	1	30	30	30	-10	-5	-5	0	0	0
273393	6206657		40	35	35	53	48	43	31	31	31	-9	-4	-4	-22	-17	-12	32	-8	1	31	31	31	-9	-4	-4	0	0	0	32	-8	1	31	31	31	-9	-4	-4	0	0	0
273234	6206402		40	35	35	53	48	43	30	30	30	-10	-5	-5	-23	-18	-13	31	-9	1	30	30	30	-10	-5	-5	0	0	0	31	-9	1	30	30	30	-10	-5	-5	0	0	0
273035	6206818		40	35	35	53	48	43	30	30	30	-10	-5	-5	-23	-18	-13	31	-9	1	30	30	30	-10	-5	-5	0	0	0	31	-9	1	30	30	30	-10	-5	-5	0	0	0
273161	6206792		40	35	35	53	48	43	30	30	30	-10	-5	-5	-23	-18	-13	30	-10	0	30	30	30	-10	-5	-5	0	0	0	30	-10	0	30	30	30	-10	-5	-5	0	0	0
273233	6206512		40	35	35	53	48	43	30	30	30	-10	-5	-5	-23	-18	-13	31	-9	1	31	30	30	-9	-5	-5	0	0	0	31	-9	1	30	30	30	-10	-5	-5	0	0	0
273322	6206659		40	35	35	53	48	43	31	31	31	-9	-4	-4	-22	-17	-12	32	-8	1	31	31	31	-9	-4	-4	0	0	0	32	-8	1	31	31	31	-9	-4	-4	0	0	0
273285	6206670		40	35	35	53	48	43	31	31	31	-9	-4	-4	-22	-17	-12	32	-8	1	31	31	31	-9	-4	-4	0	0	0	31	-9	1	31	31	31	-9	-4	-4	0	0	0
273068	6206650		40	35	35	53	48	43	30	30	30	-10	-5	-5	-23	-18	-13	31	-9	1	30	30	30	-10	-5	-5	0	0	0	31	-9	1	30	30	30	-10	-5	-5	0	0	0
273129	6206417		40	35	35	53	48	43	30	30	30	-10	-5	-5	-23	-18	-13	31	-9	1	30	30	30	-10	-5	-5	0	0	0	31	-9	1	30	30	30	-10	-5	-5	0	0	0
273499	6206857		40	35	35	53	48	43	32	32	31	-8	-3	-4	-21	-16	-12	32	-8	1	32	32	32	-8	-3	-3	0	0	0	32	-8	1	32	32	32	-8	-3	-3	0	0	0
273152	6206416		40	35	35	53	48	43	30	30	30	-10	-5	-5	-23	-18	-13	31	-9	1	30	30	30	-10	-5	-5	0	0	0	31	-9	1	30	30	30	-10	-5	-5	0	0	0
273155	6206578		40	35	35	53	48	43	30	30	30	-10	-5	-5	-23	-18	-13	31	-9	1	30	30	30	-10	-5	-5	0	0	0	31	-9	1	30	30	30	-10	-5	-5	0	0	0
273121	6206472		40	35	35	53	48	43	30	30	30	-10	-5	-5	-23	-18	-13	31	-9	1	30	30	30	-10	-5	-5	0	0	0	31	-9	1	30	30	30	-10	-5	-5	0	0	0
273068	6206701		40	35	35	53	48	43	30	30	30	-10	-5	-5	-23	-18	-13	31	-9	1	30	30	30	-10	-5	-5	0	0	0	31	-9	1	30	30	30	-10	-5	-5	0	0	0
273107	6206529		40	35	35	53	48	43	30	30	30	-10	-5	-5	-23	-18	-13	31	-9	1	30	30	30	-10	-5	-5	0	0	0	31	-9	1	30	30	30	-10	-5	-5	0	0	0
273469	6206642		40	35	35	53	48	43	30	30	30	-10	-5	-5	-23	-18	-13	31	-9	1	30	30	30	-10	-5	-5	0	0	0	31	-9	1	30	30	30	-10	-5	-5	0	0	0
273110	6206477		40	35	35	53	48	43	30	30	30	-10	-5	-5	-23	-18	-13	31	-9	1	30	30	30	-10	-5	-5	0	0	0	31	-9	1	30	30	30	-10	-5	-5	0	0	0
273163	6206636		40	35	35	53	48	43	30	30	30	-10	-5	-5	-23	-18	-13	31	-9	1	30	30	30	-10	-5	-5	0	0	0	31	-9	1	30	30	30	-10	-5	-5	0	0	0
273296	6206504		40	35	35	53	48	43	31	31	31	-9	-4	-4	-22	-17	-12	31	-9	1	31	31	31	-9	-4	-4	0	0	0	31	-9	1	31	31	31	-9	-4	-4	0	0	0
273369	6206765		40	35	35	53	48	43	31	31	31	-9	-4	-4	-22	-17	-12	32	-8	1	31	31	31	-9	-4	-4	0	0	0	32	-8	1	31	31	31	-9	-4	-4	0	0	0
273411	6206764		40	35	35	53	48	43	31	31	31	-9	-4	-4	-22	-17	-12	32	-8	1	31	31	31	-9	-4	-4	0	0	0	32	-8	1	31	31	31	-9	-4	-4	0	0	0
273397	6206514		40	35	35	53	48	43	31	31	31	-9	-4	-4	-22	-17	-12	32	-8	1	31	31	31	-9	-4	-4	0	0	0	32	-8	1	31	31	31	-9	-4	-4	0	0	0
273127	6206529		40	35	35	53	48	43	30	30	30	-10	-5	-5	-23	-18	-13	31	-9	1	30	30	30	-10	-5	-5	0	0	0	31	-9	1	30	30	30	-10	-5	-5	0	0	0
273393	6206763		40	35	35	53	48	43	31	31	31	-9	-4	-4	-22	-17	-12	32	-8	1	31	31	31	-9	-4	-4	0	0	0	32	-8	1	31	31	31	-9	-4	-4	0	0	0
273273	6206511		40	35	35	53	48	43	31	31	30	-9	-4	-5	-22	-17	-13	31	-9	1	31	31	31	-9	-4	-4	0	0	0	31	-9	1	31	31	31	-9	-4	-4	0	0	0
273119	6206903		40	35	35	53	48	43	30	30	30	-10	-5	-5	-23	-18	-13	31	-9	1	30	30	30	-10	-5	-5	0	0	0	31	-9	1	30	30	30	-10	-5	-5	0	0	0
273319	6206531		40	35	35	53	48	43	31	31	31	-9	-4	-4	-22	-17	-12	32	-8	1	31	31	31	-9	-4	-4	0	0	0	31	-9	1	31	31	31	-9	-4	-4	0	0	0
273010	6206872		40	35	35	53	48	43	30	30	30	-10	-5	-5	-23	-18	-13	31	-9	1	30	30	30	-10	-5	-5	0	0	0	31	-9	1	30	30	30	-10	-5	-5	0	0	0
273449	6206752		40	35	35	53	48	43	31	31	31	-9	-4	-4	-22	-17	-12	32	-8	1	31	31	31	-9	-4	-4	0	0	0	32	-8	1	31	31	31	-9	-4	-4	0	0	0
273330	6206766		40	35	35	53	48	43	31	31	31	-9	-4	-4	-22	-17	-12	32	-8	1	31	31	31	-9	-4	-4	0	0	0	32	-8	1	31	31	31	-9	-4	-4	0	0	0
273551	6206869		40	35	35	53	48	43	32	32	32	-8	-3	-3	-21	-16	-11	32	-8	1	32	32	32	-8	-3	-3	0	0	0	32	-8	1	32	32	32	-8	-3	-3	0	0	0
273234	6206624		40	35	35	53	48	43	31	31	30	-9	-4	-5	-22	-17	-13	31	-9	1	31	31	30	-9	-4	-5	0	0	0	31	-9	1	31	31	30	-9	-4	-5	0	0	0
273196	6206571		40	35	35	53	48	43	30	30	30	-10	-5	-5	-23	-18	-13	31	-9	1	30	30	30	-10	-5	-5	0	0	0	31	-9	1	30	30	30	-10	-5	-5	0	0	0
273323	6206218		40	35	35	53	48	43	30	30	30	-10	-5	-5	-23	-18	-13	31	-9	1	30	30	30	-10	-5	-5	0	0	0	31	-9	1	30	30	30	-10	-5	-5	0	0	0
273376	6206121		40	35	35	53	48	43	30	30	30	-10	-5	-5	-23	-18	-13	31	-9	1	30	30	30	-10	-5	-5	0	0	0	31	-9	1	30	30	30	-10	-5	-5	0	0	0
273160	6206299		40	35	35	53	48	43	30	30	30	-10	-5	-5	-23	-18	-13	31	-9	1	30	30	30	-10	-5	-5	0	0	0	31	-9	1	30	30	30	-10	-5	-5	0	0	0
273192	6206296		40	35	35	53	48	43	30	30	30	-10	-5	-5	-23	-18	-13	31	-9	1	30	30	30	-10	-5	-5	0	0	0	31	-9	1	30	30	30	-10	-5	-5	0	0	0
273229	6206349		40	35	35	53	48	43	30	30	30	-10	-5	-5	-23	-18	-13	31	-9	1	30	30	30	-10	-5	-5	0	0	0	31	-9	1	30	30	30	-10	-5	-5	0	0	0
273175	6206357		40	35	35	53	48	43	30	30	30	-10	-5	-5	-23	-18	-13	31	-9	1	30	30	30	-10	-5	-5	0	0	0	31	-9	1	30	30	30	-10	-5	-5	0	0	0
273150	6206362		40	35	35	53	48	43	30	30	30	-10	-5	-5	-23	-18	-13	31	-9	1	30	30	30	-10	-5	-5	0	0	0	31	-9	1	30	30	30	-10	-5	-5	0	0	0
273277	6206338		40	35	35	53	48	43	30	30	30	-10	-5	-5	-23	-18	-13	31	-9	1	31	30	30	-9	-5	-5	0	0	0	31	-9	1	30	30	30	-10	-5	-5	0	0	0
273434	6206118		40	35	35	53	48	43	30	30	30	-10	-5	-5	-23	-18	-13	31	-9	1	30	30	30	-10	-5	-5	0	0	0	31	-9	1	30	30	30	-10	-5	-5	0	0	0
273368	6206204		40	35	35	53	48	43	30	30	30	-10	-5	-5	-23	-18	-13	31	-9	1	31	30	30	-9	-5	-5	0	0	0	31	-9	1	31	30	30	-9	-5	-5	0	0	0
273241	6206347		40	35	35	53	48	43	30	30	30	-10	-5	-5	-23	-18	-13	31	-9	1	30	30	30	-10	-5	-5	0	0	0	31	-9	1	30	30	30	-10	-5	-5	0	0	0
273257	6206346		40	35	35	53	48	43	30	30	30	-10	-5	-5	-23	-18	-13	31	-9	1	30	30	30	-10	-5	-5	0	0	0	31	-9	1	30	30	30	-10	-5	-5	0	0	0
273452	6206159		40	35	35	53	48	43	30	30	30	-10	-5	-5	-23	-18	-13	31	-9	1	31	31	30	-9	-4	-5	0	0	0	31	-9	1	31	30	30	-9	-5	-5	0	0	0
273642	6206462		40	35	35	53	48	43	30	30	30	-10	-5	-5	-23	-18	-13	31	-9	0	30	30	30	-10	-5	-5	0	0	0	31	-9	0	30	30	30	-10	-5	-5	0	0	0
273637	6206448		40	35	35	53	48	43	32	32	32	-8	-3	-3	-21	-16	-11	32	-8	0	32	32	32	-8	-3	-3	0	0	0	32	-8	0	32	32	32	-8	-3	-3	0	0	0
273266	6206283		40	35	35	53	48	43	30	30	30	-10	-5	-5	-23	-18	-13	31	-9	1	30	30	30	-10	-5	-5	0	0	0	31	-9	1	30	30	30	-10	-5	-5	0	0	0
273408	6206389		40	35	35	53	48	43	31	31	31	-9	-4	-4	-22	-17	-12	32	-8	1	31	31	31	-9	-4	-4	0	0	0	32	-8	1	31	31	31	-9	-4	-4	0	0	0
273230	6206286		40	35	35	53	48	43	30	30	30	-10	-5	-5	-23	-18	-13	31	-9	1	30	30	30	-10	-5	-5	0	0	0	31	-9	1	30	30	30	-10	-5	-5	0	0	0
273267	6206103		40	35	35	53	48	43	30	30	30	-10	-5	-5	-23	-18	-13	31	-9	1	30	30	30	-10	-5	-5	0	0	0	31	-9	1	30	30	30	-10	-5	-5	0	0	0
273196	6206357		40	35	35	53	48	43	30	30	30	-10	-5	-5	-23	-18	-13	31	-9	1	30	30	30	-10	-5	-5	0	0	0	31	-9	1	30	30	30	-10	-5	-5	0	0	0
273215	6206354		40	35	35	53	48	43	30	30	30	-10	-5	-5	-23	-18	-13	31	-9	1	30	30	30	-10	-5	-5	0	0	0	31	-9	1	30	30	30	-10	-5	-5	0	0	0
273212	6206293		40	35	35	53	48	43	30	30	30	-10	-5	-5	-23	-18	-13	31	-9	1	30	30	30	-10	-5	-5	0	0	0	31	-9	1	30	30	30	-10	-5	-5	0	0	0
273247	6206292		40	35	35	53	48	43	30	30	30	-10	-5	-5	-23	-18	-13	31	-9	1	30	30	30	-10	-5	-5	0	0	0	31	-9	1	30	30	30	-10	-5	-5	0	0	0
273272	6206146		40	35	35	53	48	43	30	30	30	-10	-5	-5	-23	-18	-13	31	-9	1	30	30	30	-10	-5	-5	0	0	0	31	-9	1	30	30	30	-10	-5	-5	0	0	0
278233	6209974		44	42	35	58	48	43	35	35	35	-9	-7	0	-23	-13	-8	35	-9	0	35	35	35	-9	-7	0	0	0	0	35	-9	0	35	35	35	-9	-7	0	0	0	0
278151	6209937		44	42	35	58	48	43	35	35	35	-9	-7	0	-23	-13	-8	35	-9	0	35	35	35	-9	-7	0	0	0	0	35	-9	0	35	35	35	-9	-7	0	0	0	0
278098	6209773		44	42	35	58	48	43	36	36	36	-8	-6	1	-22	-12	-7	36	-8	0	36	36	36	-8	-6	1	0	0	0	36	-8	0	36	36	36	-8	-6	1	0	0	0

			PNTL			PANL			Stage 2 Noise-enhancing without mitigation									Stage 2 Inv2ms + TSC1 Site Est			Stage 2 Inv2ms + TSC1 Drilling (Construction mitigated)									Stage 2 Inv2ms TSC2 Site Est			Stage 2 Inv2ms TSC2 Drill					
									Predicted			Compare to PNTL			Compare to PANL			Predicted	Compare to PNTL	Compare to Unmit S2	Predicted			Compare to PNTL			Compare to Unmit S2	Predicted	Compare to PNTL	Compare to Unmit S2	Predicted			Compare to PNTL			Compare to Unmit S2	
X	Y	Property Details	Day	Evening	Night	Day	Eve	Nt	Day	Eve	Nt	Day	Eve	Nt	Day	Eve	Nt	Day	Day	Day	Day	Eve	Nt	Day	Eve	Nt	Day	Day	Day	Day	Eve	Nt	Day	Eve	Nt	Day	Day	Day
278117	6209717		44	42	35	58	48	43	36	36	36	-8	-6	1	-22	-12	-7	36	-8	0	36	36	36	-8	-6	1	0	0	0	36	-8	0	36	36	36	-8	-6	1	0	0	0
278072	6209923		44	42	35	58	48	43	34	34	34	-10	-8	-1	-24	-14	-9	34	-10	0	34	34	34	-10	-8	-1	0	0	0	34	-10	0	34	34	34	-10	-8	-1	0	0	0
278070	6209943		44	42	35	58	48	43	34	34	34	-10	-8	-1	-24	-14	-9	34	-10	0	34	34	34	-10	-8	-1	0	0	0	34	-10	0	34	34	34	-10	-8	-1	0	0	0
278098	6209793		44	42	35	58	48	43	36	36	36	-8	-6	1	-22	-12	-7	36	-8	0	36	36	36	-8	-6	1	0	0	0	36	-8	0	36	36	36	-8	-6	1	0	0	0
278107	6209753		44	42	35	58	48	43	36	36	36	-8	-6	1	-22	-12	-7	36	-8	0	36	36	36	-8	-6	1	0	0	0	36	-8	0	36	36	36	-8	-6	1	0	0	0
278090	6209811		44	42	35	58	48	43	36	36	36	-8	-6	1	-22	-12	-7	36	-8	0	36	36	36	-8	-6	1	0	0	0	36	-8	0	36	36	36	-8	-6	1	0	0	0
278115	6209734		44	42	35	58	48	43	36	36	36	-8	-6	1	-22	-12	-7	36	-8	0	36	36	36	-8	-6	1	0	0	0	36	-8	0	36	36	36	-8	-6	1	0	0	0
278208	6209960		44	42	35	58	48	43	35	35	35	-9	-7	0	-23	-13	-8	35	-9	0	35	35	35	-9	-7	0	0	0	0	35	-9	0	35	35	35	-9	-7	0	0	0	0
278160	6209923		44	42	35	58	48	43	34	34	34	-10	-8	-1	-24	-14	-9	34	-10	0	34	34	34	-10	-8	-1	0	0	0	34	-10	0	34	34	34	-10	-8	-1	0	0	0
278085	6208863		40	40	35	58	48	43	40	40	40	0	0	5	-18	-8	-3	41	1	0	40	40	40	0	0	5	0	0	0	41	1	0	41	40	40	1	0	5	0	0	0
277990	6208940		40	40	35	58	48	43	40	40	40	0	0	5	-18	-8	-3	40	0	0	40	40	40	0	0	5	0	0	0	40	0	0	40	40	40	0	0	5	0	0	0
278114	6209205		40	40	35	58	48	43	39	39	39	-1	-1	4	-19	-9	-4	39	-1	0	39	39	39	-1	-1	4	0	0	0	39	-1	0	39	39	39	-1	-1	4	0	0	0
278080	6209830		44	42	35	58	48	43	36	36	36	-8	-6	1	-22	-12	-7	36	-8	0	36	36	36	-8	-6	1	0	0	0	36	-8	0	36	36	36	-8	-6	1	0	0	0
278174	6209991		44	42	35	58	48	43	35	35	35	-9	-7	0	-23	-13	-8	35	-9	0	35	35	35	-9	-7	0	0	0	0	35	-9	0	35	35	35	-9	-7	0	0	0	0
278109	6209893		44	42	35	58	48	43	34	34	34	-10	-8	-1	-24	-14	-9	34	-10	0	34	34	34	-10	-8	-1	0	0	0	34	-10	0	34	34	34	-10	-8	-1	0	0	0
278104	6209935		44	42	35	58	48	43	34	34	34	-10	-8	-1	-24	-14	-9	34	-10	0	34	34	34	-10	-8	-1	0	0	0	34	-10	0	34	34	34	-10	-8	-1	0	0	0
278087	6209882		44	42	35	58	48	43	34	34	34	-10	-8	-1	-24	-14	-9	34	-10	0	34	34	34	-10	-8	-1	0	0	0	34	-10	0	34	34	34	-10	-8	-1	0	0	0
278144	6209663		44	42	35	58	48	43	36	36	36	-8	-6	1	-22	-12	-7	37	-7	0	36	36	36	-8	-6	1	0	0	0	37	-7	0	36	36	36	-8	-6	1	0	0	0
278239	6209988		44	42	35	58	48	43	35	35	35	-9	-7	0	-23	-13	-8	35	-9	0	35	35	35	-9	-7	0	0	0	0	35	-9	0	35	35	35	-9	-7	0	0	0	0
278103	6209961		44	42	35	58	48	43	33	33	33	-11	-9	-2	-25	-15	-10	34	-10	0	34	33	33	-10	-9	-2	0	0	0	34	-10	0	34	33	33	-10	-9	-2	0	0	0
278062	6209875		44	42	35	58	48	43	34	34	34	-10	-8	-1	-24	-14	-9	34	-10	0	34	34	34	-10	-8	-1	0	0	0	35	-9	0	34	34	34	-10	-8	-1	0	0	0
278855	6209897		40	35	35	53	48	43	34	34	34	-6	-1	-1	-19	-14	-9	34	-6	0	34	34	34	-6	-1	-1	0	0	0	34	-6	0	34	34	34	-6	-1	-1	0	0	0
278174	6209939		44	42	35	58	48	43	35	35	35	-9	-7	0	-23	-13	-8	35	-9	0	35	35	35	-9	-7	0	0	0	0	35	-9	0	35	35	35	-9	-7	0	0	0	0
278196	6209954		44	42	35	58	48	43	35	35	35	-9	-7	0	-23	-13	-8	35	-9	0	35	35	35	-9	-7	0	0	0	0	35	-9	0	35	35	35	-9	-7	0	0	0	0
278185	6209945		44	42	35	58	48	43	35	35	35	-9	-7	0	-23	-13	-8	35	-9	0	35	35	35	-9	-7	0	0	0	0	35	-9	0	35	35	35	-9	-7	0	0	0	0
278129	6209696		44	42	35	58	48	43	36	36	36	-8	-6	1	-22	-12	-7	36	-8	0	36	36	36	-8	-6	1	0	0	0	36	-8	0	36	36	36	-8	-6	1	0	0	0
278131	6209680		44	42	35	58	48	43	36	36	36	-8	-6	1	-22	-12	-7	36	-8	0	36	36	36	-8	-6	1	0	0	0	37	-7	0	36	36	36	-8	-6	1	0	0	0
278162	6209973		44	42	35	58	48	43	35	35	35	-9	-7	0	-23	-13	-8	35	-9	0	35	35	35	-9	-7	0	0	0	0	35	-9	0	35	35	35	-9	-7	0	0	0	0
278124	6209902		44	42	35	58	48	43	35	35	35	-9	-7	0	-23	-13	-8	35	-9	0	35	35	35	-9	-7	0	0	0	0	35	-9	0	35	35	35	-9	-7	0	0	0	0
278145	6209950		44	42	35	58	48	43	34	34	34	-10	-8	-1	-24	-14	-9	34	-10	0	34	34	34	-10	-8	-1	0	0	0	34	-10	0	34	34	34	-10	-8	-1	0	0	0
277811	6209160		40	40	35	58	48	43	38	38	38	-2	-2	3	-20	-10	-5	38	-2	0	38	38	38	-2	-2	3	0	0	0	38	-2	0	38	38	38	-2	-2	3	0	0	0
279002	6209862		40	35	35	53	48	43	34	34	34	-6	-1	-1	-19	-14	-9	34	-6	0	34	34	34	-6	-1	-1	0	0	0	34	-6	0	34	34	34	-6	-1	-1	0	0	0
277943	6209876		44	42	35	58	48	43	34	34	33	-10	-8	-2	-24	-14	-10	34	-10	0	34	34	33	-10	-8	-2	0	0	0	34	-10	0	34	34	33	-10	-8	-2	0	0	0
277954	6209891		44	42	35	58	48	43	33	33	33	-11	-9	-2	-25	-15	-10	34	-10	0	33	33	33	-11	-9	-2	0	0	0	34	-10	0	33	33	33	-11	-9	-2	0	0	0
277941	6209897		44	42	35	58	48	43	33	33	33	-11	-9	-2	-25	-15	-10	34	-10	0	33	33	33	-11	-9	-2	0	0	0	34	-10	0	33	33	33	-11	-9	-2	0	0	0
277947	6209914		44	42	35	58	48	43	33	33	33	-11	-9	-2	-25	-15	-10	34	-10	0	33	33	33	-11	-9	-2	0	0	0	34	-10	0	33	33	33	-11	-9	-2	0	0	0
277960	6209908		44	42	35	58	48	43	33	33	33	-11	-9	-2	-25	-15	-10	33	-11	0	33	33	33	-11	-9	-2	0	0	0	34	-10	0	33	33	33	-11	-9	-2	0	0	0
277928	6209912		44	42	35	58	48	43	34	34	34	-10	-8	-1	-24	-14	-9	34	-10	0	34	34	34	-10	-8	-1	0	0	0	34	-10	0	34	34	34	-10	-8	-1	0	0	0
276281	6209124		40	35	35	53	48	43	38	38	38	-2	3	3	-15	-10	-5	38	-2	0	38	38	38	-2	3	3	0	0	0	38	-2	0	38	38	38	-2	3	3	0	0	0
277679	6209292		44	42	35	58	48	43	37	37	37	-7	-5	2	-21	-11	-6	37	-7	0	37	37	37	-7	-5	2	0	0	0	37	-7	0	37	37	37	-7	-5	2	0	0	0
277722	6209311		44	42	35	58	48	43	36	36	36	-8	-6	1	-22	-12	-7	36	-8	0	36	36	36	-8	-6	1	0	0	0	36	-8	0	36	36	36	-8	-6	1	0	0	0
277737	6209274		44	42	35	58	48	43	36	36	36	-8	-6	1	-22	-12	-7	36	-8	0	36	36	36	-8	-6	1	0	0	0	36	-8	0	36	36	36	-8	-6	1	0	0	0
277932	6209868		44	42	35	58	48	43	34	34	34	-10	-8	-1	-24	-14	-9	34	-10	0	34	34	34	-10	-8	-1	0	0	0	34	-10	0	34	34	34	-10	-8	-1	0	0	0
276432	6209913		40	35	35	53	48	43	35	35	35	-5	0	0	-18	-13	-8	36	-4	0	35	35	35	-5	0	0	0	0	0	35	-5	0	35	35	35	-5	0	0	0	0	0
276398	6209381		40	35	35	53	48	43	38	38	38	-2	3	3	-15	-10	-5	38	-2	0	38	38	38	-2	3	3	0	0	0	38	-2	0	38	38	38	-2	3	3	0	0	0
277907	6209126		40	40	35	58	48	43	40	40	40	0	0	5	-18	-8	-3	40	0	0	40	40	40	0	0	5	0	0	0	40	0	0	40	40	40	0	0	5	0	0	0
277392	6209359		44	42	35	58	48	43	35	35	35	-9	-7	0	-23	-13	-8	35	-9	0	35	35	35	-9	-7	0	0	0	0	35	-9	0	35	35	35	-9	-7	0	0	0	0
277915	6209842		44	42	35	58	48	43	34	34	34	-10	-8	-1	-24	-14	-9	34	-10	0	34	34	34	-10	-8	-1	0	0	0	35	-9	0	34	34	34	-10	-8	-1	0	0	0
277899	6209850		44	42	35	58	48	43	36	36	35	-8	-6	0	-22	-12	-8	36	-8	0	36	36	35	-8	-6	0	0	0	0	36	-8	0	36	36	35	-8	-6	0	0	0	0
277891	6209883		44	42	35	58	48	43	35	35	35	-9	-7	0	-23	-13	-8	35	-9	0	35	35	35	-9	-7	0	0	0	0	36	-8	0	35	35	35	-9	-7	0	0	0	0
277865	6209901		44	42	35	58	48	43	35	35	35	-9	-7	0	-23	-13	-8	35	-9	0	35	35	35	-9	-7	0	0	0	0	35	-9	0	35	35	35	-9	-7	0	0	0	0
277869	6209885		44	42	35	58	48	43	35	35	35	-9	-7	0	-23	-13	-8	35	-9	0	35	35	35	-9	-7	0	0	0	0	36	-8	0	35	35	35	-9	-7	0	0	0	0
277868	6209870		44	42	35	58	48	43	35	35	35	-9	-7	0	-23	-13	-8	36	-8	0	35	35	35	-9	-7	0	0	0	0	36	-8	0	35	35	35	-9	-7	0	0	0	0
277868	6209855		44	42	35	58	48	43	36	36	35	-8	-6	0	-22	-12	-8	36	-8	0	36	36	35	-8	-6	0	0	0	0	36	-8	0	36	36	35	-8	-6	0	0	0	0
277870	6209839		44	42	35	58	48	43	36	36	36	-8	-6	1	-22	-12	-7	36	-8	0	36	36	36	-8	-6	1	0	0	0	36	-8	0	36	36	36	-8	-6	1	0	0	0
277889	6209828		44	42	35	58	48	43	36	36	36	-8	-6	1	-22	-12	-7	36	-8	0	36	36	36	-8	-6	1	0	0	0	36	-8	0	36	36	36	-8	-6	1	0	0	0
277903	6209821		44	42	35	58	48	43	35	35	35	-9	-7	0	-23	-13	-8	35	-9	0	35	35	35	-9	-7	0	0	0	0	35	-9	0	35	35	35	-9	-7	0	0	0	0
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276317	6209532		40	35	35	53	48	43	37	37	37	-3	2	2	-16	-11	-6	37	-3	0	37	37	37	-3	2	2	0	0	0	37	-3	0	37	37	37	-3	2	2	0	0	0
273112	6206588		40	35	35	53	48	43	30	30	30	-10	-5	-5	-23	-18	-13	31	-9	1	30	30	30	-10	-5	-5	0	0	0	31	-9	1	30	30	30	-10	-5	-5	0	0	0
273320	6206938		40	35	35	53	48	43	31	31	31	-9	-4	-4	-22	-17	-12	31	-9	0	31	31	31	-9	-4	-4	0	0	0	31	-9	0	31	31	31	-9	-4	-4	0	0	0
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273086	6206590		40	35	35	53	48	43	30	30	30	-10	-5	-5	-23	-18	-13	31	-9	1	30	30	30	-10	-5	-5	0	0	0	31	-9	1	30	30	30	-10	-5	-5	0	0	0
273332	6206934		40	35	35	53	48	43	31	31	31	-9	-4	-4	-22	-17	-12	31	-9	0	31	31	31	-9	-4	-4	0	0	0	31	-9	0	31	31	31	-9	-4	-4	0	0	0
273205	6206463		40	35	35	53	48	43	30	30	30	-10	-5	-5	-23	-18	-13	31	-9	1	30	30	30	-10	-5	-5	0	0	0	31	-9	1	30	30	30	-10	-5	-5	0	0	0
273098	6206583		40	35	35	53	48	43	30	30	30	-10	-5	-5	-23	-18	-13	31	-9	1	30	30	30	-10	-5	-5	0	0	0	31	-9	1	30	30	30	-10	-5	-5	0	0	0
273170	6206954		40	35	35	53	48	43	30	30	30	-10	-5	-5	-23	-18	-13	31	-9	1	31	31	30	-9	-4	-5	0	0	0	31	-9	1	31	31	30	-9	-4	-5	0	0	0
273329	6206510		40	35	35	53	48	43	31	31	31	-9	-4	-4	-22	-17	-12	32	-8	1	31	31	31	-9	-4	-4	0	0	0	31	-9	1	31	31	31	-9	-4	-4	0	0	0
273895	6207867		40	35	35	53	48	43	32	32	32	-8	-3	-3	-21	-16	-11	33	-7	1	32	32	32	-8	-3	-3	0	0	0	32	-8	1	32	32	32	-8	-3	-3	0	0	0
273330	6207064		40	35	35	53	48	43	31	31	31	-9	-4	-4	-22	-17	-12	32	-8	1	31	31	31	-9	-4	-4	0	0	0	32	-8	1	31	31	31	-9	-4	-4	0	0	0
273272	6206214		40	35	35	53	48	43	30	30	30	-10	-5	-5	-23	-18	-13	31	-9	1	30	30	30	-10	-5	-5	0	0	0	31	-9	1	30	30	30	-10	-5	-5	0	0	0
277098	6203667		40	35	35	53	48	43	30	30	30	-10	-5	-5	-23	-18	-13	35	-5	5	31	30	30	-9	-5	-5	1	0	0	35	-5	5	31	31	31	-9	-4	-4	1	0	0
276908	6203575		40	35	35	53	48	43	30	30	30	-10	-5	-5	-23	-18	-13	35	-5	5	31	30	30	-9	-5	-5	1	0	0	34	-6	4	31	30	30	-9	-5	-5	1	0	0
277100	6203686		40	35	35	53	48	43	30	30	30	-10	-5	-5	-23	-18	-13	35	-5	5	31	30	30	-9	-5	-5	1	0	0	35	-5	5	31	31	31	-9	-4	-4	1	0	0
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276716	6203854		40	35	35	53	48	43	31	31	31	-9	-4	-4	-22	-17	-12	36	-4	5	32	31	31	-8	-4	-4	1	0	0	35	-5	4	32	31	31	-8	-4	-4	1	0	0
276721	6203834		40	35	35	53	48	43	31	31	31	-9	-4	-4	-22	-17	-12	36	-4	5	32	31	31	-8	-4	-4	1	0	0	35	-5	4	32	31	31	-8	-4	-4	1	0	0
276741	6203818		40	35	35	53	48	43	31	31	31	-9	-4	-4	-22	-17	-12	36	-4	5	32	31	31	-8	-4	-4	1	0	0	35	-5	4	31	31	31	-9	-4	-4	1	0	0
276908	6204175		40	35	35	53	48	43	30	30	30	-10	-5	-5	-23	-18	-13	35	-5	5	31	30	30	-9	-5	-5	1	0	0	34	-6	4	31	30	30	-9	-5	-5	1	0	0
276619	6204492		40	35	35	53	48	43	33	33	33	-7	-2	-2	-20	-15	-10	37	-3	3	34	34	34	-6	-1	-1	0	0	0	36	-4	2	34	34	34	-6	-1	-1	0	0	0
276542	6205187		45	39	35	53	48	43	37	37	37	-8	-2	2	-16	-11	-6	40	-5	3	37	37	37	-8	-2	2	0	0	0	37	-8	1	37	37	37	-8	-2	2	0	0	0
276547	6206139		49	42	35	58	48	43	40	40	40	-9	-2	5	-18	-8	-3	40	-9	0	40	40	40	-9	-2	5	0	0	0	40	-9	0	40	40	40	-9	-2	5	0	0	0
276720	6205177		49	42	35	58	48	43	32	32	32	-17	-10	-3	-26	-16	-11	34	-15	2	32	32	32	-17	-10	-3	0	0	0	33	-16	1	32	32	32	-17	-10	-3	0	0	0
277099	6204590		40	39	35	53	48	43	34	34	34	-6	-5	-1	-19	-14	-9	38	-2	4	35	34	34	-5	-5	-1	1	0	0	37	-3	3	34	34	34	-6	-5	-1	0	0	0

			PNTL			PANL			Stage 2 Noise-enhancing without mitigation									Stage 2 Inv2ms + TSC1 Site Est		Stage 2 Inv2ms + TSC1 Drilling (Construction mitigated)							Stage 2 Inv2ms TSC2 Site Est			Stage 2 Inv2ms TSC2 Drill					
									Predicted			Compare to PNTL			Compare to PANL			Predicted	Compare to PNTL	Compare to Unmit S2	Predicted			Compare to PNTL			Compare to Unmit S2	Predicted	Compare to PNTL	Compare to Unmit S2	Predicted			Compare to PNTL			Compare to Unmit S2	
X	**Y**	**Property Details**	**Day**	**Evening**	**Night**				**Day**	**Eve**	**Nt**	**Day**	**Eve**	**Nt**	**Day**	**Eve**	**Nt**	**Day**	**Day**		**Day**	**Eve**	**Nt**	**Day**	**Eve**	**Nt**		**Day**	**Day**		**Day**	**Eve**	**Nt**	**Day**	**Eve**	**Nt**	
276625	6205725		49	42	35	58	48	43	40	40	40	-9	-2	5	-18	-8	-3	43	-6	4	40	40	40	-9	-2	5	1	0	0	42	-7	2	40	40	40	-9	-2	5	0	0	0
276752	6204770		49	42	35	58	48	43	35	35	35	-14	-7	0	-23	-13	-8	38	-11	4	35	35	35	-14	-7	0	1	0	0	37	-12	3	35	35	35	-14	-7	0	0	0	0
276729	6204741		45	39	35	53	48	43	35	35	34	-10	-4	-1	-18	-13	-9	38	-7	4	35	35	35	-10	-4	0	1	0	0	37	-8	3	35	35	35	-10	-4	0	0	0	0
275501	6205353		40	35	35	53	48	43	35	35	35	-5	0	0	-18	-13	-8	37	-3	2	35	35	35	-5	0	0	0	0	0	37	-3	2	35	35	35	-5	0	0	0	0	0
277069	6204699		40	39	35	53	48	43	34	34	34	-6	-5	-1	-19	-14	-9	39	-1	4	35	35	35	-5	-4	0	1	0	0	38	-2	3	35	35	34	-5	-4	-1	0	0	0
275446	6205263		40	35	35	53	48	43	31	31	31	-9	-4	-4	-22	-17	-12	33	-7	2	31	31	31	-9	-4	-4	0	0	0	32	-8	2	31	31	31	-9	-4	-4	0	0	0
276047	6205308		40	35	35	53	48	43	35	35	35	-5	0	0	-18	-13	-8	39	-1	4	35	35	35	-5	0	0	1	0	0	37	-3	3	35	35	35	-5	0	0	0	0	0
279074	6207983		40	35	35	53	48	43	41	41	41	1	6	6	-12	-7	-2	41	1	0	41	41	41	1	6	6	0	0	0	41	1	0	41	41	41	1	6	6	0	0	0
278182	6205888	185 Charlies Point Road, Bargo (under negotiati	40	39	35	53	48	43	35	35	35	-5	-4	0	-18	-13	-8	64	24	29	54	43	43	14	4	8	19	8	8	63	23	28	53	49	49	13	10	14	18	14	14
280102	6205853		40	35	35	53	48	43	31	31	31	-9	-4	-4	-22	-17	-12	35	-5	4	32	31	31	-8	-4	-4	1	0	0	37	-3	5	32	31	31	-8	-4	-4	1	0	0
280346	6207535		40	35	35	53	48	43	33	33	33	-7	-2	-2	-20	-15	-10	35	-5	2	33	33	33	-7	-2	-2	0	0	0	35	-5	3	33	33	33	-7	-2	-2	0	0	0

