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**QUARTERLY
ENVIRONMENTAL
MONITORING REPORT -
JULY TO SEPTEMBER 2025**

**A2I | Albury to
Illabo**

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GLOSSARY

Specific terms and acronyms used throughout this plan are listed and described in Table 2 below.

TABLE 1: DEFINITIONS

TERM	DEFINITION
A2I	Albury to Illabo
AA	Acoustic Advisor
ARTC	Australian Rail Track Corporation
BCS	Biodiversity, Conservation and Science Group
BoM	Bureau of Meteorology
CBMP	Construction Biodiversity Management Plan
CEMP	Construction Environmental Management Plan
CEMF	Construction Environmental Management Framework
CNVMP	Construction Noise and Vibration Management Plan
CNVMP _r	Construction Noise and Vibration Monitoring Program
CNVIS	Construction Noise and Vibration Impact Statement
CoA	Condition of Approval
COD	Chemical Oxygen Demand
CMP	Construction Monitoring Program
CSWMP	Construction Surface Water Monitoring Program
DCCEEW	Department of Climate Change, Energy, the Environment and Water (NSW)
dB	Decibel
DO	Dissolved Oxygen
DPHI	Department of Planning, Housing and Infrastructure
DS	Downstream
EC	Electrical Conductivity
EIS	Environmental Impact Statement
EPL	Environment Protection Licence
EPA	Environment Protection Authority
ER	Environmental Representative

HBT	Hollow-Bearing Tree
ICNG	Interim Construction Noise Guideline
IRPL	Inland Rail Pty Ltd
ISO	International Organisation for Standardisation
J2I	Junee to Illabo enhancement site
LGA	Local Government Area
NML	Noise Management Level
NST	No Sample Taken
NOx	Oxidised Nitrogen
OOHW	Out-of-Hours Work
P2N	Parkes to Narromine
PPV	Peak Particle Velocity
VDV	Vibration Dose Value

COMPLIANCE MATRIX

The below Table 2 outlines this reports compliance with Infrastructure Approval SSI-10055.

TABLE 2: COMPLIANCE MATRIX TO ARTC SPECIFICATION

CONDITION REFERENCE	CONDITION REQUIREMENT	REFERENCE										
C26	Except as provided by Condition C16, the following Construction Monitoring Programs must be prepared and implemented in consultation with the relevant government agencies identified for each to compare actual performance of construction of the CSSI against the performance predicted in the documents listed in Condition A1 or in the CEMP:	This report and associated submission to relevant agencies										
	<table border="1"> <thead> <tr> <th>Required Construction</th> <th>Relevant Government Agencies</th> </tr> </thead> <tbody> <tr> <td>Traffic, transport and access</td> <td>Relevant councils and Transport for NSW (TfNSW)</td> </tr> <tr> <td>Noise and vibration</td> <td>Relevant councils</td> </tr> <tr> <td>Biodiversity</td> <td>BCS (NSW DCCEEW)</td> </tr> <tr> <td>Surface water</td> <td>DCCEEW Water Group and relevant councils</td> </tr> </tbody> </table>		Required Construction	Relevant Government Agencies	Traffic, transport and access	Relevant councils and Transport for NSW (TfNSW)	Noise and vibration	Relevant councils	Biodiversity	BCS (NSW DCCEEW)	Surface water	DCCEEW Water Group and relevant councils
	Required Construction		Relevant Government Agencies									
	Traffic, transport and access		Relevant councils and Transport for NSW (TfNSW)									
	Noise and vibration		Relevant councils									
Biodiversity	BCS (NSW DCCEEW)											
Surface water	DCCEEW Water Group and relevant councils											
C27	<p>Each Construction Monitoring Program (CMP) must have consideration of SMART principles and provide:</p> <ol style="list-style-type: none"> details of baseline data available; details of baseline data to be obtained and when; details of all monitoring of the project to be undertaken; the parameters of the project to be monitored; the frequency of monitoring to be undertaken; the location and justification of monitoring locations; the reporting of monitoring results and analysis results against relevant criteria; details of the methods that will be used to analyse the monitoring data; procedures to identify and implement additional mitigation measures where the results of the monitoring indicate unacceptable project impacts; and any consultation to be undertaken in relation to the monitoring programs. 	<p>The CMP's were endorsed as an appendix to their respective CEMP sub-plan and satisfy SMART principles:</p> <p>Construction Biodiversity Management Plan - Stage B: Appendix G - Monitoring Program (Doc No: 6-0052-210-PES-00-PJ-0007)</p> <p>Construction Soil and Water Management Plan (CSWMP) - Stage B: Appendix B - Construction Surface Water Quality Monitoring Program - Stage B (Doc No: 6-0052-210-PES-00-PJ-0005)</p> <p>Construction Noise and Vibration Management Plan - Stage B: Appendix B - Construction Noise and Vibration Monitoring Program (Doc No: 6-0052-210-PMA-00-PL-0013)</p>										

C28	The Noise and Vibration Monitoring Program must be prepared in accordance with the requirements of Approved Methods for the Measurement and Analysis of Environmental Noise (EPA).	<p>Construction Noise and Vibration Management Plan - Stage A: Appendix A - Construction Noise and Vibration Monitoring Program 6_0052-210-PES-00-PJ-0002</p> <p>Construction Noise and Vibration Management Plan - Stage B: Appendix B - Construction Noise and Vibration Monitoring Program (Doc No: 6-0052-210-PMA-00-PL-0013)</p>
C29	CMP(s) must be submitted to the Planning Secretary for approval except those permitted to be endorsed by others pursuant to a CEMF approved by the Planning Secretary under Condition C16.	The CMP's were submitted to the Planning Secretary and approved as an appendix to their respective CEMP sub-plan prior to the commencement of construction.
C30	Where a CMP requires Planning Secretary's approval, the CMP must be endorsed by the ER and then submitted to the Planning Secretary for approval no later than one (1) month before the commencement of construction, or where construction is staged, no later than one (1) month before the commencement of each stage.	As above
C31	CMP(s) not requiring the Planning Secretary's approval, but requiring ER endorsement, must be submitted to the ER no later than one (1) month before the commencement of construction or where construction is staged no later than one (1) month before the commencement of that stage. The CMP(s) must be endorsed by the ER as being consistent with the conditions of this approval and all undertakings made in the documents listed in Condition A1.	As above
C33	The CMP(s), as approved or endorsed (as relevant), including any minor amendments approved by the ER, must be implemented for the duration of construction and for any longer period set out in the monitoring program or specified by the Planning Secretary, whichever is the greater.	As above
C34	The results of the CMP(s) must be submitted to the Planning Secretary, and relevant regulatory agencies, for information in the form of a Construction Monitoring Report at the frequency identified in the relevant CMP.	This report

1 INTRODUCTION

1.1 Project Overview

Inland Rail is an approximate 1,600 kilometres (km) freight rail network that will connect Melbourne and Brisbane via regional Victoria, New South Wales (NSW) and Queensland. The Inland Rail route would involve using approximately 1,000 km of existing track (with enhancements and upgrades where necessary) and 600 km of new track, passing through 30 local government areas (LGAs). Inland Rail will accommodate double-stacked freight trains up to 1,800 metres (m) long and 6.5 m high.

The Australian Government has confirmed that Inland Rail is an important project to meet Australia's growing freight task, improve road safety and help decarbonise the economy. Inland Rail will enhance our national freight and supply chain capabilities, connecting existing freight routes through rail, roads and ports, and supporting Australian's growth. Inland Rail is being delivered by Australian Rail Track Corporation (ARTC) and Inland Rail Pty Ltd (IRPL).

Comprising 12 sections, a staged approach is being undertaken to deliver Inland Rail. Each of these projects can be delivered and operated independently with tie-in points to the existing railway. Work south of Parkes has been prioritised, which will enable Inland Rail to initially connect to existing rail networks between Melbourne, Sydney, Perth and Adelaide via Parkes and Narromine. The Parkes to Narromine (P2N) and Narrabri to North Star Phase 1 (N2NS P1) sections are complete.

The project will enable enhancement works to structures and sections of track along 185 km of the existing operational standard-gauge railway in the Albury to Illabo (A21) section of the Inland Rail program (refer to Figure 1). Enhancement works are required to provide the increased vertical and horizontal clearances required for double-stacked freight trains. Works would include track realignment, lowering and/or modification within the existing rail corridor, modification, removal or replacement of bridge structures (rail, road and/or pedestrian bridges), raising or replacing signal gantries, level-crossing modifications and other associated works

1.2 Environmental Protection Licence and Reporting Requirements

Martinus Rail Pty Ltd obtained the Environment Protection Licence (EPL No. 21984) from the NSW Environment Protection Authority for the purpose of constructing the project. This licence authorises the carrying out of scheduled activities listed in the licence at premises located between Albury and Illabo. The following report details environmental monitoring undertaken during this reporting month conducted in accordance with the EPL.

The EPL can be found by following the link below to the EPA's website: [Environment & Heritage | POEO Licences, Application and Notice Detail](#).

1.3 Submission Requirements and Distribution

In accordance with Condition **C34**, this Construction Monitoring Report (i.e. Quarterly Environmental Monitoring Report) will be submitted to the Planning secretary and following agencies for information at the frequency identified in the Construction Monitoring Program, which is on a quarterly basis and within 60 days of the period's conclusion:

- NSW Environment Protection Authority (EPA)
- Relevant Councils: Albury City Council, Wagga Wagga City Council, Junee Shire Council, Lockhart Shire Council, and Greater Hume Shire Council
- NSW Department of Climate Change, Energy, the Environment and Water (DCCEEW) – including the Water Group and Conservation Programs, Heritage and Regulation (CPHR) (formerly known as Biodiversity, Conservation and Science Group (BCS)).

The Advisor (AA) will review and endorse the report as required by Condition **A27(e)** prior to submission to the Planning Secretary, Department of Planning, Housing and Infrastructure (DPHI).

1.4 Reporting Period

This Quarterly Environmental Monitoring Report has been prepared to address the Condition of Approval (CoA) **C34** of the Planning Approval SSI-10055. The report presents monitoring data for the reporting period for all works undertaken on the Albury to Illabo (A21) portion of Inland Rail from **01st July 2025 to 30th September 2025**, representing the second Quarterly report submitted under **C34**.

In accordance with each Construction Monitoring Program, this Quarterly Environmental Monitoring Report will be submitted to the Planning Secretary and to relevant regulatory agencies (i.e. the EPA) for information 60 days after the reporting period ends.



FIGURE 1: SITE OVERVIEW

2 METHODOLOGY

2.1 Noise and Vibration

2.1.1 Noise

Noise monitoring throughout the reporting period has been conducted in accordance with the procedures outlined in Appendix B of the Construction Noise and Vibration Management Plan (CNVMP); the Construction Noise and Vibration Monitoring Program (CNVMP_r). Monitoring is conducted as required for out-of-hours work (OOHW), possessions, CNVIS validation, and complaint verification (if triggered), as well as ad hoc spot checks in response to potentially noise intensive plant or at the request of the Acoustic Advisor (AA). Monitoring activities were undertaken to generally satisfy the requirements of:

- Conditions of Approval (CoA): **C27**, **C28**, and **C34**
- Environment Protection Licence (EPL) No. 21984
- NSW EPA Approved Methods for the Measurement and Analysis of Environmental Noise (2022)
- Interim Construction Noise Guideline (ICNG, DECC 2009)

All monitoring was conducted by personnel deemed competent under Section 2.2 of the EPA Approved Methods, using equipment compliant with AS/NZS IEC 61672.1:2019 and AS 1055:2018. Monitoring locations were selected in accordance with the relevant site CNVIS, ICNG guidance, at the most noise-affected boundary within 30 metres of the residence, and at a height of 1.5 metres above ground level. Where access to private property was not granted, indicative monitoring was conducted at representative locations, with records of access requests maintained.

During this monitoring period, Martinus utilised the following noise monitoring devices:

TABLE 3: NOISE MONITORING EQUIPMENT

MANUFACTURER	MODEL	SERIAL NUMBER	CALIBRATION DATE	CALIBRATION DUE	LOCATION USED	DATE LOCATION MONITORING CEASED
RION	NL-42	00509260	03/09/2025	03/09/2026	South (Site 1 – Site 10)	-
RION	NL-43	00730063	07/05/2025	07/05/2026	North (Site 11 – Site 20)	-
SiteHive	-	HEX-000732	24/10/2024	24/10/2026	Edmondson Compound	29/04/2025 - Ongoing
SiteHive	-	HEX-000238	28/04/2025	28/04/2027	Illabo Compound	25/03/2025 - Ongoing
Sitehive	-	HEX-000767	28/04/2025	28/04/2027	Kemp St Compound	25/08/2025 - 19/09/2025
SiteHive	-	HEX-000767	28/04/2025	28/04/2027	Kemp St Railway Parade	19/09/2025 - Ongoing
SiteHive	-	HEX-000600	15/08/2024	15/08/2026	Riverina Hwy	12/09/2025 - 03/10/2025
SiteHive	-	HEX-000241	05/12/2023	05/12/2025	Albury Yard	21/08/2025 - 29/09/2025

Calibration certificates are provided in **Appendix D**.

Table 4 details the specific noise monitoring activities undertaken during this quarter, aligning with the requirements set out in Table 13 of the CNVMPr.

TABLE 4: CNVMPr NOISE MONITORING PARAMETERS

MONITORING REQUIREMENT	FREQUENCY	EVIDENCE OF COMPLIANCE
Attended monitoring will be carried out at the commencement of activities for which a CNVIS has been prepared to confirm actual noise levels.	On the first occasion of activities for which a CNVIS has been prepared	Noise data register and attended monitoring field sheets
Attended monitoring where a complaint is received.	When a noise complaint is received and it is determined that the results of the process will assist in resolving the issue, or where this is identified as necessary to confirm mitigation measures are suitable	No noise complaints were received during this reporting period
Attended monitoring will be carried out at the request of AA or where predicted levels exceed the NML by: <ul style="list-style-type: none"> >15dB for OOHWP1 >5dB OOHWP2 	At the request of AA, or (at a minimum) on the first occasion of activities for which a CNVIS has identified exceedances of the NML as listed	Noise data register and attended monitoring field sheets
Attended Validation monitoring	At least the first night of out of hours work where work is being undertaken in accordance with a community agreement	Noise data register and attended monitoring field sheets
Spot checks of noise intensive plant	At the commencement of noise intensive plant activities	Noise data register and attended field sheets
Where required for the purposes of refining construction methods or techniques to reduce noise levels	When trialling/refining construction methodologies or mitigation measures targeted at the reduction in sound power level of a specific noise source	Not applicable to this reporting period

2.1.2 Vibration

Vibration monitoring conducted during this reporting period was done generally in accordance with the CNVMPr. Monitoring was undertaken to generally satisfy the requirements of:

- Conditions of Approval (CoA) C26, C27, and C34,
- EPA's 'Assessing Vibration: a technical guideline' (DEC, 2006).

Vibration monitoring is conducted in response to activities that have the potential to generate vibration within the minimum working distances specified in Section 6.3 of the CNVMPr, and in proximity to heritage items, as required by CoA E80. Vibration monitoring was undertaken during the period for works conducted within minimum working distances of sensitive receivers (cosmetic damage and human comfort) and to validate the project vibration modelling and assumptions related to specific activities. A full summary of vibration monitoring activities can be found in Table 6.

Across the A21 project, Martinus utilise "SiteHive" Hexanode Vibration Monitoring to assess vibration impacts for human comfort and cosmetic damage. Peak Particle Velocity (PPV) shows the instantaneous strength of vibration and is used to

assess the potential for structural damage. Vibration Dose Value (VDV) measures the cumulative impact over time during the day and night periods to assess human comfort and perceived vibration levels. For both PPV and VDV, vibration data is collected in the three directions: x, y, and z.

The Hexanode device is calibrated in accordance with ISO/IEC 16063-21:2003 standards. Calibration certificates are provided in **Appendix D**.

TABLE 5: VIBRATION MONITORING EQUIPMENT

MANUFACTURER	SERIAL NUMBER	CALIBRATION DATE	CALIBRATION DUE	LOCATION USED	DATE USED
SiteHive	VIB-000279	05/09/2024	05/09/2026	Marinna Silos	12/09/2025 – 15/09/2025
SiteHive	VIB-000348	04/07/2025	04/07/2027	1 Edgar St, Junee	10/09/2025 – 15/09/2025
SiteHive	VIB-000387	04/07/2025	04/07/2027	7 Railway Pde, Junee	10/09/2025 – 15/09/2025
SiteHive	VIB-000047	04/07/2025	04/07/2027	Riverina Hwy	24/09/2025-30/09/2025

TABLE 6: CNVMPR VIBRATION MONITORING PARAMETERS

MONITORING PARAMETER	FREQUENCY	EVIDENCE OF COMPLIANCE
Vibratory works conducted within minimum working distances of sensitive receivers (cosmetic damage and human comfort)	At the commencement of vibratory works	Vibration monitoring data register
When a complaint is received in relation to human exposure to vibration levels and/or suspected property damage due to vibration impacts.	As required or when monitoring is considered an appropriate response	Vibration monitoring data register
For the purposes of refining construction methodology to reduce vibration levels	As required	Vibration monitoring data register
Vibration generating activities that have the potential to impact on heritage items in accordance with CoA E80	Any time vibration generating activities are occurring in proximity to heritage items.	Not yet triggered in this reporting period

2.2 Surface Water

Surface water monitoring conducted throughout the monitoring period was undertaken in accordance with the Surface Water Monitoring Program. As per Section 3 of the program, nine points along the A21 alignment were monitored both monthly, as well in response to rain events that exceeded 25mm in 24hrs within the quarterly reporting period.

Surface water quality monitoring was performed at upstream (US) and downstream (DS) sites using a Horiba multiparameter for physio-chemical parameters, as well as the collection of water sample suits which were sent to a NATA accredited laboratory for analysis. The parameters analysed have been summarised below in Table 7.

During the monitoring period several sites could not be sampled due to the absence of any/running water. Typically, in the case of sampling locations that maintained ponded or stagnant water, no sample was taken as it would not have been reflective of the water body nor aligned with the intent of the Surface Water Monitoring Program.

Table 7 details the analytes that were monitored during the construction phase of the Project.

TABLE 7: SURFACE WATER QUALITY MONITORING PARAMETERS

CATEGORY	PARAMETERS
Physio-chemical parameters (field)	<ul style="list-style-type: none"> - Turbidity (NTU); - pH; - Dissolved oxygen (DO%); - Salinity/ Electrical Conductivity (EC); - Temperature (°C).
Laboratory analysis	<ul style="list-style-type: none"> - Chlorophyll-a; - Nutrients (total phosphorus and total nitrogen); - Total Suspended Solids (TSS); - Total metals (Aluminium, arsenic, cadmium, chromium, copper, iron, lead, manganese, mercury, nickel and zinc); - Total Kjeldahl Nitrogen (TKN); - Nitrogen NO_x (oxidised nitrogen); - Organic compounds (BTEX, naphthalene, and TRH); - Total Recoverable Hydrocarbons (TRH C6-C9, TRH C10-C36); - Chemical Oxygen Demand (COD); - Biochemical Oxygen Demand (BOD).

2.3 Biodiversity

Biodiversity monitoring conducted throughout the monitoring period was carried out in line with the project Construction Biodiversity Management Plan (CBMP). The monitoring aims to assess actual biodiversity impacts against predicted outcomes and ensure compliance with relevant CoA.

Monitoring activities outlined in this report were designed to:

- Validate predicted impacts to biodiversity.
- Ensure compliance with vegetation clearing limits.
- Assess effectiveness of mitigation measures.
- Inform biodiversity offset requirements (if required).

Biodiversity monitoring on A2I is conducted utilising several metrics. For the purpose of this report, specific reference will be made to the performance of outcomes as described in CoA **E20**.

3 RESULTS

3.1 Noise and Vibration

3.1.1 Noise

3.1.1.1 Attended Noise Monitoring

Attended noise monitoring was undertaken throughout the reporting period as required for out-of-hours work (OOHW) and possessions, which were the periods of highest noise impact. Tailored monitoring programs were developed for each OOHW permit, aligned with the specific scope of works. Monitoring was carried out at sensitive receiver locations as per the site-specific CNVIS and relevant work periods.

Attended noise monitoring was undertaken for the following scopes:

- **Albury Yard:** Compound operations and installation of erosion and sediment controls.
- **Riverina:** Possession ULX and track works
- **The Rock:** Signalling Works
- **Edmondson Street:** SAQP OOHW and 66kV OOHW
- **Kemp Street:** Line marking, Bridge closure, Tree trimming, Bridge demolition, and September 2025 Possession OOHW – bridge demolition
- **June to Illabo (J2I):** Monday Nights OOHW – track works and September 2025 Possession OOHW – track works and culvert works

All measured noise levels were found to be compliant with the relevant criteria. All monitoring results showed that the noise levels were generally compliant with the project requirements.

Detailed attended noise monitoring summary for attended noise monitoring event are provided in **Appendix A**.

3.1.1.2 Un-attended Noise Monitoring

Daily unattended noise monitoring was conducted using SiteHive Hexanodes, with monitors installed at Albury Yard and Riverina Hwy as well as Edmondson, Kemp Street, and J2I site compounds when they were operational. These monitors continuously captured noise levels associated with daily site and construction activities. The primary purpose of the SiteHive Hexanodes is to enable the site team to make real-time decisions and proactively identify and manage noise risks. Outside of major possession periods, the acoustic environment was largely influenced by background sources such as local and highway traffic, as well as intermittent train horns and shunting activities.

3.1.2 Vibration

3.1.2.1 Vibration Monitoring

Vibration monitoring was undertaken across A21 throughout the monitoring period at sites including Riverina Highway, J2I, and Kemp Street.

Monitoring at Riverina Highway was conducted both prior to and during the September Possession works to capture vibration data and assess impacts from the ULX drainage and track works. The monitor was placed adjacent to AMART building – the nearest receiver. The drainage and track works involved the use of a Hi-Rail excavator equipped with tamping head and broom attachments, a 12T smooth drum (SD) roller, and a 12T padfoot (PF) roller.

Vibration monitoring was undertaken for the Kemp Street bridge demolition prior to and during the September 2025 Possession when 30T excavators with large (1600kg) hydraulic hammers were used for concrete hammering. No vibratory rollers were used during the possession works at Kemp Street. SiteHive Hexanode Vibration Monitors were placed at the two closest structures within the minimum safe working distance for cosmetic damage according to the Kemp Street CNVIS (6-0052-210-EEC-J2-AS-0001_1).

A SiteHive Hexanode Vibration Monitor was used to assess vibration impacts from a CC10 roller (2–4 tonnes) and tamping during possession works at J2I. During this period only a small CC10 roller was used for track works at J2I. All structures are well outside the minimum working distance for a roller of this size. Additionally, the tamper did not operate near the Illabo silos, which are the only structures identified in the CNVIS within the cosmetic damage minimum working distance for tamping. During the September 2025 Possession, the monitor was set up on the concrete beside the Marina Silos, which are close but outside of the minimum working distance for cosmetic damage as a precautionary measure during tamping.

The Hexanode devices are calibrated in accordance with ISO/IEC 16063-21:2003 standards and set up as per the SiteHive guideline. All measured vibration levels were found to be compliant with the relevant criteria. A few isolated events were recorded; however, upon review of the data these were determined to be short-term and not attributed to construction activities. The vibration monitoring summary is provided in **Appendix B**.

3.2 Surface Water

3.2.1 Monthly Sample Events

Surface water monitoring conducted throughout the monitoring period identified elevated results in several water quality parameters. These results were observed across multiple sampling locations along the alignment, with downstream concentrations of some parameters exceeding upstream values by more than 20%, triggering the management response outlined in the Construction Surface Water Quality Monitoring Program (CSWMP). The management response for each month is as follows:

3.2.1.1 Monthly Management Response

July

July monitoring results indicated multiple exceedances of water quality parameters at both upstream and downstream locations across all sampled sites, highlighting potential environmental concerns. The parameters most frequently exceeding guideline values include electrical conductivity, temperature, turbidity, total nitrogen, total phosphorus, chlorophyll-a, total suspended solids (TSS), dissolved oxygen (DO), and various heavy metals (e.g. aluminium and chromium).

To assess whether these exceedances are linked to Martinus construction activities, a review of baseline data, recent rainfall records and recent activities including potential recorded erosion/sediment control incidents was conducted.

These exceedances are consistent with the expectations of the EIS and noted in the CSWMP. Given the highly disturbed nature of the waterways, the exceedances are likely the result of varying sources identified in the project EAD's, tied to historical and ongoing agricultural practices, urban development, and industrial runoff within the broader catchment.

Rainfall data for the month preceding the sampling showed approximately 60mm precipitation recorded over 20 separate days, reducing the likelihood of stormwater runoff as a primary driver. The largest 24hr rainfall of this period was recorded in the Albury catchment area on 26/07/25 with 15.6mm. No construction activities had commenced in proximity to SW01-SW06. Construction had commenced approximately 2km east of the SW07 location with predominantly low risk activities including ancillary facility establishment, utility relocation and vegetation clearing occurring. There were no erosion/sediment incidents within this time

Given these conditions and the persistent nature of exceedances at upstream sites, it is highly unlikely that the observed water quality issues are attributable to recent construction activities by Martinus. Instead, the results point to long-standing land use impacts and natural catchment characteristics as the primary contributors to water quality exceedances.

August

August monitoring results indicated multiple exceedances of water quality parameters at both upstream and downstream locations across all sampled sites, highlighting potential environmental concerns. The parameters most frequently exceeding guideline values include electrical conductivity, temperature, turbidity, chlorophyll-a, total suspended solids (TSS), dissolved oxygen (DO), and various heavy metals (e.g. aluminium and chromium).

To assess whether these exceedances are linked to Martinus construction activities, a review of baseline data, recent rainfall records and recent activities including potential recorded erosion/sediment control incidents was conducted.

These exceedances are consistent with the expectations of the EIS and noted in the CSWMP. Given the highly disturbed nature of the waterways, the exceedances are likely the result of varying sources identified in the project EAD's, tied to historical and ongoing agricultural practices, urban development, and industrial runoff within the broader catchment.

Rainfall data for the month preceding the sampling showed approximately 54mm precipitation recorded over 11 separate days, reducing the likelihood of stormwater runoff as a primary driver. The largest 24hr rainfall of this period was recorded in the Albury catchment area on 30/08/25 with 11.6mm. No construction activities had commenced in proximity to SW01-SW06 during the reporting period. Construction had commenced approximately 2km east of the SW07 location with predominantly low risk activities including ancillary facility establishment, utility relocation and vegetation clearing occurring. There were no erosion/sediment incidents within this time.

Given these conditions and the persistent nature of exceedances at upstream sites, it is highly unlikely that the observed water quality issues are attributable to recent construction activities by Martinus. Instead, the results point to long-standing land use impacts and natural catchment characteristics as the primary contributors to water quality exceedances.

September

September monitoring results indicated multiple exceedances of water quality parameters at both upstream and downstream locations across all sampled sites, highlighting potential environmental concerns. The parameters most frequently exceeding guideline values include electrical conductivity, temperature, turbidity, chlorophyll-a, total suspended solids (TSS), dissolved oxygen (DO), and various heavy metals (e.g. aluminium and chromium).

To assess whether these exceedances are linked to Martinus construction activities, a review of baseline data, recent rainfall records and recent activities including potential recorded erosion/sediment control incidents was conducted.

These exceedances are consistent with the expectations of the EIS and noted in the CSWMP. Given the highly disturbed nature of the waterways, the exceedances are likely the result of varying sources identified in the project EAD's, tied to historical and ongoing agricultural practices, urban development, and industrial runoff within the broader catchment.

Rainfall data for the month preceding the sampling showed approximately 57.4mm precipitation recorded over 15 separate days. The largest 24-hour rainfall period occurred on the 10/09/2025 with 33mm recorded, which triggered the wet-weather monitoring (refer to Section 3.2.3). No construction activities had commenced in proximity to SW02-SW04. Construction commenced approximately 2km South-West of the SW01 sampling points; works included site establishment, utility relocation and geotechnical investigations. Construction had commenced approximately 2km east of the SW07 location with activities including ancillary facility establishment, utility relocation and vegetation clearing occurring. There were no erosion/sediment incidents within this time. commenced approximately 2km east of the SW07 location with activities including ancillary facility establishment, utility relocation and vegetation clearing occurring. There were no erosion/sediment incidents within this time.

Given these conditions and the persistent nature of exceedances at upstream sites, it is highly unlikely that the observed water quality issues are attributable to recent construction activities by Martinus. Instead, the results point to long-standing land use impacts and natural catchment characteristics as the primary contributors to water quality exceedances.

3.2.2 Conclusion

As previously mentioned, several sites were consistently dry or stagnant, making them unable to be sampled or unrepresentative of the surface water quality in the waterway.

When compared against baseline data from the Environmental Impact Statement (EIS) for the A21 project—particularly Chapter 18: Hydrology, Flooding and Water Quality and Technical Paper 11—the observed exceedances aligned with historical trends and expectations for the region. The EIS identified many of the watercourses within the Murray and Murrumbidgee catchments as 'ephemeral systems', often subject to low flow conditions, poor ecological health, and naturally elevated concentrations of certain water quality indicators.

Given the absence of construction activities at the majority of sites, the previously obtained data from last quarter, and the consistency of results with pre-existing conditions documented in the EIS, it is reasonable to conclude that the observed deviations in water quality are not attributable to project-related impacts but rather reflect natural variability and legacy environmental conditions within the catchment.

A summary of this quarters surface water results can be found Table 8 and Table 9 below. A detailed monitoring reports and analyses are provided in **Appendix C**.

TABLE 8: SURFACE WATER SITES WHICH WERE NOT SAMPLED

MONITORING EVENT	SITES NOT SAMPLED	REASON
July	SW04, SW06 US, SW08, SW09	All dry or stagnant
August	SW04, SW06, SW08, SW09	All dry or stagnant
September	SW04 DS, SW05, SW06, SW08, SW09	All dry or stagnant

TABLE 9: SURFACE WATER QUALITY EXCEEDANCE SUMMARY

MONITORING EVENT	SITE	PARAMETERS EXCEEDED	DOWNSTREAM > UPSTREAM (>20%)
July	SW01	EC, DO, Temperature, TSS, Al	Turbidity, EC, Temperature, Chlorophyll-a, Total P, TSS
	SW02	Turbidity, EC, DO, Temperature, Cr, Al	Turbidity, pH, DO, EC, Chlorophyll-a, Total P, Total N, TSS, COD
	SW03	Turbidity, EC, DO, Temperature, Chlorophyll-a, Cr, Al	Turbidity, DO, Temperature
	SW05	EC, DO, Temperature, Cr, Al	Turbidity, pH, Temperature, Chlorophyll-a, Total P, Total N, TSS, TKN, COD
	SW06 DS	EC, DO, Temperature, Chlorophyll-a, Al	-
	SW07	pH, EC, DO, Temperature, Chlorophyll-a, Al	Turbidity, EC, Chlorophyll-a, TSS, BOD
August	SW01	pH, EC, DO, Temperature, Chlorophyll-a, Total N, Al	Turbidity, pH, EC, Temperature, Chlorophyll-a, Total N, TSS, Al, Fe, Mn, TKN
	SW02	pH, DO, EC, Temperature, Al, Cr, Cu, Zn	pH, Temperature, Mn
	SW03	Turbidity, DO, Temperature, Al	pH, EC, TSS, Al, Ar, Cr, Fe, Pb, Mn, Ni, Zn
	SW05	Turbidity, DO, EC, Temperature, Al, Cr, Cu, Zn	Turbidity, pH, DO, Temperature, Chlorophyll-a, Total N, Nitrite + Nitrate as N
	SW07	Turbidity, DO, Temperature, Al, Zn	Turbidity, EC, Temperature, Mn, Zn
September	SW01	EC, DO, Temperature, Chlorophyll-a, Total N, Al	EC, DO
	SW02	Turbidity, DO, EC, Temperature, Chlorophyll-a, Al, Cr, Cu, Pb, Zn	EC, Temperature, Chlorophyll-a
	SW03	Turbidity, DO, EC, Temperature, Al	pH, DO, Temperature, Al, Ar, Fe, Mn

MONITORING EVENT	SITE	PARAMETERS EXCEEDED	DOWNSTREAM > UPSTREAM (>20%)
	SW04 US	DO, EC, Temperature, Chlorophyll-a, Al, Cr, Cu, Zn	-
	SW07	DO, Temperature, Al, Cu, Zn	pH, EC, Temperature, Chlorophyll-a, Total P, Al, Cr, Fe

3.2.3 Wet Weather Monitoring

In line with the CSWMP wet weather monitoring was triggered once this quarter and conducted on the 11th of September following 33mm of rain the 24hrs prior in the wagga region. Monitoring points SW06, SW07, SW08 and SW09 were assessed and if water was present physio-chemical data was collected. Parameters tested include Turbidity, pH, Dissolved oxygen (DO), Electrical conductivity (EC) and Temperature.

Exceedances in Table 10 are in line with previously obtained data and the expected results described in Table 3.1.1 of the ANZECC 2000 guidelines. Due to the lack of constant flow in many of these systems, rainfall events such as this mobilise deposited contaminants with 'first-flush' flows due to runoff. The results are summarised in the below table 10.

TABLE 10: WET WEATHER MONITORING RESULTS

MONITORING EVENT	SITE	SAMPLES	PARAMETERS EXCEEDED	DOWNSTREAM > UPSTREAM (>20%)
Wet Weather – 11/09/2025	SW06 – US	Sample Taken	Turbidity, DO, EC, Temperature	-
	SW06 - DS	Sample Taken	Turbidity, pH, DO, EC	Temperature
	SW07 - US	Sample Taken	Turbidity, DO	-
	SW07 - DS	Sample Taken	Turbidity, pH, DO, EC, Temperature	DO
	SW08 - US	NST -Dry	-	-
	SW08 - DS	NST - Dry	-	-
	SW09 - US	NST - Dry	-	-
	SW09 - DS	Sample Taken	Turbidity, DO, Temperature	

3.3 Biodiversity

3.3.1 Pre-Clearing/Post-Clearing Assessments

Pre-clearing assessments were conducted at enhancement sites in accordance with the CBMP. These assessments focused on verifying mapped vegetation, identifying habitat features, and evaluating connectivity for key threatened species, particularly the Squirrel Glider.

At Billy Hughes Bridge and Uranquinty Creek, initial field investigations confirmed the presence of hollow-bearing trees and dense vegetation patches suitable for Squirrel Gliders. Vegetation mapping was verified, and areas of ecological value were identified for protection or enhancement. No clearing was undertaken in these areas during the reporting period.

For enhancement sites where clearing had occurred a post clearing assessment was conducted.

Clearing occurred at the following enhancement sites during the reporting period.

TABLE 11: CLEARING EVENTS

SITE	DESCRIPTION
Junee to Illabo	Ongoing minor clearing resulting from shoulder reconditioning.
Junee to Illabo	Clearing to create a ballast access road between culverts at 469.370km and 469.792km to enable culvert replacement during September possession.
Junee to Illabo	September possession shoulder reconditioning clearing
Edmondson Street Bridge	Kildare College tree clearing and Little Best St trimming as part of the 66kV scope
Kemp Street Bridge	Tree trimming to enable access for bridge demolition.
Albury Yard & Riverina Hwy	Minor clearing to improve access track.

3.3.2 Plant Community Type Impacts

Vegetation clearing activities were monitored across all enhancement sites. Pre-clearing inspections confirmed mapped vegetation types and verified that no threatened ecological communities would be impacted as a result of any works associated with A21.

All clearing was supervised by a suitably qualified ecologist.

TABLE 12: PLANT COMMUNITY TYPE

NAME OF PLANT COMMUNITY TYPE / ID	IDENTIFIED AREA AS PER THE COA (HA)	AREA CLEARED REPORTING PERIOD (HA)	TOTAL AREA CLEARED (HA)
277 – moderate – Blakely’s Red Gum – Yellow Box grassy tall woodland of the NSW South Western Slopes Bioregion	0.5	0.0016	0.0776
277 – poor – Blakely’s Red Gum – Yellow Box grassy tall woodland of the NSW South Western Slopes Bioregion	1.44	0.0467	0.1767
277 – derived – Blakely’s Red Gum – Yellow Box grassy tall woodland of the NSW South Western Slopes Bioregion	2.3	0.787	0.787

NAME OF PLANT COMMUNITY TYPE / ID	IDENTIFIED AREA AS PER THE COA (HA)	AREA CLEARED REPORTING PERIOD (HA)	TOTAL AREA CLEARED (HA)
277 – Native plantings – Blakely’s Red Gum – Yellow Box grassy tall woodland of the NSW South Western Slopes Bioregion	0.26	Nil	Nil
277 – Non-native – Blakely’s Red Gum – Yellow Box grassy tall woodland of the NSW South Western Slopes Bioregion	30.5	Nil	Nil
5 – River Red Gum herbaceous-grassy very tall open forest wetland on inner floodplains in the lower slopes sub-region of the NSW South Western Slopes Bioregion and the eastern Riverina Bioregion	0.04	Nil	Nil
Miscellaneous Ecosystems – ‘Highly Disturbed areas with no or limited Native Vegetation’	N/A	4.146	6.206
Miscellaneous Ecosystems – ‘Ornamental Plantings’	N/A	0.0003	0.1328

3.3.3 Threatened Species Habitat Impacts

Ecological field surveys confirmed the presence of several threatened fauna species within the study area. A number of the finds were consistent with the predictions in CoA E20 however several species were not identified during the survey.

No threatened fauna were identified within this reporting period.

TABLE 13: THREATENED FAUNA SPECIES HABITAT IMPACTS

FAUNA SPECIES	AREA AS PER THE COA (HA)	AREA IMPACTED (HA)	IDENTIFIED DURING REPORTING PERIOD	IDENTIFIED TO DATE
<u>Lower Slopes IBRA Subregion</u>				
Sloane’s Froglet (<i>Crinia sloanei</i>)	0.03	Nil	No	No
Squirrel Glider (<i>Petaurus norfolcensis</i>)	0.16	Nil	No	Yes
Superb Parrot (<i>Polytelis swainsonii</i>)	0.16	Nil	No	No
<u>Inland Slopes IBRA Subregion</u>				
Sloane’s Froglet (<i>Crinia sloanei</i>)	0.23	Nil	No	No
Key’s Matchstick Grasshopper (<i>Keyacris scurra</i>)	0.21	Nil	No	No
Squirrel Glider (<i>Petaurus norfolcensis</i>)	1.82	0.2543	No	Yes
Superb Parrot (<i>Polytelis swainsonii</i>)	1.82	0.2543	No	No

3.3.4 Other Species Habitat Impacts

Throughout the reporting period two Common Brushtail Possums were found in separate Canary Palm trees after the trees were felled at Kildare College (Edmondson Street). Both possums were captured and taken to a veterinary clinic for assessment. One animal was deemed unfit for rehabilitation and was euthanised, the other was taken to a local wildlife

carer for assessment and monitoring prior to being released at the same location. As two possums were found to be using the Canary Palm trees, they were subsequently identified as valuable habitat resources. Therefore, two nest boxes from Habitat Innovation and Management were installed by the arborist the subsequent week to reinstate lost habitat in adjacent trees retained on the same property at Kildare College.

3.4 Weather Monitoring

In accordance with the requirements of the EPL, Condition **M3.1**, weather conditions are monitored daily using data sourced from the Bureau of Meteorology (BoM) weather stations along the A2I alignment.

Monitoring includes temperature, wind direction, wind velocity, and rainfall.

The BoM weather stations utilised include the below sites:

TABLE 14: WEATHER STATION SUMMARY

WEATHER STATION	SITE CAPTURED
Albury	<ul style="list-style-type: none"> - Murray River bridge - Albury Yard - Riverina Highway - Billy Hughes Bridge - Tabletop Yard
Lockhart	<ul style="list-style-type: none"> - Culcairn Yard - Henty Yard - Yerong Creek Yard - The Rock Yard
Wagga Wagga	<ul style="list-style-type: none"> - Uranquinty Yard - Pearson St bridge - Cassidy Footbridge - Edmondson St Bridge - Wagga Wagga Station - Bomen Yard - Harefield Yard - Kemp St Bridge - Junee Yard - Olympic Highway - Junee to Illabo

3.5 Water Discharge

No water was discharged from A2I premised sites during the reporting period.



APPENDICES



APPENDIX A

Attended Noise Monitoring Summary

TABLE 15: ATTENDED NOISE MONITORING SUMMARY

Date	Time (Hrs)	Duration (Min)	Location	Construction Activities	Audible Construction Activities	Period	NML	Predicted construction Noise Level (L _{Aeq,15min}) dB	L _{Aeq} 15 minute dB	L _{Amax} dB	Compliant (Y/N)	Comments
3/07/2025	18:56	15 min	6 Little Best Street, Wagga Wagga	66kV utility work	Auger Drill for Pole Installation on Little Best Street	Evening	52	81	75	97.8	Y	Auger drilling of first pole base at Little Best Street, including the lifting of spoil into flat bed truck. Monitoring approximately 10 to 40m from works. LAeq (75) was in compliance with the predicted level (81). The high noise impact was primarily the result of the auger bore clanging spoil (~2-3 bangs every minute) which rose noise levels. LA90 (69.3) also remained in compliance with predicted level. Scope of works duration approximately 45 minutes and taken place from 7pm.
3/07/2025	20:05	15 min	Kildare Catholic College, Wagga Wagga	66kV utility work	Auger drilling conducted for installation of Pole 2 near Kildare Catholic School.	Evening	52	71	67.7	89	Y	Auger bore drilling for pole 2 at Edmondson Street. LAeq (67.7 dB) in compliance with predicted level for modelled scenario utility work (66kV) (night outage 1) at evening time.
3/07/2025	20:52	15 min	6 Little Best Street, Wagga Wagga	66kV utility work	Crane lift of pole 1 - Little Best Street	Evening	52	81	67.3	74.1	Y	Crane lowering pole 1 on Little Best Street. Sample taken was representative of the construction activity occurring. Predominant noise source was the idling / manoeuvring of the plant and generator, as well as passing traffic on Edmondson Street (non-construction). LAeq was compliant with predicted level.
3/07/2025	21:36	15 min	Kildare Catholic College, Wagga Wagga	66kV utility work	Lifting and installation of pole 2	Evening	52	71	57.9	75.2	Y	Crew tightening ropes around pole 2, attaching pole 2 to the crane, and lifting the pole with the crane. LAeq (57.9 dB) in compliance with the predicted noise level for modelled scenario utility work (66kV) (night outage 1) during the evening period (71dB).
3/07/2025	23:49	15 min	6 Little Best Street, Wagga Wagga	66kV utility work -	Concrete pouring	Night	42	81	67.8	83.8	Y	Concrete pouring, dirt removal with shovels and hoses, removal of temporary fences, flagging and signage. Noise sources included both construction activities and unrelated traffic passing by (approximately five vehicles per minute).
4/07/2025	0:20	15 min	Kildare Catholic College, Wagga Wagga	66kV utility work	Concrete pouring, truck washing the dirt off the road.	Night	42	71	55.3	87	Y	Concrete pouring, removal of residues and dirt off the road with a hose, and removal of temporary fence, signage and traffic control. LAeq (55.3 dB) in compliance with predicted noise levels (71dB).
7/07/2025	21:06	15 min	6 Little Best Street, Wagga Wagga	SAQP	Set up for drilling of first hole	Evening	52	85	64.7	95.7	Y	Drilling and SAQP works. LAeq (64.7) in compliance with predicted NML. Note: Light towers were operational throughout the duration of the works, generating a consistent noise from their engines.
7/07/2025	22:49	15 min	Kildare Catholic College, Wagga Wagga	SAQP	Drilling of sampling hole #2	Night	42	73	52.9	66.1	Y	SAQP - drilling of test pit 2, traffic control, utilities surveying. LAeq (52.9) in compliance with predicted NML.
7/07/2025	23:56	15 min	96 Railway St, Turvey Park, Turvey Park	SAQP	Compound operation	Night	42	59	59	88.6	Y	The compound was primarily in operation, with minimal activity observed. Two utes were seen pulling in and out, and only two remained parked during the 15-minute monitoring period. Noise levels were low throughout. Several unrelated vehicles were observed passing along Railway St during this time. Local traffic was the dominant noise source, compound operation contribution was likely well below the measured LAeq of 59dB.
8/07/2025	0:29	15 min	6 Little Best Street, Wagga Wagga	SAQP	Drilling of test pit 3	Night	42	85	59.3	73.4	Y	SAQP drilling of test pit 3. LAeq was compliant with predicted level. Noise sources included both construction activities and unrelated local traffic.
8/07/2025	3:14	15 min	Kildare Catholic College, Wagga Wagga	SAQP	Drilling of test pit 4	Night	42	73	59	71.6	Y	Construction activities: SAQP test pit drilling. LAeq was compliant with predicted level. Noise sources included both construction activities and unrelated local traffic.

Date	Time (Hrs)	Duration (Min)	Location	Construction Activities	Audible Construction Activities	Period	NML	Predicted construction Noise Level (L _{Aeq,15min}) dB	L _{Aeq} 15 minute dB	L _{Amax} dB	Compliant (Y/N)	Comments
8/07/2025	20:43	15 min	6 Little Best Street, Wagga Wagga	SAQP	Drilling bore hole #6	Evening	52	85	56.4	75.7	Y	Drilling of borehole 6 in progress, soil sampling ongoing, traffic control in place. LAeq (56.4 dB), within compliance of the predicted noise level (85 dB). Several trucks passed along Sturt Highway during the 15-minute noise monitoring period
9/07/2025	2:41	15 min	6 Little Best Street, Wagga Wagga	SAQP	Bore hole #9 drilling	Night	42	85	55.9	73.9	Y	Construction activities: Soil sampling, bore hole drilling at pit 9, traffic control also present. LAeq (55.9) compliant with predicted level (85).
10/07/2025	21:54	15 min	6 Little Best Street, Wagga Wagga	SAQP	Borehole drilling	Evening	52	85	57	72	Y	SAQP test pit drilling. Noise monitoring was approx. 80m from current test pit location. CNVIS Scenario W.004. Equipment operating includes 3x light towers, 1x drill rig, 1x skid steer, 2x LVs (not operating). Local road noise was audible during monitoring. LAeq compliant with predicted levels.
11/07/2025	0:09	15 min	96 Railway St, Turvey Park	SAQP	Borehole drilling	Night	42	65	50.4	69.9	Y	SAQP test pit drilling. Noise monitoring being approx. 150m from current test pit location. CNVIS Scenario W.004. Equipment operating includes 3x light towers, 1x drill rig, 1x skid steer, 2x LVs (not operating). Local road noise was audible during monitoring. LAeq compliant with predicted levels.
11/07/2025	21:00	15 min	6 Little Best Street, Wagga Wagga	SAQP	Borehole drilling	Evening	52	85	52.8	71.9	Y	SAQP test pit drilling. LAeq compliant with predicted levels. SAQP test pit drilling. Noise monitoring was approx. 80m from current test pit location. At 4mins 26seconds a car drove past the monitoring device which spiked the LAeq to 60. Slight mist during the night. CNVIS Scenario W.004. Equipment operating includes 3x light towers, 1x drill rig, 1x skid steer, 2x LVs (not operating). Local road noise was audible during monitoring. LAeq compliant with predicted levels.
12/07/2025	0:25	15 min	96 Railway St, Turvey Park	SAQP	Borehole drilling	Night	42	65	55.7	78.3	Y	SAQP test pit drilling. At 5min 33seconds a car drove past the monitoring device that spiked the reading to 67.7 at 12mins 40seconds a car drove past the monitoring device that spiked the reading to 59.9, following that a truck drove past and the reading measured at 76.6. Although the max reading was at 78.3, this was not attributed to SAQP related activities. LAeq compliant with predicted levels.
14/07/2025	20:42	15 min	6 Little Best Street, Wagga Wagga	SAQP	Borehole drilling - test pit number 2,	Evening	52	85	47.3	67.6	Y	SAQP Edmondson Street, Test pit 2. Light hum of the worksite was the primary construction noise heard from 6 Little Best Street. However the predominant noise source was the Stuart Highway further North of the worksite. LAeq met compliance levels.
14/07/2025	22:05	15 min	96 Railway St, Turvey Park	SAQP	Repairing test pit 2, tracking of auger to pit number 3	Night	42	65	51	70.8	Y	Refilling of borehole 2, tracking of machinery to test pit 3 Monitoring location: 96 Railway St CNVIS Scenario: W.004 Sample was predominantly cars passing on Railway St at the monitoring location and would have contributed to the LAmax. Most predominant construction noise was the possie back filling test pit number 2 and the hum of the lighting tower. LAeq is 51dB and is primarily from traffic passing on Railway St.
15/07/2025	0:27	15 min	96 Railway St, Turvey Park	SAQP	Clean up of final test pit and demobilisation of equipment from bridge	Night	42	65	58.2	83.9	Y	Measurement during clean up of final test pit and demobilisation of equipment from bridge. Local traffic dominated the noise source over construction related noise sources. LAeq compliant with predicted levels.
15/07/2025	20:18	15 min	Kildare Catholic College, Wagga Wagga	SAQP	Demobilisation of skid steer, light tower generator	Evening	52	65	45.2	62	Y	Drilling of final test pit, Back fill of final test pit, clean-up of Edmondson Street and equipment, demobilisation of equipment. LAeq compliant with predicted levels.
15/07/2025	20:53	15 min	6 Little Best Street, Wagga Wagga	SAQP	Test pit drilling, light tower and LV movements/operations	Evening	52	73	52.8	67.4	Y	Measurement during the loading and demobilisation of the skid steer from the bridge. Local traffic dominated the noise source over other construction related noises. LAeq compliant with predicted levels.
15/07/2025	21:38	15 min	96 Railway St, Turvey Park, Turvey Park	SAQP	Test pit drilling, demobilisation	Evening	52	85	55.2	70.6	Y	Measurement conducted during test pit drilling and site demobilisation on the bridge. Local traffic dominated the noise source over the construction activities. LAeq is compliant with the predicted levels for these works.

Date	Time (Hrs)	Duration (Min)	Location	Construction Activities	Audible Construction Activities	Period	NML	Predicted construction Noise Level (L _{Aeq,15min}) dB	L _{Aeq} 15 minute dB	L _{Amax} dB	Compliant (Y/N)	Comments
5/08/2025	20:35	15 min	96 Railway St, Turvey Park, Turvey Park	66kV	Pole installation	Evening	52	59	53.8	76.5	Y	Pole installation for 66kv works at Edmondson. Noise monitor was approx. 700m from pole instal and approx. 80m from the compound. Generator and LVs in car park not audible. No cars were observed idling. The only MR related activities audible was radio chatter and EWP squawker. The dominant noise source was from public cars driving past the noise monitor. LAeq compliant with predicted levels.
5/08/2025	20:58	15 min	Kildare Catholic College, Wagga Wagga	66kV	Pole installation (Mob 3)	Evening	52	71	59.3	83.3	Y	Pole installation for 66kv works at Edmondson. Noise monitor was approx. 200m from pole instal. Dominant noise source was from public roads driving past the noise monitor. The only MR related activities audible was the traffic control LV idling which was around ~40dbs. This was raised with the traffic controllers and site team after the noise monitoring was complete. LAeq compliant with predicted levels
21/08/2025	11:37	15 min	360 Kenilworth Street, East Albury	SAQP Testing, Signaling Works - Albury Yard	SAQP testing	Day OOH	55	75	51.6	71.7	Y	Attended noise measurement in compliance with LIW for Signalling works and SAQP. Construction noise could not be heard from the sampling location, and the recorded measurement was primarily made up of highway traffic from the Hume.
25/08/2025	22:42	15 min	2-4 Turland St, Illabo	J2I Monday Nights	Compound operation (shoulder recon works)	Night	38	60	58.5	88.5	Y	Shoulder recon works at J2I. Noise monitor was approx.90m from compound at Illabo. The dominant noise source was highway traffic. Equipment observed operating during noise monitoring includes LVs and watercart which were travelling in/out of compound. The generator at the compound has noise blankets around and was not audible during noise monitoring.
25/08/2025	23:13	15 min	7 Tooheys Lane, Illabo	J2I Monday Nights	Compound operation, ballast drops	Night	38	56	50.1	75.7	Y	Shoulder recon works and ballast drops/material transport at J2I. Noise monitor was approx.500m from compound at Illabo. The dominant noise source was highway traffic. Equipment observed operating during noise monitoring includes LVs, 1x truck and 1x front end loader. Peak dbs were recorded during initial ballast drops into half empty FEL.
25/08/2025	23:38	15 min	26 Morris St, Illabo	J2I Monday Nights	Compound operation	Night	38	52	51.4	80.5	Y	Shoulder recon works and compound operation at J2I. The dominant noise source was highway traffic. Equipment observed operating during noise monitoring includes LVs, high-rail front end loader and excavator on high rail
1/09/2025	20:30	15 min	26 Morris St, Illabo	J2I Monday Nights	Compound operation, ballast drops for shoulder recon	Evening	46	52	48.8	84.4	Y	Noise monitoring in accordance with compound operation scenario. Monitoring point is approx 200m from level crossing and compound and 400m from stockpile area. Highway Traffic (trucks and cars) dominated noise measurement over construction activities.
3/09/2025	22:34	15 min	1 Pretoria Ave	Kemp St - Line marking	Compound operation	Night	40	52	47.6	68.1	Y	Kemp St Line marking, line marking truck approximately 500m from monitoring point and receiver, compound was 50m away with no LV or plant movements during the monitoring period. LA90 was compliant with predicted noise level. Dominant noise source was traffic on Olympic highway, therefore, LAeq considered compliant with predicted noise level. 0:28 - 40.8dB car passing on highway, 4:00 - 46.4dB car passing on highway, 5:00 - 55.1dB car passing on highway , 15:00 - 47.0dB car passing on highway
4/09/2025	00:05	15 min	20 Bolton St, Junee	Kemp St - Line marking	Line marking, traffic control	Night	40	52	42.6	65.6	Y	Kemp St Line marking, line marking truck approximately 250m from monitoring point and receiver, traffic control was 150m away with no site LV movements audible. LAeq was compliant with predicted noise level. 11:00 - train arriving at Junee station, 12:00 and 13:00 - level crossing alarms active throughout
4/09/2025	0:35	15 min	Junee Hotel, Junee	Kemp St - Line marking	Line marking, traffic control	Night	40	82	48.6	67.3	Y	Kemp St Line marking, line marking truck approximately 65m from monitoring point and Junee hotel. LAeq was compliant with predicted noise level.
5/09/2025	19:05	15 min	7 Railway Parade	Kemp St bridge closure - traffic control	Traffic control	Evening	42	47	47.6	68.1	Y	Noise monitoring in accordance with compound operation scenario. 2x traffic control LVs on each side of the bridge (50 and 150m away), no LVs idling, compound closed. Traffic dominated noise measurement. LAeq considered compliant with predicted level.

Date	Time (Hrs)	Duration (Min)	Location	Construction Activities	Audible Construction Activities	Period	NML	Predicted construction Noise Level (L _{Aeq,15min}) dB	L _{Aeq} 15 minute dB	L _{Amax} dB	Compliant (Y/N)	Comments
5/09/2025	12:25	15 min	3 Pretoria Ave, Junee	Tree trimming	Tree trimming, compound operation, excavator transporting debris, traffic control	Standard day	52	82	57.6	80.5	Y	Tree trimming works at Kemp Street bridge using chainsaw. Trimming required to enable construction access.
8/09/2025	19:27	15 min	731 Ballengoarrah lane	J2I Monday Nights	Shoulder Recon, Track Work	Evening	46	60	57.3	76	Y	Reverse squawker observed for Hydrema Reverse squawker observed for Excavator Other equipment includes x3 LVs as well as another excavator and hydrema that weren't operational
9/09/2025	10:07	15 min	1 Edgar Street, Junee	Pre-Possession	Bridge Demolition	Standard day	45	87	58	80.4	Y	Bridge demolition activities including the removal of cement footpath. Deliveries and installation of fencing and materials. Measurement taken approximately 10m from receiver and 10-100m from works.
9/09/2025	11:23	15 min	2-4 Turland St, Illabo	Pre-Possession	Compound operations	Standard day	51	60	60.4	80.1	Y	Highway noise was dominant source throughout measurement. LAeq exceeded predicted NML by 0.4dB which is attributed to non-project noise sources (traffic), therefore noise level considered compliant. LA90 (38.4) is compliant with predicted level
9/09/2025	09:30	15 min	1 Pretoria Ave, Junee	Pre-Possession	Bridge Demolition	Standard day	52	72	61.5	77.7	Y	Bridge demolition activities including the removal of bridge cement footpath, Site set up and light vehicle movements. Local traffic was also audible. Measurement was taken approximately 30m from receivers and 50-150m from works
9/09/2025	12:02	15 min	701 Olympic Highway, Marinna	Pre-Possession	Survey, Deliveries	Standard day	51	60	71.1	90	Y	Residence is 100m further away from works compared to monitoring point. Highway noise dominated the measurement. NML exceedance attributed to non-project noise sources (traffic), therefore noise level considered compliant.
11/09/2025	14:36	15 min	Locomotive Hotel, Junee	Pre-Possession	Demolition of bridge, concrete hammering	Standard day	60	78	68.1	89.5	Y	Removal of concrete using excavator with hammers, roller and front end loader working underneath bridge to prepare access track (100m from monitoring point). Pre-possession demolition activities, hammering of concrete (30T excavator + large 1600kg hammer) is noisiest activity associated with bridge demolition and dominated the measurement. LAeq was compliant with predicted noise level.
11/09/2025	15:15	15 min	7 Railway Parade, Junee	Pre-Possession	Demolition of bridge, concrete hammering	Standard day	52	80	71.5	88.2	Y	Noise monitoring in accordance with CNVIS bridge demolition scenario. Demolition of concrete using 30T excavators with hammer 1600kg, 1 large excavator for collection of debris, and preparation of the access track using a positruck, a roller and a FEL (50m from monitoring point). Hammering of concrete is noisiest activity associated with bridge demolition and dominated the measurement. LAeq was compliant with predicted noise level.
11/09/2025	16:15	15 min	1 Edgar Street, Junee	Pre-Possession	Bridge demolition, concrete hammering	Standard day	52	88	77	90	Y	Noise monitoring in accordance with CNVIS bridge demolition scenario. Pre-possession demolition activities (50m from monitoring point), hammering of concrete is noisiest activity associated with bridge demolition and dominated the measurement. 2x 30T excavators with 1600kg hammers, and 1 large excavator for debris. LAeq was compliant with predicted noise level.
12/09/2025	11:25	15 min	1 Edgar Street, Junee	September 2025 Possession	Bridge Work, Bridge Demolition	Standard day	52	87	81.7	94.4	Y	Noise monitoring in accordance with CNVIS bridge demolition scenario. Possession demolition activities, hammering of concrete (30T excavator + large 1600kg hammer) is noisiest activity associated with bridge demolition and dominated the measurement. LAeq was compliant with predicted noise level.
12/09/2025	20:17	15 min	2-4 Turland St, Illabo, Illabo	September 2025 Possession	compound operations, traffic control set up at Illabo level crossing, LV access & egress.	Evening	46	87	68.5	77.4	Y	Compound activities were approximately 120m from monitoring point. LAeq was compliant with predicted levels.
12/09/2025	23:25	15 min	7 Railway Parade, Junee	September 2025 Possession	Hammering of concrete using an excavator with hammer attachment	Night	40	80	76.5	93.7	Y	Attended noise monitoring in accordance with CNVIS scenario bridge demolition. Primary activity: hammering of concrete with 30T excavator + large 1600kg hammer attachment (50m from monitoring point). Works were halted for approximately half of the sample duration due to a passing train. Hammering recommenced once train safely passed.
13/09/2025	1:27	15 min	493 Olympic Highway, Marinna	September 2025 Possession	Ballast Tamper and Regulator	Night	40	59	42.2	69.4	Y	Attended noise monitoring conducted in accordance with CNVIS scenario. Ballast tamping and regulator operating approximately 500m north of monitoring location. House 150m further from works and highway noise dominated the

Date	Time (Hrs)	Duration (Min)	Location	Construction Activities	Audible Construction Activities	Period	NML	Predicted construction Noise Level (L _{Aeq,15min}) dB	L _{Aeq} 15 minute dB	L _{Amax} dB	Compliant (Y/N)	Comments
												measurement. LAeq 42.2 - sample compliant. No highway traffic passing during sample. Sample reflective of construction works.
13/09/2025	8:35	15 min	7 Tooheys Lane, Illabo	September 2025 Possession	Shoulder recon, compound operation	Standard day	51	69	61.1	80.3	Y	Highway road noise was the most dominant noise source. File 025. Equipment includes x2 excavators, x2 Hydremas x3 LVs
13/09/2025	9:08	15 min	2-4 Turland St, Illabo, Illabo	September 2025 Possession	Compound Operation, Drainage Works	Standard day	51	60	51.9	66.9	Y	File 026. Cannot hear MR related activities, only MR noise audible was truck leaving the compound (site egress was 120m from monitoring point). Equipment includes LVs/Truck at Compound & Excavator, Hydrema at Culverts (approximately 220m from monitoring point)
13/09/2025	14:25	15 min	1 Edgar Street, Junee, Junee	September 2025 Possession	Cutting Bridge Beams, Dust Suppression	Standard day	52	87	64.7	75.3	Y	Oxycutter used to cut steel beams (50m from monitoring point). LAeq compliant with predicted levels.
13/09/2025	14:56	15 min	1 Pretoria Ave, Junee	September 2025 Possession	compound operations, traffic control, bridge demolition	Standard day	52	72	60.8	76.4	Y	Noise monitoring in proximity to compound to capture site activities (50m from monitoring point), bridge demolition occurring simultaneously (150m from monitoring point). LAeq compliant with predicted levels.
13/09/2025	19:41	15 min	7 Tooheys Lane, Illabo	September 2025 Possession	Site compound and stockpile operation	Evening	46	60	42.5	72.7	Y	Monitoring operation of Illabo ballast and capping stockpile area (120m from monitoring point). Equipment includes excavator and hi-rail hydremas. LAeq compliant with predicted levels.
13/09/2025	19:57	15 min	534 Young Street, Albury	September 2025 Possession	Removal of main panel, compound operations	Evening	50	53	55.3	68.1	Y	Overall, significant non-project-related traffic was observed along Hume Highway and Riverina Highway. The only project-related noise heard during the 15-minute monitoring period was the idling noise from the lighting towers, which was barely perceptible from the monitoring location. An LA90 of 51.9 dB was recorded, reflecting the road traffic noise in the area. This figure is consistent with the predicted noise level at 534 Young Street (53 dB).
13/09/2025	20:28	15 min	1 Edgar Street, Junee	September 2025 Possession	Bridge demo, concrete hammering	Evening	47	60	52.5	74.1	Y	Attended noise in accordance with CNVIS bridge demolition scenario (50m from monitoring point). LAeq in compliance with predicted levels. Sample representative of construction works.
13/09/2025	21:58	15 min	418 Wilson Street, Albury	September 2025 Possession	Geotechnical Testing, Spoil Movement, and Stockpiles Shaping	Evening	50	60	62.5	83.4	Y	No construction-related noise was heard, and no MR vehicles were observed. - All noise originated from traffic on Wilson Street, Riverina Highway, and Hume Highway. - A traffic light is located at the corner, less than 20m from the monitoring point, where cars stop, accelerate, queue, and occasionally sound their horns. - Five pedestrians passed the monitoring point during the 15-minute attended monitoring period. - LA90 (51.8 dB) is below the expected noise level exceedance.
14/09/2025	0:36	15 min	7 Railway Parade, Junee	September 2025 Possession	Bridge demo: Cutting steel, hammering	Night	40	80	60.7	82.6	Y	Attended noise in accordance with CNVIS bridge demolition scenario (50m from monitoring point). LAeq in compliance with predicted levels. Sample representative of construction works.
14/09/2025	1:11	15 min	376 Wilson Street, Albury	September 2025 Possession	ULX works, bedding layer underway, backfilling pipes	Night	46	56	64.9	94.2	Y	Noise levels were very low, with an LA90 of 32.8 dB. - Road traffic noise and construction noise were barely noticeable, with the latter mainly coming from the squawker. - No vehicles were observed on Wilson Street. - It should be noted that two peaks were recorded due to noise from the radio during monitoring (94.2 dB).
14/09/2025	2:33	15 min	1 Pretoria Ave, Junee	September 2025 Possession	Preparation for span lift 3 and breaking down of concrete and steel	Night	40	72	57.9	70	Y	Preparation for span lift 3 (150m from monitoring point) and breaking down of concrete and steel (25m from monitoring point). Attended noise in accordance with noise modelling for debris processing area. LAeq in compliance with predicted levels. Sample representative of construction works.
14/09/2025	3:06	15 min	63 Seignor Street, Junee	September 2025 Possession	Hammering of concrete. Cutting of steel	Night	40	71	60	72.1	Y	Hammering of concrete (150m from monitoring point). Cutting of steel in exclusion area using excavator with claw attachment, compound operations approximately 30m from monitoring point. LAeq in compliance with predicted levels for debris processing area. Sample representative of construction works.

Date	Time (Hrs)	Duration (Min)	Location	Construction Activities	Audible Construction Activities	Period	NML	Predicted construction Noise Level (L _{Aeq,15min}) dB	L _{Aeq} 15 minute dB	L _{Amax} dB	Compliant (Y/N)	Comments
14/09/2025	3:59	15 min	2-4 Turland St, Illabo, Illabo	September 2025 Possession	Culvert works, material tracking	Day OOH	47	54	53.3	68.8	Y	Culvert works occurring in background approximately 500m south throughout monitoring. LAeq compliant with predicted levels.
14/09/2025	7:24	15 min	1 Pretoria Ave, Junee	September 2025 Possession	Bridge Demolition, Compound operations	Day OOH	47	72	65.6	84.2	Y	Bridge demolition activities of processing the steel/concrete waste approximately 50m from monitoring location. Compound operations and deliveries also occurring. Local traffic also audible. LAeq compliant with predicted levels.
14/09/2025	9:13	15 min	1 Pretoria Ave, Junee	September 2025 Possession	Bridge Demolition, Compound Operation.	Day OOH	47	72	63.8	83.7	Y	Bridge demolition activities of concrete/steel processing approximately 50m from monitoring location. Compound operation, dust suppression and traffic control also occurring. Local traffic, birds and dogs barking also audible. LAeq compliant with predicted levels.
14/09/2025	9:42	15 min	426 Waterworks Rd, Wanitoool	September 2025 Possession	Ballast Regulator	Day OOH	47	49	60.5	84.3	Y	Ballast regulator operating approximately 30m from noise monitor. The residence is 500m further from the worksite, therefore, the noise would be at a compliant level for the receiver.
14/09/2025	10:40	15 min	493 Olympic Highway, Marinna	September 2025 Possession	Tamping, Ballast regulator	Day OOH	47	59	63.4	82.7	Y	House 150m further from works and highway noise dominated the measurement. Construction works occurring 200m from noise monitor. NML exceedance attributed to non-project noise sources (traffic), therefore noise level considered compliant.
14/09/2025	11:08	15 min	701 Olympic Highway, Marinna	September 2025 Possession	Track Tamping	Day OOH	47	60	66.7	87	Y	House 100m Further away from works compared to monitoring point; Highway noise dominated the measurement.. NML exceedance attributed to non-project noise sources (traffic), therefore noise level considered compliant.
14/09/2025	11:40	15 min	701 Olympic Highway, Marinna	September 2025 Possession	Track Tamping	Day OOH	47	60	71.4	87.2	Y	Residence is 100m further away from works compared to monitoring point. Construction works occurring 100m-50m from the noise metre with the Ballast tamper being at its closest possible distance to the receiver during this measurement. Sample was representative of worksite noise noting that non construction related sources, highway traffic, were the dominant noise source. Therefore, noise level is considered compliant.
14/09/2025	15:05	15 min	1 Edgar Street, Junee	September 2025 Possession	Bridge Demolition	Day OOH	47	87	60	80.1	Y	Bridge demolition activities including oxy-cutter usage, crane stabilising trestles and excavator clearing debris. Noise measurement captured approximately 25-100m from works; 10 from residence. Dogs barking and local traffic audible. LAeq compliant with predicted levels.
14/09/2025	20:52	15 min	Locomotive Hotel, Junee	September 2025 Possession	Bridge Demolition, steel cutting and lift preparation.	Evening	47	78	54.5	76.7	Y	Attended noise monitoring in accordance with CNVIS scenario for bridge demolition. Cutting steel with oxycutter, hooking crane onto span for next lift (100m from monitoring point). Sample representative of construction works. minutes 9 onwards were the loudest points during the demolition with the release of steel / falling debris. Faint local traffic could be heard from main road. LAeq level compliant with CNVIS predict levels.
14/09/2025	21:20	15 min	1 Edgar Street, Junee	September 2025 Possession	Bridge Demolition, Cutting of steel, bridge demolition preparation for next lift with crane	Evening	47	87	61.9	77.7	Y	Attended noise monitoring in accordance with CNVIS scenario for bridge demolition. Cutting steel with oxycutter, hooking crane onto span for next lift (50m from monitoring point). Attended noise in accordance with CNVIS scenario for bridge demolition. LAeq in compliance with predicted levels.
15/09/2025	0:31	15 min	7 Railway Parade, Junee	September 2025 Possession	Bridge Demolition, span lift	Night	40	80	57.9	73.9	Y	Attended noise monitoring during lift of span using crane (50m from monitoring point). LAeq in compliance with predicted levels.
15/09/2025	1:48	15 min	641 Young Street, Albury	September 2025 Possession	Tamper on main line, installation of loop line	Night	46	66	44.2	75.5	Y	Noise was barely noticeable, with the main contribution coming from Hume Highway traffic and cars passing along Young Street, stopping at the traffic lights. Construction noise was limited to a reversing beeper, which was also barely noticeable. The measured LA90 was 40.2 dB, which is below the NML for NCA02.

Date	Time (Hrs)	Duration (Min)	Location	Construction Activities	Audible Construction Activities	Period	NML	Predicted construction Noise Level (L _{Aeq,15min}) dB	L _{Aeq} 15 minute dB	L _{Amax} dB	Compliant (Y/N)	Comments
15/09/2025	2:25	15 min	428 Guinea Street, Albury	September 2025 Possession	Work and tamping on loop panels	Night	46	61	53.7	76.7	Y	The recorded LA90 was 39.1 dB, with the dominant noise originating from road traffic on the Hume Hwy and Riverina Hwy. The reverse beeper was audible for only a few minutes, and upon notification, the machine was turned off. An excavator with a squawker was then used as a replacement.
15/09/2025	12:07	15 min	1 Pretoria Ave, Junee	September 2025 Possession	Compound operation, material processing/sorting	Standard Day	52	79	56.6	78.1	Y	70.8 dB measured when motorbike drove past noise monitor. Wind felt during monitoring. Excavator not audible from monitoring location. LAeq compliant with predicted levels.
29/09/2025	11:51	15 min	26 Brookong Ave, Wagga Wagga	SAQP	Borehole drilling near Cassidy Parade	Standard day	58	70	49.1	67.8	Y	Saw/Drill from local construction (non-MR) dominated over the NDD truck (approximately 150m from monitoring point). LAeq compliant with predicted levels.
29/09/2025	16:36	15 min	2 Kildare Steet, Turvey Park	SAQP	Borehole drilling near Cassidy Parade	Standard day	58	71	46.5	65.8	Y	Monitoring during SAQP investigations work occurring in rail corridor. Birds and distant road noise were dominant noise source. Only excavator was operating (approximately 50m from monitoring point), x3 LVs parked up and not operating. LAeq compliant with predicted levels.



APPENDIX B

Vibration Monitoring Summary

TABLE 16: VIBRATION MONITORING - HUMAN COMFORT

Monitoring Location	Date	Works Being Carried Out	Attended or Continuous	Event Based Monitoring	SiteHive Data VDV Maximum (m/s ²)	VDV preferred values Criteria (m/s ²)	VDV Maximum values Criteria (m/s ²)	Compliant	Comments
1 Edgar St, Junee - Residential	10/09/2025 Day	Pre-possession and Possession scope: Bridge demolition, concrete hammering using excavators with large hydraulic hammer attachment. Movement of trucks and plant on work area in Edgar St.	Continuous	Yes	0.18 - z	0.20 - z	0.40 - z	Y	Pre-possession measurements include trains passing.
	10/09/2025 Night		Continuous	Yes	0.01 - z	0.13 - z	0.26 - z	Y	Pre-possession measurements include trains passing
	11/09/2025 Day		Continuous	Yes	0.08 - z	0.20 - z	0.40 - z	Y	Pre-possession measurements include trains passing
	11/09/2025 Night		Continuous	Yes	0.01 - z	0.13 - z	0.26 - z	Y	Pre-possession measurements include trains passing
	12/09/2025 Day		Continuous	Yes	0.08 - z	0.20 - z	0.40 - z	Y	Pre-possession measurements include trains passing
	12/09/2025 Night		Continuous	Yes	0.02 - z	0.13 - z	0.26 - z	Y	
	13/09/2025 Day		Continuous	Yes	0.15 - z	0.20 - z	0.40 - z	Y	
	13/09/2025 Night		Continuous	Yes	0.05 - z	0.13 - z	0.26 - z	Y	

Monitoring Location	Date	Works Being Carried Out	Attended or Continuous	Event Based Monitoring	SiteHive Data VDV Maximum (m/s ²)	VDV preferred values Criteria (m/s ²)	VDV Maximum values Criteria (m/s ²)	Compliant	Comments
	14/09/2025 Day		Continuous	Yes	0.14 – z	0.20 - z	0.40 - z	Y	
	14/09/2025 Night		Continuous	Yes	0.06 – z	0.13 - z	0.26 - z	Y	
	15/09/2025 Day		Continuous	Yes	0.05 - z	0.20 - z	0.40 - z	Y	
7 Railway Pde, Junee - Residential	10/09/2025 Day	Pre-possession and Possession scope: Bridge demolition, concrete hammering using excavators with large hydraulic hammer attachment.	Continuous	Yes	0.03 – z	0.20 - z	0.40 - z	Y	Pre-possession measurements include trains passing
	10/09/2025 Night		Continuous	Yes	0.01 – z	0.13 - z	0.26 - z	Y	Pre-possession measurements include trains passing
	11/09/2025 Day		Continuous	Yes	0.1 – z	0.20 - z	0.40 - z	Y	Pre-possession measurements include trains passing
	11/09/2025 Night		Continuous	Yes	0.01 – z	0.13	0.26 - z	Y	Pre-possession measurements include trains passing
	12/09/2025 Day		Continuous	Yes	0.02 – z	0.20 - z	0.40 - z	Y	Pre-possession measurements include trains passing

Monitoring Location	Date	Works Being Carried Out	Attended or Continuous	Event Based Monitoring	SiteHive Data VDV Maximum (m/s ²)	VDV preferred values Criteria (m/s ²)	VDV Maximum values Criteria (m/s ²)	Compliant	Comments
	12/09/2025 Night		Continuous	Yes	0.04 – z	0.13 - z	0.26 - z	Y	
	13/09/2025 Day		Continuous	Yes	0.17 – z	0.20 - z	0.40 - z	Y	
	13/09/2025 Night		Continuous	Yes	0.01 – z	0.13 - z	0.26 - z	Y	
	14/09/2025 Day		Continuous	Yes	0.02 – z	0.20 - z	0.40 - z	Y	
	14/09/2025 Night		Continuous	Yes	0.01 – z	0.13 - z	0.26 - z	Y	
	15/09/2025 Day		Continuous	Yes	0.03 – z	0.20 - z	0.40 - z	Y	

TABLE 17: VIBRATION MONITORING - COSMETIC DAMAGE

Monitoring Location	Date	Works Being Carried Out	Attended or Continuous	Event Based Monitoring	Daily Measured PPV vSum (mm/s)	Cosmetic Damage Criteria (mm/s)	Compliant	Comments
1 Edgar St, Junee - Residential	10/09/2025 0:00	Pre-possession and Possession scope: Bridge demolition, concrete hammering using excavators with large hydraulic hammer attachment. Movement of trucks and plant in work area on Edgar St.	Continuous	Yes	17.996	7.5	Y	Pre-possession measurements include trains passing. There was a spike in PPV at 17:00. Following review of the data and works undertaken onsite, this spike was determined to be an isolated short-term event that is not attributed to construction activities.
	11/09/2025 0:00		Continuous	Yes	5.978	7.5	Y	Pre-possession measurements include trains passing
	12/09/2025 0:00		Continuous	Yes	4.797	7.5	Y	Pre-possession (day shift) measurements include trains passing
	13/09/2025 0:00		Continuous	Yes	14.304	7.5	Y	Large spike at approximately 08:10. Following review of the data and works undertaken onsite, this spike was determined to be an isolated short-term event that is not attributed to construction activities.
	14/09/2025 0:00		Continuous	Yes	12.678	7.5	Y	Concrete hammering was complete, only span lifts with crane were occurring during

Monitoring Location	Date	Works Being Carried Out	Attended or Continuous	Event Based Monitoring	Daily Measured PPV vSum (mm/s)	Cosmetic Damage Criteria (mm/s)	Compliant	Comments
								the day shift on Sunday 14 th September. Large spike in data at approximately 07:15. Following review of the data and works undertaken onsite, this spike was determined to be an isolated short-term event that is not attributed to construction activities.
	15/09/2025 0:00		Continuous	Yes	3.684	7.5	Y	
7 Railway Pde, Junee - Residential	10/09/2025 0:00	Bridge demolition, concrete hammering using excavators with large hydraulic hammer attachment.	Continuous	Yes	1.129	7.5	Y	
	11/09/2025 0:00		Continuous	Yes	1.975	7.5	Y	
	12/09/2025 0:00		Continuous	Yes	0.812	7.5	Y	
	13/09/2025 0:00		Continuous	Yes	13.683	7.5	Y	Large spike at approximately 12:19 was a result of the AA testing the vibration monitor and is not representative of the works.
	14/09/2025 0:00		Continuous	Yes	0.575	7.5	Y	

Monitoring Location	Date	Works Being Carried Out	Attended or Continuous	Event Based Monitoring	Daily Measured PPV vSum (mm/s)	Cosmetic Damage Criteria (mm/s)	Compliant	Comments
	15/09/2025 0:00		Continuous	Yes	1.506	7.5	Y	
Marinna Silos - Industrial	13/09/2025 0:00	September Possession Scope; Culvert replacements, Shoulder recon works requiring Hi-rail equipment along alignment. Shoulder Recon - Tamping occurred on the DN Main in proximity to the Marinna Silos. A CC10 (1-2T) vibratory roller was also used in the corridor during the shoulder recon.	Continuous	Yes	0.243	25	Y	
	14/09/2025 0:00		Continuous	Yes	0.776	25	Y	
	15/09/2025 0:00		Continuous	Yes	0.872	25	Y	
Riverina highway	13/09/2025	Possession Prep works	Continuous	Yes	1.5	3.0	Y	
	14/09/2025	September Possession works: ULX drainage and track works.	Continuous	Yes	1.2	3.0	Y	
	15/09/2025		Continuous	Yes	3.3	3.0	Y	The spike is considered unlikely to be associated with construction activities, as only track welding was taking place at the time of recording (08:00) which does not utilise any

Monitoring Location	Date	Works Being Carried Out	Attended or Continuous	Event Based Monitoring	Daily Measured PPV vSum (mm/s)	Cosmetic Damage Criteria (mm/s)	Compliant	Comments
								vibration intensive plant or equipment.



APPENDIX C

Surface Water Quality Monitoring Reports

July Surface Water Results

Sample ID	NTU	pH	DO	EC	Temp	TSS	Al	As	Cd	Cr	Cu	Pb	Mn	Ni	Zn	Fe	Hg	NOx	TKN	Total N	Total P	Chlorophyll-a	Chemical Oxygen Demand	Biological Oxygen Demand	Naphthalene	TRH C6-C9	TRH C10-C36	TRH C6-C10 minus BTEX (F1)	TRH C16-C34 (F3)	TRH C34-C40 (F4)	TRH C10-C16 minus naphthalene (F2)	Benzene	Toluene	Ethylbenzene	Xylenes
SW01 – US*	6.1	7.75	12.41	44	9.56	5	0.22	0.002	<0.0001	<0.001	<0.001	<0.001	0.02	<0.001	0.01	0.25	<0.0001	0.07	<0.1	<0.1	0.01	4	<10	3	<5	<20	<50	<20	<100	<100	<100	<1	<2	<2	<2
SW01 – DS*	6.4	7.67	11.66	51	10.58	20	0.35	<0.001	<0.0001	<0.001	<0.001	<0.001	0.042	<0.001	<0.005	0.48	<0.0001	0.1	0.2	0.3	<0.01	5	<10	3	<5	<20	<50	<20	<100	<100	<100	<1	<2	<2	<2
SW02 – US*	51.5	7.49	9.06	95	9.8	21	9.32	0.002	<0.0001	0.008	0.007	0.004	0.09	0.005	0.046	7.06	<0.0001	0.01	1	1	0.15	2	40	5	<5	<20	<50	<20	<100	<100	<100	<1	<2	<2	<2
SW02 – DS*	71	8.06	11.05	103	9.19	32	17.4	0.002	<0.0001	0.015	0.013	0.007	0.129	0.007	0.034	13.3	<0.0001	0.1	1	1.1	0.17	<1	42	3	<5	<20	<50	<20	<100	<100	<100	<1	<2	<2	<2
SW03 – US*	51.9	7.84	8.39	7930	9.32	128	2.85	0.003	<0.0001	0.003	0.002	0.003	0.333	0.002	0.01	4.18	<0.0001	0.9	1.9	2.8	0.17	61	47	6	<5	<20	<50	<20	<100	<100	<100	<1	<2	<2	<2
SW03 – DS*	52.1	7.74	14.09	7790	9.39	46	1.65	0.003	<0.0001	0.002	0.002	0.004	0.102	0.002	0.006	2.66	<0.0001	0.97	1.2	2.2	0.11	10	45	3	<5	<20	<50	<20	<100	<100	<100	<1	<2	<2	<2
SW04 – US*	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST
SW04 – DS*	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST
SW05 – US*	19.2	7.61	16.25	103	9.25	10	6.74	0.003	<0.0001	0.005	0.008	0.002	0.057	0.006	0.027	4.87	<0.0001	0.14	1.3	1.4	0.12	3	78	4	<5	<20	<50	<20	<100	<100	<100	<1	<2	<2	<2
SW05 – DS*	37.5	7.62	10.35	103	9.56	14	10.7	0.003	<0.0001	0.008	0.01	0.003	0.046	0.008	0.036	7.44	<0.0001	0.28	1.6	1.9	0.16	4	95	4	<5	<20	<50	<20	<100	<100	<100	<1	<2	<2	<2
SW06 – US*	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST
SW06 – DS*	14.6	7.69	12.4	60	10.22	7	0.96	<0.001	<0.0001	0.001	0.002	<0.001	0.024	0.002	0.073	0.88	<0.0001	0.09	0.9	1	0.07	8	45	4	<5	<20	<50	<20	<100	<100	<100	<1	<2	<2	<2
SW07 – US*	23.4	8.99	9.91	3698	10.68	18	0.8	<0.001	<0.0001	<0.001	0.002	<0.001	0.038	<0.001	0.017	1.02	<0.0001	0.34	0.7	1	0.09	31	33	4	<5	<20	<50	<20	<100	<100	<100	<1	<2	<2	<2
SW07 – DS*	26.4	8.18	8.89	4270	10.26	20	0.77	<0.001	<0.0001	<0.001	0.002	<0.001	0.032	0.001	0.022	0.87	<0.0001	0.24	0.6	0.8	0.08	50	32	5	<5	<20	<50	<20	<100	<100	<100	<1	<2	<2	<2
SW08 – US*	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST
SW08 – DS*	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST
SW09 – US*	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST
SW09 – DS*	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST

✓ – parameter does not exceed criteria

✗ – parameter exceeds criteria

NST – No Sample Taken*No construction activities had commenced within the catchment of this sample at the time of sampling.

August Surface Water Results

Sample ID	NTU	pH	DO	EC	Temp	TSS	Al	As	Cd	Cr	Cu	Pb	Mn	Ni	Zn	Fe	Hg	NOx	TKN	Total N	Total P	Chlorophyll-a	Chemical Oxygen Demand	Biological Oxygen Demand	Naphthalene	TRH C6-C9	TRH C10-C36	TRH C6-C10 minus BTEX (F1)	TRH C16-C34 (F3)	TRH C34-C40 (F4)	TRH C10-C16 minus naphthalene (F2)	Benzene	Toluene	Ethylbenzene	Xylenes
SW01 – US*	25.9	5.96	8.63	13	9.66	28	0.2	<0.001	<0.0001	<0.001	<0.001	<0.001	0.009	<0.001	<0.005	0.26	<0.0001	0.24	0.2	0.4	0.11	2.82	13	<2	<5	<20	<50	<20	<100	<100	<100	<1	<2	<2	<2
SW01 – DS*	60.5	6.61	7.36	0.028	11.75	37	0.26	<0.001	<0.0001	<0.001	<0.001	<0.001	0.104	<0.001	<0.005	0.65	<0.0001	0.24	0.3	0.5	0.08	6.42	<10	<2	<5	<20	<50	<20	<100	<100	<100	<1	<2	<2	<2
SW02 – US*	32.5	6.45	18.81	47	8.38	33	5.95	<0.001	<0.0001	0.006	0.004	0.002	0.032	0.003	0.024	4.66	<0.0001	0.22	0.8	1	0.09	16.6	<10	<2	<5	<20	<50	<20	<100	<100	<100	<1	<2	<2	<2
SW02 – DS*	28	6.48	7.08	3	11.09	21	3.54	<0.001	<0.0001	0.003	0.003	0.002	0.064	0.003	0.012	3.14	<0.0001	0.11	0.6	0.7	0.09	1.11	29	<2	<5	<20	<50	<20	<100	<100	<100	<1	<2	<2	<2
SW03 – US*	79.5	6.56	13.23	169	9.75	64	1.32	0.001	<0.0001	0.001	<0.001	0.002	0.059	0.001	0.005	1.86	<0.0001	0.96	1.3	2.3	0.2	12.5	20	<2	<5	<20	<50	<20	<100	<100	<100	<1	<2	<2	<2
SW03 – DS*	75.6	7.26	7.81	189	9.5	62	3.07	0.002	<0.0001	0.003	0.003	0.003	0.099	0.002	0.008	3.77	<0.0001	0.95	0.8	1.8	0.17	10	<10	<2	<5	<20	<50	<20	<100	<100	<100	<1	<2	<2	<2
SW04 – US*	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST
SW04 – DS*	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST
SW05 – US*	61.6	7.01	5.93	76	10.13	69	7.61	0.002	<0.0001	0.008	0.005	0.002	0.093	0.006	0.016	5.93	<0.0001	5.36	2.9	8.2	0.29	11.6	38	<2	<5	<20	<50	<20	<100	<100	<100	<1	<2	<2	<2
SW05 – DS*	121	7.19	12.5	29	11.14	49	6.12	0.002	<0.0001	0.006	0.005	0.002	0.043	0.006	0.016	4.83	<0.0001	6.54	2.7	9.2	0.29	147	34	3	<5	<20	<50	<20	<100	<100	<100	<1	<2	<2	<2
SW06 – US*	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST
SW06 – DS*	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST
SW07 – US*	5.5	7.89	11.2	158	8.34	15	0.12	<0.001	<0.0001	<0.001	<0.001	<0.001	0.037	0.001	0.01	0.34	<0.0001	0.27	0.4	0.7	0.09	5.77	<10	<2	<5	<20	<50	<20	<100	<100	<100	<1	<2	<2	<2
SW07 – DS*	8.9	7.79	9.61	1020	8.96	8	0.07	<0.001	<0.0001	<0.001	<0.001	<0.001	0.043	<0.001	0.011	0.18	<0.0001	0.12	0.3	0.4	0.08	4.58	<10	<2	<5	<20	<50	<20	<100	<100	<100	<1	<2	<2	<2
SW08 – US*	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST
SW08 – DS*	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST
SW09 – US*	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST
SW09 – DS*	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST

✓ – parameter does not exceed criteria

✗ – parameter exceeds criteria

NST – No Sample Taken

*No construction activities had commenced within the catchment of this sample at the time of sampling.

September Surface Water Results

Sample ID	NTU	pH	DO	EC	Temp	TSS	Al	As	Cd	Cr	Cu	Pb	Mn	Ni	Zn	Fe	Hg	NOx	TKN	Total N	Total P	Chlorophyll-a	Chemical Oxygen Demand	Biological Oxygen Demand	Naphthalene	TRH C6-C9	TRH C10-C36	TRH C6-C10 minus BTEX (F1)	TRH C16-C34 (F3)	TRH C34-C40 (F4)	TRH C10-C16 minus naphthalene (F2)	Benzene	Toluene	Ethylbenzene	Xylenes	
SW01 – US	11.5	6.99	11.13	0.009	11.85	8	0.22	<0.001	<0.0001	<0.0001	0.001	<0.001	0.026	<0.001	<0.005	0.29	<0.0001	0.05	0.2	0.2	<0.01	4	<10	2	<5	<20	<50	<20	<100	<100	<100	<1	<2	<2	8	
SW01 – DS	6.9	6.67	11.92	0.028	11.75	<5	0.18	<0.001	<0.0001	<0.0001	<0.001	<0.001	0.024	<0.001	<0.005	0.23	<0.0001	0.05	0.2	0.2	0.04	3	<10	<2	<5	<20	<50	<20	<100	<100	<100	<1	<2	<2	<5	
SW02 – US*	57.2	7.27	11.57	0.046	10.28	23	12.4	0.002	<0.0001	0.01	0.007	0.004	0.075	0.006	0.036	9.59	<0.0001	0.07	0.9	1	0.1	1	28	2	<5	<20	<50	<20	<100	<100	<100	<1	<2	<2	23	
SW02 – DS*	49	7.11	10.74	0.058	11.03	11	3.94	0.001	<0.0001	0.004	0.002	0.002	0.072	0.002	0.007	3.34	<0.0001	0.02	0.4	0.4	0.05	<1	<10	2	<5	<20	<50	<20	<100	<100	<100	<1	<2	<2	11	
SW03 – US*	93.3	7.28	10.49	0.156	10.98	16	0.57	0.002	<0.0001	<0.001	<0.001	0.001	0.1	<0.001	<0.005	1.22	<0.0001	0.19	0.5	0.7	0.04	14	10	3	<5	<20	<50	<20	<100	<100	<100	<1	<2	<2	16	
SW03 – DS*	91.1	7.97	11.36	0.14	11	16	0.49	0.001	<0.0001	<0.001	<0.001	<0.001	0.081	0.001	<0.005	1.07	<0.0001	0.2	0.6	0.8	0.06	18	10	3	<5	<20	<50	<20	<100	<100	<100	<1	<2	<2	16	
SW04 – US*	45.2	7.27	13.93	0.037	12.02	<5	1.98	0.009	<0.0001	0.003	0.003	0.002	0.302	0.003	0.028	4.24	<0.0001	0.18	1.4	1.6	0.36	1	28	3	<5	<20	<50	<20	<100	<100	<100	<1	<2	<2	<5	
SW04 – DS*	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	
SW05 – US*	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST
SW05 – DS*	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST
SW06 – US*	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST
SW06 – DS*	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST
SW07 – US	23.5	7.04	50	859	13.08	19	0.74	0.001	<0.0001	0.001	0.002	<0.001	0.11	0.002	0.016	1	<0.0001	0.97	0.8	1.8	0.06	17	11	4	<5	<20	<50	<20	<100	<100	<100	<1	<2	<2	19	
SW07 – DS	17.2	8.06	18.18	1118	14.36	12	0.97	0.001	<0.0001	0.002	0.002	<0.001	0.089	0.002	0.016	1.09	<0.0001	0.6	0.6	1.2	0.07	19	<10	3	<5	<20	<50	<20	<100	<100	<100	<1	<2	<2	12	
SW08 – US*	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST
SW08 – DS*	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST
SW09 – US*	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST
SW09 – DS*	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST	NST

✓ – parameter does not exceed criteria
 ✗ – parameter exceeds criteria
 NST – No Sample Taken
 *No construction activities had commenced within the catchment of this sample at the time of sampling.



APPENDIX D

Calibration Certificates



HK Calibration Technologies Pty Ltd
ACN: 152 274 014 ABN: 84 152 274 014
Postal Address: PO Box 4489, North Rocks, 2151
NSW Australia

T: 1300 309 881 F: 1300 885 178
Email: info@hkcalibrations.com.au
Web: www.hkcalibrations.com.au



CALIBRATION CERTIFICATE REPORT NO.: 191429-1

DATE OF CALIBRATION : 03/09/2025 **LOCATION** : CALIBRATION LAB
RECOMMENDED DUE DATE: 03/09/2026 **ENVIRONMENT** : TEMPERATURE: 23.0 ± 2°C
HUMIDITY: 45% ± 10% RH

CUSTOMER : MARTINUS RAIL PTY LTD-SOUTH ALBURY
ADDRESS : INLAND RAIL: A2P LEVEL 1, 519 NURIGONG STR. SOUTH ALBURY NSW 2640

INSTRUMENT DETAIL : INSTRUMENT NAME : SOUND LEVEL METER
MANUFACTURER : RION
MODEL : NL-42
SERIAL NUMBER : 00509260
ASSET NUMBER : NOT FOUND
TYPE : DIGITAL
RANGE : -

CALIBRATION PROCEDURE : HKC SOP 11-21-V3 (AS/NZS IEC 61672.2:2019)

REFERENCE NATA TRACEABLE CERTIFIED... : SOUND LEVEL CALIBRATOR, SOUND LEVEL METER
MAKE : LUTRON, LUTRON
MODEL: SC-942, SL-4001
ASSET: HKC016, HKC057
SERIAL NO: Q598203, Q449236
NATA REPORT NO: C53722

RESULT

Reading of Master	Reading of U.U.T.	Correction	Acceptance Criteria (±)	PASS/FAIL
dB@1KHZ	dB@1KHZ	dB@1KHZ	dB@1KHZ	PASS
94.0	94.0	0.00	1.5	PASS
114.0	114.0	0.00	1.5	PASS

CONCLUSION

THIS INSTRUMENT WAS FOUND PASS AND TO BE FUNCTIONING AS INDICATED BY OUR FINDINGS WITHIN THIS REPORT. NO ADJUSTMENTS AND REPAIRS WERE REQUIRED.

SIGNATURE OF APPROVAL

TEST BY CHINMAY

03/09/2025

DATE OF ISSUE

Note: The tests, calibrations, and measurements detailed in this document align with Australian/national standards. The reference standard used in the calibration is traceable to the Australian national standard via a NATA certified lab.

The applicable measurement uncertainties are calculated in accordance with the method described in the ISO Guide to the Expression of Uncertainty in Measurement, with confidence level of 95% using a coverage factor k=2.

Our calibration warranty extends for a period of 90 days. However, any damage resulting from customer mishandling or courier handling will void the warranty, unless there is evidence showing that the fault originated from calibration process as shown within this report.

This report is void of any erasures or corrections and may be reproduced solely in its complete form.

■ SYDNEY
Unit 3
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North Parramatta
NSW 2151

■ MELBOURNE
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VIC 3192

■ BRISBANE
Unit 8
87 Kelliher Road
Richlands
QLD 4077

■ ADELAIDE
Unit 8 Levels 1
186 Pulteney Street
Adelaide
SA 5000

■ PERTH
Unit 8
8 Aspiration Circuit
Bibra Lake
WA 6163

■ HOBART
Unit 8
17A Main Rd
Moonah
TAS 7009



Sound Level Meter

IEC 61672-3:2013

Calibration Certificate

Calibration Number C25411-V1

Client Details	Martinus Rail Pty Ltd 75 Miller Street North Sydney, NSW, 2060
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Equipment Tested :	<i>Manufacturer</i>	<i>Model</i>	<i>Serial</i>
Instrument :	Rion	NL-43	00730663
Microphone :	Rion	UC-52	205540
Pre-amplifier :	Rion	NH-24	33620
Firmware Version :	v1.00		

Pre-Test Atmospheric Conditions	Post-Test Atmospheric Conditions
Ambient Temperature : 22.3 °C	Ambient Temperature : 21.1 °C
Relative Humidity : 48.8 %	Relative Humidity : 47.2 %
Barometric Pressure : 99.88 kPa	Barometric Pressure : 99.8 kPa

Calibration Technician : Peter Elters	Secondary Check: Rhys Gravelle
Calibration Date : 01-Jul-2025	Report Issue Date : 01-Jul-2025

Approved Signatory :

Ken Williams

Clause and Characteristic Tested	Result	Clause and Characteristic Tested	Result
12: Acoustical Sig. tests of a frequency weighting	Pass	17: Level linearity incl. the level range control	N/A
13: Electrical Sig. tests of frequency weightings	Pass	18: Toneburst response	Pass
14: Frequency and time weightings at 1 kHz	Pass	19: C Weighted Peak Sound Level	Pass
15: Long Term Stability	Pass	20: Overload Indication	Pass
16: Level linearity on the reference level range	Pass	21: High Level Stability	Pass

The sound level meter submitted for testing has successfully completed the class 2 periodic tests of IEC 61672-3:2013, for the environmental conditions under which the tests were performed.

However, no general statement or conclusion can be made about conformance of the sound level meter to the full requirements of IEC 61672-1:2013 because evidence was not publicly available, from an independent testing organisation responsible for pattern approvals, to demonstrate that the model of sound level meter fully conformed to the requirements in IEC 61672-1:2013 and because the periodic tests of IEC 61672-3:2013 cover only a limited subset of the specifications in IEC 61672-1:2013.

Uncertainties of Measurement - Environmental Conditions			
Acoustic Tests		Temperature	±0.1 °C
125Hz	±0.13 dB	Relative Humidity	±1.9 %
1kHz	±0.13 dB	Barometric Pressure	±0.11 kPa
8kHz	±0.14 dB		
Electrical Tests	±0.13 dB		

All uncertainties are derived at the 95% confidence level with a coverage factor of 2.



WORLD RECOGNISED
ACCREDITATION

This calibration certificate is to be read in conjunction with the calibration test report.

Acoustic Research Labs Pty Ltd is NATA Accredited Laboratory Number 14172.
Accredited for compliance with ISO/IEC 17025 - Calibration.

The results of the tests, calibrations and/or measurements included in this document are traceable to SI units.

NATA is a signatory to the ILAC Mutual Recognition Arrangement for the mutual recognition of the equivalence of testing, medical testing, calibration and inspection reports.



JCSS
JCSS 0197

CALIBRATION CERTIFICATE

Product : SOUND CALIBRATOR
 Model : NC-75
 Serial number : 34556813
 Manufacturer : RION CO., LTD.
 Calibration item : Sound pressure level (with reference standard microphone)
 Calibration method : Measured by specified secondary standard microphone
 according to JCSS calibration procedure specified by RION.
 Ambient conditions : Temperature 23.8 °C, Relative humidity 36 %,
 Static pressure 99.7 kPa
 Calibration date : 7/5/2025 (D/M/YYYY)
 Calibration location : 3-20-41 Higashimotomachi, Kokubunji, Tokyo 185-8533, Japan
 RION CO., LTD. Calibration Room

We hereby certify that the results of this calibration were as follows.

Issue date : 15/5/2025 (D/M/YYYY)

Yoshio Maruyama
 Manager
 Quality Assurance Section,
 Quality Assurance Department,
 Production Division
 RION CO., LTD.
 3-20-41 Higashimotomachi, Kokubunji,
 Tokyo 185-8533, Japan



This certificate is based on article 144 of the Measurement Law and indicates the result of calibration in accordance with measurement standards traceable to Primary Measurement Standards (National Standards) which realizes the physical units of measurement according to the International System of Units (SI).

The accreditation symbol is attestation of which the result of calibration is traceable to Primary Measurement Standards (National Standards).

The certificate shall not be reproduced except in full, without the written approval of the issuing laboratory.

The calibration laboratory who issued this calibration certificate conforms to ISO/IEC 17025:2017.

This calibration certificate was issued by the calibration laboratory accredited by IA Japan who is a signatory to the Mutual Recognition Arrangement (MRA) of International Laboratory Accreditation Cooperation (ILAC) and Asia Pacific Accreditation Cooperation (APAC). This (These) calibration result(s) may be accepted internationally through ILAC/APAC MRA.

CALIBRATION RESULT

Sound pressure level (with reference standard microphone)

Measured Value	Expanded Uncertainty *
93.98 dB	0.09 dB

Specified secondary standard microphone:

Model : 4160
Serial number : 1843696

Reference Sound pressure : 2×10^{-5} Pa

* Defines an interval estimated to have a level of confidence of approximately 95 %.
Coverage factor $k = 2$

Calibration result is the calibration value in ambient conditions during calibration.

BE OUT OF JCSS CALIBRATION

1. Frequency

Measured Value	Measurement uncertainty ($k = 2$)
1000.0 Hz	4.0×10^{-4} Hz

Working measurement standard universal counter:

Model : 53132A
Serial number : MY40005574
(JCSS Calibration Certificate No. 2408008578510)

2. Total distortion

Measured Value
0.4 %

Working measurement standard distortion meter:

Model : VA-2230A
Serial number : 11076061
(A2LA Calibration Certificate No. 1504-03541)

- closing -

Hexanode Calibration Certificate



13 May 2025

Thank you for choosing SiteHive for your realtime environmental management. This calibration certificate is valid for the device below.

Noise

The Hexanode sound level meter has been pressure calibrated by SiteHive using a NATA Certified (IEC 60942: Sound calibrators) Sound Level Calibrator, at 104 Commonwealth Street, Surry Hills, NSW, 2010.

Serial Number	Calibration Value	Calibration Date	Calibration Due
HEX-000238	2.96282	28 Apr 2025	28 Apr 2027

Accuracy:	Complies with precision requirements of IEC 61672 for Class 2
Acoustic overload point:	135 dBSPL
Frequency Range:	20 Hz ~ 12.5 kHz
Frequency Rating:	Z, A and C weighting
Parameters (dB):	Frequency & time weighted integrations, statistical levels, and more
Direction of Arrival:	Device angle & cartesian angle (0°-360°) of dominant noise source

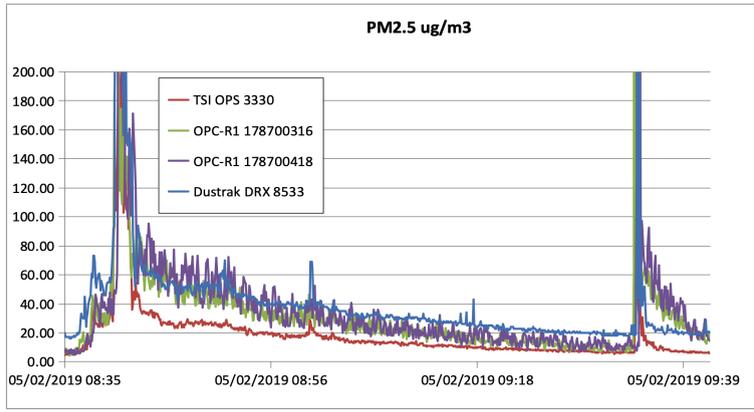
The SiteHive Hexanode uses innovative digital MEMS microphones, and as such cannot achieve full pattern approval in line with international standard IEC 61672, which is written for analogue condenser microphones. However, the SiteHive Hexanode sound level meter has been rigorously tested by the the National Measurement Institute (NMI), the division of the Australian Federal Government Department of Industry, Science, Energy & Resources responsible for providing world-class measurement services to support a fair, safe, healthy and competitive Australia. The National Measurement Institute's (NMI) acoustic, ultrasound and vibration measurement services are the most accurate in Australia, and include providing the certification for NATA (National Association of Testing Authorities) testing facilities, who provide class certification for noise meters. NMI undertook all of the possible tests outlined in IEC 61672-2, with the Hexanode passing all precision requirements within the criteria of a class 2 device.

Dust

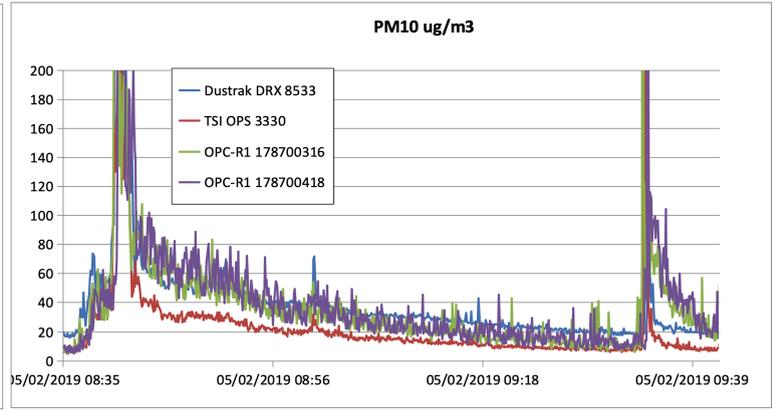
The Hexanode Multi device utilises the Alphasense OPC-R2 particle monitor to provide real-time dust measurements. These sensors are calibrated at manufacture by Alphasense. Whilst the R2 does not have any gravimetric sampling capabilities, measurements can be adjusted using a K-Factor if one is available. SiteHive software will also provide measurements from the nearest Government air quality station for reference. The full data sheet for the Alphasense R2 is available [here](#).

Particle range	µm spherical equivalent size (based on RI of 1.5)	0.30 to 12.4
Size categorisation	Number of software bins	16
Sampling interval	Histogram period (seconds)	2 to 30
Total flow rate	L/min (typical)	0.24
Max particle count rate	particles/second	10,000
Max coincidence probability	% concentration at 10 ⁶ particles/L	0.7

Prior to deployment, the R2 is tested against TSI Optical Particle Sizer 3330 and DustTrak instruments.



Comparison of PM2.5 monitoring by OPC-R2 sensor and TSI OPS 3330 and DustTrak instruments. All are set at 5s averaging and are sampling the ambient air of a workshop, the raw 3330 data has been used to calculate a PM figure.



Comparison of PM10 monitoring by OPC-R2 sensor and TSI OPS 3330 and DustTrak instruments. All are set at 5s averaging and are sampling the ambient air of a workshop, the raw 3330 data has been used to calculate a PM figure.

Hexanode Calibration Certificate



28 Feb 2024

Thank you for choosing SiteHive for your realtime environmental management. This calibration certificate is valid for the device below.

Noise

The Hexanode sound level meter has been pressure calibrated by SiteHive using a NATA Certified (IEC 60942: Sound calibrators) Sound Level Calibrator, at 2 Foveaux Street, Surry Hills, NSW, 2010.

Serial Number	Calibration Date	Calibration Value
HEX-000241	05 Dec 2023	2.989121

Accuracy:	Complies with precision requirements of IEC 61672 for Class 2
Acoustic overload point:	135 dB SPL
Frequency Range:	20 Hz ~ 12.5 kHz
Frequency Rating:	Z, A and C weighting
Parameters (dB):	Frequency & time weighted integrations, statistical levels, and more
Direction of Arrival:	Device angle & cartesian angle (0°-360°) of dominant noise source

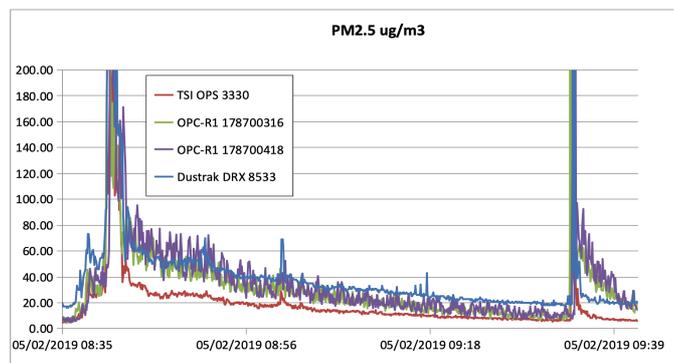
The SiteHive Hexanode uses innovative digital MEMS microphones, and as such cannot achieve full pattern approval in line with international standard IEC 61672, which is written for analogue condenser microphones. However, the SiteHive Hexanode sound level meter has been rigorously tested by the the [National Measurement Institute \(NMI\)](#), the division of the Australian Federal Government Department of Industry, Science, Energy & Resources responsible for providing world-class measurement services to support a fair, safe, healthy and competitive Australia. The National Measurement Institute's (NMI) [acoustic, ultrasound and vibration measurement services](#) are the most accurate in Australia, and include providing the certification for NATA (National Association of Testing Authorities) testing facilities, who provide class certification for noise meters. NMI undertook all of the possible tests outlined in IEC 61672-2, with the Hexanode passing all precision requirements within the criteria of a class 2 device.

Dust

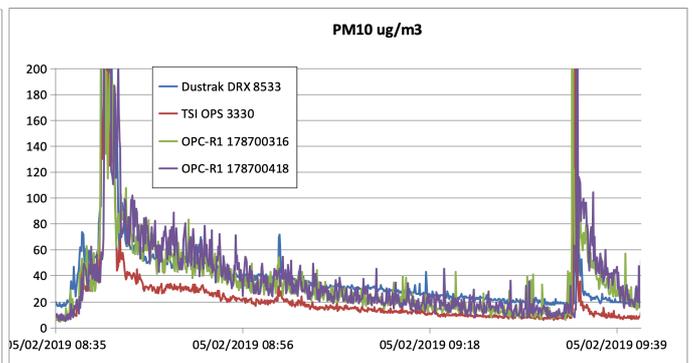
The Hexanode utilises the Alphasense R2 Optical Particle Sensor, to provide real-time dust measurements. Whilst the R2 does not have any gravimetric sampling capabilities, measurements can be adjusted using a K-Factor if one is available. SiteHive software will also provide measurements from the nearest Government air quality station for reference. The full data sheet for the Alphasense R2 is available [here](#).

Particle range	µm spherical equivalent size (based on RI of 1.5)	0.30 to 12.4
Size categorisation	Number of software bins	16
Sampling interval	Histogram period (seconds)	2 to 30
Total flow rate	L/min (typical)	0.24
Max particle count rate	particles/second	10,000
Max coincidence probability	% concentration at 10 ⁶ particles/L	0.7

Prior to deployment, the R2 is tested against [TSI Optical Particle Sizer 3330](#) and [DustTrak instruments](#).



Comparison of PM2.5 monitoring by OPC-R2 sensor and TSI OPS 3330 and DustTrak instruments. All are set at 5s averaging and are sampling the ambient air of a workshop, the raw 3330 data has been used to calculate a PM figure.



Comparison of PM10 monitoring by OPC-R2 sensor and TSI OPS 3330 and DustTrak instruments. All are set at 5s averaging and are sampling the ambient air of a workshop, the raw 3330 data has been used to calculate a PM figure.

Hexanode Calibration Certificate



19 Nov 2024

Thank you for choosing SiteHive for your realtime environmental management. This calibration certificate is valid for the device below.

Noise

The Hexanode sound level meter has been pressure calibrated by SiteHive using a NATA Certified (IEC 60942: Sound calibrators) Sound Level Calibrator, at 104 Commonwealth Street, Surry Hills, NSW, 2010.

Serial Number	Calibration Date	Calibration Value
HEX-000600	15 Aug 2024	3.028699

Accuracy:	Complies with precision requirements of IEC 61672 for Class 2
Acoustic overload point:	135 dBSPL
Frequency Range:	20 Hz ~ 12.5 kHz
Frequency Rating:	Z, A and C weighting
Parameters (dB):	Frequency & time weighted integrations, statistical levels, and more
Direction of Arrival:	Device angle & cartesian angle (0°-360°) of dominant noise source

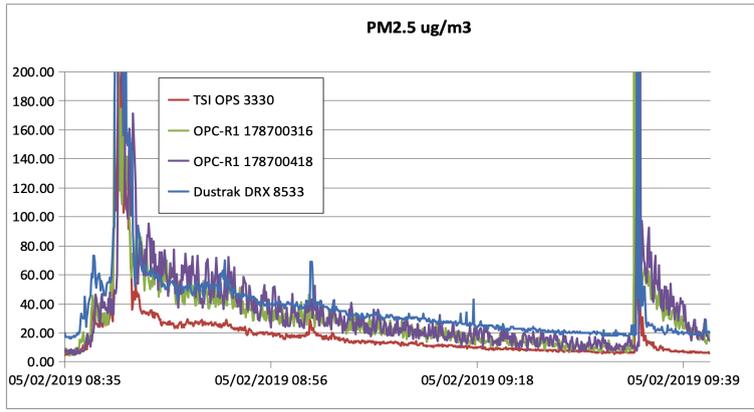
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Dust

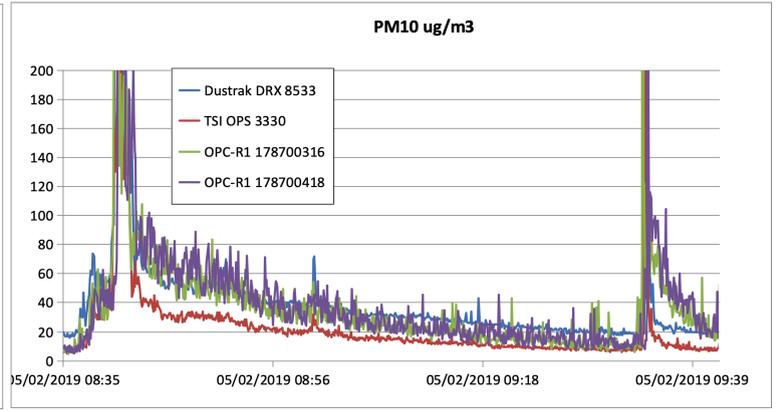
The Hexanode utilises the Alphasense R2 Optical Particle Sensor, to provide real-time dust measurements. Whilst the R2 does not have any gravimetric sampling capabilities, measurements can be adjusted using a K-Factor if one is available. SiteHive software will also provide measurements from the nearest Government air quality station for reference. The full data sheet for the Alphasense R2 is available [here](#).

Particle range	µm spherical equivalent size (based on RI of 1.5)	0.30 to 12.4
Size categorisation	Number of software bins	16
Sampling interval	Histogram period (seconds)	2 to 30
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Comparison of PM10 monitoring by OPC-R2 sensor and TSI OPS 3330 and DustTrak instruments. All are set at 5s averaging and are sampling the ambient air of a workshop, the raw 3330 data has been used to calculate a PM figure.

Hexanode Calibration Certificate



19 Nov 2024

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Noise

The Hexanode sound level meter has been pressure calibrated by SiteHive using a NATA Certified (IEC 60942: Sound calibrators) Sound Level Calibrator, at 104 Commonwealth Street, Surry Hills, NSW, 2010.

Serial Number	Calibration Date	Calibration Value
HEX-000723	24 Oct 2024	2.940808

Accuracy:	Complies with precision requirements of IEC 61672 for Class 2
Acoustic overload point:	135 dBSPL
Frequency Range:	20 Hz ~ 12.5 kHz
Frequency Rating:	Z, A and C weighting
Parameters (dB):	Frequency & time weighted integrations, statistical levels, and more
Direction of Arrival:	Device angle & cartesian angle (0°-360°) of dominant noise source

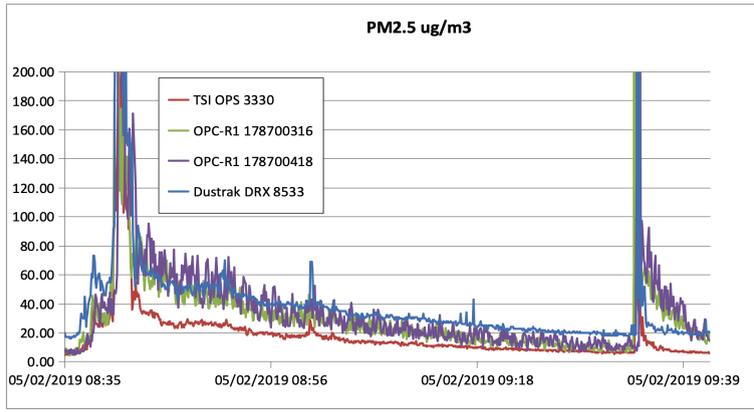
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Dust

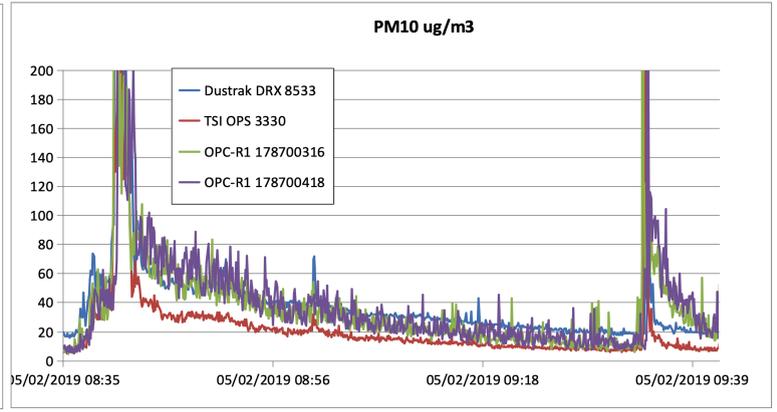
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Hexanode Calibration Certificate



13 May 2025

Thank you for choosing SiteHive for your realtime environmental management. This calibration certificate is valid for the device below.

Noise

The Hexanode sound level meter has been pressure calibrated by SiteHive using a NATA Certified (IEC 60942: Sound calibrators) Sound Level Calibrator, at 104 Commonwealth Street, Surry Hills, NSW, 2010.

Serial Number	Calibration Value	Calibration Date	Calibration Due
HEX-000767	3.004615	28 Apr 2025	28 Apr 2027

Accuracy:	Complies with precision requirements of IEC 61672 for Class 2
Acoustic overload point:	135 dBSPL
Frequency Range:	20 Hz ~ 12.5 kHz
Frequency Rating:	Z, A and C weighting
Parameters (dB):	Frequency & time weighted integrations, statistical levels, and more
Direction of Arrival:	Device angle & cartesian angle (0°-360°) of dominant noise source

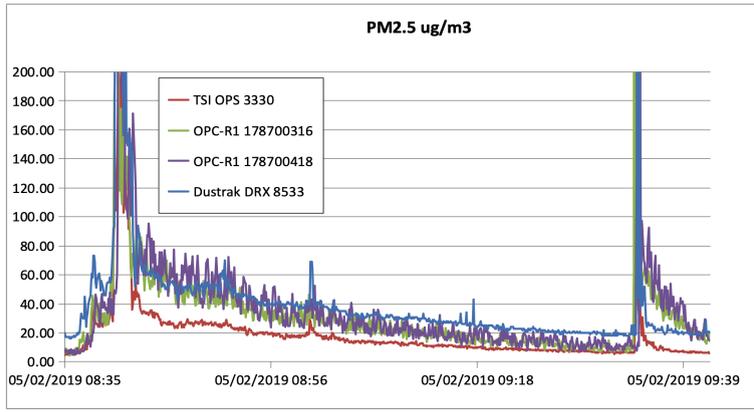
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Dust

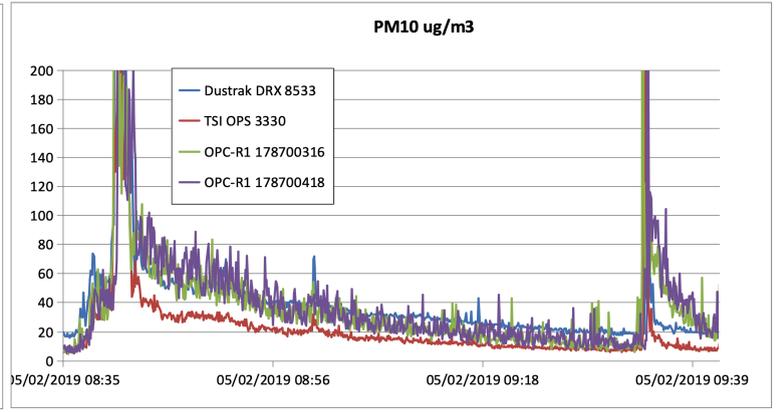
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Comparison of PM2.5 monitoring by OPC-R2 sensor and TSI OPS 3330 and DustTrak instruments. All are set at 5s averaging and are sampling the ambient air of a workshop, the raw 3330 data has been used to calculate a PM figure.



Comparison of PM10 monitoring by OPC-R2 sensor and TSI OPS 3330 and DustTrak instruments. All are set at 5s averaging and are sampling the ambient air of a workshop, the raw 3330 data has been used to calculate a PM figure.

Hexanode Calibration Certificate



29 Jul 2025

Vibration

Thank you for choosing SiteHive for your realtime environmental management. This calibration certificate is valid for the device below.

The vibration device is calibrated by SiteHive through comparison to a reference transducer, in line with testing protocols outlined in ISO 16063-21:2003.

Serial Number	Calibration Date	Calibration Due
VIB-000047	04 Jul 2025	04 Jul 2027

Result

Axis	Frequency (Hz)	Measured value (mm/s)	Reference value (mm/s)	Result (% difference to reference)
x	31.5	25.1	25.14	Pass (0)
y	31.5	25.24	25.28	Pass (0)
z	31.5	25.66	25.7	Pass (0)

Calibration conditions

Temperature	23 °C
Humidity	52 % RH
Mounting surface	Aluminium

Calibration equipment

Equipment	Model	Serial number	Calibration certificate
Reference Sensor 1	M-A352AD10	00005379	23 Sep 2024
Reference Sensor 2	M-A352AD10	00005090	23 Sep 2024
Shaker	AVM90-HF-10-0.5	AVM-34858	
Driver	AGD200-ET-2D02	AGD200-00122310916	
Reference Check			
Device Mount	8428544-001		

Hexanode Calibration Certificate



29 Jul 2025

Vibration

Thank you for choosing SiteHive for your realtime environmental management. This calibration certificate is valid for the device below.

The vibration device is calibrated by SiteHive through comparison to a reference transducer, in line with testing protocols outlined in ISO 16063-21:2003.

Serial Number	Calibration Date	Calibration Due
VIB-000279	05 Sep 2024	05 Sep 2026

Result

Axis	Frequency (Hz)	Measured value (mm/s)	Reference value (mm/s)	Result (% difference to reference)
x	31.5	25.28	25.33	Pass (0)
y	31.5	25.59	25.63	Pass (0)
z	31.5	25.64	25.68	Pass (0)

Calibration conditions

Temperature	23 °C
Humidity	52 % RH
Mounting surface	Aluminium

Calibration equipment

Equipment	Model	Serial number	Calibration certificate
Reference Sensor 1	M-A352AD10	00005379	14 Jan 2024
Reference Sensor 2	M-A352AD10	00005090	14 Jan 2024
Shaker	AVM90-HF-10-0.5	AVM-34858	
Driver	AGD200-ET-2D02	AGD200-00122310916	
Reference Check			
Device Mount	8428544-001		

Hexanode Calibration Certificate



29 Jul 2025

Vibration

Thank you for choosing SiteHive for your realtime environmental management. This calibration certificate is valid for the device below.

The vibration device is calibrated by SiteHive through comparison to a reference transducer, in line with testing protocols outlined in ISO 16063-21:2003.

Serial Number	Calibration Date	Calibration Due
VIB-000348	04 Jul 2025	04 Jul 2027

Result

Axis	Frequency (Hz)	Measured value (mm/s)	Reference value (mm/s)	Result (% difference to reference)
x	31.5	25.13	25.18	Pass (0)
y	31.5	25.26	25.31	Pass (0)
z	31.5	25.43	25.47	Pass (0)

Calibration conditions

Temperature	23 °C
Humidity	52 % RH
Mounting surface	Aluminium

Calibration equipment

Equipment	Model	Serial number	Calibration certificate
Reference Sensor 1	M-A352AD10	00005379	23 Sep 2024
Reference Sensor 2	M-A352AD10	00005090	23 Sep 2024
Shaker	AVM90-HF-10-0.5	AVM-34858	
Driver	AGD200-ET-2D02	AGD200-00122310916	
Reference Check			
Device Mount	8428544-001		

Hexanode Calibration Certificate



29 Jul 2025

Vibration

Thank you for choosing SiteHive for your realtime environmental management. This calibration certificate is valid for the device below.

The vibration device is calibrated by SiteHive through comparison to a reference transducer, in line with testing protocols outlined in ISO 16063-21:2003.

Serial Number	Calibration Date	Calibration Due
VIB-000387	04 Jul 2025	04 Jul 2027

Result

Axis	Frequency (Hz)	Measured value (mm/s)	Reference value (mm/s)	Result (% difference to reference)
x	31.5	25.06	25.1	Pass (0)
y	31.5	25.42	25.46	Pass (0)
z	31.5	25.44	25.48	Pass (0)

Calibration conditions

Temperature	23 °C
Humidity	52 % RH
Mounting surface	Aluminium

Calibration equipment

Equipment	Model	Serial number	Calibration certificate
Reference Sensor 1	M-A352AD10	00005379	23 Sep 2024
Reference Sensor 2	M-A352AD10	00005090	23 Sep 2024
Shaker	AVM90-HF-10-0.5	AVM-34858	
Driver	AGD200-ET-2D02	AGD200-00122310916	
Reference Check			
Device Mount	8428544-001		

SERVICE & CALIBRATION REPORT

Water Quality Meter

Customer Details:

Martinus Rail Pty Ltd
Attn Joseph Disting ph: 0410 119 009
Inland Rail A2P Project
75 Miller Street
North Sydney, NSW 2060
Australia

Job Number

240937

Date

27/09/2024

Instrument Model:

HORIBA U-52/2m
Multi-parameter water quality meter

Instrument Serial Number:

F6GXX4FW JULY 24

PRE-DELIVERY CALIBRATION

Calibration:(in accordance with manufacturer's specifications)

Parameter - unit	Calibration value	After calibration	Comment
pH (pH)	7.01	7.01	Pass
pH (pH)	4.00	4.00	Pass
ORP (mV)	225	225	Pass
Conductivity (mS/cm)	0.000	0.000	Pass
Conductivity (mS/cm)	0.718	0.718	Pass
Conductivity (mS/cm)	6.67	6.67	Pass
Conductivity (mS/cm)	58.6	58.6	Pass
Turbidity (NTU)	0.0	0.0	N/A
Turbidity (NTU)	8.0	8.0	N/A
Turbidity (NTU)	80.0	80.0	N/A
Turbidity (NTU)	400	400	N/A
D.O. zero (mg/L)	0.00	0.00	Pass
D.O. span (mg/L)	9.42 mg/L @ 19.2°C	9.42 mg/L @ 19.2°C	Pass
Temperature (°C)	18.4°C	18.4°C	Pass

Sensors:

pH Glass Electrode	pH Ref Electrode	ORP Electrode	DO Electrode
416020	UCUGXBU0	T00RG20V	A1S0SH8W

Comments:

MAKE SURE pH reference electrode is refilled with soln #330 regularly. If the #330 soln solidifies inside the pH reference electrode, remove the liquid junction cap (flat black rubber cap with wick in the middle) and rinse out the old soln with distilled water. Then refill with fresh HORIBA soln # 330 and refit the liquid junction cap. **Please read the notes on pH maintenance.**

Calibration carried out by:

Melanie Wheeler

AUSTRALIAN SCIENTIFIC PTY LTD

11 McDougall Street, Kotara NSW 2289

TEL: 1800 021 083

E-mail: sales@austscientific.com.au

www.austscientific.com.au



MARTINUS 