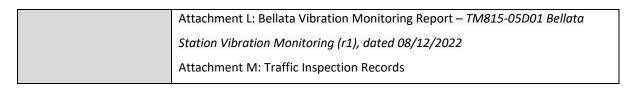


## **INLAND RAIL PROJECT - NARRABRI TO NORTH STAR (N2NS)**

SSI 7474 – 6 Monthly Construction Monitoring Report (May – October 2022)

| Date:         | 10/01/2023   |  |  |  |  |
|---------------|--|--|--|--|--|
| То:           | Dominic Crinnion   |  |  |  |  |
|               | Director - Infrastructure Management   |  |  |  |  |
|               | Planning Services  |  |  |  |  |
|               | Level 17, 12 Darcy Street   4 Parramatta Square   Parramatta NSW 2150          |  |  |  |  |
| From:         | Trans4m Rail Joint Venture   |  |  |  |  |
|               | 64 – 68 Balo Street  |  |  |  |  |
|               | Moree, NSW   |  |  |  |  |
|               | 2400   |  |  |  |  |
| Project:      | Inland Rail   Narrabri to North Star SP1 (the "N2NS Project")                  |  |  |  |  |
| Distribution: | Australian Rail Track Corporation (ARTC)                                       |  |  |  |  |
|               | N2NS Project Environmental Representative (Project ER)                         |  |  |  |  |
|               | NSW Department of Planning and Environment (NSW DPE)                           |  |  |  |  |
|               | NSW Environment Protection Authority (NSW EPA)                                 |  |  |  |  |
|               | Transport for NSW (TfNSW)  |  |  |  |  |
|               | NSW Natural Resource Access Regulator (NRAR)                                   |  |  |  |  |
|               | Narrabri Shire Council   |  |  |  |  |
|               | Gwydir Shire Council   |  |  |  |  |
|               | Moree Plains Shire Council   |  |  |  |  |
| Attachments:  | Attachment A: N2NS Project - Water Usage Results (May – October 2022)          |  |  |  |  |
|               | Attachment B: Depositional Dust Gauge Monitoring Results (incl. Certificate(s) |  |  |  |  |
|               | of Analysis)   |  |  |  |  |
|               | Attachment C: Airborne Air Quality (PM10) Monitoring Results                   |  |  |  |  |
|               | Attachment D: Air Quality Monitoring Locations                                 |  |  |  |  |
|               | Attachment E: Non-conformance Report (DDG Exposure Period)                     |  |  |  |  |
|               | Attachment F: Noise Monitoring Results   |  |  |  |  |
|               | Attachment G: Noise Monitoring Locations                                       |  |  |  |  |
|               | Attachment H: Calibration Certificates   |  |  |  |  |
|               | Attachment I: Edgeroi Silos and Loading Facility - TM815-02F01 Edgeroi         |  |  |  |  |
|               | vibration monitoring (r1), dated 29/7/2022                                     |  |  |  |  |
|               | Attachment J: Ten Mile Creek Bridge Piling - TM815-03F01 Ten Mile Creek        |  |  |  |  |
|               | vibration monitoring (r1), dated 29/7/2022                                     |  |  |  |  |
|               | Attachment K: Bobbiwaa Creek Bridge Piling - TM815-04F01 Bobbiwa Creek         |  |  |  |  |
|               | vibration monitoring (r1), dated 29/7/2022                                     |  |  |  |  |





Construction works on the Narrabri to North Star SP1 Project (N2NS Project) commenced on the 10<sup>th</sup> April 2021 following the NSW Environment Protection Authority (NSW EPA) issuing the full Environment Protection Licence (EPL) on the 1<sup>st</sup> April and the Department of Planning, Industry and Environment (NSW DPIE) approving the Project's Construction Environmental Management Plan (and Sub-Plans) on the 7<sup>th</sup> April 2021.

As detailed in the N2NS Project's Condition of Approval (CoA) C14, the following Construction Monitoring Programs have been developed for the N2NS Project and are contained within the relevant Sub-Plans to the Construction Environmental Management Plan:

- Noise and Vibration Monitoring Program; as per Section 11 and Appendix E of the Construction Noise and Vibration Management Sub-Plan (CNVMP);
- Water Usage Monitoring Program; as per Section 7.2.1 of the Construction Soil and Water Management Sub-Plan (CSWMP);
- Air Quality Monitoring Program; as per Section 7.2.2 and Appendix D of the CSWMP; and
- Physical Condition of local roads Monitoring Program; as per Section 5 of the Construction Traffic, Transport and Access Management Sub-Plan (CTTAMP).

As required under CoA C20, this 6 Monthly Construction Monitoring Report has been prepared to summarise the results of these Construction Monitoring Programs.

The environmental works undertaken during this reporting period included the following:

- Review and update of the Project's CEMP and Sub-plans (i.e. CEMP, Construction Biodiversity Management Sub-Plan and the Construction Noise and Vibration Management Sub-Plan).
- Development of the N2NS Project's EPL Relinquishment Process.
- Preparation of environmental deliverables, including but not limited to: Certified Professional in Erosion and Sediment Control (CPESC) Certified Erosion and Sediment Control Plans, Site Environmental Plans, Clearing and Dewatering Permits and Out of Hours Applications for works within Stages 1, 2B and 3 of the N2NS Project.
- Establishment and maintenance of Erosion and Sediment Controls in accordance with the CPESC Certified Erosion and Sediment Control Plan within Stages 1, 2B and 3.
- Suitably licenced Spotter-catchers overseeing vegetation clearing activities within Stages 1, 2B and Stage 3.
- Vegetation clearing, slashing and weed management works through Stages 1, 2B and Stage 3.
- Trans4m Rail Environmental Personnel undertook numerous environmental inspections during the
  reporting period. This included general Environmental / Sustainability Inspections, Pre and Post
  Rainfall Inspections and targeted inspections with the Project's CPESC, the Project's Ecologist or the
  Project's Environmental Representative (ER).
- Depositional Dust Gauge (DDG) Monitoring continued at 13 locations. In addition to this, airborne
  particulate (PM10) matter monitoring occurred at Bellata township during this reporting period.
- Construction-phase noise monitoring occurred at sensitive receiver locations within Stages 1 and 3.
- Instream water quality monitoring occurred at key locations across the project, in line with the Project's surface water quality monitoring program and following significant rainfall events.
- Landscaping and stabilisation of disturbed areas progressed across the alignment (Stages 1, 2B and 3) during the reporting period.
- Removal of instream temporary works (i.e. temporary waterway crossings, piling pads, etc), including the controls to mitigate direct and indirect impacts to the receiving environment and waterbodies.
- Investigation and management of environmental incidents and events on the project.





Table 1: Results and / or findings of the Construction Monitoring Programs

## Noise and Vibration Monitoring Program

#### **Vibration Monitoring**

Section 11.4 of the CNVMP and the Project's *Environmental Protection Licence* (EPL) identifies various situations where vibration monitoring is or may be required on the N2NS Project. These situations typically include:

- Work activities with the potential to generate significant vibration levels where the vibration screening criteria is likely to be exceeded. NOTE: The minimum working distances (vibration screening criteria) are based upon the vibration objectives in Section 7.4.1 (CNVMP) for "sound structures" being 7.5mm/s peak component particle velocity and in Section 7.4.2 (CNVMP) for "unsound structures" (i.e. unsound heritage building) 2.5mm/s peak component particle velocity. These include a 32 tonne compactor, being the most vibration intensive plant proposed to be used on the Project, with an indicative minimum working distance of 10 metres for sound structures and 20 m for unsound structures.
- Vibration generating activities that have the potential to impact on heritage items.
- Works occurring where vibration sensitive locations occur within the minimum working distances for the N2NS Project.
- Where determined by a vibration assessment and reported in the relevant CNVIS.
- Where vibration related complaint(s) are received.
- Where directed to undertake monitoring by an authorised officer of the EPA.

During the May – October 2022 monitoring period, unattended vibration monitoring was undertaken on the following occasions:

Edgeroi Silos and Loading Facility - Two unattended vibration monitors were installed at Edgeroi to monitor the period between 6<sup>th</sup> May and 29<sup>th</sup> June 2022. Vibration monitors were installed at the Edgeroi Grain Silo and the associated Loading Facility to monitor vibration levels being experienced by these structures. These were installed prior to bulk earthworks occurring in the area.

Based on the measured vibration data, the vibration levels produced from the dynamic compaction works were below the nominated criteria of 25mm/s which was not exceeded throughout the monitoring period.

Refer to Attachment I for the full Vibration Monitoring Report.

<u>Ten Mile Creek – TfNSW Bridge (Newell Hwy)</u> - Two unattended vibration monitors were installed at Ten Mile Creek to monitor the period between 20<sup>th</sup> May and 17<sup>th</sup> June 2022. Vibration monitors were installed at the northern and southern ends (at the base) of the road bridge (Newell Hwy) to monitor the vibration levels experienced by the bridge structure throughout the vibration intensive impact piling works.



Based on the measured vibration data, the vibration levels produced from the piling works were below the nominated criteria of 25mm/s which was not exceeded throughout the monitoring period.

Refer to Attachment J for the full Vibration Monitoring Report.

<u>Bobbiwaa Creek – TfNSW Bridge (Newell Hwy)</u> - Two unattended vibration monitors were installed at Bobbiwa Creek to monitor the period between 17<sup>th</sup> June and 29<sup>th</sup> June 2022. Vibration monitors were installed at the northern and southern ends (at the base) of the road bridge (Newell Hwy) to monitor the vibration levels experienced by the bridge structure throughout the vibration intensive impact piling works.

Based on the measured vibration data, the vibration levels produced from the piling works were below the nominated criteria of 25mm/s which was not exceeded throughout the monitoring period.

Refer to Attachment K for the full Vibration Monitoring Report.

<u>Bellata Station & Silos</u> — Two unattended vibration monitoring were installed on the Bellata Station and the Bellata Silos to monitor the period between 28<sup>th</sup> July and 18<sup>th</sup> November 2022. Vibration monitors were installed on the existing railway platform and the footing of the silo to monitor the vibration experienced by these structures during the construction phase of the project.

The results of the unattended vibration monitoring were typically below the established vibration screening criteria. There were events that resulted in an instantaneous vibration level of above the vibration screening criteria which have been deemed not characteristic of the construction works taking place or deemed not related to the construction works following further investigation.

Refer to Attachment L for the full Vibration Monitoring Report.

### **Noise Monitoring**

As per Section 11.3.2 of the Project's Construction Noise and Vibration Management Sub-Plan, attended noise monitoring is to be undertaken on the following occasions:

- Attended construction-phase noise monitoring will be carried out (6 monthly during possession) during activities for which a location and activity specific noise impact assessment has been prepared to confirm that actual noise levels are consistent with noise impact predictions and that the management measures that have been implemented are appropriate;
- Prior to the applicable construction works, the noise levels of typical plant and equipment, including rental equipment, would be checked against the levels included in the CNVIS to ensure that equipment will operate at or below the assumed noise levels;





- To verify high noise impact works (above 75 dB(A)) at the nearest sensitive receiver noted in the Land Use Survey in the NVMP to confirm if respite periods are required;
- Where appropriate, in response to a noise related complaint(s) (determined on a case-by- case basis) and in accordance with the OOHW Protocol or EPL;
- As directed by an authorised officer of the EPA;
- As otherwise required by the CNVIS, OOHW Protocol or EPL;
- Following the implementation of mitigation measures or noise attenuation as a result of an exceedance of predicted noise levels; and
- 12 monthly spot checks for noise intensive plant and equipment will be undertaken throughout construction to ensure compliance with the assumed noise levels in the applicable CNVIS.

In addition to the above list, noise monitoring can also be undertaken to assist in identifying and/or managing high risk noise events, such as during school examination periods, or as required by an EPL.

During the May – October 2022 monitoring period, attended noise monitoring was undertaken on the following occasions:

28<sup>th</sup> June 2022 – Construction-phase attended noise monitoring occurred adjacent the most impacted residential sensitive receivers within Stage 1 & Stage 2B. These locations included: Edgeroi, Gurley Settlers Road, Jalmar Park (CH618), Mardell and Bellata.

12<sup>th</sup> July 2022 – Construction activity-specific attended noise monitoring occurred within Stage 3. These activities included: Rail declipping occurring at CH707.26, an excavator loading a truck at CH734.92, a ballast wagon drop at CH735.28, a grader operating at CH755.65 and a roller operating at CH755.65.

27<sup>th</sup> July 2022 – Construction-phase attended noise monitoring occurred adjacent the most impacted sensitive receivers within Stage 1. These locations included; CH581.000 – Murrumbilla Lane, CH586.100 – Junefield Lane, CH590.200 – Smithfield Lane, CH593.500 – Queen St, Edgeroi, CH603.000 – The Clump Road, CH609.200 – Valorban Lane (taken from Ten Mile Lane), CH605.000 – Bellata, CH620.000 Truck Stop and CH625480 – Penney's lane.

26<sup>th</sup> September 2022 – Construction-phase attended noise monitoring occurred adjacent the most impacted sensitive receivers within Stage 1. These locations included; CH586.100 – Junefield Lane, CH590.200 – Smithfield Lane, CH607.400 – Trevana Lane, CH605.000 – Bellataand CH625480 – Penney's lane

This attended noise monitoring was undertaken in accordance with Sections 11.3.2 – 11.3.4 of the CNVMP, using a calibrated Class 1 Sound Level Meter (Rion NL-52) and performed by suitably qualified and trained Environmental Professionals.



Refer to Attachment F / G for further information.

This monitoring identified the following:

- During the attended noise monitoring on the 28<sup>th</sup> June, 27<sup>th</sup> July and the 26<sup>th</sup> September, the Noise Management Level (NML) adopted for the N2NS Project (40dB) was exceeded at all monitoring locations.
- The observations and contemporaneous notes taken during the noise monitoring indicated that at all locations the predominant noise source, was from non-construction sources (i.e. Newell Hwy traffic, birds calling, dogs barking, non-Project related traffic and / or wind).

As per the Interim Construction Noise Guideline (ICNG) (DECC, 2009), where an exceedance of the Project's NML is related to construction activities, the following measures are to be implemented:

- Apply all feasible and reasonable work practices to meet the noise affected level. In this case the measures detailed in Section 10 of the N2NS Project's CNVMP will continue to be implemented. In addition to this, work is currently being undertaken on the N2NS Project to reduce the idling times of all plant and equipment on the Project and reduce non-essential noise sources; and
- Inform all potentially impacted residents of the nature of works to be carried out, the expected noise levels and duration, as well as contact details. The N2NS Project's Community and Stakeholder Engagement Team notify, consult and inform all potentially impacted residential receivers and OSR prior to and during construction works occurring. Consultation works are being undertaken in accordance with the Project's Community and Stakeholder Engagement Management Plan (CSEMP).

In addition to these requirements, construction phase noise monitoring will continue to occur on the project where construction noise is likely to affect residential and / or OSR.

## Water Usage Monitoring Program

Environmental monitoring, in particular that of construction water usage, has been conducted for the duration of the construction phase of the Project as required under CoA C14 (b) and RMM C7.2. As per the Inland Rail Construction Water Plan Narrabri to North Star (Golder Associates, January 2020) a total of approximately 1,215ML of construction water was estimated to be used for the construction of the N2NS Project. However, the strategies developed by Trans4m Rail suggest that this will be significantly reduced. The aforementioned SSI monitoring seeks to establish the water usage volume by measuring the water usage on the N2NS Project.

Trans4m Rail's construction water strategy has been modified since the commencement of the Project. Construction water was initially proposed to be sourced from municipal supplies (both potable and non-potable); however Trans4m Rail has since developed contracts with numerous landholders along the alignment for the purchase of local farm dam water. In addition, a substantial amount of captured stormwater



(from numerous floods and rain events since the commencement of construction) has also been used during the construction process.

The construction water usage for the May – October 2022 reporting period include:

| Potable Water     | 10,807.75 KL |
|-------------------|--------------|
| Non-Potable Water | 48,967.53 KL |
| Total Water Use   | 59,775.28 KL |

The non-potable water is utilised for dust suppression, lime slacking and compaction and although at the outset of the project potable water was also used for these purposes it is now primarily used for on-site amenities only.

The output is collated from water cart data, which outlines a number of aspects regarding the water usage including: the provider, the load volume, the source or origin of the water, the number of loads and the final destination and use of the water. This information is further separated based on whether water is potable or non-potable and individual entries are recorded for each provider to ascertain any trends that may be occurring.

Whilst the data collection occurs on a daily basis this information is also collated on a monthly basis to be reported against baseline data to ARTC. Furthermore, this monthly data is analysed to see emerging trends within the Project for water usage and determine if any additional mitigation measures are required. The data so far reveals an overwhelming usage of non-potable water as opposed to potable water primarily due to the significant rainfall experienced throughout the region.

#### The results of this monitoring are provided in Attachment A.

## **Air Quality Physical**

Depositional Dust Gauges (DDGs) were established at 3 locations on the N2NS project in February 2021 in accordance with the Depositional Dust Monitoring Procedure in the Project's Construction Soil and Water Management Sub-Plan (CSWMP). The intent of the gauges were to capture background air quality (deposited dust) prior to construction activities commencing and throughout the construction process. A further 6 DDG's were installed in Stage 3 in December 2021 and another 5 DDG's in Stages 1 and 3 in February / March 2022. The Gurley DDG was decommissioned in March 2022 due to the completion of works in the area.

The locations of these DDGs were generally selected based on the requirements of Appendix D of the Project's CSWMP, the A/NZS3580.1.1:2007: Methods for sampling and analysis of ambient air, Part 1.1: Guide to siting air monitoring equipment and the EPL for the Project. The locational criteria considered during the selection of the monitoring locations included:



- General dust catchment areas along the alignment based on the scale and nature of the construction activities occurring in the area and the density, location and proximity of surrounding sensitive receivers.
- The local meteorological data and wind roses provided in the Project EIS.
- The selected DDG locations are considered representative of the surrounding locations, taking into account all environmentally sensitive areas in the receiving environment.

Locations were selected to avoid the following (where possible):

- Where airflow is restricted, such as behind trees or structures. DDG's should have a minimum clear sky angle of 120º.
- Surrounding and / or overhanging objects that might alter the dust deposition rate, such as leafy vegetation, buildings and other structures.
- Interference that may occur from surrounding land uses i.e. farming, industry or unsealed access roads, etc.
- Locations that are visible and accessible by the public to avoid DDGs being tampered with.

Monitoring locations have also been selected based on the requirements of the Project's EPL EPL Condition P1.1, states that depositional dust monitoring must be undertaken "Adjacent to the most affected sensitive receivers nearby construction works".

NOTE: The DDG locations selected on the Project comply with the locational criteria detailed above with the exception of the interference criteria. The entire N2NS alignment is in close proximity (typically <200m) to surrounding land uses (i.e. large scale intensive agriculture) that may interfere with the results. In addition to this, the DDG established adjacent Crooble Road is in close proximity to the unsealed Crooble Road. This location was selected as it's adjacent 2 sensitive receivers on Crooble Road as per the EPL (Condition P1.1) requirement.

The adopted air quality criteria for depositional dust gauge monitoring is shown below:

| Pollutant                    | Averaging period | Criteria   |
|------------------------------|------------------|--|
| Dust Deposition <sup>c</sup> | Annual           | 2 g/m²/month <sup>a</sup><br>4 g/m²/month <sup>b</sup> |

- a. Maximum increase in deposited dust level.
- b. Maximum total deposited dust level.
- c. Dust is assessed as insoluble solids as defined by AS 3580.10.1–1991 (AM-19).

The full results of the DDG monitoring are provided in Attachment R





The DDG monitoring during this period identified that the annual average dust deposition rate for all monitoring locations was <4g/m²/month with the exception of the Crooble and Croppa Creek monitoring locations. NOTE: 12 months of data not available for these DDGs. These levels are largely attributable to the Oct 22 dust deposition results, of 39.3 and 41.1 g/m²/month for the Crooble and Croppa Creek sites, respectively. Considering the high rainfall experienced during the month of Oct 22, these results are considered abnormally high and it's suspected these elevated levels are a result of one or more of the following:

- DDG's may potentially have been tampered with; and / or
- The unsealed road adjacent the Crooble and Croppa Creek DDG locations; and / or
- Commencement of the harvest season and stockpiling / movement of grain into the laydown area directly adjacent the Crooble location and into the silos at Croppa Creek; and / or
- Mowing / slashing of the area surrounding the sensitive receiver (and DDG) at Crooble.

Both the Crooble and Croppa Creek DDG locations are subject to interference from surrounding land uses (i.e. large scale agriculture occurring within 200m of the monitoring location, carting and stockpiling of grain and an unsealed access road adjacent both DDG monitoring stations). Regardless, following the results identified above, the below actions have been taken by the Project:

- Additional dust management measures (i.e. increased watercarts and stabilisation of exposed soils) have been undertaken at these (and other) locations on-site.
- The Project workforce has been toolboxed regarding dust generating activities and where required, adjusting activities to suit. This includes slowing down light and heavy vehicles where excessive dust is being generated.
- DDG monitoring will continue at these locations.

During a recent review of the depositional dust gauge monitoring results for the Project it was identified that multiple monitoring occasions were outside the typical exposure period detailed in AS3580.1 and Appendix D (Air Quality Monitoring Program (incl. Depositional Dust Monitoring Procedure)) of the Project's Soil and Water Management Sub-Plan. The root cause for these noncompliances include:

- T4MR resource constraints and DDG collection occurring in line with other, competing priorities.
- Croppa Creek (June), the collection of the DDG being missed during the May sampling round.



A Non-Conformance Report has been generated and attached for additional information.

NOTE: Reoccurring calendar invites have been previously circulated to remind relevant Project personnel of the pending DDG Bottle exchange. This will be checked to ensure the timing of this reminder is adequate.

To avoid recurrence of this, the relevant T4MR Project Personnel has also been trained in the requirement to deploy and collect DDG's within the specified timeframes (30days +\- 2 days).

Airborne Particulate Matter (PM10) monitoring continued to be undertaken during the reporting period.

The adopted pollutant criteria for PM10 monitoring on the N2NS Project is detailed below.

| Pollutant | Averaging period | Criteria <sup>1</sup> |
|-----------|------------------|-----------------------|
| PM10      | 24 Hours         | 50 μg/m³              |

<sup>1.</sup> Based on the Air NEPM and the Approved Methods

During the reporting period, PM10 airborne air quality monitoring was undertaken at Bellata and Croppa Creek during the following periods:

 $6^{th}$  –  $14^{th}$  May 2022 – Croppa Creek (complaint-based monitoring).  $11^{th}$  July 2022 - Bellata.

30<sup>th</sup> July – 2<sup>nd</sup> August 2022 - Bellata.

5<sup>th</sup> – 17<sup>th</sup> August 2022 - Bellata.

22<sup>nd</sup> – 23<sup>rd</sup> August 2022 - Bellata.

26<sup>th</sup> August 2022 - Bellata.

30<sup>th</sup> August – 3<sup>rd</sup> September 2022 - Bellata.

9<sup>th</sup> – 26<sup>th</sup> September 2022 - Bellata.

NOTE: Due to flow issues (blockages of the pre-filter) experienced with the monitoring equipment during the reporting period, PM10 monitoring was undertaken periodically and not continuous, as anticipated.

The flow issues experienced causes the equipment to stop monitoring and requires cleaning of the pre-filter and restarting of the monitoring event.

To avoid recurrence of this, T4MR will inspect the monitoring equipment on a twice weekly basis to ensure continuous monitoring occurs.

Complaint based PM10 monitoring occurred at Croppa Creek ( $6^{th}$  –  $14^{th}$  May) following a dust-related complaint on the 05/05/2022. During this monitoring, airborne air quality was observed to be below the adopted criteria (24hr rolling average of  $50\mu g/m^3$ ).



During all other above-listed monitoring events, airborne air quality was observed to be below the adopted criteria (24hr rolling average of  $50\mu g/m^3$ ).

During the next reporting period, the PM10 airborne air quality monitoring equipment will be deployed in the township of North Star ahead of works recommencing in and around the township. NOTE: The N2NS Project's Monitoring and Discharge Schedule will be updated and submitted to the EPA prior to monitoring commencing at this location.

## **Local Road Condition Monitoring Report**

During the May – October 2022 reporting period, the condition of local roads was inspected on the following occasions:

#### May 2022

17th May 2022 – Weekly Traffic Inspection – Stage 1 (Various Locations). 19th, 20th 21st May 2022 – Weekly Traffic Inspection – Stage 1 (Various Locations).

28th May 2022 – Weekly Traffic Inspection – Stage 1 (Various Locations). 31st May 2022 – Weekly Traffic Inspection – Stage 1 (Various Locations).

#### June 2022

8th June 2022 - Weekly Traffic Inspection - Stage 1 (Various Locations). 19th June 2022 - Weekly Traffic Inspection - Stage 1 (Various Locations). 21st June 2022 - Weekly Traffic Inspection - Stage 1 (Various Locations). 26th June 2022 - Weekly Traffic Inspection - Stage 1 (Various Locations). 29th June 2022 - Weekly Traffic Inspection - Stage 1 (Various Locations).

#### July 2022

10th July 2022 - Weekly Traffic Inspection — Stage 1 (Various Locations). 17th July 2022 - Weekly Traffic Inspection — Stage 1 (Various Locations) 24th July 2022 - Weekly Traffic Inspection — Stage 1 & 2B (Various Locations).

27th July 2022 - Weekly Traffic Inspection – Stage 1 (Various Locations).

#### August 2022

01st August 2022 - Weekly Traffic Inspection – Stage 1 (Various Locations).

07th August 2022 - Weekly Traffic Inspection – Stage 1 (Various Locations).

17th August 2022 - Weekly Traffic Inspection – Stages 1 & 2B (Various Locations).

24th August 2022 - Weekly Traffic Inspection – Stages 1 & 2B (Various Locations).

#### September 2022

7th September 2022 - Weekly Traffic Inspection – Stage 1 (Various Locations).

14th September 2022 - Weekly Traffic Inspection – Stage 1 (Various Locations).

21st September 2022 - Weekly Traffic Inspection – Stage 1 (Various Locations).



28th September 2022 - Weekly Traffic Inspection – Stage 1 (Various Locations).

#### October 2022

05th October 2022 - Weekly Traffic Inspection – Stage 1 (Various Locations).

12th October 2022 - Weekly Traffic Inspection – Stage 1 (Various Locations).

19th October 2022 - Weekly Traffic Inspection – Stage 1 (Various Locations).

26th October 2022 – Weekly Traffic Inspection – Stage 1 (Various Locations).

In addition to these weekly inspections, the following inspections also occurred during the reporting period:

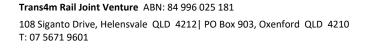
- Daily drive-throughs were undertaken by T4MR Traffic Manager (or delegate) of selected roads with these drive-throughs recorded via an in-vehicle camera;
- Joint T4MR / Moree Plains Shire Council (MPSC) Dilapidation Inspections occurred on a monthly basis of local roads utilised by the N2NS Project within the MPSC LGA; and
- Dilapidation Inspections are undertaken by T4MR Traffic Manager (or delegate) on a monthly basis of local roads utilised by the N2NS Project within the Gwydir Shire Council LGA.

Any damage or defects identified during the above-mentioned inspections were recorded and appropriate actions taken. These actions include:

- Repair the damage (scouring and washout) to the existing causeways along Yamboon Lane caused by recent rain / flood events. These works also included a grade of Yamboon Lane.
   These works are currently occurring.
- Repair the damage and stabilise an existing causeway on Wongabindie Road that was impacted by recent rain / flood events. This work was completed in Nov 2022.
- Repair the damage and stabilise an existing causeway on Calimpa Road that was impacted by recent rain / flood events.
   This work was completed in Nov 2022.
- Stabilise (sheeted with gravel materials) and regraded Alma Lane (between the rail alignment and County Boundary Rd).
   These works were completed in Nov 2022.

The environmental focus for the next reporting period includes:

- Completion works, waste removal and landscape preparation works through Stages 1 and 3. This
  includes resource recovery and re-use in line with the relevant resource recovery order and
  exemptions and discussions with the NSW EPA.
- Progressive stabilisation of the site via the implementation of the landscape treatment design for all disturbed areas within Stages 1 and 3.
- Progressive removal of the environmental controls (i.e. erosion and sediment controls, no-go zone signage and flagging, Five-clawed Worm Skink relocation areas, etc) through Stage 1, 2B and 3.





- Post-construction weed assessment and management activities through Stages 1, 2A, 2B and 3.
- Commence the Project's EPL relinquishment process (i.e. groundcover assessments, waste and contamination inspections, etc).

Please don't hesitate to contact me should you have any further questions in relation to this report.

Yours sincerely

Adam Playne

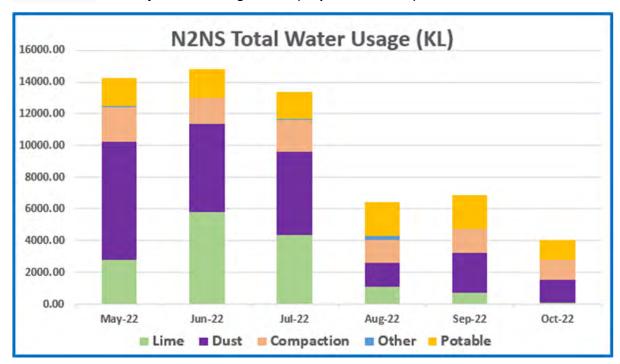
Senior Environmental Advisor

Trans4m Rail



## **ATTACHMENTS**

Attachment A: N2NS Project - Water Usage Results (May - October 2022)





## Attachment B: Depositional Dust Gauge Monitoring Results (incl. Certificate(s) of Analysis)

| Monitoring<br>Period | PAD 2                               | PAD 4 | Gurley  | Crooble | Croppa Creek | Croppa / North<br>Star Int. | North Star    | Royden Road      | Milguy | Wongabindi | Spring<br>Creek | Edgerol | Tookey<br>Creek | Pan Creek |     |  |   |     |
|----------------------|-------------------------------------|-------|---------|---------|--------------|-----------------------------|---------------|------------------|--------|------------|-----------------|---------|-----------------|-----------|-----|--|---|-----|
| Units                | Total Insoluble Matter (g/m²/month) |       |         |         |              |                             |               |                  |        | -          |                 |         |                 |           |     |  |   |     |
| Criteria             |                                     |       |         |         |              | 4 g/m <sup>2</sup> /m       | onth - Annual | Averaging Period |        |            |                 |         |                 |           |     |  |   |     |
| Feb-21               | 0.3                                 | 4.4   | 1.1     | T+1-    | T+           |                             |               |                  |        |            |                 |         |                 |           |     |  |   |     |
| Mar-21               | 0.7                                 | 0.4   | 0.5     | +       | 49           |                             | -             | - 4              |        | ÷ ;        | 7-7             | +       | 1 + C           |           |     |  |   |     |
| Apr-21               | 2.0                                 | 1.6   | 0.8     | - 4     | - JAC        | FE1                         |               |                  | 120    |            | - V -           | - 2     | 100             | - 41      |     |  |   |     |
| May-21               | 0.4                                 | 1.0   | 0.5     |         |              |                             |               |                  | -      |            | 194             | -       |                 | -         |     |  |   |     |
| Jun-21               | 1.3                                 | 0.5   | 1.2     | - 1     |              | 9                           |               |                  | - 14.  | F = -      |                 |         | 1 14            | 4         |     |  |   |     |
| Jul-21               | 1.0                                 | 0.2   | 0.2     | 14      |              | (T - 25 T)                  | - 21          | 1.               | 3.     | 18         |                 | - 2     | 78              | . 31      |     |  |   |     |
| Aug-21               |                                     |       |         |         |              |                             |               | 100              |        |            | -               |         | -               |           |     |  | 1 | 22. |
| Sep-21               | 1.5                                 |       | 2.9 0.8 | -       | -            | - 1                         | -             |                  | -      | -          | -8.0            |         | -               | -         |     |  |   |     |
| Oct-21               | 1.5                                 | 2.9   |         | (*)     |              |                             |               | - 4              | 7-4    | 2.47       |                 |         | 1.03            | 1         |     |  |   |     |
| Nov-21               |                                     |       |         |         | 75           | 5                           | 0 140 19      | 5-               |        | 9.1        | -               |         | -               | D-C       | - N |  |   |     |
| Dec-21               | 0.7                                 | 1.0   | 0.5     | 1.9     | 0.1          | 2.1                         | 4.0           | 2.1              | 1.2    | · ·        | - 4             |         |                 | ·         |     |  |   |     |
| Jan-22               | 0.7                                 | 0.8   | 0.5     | 7.9     | 1.6          | 0.3                         | 1.6           | 0.3              | 0.9    |            | -               | +       | 7.00            | -         |     |  |   |     |
| Feb-22               | 0.8                                 | 0.7   | 1.2     | 7.1     | 2,2          | 13.2                        | 2.4           | 3.1              | 1.4    | 1.4        | ÷=:             |         | 1               |           |     |  |   |     |
| Mar-22               | 0.5                                 | 0.8   | Decom.  | 4.7     | 4.0          | 4.7                         | 2.2           | 1.2              | 1.5    | 5.4        | 3.6             | 3.8     | 2.5             | 1.8       |     |  |   |     |
| Apr-22               | 0.2                                 | 0.4   | Decom.  | 3.6     | 15.4         | 2.3                         | 1.1           | 0.7              | 0.9    | 4,4        | 2.4             | 4.3     | 4.8             | 1.0       |     |  |   |     |
| May-22               | 0.3                                 | 4.7   | Decom.  | 10.7    |              | 2,3                         | 1.5           | 5.6              | 0.9    | 1.9        | 2.5             | 3.3     | 6.4             | 0.3       |     |  |   |     |
| Jun-22               | 0.3                                 | 2.4   | Decom.  | 1.1     | 2.9          | 2.6                         | 0.8           | 2.4              |        | 2.6        | 4.1             | 3.7     | 4.4             | 0.8       |     |  |   |     |
| Jul-22               | 0.6                                 | 2.8   | Decom.  | 8.4     | 1.4          | 1.6                         | 0.9           | 3.3              | 1.0    | 1.3        | 2.9             | 3.2     | 4.4             | 1.5       |     |  |   |     |
| Aug-22               | 1.4                                 | 1.5   | Decom.  | 3.6     | 2.6          | 1.8                         | 1.0           | 0.7              | 2.4    | 2.6        | 2.6             | 2.7     | 3.6             | 1.7       |     |  |   |     |
| Sep-22               | 0.7                                 | 0.5   | Decom.  | 6.9     | 2.3          | 2.7                         | 0.7           | 1,1              | 2.0    | 0,5        | 5.2             | 2.9     | 2,3             | 1.3       |     |  |   |     |
| Oct-22               | 0.3                                 | 4.3   | Decom.  | 39.3    | 41.1         | 1.3                         | 0.6           | 3.8              | 1.2    | 1.0        | 1.6             | 0.6     | 1.9             | 1.8       |     |  |   |     |
| Annual Average       | 0.7                                 | 1.9   | 0.8     | 8.7     | 7.4          | 3.2                         | 1.5           | 2.2              | 1.3    | 2.3        | 3.1             | 3,1     | 3.8             | 1.3       |     |  |   |     |

| Pollutant               | Averaging period | Criteria                  |  |  |  |
|-------------------------|------------------|---------------------------|--|--|--|
| Dust                    | Annual           | 2 g/m²/month              |  |  |  |
| Deposition <sup>c</sup> | Annual           | 4 g/m²/month <sup>b</sup> |  |  |  |

a. Maximum increase in deposited dust level.



b. Maximum total deposited dust level.

c. Dust is assessed as insoluble solids as defined by AS 3580.10.1-1991 (AM-19).

Underlined data is non-compliant with typical exposure period of 30 +/- 2 days as per AS3580.10.1



## **CERTIFICATE OF ANALYSIS**

**Work Order** : EN2206017

Client : Trans 4 M Rail Joint Venture

Contact : Pippa Donaldson

Address : 64-68 Balo Street

Moree 2400

Telephone

Project : Narrabri 2 North Star

Order number C-O-C number

Sampler : Georgia Butler

Site

Quote number : EN/333 No. of samples received : 12 No. of samples analysed : 12

Page : 1 of 5

> Laboratory : Environmental Division Newcastle

Contact

Address : 5/585 Maitland Road Mayfield West NSW Australia 2304

: 24-Jun-2022 10:00

Telephone : +61 2 4014 2500 **Date Samples Received** 

**Date Analysis Commenced** : 28-Jun-2022

Issue Date : 12-Jul-2022 11:23



This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. This document shall not be reproduced, except in full

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QA/QC Compliance Assessment to assist with **Quality Review and Sample Receipt Notification.** 

#### Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is carried out in compliance with procedures specified in 21 CFR Part 11.

Signatories Position Accreditation Category

Thomas Regan Laboratory Technician Newcastle - Inorganics, Mayfield West, NSW Page : 2 of 5 Work Order : EN2206017

Client : Trans 4 M Rail Joint Venture

Project : Narrabri 2 North Star

# ALS

#### **General Comments**

The analytical procedures used by ALS have been developed from established internationally recognised procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are fully validated and are often at the client request.

Where moisture determination has been performed, results are reported on a dry weight basis.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

When sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes.

Where a result is required to meet compliance limits the associated uncertainty must be considered. Refer to the ALS Contract for details.

Key: CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.

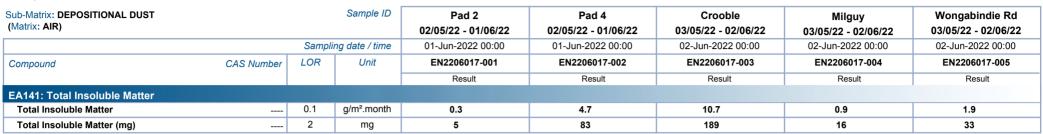
LOR = Limit of reporting

- ^ = This result is computed from individual analyte detections at or above the level of reporting
- ø = ALS is not NATA accredited for these tests.
- ~ = Indicates an estimated value.
- Analysis as per AS3580.10.1-2016. Samples passed through a 1mm sieve prior to analysis. NATA accreditation does not apply for results reported in g/m².mth as sampling data was provided by the client.
- Sample exposure period for 007 and 008 is 34 days which is outside the typical exposure period of 30 +/- 2 days as per AS3580.10.1.
- For dust analysis, the Limit of Reporting (LOR) referenced in the reports for deposited matter parameters represents the reporting increment rather than reporting limit.

Page : 3 of 5
Work Order : EN2206017

Client : Trans 4 M Rail Joint Venture

Project : Narrabri 2 North Star





Page : 4 of 5 Work Order : EN2206017

Client : Trans 4 M Rail Joint Venture

Project : Narrabri 2 North Star

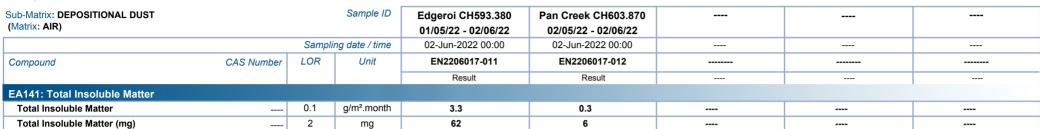




Page : 5 of 5 Work Order : EN2206017

Client : Trans 4 M Rail Joint Venture

Project : Narrabri 2 North Star







## **CERTIFICATE OF ANALYSIS**

**Work Order** : EN2206964

: Trans 4 M Rail Joint Venture

Contact : Pippa Donaldson

Address : 64-68 Balo Street

Moree 2400

Telephone

Client

Project : Narrabri 2 North Star

Order number

C-O-C number

Sampler : Georgia Butler

Site

Quote number : EN/333 No. of samples received : 12 No. of samples analysed : 12

Page : 1 of 5

Laboratory : Environmental Division Newcastle

Contact

**Date Samples Received** 

Address : 5/585 Maitland Road Mayfield West NSW Australia 2304

Telephone : +61 2 4014 2500

: 19-Jul-2022 15:00 **Date Analysis Commenced** : 25-Jul-2022

Issue Date : 23-Aug-2022 10:45



This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. This document shall not be reproduced, except in full

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QA/QC Compliance Assessment to assist with **Quality Review and Sample Receipt Notification.** 

#### Signatories

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Signatories Position Accreditation Category

Thomas Regan Laboratory Technician Newcastle - Inorganics, Mayfield West, NSW Page : 2 of 5 Work Order : EN2206964

Client : Trans 4 M Rail Joint Venture

Project : Narrabri 2 North Star

## General Comments

The analytical procedures used by ALS have been developed from established internationally recognised procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are fully validated and are often at the client request.

Where moisture determination has been performed, results are reported on a dry weight basis.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

When sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes.

Where a result is required to meet compliance limits the associated uncertainty must be considered. Refer to the ALS Contract for details.

Key: CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.

LOR = Limit of reporting

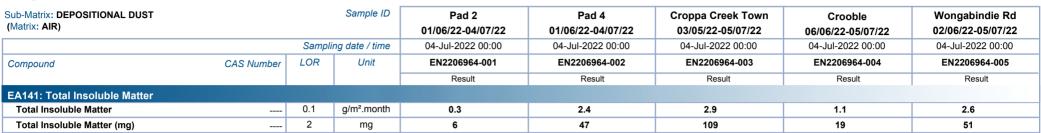
- ^ = This result is computed from individual analyte detections at or above the level of reporting
- ø = ALS is not NATA accredited for these tests.
- ~ = Indicates an estimated value.
- Analysis as per AS3580.10.1-2016. Samples passed through a 1mm sieve prior to analysis. NATA accreditation does not apply for results reported in g/m².mth as sampling data was provided by the client.
- Sample exposure period for 001, 002, 005, 006 and 009-012 is 33 days which is outside the typical exposure period of 30 +/- 2 days as per AS3580.10.1.
- Sample exposure period for 003 is 63 days which is outside the typical exposure period of 30 +/- 2 days as per AS3580.10.1.
- For dust analysis, the Limit of Reporting (LOR) referenced in the reports for deposited matter parameters represents the reporting increment rather than reporting limit.



Page : 3 of 5 Work Order : EN2206964

Client : Trans 4 M Rail Joint Venture

Project : Narrabri 2 North Star





Page : 4 of 5 Work Order : EN2206964

Client : Trans 4 M Rail Joint Venture

Project : Narrabri 2 North Star

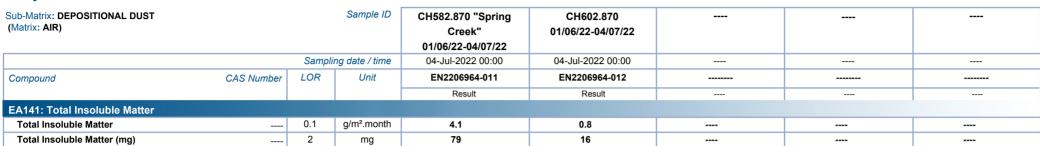




Page : 5 of 5 Work Order : EN2206964

Client : Trans 4 M Rail Joint Venture

Project : Narrabri 2 North Star







## **CERTIFICATE OF ANALYSIS**

Work Order : EN2207667

Client : Trans 4 M Rail Joint Venture

Contact : Pippa Donaldson

Address : 64-68 Balo Street

Moree 2400

Telephone : ---

Project : Narrabri 2 North Star

Order number : ---C-O-C number : ----

Sampler : Georgia Butler

Site : ----

Quote number : EN/333

No. of samples received : 13

No. of samples analysed : 13

Page : 1 of 5

Laboratory : Environmental Division Newcastle

Contact :

Address : 5/585 Maitland Road Mayfield West NSW Australia 2304

Telephone : +61 2 4014 2500

Date Samples Received : 09-Aug-2022 11:00

Date Analysis Commenced : 15-Aug-2022

Issue Date : 23-Aug-2022 10:45



This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QA/QC Compliance Assessment to assist with Quality Review and Sample Receipt Notification.

#### Signatories

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Signatories Position Accreditation Category

Thomas Regan Laboratory Technician Newcastle - Inorganics, Mayfield West, NSW

Page : 2 of 5 Work Order : EN2207667

Client : Trans 4 M Rail Joint Venture

Project : Narrabri 2 North Star

#### **General Comments**

The analytical procedures used by ALS have been developed from established internationally recognised procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are fully validated and are often at the client request.

Where moisture determination has been performed, results are reported on a dry weight basis.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

When sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes.

Where a result is required to meet compliance limits the associated uncertainty must be considered. Refer to the ALS Contract for details.

Key: CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.

LOR = Limit of reporting

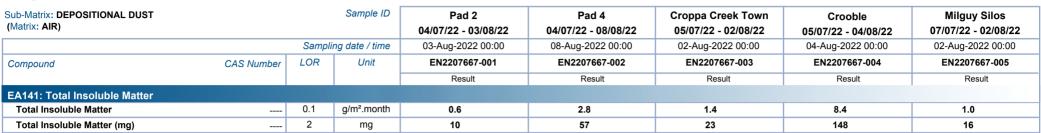
- ^ = This result is computed from individual analyte detections at or above the level of reporting
- ø = ALS is not NATA accredited for these tests.
- ~ = Indicates an estimated value.
- Analysis as per AS3580.10.1-2016. Samples passed through a 1mm sieve prior to analysis. NATA accreditation does not apply for results reported in g/m².mth as sampling data was provided by the client.
- Sample exposure period for 005 is 26 days which is outside the typical exposure period of 30 +/- 2 days as per AS3580.10.1.
- Sample exposure period for 002 is 35 days which is outside the typical exposure period of 30 +/- 2 days as per AS3580.10.1.
- For dust analysis, the Limit of Reporting (LOR) referenced in the reports for deposited matter parameters represents the reporting increment rather than reporting limit.



Page : 3 of 5 Work Order : EN2207667

Client : Trans 4 M Rail Joint Venture

Project : Narrabri 2 North Star

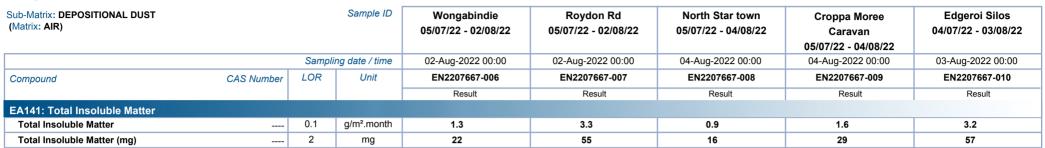




Page : 4 of 5 Work Order : EN2207667

Client : Trans 4 M Rail Joint Venture

Project : Narrabri 2 North Star

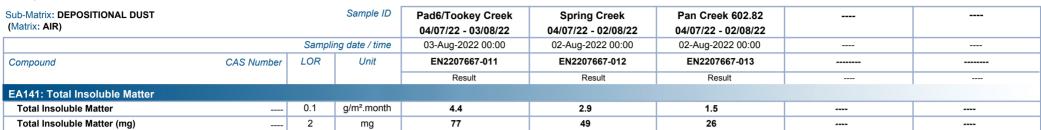




Page : 5 of 5 Work Order : EN2207667

Client : Trans 4 M Rail Joint Venture

Project : Narrabri 2 North Star







## **CERTIFICATE OF ANALYSIS**

Work Order : **EN2208863** 

Client : Trans 4 M Rail Joint Venture

Contact : Pippa Donaldson

Address : 64-68 Balo Street

Moree 2400

Telephone : ---

Project : Narrabri 2 North Star

Order number : ---C-O-C number : ----

Sampler : Georgia Butler

Site : ----

Quote number : EN/333

No. of samples received : 13

No. of samples analysed : 13

Page : 1 of 5

Laboratory : Environmental Division Newcastle

Contact :

Address : 5/585 Maitland Road Mayfield West NSW Australia 2304

Telephone : +61 2 4014 2500

Date Samples Received : 09-Sep-2022 09:30

Date Analysis Commenced : 12-Sep-2022

Issue Date : 07-Oct-2022 12:50



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- Analytical Results

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#### Signatories

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Signatories Position Accreditation Category

Zoran Grozdanovski Laboratory Operator Newcastle - Inorganics, Mayfield West, NSW

Page : 2 of 5 Work Order : EN2208863

Client : Trans 4 M Rail Joint Venture

Project : Narrabri 2 North Star

# ALS

#### **General Comments**

The analytical procedures used by ALS have been developed from established internationally recognised procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are fully validated and are often at the client request.

Where moisture determination has been performed, results are reported on a dry weight basis.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

When sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes.

Where a result is required to meet compliance limits the associated uncertainty must be considered. Refer to the ALS Contract for details.

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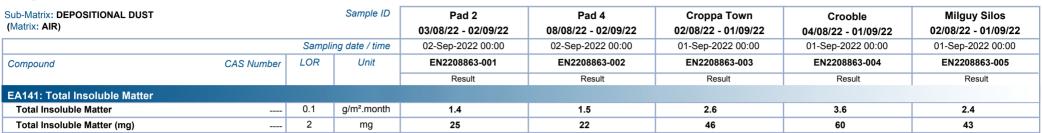
LOR = Limit of reporting

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- ~ = Indicates an estimated value.
- Analysis as per AS3580.10.1-2016. Samples passed through a 1mm sieve prior to analysis. NATA accreditation does not apply for results reported in g/m².mth as sampling data was provided by the client.
- Sample exposure period for 002 is 25 days which is outside the typical exposure period of 30 +/- 2 days as per AS3580.10.1.
- For dust analysis, the Limit of Reporting (LOR) referenced in the reports for deposited matter parameters represents the reporting increment rather than reporting limit.

Page : 3 of 5 Work Order : EN2208863

Client : Trans 4 M Rail Joint Venture

Project : Narrabri 2 North Star

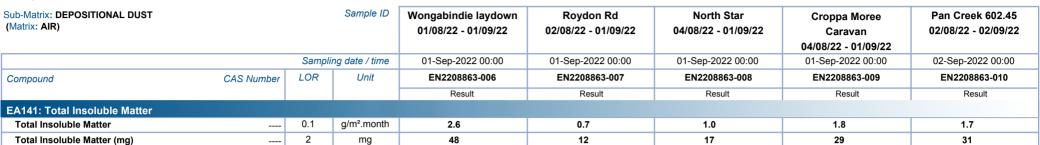




Page : 4 of 5 Work Order : EN2208863

Client : Trans 4 M Rail Joint Venture

Project : Narrabri 2 North Star

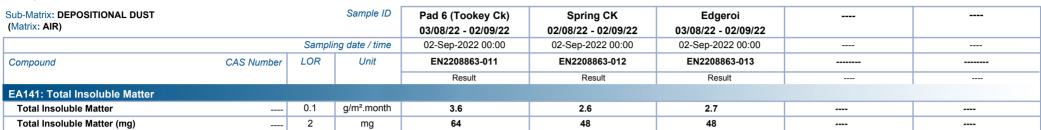




Page : 5 of 5 Work Order : EN2208863

Client : Trans 4 M Rail Joint Venture

Project : Narrabri 2 North Star







## **CERTIFICATE OF ANALYSIS**

Work Order : EN2209861

: Trans 4 M Rail Joint Venture Laboratory

Contact : Pippa Donaldson

Address : 64-68 Balo Street

Moree 2400

Telephone : ---

Client

Project : Narrabri 2 North Star

Order number : ----

C-O-C number : ----

Sampler : Georgia Butler

Site : ---

Quote number : EN/333

No. of samples received : 13

No. of samples analysed : 13

Page : 1 of 5

Laboratory : Environmental Division Newcastle

Contact

Address : 5/585 Maitland Road Mayfield West NSW Australia 2304

Telephone : +61 2 4014 2500

Date Samples Received : 10-Oct-2022 11:30

Date Analysis Commenced : 11-Oct-2022

Issue Date : 27-Oct-2022 12:24



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#### Signatories

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Signatories Position Accreditation Category

Thomas Regan Laboratory Technician Newcastle - Inorganics, Mayfield West, NSW

Page : 2 of 5 Work Order : EN2209861

Client : Trans 4 M Rail Joint Venture

Project : Narrabri 2 North Star



#### **General Comments**

The analytical procedures used by ALS have been developed from established internationally recognised procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are fully validated and are often at the client request.

Where moisture determination has been performed, results are reported on a dry weight basis.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

When sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes.

Where a result is required to meet compliance limits the associated uncertainty must be considered. Refer to the ALS Contract for details.

Key: CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.

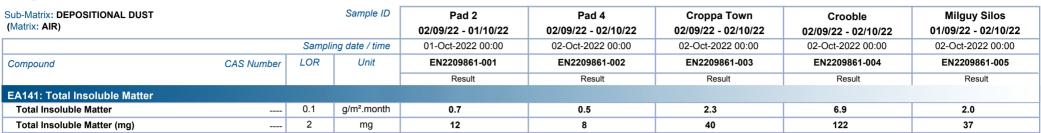
LOR = Limit of reporting

- ^ = This result is computed from individual analyte detections at or above the level of reporting
- ø = ALS is not NATA accredited for these tests.
- ~ = Indicates an estimated value.
- Analysis as per AS3580.10.1-2016. Samples passed through a 1mm sieve prior to analysis. NATA accreditation does not apply for results reported in g/m².mth as sampling data was provided by the client.
- For dust analysis, the Limit of Reporting (LOR) referenced in the reports for deposited matter parameters represents the reporting increment rather than reporting limit.

Page : 3 of 5 Work Order : EN2209861

Client : Trans 4 M Rail Joint Venture

Project : Narrabri 2 North Star





Page : 4 of 5 Work Order : EN2209861

Client : Trans 4 M Rail Joint Venture

Project : Narrabri 2 North Star

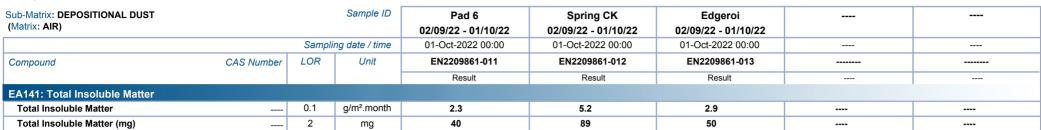




Page : 5 of 5 Work Order : EN2209861

Client : Trans 4 M Rail Joint Venture

Project : Narrabri 2 North Star







#### **CERTIFICATE OF ANALYSIS**

Work Order : EN2210919

: Trans 4 M Rail Joint Venture

Contact : Pippa Donaldson

Address : 64-68 Balo Street

Moree 2400

Telephone : ---

Client

Project : Narrabri 2 North Star

Order number : ----

C-O-C number : ---Sampler : Georgia E

Sampler : Georgia Butler Site : ----

Quote number : EN/333

No. of samples received : 13

No. of samples analysed : 13

Page : 1 of 5

Laboratory : Environmental Division Newcastle

Contact :

Address : 5/585 Maitland Road Mayfield West NSW Australia 2304

Telephone : +61 2 4014 2500

Date Samples Received : 09-Nov-2022 12:25

Date Analysis Commenced : 11-Nov-2022

Issue Date : 23-Nov-2022 09:21



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This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QA/QC Compliance Assessment to assist with Quality Review and Sample Receipt Notification.

#### Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is carried out in compliance with procedures specified in 21 CFR Part 11.

Signatories Position Accreditation Category

Zoran Grozdanovski Laboratory Operator Newcastle - Inorganics, Mayfield West, NSW

Page : 2 of 5 Work Order : EN2210919

Client : Trans 4 M Rail Joint Venture

Project · Narrabri 2 North Star

## ALS

#### **General Comments**

The analytical procedures used by ALS have been developed from established internationally recognised procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are fully validated and are often at the client request.

Where moisture determination has been performed, results are reported on a dry weight basis.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

When sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes.

Where a result is required to meet compliance limits the associated uncertainty must be considered. Refer to the ALS Contract for details.

Key: CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.

LOR = Limit of reporting

- ^ = This result is computed from individual analyte detections at or above the level of reporting
- ø = ALS is not NATA accredited for these tests.
- ~ = Indicates an estimated value.
- Analysis as per AS3580.10.1-2016. Samples passed through a 1mm sieve prior to analysis. NATA accreditation does not apply for results reported in g/m².mth as sampling data was provided by the client.
- Sample 007-013 exposure period is 33 days which is outside the typical exposure period of 30 +/- 2 days as per AS3580.10.1.
- The dust gauges for samples 002-004, 006, 008, 009 were full when received by the laboratory. They may have overflowed in the field. Results for these gauges are thus reported on an 'as received' basis. No algaecide correction has been applied.
- For dust analysis, the Limit of Reporting (LOR) referenced in the reports for deposited matter parameters represents the reporting increment rather than reporting limit.

Page : 3 of 5
Work Order : EN2210919

Client : Trans 4 M Rail Joint Venture

Project : Narrabri 2 North Star

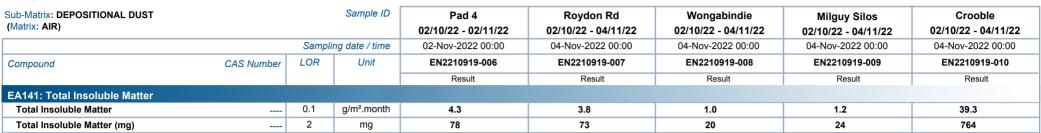




Page : 4 of 5
Work Order : EN2210919

Client : Trans 4 M Rail Joint Venture

Project : Narrabri 2 North Star





Page : 5 of 5 Work Order : EN2210919

Client : Trans 4 M Rail Joint Venture

Project : Narrabri 2 North Star

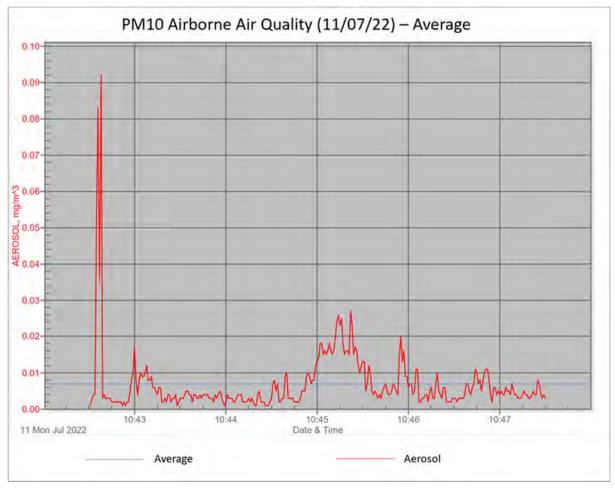






#### Attachment C: Airborne Air Quality (PM10) Monitoring Results

Attachment C1: 24hr (PM10) Rolling Average - Bellata (11th July 2022)



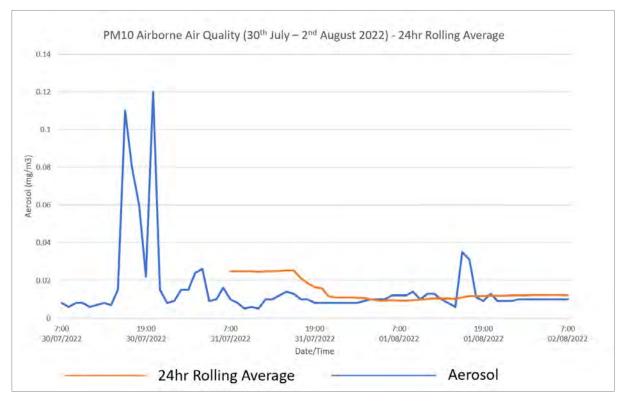
#### NOTES:

Criteria includes:

| Pollutant | Averaging period | Criteria             |  |
|-----------|------------------|----------------------|--|
| PM10      | 24 Hours         | 50 μg/m³ (0.05mg/m³) |  |



Attachment C2: 24hr (PM10) Rolling Average - Bellata (30<sup>th</sup> July – 2<sup>nd</sup> August 2022)



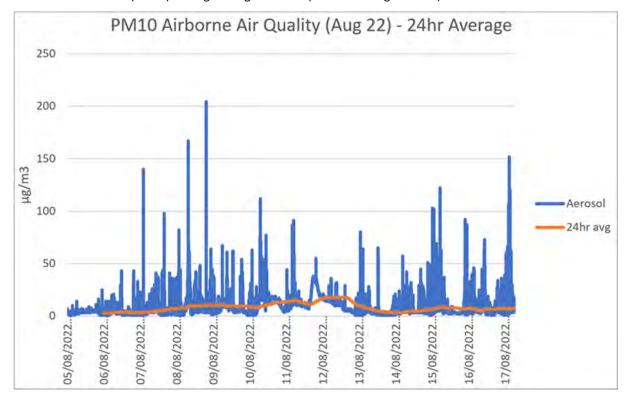
#### NOTES:

Criteria includes:

| Pollutant | Averaging period | Criteria             |
|-----------|------------------|----------------------|
| PM10      | 24 Hours         | 50 μg/m³ (0.05mg/m³) |



Attachment C3: 24hr (PM10) Rolling Average - Bellata (05<sup>th</sup> – 17<sup>th</sup> August 2022)



#### NOTES:

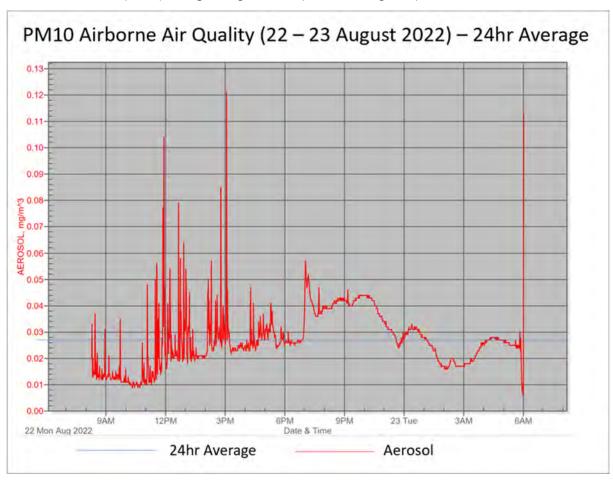
Criteria includes:

T: 07 5671 9601

| Pollutant Averaging period |      | Averaging period | Criteria                                      |  |  |  |
|----------------------------|------|------------------|---|--|--|--|
|                            | PM10 | 24 Hours         | 50 μg/m <sup>3</sup> (0.05mg/m <sup>3</sup> ) |  |  |  |



Attachment C4: 24hr (PM10) Rolling Average - Bellata (22<sup>nd</sup> – 23<sup>rd</sup> Aug 2022)



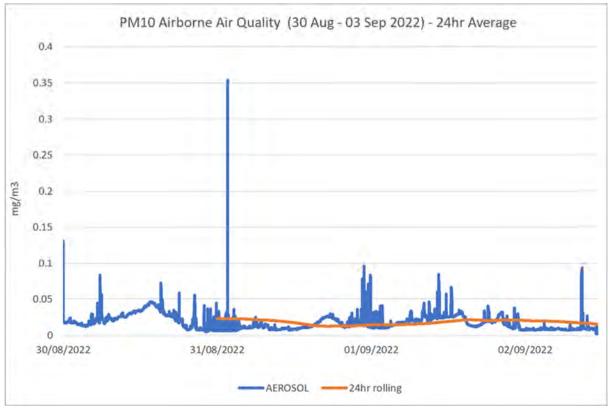
#### NOTES:

Criteria includes:

| Pollutant | Averaging period | Criteria             |  |
|-----------|------------------|----------------------|--|
| PM10      | 24 Hours         | 50 μg/m³ (0.05mg/m³) |  |



#### Attachment C5: 24hr (PM10) Rolling Average - Bellata (30<sup>th</sup> Aug – 03<sup>rd</sup> Sep 2022)



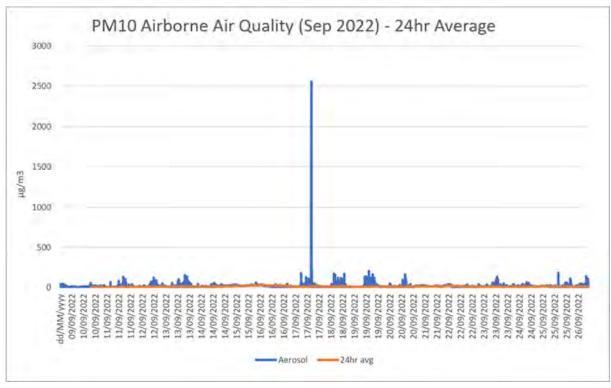
#### NOTES:

| Criteria | inc | lud | es: |
|----------|-----|-----|-----|

| Pollutant | Averaging period | Criteria             |  |
|-----------|------------------|----------------------|--|
| PM10      | 24 Hours         | 50 μg/m³ (0.05mg/m³) |  |



Attachment C6: 24hr (PM10) Rolling Average - Bellata (09th -26th September 2022)





#### NOTES:

| Crit | eria | inc | lude | s: |
|------|------|-----|------|----|
| _    |      |     |      | _  |

| Pollutant | Averaging period | Criteria             |
|-----------|------------------|----------------------|
| PM10      | 24 Hours         | 50 μg/m³ (0.05mg/m³) |



**Attachment D: Air Quality Monitoring Locations** 

# PAD 2 - Depositional Dust **INTERNAL USE ONLY** Gauge (Active) Legend 641.6 641.5 641.4 641.3 DISCLAIMER: The data published in Inland Rail's interactive GIS Mapping Applications is produced for information purposes only. Whilst every effort is made to ensure the accuracy of this data, ARTC and the Inland Rail Programme make no representations nor give any warranties or guarantees, express or implied, about the accuracy, adequacy, reliability, completeness or suitability of the data for any particular purpose and disclaim all responsibility and all liability (including without limitation, liability in negligence) for all expenses, losses, damages (including indirect or consequential loss or damages) and costs which you might incur as a result of this product being inaccurate or incomplete in any way and for any reason. 641 0.06 0.1 Kilometers Notes:

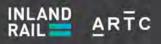
1: 4,514

Projection: WGS\_1984\_Web\_Mercator\_Auxiliary\_Sphere

Note: ARTC web applications use the Web Mercator (EPSG:3857) coordinate system. This modified Mercator projection maximises system performance, but at the expense of distortion and accuracy. As such, all measurements carried out in these applications are to be regarded as approximate.

Scale:

Yellow Diamond - PAD 2 Depositional Dust Gauge Monitoring Location (Active) Purple - EPL Premise Boundary



World Boundaries and Places

CIZ (SPIR) Level Crossings

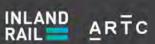
Pedestrian Chainage 100m Rail Alignment Residential Receivers

Sensitive Receivers Active recreation Aged care Education Health

> Passive recreation Religous

## Croppa Creek - PM10 & **INTERNAL USE ONLY DDG** Monitoring Location Legend CIZ (SPIR) 734.5 734.4 734.3 734.1 734 LX918 733.9 733.8 733.7 733.6 733.5 733.4 DISCLAIMER: The data published in Inland Rail's interactive GIS Mapping Applications is produced for information purposes only. Whilst every effort is made to ensure the accuracy of this data, ARTC and the Inland Rail Programme make no representations nor give any warranties or guarantees, express or implied, about the accuracy, adequacy, reliability, completeness or suitability of the data for any particular purpose and disclaim all responsibility and all liability (including without limitation, liability in negligence) for all expenses, losses, damages (including indirect or consequential loss or damages) and costs which you might incur as a result of this product being inaccurate or incomplete in any way and for any reason. 733.1 732.9 0.11 0.2 Kilometers

Purple - EPL Premise Boundary Yellow Diamond - Croppa Creek DDG Monitoring Location (Active) Red Diamond - AQ01 PM10 Monitoring Location (Decommissioned) Blue Diamond - AQ02 PM10 Monitoring Location (Decommissioned)



Level Crossings

Pedestrian Chainage 100m Rail Alignment

Residential Receivers Sensitive Receivers Active recreation Aged care

> Education Health

Religous

Passive recreation

Note: ARTC web applications use the Web Mercator (EPSG:3857) coordinate system. This modified Mercator projection maximises system performance, but at the expense of distortion and accuracy. As such, all measurements carried out in these applications are to be regarded as approximate.

Projection: WGS\_1984\_Web\_Mercator\_Auxiliary\_Sphere

1: 9,028

Scale:

# **Crooble Depositional Dust INTERNAL USE ONLY** Gauge 718.9 718.8 718.7 718.6 718.5 718.3 718.2 717.8 717.6 717.5 0 Kilometers



#### Legend

CIZ (SPIR)

Level Crossings

Pedestrian

Chainage 100m

Rail Alignment

Residential Receivers Sensitive Receivers

Active recreation

Aged care

Education

Health

Passive recreation

Religous

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0.11 0.2

1: 9,028 Scale:

Projection: WGS\_1984\_Web\_Mercator\_Auxiliary\_Sphere

Note: ARTC web applications use the Web Mercator (EPSG:3857) coordinate system. This modified Mercator projection maximises system performance, but at the expense of distortion and accuracy. As such, all measurements carried out in these applications are to be regarded as approximate.

Yellow Diamond - Depositional Dust Gauge Monitoring Location (Active) Purple - EPL Premise Boundary



# Croppa - North Star Rd **INTERNAL USE ONLY** DDG Location 756.1 755.8 755.7 755.6 755.4 755.3 755.1 755 754.9 754.8 754.7



#### Legend

CIZ (SPIR)

Level Crossings

Public

Private

Pedestrian

Chainage 100m

Rail AlignmentResidential Receivers

Sensitive Receivers

Active recreation

Aged care

Education

Health

Passive recreation

Religous

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0 0.11 0.2 Kilometers

Scale: 1: 9,028

Projection: WGS\_1984\_Web\_Mercator\_Auxiliary\_Sphere

Note: ARTC web applications use the Web Mercator (EPSG:3857) coordinate system. This modified Mercator projection maximises system performance, but at the expense of distortion and accuracy. As such, all measurements carried out in these applications are to be regarded as approximate.

Notes:

Yellow Diamond - Croppa - North Star Depositional Dust Gauge Location (Active) Purple - EPL Premise Boundary



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## **Edgeroi DDG Location INTERNAL USE ONLY** 594.4 594.3 Legend CIZ (SPIR) 593.997 593.9 T 593.8 593 593.3 593.1 593 DISCLAIMER: The data published in Inland Rail's interactive GIS Mapping Applications is produced for information purposes only. Whilst every effort is made to ensure the accuracy of this data, ARTC and the Inland Rail Programme make no representations nor give any warranties or guarantees, express or implied, about the accuracy, adequacy, reliability, completeness or suitability of the data for any particular purpose and disclaim all responsibility and all liability (including without limitation, liability in negligence) for all expenses, losses, damages (including indirect or consequential loss or damages) and costs which you might incur as a result of this product being inaccurate or incomplete in any way and for any reason. 592.8 0 0.11 0.2 Kilometers Notes:

1: 9,028

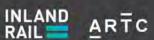
Projection: WGS\_1984\_Web\_Mercator\_Auxiliary\_Sphere

Note: ARTC web applications use the Web Mercator (EPSG:3857) coordinate system. This modified Mercator projection maximises system performance, but at the expense of distortion and accuracy. As such, all measurements carried out in these applications are to be regarded as approximate.

Scale:

Yellow Diamond - Edgeroi DDG Monitoring Location (Active)

Purple - EPL Premise Boundary



Level Crossings

Pedestrian Chainage 100m

Rail Alignment Residential Receivers

Sensitive Receivers Active recreation Aged care

> Education Health

Passive recreation Religous

Named Watercourse LS <all other values>





#### Legend

World Boundaries and Places

CIZ (SPIR)

Level Crossings

Pu

Private

Pedestrian

T caestrian

Chainage 1km

Rail AlignmentResidential Receivers

Sensitive Receivers

Active recreation

Aged care

Education

Health

Passive recreation

Religous

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Scale: 1: 18,056

Projection: WGS\_1984\_Web\_Mercator\_Auxiliary\_Sphere

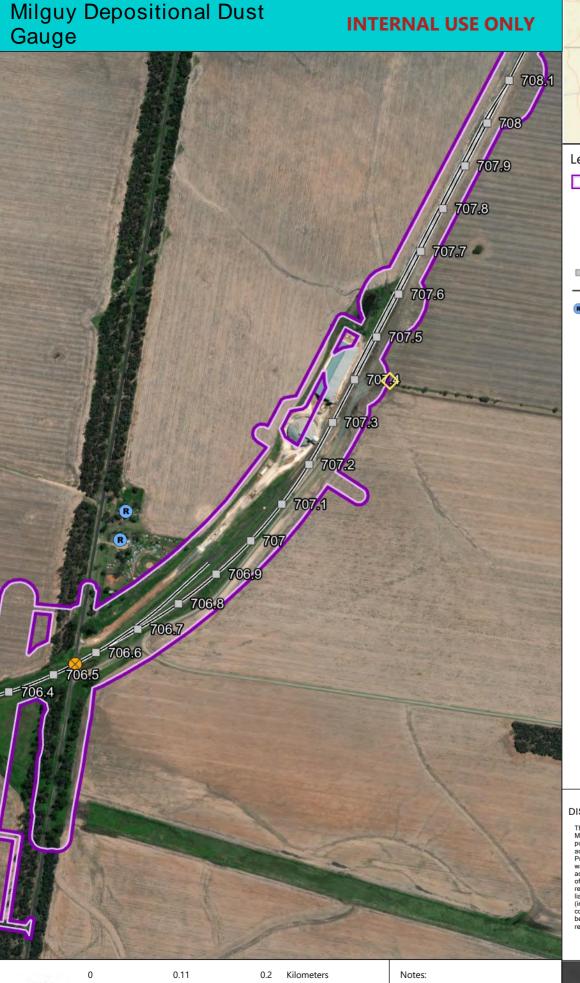
Yellow Diamond - Gurley Depositional Dust Monitoring Location (Decommissioned)



ARTC

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Note: ARTC web applications use the Web Mercator (EPSG:3857) coordinate system. This modified Mercator projection maximises system performance, but at the expense of distortion and accuracy. As such, all measurements carried out in these applications are to be regarded as approximate.





#### Legend

CIZ (SPIR)

Level Crossings

Pedestrian

Chainage 100m

Rail Alignment

Residential Receivers Sensitive Receivers

Active recreation

Aged care

Education

Health

Passive recreation

Religous

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Scale:

1: 9,028

Projection: WGS\_1984\_Web\_Mercator\_Auxiliary\_Sphere

Note: ARTC web applications use the Web Mercator (EPSG:3857) coordinate system. This modified Mercator projection maximises system performance, but at the expense of distortion and accuracy. As such, all measurements carried out in these applications are to be regarded as approximate.

Yellow Diamond - Milguy Depositional Dust Gauge Monitoring Location (Active) Purple - EPL Premise Boundary





## North Star DDG Location **INTERNAL USE ONLY** 759.5 759.4 Legend 759.3 759.2 759.1 759 758.9 758:2 758.1 758 757.9 757.8



CIZ (SPIR) Level Crossings

Public

Pedestrian

Chainage 100m

Rail Alignment

Residential Receivers Sensitive Receivers

Active recreation

Aged care

Education

Health

Passive recreation

Religous

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0

Scale:

0.11 0.2 Kilometers

1: 9,028

Projection: WGS\_1984\_Web\_Mercator\_Auxiliary\_Sphere

Note: ARTC web applications use the Web Mercator (EPSG:3857) coordinate system. This modified Mercator projection maximises system performance, but at the expense of distortion and accuracy. As such, all measurements carried out in these applications are to be regarded as approximate.

Notes:

Yellow Diamond - North Star DDG Monitoring Location (Active)

Purple - EPL Premise Boundary



## PAD 4 - Depositional Dust Gauge (Active)

#### **INTERNAL USE ONLY**





#### Legend

World Boundaries and Places

CIZ (SPIR)

Level Crossings

⊗ P

Private

Pedestrian

Chainage 100m

Rail Alignment

Residential Receivers

Sensitive Receivers

Active recreation

Aged careEducation

Health

Passive recreation

Religous

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0.11

0.2

Kilometers

Scale: 1: 9,028

0

Projection: WGS\_1984\_Web\_Mercator\_Auxiliary\_Sphere

Note: ARTC web applications use the Web Mercator (EPSG:3857) coordinate system. This modified Mercator projection maximises system performance, but at the expense of distortion and accuracy. As such, all measurements carried out in these applications are to be regarded as approximate.

Notes:

Yellow Diamond - PAD 4 Depositional Dust Gauge Monitoring Location (Active) Purple - EPL Premise Boundary



The Australian Government is delivering Inland Rail Imough the Australian Rail Track Corporation (ARTC) In partnership with the private sector.

#### Pan Creek DDG Location **INTERNAL USE ONLY** 603.9 603.8 Legend 603.7 CIZ (SPIR) Level Crossings 603.6 Public Pedestrian 603.5 Chainage 100m Rail Alignment Residential Receivers 603.4 Sensitive Receivers Active recreation 603.3 Aged care Education Health 603.2 Passive recreation Religous Named Watercourse LS 603.1 <all other values> 603 602.9 602.8 602.7 602.6 ( 602.5 PAN CREEK 602.4 DISCLAIMER: The data published in Inland Rail's interactive GIS Mapping Applications is produced for information purposes only. Whilst every effort is made to ensure the accuracy of this data, ARTC and the Inland Rail Programme make no representations nor give any warranties or guarantees, express or implied, about the accuracy, adequacy, reliability, completeness or suitability of the data for any particular purpose and disclaim all responsibility and all liability (including without limitation, liability in negligence) for all expenses, losses, damages (including indirect or consequential loss or damages) and costs which you might incur as a result of this product being inaccurate or incomplete in any way and for any reason. 602.3 602.2 602.1



0

Scale:

0.11 0.2 Kilometers

Projection: WGS\_1984\_Web\_Mercator\_Auxiliary\_Sphere

Note: ARTC web applications use the Web Mercator (EPSG:3857) coordinate system. This modified Mercator projection maximises system performance, but at the expense of distortion and accuracy. As such, all measurements carried out in these applications are to be regarded as approximate.

1: 9,028

#### Notes:

Yellow Diamond - Pan Creek DDG Monitoring Location (Active)

Purple - EPL Premise Boundary



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# Roydon Rd DDG Location **INTERNAL USE ONLY** --686.8 7 -686.7 686.6 ■=686.5 686.4 686.2511 686.1



CIZ (SPIR)
Level Crossings

Public

Privat

Pedestrian

Chainage 100m

Rail Alignment

Residential Receivers Sensitive Receivers

Active recreation

Aged care

Education

Health

Passive recreation

Religous

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0 0.11 0.2 Kilometers
Scale: 1: 9,028

Projection: WGS\_1984\_Web\_Mercator\_Auxiliary\_Sphere

Note: ARTC web applications use the Web Mercator (EPSG:3857) coordinate system. This modified Mercator projection maximises system performance, but at the expense of distortion and accuracy. As such, all measurements carried out in these applications are to be regarded as approximate.

Notes:

Yellow Diamond - Roydon Rd Depositional Dust Gauge Location Purple - EPL Premise Boundary



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#### Spring Creek DDG **INTERNAL USE ONLY** Location 583.7 583.6 Legend 583.5 CIZ (SPIR) Level Crossings 583.4 Public Pedestrian 583.3 Chainage 100m Rail Alignment Residential Receivers 583.2 Sensitive Receivers Active recreation 583.1 Aged care Education Health 583 Passive recreation Religous Named Watercourse LS 582.9 <all other values> 582.8 582.5 582.4 582.3 582.2 DISCLAIMER: The data published in Inland Rail's interactive GIS Mapping Applications is produced for information purposes only. Whilst every effort is made to ensure the accuracy of this data, ARTC and the Inland Rail Programme make no representations nor give any warranties or guarantees, express or implied, about the accuracy, adequacy, reliability, completeness or suitability of the data for any particular purpose and disclaim all responsibility and all liability (including without limitation, liability in negligence) for all expenses, losses, damages (including indirect or consequential loss or damages) and costs which you might incur as a result of this product being inaccurate or incomplete in any way and for any reason. 582.1 582 581.9 0 0.11 0.2 Kilometers

Notes:

Yellow Diamond - Spring Creek DDG Monitoring Location (Active)

Purple - EPL Premise Boundary



Projection: WGS\_1984\_Web\_Mercator\_Auxiliary\_Sphere

1: 9,028

Scale:

## **Tookey Creek DDG INTERNAL USE ONLY** Location 621.8 621.7 621.6 621.5 621.3 621.2 LX3065 621.1 621 620.9 620.8 620.7 OKE CREEK 620.6 620.5 620.4 620.3 0 0.2 Kilometers



CIZ (SPIR)

Level Crossings

Public

Pedestrian

Chainage 100m

Rail Alignment

Residential Receivers

Sensitive Receivers

Active recreation

Aged care

Education

Health

Passive recreation

Religous

Named Watercourse LS

<all other values>

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0.11

Scale:

1: 9,028

Projection: WGS\_1984\_Web\_Mercator\_Auxiliary\_Sphere

Note: ARTC web applications use the Web Mercator (EPSG:3857) coordinate system. This modified Mercator projection maximises system performance, but at the expense of distortion and accuracy. As such, all measurements carried out in these applications are to be regarded as approximate.

Notes:

Yellow Diamond - Tookey Creek DDG Monitoring Location (Active)

Purple - EPL Premise Boundary



# Wongabindie Rd DDG **INTERNAL USE ONLY** Location 0 Kilometers Notes:



#### Legend

CIZ (SPIR) Level Crossings

Public

Pedestrian

Chainage 1km

Rail Alignment

Residential Receivers Sensitive Receivers

Active recreation

Aged care

Education

Health

Passive recreation

Religous

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0.23 0.5

Scale: 1: 18,056

Projection: WGS\_1984\_Web\_Mercator\_Auxiliary\_Sphere

Note: ARTC web applications use the Web Mercator (EPSG:3857) coordinate system. This modified Mercator projection maximises system performance, but at the expense of distortion and accuracy. As such, all measurements carried out in these applications are to be regarded as approximate.

Yellow Diamond - Wongabindie Rd Depositional Dust Gauge Location Purple - EPL Premise Boundary



# Bellata - PM10 Monitoring **INTERNAL USE ONLY** Location 616.3 615.3 615.2 615.1 615 614.9 614.8 614.7 0



CIZ (SPIR)

Level Crossings

Pedestrian

Chainage 100m

Rail Alignment

Residential Receivers Sensitive Receivers

Active recreation

Aged care

Education

Health

Passive recreation

Religous

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0.11 0.2 Kilometers 1: 9,028 Scale:

Projection: WGS\_1984\_Web\_Mercator\_Auxiliary\_Sphere



Purple - EPL Premise Boundary Red - AQ03 PM10 Monitoring Location (Proposed)





Attachment E: Non-conformance Report (DDG Exposure Period)

#### **System NCR Summary**



| Project Name                  | ARTC Narrabri - North Star (Inland Rail N2NS  | s) Package A     |                           |  |  |
|-------------------------------|---|------------------|---------------------------|--|--|
| Project No                    | PRJ-04902-01 (7632)   |                  |                           |  |  |
| Entered By                    | Adam Playne   | Date Raised      | 03/10/2022 11:49PM (AEDT) |  |  |
| NCR No                        | SNC/N2NS/00041  | NCR Date         | 03/10/2022                |  |  |
| Discipline                    | Environment   | NCR Initiated By | Adam Playne               |  |  |
| Location                      | Narrabri to North Star (N2NS)   | Exact Location   | Multiple Locations        |  |  |
| NCR Raised Against            | Project   | Company          |                           |  |  |
| Decsription                   | During a recent review of the depositional dust gauge monitoring results for the Project it was identified that multiple monitoring occasions were outside the typical exposure period detailed in AS3580.1 and Appendix D (Air Quality Monitoring Program (incl. Depositional Dust Monitoring Procedure)) of the Project's Soil and Water Management Sub-Plan. These include:  June 2022 - DDG Sampling Event: - Sample exposure period for 001 (Pad 2), 002 (Pad 4), 005 (Wongabindie), 006 (Royden) and 009-012 (Edgeroi, Pad 6, Spring Creek and Pan Creek) is 33 days which is 1 day outside the typical exposure period of 30 +/- 2 days as per AS3580.10.1 Sample exposure period for 003 (Croppa Creek) is 63 days which is 31 days outside the typical exposure period of 30 +/- 2 days as per AS3580.10.1.  July 2022 - DDG Sampling Event: - Sample exposure period for 002 (Pad 4) is 35 days which is 3 days outside the typical exposure period of 30 +/- 2 days as per AS3580.10.1 Sample exposure period for 005 (Milguy) is 26 days which is 4 days outside the typical exposure period of 30 +/- 2 days as per AS3580.10.1.  The root cause for these include: - T4MR resource constraints and DDG collection occurring in line with other, competing priorities Croppa Creek (June), the collection of the DDG being missed during the May sampling round.  NOTE: Reoccurring calendar invites have been previously circulated to remind relevant Project personnel of the pending DDG Bottle exchange. This will be checked to ensue the timing of this reminder is adequate.  To avoid recurrence of this, the T4MR Project Personnel will be trained in the requirement to deploy and collect DDG's | System Process   |                           |  |  |
| System Contributing<br>Factor | within the specified timeframes.  Failure to follow procedure   |                  |                           |  |  |
|                               | The root cause for these include: - T4MR resource constraints and DDG collection occurring in line with other, competing priorities Croppa Creek (June), the collection of the DDG being missed during the May sampling round.  |                  |                           |  |  |
| Related Product NCR           |   |                  |                           |  |  |
| NCR Contact Person            | Adam Playne   |                  |                           |  |  |
| Got 3rd Party Approval?       | N/A   |                  |                           |  |  |
| Comment                       | N/A   |                  |                           |  |  |
| Name                          |   | Date             |                           |  |  |
|                               |   |                  |                           |  |  |

#### **System NCR Summary**



Closed By Pippa Donaldson Closed Date 24/10/2022

#### **Actions**

| ACT/N2NS/00606    |   |   |               |   |                   |        |
|-------------------|---|---|---------------|---|-------------------|--------|
| Date              | Raised By   | Action Required   | d             | Assigned To                             | Due Date          | Status |
| 03/10/2022 (AEDT) | Adam Playne   | Reoccurring calendar invites have been previously circulated to remind relevant Project personnel of the pending DDG Bottle exchange. This will be checked to ensue the timing of this reminder is adequate.  To avoid recurrence of this, the T4MR Project Personnel will be trained in the requirement to deploy and collect DDG's within the specified timeframes. |               | Adam Playne<br>(HSEQ Senior<br>Advisor) | 14/10/2022        | Closed |
| Date Actioned     | Date Actioned Action Comments   |   | Date Verified | Verified By                             | Verification Comm | ents   |
| 26/10/2022        | Actions complete. Monthly Calendar Reminders are in place for the 2nd / 3rd of each month and Enviro Team toolboxed regarding the exposure periods in AS3580 (30 -/+ 2 days). |   |               |   |                   |        |

#### **Attachments**

| Upload Details            | Description             | Images | Upload Details            | Description             | Images |
|---------------------------|-------------------------|--------|---------------------------|-------------------------|--------|
| Adam Playne               | EN2206964_0_C<br>OA.pdf |        | Adam Playne               | EN2207667_0_C<br>OA.pdf |        |
| 03/10/2022 12:52PM (AEDT) |                         |        | 03/10/2022 12:52PM (AEDT) |                         |        |



#### Attachments

| <b>Upload Details</b>    | Description                                     | Images |
|--------------------------|---|--------|
| Pippa Donaldson          | 221024_Systerm<br>NCR Close out<br>evidence.pdf |        |
| 08/11/2022 1:06PM (AEDT) | Close out evidence - Client acceptance.         |        |



**Attachment F: Noise Monitoring Results** 

| Duration                     | 15mins   |  |  | T   |  |                           | T                                  |   |   |  |
|------------------------------|--|--|--|---|--|---------------------------|------------------------------------|---|---|--|
|                              |  |  |  |   |  |                           |                                    |   |   |  |
|                              | 9  |  |  | 7   | _  |                           |                                    |   |   |  |
|                              | a Lan  | 홑  | ane  | dgerc                                       | Road   | ę                         | an e                               |   |   | eu   |
|                              | diii.  | d La   | eld L  | 8   | <u>e</u>   | a Lar                     | an La                              |   | đ   | s Lan  |
|                              | urrar  | nefie  | ith fi   | neen  | e C  | evan                      | lorbi                              | llata   | uck S   | uney   |
| Location<br>Chainage         | ∑<br>581.000                                       | 586.100  | 590.200  | ਰ<br>593.500                                | 년<br>603.000   | 607.400                   | 609.200                            | <b>8</b><br>615.000                                 | 620.000                                       | 625.480  |
|                              |  |  |  |   |  | 007.700                   |                                    |   |   |  |
| Laeq<br>LAF max              | 77.8<br>95.8                                       | 72.9<br>91.2   | 64.6<br>79.0   | 67.0<br>85.2                                | 62.5<br>81.9   | x                         | 48.7<br>64.2                       | 54.9<br>68.0  | 54.2<br>67.0                                  | 60.9<br>73.7   |
| LAF min                      | 32.5   | 45.3   | 38.2<br>72.2   | 35.6  | 32.5   | x                         | 29.5                               | 43.3  | 45.4  | 47.1   |
| LAF 05                       | 85.5   | 79.4   | 72.2   | 73.8  | 67.7   | х                         | 54.7                               | 60.5  | 58.8  | 67.3   |
| Temp                         | 12.0   | 12.0   | 12.0   | 12.0  | 8.0  | x                         | 8.0                                | 6.0   | 4.0   | 2.0  |
| Wind Speed<br>Wind Direction | 23 km/h  | 23 km/h<br>SW  | 23 km/h  | 24 km/h                                     | 18 km/h<br>SW  | x                         | 18 km/h<br>SW                      | 19 km/h<br>SW                                       | 18 km/h                                       | 13 km/h<br>SW  |
| Humidity                     | SW<br>49%  | 49%  | SW<br>49%  | SW<br>49%                                   | 70%  | x                         | 70%                                | 76%   | SW<br>82%                                     | 90%  |
| Cloud Cover                  | Clear  | Clear  | Clear  | Clear                                       | Clear  | x                         | Clear                              | Clear   | Clear   | Clear  |
| Work Area Notes              | No work directly across                            | Site work across                                       | No work directly across  | No works and currently sitting over         | Adhoc Work through site                                    | Was unable to stop safely | Unable to stop safely measurements | Work to the south of area                           | No work within area                           | Within work site   |
|                              |  |  |  | the road from corridor                      |  |                           | taken from Ten Mile Lane           |   |   |  |
| Construction Noise           | RMS lay down pad                                   | Large crane  | Truck heading south alignment                                  | Vehicle in alignment                        | Work site  |                           |                                    | X1 LV from site                                     | Workers at tookey creek                       | Digger 6t Kobusta  |
|                              | Lime stabiliser machines load                      | 6t excavator   | Truck heading south alignment<br>Water truck north             | Digger tracking alignment                   | Moxy idling<br>Moxy down alignment                         |                           |                                    | Reverse beacon<br>Machine beacon                    | Vehicle on haul road<br>Machinery squeaker    | Beacon for movement Dropping material in tray                  |
|                              | LV southbound alignment                            | Machinery beacon                                       | Fuel truck driving north                                       |   | Moxy down alignment<br>Water Truck turning in              |                           |                                    | Digger<br>Machine beacon                            | Materials picked up and down<br>Voice distant | Birds chirping   |
|                              | Beeper on machine                                  | Tipping rock into truck<br>Workers chatting x2         | Truck heading south alignment<br>Truck heading north alignment |   | Water Truck idling<br>Water Truck down alignment           |                           |                                    | Machine beacon                                      | Mild Radio chatter                            | X5 workers<br>X1 gang truck tools from tray                    |
|                              | Workers x 3 chatting<br>LV southbound on alignment | Radio going  | Car in alignment stop<br>Truck heading south alignment         |   | Moxy up alignment<br>Water cart out of LX                  |                           |                                    | Water truck<br>Grader through area                  |   | Stacking tubes and conduit<br>Voices talking                   |
|                              | EV Southbound on alignment                         | LV moving<br>Roller operating                          | Truck fleading south alignment                                 |   | Water cart reversing                                       |                           |                                    | LV entering worksite                                |   | Radios in car and machine                                      |
|                              |  | Machine squeaker<br>X2 LV leaving site                 |  |   | Watercart movement & beacon<br>Watercart movement & beacon |                           |                                    |   |   | Truck passing through worksite<br>Collecting material in truck |
|                              |  | Truck entering site                                    |  |   | Water cart spraying  |                           |                                    |   |   | Workers car through LX   |
| -                            | _  | Horn<br>Truck moving                                   |  |   |  |                           |                                    |   |   |  |
|                              |  | Beeper<br>Franna operating chains lift slings          |  |   |  |                           |                                    |   |   |  |
| -                            | <del></del>  | Franna operating chains lift slings<br>LV leaving site |  |   |  |                           |                                    |   |   |  |
|                              |  | Truck and dog movement north                           |  |   |  |                           |                                    |   |   |  |
|                              |  | Car door slam  |  |   |  |                           |                                    |   |   |  |
| Other Noise                  | Highway  | Truck  | Highway  | Truck                                       | Car trailer  |                           | Highway                            | Public roads  | X4 cars in truck stop                         | LX Public drive through  |
| Other Moise                  | Truck  | Car  | Truck  | Truck<br>Truck                              | Car  |                           | Car and trailer                    | X3 trucks highway                                   | Highway                                       | LX Public drive through  |
|                              | Truck<br>Car                                       | X2 truck<br>Car trailer                                | X3 cars<br>Car trailer   | Car<br>Removalist truck x3 people           | Car<br>Car trailer   |                           | Car                                | Car<br>Truck highway                                | 1 large truck<br>60m toilet block             | Truck down alignment<br>LX Public drive through                |
|                              | Car<br>Car trailer                                 | Truck  | X3 trucks  | Removalist truck x3 people<br>Hear wind     | Car<br>Car trailer   |                           | Truck                              | Truck 4 vehicles                                    | Nature sounds                                 | LX Public drive through  |
|                              | Car  | Traffic control person and radio<br>Truck              | Truck<br>Car trailer   | Distinct chatter<br>Car trailer             | Car trailer<br>Truck<br>Truck                              |                           | Car car<br>Truck                   | Truck<br>Truck                                      | Birds<br>Tall grass wind                      | Highway<br>Truck   |
|                              | Truck<br>Truck                                     | Car trailer<br>Truck                                   | Car<br>Truck   | Birds<br>Truck                              | Truck<br>Car trailer                                       |                           | Car                                | Car trailer<br>Car                                  | Wind  | Car<br>Car   |
|                              | Car trailer  | Car  | Truck  | Closing up truck                            | Car  |                           | LV                                 | Car   |   | Car  |
|                              | Car<br>Car   | Truck<br>Car   | Car<br>Car   | LV<br>Car                                   | Truck<br>Car   |                           | Car<br>Work truck                  | Car<br>Car car                                      |   | Car<br>Truck   |
|                              | Truck  | Car trailer  | Truck  | Truck                                       | Car trailer  |                           | Car trailer                        | Truck   |   | Car trailer  |
|                              | Car<br>Car trailer                                 | Truck<br>Car trailer                                   | Truck<br>Car   | Truck<br>Car                                | Car<br>Truck   |                           | Car and trailer<br>Car             | Car<br>Car trailer                                  |   | Truck<br>Car trailer   |
|                              | Car trailer  | Car  | Truck<br>Car trailer   | Car   | Truck  |                           | Truck                              | Car   |   | Car  |
|                              | Car<br>Truck                                       | Car<br>Car<br>Truck                                    | Car trailer  | Car<br>Car                                  | Car<br>Car trailer   |                           | Truck                              | Truck<br>Truck                                      |   | Car<br>Car   |
|                              | Truck  | Truck<br>Truck   | Car<br>Truck   | Car<br>Car<br>Car<br>Car<br>Car trailer     | Car trailer<br>Truck                                       |                           | Truck<br>Car                       | Truck<br>Car<br>Truck<br>Truck                      |   | Car  |
|                              | Truck  | Truck<br>Car<br>Truck                                  | Car  | Car   | Car  |                           | Car                                | Truck   |   | Car<br>Truck   |
|                              | Truck<br>LV  | Truck<br>Car trailer                                   | Truck<br>Car   | Truck                                       | Truck<br>Car   |                           | Car                                | Truck x 3   |   | X4 truck<br>Truck  |
|                              | Truck<br>Truck                                     | Truck  | Truck<br>Car   | Car<br>Removalist truck x3 people leave     | Car trailer<br>Truck                                       |                           |                                    | Truck x 5   |   | Car  |
|                              | Truck  | Truck<br>Car   | Truck  | Car   | Truck  |                           | Car                                | LV<br>Truck car                                     |   | Car<br>Car   |
|                              | Car<br>Truck                                       | Car<br>Car   | Truck<br>Truck   | Truck<br>Car trailer                        | Car<br>Car trailer   |                           | Truck<br>Car                       | Car<br>Car<br>Car                                   |   | Car<br>Truck   |
|                              | Truck  | Truck  | Car  | Truck                                       | Car  |                           | Car                                | Car   |   | Truck  |
|                              | Car trailer<br>Truck                               | Truck<br>Truck   | Truck<br>Truck   | Car trailer<br>X3 truck                     | CAr  |                           | Car                                | Truck<br>Truck                                      |   | Car  |
|                              | Car trailer  | Car trailer  | Truck  | Car<br>Car trailer                          | Car<br>Car   |                           | Car                                | Car trailer   |   | Car<br>Car   |
|                              | Car<br>Truck                                       | Car<br>Car   | Car trailer  | Car trailer                                 | Truck  |                           |                                    | Car<br>Car  |   | Truck  |
|                              | Car<br>Truck                                       | Truck<br>Car trailer                                   | LV<br>Truck  | Truck<br>Truck                              | Car<br>Truck and trailer                                   |                           | Car trailer<br>Truck               | Car<br>Car  |   | Car<br>Truck   |
|                              | Vehicle turn out of lane                           | Car trailer  | Truck  | Car entering truck stop                     | Car trailer  |                           | Car                                | Car   |   | Truck  |
|                              | Car<br>Car inbound lane                            | Truck<br>Car trailer                                   | Truck<br>Car   | Car<br>Car idling                           | Car trailer<br>Truck                                       |                           |                                    | Car and trailer<br>Car                              |   | Truck<br>Truck   |
|                              | Truck  | Car  | Car  | Truck                                       | Car  |                           | Car trailer                        | Car   |   | Car  |
|                              | Truck  Car trailer                                 | Car<br>Truck   | Truck<br>Truck   | Car<br>Car entering trip stop person out of | Car trailer  |                           | Truck<br>Truck                     | Car<br>Truck  |   | Truck<br>Truck   |
|                              | Car trailer  |  | Car  | vehicle chatting<br>Truck                   | Car  |                           |                                    | Car trailer   |   |  |
|                              | Car  | Car trailer<br>Car                                     | Wind in trees picked up  | Car   | LV   |                           | Car                                | Car trailer   |   | Truck  |
|                              | Car trailer<br>Truck                               | Car<br>Car trailer                                     | Truck<br>Car   | Car trailer<br>Truck                        | Car  |                           | Car                                | Car   |   |  |
|                              | Car trailer  | Truck  | Car  | Birds                                       | Car  |                           | Car                                | Car trailer<br>Car<br>Car<br>Car<br>Car             |   |  |
|                              | Truck<br>Car                                       | Car trailer<br>Car                                     | LV<br>Car  | Vehicle leaving<br>Car                      | Truck<br>Truck   |                           | LV<br>Truck work                   | Car<br>Car<br>Truck truck                           |   |  |
|                              | Lai  | Car  | Truck  | Truck                                       | Truck  |                           | Car                                | Truck truck   |   |  |
|                              | Car trailer  | Car  | Car  | Truck<br>Truck                              | Truck<br>Truck   |                           | Car                                | Truck<br>Truck<br>Truck                             |   |  |
|                              | Car<br>Car trailer                                 | Car<br>Car   | Car<br>Truck   | Truck<br>Car                                | Truck<br>Car trailer                                       |                           | Truck<br>Car                       | Truck<br>Car trailer                                |   |  |
|                              | Truck  | Truck  | Car  | Car<br>Truck                                | Car  |                           | Car                                | Rest area   |   |  |
|                              | Car<br>Car   | Truck<br>Truck   | Car trailer<br>Birds   | Car<br>Car leaving truck stop               | Car trailer<br>Truck                                       |                           | Truck<br>Nature - wind             | 1 vehicle<br>Truck                                  |   |  |
|                              | Truck  | Car  | Wind   | Truck                                       | Car trailer  |                           | Flags flapping in wind             | X2 work cars  |   |  |
|                              |  | General Public open letterbox<br>Car                   | Grass<br>Trees in wind   | Truck<br>LV                                 | Car<br>Car   |                           | BIT US                             | Fuel station<br>1 work car entry                    |   |  |
|                              | _  | Truck  |  | Car   | Car truck  |                           |                                    | 1 spotter radio contact<br>LV work entry            |   |  |
|                              |  |  |  | Car   | Car  |                           |                                    | Fuel truck entry                                    |   |  |
|                              |  |  |  | Car<br>Car                                  | Wind<br>Flags flapping                                     |                           |                                    | 6 vehicles reverses beacon to park<br>Voice chatter |   |  |
|                              |  |  | •  | Car   | Grass rustling   |                           |                                    | Reverse beacon ARTC parking                         |   |  |
| -                            | <del> </del>                                       |  |  | Car<br>LV                                   |  |                           |                                    | Voice chatter<br>6t digger works                    |   |  |
|                              |  |  |  | Car<br>Truck                                |  |                           |                                    | X4 utes<br>X3 workers                               |   |  |
|                              |  |  |  | Truck                                       |  |                           |                                    | Grain truck entering silos                          |   |  |
|                              |  |  |  |   |  |                           |                                    | X10 people work meeting<br>Voice chatter            |   |  |
|                              | 1  | 1  | _  |   | 1  |                           | 1                                  |   | 1   | 1  |

Stage 1 Noise Monitoring
Date 26th September 2022
Duration 15mins

| Duration           | 13111113                |                         |                         |                         |                          |                          |                         |                              |                               |                                 |
|--------------------|-------------------------|-------------------------|-------------------------|-------------------------|--------------------------|--------------------------|-------------------------|------------------------------|-------------------------------|---------------------------------|
| Location           | Murrambilla Lane        | Junefield Lane          | Smithfield Lane         | Queen St Edgeroi        | The Clump Road           | Trevana Lane             | Valorban Lane           | Bellata                      | Truck Stop                    | Penneys Lane                    |
| Chainage           | 581.000                 | 586.100                 | 590,200                 | 593,500                 | 603.000                  | 607.400                  | 609.200                 | 615.000                      | 620.000                       | 625.480                         |
| GPS                | -30.224^S , 149.8105^E  | -30.1801^S , 149.8206^E | -30.1444^S , 149.8083^E | -30.1135^S , 149.799^E  | -30.0315^S , 149.7897^E  | -29.9917^S , 149.7929^E  | -29.9745^S , 149.7918^E | -29.919^S , 149.7908^E       | -29.8738^S , 149.7891^E       | -29.8279^S , 149.7885^E         |
| Time Finished      | 13:35pm                 | 14:02pm                 | 14:55pm                 | 12:50pm                 | 12:00pm                  | 11:53am                  | 11:33am                 | 11:01am                      | 10:28am                       | 10:03am                         |
|                    |                         |                         |                         |                         |                          |                          |                         |                              |                               |                                 |
| Laeq               | 79.9                    | 75.2                    | 74.1                    | 68.2                    | 62.2                     | 74.2                     | 61.3                    | 64.2                         | 54.3                          | 57.7                            |
| LAF max            | 94.7                    | 92.6                    | 91.1                    | 84.9                    | 84.9                     | 90.9                     | 80.2                    | 83.9                         | 66.5                          | 67.5                            |
| LAF min            | 37.4                    | 36.0                    | 44.0                    | 35.1                    | 29.7                     | 29.3                     | 31.6                    | 52.6                         | 29.5                          | 46.8                            |
| LAF 05             | 87.3                    | 81.8                    | 81.3                    | 75.4                    | 68.1                     | 81.0                     | 67.3                    | 68.1                         | 61.4                          | 61.7                            |
|                    |                         |                         |                         |                         |                          |                          |                         |                              |                               |                                 |
| Temp               | 22.0                    | 22.0                    | 22.0                    | 21.0                    | 21.0                     | 21.0                     | 20.0                    | 19.0                         | 18.0                          | 18.0                            |
| Wind Speed         | 7km/h                   | 7km/h                   | 6km/h                   | 7km/h                   | 7km/h                    | 7km/h                    | 6km/h                   | 5km/h                        | 4km/h                         | 4km/h                           |
| Wind Direction     | NE                      | NE                      | NE                      | E                       | E                        | E                        | E                       | SE                           | S                             | S                               |
| Humidity           | 41%                     | 41%                     | 42%                     | 45%                     | 45%                      | 46%                      | 47%                     | 51%                          | 57%                           | 57%                             |
| Cloud Cover        | Cloudy                  | Cloudy                  | Cloudy                  | Cloudy                  | Cloudy                   | Cloudy                   | Cloudy                  | Mostly Cloudy                | Mostly Cloudy                 | Mostly Cloudy                   |
| Work Area Notes    | No direct work + public | Across from Site entry  | Machine at Culvert      | No direct work + public | No direct work + public  | No direct work + public  | No direct work crews    | Multpile work crews + Public | No works + Public Truck Spot  | Level Crossing works + Signals  |
| Work Area Notes    | THO GIFCE WORK I PUBLIC | Across from site entry  | Widelinic at Culvert    | To direct work 1 public | 140 direct Work   public | 140 direct Work   public | 140 direct Work crews   | Marchie Work Clews 1 Public  | 140 Works - Labile Track Spot | Level crossing works 1 digitals |
| Construction Noise |                         |                         |                         |                         |                          |                          |                         |                              |                               |                                 |
|                    |                         |                         |                         | <u> </u>                | 1                        | 1                        |                         |                              |                               | 1                               |

| Stage 1 / 2B Attended Noise Mor | nitoring                              |                               |                                  |  |  |
|---------------------------------|---------------------------------------|-------------------------------|----------------------------------|--|--|
| Sampler                         | Adam Playne                           | Adam Playne                   | Adam Playne                      | Adam Playne                              | Adam Playne                                    |
| Date                            | 28/06/2022                            | 28/06/2022                    | 28/06/2022                       | 28/06/2022                               | 28/06/2022                                     |
| Time                            | 12:12 - 12:27pm                       | 7:28 - 7:43                   | 10:10 - 10:25                    | 8:16 - 8:31                              | 10;44 - 10:59                                  |
|                                 |                                       | Gurley Settlers Rd, east of   |                                  |  |  |
| Site                            | Newell Hwy, Edgeroi (Resident)        | alignment                     | Jalmar Park                      | Mardell                                  | Oak St, Bellata                                |
| Chainage                        | CH593.000                             | CH643.000                     | CH617.730                        | CH646.700                                | CH616  |
|                                 |                                       |                               | 29.898130,                       |  |  |
| Co-ords                         | 30.114217, 149. 799301                | 29.666915, 149.812729         | 149.789182                       | 29.638674, 149.812542                    | 29.915100, 149.791502                          |
| L <sub>AEQ</sub>                | 59.3                                  | 54.5                          | 48.4                             | 48.7                                     | 60.1   |
| L <sub>AF</sub>                 | 88.9                                  | 84.1                          | 78                               | 78.3                                     | 89.9   |
| L <sub>AFmax</sub>              | 75.9                                  | 79                            | 66.3                             | 59.3                                     | 80.2   |
| L <sub>AFmin</sub>              | 36.2                                  | 35.3                          | 34.3                             | 32.6                                     | 41.1   |
| L <sub>AF05</sub>               | 66.5                                  | 58                            | 51.5                             | 54                                       | 67.1   |
| L <sub>AF10</sub>               | 63.1                                  | 56.3                          | 49.1                             | 52.7                                     | 64   |
| L <sub>AF50</sub>               | 49                                    | 50.7                          | 42.6                             | 47                                       | 49.3   |
| L <sub>AF90</sub>               | 41.1                                  | 40.9                          | 38.4                             | 39.2                                     | 44.1   |
| Construction Noise Source       |                                       |                               | Moxy's carting                   |  |  |
| Construction Noise Source       |                                       | Road trains importing         | material past on                 | Water cart on Mardell                    | Grader working on Millie                       |
|                                 | Excavator working on Tarlee Rd LX     | material                      | alignment                        | Access Rd                                | Rd LX  |
|                                 |                                       |                               |                                  |  | Excavator and moxy                             |
|                                 |                                       |                               |                                  |  | placing and spreading                          |
|                                 |                                       |                               | Banging (metal on                | Drainage crew working at                 | _  |
|                                 |                                       |                               | metal), within                   | Culverts CH646.800,                      | 200m north of                                  |
|                                 | Low-loader delivering culverts        | Moxy's placing materal        | alignment                        | CH646.700 & CH646.600                    | monitoring location.                           |
|                                 |                                       |                               | Road trains side                 | C. this a his is a shoot                 | C  |
|                                 | Crana landing augusts in Tarles       |                               | tippers hauling<br>material past | Cutting tieing steel,                    | Construction activities barely audbile against |
|                                 | Crane landing cuverts in Tarlee Creek | Crane lifting culverts        | monitoring location.             | generator and grinder at above culverts. | other noise sources.                           |
|                                 | Creek                                 | Crane mining curverts         | Reversing alarms                 | project Trucks using                     | other hoise sources.                           |
|                                 | Truck driving up alignment.           |                               | audible.                         | Mardell - 57dB                           |  |
| Non-construction Noise Source   | Track driving up ungriment.           |                               | dudible.                         | LV / HVs on Hwy,                         | Traffic on Hwy,                                |
| Non construction Noise Source   | Hwy traffic preominant noise source   |                               | LV / HV traffic on               | predominant noise                        | predominant noise                              |
|                                 | (peaking at 71.9dB)                   | LV / HV's on Hwy              | Newell Hwy                       | source.                                  | source.  |
|                                 |                                       |                               | Highway traffic                  |  |  |
|                                 | Tractor working on Green Street,      |                               | predominant noise                |  | Trucks left to idle at                         |
|                                 | Edgeroi                               | 40 - 41dB with no Hwy Traffic | source.                          | Birds calling                            | Truck Stop.                                    |
|                                 |                                       |                               |                                  |  | Local traffic on Oak                           |
|                                 | Dog barking                           | Car on G/S Rd.                | Birds calling.                   | Trucks on Highway - 58dB                 |  |
|                                 |                                       | 40 50 10 111 7 1 11           |                                  |  | Trucks / cars accelerating                     |
|                                 |                                       | 49 - 58 dB with Truck on Hwy. | Wind gusts                       | No Hwy traffic - 34dB                    | from truck / rest stop.                        |

| Stage 3 - Construction A         | ctivity Noise Monitoring   |   |  |  |   |
|----------------------------------|--|---|--|--|---|
| Sampler                          | GB   | GB  | GB   | GB   | GB  |
| Date                             | 12/07/2022   | 12/07/2022  | 12/07/2022   | 12/07/2022   | 12/07/2022  |
| Time                             | 12:10pm  | 09:30am   | 9:27am   | 10:08am  | 10:17am   |
| Site                             | Milguy Caravan North (6m<br>from track)                                | Croppa Creek Bridge<br>Location (30m from<br>excavator loading truck) | North of Croppa Creek<br>(10m from bottom of<br>batter). | Croppa North Star LX<br>(10m from work crew)                       | Croppa North Star LX  |
| Co-ords                          | 29.3481, 150.2059  | -   | -  | -  | -   |
| Sensitive Receivers              | Milguy (2) @ CH706.800   | Croppa Creek Township @<br>CH733.950                                  | Croppa Creek Township<br>@ CH733.950                     | 2 x Sensitive Receivers at CH755.200                               | 3 x Sensitive Receivers at CH755.200  |
| Chainage                         | CH707.26   | CH734.920   | CH735.280  | CH755.65   | CH755.65  |
| LAEQ                             | 74.8dB   | 56.3dB  | 74.3dB   | 65.8dB   | 58.1dB  |
| LAF                              | 101dB  | 76.0dB  | 95.2dB   | 91.1dB   | 60.2dB  |
| LAFmax                           | 83.6dB   | 71.7dB  | 85.9dB   | 74.8dB   | 59.9dB  |
| LAFmin                           | 60.3dB   | 38.1dB  | 55.1dB   | 44.9dB   | 57.3dB  |
| LAF05                            | 79.8dB   | 61.5dB  | 79.5dB   | 71.1dB   | 59.7dB  |
| Construction Noise<br>Source     | Declipping - harley x 2<br>Picking up rollers<br>Work crew talking (5) | Cat 323 Excavator loading<br>40t Truck                                | Ballast wagon drop<br>Ballast train movement             | Grader 670GP trimming<br>Traffic Management Crew<br>Truck delivery | Roller R298 operating<br>Reversing alarms<br>Traffic Management<br>LX works |
| Non-construction Noise<br>Source | Cars travelling  | Nil   | Nil  | Public cars and trucks<br>driving through LX                       | General public traffic<br>through LX  |



**Attachment G: Noise Monitoring Locations** 

## **Bellata Noise Monitoring Location (28/06/22)**

## **INTERNAL USE ONLY**



## Legend

CIZ (20220725)

CIZ (SPIR)

Bridges

Level Crossings

Public

Private

Pedestrian

Culverts

Chainage 100m (Post IFC)

Rail Alignment (Post IFC)

Residential Receivers

Railway LocationARTC Network

Other Railways

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0.06 0.1

Scale: 1: 4,514

0

Projection: WGS\_1984\_Web\_Mercator\_Auxiliary\_Sphere

Note: ARTC web applications use the Web Mercator (EPSG:3857) coordinate system. This modified Mercator projection maximises system performance, but at the expense of distortion and accuracy. As such, all measurements carried out in these applications are to be regarded as approximate.

Notes:

Kilometers

Blue Dot - Noise Monitoring Location (28/06/2022)



ne Australian Government is delivering inland Rail frough the Australian Rail Track Corporation(ARTC) | purtnership with the private sector

# **INTERNAL USE ONLY** Monitoring (28/06/22)

## Legend

CIZ (20220725)

CIZ (SPIR)

Bridges

Level Crossings

Public

Private

Pedestrian

Culverts

Signalling Points - Post IFC

Signalling Lines - Post IFC

Signalling Polygons - Post IFC

Chainage 100m (Post IFC)

Rail Alignment (Post IFC)

Residential ReceiversRailway Location

ARTC Network

- Other Railways

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0

0.11 0.2 Kilometers

Scale: 1: 9,028

**Gurley Settlers Noise** 

Projection: WGS\_1984\_Web\_Mercator\_Auxiliary\_Sphere

Note: ARTC web applications use the Web Mercator (EPSG:3857) coordinate system. This modified Mercator projection maximises system performance, but at the expense of distortion and accuracy. As such, all measurements carried out in these applications are to be regarded as approximate.

Notes:

Blue Dot - Noise Monitoring Location (28th June 2022)



he Australian Government is delivering Inland Rail mough the Australian Rail Track Compration (ARTC)

## Jalmar Park Noise **INTERNAL USE ONLY** Monitoring (28/06/22)

## Legend

CIZ (20220725)

CIZ (SPIR)

Bridges

Level Crossings

Public

Private

Pedestrian

Culverts

Signalling Points - Post IFC

Signalling Lines - Post IFC

Signalling Polygons - Post IFC

Chainage 100m (Post IFC)

Rail Alignment (Post IFC)

Residential ReceiversRailway Location

ARTC Network

- Other Railways

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0 0.06 0.1 Kilometers

Scale: 1: 4,514

Projection: WGS\_1984\_Web\_Mercator\_Auxiliary\_Sphere

Note: ARTC web applications use the Web Mercator (EPSG:3857) coordinate system. This modified Mercator projection maximises system performance, but at the expense of distortion and accuracy. As such, all measurements carried out in these applications are to be regarded as approximate.

Notes:

Blue Dot - Noise Monitoring Location (28th June 2022)



The Australian Government is delivering Inland Rail irrough the Australian Rail Track Comperation (ARTC).

## Mardell Noise Monitoring **INTERNAL USE ONLY** Location (28/06/22) Legend CIZ (20220725) CIZ (SPIR) Bridges Level Crossings Public Private Pedestrian Culverts Signalling Points - Post IFC Signalling Lines - Post IFC Signalling Polygons - Post IFC Chainage 1km Chainage 100m (Post IFC) Rail Alignment (Post IFC) Residential Receivers Railway Location ARTC Network Other Railways DISCLAIMER: The data published in Inland Rail's interactive GIS Mapping Applications is produced for information purposes only. Whilst every effort is made to ensure the accuracy of this data, ARTC and the Inland Rail Programme make no representations nor give any warranties or guarantees, express or implied, about the accuracy, adequacy, reliability, completeness or suitability of the data for any particular purpose and disclaim all responsibility and all liability (including without limitation, liability in negligence) for all expenses, losses, damages (including indirect or consequential loss or damages) and costs which you might incur as a result of this product being inaccurate or incomplete in any way and for any reason. 0.23 0.5 Kilometers Notes:

Note: ARTC web applications use the Web Mercator (EPSG:3857) coordinate system. This modified Mercator projection maximises system performance, but at the expense of distortion and accuracy. As such, all measurements carried out in these applications are to be regarded as approximate.

Projection: WGS\_1984\_Web\_Mercator\_Auxiliary\_Sphere

1: 18,056

Scale:

Blue Dot - Noise Monitoring Location (28/06/2022)



he Australian Government is delivering Inland Rail mough the Australian Rail Track Corporation (ARTC)

## Edgeroi Noise Monitoring **INTERNAL USE ONLY** (28/06/22)EDG ROI

## Legend

CIZ (20220725)

CIZ (SPIR)

Bridges

Level Crossings

Public

Private

Pedestrian

Culverts

Signalling Points - Post IFC

Signalling Lines - Post IFC

Signalling Polygons - Post IFC

Chainage 100m (Post IFC)

Rail Alignment (Post IFC)

Residential Receivers

Railway LocationARTC Network

- Other Railways

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0 0.06 0.1 Kilometers

Projection: WGS\_1984\_Web\_Mercator\_Auxiliary\_Sphere

Note: ARTC web applications use the Web Mercator (EPSG:3857) coordinate system. This modified Mercator projection maximises system performance, but at the expense of distortion and accuracy. As such, all measurements carried out in these applications are to be regarded as approximate.

1: 4,514

Scale:

Notes:

Blue Dot - Noise Monitoring Location (28th June 2022)



he Australian Government is delivering Inland Rail rrough the Australian Rail Track Corporation (ARTC)

## **Monitoring Location INTERNAL USE ONLY** (40/07/00) DX919 736 735 OPPA CREEK 0

## Legend

CIZ (20220725)

CIZ (SPIR)

Bridges

Level Crossings

Public

Private

Pedestrian

Culverts

Chainage 1km

Chainage 100m (Post IFC)

Rail Alignment (Post IFC)

Residential Receivers

Railway Location

**ARTC Network** 

Other Railways

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0.23 0.5 Kilometers

1: 18,056 Scale:

υτυρρα υτυυκ πυίου

Projection: WGS\_1984\_Web\_Mercator\_Auxiliary\_Sphere

Note: ARTC web applications use the Web Mercator (EPSG:3857) coordinate system. This modified Mercator projection maximises system performance, but at the expense of distortion and accuracy. As such, all measurements carried out in these applications are to be regarded as approximate.

Notes:

Blue Dot - Noise Monitoring Location (12/07/22)



## **Monitoring Location INTERNAL USE ONLY** 0.11 0.2 Kilometers

Legend

CIZ (20220725)

CIZ (SPIR)

Bridges

Level Crossings

Public

Private

Pedestrian

Culverts

Chainage 100m (Post IFC)

Rail Alignment (Post IFC)

Residential ReceiversRailway Location

ARTC Network

Other Railways

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0 0.11 0.2 Kilomete Scale: 1: 9,028

Projection: WGS\_1984\_Web\_Mercator\_Auxiliary\_Sphere

Note: ARTC web applications use the Web Mercator (EPSG:3857) coordinate system. This modified Mercator projection maximises system performance, but at the expense of distortion and accuracy. As such, all measurements carried out in these applications are to be regarded as approximate.

Blue Dot - Noise Monitoring Location (12/07/22)



he Australian Government is delivering Inland Rail rrough the Australian Rail Track Corporation (ARTC)

# LX Noise Monitoring **INTERNAL USE ONLY**

## Legend

CIZ (20220725)

CIZ (SPIR)

Bridges

Level Crossings

Public

Private

Pedestrian

Culverts

Chainage 100m (Post IFC)

Rail Alignment (Post IFC)

Residential Receivers

Railway LocationARTC Network

Other Railways

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0 0.11 0.2 Kilometers

Scale: 1: 9,028

Projection: WGS\_1984\_Web\_Mercator\_Auxiliary\_Sphere

Note: ARTC web applications use the Web Mercator (EPSG:3857) coordinate system. This modified Mercator projection maximises system performance, but at the expense of distortion and accuracy. As such, all measurements carried out in these applications are to be regarded as approximate.

Notes:

Blue Dot - Noise Monitoring Location (12/07/22)



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## Milguy Noise Monitoring **INTERNAL USE ONLY** Location (12/07/22)

## Legend

CIZ (20220725)

CIZ (SPIR)

Bridges

Level Crossings

Public

Private

Pedestrian

Culverts

Chainage 100m (Post IFC)

Rail Alignment (Post IFC)

Residential Receivers

Railway Location

ARTC Network

Other Railways

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Scale:

0.11 0.2 Kilometers 1: 9,028

Projection: WGS\_1984\_Web\_Mercator\_Auxiliary\_Sphere

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Notes:

Blue Dot - Noise Monitoring Location (12/07/22)



## Bellata Noise Monitoring Location

## **INTERNAL USE ONLY**



## Legend

- CIZ (20220725)
- CIZ (SPIR)
- Bridges

Level Crossings

- Public
  - Private
- Pedestrian
- Culverts
- Chainage 100m (Post IFC)
- Rail Alignment (Post IFC)
- Residential Receivers
- Railway LocationARTC Network
- Other Railways

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0.06

0.1 Kilometers

Scale: 1: 4,514

0

Projection: WGS\_1984\_Web\_Mercator\_Auxiliary\_Sphere

Note: ARTC web applications use the Web Mercator (EPSG:3857) coordinate system. This modified Mercator projection maximises system performance, but at the expense of distortion and accuracy. As such, all measurements carried out in these applications are to be regarded as approximate.

Notes:

Blue Dot - Noise Monitoring Location



The Australian Government is delivering Inland Rail Imough the Australian Rail Track Comporation (ARTC)

## Junefield Road Noise **INTERNAL USE ONLY Monitoring Location** 588 Legend CIZ (20220725) CIZ (SPIR) Bridges Level Crossings Public Private Pedestrian Culverts Chainage 1km Chainage 100m (Post IFC) Rail Alignment (Post IFC) Residential Receivers Railway Location ARTC Network Other Railways **BR01** 586 DISCLAIMER: 585 The data published in Inland Rail's interactive GIS Mapping Applications is produced for information purposes only. Whilst every effort is made to ensure the accuracy of this data, ARTC and the Inland Rail Programme make no representations nor give any warranties or guarantees, express or implied, about the accuracy, adequacy, reliability, completeness or suitability of the data for any particular purpose and disclaim all responsibility and all liability (including without limitation, liability in negligence) for all expenses, losses, damages (including indirect or consequential loss or damages) and costs which you might incur as a result of this product being inaccurate or incomplete in any way and for any reason. X3057

0 0.23 0.5 Kilometers
Scale: 1: 18,056

Projection: WGS\_1984\_Web\_Mercator\_Auxiliary\_Sphere

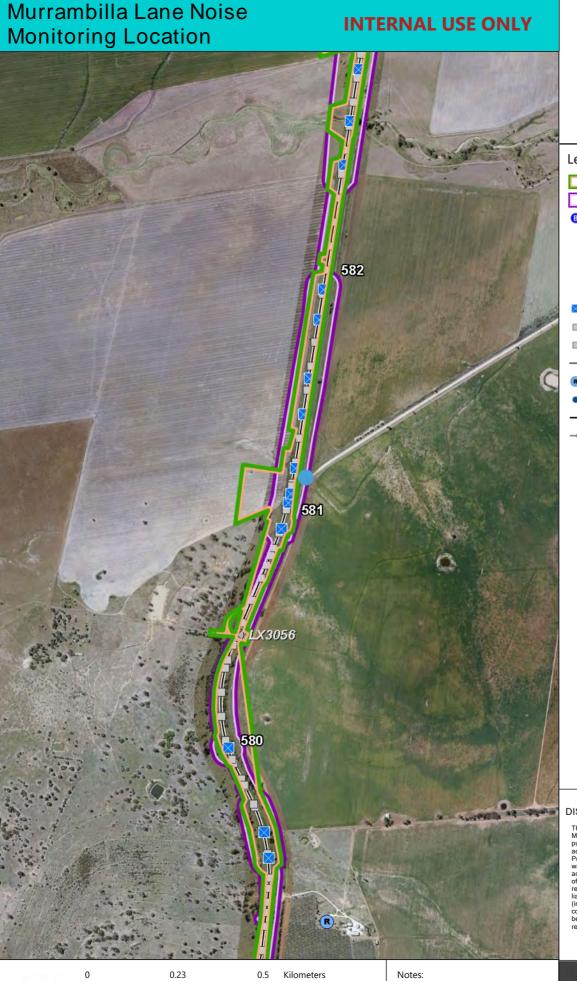
Note: ARTC web applications use the Web Mercator (EPSG:3857) coordinate system. This modified Mercator projection maximises system performance, but at the expense of distortion and accuracy. As such, all measurements carried out in these applications are to be regarded as approximate.

Notes:

Blue Dot - Noise Monitoring Location



The Australian Government is delivering Inland Rail Irrough the Australian Rail Track Corporation (ARTC) In partnership with the private sector.



## Legend

CIZ (20220725)

CIZ (SPIR)

Bridges

Level Crossings

Public

Private

Pedestrian

Culverts

Chainage 1km

Chainage 100m (Post IFC)

Rail Alignment (Post IFC)

Residential Receivers

Railway Location

**ARTC Network** 

Other Railways

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1: 18,056 Scale:

Projection: WGS\_1984\_Web\_Mercator\_Auxiliary\_Sphere

Note: ARTC web applications use the Web Mercator (EPSG:3857) coordinate system. This modified Mercator projection maximises system performance, but at the expense of distortion and accuracy. As such, all measurements carried out in these applications are to be regarded as approximate.



## Penneys Lane Noise **INTERNAL USE ONLY Monitoring Location** 626 624 0

Legend

CIZ (20220725)

CIZ (SPIR)

Bridges

Level Crossings

Public

Private

Pedestrian

Culverts

Chainage 1km

Chainage 100m (Post IFC)

Rail Alignment (Post IFC)

Residential Receivers

Railway Location

ARTC Network

Other Railways

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Scale:

0.23 0.5 Kilometers

Projection: WGS\_1984\_Web\_Mercator\_Auxiliary\_Sphere

Note: ARTC web applications use the Web Mercator (EPSG:3857) coordinate system. This modified Mercator projection maximises system performance, but at the expense of distortion and accuracy. As such, all measurements carried out in these applications are to be regarded as approximate.

1: 18,056

Notes:



## Queen Street Noise **INTERNAL USE ONLY Monitoring Location**

## Legend

CIZ (20220725)

CIZ (SPIR)

Bridges

Level Crossings

Public

Private

Pedestrian

Culverts

■ Chainage 100m (Post IFC)

Rail Alignment (Post IFC)

Residential ReceiversRailway Location

ARTC Network

Other Railways

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0 0.11 0.2 Kilometers
Scale: 1: 9,028

Projection: WGS\_1984\_Web\_Mercator\_Auxiliary\_Sphere

Note: ARTC web applications use the Web Mercator (EPSG:3857) coordinate system. This modified Mercator projection maximises system performance, but at the expense of distortion and accuracy. As such, all measurements carried out in these applications are to be regarded as approximate.

Notes:

Blue Dot - Noise Monitoring Location



ne Australian Government is delivering inland Rail Irrough the Australian Rail Track Corporation (ARTC) I purtnership with the private sector

## Smithfield Lane Noise **INTERNAL USE ONLY Monitoring Location**

## Legend

CIZ (20220725)

CIZ (SPIR)

Bridges

Level Crossings

Public

Private

Pedestrian

Culverts

Chainage 100m (Post IFC)

Rail Alignment (Post IFC)

Residential Receivers

Railway Location

ARTC Network

Other Railways

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0 0.11 0.2 Kilometers

Scale: 1: 9,028

Projection: WGS\_1984\_Web\_Mercator\_Auxiliary\_Sphere

Note: ARTC web applications use the Web Mercator (EPSG:3857) coordinate system. This modified Mercator projection maximises system performance, but at the expense of distortion and accuracy. As such, all measurements carried out in these applications are to be regarded as approximate.

Notes:

Blue Dot - Noise Monitoring Location



The Australian Government is delivering Inland Rail Irrough the Australian Rail Track Corporation (ARTC)

## The Clump Rd Noise **INTERNAL USE ONLY Monitoring Location** 603 602

## Legend

CIZ (20220725)

CIZ (SPIR)

Bridges

Level Crossings

Public

Private

Pedestrian

Culverts

Chainage 1km

Chainage 100m (Post IFC)

Rail Alignment (Post IFC)

Residential Receivers

Railway Location

ARTC Network

Other Railways

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0 0.23 0.5 Kilometers
Scale: 1: 18,056

Projection: WGS\_1984\_Web\_Mercator\_Auxiliary\_Sphere

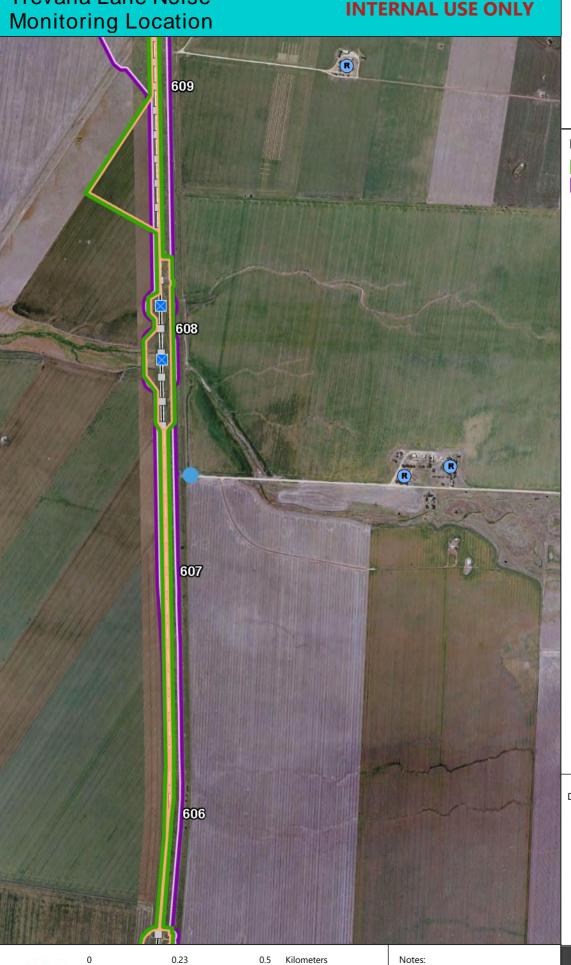
Note: ARTC web applications use the Web Mercator (EPSG:3857) coordinate system. This modified Mercator projection maximises system performance, but at the expense of distortion and accuracy. As such, all measurements carried out in these applications are to be regarded as approximate.

Notes:

Blue Dot - Noise Monitoring Location



The Australian Government is delivering Inland Rail irrough the Australian Rail Track Corporation (ARTC).



## Legend

CIZ (20220725)

CIZ (SPIR)

Bridges

Level Crossings

Public

Private

Pedestrian

Culverts

Chainage 1km

Chainage 100m (Post IFC)

Rail Alignment (Post IFC)

Residential Receivers

Railway Location

**ARTC Network** 

Other Railways

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Scale:

Trevana Lane Noise

0.23 0.5 1: 18,056

Projection: WGS\_1984\_Web\_Mercator\_Auxiliary\_Sphere

Note: ARTC web applications use the Web Mercator (EPSG:3857) coordinate system. This modified Mercator projection maximises system performance, but at the expense of distortion and accuracy. As such, all measurements carried out in these applications are to be regarded as approximate.



## **Truck Stop Noise INTERNAL USE ONLY Monitoring Location** XX3065 621 620 BR03 619 0.23 0.5 Kilometers

Legend

CIZ (20220725)

CIZ (SPIR)

Bridges

Level Crossings

Public

Private

Pedestrian

Culverts

Chainage 1km

Chainage 100m (Post IFC)

Rail Alignment (Post IFC)

Residential Receivers

Railway Location

**ARTC Network** 

Other Railways

## DISCLAIMER:

The data published in Inland Rail's interactive GIS Mapping Applications is produced for information purposes only. Whilst every effort is made to ensure the accuracy of this data, ARTC and the Inland Rail Programme make no representations nor give any warranties or guarantees, express or implied, about the accuracy, adequacy, reliability, completeness or suitability of the data for any particular purpose and disclaim all responsibility and all liability (including without limitation, liability in negligence) for all expenses, losses, damages (including indirect or consequential loss or damages) and costs which you might incur as a result of this product being inaccurate or incomplete in any way and for any reason.



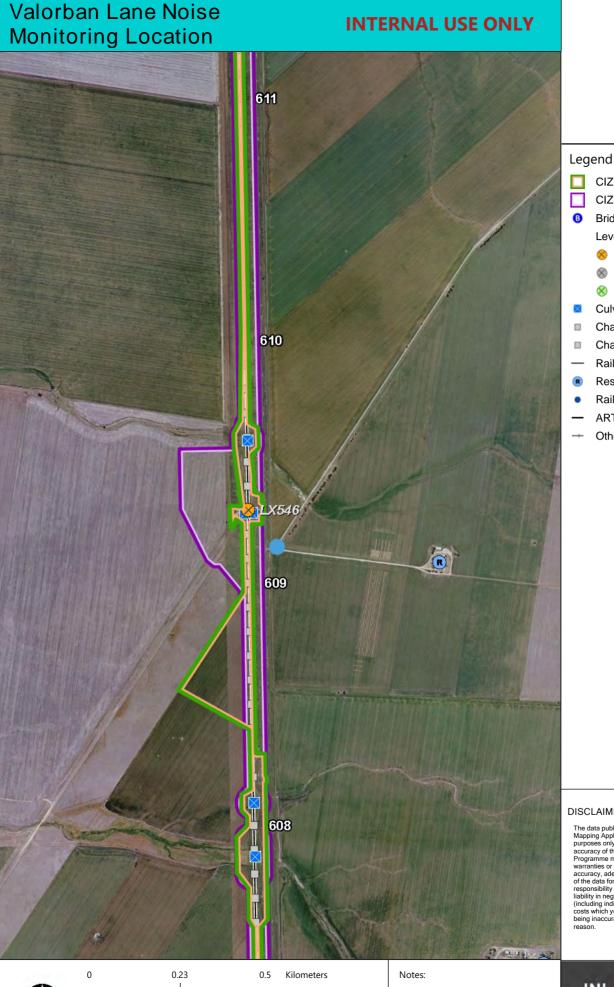
1: 18,056 Scale:

Projection: WGS\_1984\_Web\_Mercator\_Auxiliary\_Sphere

Note: ARTC web applications use the Web Mercator (EPSG:3857) coordinate system. This modified Mercator projection maximises system performance, but at the expense of distortion and accuracy. As such, all measurements carried out in these applications are to be regarded as approximate.

Notes:





DISCLAIMER:

CIZ (20220725) CIZ (SPIR) Bridges

Level Crossings Public Private Pedestrian

Chainage 100m (Post IFC) Rail Alignment (Post IFC) Residential Receivers Railway Location **ARTC Network** Other Railways

Culverts Chainage 1km

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1: 18,056 Scale:

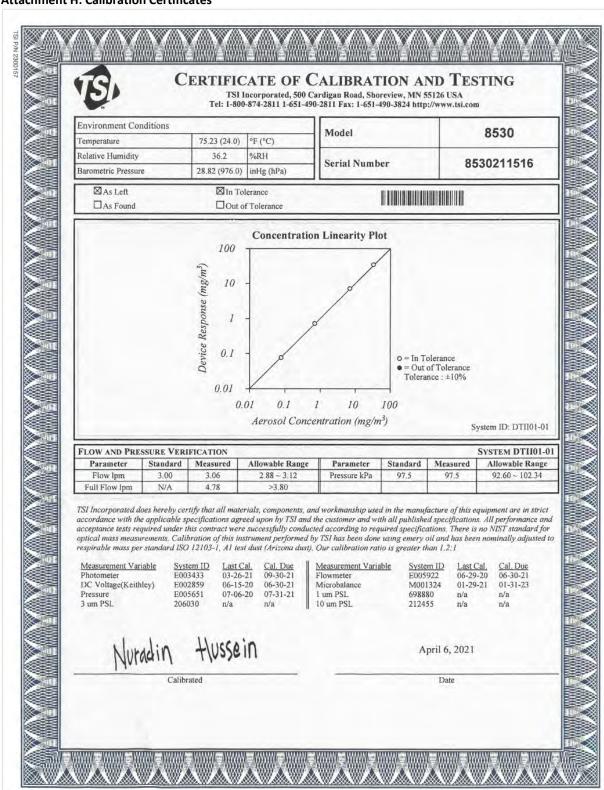
Projection: WGS\_1984\_Web\_Mercator\_Auxiliary\_Sphere

Note: ARTC web applications use the Web Mercator (EPSG:3857) coordinate system. This modified Mercator projection maximises system performance, but at the expense of distortion and accuracy. As such, all measurements carried out in these applications are to be regarded as approximate.





### **Attachment H: Calibration Certificates**







Document

KF 505

Revision

C

Report Number: DT221268

Page 1 of 2

| Customer              | Eco Environmental Pty Ltd |  |  |
|-----------------------|---------------------------|--|--|
| Address               | Unit 4, 15 Holt Street    |  |  |
|                       | Pinkenba, Qld 4008        |  |  |
| Contact Joanne Gannon |                           |  |  |
| Equipment             | TSI Dusttrak              |  |  |
| Model                 | 8530                      |  |  |
| Serial Number         | 8530211516                |  |  |
| Calibration Date      | July 22, 2021             |  |  |
| Condition as Received | New                       |  |  |

| Reference Instruments |           |             |                 |  |  |  |
|-----------------------|-----------|-------------|-----------------|--|--|--|
| Measurement Variable  | Model No. | Serial No.  | Calibration Due |  |  |  |
| Photometer            | 858700    | 8587205101  | 15/12/2021      |  |  |  |
| DC Voltage (Keithley) | 2700      | 4364761     | 5/01/2022       |  |  |  |
| Pressure              | 276140-SP | 4146296     | 15/01/2022      |  |  |  |
| Flow and Temperature  | 4140      | 41401118008 | 15/11/2021      |  |  |  |
| 1 um PSL              | 19518     | 698880      | Apr-22          |  |  |  |
| 2.8 um PSL            | 19520     | 702200      | Apr-22          |  |  |  |
| 10 um PSL             | DC-10     | 187001      | Jul-23          |  |  |  |

| ENVIRONMENTA        | L CONDITIONS |
|---------------------|--------------|
| Ambient Temp        | 18°C         |
| Humidity            | 56%RH        |
| Barometric Pressure | 1002hPa      |

## Kenelec Scientific Pty Ltd Certifies That :-

All performance and acceptance tests required were successfully conducted according to required specifications. All test and calibration data supplied by Kenelec Scientific has been obtained using Emery Oil and has been nominally adjusted to respirable mass standard ISO 12103-1 Al Test Dust. Calibration of sizing is performed using the above particles and verified on the TSI calibration Bench.

| Procedures Followed: | LABP1      |   |
|----------------------|------------|---|
| Approved Signatory:  |            | 4 |
| Date:                | 26/07/2021 | × |

KENELEC SCIENTIFIC PTY LTD

23 Redland Drive

T 03 9873 1022

info@kenelec.com.au www.kenelec.com.au

ABN 88 064 373 717 Mitcham Vic 3132 F 03 9873 0200

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Page 1 of 2





Document

KF 505

Revision

C

Report Number: DT221268

Page 2 of 2

| As Left Verification Data |                                |                   |                            |        |  |  |
|---------------------------|--------------------------------|-------------------|----------------------------|--------|--|--|
| Testing Number            | Calibration Reference<br>mg/m3 | Instrument Output | Allowable Range<br>+/- 10% |        |  |  |
|                           | 0.059                          | 0.059             | 0.053                      | 0.065  |  |  |
| 2                         | 0.662                          | 0.66              | 0.596                      | 0.728  |  |  |
| 3                         | 3.796                          | 3.755             | 3.416                      | 4.176  |  |  |
| 4                         | 33.178                         | 33.65             | 29.860                     | 36.496 |  |  |

| Flow And Pressure Verification |           |          |                    | System DTII01-01 |          |          |                    |
|--------------------------------|-----------|----------|--------------------|------------------|----------|----------|--------------------|
| Parameter                      | Standard  | Measured | Allowable<br>Range | Parameter        | Standard | Measured | Allowable<br>Range |
| Flow Lpm                       | 3         | 3.080    | 3.150 - 2.850      | Pressure kPA     | 99.631   | 99.630   | 104.613-94.649     |
| Pump Ru                        | in Hours: | 0        |                    |                  |          |          |                    |

KENELEC SCIENTIFIC PTY LTD ABN 88 064 373 717

23 Redland Drive Mitcham Vic 3132 T 03 9873 1022 F 03 9873 0200 info@kenelec.com.au www.kenelec.com.au

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## **DustTrak Service Report**

ECO-FOR-022



| Date          | 8141   | 22    | Company      | TRANS4M  |
|---------------|--------|-------|--------------|----------|
| Start Time    | 11:00  |       | HIREPOS OC#  | 10288    |
| Finish Time   | 12:30  | ,     | Station Name | BRISBANE |
| Serial Number | 8530 2 | 11516 | Technician   | ROBERTB  |
| Accet Number  |        |       |              |          |

| 1) Visual Inspection of Equipment    |     | Comment |
|--------------------------------------|-----|---------|
| Instrument power on                  | V   |         |
| Is the inlet free of obstructions    | NIA |         |
| Is the inlet tube clear of any kinks | NIA |         |
| Any service warnings                 | NO  |         |

| 2) DustTrak Readings (pre-service)    |      |       | Illian su |  |
|---------------------------------------|------|-------|-----------|--|
| Dust reading (DustTrak / Logger)      | 0-11 | mg/m3 | Logger    |  |
| Zero Check (Filter Attached)          | 0.00 | mg/m3 |           |  |
| Full scale check (generate some dust) | 6.87 | mg/m3 |           |  |
| Flow 3.0L/m (+/- 0.1)                 | 3.02 | L/min |           |  |

| 3) Maintenance             | ce Serviced or replaced   |               | ment |
|----------------------------|---------------------------|---------------|------|
| Inlet head (every visit)   | Serviced/Replaced/Checked | NIA           |      |
| Water trap (every visit)   | Serviced/Replaced/Checked | NIA           |      |
| Impactor plate (if fitted) | Serviced/Replaced/Checked | Particle size | NIA  |
| Internal filters           | Serviced/Replaced/Checked | Filter colour | C00D |

| 4) Service                             |        | Comment |
|--|--------|---------|
| Leak check (does pump stop & restart?) | Yes/No |         |
| Zero calibration                       | Yes/No |         |
| Flow calibrated                        | Yes/No |         |
| Does unit run after power-up?          | Yes/No |         |

| 5) DustTrak Readings (post-service)   | Same and the |       |  |
|---------------------------------------|--------------|-------|--|
| Dust reading (DustTrak / Logger)      | 0.007        | mg/m3 |  |
| Zero Check (Filter Attached)          | 0.00         | mg/m3 |  |
| Full scale check (generate some dust) | 0.55         | mg/m3 |  |
| Flow 3.0L/m (+/- 0.1)                 | 3.004        | L/min |  |

| 6) Calibration           |         |       |                 |     |    |
|--------------------------|---------|-------|-----------------|-----|----|
| Calibration date         | 22/7/21 |       |                 |     |    |
| Pump run time            | 992     | hours | Cum Mass        | 2.2 | mg |
| Date filter last changed | 2217(21 | (     | Cum Filter Mass | 2.2 | mg |

| Solar (V)   | NIA | Solar panel rating (Watt)     | Angle / Dirn     |
|-------------|-----|-------------------------------|------------------|
| Battery (V) | NIA | Solar panel open circuit (V)  | Time             |
| Load (V)    | NIA | Solar panel short circuit (A) | Weather          |
|             |     | System Current Drain (A)      | RSSI (dB) < -107 |

## 8) Reccomendations for Next Site Visit or Comments

INSECT REMAINS FOUND IN 37 MM FILTER AND INTERNAL FILTER

Date Printed 8/04/2022

Rev 1

Page 1





3-20-41 Higashimotomachi Kokubunji Tokyo 185-8533 Phone: 042(359)7888, Facsimile: 042(359)7442

## **Certificate of Calibration**

Name

: Sound Level Meter, Class 1

Model

: NL-52

S/No.: 00710356

Date of Calibration : August, 03, 2021

We hereby certify that the above product was tested and calibrated according to the prescribed Rion procedures, and that it fulfills specification requirements.

The measuring equipment and reference devices used for testing and calibrating this unit are managed under the Rion traceability system and are traceable according to official Japanese standards and official standards of countries belonging to the International Committee of Weights and Measures.

RION CO., LTD.

Manager, Quality Control Department



## **Supplied Accessories**

Model

NL-52

**Product Name** 

Ensure all the items below are in the package.

If there is a missing part, please contact your supplier.

| Type  | Description  | Quantity | Note                                   |
|---|--|----------|--|
| NL-52                                       | Main unit  |          |  |
| NL-42-025                                   | IL-42-025 Storage case   |          |  |
| WS-10                                       | Windscreen   | 1        |  |
| NL-42-033 Windscreen fall prevention rubber |  | 1        | attached to the main unit              |
| VM-63-017                                   | Hand strap   | 1        |  |
| LR6   | Size AA alkaline batteries   | 4        |  |
|   | CD-ROM (Instruction manual, Serial interface manual, Technical notes, Program option manual) | 1        |  |
|   | Description for IEC 61672-1  | 1        |  |
|   | SD memory card (512 MByte)   | 1        | only when NX-42EX is pre-<br>installed |
|   | Inspection certificate   | 1        | This sheet                             |
|   | Document for China RoHS  | 1        | only to China                          |

## **Inspection Certificate**

INSPECTOR

RION CO., LTD.

3-20-41 Higashimotomachi, Kokubunji, Tokyo 185-8533,

Sound and Vibration Measuring Instrument Section Product information and software downloads can be found on our web-site:

We hereby certify that this product has been tested and calibrated at our factory according to RION

specifications and that the product satisfies all relevant requirements.

https://rion-sv.com/

Please check it out.

NºC11030502





North Rocks NSW AUSTRALIA 2151 Ph; +61 2 9484 0800 A.B.N. 65 160 399 119 Labs Pty Ltd | www.acousticresearch.com.au

## Sound Level Meter IEC 61672-3.2013

## Calibration Certificate

Calibration Number C21675

Client Details T4MR

64-68 Balo Street

Moree NSW 2400

Rion NL-52EX Equipment Tested/ Model Number:

Instrument Serial Number: 00710356 Microphone Serial Number: 19630 Pre-amplifier Serial Number:

Pre-Test Atmospheric Conditions

Ambient Temperature: 23.5°C Relative Humidity: 50.3% Barometric Pressure: 99.8kPa Post-Test Atmospheric Conditions

Ambient Temperature: 24.6°C Relative Humidity: 47.9% Barometric Pressure : 99.7kPa

Calibration Technician: Lucky Jaiswal Calibration Date: 14 Oct 2021

Secondary Check: Harrison Kim Report Issue Date: 14 Oct 2021

Approved Signatory: Billiams

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 | Pass   |
| 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: I evel linearity on the reference level range  | Pass   | 21: High Level Stability                          | Peiss  |

The sound level meter submitted for testing has successfully completed the class 1 periodic tests of IEC 61672-3:2013, for the environmental conditions under which the tests were performed

As public evidence was available, from an independent testing organisation responsible for approving the results of pattern evaluation test performed in accordance with IEC 61672-2,2013, to demonstrate that the model of sound level meter fully conformed to the requirements in IEC 61672-1,2013, the sound level meter submitted for testing conforms to the class | requirements of IEC 61672-1,2013,

Least Uncertainties of Measurement

Acoustic Tests ±0.13dB ±0.14dB INH-8kH= Electrical Tests ±0.10dB

Environmental Conditions

±11.2°C Temperature Relative Humidity Burometric Pressure +2.4% ±0.015kPa

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



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

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

PAGE | OF I





Research North Rocks NSW AUSTRALIA 2151 Ph: +61 2 9484 0800 A.B.N. 65 160 399 119 Labs Pty Ltd | www.acousticresearch.com.au

## Sound Calibrator IEC 60942-2017

## Calibration Certificate

Calibration Number C21676

Client Details T4MR

64-68 Balo Street Moree NSW 2400

Equipment Tested/ Model Number: Rion NC-75 Instrument Serial Number: 34813438

Atmospheric Conditions

Ambient Temperature: 23.3°C Relative Humidity: 51.3% Barometric Pressure: 100.2kPa

Calibration Technician: Lucky Jaiswal Calibration Date: 13 Oct 2021

Harrison Kim Secondary Check: Report Issue Date : 14 Oct 2021

Approved Signatory : Hallems

Ken Williams

| Characteristic Tested          | Result |
|--------------------------------|--------|
| Generated Sound Pressure Level | Pass   |
| Frequency Generated            | Pass   |
| Total Distortion               | Pass   |

| Nominal Level | Nominal Frequency | Measured Level | Measured Frequency |
|---------------|-------------------|----------------|--------------------|
| 94            | 1000              | 94.05          | 1000.00            |

The sound calibrator has been shown to conform to the class. I requirements for periodic testing, described in Annex B of IEC 60942:2017 for the sound pressure level(s) and frequency(ies) stated, for the environmental conditions under which the tests were performed

Specific Tests

Generated SPL Frequency +0.11dB +0.18% Distortion

Least Uncertainties of Measurement -Environmental Conditions Temperature Relative Humidity 60.015kPa Barometric Pressure

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

\* The tests <1000 kHz are not covered by Acoustic Research Labs Pty Ltd NATA 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

PAGE LOFT



Attachment I: Edgeroi Silos and Loading Facility - TM815-02F01 Edgeroi vibration monitoring (r1), dated 29/7/2022



29 July 2022

TM815-02F01 Edgeroi vibration monitoring (r1).docx

Trans4m Rail Joint Venture Adam Playne Adam.Playne@t4mr.com.au

From: Andy Ngo [Andy.Ngo@renzotonin.com.au]

## Narrabri To North Star (N2NS) Inland Rail - Edgeroi Vibration Monitoring Report

## 1 Introduction

Renzo Tonin & Associates was engaged by Trans4m Rail to conduct vibration monitoring during dynamic compaction works near the Silos and Loading Facility at Edgeroi for Narrabri to North Star Inland Rail project. The location of these works is shown in APPENDIX A. The vibration monitoring was undertaken to monitor potentially affected structures. This report provides a summary of the monitoring results.

## 2 Vibration monitoring details

Two unattended vibration monitors were installed at Edgeroi to monitoring for the period between 6<sup>th</sup> May and 29<sup>th</sup> June 2022. Vibration monitors were installed at Silo and Loading Facility to monitor vibration levels to be experienced by these structures.

Table 1 below presents the instrumentation used and monitoring locations. Refer to APPENDIX A of this report for an aerial photograph indicating monitoring locations.

**Table 1 - Equipment and Measurement Details** 

| Monitoring<br>ID | Equipment                   | Assessment point<br>(Refer to Appendix A) | Date   | Vibration intensive equipment in use monitored | Approx. distance<br>to Plant      |
|------------------|-----------------------------|---|--|--|-----------------------------------|
| M1               | Sigicom C22 –<br>S/N 102478 | Silos                                     | 6 <sup>th</sup> May 2022 –<br>29 <sup>th</sup> June 2022 | Vibratory roller                               | Varies – minimum<br>distance 10m. |
| M2               | Sigicom C22 –<br>S/N 102477 | Loading Facility                          | 6 <sup>th</sup> May 2022 –<br>29 <sup>th</sup> June 2022 | Vibratory roller                               | Varies – minimum<br>distance 5m.  |





RENZO TONIN & ASSOCIATES 29 JULY 2022

## 3 Vibration monitoring results

The established vibration criteria for cosmetic damage in the Narrabri to North Star Construction Noise and Vibration Management Sub-Plan (CNVMP) (T4MR Ref: 7632-T4MR-PL-PES-001-04, Rev 1, dated 18/8/2021) for the affected receiver types are shown in Table 2 below.

Table 2 - Transient vibration guide values - minimal risk of cosmetic damage (BS 7385) - peak component particle velocity (PPV), mm/s

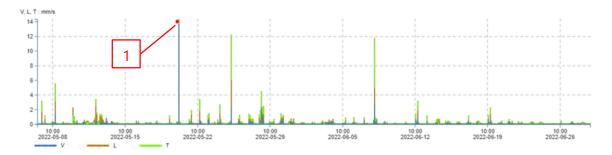
| LINE | TYPE OF STRUCTURE  | FREQUENCY RANGE 4<br>TO 15 HZ                     | FREQUENCY RANGE<br>15 TO 40 HZ                     | FREQUENCY RANGE<br>40 HZ AND ABOVE |
|------|--|---|--|------------------------------------|
| 1    | Reinforced or framed structures.<br>Industrial and heavy commercial<br>buildings.        | 50mm/s  | 50mm/s   | 50mm/s                             |
| 2    | Unreinforced or light framed structures. Residential or light commercial type buildings. | 15mm/s at 4Hz,<br>increasing to 20mm/s at<br>15Hz | 20mm/s at 15Hz,<br>increasing to 50mm/s<br>at 40Hz | 50mm/s                             |

Based on information provided within the Dilapidation report for the Edgeroi Facility (Ref: 22-57-GrainCorp Edgeroi, dated 4<sup>th</sup> March 2022), the Silos and Loading Facility are considered reinforced structures in this case.

As per the CNVMP, due to the continuous nature of the vibratory roller, this may potentially give rise to dynamic magnification due to resonance of the structures. The British Standard 7385 states that for these cases, the guide values provided in Table 2 may be reduced by up to 50%. On this basis, a conservative vibration damage screening level for the Silos and Loading Facility has been taken as 25mm/s.

The overall results of the unattended vibration monitoring at the two locations are presented in Figure 1 and 2 below with markers showing points of interest.

Figure 1 - Unattended vibration monitoring results at location M1 - Silos (PPV, mm/s)



RENZO TONIN & ASSOCIATES 29 JULY 2022

V, L, T: mm/s

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Figure 2 - Unattended vibration monitoring results at location M2 - Loading Facilities (PPV, mm/s)

To manage the works and ensure that works do not exceed the nominated vibration limits, alerts were triggered when vibration levels above 12.5mm/s. Events above this level are shown in Figure 1 and 2.

Table 3 below presents a summary of the markers shown in Figure 1 and 2.

Table 3 - Unattended vibration monitoring summary

| Marker ID                                 | Date and Time      | Comments   |
|---|--------------------|--|
| Monitoring Location M1 – Silos            |                    |  |
| 1   | 20.05.2022 11:58am | Associated with a battery change on vibration monitor. Not due to construction works.  |
| Monitoring Location M2 – Loading Facility |                    |  |
| 2   | 08.06.2022 7:48am  | Works in close proximity to vibration monitor at time of alert.  Project personnel investigated construction works but source of event undetermined, and further works did not result in alerts. |

Based on the measured vibration data, the vibration levels produced from the dynamic compaction works were below the nominated criteria of 25mm/s which was not exceeded throughout the monitoring period.

Appendix B of this report presents the daily breakdown of the vibration monitoring.

## 4 Conclusion

Renzo Tonin and Associates have completed vibration monitoring for the dynamic compaction works along the rail line at the Edgeroi Silos and Loading Facility. The results of the unattended vibration monitoring indicated that works did not exceed the established vibration criteria throughout the monitoring period.

#### **Document control**

| Date       | Revision history | Non-issued revision | Issued<br>revision | Prepared | Instructed | Reviewed /<br>Authorised |
|------------|------------------|---------------------|--------------------|----------|------------|--------------------------|
| 29.07.2022 | Draft            | 0                   | 1                  | A. Ngo   | A. Leslie  | A. Leslie                |

File Path: R:\AssocSydProjects\TL801-TL850\TL815 ale Narribri to North Star N2NS\1 Docs\Task 2 Edgeroi Silos\TM815-02F01 Edgeroi vibration monitoring (r1).docx

#### Important Disclaimers:

The work presented in this document was carried out in accordance with the Renzo Tonin & Associates Quality Assurance System, which is based on Australian/New Zealand Standard AS/NZS ISO 9001.

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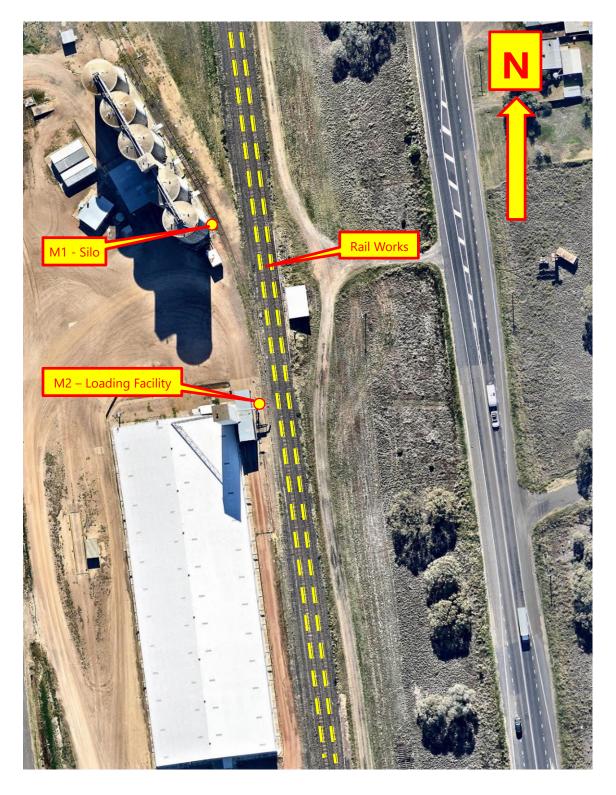
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# APPENDIX A Vibration monitoring locations



Imagery: Nearmap, 2022



Attachment J: Ten Mile Creek Bridge Piling - *TM815-03F01 Ten Mile Creek vibration monitoring (r1), dated* 29/7/2022

T: 07 5671 9601



29 July 2022

TM815-03F01 Ten Mile Creek vibration monitoring (r1).docx

Trans4m Rail Joint Venture Adam Playne Adam.Playne@t4mr.com.au

From: Andy Ngo [Andy.Ngo@renzotonin.com.au]

# Narrabri To North Star (N2NS) Inland Rail - Ten Mile Creek Vibration Monitoring Report

#### 1 Introduction

Renzo Tonin & Associates was engaged by Trans4m Rail to conduct vibration monitoring during impact piling works for the road bridge at Ten Mile Creek for Narrabri to North Star Inland Rail project. The location of these works is shown in APPENDIX A. The vibration monitoring was undertaken to monitor potentially affected structures. This report provides a summary of the monitoring results.

# 2 Vibration monitoring details

Two unattended vibration monitors were installed at Ten Mile Creek to monitoring for the period between 20<sup>th</sup> May and 17<sup>th</sup> June 2022. Vibration monitors were installed at the north and south ends at the base of the road bridge to monitor the bridge structure throughout the vibration intensive impact piling works.

Table 1 below presents the instrumentation used and monitoring locations. Refer to Appendix A of this report for an aerial photograph indicating monitoring locations.

Table 1 - Equipment and Measurement Details

| Monitoring<br>ID | Equipment                   | Assessment point<br>(Refer to Appendix A) | Date  | Vibration intensive equipment in use monitored | Approx. distance to Plant |
|------------------|-----------------------------|---|---|--|---------------------------|
| M1               | Sigicom C12 –<br>S/N 70190  | North end of bridge.                      | 20 <sup>th</sup> May 2022 and 17 <sup>th</sup> June 2022    | Impact pile driver                             | 40m                       |
| M2               | Sigicom C22 –<br>S/N 102479 | South end of bridge.                      | 20 <sup>th</sup> May 2022 and<br>17 <sup>th</sup> June 2022 | Impact pile driver                             | 40m                       |





# 3 Vibration monitoring results

The established vibration criteria for cosmetic damage in the Narrabri to North Star Construction Noise and Vibration Management Sub-Plan (CNVMP) (T4MR Ref: 7632-T4MR-PL-PES-001-04, Rev 1, dated 18/8/2021) for the affected receiver types are shown in Table 2 below.

Table 2 - Transient vibration guide values - minimal risk of cosmetic damage (BS 7385) - peak component particle velocity (PPV), mm/s

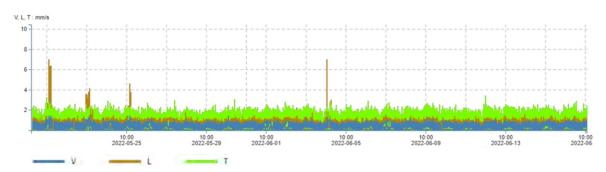
| LINE | TYPE OF STRUCTURE  | FREQUENCY RANGE 4<br>TO 15 HZ                     | FREQUENCY RANGE<br>15 TO 40 HZ                     | FREQUENCY RANGE<br>40 HZ AND ABOVE |
|------|--|---|--|------------------------------------|
| 1    | Reinforced or framed structures.<br>Industrial and heavy commercial<br>buildings.        | 50mm/s  | 50mm/s   | 50mm/s                             |
| 2    | Unreinforced or light framed structures. Residential or light commercial type buildings. | 15mm/s at 4Hz,<br>increasing to 20mm/s at<br>15Hz | 20mm/s at 15Hz,<br>increasing to 50mm/s<br>at 40Hz | 50mm/s                             |

In this case, the road bridge is considered a reinforced structure, and as such this vibration limit was adopted in consultation with project personnel to manage the works.

As per the CNVMP, impact piling activities are considered to have the potential to cause dynamic loading in some structures. The British Standard 7385 states that for these cases, the guide values provided in Table 2 may be reduced by up to 50%. On this basis, a conservative vibration damage screening level for the Ten Mile Creek road bridge has been taken as 25mm/s.

The overall results of the unattended vibration monitoring at the two locations are presented in Figure 1 and 2 below.

Figure 1 - Unattended vibration monitoring results at location M1 - North (PPV, mm/s)



2 10.000 10.000 10.000 10.000 10.000 10.000 2022-06-03 2022-06-03 2022-06-05

Figure 2 - Unattended vibration monitoring results at location M2 - South (PPV, mm/s)

Based on the measured vibration data, the vibration levels produced from the piling works were below the nominated criteria of 25mm/s which was not exceeded throughout the monitoring period.

Appendix B of this report presents the daily breakdown of the vibration monitoring.

## 4 Conclusion

Renzo Tonin and Associates have completed vibration monitoring during impact piling works for the road bridge at Ten Mile Creek. The results of the unattended vibration monitoring indicated that works did not exceed the established vibration criteria throughout the monitoring period.

#### **Document control**

| Date       | Revision history | Non-issued revision | Issued<br>revision | Prepared | Instructed | Reviewed /<br>Authorised |
|------------|------------------|---------------------|--------------------|----------|------------|--------------------------|
| 29.07.2022 | Initial issue    | 0                   | 1                  | A. Ngo   | A. Leslie  | A. Leslie                |

File Path: R:\AssocSydProjects\TL801-TL850\TL815 ale Narribri to North Star N2NS\1 Docs\Task 3 Ten Mile Creek\TM815-03F01 Ten Mile Creek vibration monitoring (r1).docx

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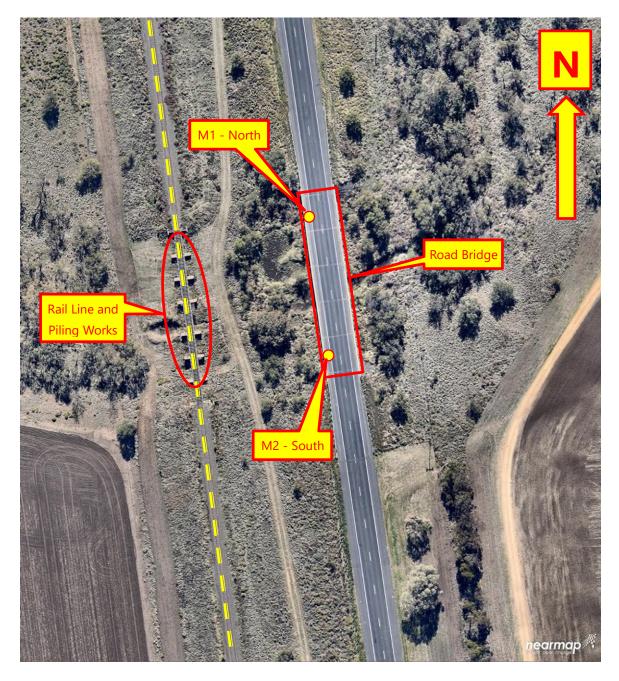
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# APPENDIX A Vibration monitoring locations



Imagery: Nearmap, 2022



Attachment K: Bobbiwaa Creek Bridge Piling - TM815-04F01 Bobbiwa Creek vibration monitoring (r1), dated 29/7/2022

T: 07 5671 9601



29 July 2022

TM815-04F01 Bobbiwa Creek vibration monitoring (r1).docx

Trans4m Rail Joint Venture Adam Playne Adam.Playne@t4mr.com.au

From: Andy Ngo [Andy.Ngo@renzotonin.com.au]

# Narrabri To North Star (N2NS) Inland Rail - Bobbiwa Vibration Monitoring Report

#### 1 Introduction

Renzo Tonin & Associates was engaged by Trans4m Rail to conduct vibration monitoring during impact piling works for the road bridge at Bobbiwa Creek for Narrabri to North Star Inland Rail project. The location of these works is shown in APPENDIX A. The vibration monitoring was undertaken to monitor potentially affected structures. This report provides a summary of the monitoring results.

# 2 Vibration monitoring details

Two unattended vibration monitors were installed at Bobbiwa Creek to monitoring for the period between 17<sup>th</sup> June and 29<sup>th</sup> June2022. Vibration monitors were installed at the north and south ends at the base of the road bridge to monitor the bridge structure throughout the vibration intensive impact piling works.

Table 1 below presents the instrumentation used and monitoring locations. Refer to Appendix A of this report for an aerial photograph indicating monitoring locations.

**Table 1 - Equipment and Measurement Details** 

| Monitoring<br>ID | Equipment                   | Assessment point<br>(Refer to Appendix A) | Date  | Vibration intensive equipment in use monitored | Approx. distance<br>to Plant |
|------------------|-----------------------------|---|---|--|------------------------------|
| M1               | Sigicom C12 –<br>S/N 70190  | North end of bridge.                      | 17 <sup>th</sup> June 2022 and 29 <sup>th</sup> June 2022 | Impact pile driver                             | 35                           |
| M2               | Sigicom C22 –<br>S/N 102479 | South end of bridge.                      | 17 <sup>th</sup> June 2022 and 29 <sup>th</sup> June 2022 | Impact pile driver                             | 35                           |





# 3 Vibration monitoring results

The established vibration criteria for cosmetic damage in the Narrabri to North Star Construction Noise and Vibration Management Sub-Plan (CNVMP) (T4MR Ref: 7632-T4MR-PL-PES-001-04, Rev 1, dated 18/8/2021) for the affected receiver types are shown in Table 2 below.

Table 2 - Transient vibration guide values - minimal risk of cosmetic damage (BS 7385) - peak component particle velocity (PPV), mm/s

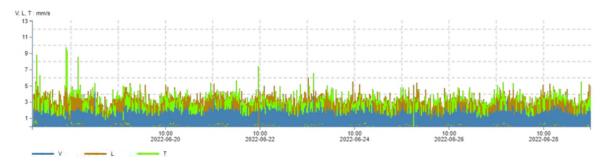
| LINE | TYPE OF STRUCTURE  | FREQUENCY RANGE 4<br>TO 15 HZ                     | FREQUENCY RANGE<br>15 TO 40 HZ                     | FREQUENCY RANGE<br>40 HZ AND ABOVE |
|------|--|---|--|------------------------------------|
| 1    | Reinforced or framed structures.<br>Industrial and heavy commercial<br>buildings.        | 50mm/s  | 50mm/s   | 50mm/s                             |
| 2    | Unreinforced or light framed structures. Residential or light commercial type buildings. | 15mm/s at 4Hz,<br>increasing to 20mm/s at<br>15Hz | 20mm/s at 15Hz,<br>increasing to 50mm/s<br>at 40Hz | 50mm/s                             |

In this case, the road bridge is considered a reinforced structure, and as such this vibration limit was adopted in consultation with project personnel to manage the works.

As per the CNVMP, impact piling activities are considered to have the potential to cause dynamic loading in some structures. The British Standard 7385 states that for these cases, the guide values provided in Table 2 may be reduced by up to 50%. On this basis, a conservative vibration damage screening level for the Bobbiwa Creek road bridge has been taken as 25mm/s.

The overall results of the unattended vibration monitoring at the two locations are presented in Figure 1 and 2 below.

Figure 1 - Unattended vibration monitoring results at location M1 - North (PPV, mm/s)



V, L, T : mm/s

11
975312022-06-20
2022-06-22
2022-06-24
2022-06-26
2022-06-28

Figure 2 - Unattended vibration monitoring results at location M2 - South (PPV, mm/s)

The red dots shown in Figure 2 represent the transient measurements which allow the wave form to be recorded. The trigger for transient measurements were set at 10mm/s substantially below the vibration criteria.

Based on the measured vibration data, the vibration levels produced from the piling works were below the nominated criteria of 25mm/s which was not exceeded throughout the monitoring period.

Appendix B of this report presents the daily breakdown of the vibration monitoring.

### 4 Conclusion

Renzo Tonin and Associates have completed vibration monitoring during impact piling works for the road bridge at Bobbiwa Creek. The results of the unattended vibration monitoring indicated that works did not exceed the established vibration criteria throughout the monitoring period.

#### **Document control**

| Date       | Revision history | Non-issued revision | Issued<br>revision | Prepared Instructed |           | Reviewed /<br>Authorised |
|------------|------------------|---------------------|--------------------|---------------------|-----------|--------------------------|
| 29.07.2022 | Initial issue    | 0                   | 1                  | A. Ngo              | A. Leslie | A. Leslie                |

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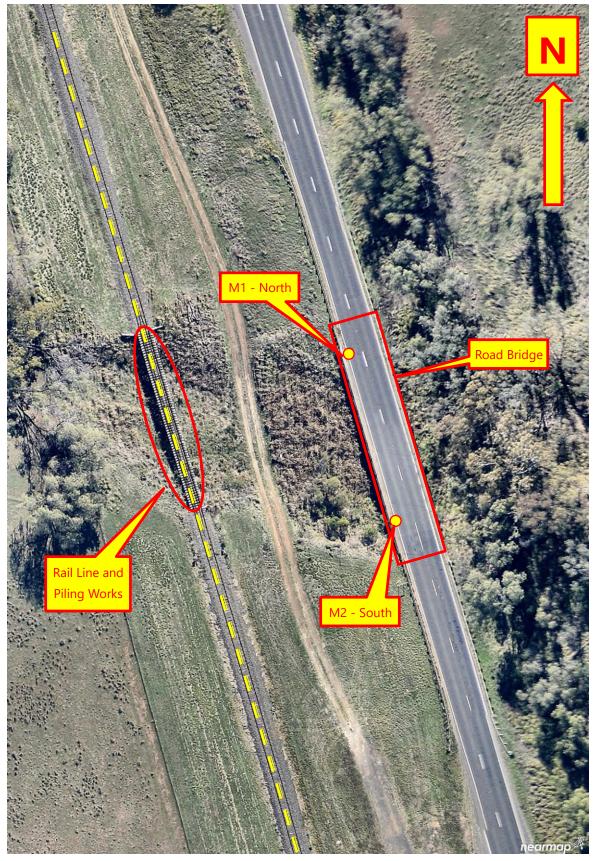
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# APPENDIX A Vibration monitoring locations



Imagery: Nearmap, 2022



Attachment L: Bellata Vibration Monitoring Report – TM815-05D01 Bellata Station Vibration Monitoring (r1), dated 08/12/2022



8 December 2022

TM815-05D01 Bellata Station vibration monitoring (r1)

Trans4m Rail Joint Venture Adam Playne Adam.Playne@t4mr.com.au

From: Angus Hannelly [Angus.Hannelly@renzotonin.com.au]

# Narrabri To North Star (N2NS) Inland Rail - Bellata Vibration Monitoring Report

#### 1 Introduction

Renzo Tonin & Associates was engaged by Trans4m Rail to conduct vibration monitoring during track construction works at Bellata Station for Narrabri to North Star Inland Rail project. The vibration monitoring was undertaken to monitor and assist with vibration impact management of potentially affected structures. This report provides a summary of the monitoring results.

# 2 Vibration monitoring details

Both attended and unattended monitoring were undertaken at Bellata Station.

Attended monitoring was undertaken during excavation works to determine the likely vibration levels on the station platform when works were occurring in close proximity.

For compaction works adjacent to the station platform, it is understood that a post dilapidation inspection would be undertaken, with comparison then made to the pre-construction dilapidation survey, in order to manage vibration impacts along the station platform, as vibratory roller compaction works were required.

Long term unattended monitoring was undertaken for the Bellata Station's Communication Building and Bellata Grain Receival Facility during the vibration intensive periods of works. Unattended monitors with alerts were installed to assist within management of vibration levels generated from the construction works.





## 2.1 Attended monitoring

Attended vibration monitoring was conducted on 28<sup>th</sup> July 2022. The vibration monitor was mounted on the edge of the station platform during excavation works, which then were undertaken in close proximity to the monitoring location representative of the likely excavation works.

### 2.2 Unattended monitoring

Two unattended vibration monitors were installed at Bellata Station and monitored for the period between 28<sup>th</sup> July and 18<sup>th</sup> November 2022. Vibration monitors were installed either side of the train line, one at the Bellata Station's Communication Building and another on the Bellata Grain Receival Facility side of the tracks to monitor the vibration levels potentially impacting these structures throughout the duration of the construction works.

Table 1 below presents the instrumentation used and monitoring locations. Photos indicating vibration monitoring locations are included in APPENDIX A.

Table 1 - Equipment and measurement details

| Monitoring ID        | Equipment                        | Assessment point<br>(Refer to APPENDIX A)    | Date   | Vibration intensive<br>equipment in use by<br>the project during<br>monitoring period | Approx. distance<br>to nearest point<br>on tracks |
|----------------------|----------------------------------|--|--|---|---|
| M1<br>(Appendix A.1) | Sigicom C12<br>- S/N:<br>#61870  | Bellata Grain Receival<br>Facility           | 20 <sup>th</sup> July 2022 and<br>18 <sup>th</sup> November 2022 | Vibratory roller,<br>excavator with<br>bucket attachment,<br>rail tamper              | 10-15m  |
| M2<br>(Appendix A.2) | Sigicom C22<br>– S/N:<br>#102478 | Bellata Station<br>Communication<br>Building | 20 <sup>th</sup> July 2022 and<br>18 <sup>th</sup> November 2022 | Vibratory roller,<br>excavator with<br>bucket attachment,<br>rail tamper              | 5-10m   |

The vibration criteria for cosmetic damage for the project is detailed in the Narrabri to North Star Construction Noise and Vibration Management Sub-Plan (CNVMP) (T4MR Ref: 7632-T4MR-PL-PES-001-04, Rev 1, dated 18/8/2021). Consistent with the CNVMP, appropriate vibration criteria were adopted to manage the construction vibration from the works based upon consideration of the sensitivity of the potentially affected sensitive structures.

# 3 Vibration monitoring results

#### 3.1 Bellata Rail Station

Based on information provided within the Dilapidation report for the Bellata Rail Station (Ref: 22-57-Bellata Rail Station, SMK Consultants, survey date 4<sup>th</sup> March 2022), the key structures the make up the Bellata Rail Station are a concrete waiting area and shelter, signalling/control/ communication shed,

overhead lighting, safety fencing, and a ramp between the adjoining public carpark area and the station platform.

Even though the station is noted as heritage, the station structures were identified as sound. The rail platform and foundations were classified as heavy commercial structures, while the shelter and adjoining infrastructure, including the communication building adjacent were classified as light commercial type buildings. The rail station shelter and light poles were constructed of materials considered to be sufficiently flexible to withstand vibrations.

It was confirmed with ARTC that the Communication Building contains no signalling equipment and only a public announcement system.

#### 3.1.1 Station Platform – attended monitoring

The established vibration criteria for cosmetic damage for the platform was established as 25mm/s PPV based upon a heavy commercial structure.

Attended trial vibration measurements were undertaken on the station platform to confirm the expected site-specific vibration levels at various distances from the vibration intensive works in the rail corridor from excavation activities. The outcomes of this trial were as follows:

- When the operator conducted a typical excavation activity at 1m away from the monitoring location, the excavator with bucket attachment produced vibration levels around 0.5mm/s PPV on the platform.
- When the operator slammed the bucket attachment into the ground at 1m away from the monitoring location (assessing worst case scenario), the excavator with bucket attachment produced vibration levels around 2mm/s PPV on the platform.
- Based on the vibration monitoring results above, the excavator with bucket attachment produced vibration levels substantially lower than the established vibration limit of 25mm/s.

Therefore, further vibration monitoring of the excavation works was not recommended. However, a vibration monitor was installed in front of the Communication building on the platform concrete slab to monitor for the duration of the construction works at the more sensitive receiver location on the platform. This monitor measured during the entire excavation works and future vibratory rolling works (managing vibration levels for both the station platform and the Communication building).

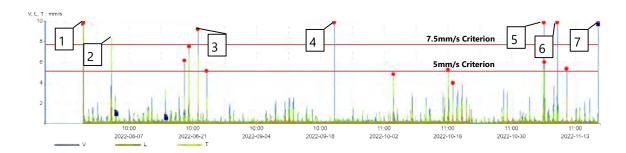
#### 3.1.2 Bellata Station – Communication Building – unattended monitoring

Based upon the dilapidation report, the building was be classified as a light commercial structure for the purpose of setting vibration management limits. The established vibration criteria for cosmetic damage for the Bellata Station Communication building are given below:

- Stop works trigger has been set to 7.5mm/s PPV.
- Amber trigger has been set to 5mm/s PPV.

The results of the unattended vibration monitoring are presented in Figure 2 below.

Figure 1 - Unattended vibration monitoring results at location M2 (PPV, mm/s)



The discussion of the M2 vibration monitoring results is summarised in Table 3-2.

Table 3-2: Bellata Communication Building vibration monitoring summary

| Exceedance<br>ID | Date and<br>Time      | Cause of exceedance   |
|------------------|-----------------------|---|
| 1                | 28.07.2022<br>07:33am | At this time, the vibration monitor was mounted to the ground. The exceedance was caused by the RTA engineer setting up the vibration monitor. As a result, the exceedance deemed not related to the construction works.  |
| 2                | 03.08.2022<br>11:45am | The vibration monitor recorded an instantaneous vibration level over 7.5mm/s. It is noted that during the time of exceedance, it was confirmed that no compaction works were occurring. An extraneous event such as a worker inadvertently nudging the monitor was likely the cause of the exceedance. The exceedance was deemed not related to the construction works.   |
| 3                | 22.08.2022<br>11:39pm | The vibration monitor recorded an instantaneous vibration level over 7.5mm/s. It is noted that during the time of exceedance, it was confirmed that a roller was tracking past the platform and not conducting any construction works. An extraneous event such as a worker inadvertently nudging the monitor was likely the cause of the exceedance. As a result, the exceedance was deemed not related to the construction works. |
| 4                | 21.09.2022<br>09:19am | An RTA engineer was replacing the batteries of the vibration monitor at this time. The exceedance was caused by the RTA engineer replacing the batteries of the vibration monitor. As a result, the exceedance was deemed not related to the construction works.  |
| 5                | 06.11.2022<br>11:56am | The vibration monitor recorded an instantaneous vibration level over 7.5mm/s. Given that the exceedance is not characteristic of the construction works taking place, an extraneous event such as a worker inadvertently nudging the monitor was likely the cause of the exceedance.  |
| 6                | 09.11.2022<br>10:17am | The vibration monitor recorded an instantaneous vibration level over 7.5mm/s. Given that the exceedance is not characteristic of the construction works taking place, an extraneous event such as a worker inadvertently nudging the monitor was likely the cause of the exceedance.  |
| 7                | 18.11.2022<br>10:39am | At this time, the vibration monitor was retrieved from the ground at the end of monitoring. Construction works have finished at the time of exceedance. As a result, the exceedance was deemed not related to the construction works.   |

It can be seen in Figure 1 that the vibration levels produced from the construction works were typically below 7.5 mm/s. Note that there were events that resulted in an instantaneous vibration level of above 7.5 mm/s which have been deemed not characteristic of the construction works taking place or deemed not related to the construction works.

### 3.2 Bellata Station – Bellata Grain Receival Facility – unattended monitoring

Based on information provided within the Dilapidation report for the GrainCorp Bellata facility (Ref: 22-57- GrainCorp Bellata, SMK Consultants, survey date 4<sup>th</sup> and 5<sup>th</sup> March 2022), the key structures the make up the GrainCorp Bellata facility include concrete silos, grain pits and out-loading equipment, concrete bulk grain shed, switch/electrical room, and a large bulk shed. All of the grain storages have extensive concrete foundations and aprons.

It was noted that the critical issue was the preservation of the outer concrete drainage system around the silos. As such, monitoring was undertaken in proximity to the drainage system nearby to the works.

The established vibration criteria for cosmetic damage for the affected receiver type are given below:

- Stop works trigger has been set to 25mm/s PPV.
- Amber trigger has been set to 18.75mm/s PPV.

The results of the unattended vibration monitoring are presented in Figure 1 below.

V.L.T.: mm/s

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Figure 2 - Unattended vibration monitoring results at location M1 (PPV, mm/s)

The discussion of the M1 vibration monitoring results is summarised in .

Table 3-1: Bellata Grain Receival Facility vibration monitoring summary

| Exceedance<br>ID | Date and<br>Time      | Cause of exceedance  |
|------------------|-----------------------|--|
| 1                | 05.08.2022<br>10:08am | The vibration monitor recorded an instantaneous vibration level over 25mm/s. It was confirmed with project personnel that at the time of exceedance no construction works occurring on the Bellata Grain Receival Facility side. An extraneous event such as a worker inadvertently nudging the monitor was likely the cause of the exceedance. The exceedance was deemed not related to the construction works. |

| Exceedance<br>ID | Date and<br>Time                                 | Cause of exceedance  |
|------------------|--|--|
| 2                | 09.08.2022<br>08:46am                            | The vibration monitor recorded an instantaneous vibration level over 25mm/s. It was confirmed with project personnel that at the time of exceedance no construction works occurring. However, it can be noted that GrainCorp personnel were seen undertaking construction works near to the monitor, including using a concrete saw adjacent to the monitor. As a result, the exceedance was deemed not related to the construction works and was likely caused by GrainCorp construction works. |
| 3                | 12.08.2022<br>07:59am                            | The vibration monitor recorded an instantaneous vibration level over 25mm/s. Given that the exceedance is not characteristic of the construction works taking place, an extraneous event such as a worker inadvertently nudging the monitor was likely the cause of the exceedance. As a result, the exceedance was deemed not related to the construction works.  |
| 4                | 23.08.2022<br>03:15pm -<br>24.08.2022<br>09:04am | The vibration monitor recorded an instantaneous vibration level over 25mm/s. It was confirmed with project personnel that no construction works were occurring. However, it can be noted that GrainCorp personnel were observed drilling adjacent to the monitor. As a result, the exceedance was deemed not related to the construction works and were likely caused by GrainCorp construction works.   |
| 5                | 30.08.2022<br>09:40am                            | The vibration monitor recorded an instantaneous vibration level over 25mm/s Given that the exceedance is not characteristic of the construction works taking place, an extraneous event such as a worker inadvertently nudging the monitor was likely the cause of the exceedance. As a result, the exceedance was deemed not related to the construction works.   |
| 6                | 13.09.2022<br>02:33pm                            | The vibration monitor recorded an instantaneous vibration level over 25mm/s. Given that the exceedance is not characteristic of the construction works taking place, an extraneous event such as a worker inadvertently nudging the monitor was likely the cause of the exceedance. As a result, the exceedance was deemed not related to the construction works.  |
| 7                | 21.09.2022<br>07:50am                            | An RTA engineer was replacing the batteries of the vibration monitor at this time. The exceedance was caused by the RTA engineer replacing the batteries of the vibration monitor. As a result, the exceedance was deemed not related to the construction works.   |
| 8                | 11.10.2022<br>04:25pm                            | The vibration monitor recorded an instantaneous vibration level over 25mm/s. It is noted that during the time of exceedance, it was confirmed that no construction works were occurring in close proximity to the silos. As a result, the exceedance was deemed not related to the construction works and was likely caused by an extraneous event such as a worker inadvertently nudging the monitor.   |
| 9                | 18.11.2022<br>11:18am                            | At this time, the vibration monitor was retrieved from the ground at the end of monitoring. Construction works have finished at the time of exceedance. As a result, the exceedance was deemed not related to the construction works.  |

It can be seen in that the vibration levels produced from the construction works were typically below 25 mm/s. Note that there were events that resulted in an instantaneous vibration level of above 25 mm/s which have been deemed not characteristic of the construction works taking place or deemed not related to the construction works .

#### 4 Conclusion

Renzo Tonin and Associates undertook vibration monitoring during the construction works at Bellata Station. Attended trial vibration measurements were used to manage potential impacts from excavation of the Bellata Station Platform.

Unattended monitoring was undertaken throughout the construction works to manage impacts on Bellata Station Platform structures and the Bellata Grain Receival Facility. The results of the unattended vibration monitoring were typically below the established vibration screening criteria. There were events

that resulted in an instantaneous vibration level of above the vibration screening criteria which have been deemed not characteristic of the construction works taking place or deemed not related to the construction works following further investigation.

#### **Document control**

| Date       | Revision history | Non-issued revision | Issued<br>revision | Prepared    | Instructed    | Reviewed /<br>Authorised |
|------------|------------------|---------------------|--------------------|-------------|---------------|--------------------------|
| 08.12.2022 | Initial issue    | 0                   | 1                  | A. Hannelly | R. Zhafranata | A. Leslie                |

File Path: R:\AssocSydProjects\TL801-TL850\TL815 ale Narribri to North Star N2NS\1 Docs\Task 5 Bellata Station\TM815-05D01 Bellata Station vibration monitoring (r1).docx

#### Important Disclaimers:

The work presented in this document was carried out in accordance with the Renzo Tonin & Associates Quality Assurance System, which is based on Australian/New Zealand Standard AS/NZS ISO 9001.

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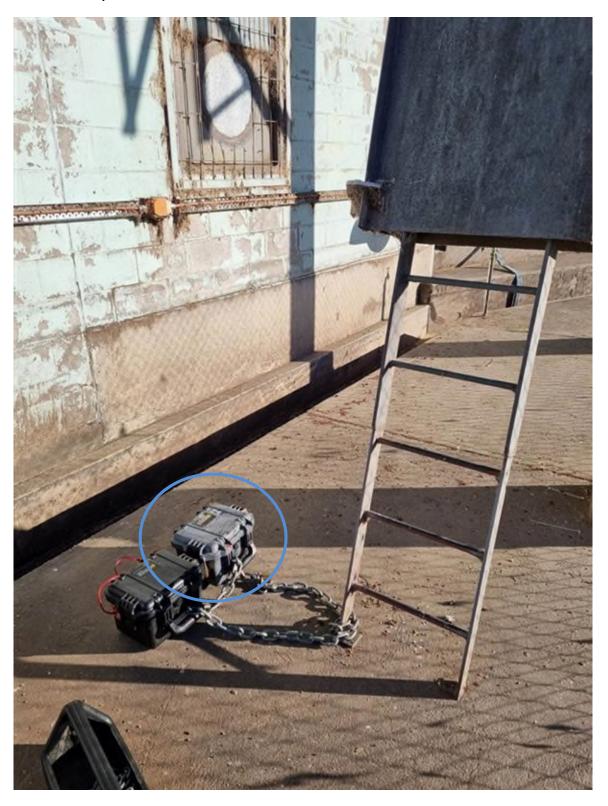
We have prepared this report in accordance with the usual care and thoroughness of the consulting profession, for the sole purpose described above and by reference to applicable standards, guidelines, procedures and practices at the date of issue of this report. For the reasons outlined above, however, no other warranty or guarantee, whether expressed or implied, is made as to the data, observations and findings expressed in this report, to the extent permitted by law.

The information contained herein is for the purpose of acoustics only. No claims are made and no liability is accepted in respect of design and construction issues falling outside of the specialist field of acoustics engineering including and not limited to structural integrity, fire rating, architectural buildability and fit-for-purpose, waterproofing and the like. Supplementary professional advice should be sought in respect of these issues.

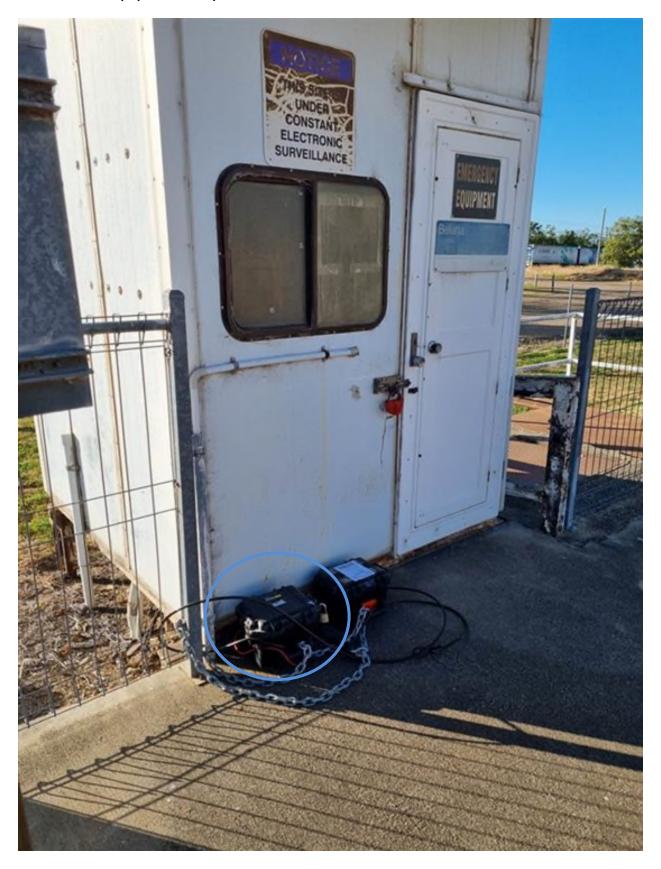
External cladding disclaimer: No claims are made and no liability is accepted in respect of any external wall and/or roof systems (eg facade / cladding materials, insulation etc) that are: (a) not compliant with or do not conform to any relevant non-acoustic legislation, regulation, standard, instructions or Building Codes; or (b) installed, applied, specified or utilised in such a manner that is not compliant with or does not conform to any relevant non-acoustic legislation, regulation, standard, instructions or Building Codes.

# APPENDIX A Vibration monitoring locations

# A.1 Bellata Station (Silo side) - Vibration monitoring location and equipment setup



# A.2 Bellata Station (Communication Building side) - Vibration monitoring location and equipment setup



# A.3 Bellata Station (Aerial Imagery) - Vibration monitoring locations





**Attachment M: Traffic Inspection Records** 

# E.3 Weekly TTM inspection checklist

Weekly inspections must only be carried out by a PWZTMP qualified person. Weekly inspections must be carried out when a site is first open and at least once every week thereafter.

| Completed by:                           |  |   | The state of the state of         | 55-31        |
|---|--|---|-----------------------------------|--------------|
| Name: Koring                            | Vikaint  | Signature:  | Chylo-                            |              |
| TMP Reference: New Mr                   | JY/NZNS  | TGS Reference:  | ~                                 |              |
| TMP Reference:  Newell Hir  Date:  75-2 | 022.   | Inspection type                                       | ☐ Pre-opening                     | Weekly       |
| Desktop review                          | The State of the S | MINISTER  | EN AND THE ST                     |              |
| Is a copy of the location TMP           | and relevant TGS avai  | lable?  |                                   |              |
|   | If no inspec   | ction must not be undertal                            | ken until documents are obtained  | ☐ Yes        |
| Details of TMP and TGS:                 | TGS= GATE 7<br>GATE 6<br>GATE 7<br>*BOBBIWAA = 298   | 1 = 29671REV3<br>= 29758<br>= 30210<br>  \$286V2 * 10 | milt CREEK 28288                  |              |
| Are the location TMP and rele           | STATE OF THE PARTY | If no, work must be stoppe                            | ed until documents are approved   | ☑Yes<br>□ No |
| Comments or details of action taken:    |  |   |                                   |              |
| Site Inspection                         | - NE TON   | ALL THE LAS   | 4-39-39-39                        | 7.31         |
| Inspection completed:                   | □During the day  | □During the night                                     |                                   |              |
| Signs and devices positioned            | as prescribed and cor  | mmanding attention?                                   |                                   |              |
|   |  | If no   | provide details and rectify signs | ☐ Yes☐ No    |
| Comments or details of action taken:    |  |   |                                   |              |

| Site Inspection                      |   |       |
|--------------------------------------|---|-------|
| Sign sizes as prescribed?            | AND A SECURE AND ADDRESS OF A PROPERTY OF A | DV    |
|                                      | If no provide details and rectify signs   | ☐ Yes |
| Comments or details of action taken: |   |       |
| Signs are mounted level and s        | uitably clear of travel lanes?  |       |
|                                      | If no provide details and rectify signs   | ☐ Yes |
| Comments or details of action taken: |   |       |
| Has temporary delineation bee        | If no provide details of action required to rectify delineation   | □ Yes |
| Comments or details of action taken: | NA  |       |
| Are registered trailers i.e. VMS     | / light towers; suitably clear of travel lanes and delineated?  If no provide details and rectify location  | ✓ Yes |
| Comments or details of action taken: | - GAST 3 BOBBINARA CREEK<br>- GAST 2 RAS BOARD  |       |
| Are temporary speed zones op         | erating as prescribed?  If no provide details and discuss with work supervisor  | ≥ Yes |
| Comments or details of action taken: | BORN SPEED REDUCTION = ESTOP SETUP<br>BORN SPEED REDUCTION  |       |
| Are PTCD positioned as presci        | ribed in TGS?  If no provide details of action required to rectify  | ☐ Yes |
| Comments or details of action taken: | = Bobbiwan Creek<br>= 10 mile creek   |       |

| Site Inspection                      |  |       |
|--------------------------------------|--|-------|
| Are manual traffic controllers       | s clear of travel lane, have suitable escape route?  If no provide details of action required to rectify | ✓ Yes |
| Comments or details of action taken: |  |       |
| Are site accesses and egress         | ses well defined and safe for work vehicles?   | Yes   |
|                                      | If no provide details of action required to rectify  | □ No  |
| Comments or details of action taken: | - LEFT OUT HEAVY VEHICLES.   |       |
| Termination signs are suitab         | ly located? i.e. D downstream of last activity.  If no provide details of action required to rectify     | ✓ Yes |
| Comments or details of action taken: |  |       |
|                                      |  |       |

| Post site inspection confirma        | tion  | DEF    |
|--------------------------------------|---|--------|
| Is worksite layout operating safe    | ly as intended?  If no provide details and implement controls to rectify          | ✓ Yes  |
| Comments or details of action taken: |   |        |
| Has TMP identified and address       | ed key TTM risks?  If no provide details and implement controls to rectify        | ✓ Yes  |
| Comments or details of action taken: |   |        |
| Have key TTM risks been addres       | sed on site?  | ✓ Yes  |
|                                      | If no provide details of additional hazards and controls required                 | □ No   |
| Comments or details of action taken: |   |        |
| Have copies of Shift Inspections     | been sighted as completed as required?  |        |
|                                      | If no provide details and discuss with nominated rep completing Shift Inspections | Yes No |
| Comments or details of action taken: |   |        |

#### Additional comments:

GATEG = CLOSED LAST 3 DAY'S DUE TO SITE BEING TO WETE WEATHER.

GATEG = CLOSED LAST 3 DAY'S DUE TO WEATHER.

GATE 2 = CLOSED 13-5-22, REOPENED 14-5-22

BOBBIHAA = CLOSED TILL 17-5-22

15-5-22 = GATE 7 OPEN & GATE 2.

16-5-22 = GATE 2-6-7 OPEN
- BOBBINAA OPEN.

17-5-22 = BOBBINAA CREEK BRIDGE
- 10 MILE CREEK BRIGE
- GATE 2-6-7
- LX 3059.

# Reset forms - pages 273 to 277

## E.3 Weekly TTM inspection checklist

Weekly inspections must only be carried out by a PWZTMP qualified person. Weekly inspections must be carried out when a site is first open and at least once every week thereafter.

| Completed b       | oy:                                  |  | - 1                                |                                   |        |
|-------------------|--------------------------------------|--|------------------------------------|-----------------------------------|--------|
| Name:             | KORINA                               | WIKAIRE  | Signature:                         | Holo                              | •      |
| TMP<br>Reference: | NEWELL H                             | WIKAIRE<br>WY /NZNS  | TGS Reference:                     | , 0                               |        |
| Date:             |                                      |  | Inspection type                    | ☐ Pre-opening ☐ ☐                 | Weekly |
| Desktop revi      | iew                                  | 7 7 7 7 7 7  |                                    | 1 1 1 1 1 1 1                     | -      |
| Is a copy of th   | ne location TMF                      | and relevant TGS av  | ailable?                           | The second second                 | ,      |
|                   |                                      |  |                                    | ken until documents are obtained  | ✓ Yes  |
| Details of TMI    | P and TGS:                           | BOBBINAA = 2<br>GAST 2-6-7<br>TARLET RD - 20<br>GAST 13 - 2021<br>XING CROSSING. | 1 = 296+1KEV3<br>121-0685<br>-0685 | -30210-29758                      |        |
| Are the location  | on TMP and rel                       | evant TGS approved?  | 19 P. D. D. D. D. D.               | Katalana Land                     | -      |
|                   |                                      |  | If no. work must be stopp          | ped until documents are approved  | ✓ Yes  |
| 515               |                                      |  |                                    |                                   |        |
|                   | ments or details<br>of action taken: |  |                                    |                                   |        |
| Site Inspecti     | on                                   |  |                                    |                                   |        |
| Inspection co     | mpleted:                             | ☑During the day  | ☐During the night                  |                                   |        |
| Signs and dev     | vices positioned                     | d as prescribed and co   | ommanding attention?               | ?                                 | ✓ Yes  |
|                   |                                      |  | If no                              | provide details and rectify signs | □ No   |
|                   | ments or details<br>of action taken: |  |                                    |                                   |        |

| Site Inspection                      |  |               |
|--------------------------------------|--|---------------|
| Sign sizes as prescribed?            |  | ✓ Yes         |
|                                      | If no provide details and rectify signs                                  | □ No          |
| Comments or details of action taken: |  |               |
| Signs are mounted level and          | suitably clear of travel lanes?  If no provide details and rectify signs | ✓ Yes         |
|                                      |  |               |
| Comments or details of action taken: |  |               |
| las temporary delineation be         | en applied as prescribed, with permanent markings obliterated?           |               |
|                                      | If no provide details of action required to rectify delineation          | ☐ Yes<br>☑ No |
| Comments or details of action taken: | NA   |               |
| Are registered trailers i.e. VM      | S / light towers; suitably clear of travel lanes and delineated?         | <b>∠</b> Yes  |
|                                      | If no provide details and rectify location                               | □ No          |
| Comments or details of action taken: | RAS BOARDS AT GATE 2   |               |
| Are temporary speed zones o          | perating as prescribed?  | ✓Yes          |
|                                      | If no provide details and discuss with work supervisor                   | □ No          |
| Comments or details of action taken: | GASTE 2-6-7 80RN SPEED REDUCTION   |               |
| Are PTCD positioned as preso         | cribed in TGS?  If no provide details of action required to rectify      | □ Yes         |
| Comments or details of action taken: | NO PTCD USED AT THIS TIME.   |               |

| Site Inspection                                   |   |      |
|---|---|------|
| Are manual traffic controllers clear of travel la | ane, have suitable escape route?                    |      |
|   | If no provide details of action required to rectify | □ No |
| Comments or details of action taken:              |   |      |
| Are site accesses and egresses well defined       | and safe for work vehicles?                         | ✓Yes |
|   | If no provide details of action required to rectify | □ No |
| Comments or details of action taken:              |   |      |
| Termination signs are suitably located? i.e. D    | downstream of last activity.                        | ✓Yes |
|   | If no provide details of action required to rectify | □ No |
| Comments or details of action taken:              |   |      |

|                                      | as intended?   | 1     |
|--------------------------------------|--|-------|
| womene layout operating outer,       | as interiora:  | ✓ Ye  |
|                                      | If no provide details and implement controls to rectify                        | ☐ No  |
|                                      |  |       |
| Comments or details of action taken: |  |       |
| as TMP identified and addressed      | kev TTM risks?   | _     |
|                                      |  | ✓ Ye  |
|                                      | If no provide details and implement controls to rectify                        | ☐ No  |
| Comments or details                  |  |       |
| of action taken:                     |  |       |
| ave key TTM risks been addresse      | ed on site?  | ∠ Ye  |
|                                      | If no provide details of additional hazards and controls required              | □ No  |
| Comments or details of action taken: |  |       |
| ave copies of Shift Inspections be   | een sighted as completed as required?  |       |
|                                      |  | ✓ Yes |
| II.                                  | no provide details and discuss with nominated rep completing Shift Inspections | □ No  |
|                                      |  | □ N/A |
|                                      |  |       |
| Commente er detaile                  |  |       |
| Comments or details of action taken: |  |       |
| Comments or details of action taken: |  |       |
|                                      |  |       |
|                                      |  |       |
|                                      |  |       |
| of action taken:                     |  |       |
|                                      |  |       |
| of action taken:                     |  |       |

19-5-22 BOBBINATI CREEK
- GASE 2-6-7
- TARLEE ROAD
- GASE 13.

20-5-22 = GASE 2-67
- LX SHH - GALATHELA LANE
- LYSS2 - PENNIGS ROAD
- LXSH6 - TEN MILE LANE
21-5-22 - GASE Z-6-7
- LXSSO
- RXSSE

| Completed I       | oy:                                  |  |                       |                                     |           |
|-------------------|--------------------------------------|--|-----------------------|-------------------------------------|-----------|
| Name:             | KORINA K                             | Irkmar   | Signature:            | Shopa                               | ţ-        |
| TMP<br>Reference: | Siage 1 1                            | VENEU HMY  | TGS Reference:        |                                     |           |
| Date:             | 28 -5-20                             | n  | Inspection type       | ☐ Pre-opening                       | Weekly    |
| Desktop rev       | iew                                  | SPEED OF   | TO STATE OF           | THE ROLL                            | NA P      |
| Is a copy of the  | he location TMP                      | and relevant TGS av  |                       | ken until documents are obtained    | ✓ Yes     |
| Details of TM     | P and TGS:                           | CATE 2 - 1967  <br>CATE 6 - 29758<br>CATE 7 - 30210<br>PENNYS ROAD<br>MILLIE ROAD<br>OLD NENELL HA | 1,76V3                | 0685                                |           |
| Are the locati    |                                      | vant TGS approved  |                       | ed until documents are approved     | ☐ Yes☐ No |
|                   | ments or details<br>of action taken: |  |                       |                                     |           |
| Site Inspecti     | on                                   |  |                       |                                     | 7-5-1     |
| Inspection co     |                                      | ☑During the day  | □During the night     |                                     |           |
| Signs and dev     | vices positioned                     |  | commanding attention? | p provide details and rectify signs | ✓ Yes     |
|                   | ments or details<br>of action taken: |  |                       |                                     |           |

| Site Inspection                         |   |               |
|---|---|---------------|
| Sign sizes as prescribed?               |   | - Van         |
|   | If no provide details and rectify signs                         | ∠ Yes<br>□ No |
|   | ii no provide detans and rectify signs                          |               |
| Comments or details of action taken:    |   |               |
| Signs are mounted level and suitab      | ly clear of travel lanes?                                       | □Yes          |
|   | If no provide details and rectify signs                         | □ No          |
| Comments or details of action taken:    |   |               |
| Has temporary delineation been app      | plied as prescribed, with permanent markings obliterated?       |               |
|   | If no provide details of action required to rectify delineation | □ Yes         |
| Comments or details of action taken:    | NA  |               |
| Are registered trailers i.e. VMS / ligh | nt towers; suitably clear of travel lanes and delineated?       |               |
|   | If no provide details and rectify location                      | ✓ Yes         |
| Comments or details of action taken:    |   |               |
| Are temporary speed zones operati       | ng as prescribed?   | <b>A</b>      |
|   | If no provide details and discuss with work supervisor          | ✓ Yes         |
| Comments or details of action taken:    |   |               |
| Are PTCD positioned as prescribed       | in TGS?   | □ Yes         |
|   | If no provide details of action required to rectify             | ☑ No          |
| Comments or details of action taken:    | MOL IM MAR  |               |

| Site Inspection                                  |   |       |
|--|---|-------|
| Are manual traffic controllers clear of travel I | ane, have suitable escape route?                    | ✓Yes  |
|  | If no provide details of action required to rectify | □ No  |
| Comments or details of action taken:             |   |       |
| Are site accesses and egresses well defined      | and safe for work vehicles?                         | ☑ Yes |
|  | If no provide details of action required to rectify | □ No  |
| Comments or details of action taken:             |   |       |
| Termination signs are suitably located? i.e. D   | downstream of last activity.                        | ✓Yes  |
|  | If no provide details of action required to rectify | □ No  |
| Comments or details of action taken:             |   |       |

| Post site inspection confirmation     |   |        |
|---------------------------------------|---|--------|
| Is worksite layout operating safely a | s intended?   | - None |
|                                       | If no provide details and implement controls to rectify                       | Yes    |
|                                       | ii no provide details and implement controls to recury                        | □ No   |
| Comments or details of action taken:  |   |        |
| Lies TMD identified and addressed by  | TTM ricks?  |        |
| Has TMP identified and addressed k    | If no provide details and implement controls to rectify                       | ✓ Yes  |
| Comments or details of action taken:  |   |        |
| Have key TTM risks been addressed     | on site?  | ✓Yes   |
|                                       | If no provide details of additional hazards and controls required             | □ No   |
|                                       |   | _ NO   |
| of action taken:                      |   |        |
| Have copies of Shift Inspections bee  | en sighted as completed as required?  |        |
| If no                                 | o provide details and discuss with nominated rep completing Shift Inspections | ✓ Yes  |
|                                       |   | □ N/A  |
| Comments or details of action taken:  |   |        |
| dditional comments:                   |   |        |
|                                       |   |        |

23-05-2022 = GARÉ 2-6-7

24-05-2022 - MILLERD
— PENNYS RD
— OLD NEWER HAY RD
— GARE 2-6-7

25-05-2022 - GARE 2-6-7
— PENNY RD
— MILLERD
— THREET RD.

26-05-2022 - GARE-6

| Completed by:                        | THE ROLL OF THE PARTY OF THE PA |                            |                                   |          |
|--------------------------------------|--|----------------------------|-----------------------------------|----------|
| Name: Stew                           | mcPanaid   | Signature:                 | \$ 38.                            |          |
| TMP<br>Reference: Stage              | N2NS   | TGS Reference:             | 29758 30210                       | SZ Revi  |
| Date: 31   5   2                     | McDonald<br>N2NS<br>2: 14:30   | Inspection type            | ☐ Pre-opening ☐                   | Weekly   |
| Desktop review                       | ER LIKE  | Marie Se                   | AND THE STATES                    | 390      |
| Is a copy of the location TMI        | and relevant TGS ava   | ilable?                    | MANAGER COMMERCIAL                | Yes      |
|                                      | If no inspe  | ection must not be underta | ken until documents are obtained  | □ No     |
| Details of TMP and TGS:              | # Stage 1  | 105 N2                     | JS                                |          |
|                                      | # Stage 1<br>29671/Per3,   | , 29852 Res                | 30210                             |          |
| Are the location TMP and rel         | evant TGS approved?  |                            |                                   | Yes      |
|                                      |  | If no, work must be stopp  | ed until documents are approved   | □ No     |
| Comments or details of action taken: |  |                            |                                   |          |
| Site Inspection                      |  | All College                |                                   | SECTION. |
| Inspection completed:                | Suring the day   | □During the night          |                                   |          |
| Signs and devices positioned         | d as prescribed and co   |                            | provide details and rectify signs | Yes      |
| Comments or details of action taken: |  |                            |                                   |          |

| Site Inspection                           |  |             |
|---|--|-------------|
| Sign sizes as prescribed?                 | And the second of the second s | □ Yes       |
|   | If no provide details and rectify signs  | □ No        |
|   |  |             |
| Comments or details of action taken:      |  |             |
| A 18 1 18 18 18 18 18 18 18 18 18 18 18 1 |  |             |
| Signs are mounted level and suitab        | ly clear of travel lanes?  | Yes         |
|   | If no provide details and rectify signs  | □ No        |
| Comments or details of action taken:      |  |             |
| Has temporary delineation been ap         | plied as prescribed, with permanent markings obliterated?  |             |
|   | If no provide details of action required to rectify delineation  | □ Yes<br>No |
| Comments or details of action taken:      |  |             |
| Are registered trailers i.e. VMS / ligh   | nt towers; suitably clear of travel lanes and delineated?  |             |
|   | If no provide details and rectify location   | ✓ Yes       |
| Comments or details of action taken:      |  |             |
| Are temporary speed zones operati         | ng as prescribed?  |             |
|   | If no provide details and discuss with work supervisor   | ☑ Yes       |
| Comments or details of action taken:      |  |             |
| Are PTCD positioned as prescribed         |  | Yes         |
|   | If no provide details of action required to rectify  | □ No        |
| Comments or details of action taken:      |  |             |
|   |  |             |

| Site Inspection                                     |   |      |
|---|---|------|
| Are manual traffic controllers clear of travel land | e, have suitable escape route?                      | Yes  |
|   | If no provide details of action required to rectify | □ No |
| Comments or details of action taken:                |   |      |
| Are site accesses and egresses well defined and     | d safe for work vehicles?                           | Yes  |
|   | If no provide details of action required to rectify | □ No |
| Comments or details of action taken:                |   |      |
| Termination signs are suitably located? i.e. D do   | ownstream of last activity.                         | Yes  |
|   | If no provide details of action required to rectify | □ No |
| Comments or details of action taken:                |   |      |

| worksite layout operating safely as inten- | dear  | -/            |
|--|---|---------------|
|  | If no provide details and implement controls to rectify           | WYes          |
|  | If no provide details and implement controls to rectify           | □ No          |
| Comments or details                        |   |               |
| of action taken:                           |   |               |
| s TMP identified and addressed key TTM     | risks?  | Ve            |
|  | If no provide details and implement controls to rectify           | □ No          |
| Comments or details of action taken:       |   |               |
| ve key TTM risks been addressed on site    | 1?  | Nos           |
|  | If no provide details of additional hazards and controls required | □ No          |
| Comments or details of action taken:       |   |               |
| ve copies of Shift Inspections been sight  | red as completed as required?                                     | ,             |
|  |   | ☑ Yes         |
| π no provide                               |   | □ No<br>□ N/A |
| Comments or details of action taken:       |   |               |
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| ional comments:                            |   |               |
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| nical Manual – Traff | c control at work sites |                  |  |
|----------------------|-------------------------|------------------|--|
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|                      | Reset forms - p         | pages 273 to 277 |  |

| Name: $AchAR_{9}$ WAUGH  TMP Reference: $Stage 1 - N2NS$ Date: $8/6/22$ 0700  Signature: $29671$ , $28237$ , $29671$ , $28237$ , $29671$ , $28237$ , $29671$ , $28237$ , $29671$ , $2$ | Z8288.     |
|--|------------|
| TMP Reference: $StaGE 1 - N2NS$ Date: $8/6/22$ $0700$ TGS Reference: $29671, 28239,$ Inspection type $\square$ Pre-opening   | 28288.     |
|  | In a labor |
|  | еекіу      |
| Desktop review   |            |
| Is a copy of the location TMP and relevant TGS available?  | Yes        |
| If no inspection must not be undertaken until documents are obtained   | □ No       |
| Details of TMP and TGS: Stage 1 - N2NS 29671, 28239, 28288   |            |
| 29671, 28239, 28288  |            |
| Are the location TMP and relevant TGS approved?  | Yes        |
| If no, work must be stopped until documents are approved   | ☐ Yes      |
| Comments or details of action taken:   |            |
| Site Inspection  | -          |
| Inspection completed: During the day During the night  |            |
| Signs and devices positioned as prescribed and commanding attention?   | Yes        |
| If no provide details and rectify signs  | □ No       |
| Comments or details of action taken:   |            |

| Site Inspection  |        |
|--|--------|
| Sign sizes as prescribed?  | Yes    |
| If no provide details and rectify significant states and security significant states are secured as the security significant states are security significant states are security significant states are security significant states are secured as the security significant states are secured as the security significant states are security significant s | 2 100  |
| Comments or details of action taken:   |        |
| Signs are mounted level and suitably clear of travel lanes?  If no provide details and rectify signs.  | Yes    |
| Comments or details of action taken:   |        |
| Has temporary delineation been applied as prescribed, with permanent markings obliterated?  If no provide details of action required to rectify delinear   | □ Yes  |
| Comments or details of action taken: $N/4$   |        |
| Are registered trailers i.e. VMS / light towers; suitably clear of travel lanes and delineated?  If no provide details and rectify local.  | Yes    |
| Comments or details of action taken:   |        |
| Are temporary speed zones operating as prescribed?  If no provide details and discuss with work supervise.   | Yes No |
| Comments or details of action taken:   |        |
| Are PTCD positioned as prescribed in TGS?  If no provide details of action required to recommend to recommend to recommend to the second term of t | Yes No |
| Comments or details of action taken:   |        |

| Site Inspection                                   |   |      |
|---|---|------|
| Are manual traffic controllers clear of travel la | ne, have suitable escape route?                     | Yes  |
|   | If no provide details of action required to rectify | □ No |
| Comments or details of action taken:              |   |      |
| Are site accesses and egresses well defined a     | nd safe for work vehicles?                          | Yes  |
|   | If no provide details of action required to rectify | □ No |
| Comments or details of action taken:              |   |      |
| Termination signs are suitably located? i.e. D    | downstream of last activity.                        | Yes  |
|   | If no provide details of action required to rectify | □ No |
| Comments or details of action taken:              |   |      |

| Comments or details of action taken:   |                             | ✓ Yes  ☐ No  ✓ Yes  ☐ No |
|--|-----------------------------|--------------------------|
| Comments or details of action taken:  Has TMP identified and addressed key TTM risks?  If no provide details and important to action taken:  |                             | ✓ Yes                    |
| of action taken:  Has TMP identified and addressed key TTM risks?  If no provide details and important to the provide deta | plement controls to rectify |                          |
| Comments or details of action taken:   | plement controls to rectify |                          |
| Comments or details of action taken:   | plement controls to rectify | □ No                     |
| of action taken:   |                             |                          |
| Have key TTM risks been addressed on site?   |                             |                          |
| That's noy 1 mm Hone Book addressed on Site.   |                             |                          |
| If no provide details of additional haza   | ards and controls required  | □ No                     |
| Comments or details of action taken:   |                             |                          |
| Have copies of Shift Inspections been sighted as completed as required?  |                             | ,                        |
| If no provide details and discuss with nominated rep con   | npleting Shift Inspections  | Yes No                   |
| Comments or details of action taken:   |                             |                          |
| dditional comments:  |                             |                          |
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| control at work sites |                 |          |     |  |
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|                       | Reset forms - p | 070 1- 1 | 777 |  |

| Completed b       | y:                                   |                    |                             |   |        |
|-------------------|--------------------------------------|--------------------|-----------------------------|---|--------|
| Name:             | ZAChAR                               | MAURH              | Signature:                  | Thy. l.                                   |        |
| TMP<br>Reference: | ZAChAR.<br>Stage 1.                  | NZUS               | TGS Reference:              | 29671,28239                               |        |
| Date:             | 19/6/22.                             |                    | Inspection type             | ☐ Pre-opening                             | Veekly |
| Desktop revi      | ew                                   |                    |                             |   |        |
| Is a copy of th   | e location TMP a                     | nd relevant TGS av | ailable?                    |   | Yes    |
|                   |                                      | If no insp         | pection must not be underta | aken until documents are obtained         | □ No   |
| Details of TMF    | P and TGS:                           |                    |                             |   |        |
| Are the location  | on TMP and relev                     | ant TGS approved?  |                             |   | Yes    |
|                   |                                      |                    | If no, work must be stop    | ped until documents are approved          | □ No   |
|                   | ments or details of action taken:    |                    |                             |   |        |
| Site Inspecti     | on                                   |                    | 3373                        |   |        |
| Inspection cor    | mpleted:                             | During the day     | ☐ During the night          |   |        |
| Signs and dev     | vices positioned a                   | s prescribed and c | ommanding attention         | ?<br>no provide details and rectify signs | ✓ Yes  |
|                   | ments or details<br>of action taken: |                    |                             |   |        |

| Site Inspection                      |  |           |
|--------------------------------------|--|-----------|
| Sign sizes as prescribed?            |  |           |
|                                      | If no provide details and rectify signs  | Yes       |
|                                      | ii no provide details and rectily signs  | □ No      |
| Comments or details of action taken: |  |           |
| Signs are mounted level and suit     | ably clear of travel lanes?  | Yes       |
|                                      | If no provide details and rectify signs  | □ No      |
| Comments or details of action taken: |  |           |
| Has temporary delineation been a     | applied as prescribed, with permanent markings obliterated?  If no provide details of action required to rectify delineation | □ Yes  No |
| Comments or details of action taken: | N/A.   |           |
| Are registered trailers i.e. VMS / I | ight towers; suitably clear of travel lanes and delineated?  | Yes       |
|                                      | If no provide details and rectify location   | □ No      |
| Comments or details of action taken: |  |           |
| Are temporary speed zones oper       | ating as prescribed?   | /         |
|                                      |  | Vac       |
|                                      | If no provide details and discuss with work supervisor   | ✓ Yes     |
| Comments or details of action taken: | If no provide details and discuss with work supervisor   |           |
|                                      |  |           |

| Site Inspection                      |   |       |
|--------------------------------------|---|-------|
| Are manual traffic controllers clear | of travel lane, have suitable escape route?   | Yes   |
|                                      | If no provide details of action required to rectify   | □ No  |
| Comments or details of action taken: |   |       |
| Are site accesses and egresses we    | Il defined and safe for work vehicles?  | Yes   |
|                                      | If no provide details of action required to rectify   | □ No  |
| Comments or details of action taken: |   |       |
| Termination signs are suitably local | ted? i.e. D downstream of last activity.  If no provide details of action required to rectify | ✓ Yes |
| Comments or details of action taken: |   |       |

| s worksite layout operating safely as in | tended?   | Yes                |
|--|---|--------------------|
|  | If no provide details and implement controls to rectify           | □ No               |
|  | in no provide details and implement controls to recary            |                    |
| Comments or details of action taken:     |   |                    |
| Has TMP identified and addressed key     | TTM risks?  | Yes                |
|  | If no provide details and implement controls to rectify           | □ No               |
| Comments or details of action taken:     |   |                    |
| lave key TTM risks been addressed on     | site?   | PYes               |
|  | If no provide details of additional hazards and controls required | □ No               |
| Comments or details of action taken:     |   |                    |
| Have copies of Shift Inspections been s  | sighted as completed as required?                                 | /                  |
| If no pro                                |   | ✓ Yes  ☐ No  ☐ N/A |
| Comments or details of action taken:     |   |                    |
|  |   |                    |
| dditional comments:                      |   |                    |
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| echnical Manual - Traffic | control at work sites  |           |  |
|---------------------------|------------------------|-----------|--|
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|                           |                        |           |  |
|                           | Reset forms - pages 27 | 73 to 277 |  |

| Completed b       | y:                                   | 200                                     |                            |  |        |
|-------------------|--------------------------------------|---|----------------------------|--|--------|
| Name:             | Stew m                               | Donald.                                 | Signature:                 | D 21.                                    |        |
| TMP<br>Reference: | STAGE                                | Donald.<br>1-N2NS.                      | TGS Reference:             | 296718213, 30210<br>29758, 30212, 25     | 8288   |
| Date:             | 24.6.                                | 22. 0728                                | Inspection type            |  | Veekly |
| Desktop revi      |                                      |   | 100 00 00                  |  | TEX    |
| Is a copy of th   | e location TMP                       | and relevant TGS ava                    | ilable?                    |  | -1     |
|                   |                                      | If no inspe                             | ection must not be underta | ken until documents are obtained         | ☐ Yes  |
| Details of TMF    | and IGS:                             | Stage 1 - 1<br>29671 Rev3,<br>29758, 28 | 30210, 302                 | .12.                                     |        |
| Are the location  | on TMP and rele                      | evant TGS approved?                     | If no, work must be stopp  | ped until documents are approved         | ✓ Yes  |
|                   | nents or details<br>of action taken: |   |                            |  |        |
| Site Inspection   | on                                   |   |                            |  | 277    |
| Inspection cor    | mpleted:                             | ■During the day                         | ☐During the night          |  |        |
| Signs and dev     | ices positioned                      | as prescribed and co                    | mmanding attention?        | ?<br>o provide details and rectify signs | ✓ Yes  |
|                   | nents or details<br>of action taken: |   |                            |  |        |

| Site Inspection   | NO PLA |
|---|--------|
| Sign sizes as prescribed?   | Yes    |
| If no provide details and rectify signs   | □ No   |
|   |        |
| Comments or details of action taken:  |        |
| Signs are mounted level and suitably clear of travel lanes?                                     |        |
|   | Yes    |
| If no provide details and rectify signs   | □ No   |
| Comments or details of action taken:  |        |
| Has temporary delineation been applied as prescribed, with permanent markings obliterated?      | □ Yes  |
| If no provide details of action required to rectify delineation                                 | No     |
| Comments or details of action taken:  |        |
| Are registered trailers i.e. VMS / light towers; suitably clear of travel lanes and delineated? |        |
| If no provide details and rectify location  | ☑ Yes  |
| Comments or details of action taken:  |        |
| Are temporary speed zones operating as prescribed?  | _      |
| If no provide details and discuss with work supervisor  | ✓ Yes  |
| Comments or details of action taken:  |        |
| Are PTCD positioned as prescribed in TGS?   | ✓Yes   |
| If no provide details of action required to rectify   | □ No   |
| Comments or details of action taken:  |        |

| Site Inspection                                  |  |      |
|--|--|------|
| Are manual traffic controllers clear of travel I | ane, have suitable escape route?   | Yes  |
|  | If no provide details of action required to rectify  | □ No |
| Comments or details of action taken:             |  |      |
| Are site accesses and egresses well defined      | and safe for work vehicles?  | Yes  |
|  | If no provide details of action required to rectify  | □ No |
| Comments or details of action taken:             |  |      |
| Termination signs are suitably located? i.e. D   | A STATE OF THE PARTY OF THE PAR | Yes  |
|  | If no provide details of action required to rectify  | □ No |
| Comments or details of action taken:             |  |      |

| Post site inspection confirmation               |   |         |
|---|---|---------|
| Is worksite layout operating safely as intended | 1?  | Yes     |
|   | If no provide details and implement controls to rectify           |         |
|   | If no provide details and implement controls to rectify           | □ No    |
| Comments or details of action taken:            |   |         |
| Has TMP identified and addressed key TTM ris    | sks?  | Yes     |
|   | If no provide details and implement controls to rectify           | □ No    |
| Comments or details of action taken:            |   |         |
| Have key TTM risks been addressed on site?      |   | Yes     |
|   | If no provide details of additional hazards and controls required | □ No    |
| Comments or details of action taken:            |   |         |
| Have copies of Shift Inspections been sighted   | as completed as required?   |         |
| If no provide det                               | tails and discuss with nominated rep completing Shift Inspections | Yes  No |
| Comments or details of action taken:            |   |         |
| additional comments:                            |   |         |
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No Issues observed during the week.

| Completed b                             | y:                                   |   | DATE EVEN                 | NAME OF STREET   |           |
|---|--------------------------------------|---|---------------------------|--|-----------|
| Name:                                   | KORINA                               | Irkmine   | Signature:                | Shiffo   | t.        |
| TMP<br>Reference:                       | Stage 1                              | NENEW HMY   | TGS Reference:            |  |           |
| Date:                                   | 28-6-2                               | or  | Inspection type           | ☐ Pre-opening  | Weekly    |
| Desktop revi                            | ew                                   |   |                           | The Party of the P | 1         |
|   |                                      |   | ction must not be underta | ken until documents are obtained   | ✓ Yes     |
| Details of TMF                          | P and TGS:                           | GATE 2 - 29671R<br>GATE 6 - 29758<br>GATE 7 - 30210<br>PENNYS ROAD<br>MILLIE ROAD<br>OLD NEWELL HUM |                           | 0685   |           |
| Are the location                        | on TMP and rel                       | evant TGS approved?   |                           | ed until documents are approved  | ☐ Yes☐ No |
| 100000000000000000000000000000000000000 | nents or details<br>of action taken: |   |                           |  |           |
| Site Inspection                         | on                                   |   | NAME OF THE OWNER.        |  | 7/201     |
| Inspection cor                          |                                      | ☑During the day   | □During the night         |  |           |
| Signs and dev                           | ices positione                       | d as prescribed and co  |                           | p provide details and rectify signs  | ✓ Yes     |
|   | nents or details<br>of action taken: |   |                           |  |           |

| Site Inspection   |       |
|---|-------|
| Sign sizes as prescribed?   | ✓ Yes |
| If no provide details and rectify signs   | □ No  |
| Comments or details of action taken:  |       |
| Signs are mounted level and suitably clear of travel lanes?   | Yes   |
| If no provide details and rectify signs   | □ No  |
| Comments or details of action taken:  |       |
| Has temporary delineation been applied as prescribed, with permanent markings obliterated?  |       |
| If no provide details of action required to rectify delineation   | ☐ Yes |
| Comments or details of action taken:  |       |
| Are registered trailers i.e. VMS / light towers; suitably clear of travel lanes and delineated?  If no provide details and rectify location | ✓Yes  |
| Comments or details of action taken:  |       |
| Are temporary speed zones operating as prescribed?  |       |
| If no provide details and discuss with work supervisor  | ✓ Yes |
| Comments or details of action taken:  |       |
| Are PTCD positioned as prescribed in TGS?  If no provide details of action required to rectify  | □ Yes |
| Comments or details of action taken:  |       |

| Site Inspection                                   |  |       |
|---|--|-------|
| Are manual traffic controllers clear of travel la | ne, have suitable escape route?  If no provide details of action required to rectify | ✓Yes  |
| Comments or details of action taken:              |  |       |
| Are site accesses and egresses well defined a     | and safe for work vehicles?  If no provide details of action required to rectify     | ✓ Yes |
| Comments or details of action taken:              |  |       |
| Termination signs are suitably located? i.e. D    | downstream of last activity.  If no provide details of action required to rectify    | ✓ Yes |
| Comments or details of action taken:              |  |       |

| Post site inspection confirmation  |  |                   |
|--|--|-------------------|
| Is worksite layout operating safely as in                                      | tended?  | □ Vee             |
|  | If no provide details and implement controls to rectify                  | ✓ Yes             |
|  |  |                   |
| Comments or details of action taken:   |  |                   |
| Has TMP identified and addressed key T   | TM risks?  | <b>75.</b> V      |
|  | If no provide details and implement controls to rectify                  | ✓ Yes             |
| Comments or details of action taken:   |  |                   |
| Have key TTM risks been addressed on   | site?  | ✓ Yes             |
|  | If no provide details of additional hazards and controls required        | □ No              |
| Comments or details of action taken:  Have copies of Shift Inspections been si | abted as completed as required?  |                   |
|  | vide details and discuss with nominated rep completing Shift Inspections | ✓ Yes  □ No □ N/A |
| Comments or details of action taken:   |  |                   |
| dditional comments:  |  |                   |
|  |  |                   |

23.1

23-05-2022 = GASÉ 2-6-7

26-05-2022 - MILLERD
— PENNY RD
— OLD NEWELL HWY RD
— CATE 2-6-7

25-05-2022 - CATE 2-6-7
— PENNY RD
— MILLERD
— MILLERD
— TARLEE RD.

26-05-2022 - GATE 6

| Completed by:                       |                       |  | 17//11/20 Market   |         |  |
|-------------------------------------|-----------------------|--|--|---------|--|
| Name: Koriwi                        | 1 Wikanet             | Signature:   | Vha  |         |  |
| TMP                                 | 1 N2NS                | TGS Reference:   | 31139 - 30830 - 2  | 9852-86 |  |
| Date: 29 - 6 -                      | -2012                 | Inspection type  | 50710 - 29873 - 2<br>□ Pre-opening □   | Weekly  |  |
| Desktop review                      | 777                   |  |  |         |  |
| Is a copy of the location           | TMP and relevant TGS  | available?   |  |         |  |
|                                     | If no is              |  | aken until documents are obtaine   | ✓ Yes   |  |
| Details of TMP and TGS:             |                       |  | And the state of t | 140     |  |
|                                     | STAGE 1               | neo la Manuel de la companya de la c |  |         |  |
|                                     | 31139 - 308           | 30-29852RW   | 12 - 36210   |         |  |
|                                     | 29873 - 20            | 29873 - 29671-REV3   |  |         |  |
| Are the location TMP and            |                       |  |  |         |  |
|                                     |                       |  | ped until documents are approved   | ✓ Yes   |  |
| Comments or deta<br>of action take  |                       |  |  |         |  |
| Site Inspection                     |                       |  |  | -,      |  |
| nspection completed:                | During the day        | ☐ During the night   |  |         |  |
| igns and devices position           | ned as prescribed and | commanding attention?  |  | ,       |  |
|                                     |                       |  |  | ∠ Yes   |  |
| Comments I                          |                       | li no  | provide details and rectify signs  | □ No    |  |
| Comments or detai<br>of action take |                       |  |  |         |  |
|                                     |                       |  |  |         |  |

| Site Inspection                      |   |       |
|--------------------------------------|---|-------|
| Sign sizes as prescribed?            |   | D V   |
|                                      | If no provide details and rectify alone   | ✓ Yes |
|                                      | If no provide details and rectify signs   | □ No  |
| Comments or details of action taken: |   |       |
| Signs are mounted level and s        | suitably clear of travel lanes?   | ☑ Yes |
|                                      | If no provide details and rectify signs   | □ No  |
| Comments or details of action taken: |   |       |
| Has temporary delineation be         | en applied as prescribed, with permanent markings obliterated?  If no provide details of action required to rectify delineation | □ Yes |
| Comments or details of action taken: | NA  |       |
| Are registered trailers i.e. VM      | S / light towers; suitably clear of travel lanes and delineated?  If no provide details and rectify location                    | ✓Yes  |
| Comments or details of action taken: | Babbinara Cettk Beigt<br>RAS Bornest GATEZ  |       |
| Are temporary speed zones o          | perating as prescribed?   | Yes   |
|                                      | If no provide details and discuss with work supervisor  | □ No  |
| Comments or details of action taken: |   |       |
| Are PTCD positioned as preso         | cribed in TGS?  | Yes   |
|                                      | If no provide details of action required to rectify   | □ No  |
| Comments or details of action taken: | GARE 14 = ESTOPS  BOBBINAN BRIDGE = ESTOPS.  GARE 6 = ESTOPS  |       |

| Site Inspection                                   |   |       |
|---|---|-------|
| Are manual traffic controllers clear of travel la | ne, have suitable escape route?   | ✓ Yes |
|   | If no provide details of action required to rectify                               | □ No  |
| Comments or details of action taken:              |   |       |
| Are site accesses and egresses well defined a     | nd safe for work vehicles?  | Yes   |
|   | If no provide details of action required to rectify                               | □ No  |
| Comments or details of action taken:              |   |       |
| Termination signs are suitably located? i.e. D    | downstream of last activity.  If no provide details of action required to rectify | Yes   |
|   | in no provide details of action required to rectify                               | □ No  |
| Comments or details of action taken:              |   |       |

| s worksite layout operating safely as in | tended?  | 1      |
|--|--|--------|
|  |  | Yes    |
|  | If no provide details and implement controls to rectify                  | □ No   |
| Comments or details of action taken:     |  |        |
| Has TMP identified and addressed key T   | TM risks?  If no provide details and implement controls to rectify       | ✓ Yes  |
| Comments or details of action taken:     |  |        |
| Have key TTM risks been addressed on     |  | ✓ Yes  |
|  | If no provide details of additional hazards and controls required        | □ No   |
| Comments or details of action taken:     |  |        |
| lave copies of Shift Inspections been si | ighted as completed as required?   |        |
| ff no pro                                | vide details and discuss with nominated rep completing Shift Inspections | Yes No |
| Comments or details of action taken:     |  |        |
| dditional comments:                      |  |        |
|  |  |        |

| Traffic control at work si |  |  |  |
|----------------------------|--|--|--|
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Reset forms - pages 273 to 277

| Completed b       | y:                                   |                     |                              |  |        |
|-------------------|--------------------------------------|---------------------|------------------------------|--|--------|
| Name:             | KORINIA L                            | likmet              | Signature:                   | H/Ga_                                      | _      |
| TMP<br>Reference: | STAGE 7<br>NENE                      | N2NS<br>IN IMY      | TGS Reference:               | 29671REV3 - 302<br>28288-31139-30830       |        |
| Date:             | 10-7-2                               | 022                 | Inspection type              | ☐ Pre-opening ☐                            | Weekly |
| Desktop revi      | ew                                   |                     | VINT PINTY                   |  |        |
|                   | ne location TMP a                    | If no               | inspection must not be under | taken until documents are obtained         | ✓ Yes  |
| Details of TMF    | P and TGS:                           | STAGE 7<br>29671 RE | N2NS<br>V3 - 30210-2         | 8288-31139 -308                            | 30°    |
| Are the location  | on TMP and relev                     | ant TGS approve     |                              | pped until documents are approved          | Yes    |
|                   | ments or details<br>of action taken: |                     |                              |  |        |
| Site Inspection   | on                                   | 50.57               |                              |  |        |
| Inspection cor    | mpleted:                             | □During the d       | ay □During the night         |  |        |
| Signs and dev     | rices positioned                     | as prescribed an    | d commanding attention       | n?<br>no provide details and rectify signs | Yes    |
|                   | ments or details<br>of action taken: |                     |                              |  |        |

| Site Inspection                      |   |             |
|--------------------------------------|---|-------------|
| Sign sizes as prescribed?            |   | £14         |
|                                      | If no provide details and rectify signs                         | ☐ Yes       |
|                                      | ii no provide details and rectify signs                         |             |
| Comments or details of action taken: |   |             |
| Signs are mounted level and s        | uitably clear of travel lanes?                                  | P Voc       |
|                                      | If no provide details and rectify signs                         | ☐ Yes       |
| Comments or details of action taken: |   |             |
| Has temporary delineation bee        | en applied as prescribed, with permanent markings obliterated?  |             |
|                                      | If no provide details of action required to rectify delineation | ☐ Yes       |
| Comments or details of action taken: | NA  |             |
| Are registered trailers i.e. VMS     | If no provide details and rectify location                      | ✓ Yes  □ No |
| Comments or details of action taken: | RAS BOARDS AT GATE 2  |             |
| Are temporary speed zones or         | perating as prescribed?   |             |
| Are temporary speed zones of         | If no provide details and discuss with work supervisor          | ✓ Yes  □ No |
| Comments or details of action taken: | 60RW - 80RW   |             |
| Are PTCD positioned as presc         | ribed in TGS?   | Yes         |
|                                      | If no provide details of action required to rectify             | □ No        |
| Comments or details of action taken: |   |             |

| Site Inspection                            |   | 631   |
|--|---|-------|
| Are manual traffic controllers clear of tr | avel lane, have suitable escape route?  If no provide details of action required to rectify | ∠ Yes |
| Comments or details of action taken:       |   | L NO  |
| Are site accesses and egresses well de     | fined and safe for work vehicles?   | ✓Yes  |
|  | If no provide details of action required to rectify   | □ No  |
| Comments or details of action taken:       |   |       |
| Termination signs are suitably located?    | i.e. D downstream of last activity.   | Yes   |
|  | If no provide details of action required to rectify   | □ No  |
| Comments or details of action taken:       |   |       |

| Is worksite layout operating safely as | intended?   |                   |
|--|---|-------------------|
| is worksite layout operating salely as | intended  | Yes               |
|  | If no provide details and implement controls to rectify                     | □ No              |
| Comments or details                    |   |                   |
| of action taken:                       |   |                   |
| Has TMP identified and addressed key   | / TTM risks?  | Z Va              |
|  | If no provide details and implement controls to rectify                     | ☐ Yes             |
| Comments or details of action taken:   |   |                   |
| Have key TTM risks been addressed o    | on site?  | ∠ Yes             |
|  | If no provide details of additional hazards and controls required           | □ No              |
| Comments or details of action taken:   |   |                   |
| Have copies of Shift Inspections been  | sighted as completed as required?   |                   |
| If no p                                | provide details and discuss with nominated rep completing Shift Inspections | ✓ Yes  □ No □ N/A |
| Comments or details of action taken:   |   |                   |
| dditional comments:                    |   |                   |
|  |   |                   |

| echnical Manual – Traffi                | c control at work sites        |  |
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|   | Posset forms magas 272 to 277  |  |
|   | Reset forms - pages 273 to 277 |  |
|   |                                |  |

| Completed by:               |                                |  |                             |  |        |
|-----------------------------|--------------------------------|--|-----------------------------|--|--------|
| Name: Ko                    | OKINA                          | HIKAIRE  | Signature:                  | LAGO                                     |        |
| TMP<br>Reference: <i>S1</i> | age 1                          | N2NS   | TGS Reference:              | N2NS/NENEW 1                             | ywy .  |
| Date:                       | -7-20                          | 122  | Inspection type             | ☐ Pre-opening                            | Veekly |
| Desktop review              | 1.0                            | TOWN SIDE  | the appropriate of          | ( - m)   - m                             | 1      |
| Is a copy of the lo         | cation TMP                     | and relevant TGS ava                                       | ailable?                    |  | - AV   |
|                             |                                | If no insp   | ection must not be underta  | aken until documents are obtained        | ∠ Yes  |
| Details of TMP an           | d TGS:                         | GATE 2 = 29E $GATE 6 = 29$ $GATE 7 = 302$ $GATE 14 = 3113$ | 371 REV3<br>873<br>10<br>59 |  |        |
| Are the location T          | MP and rele                    | evant TGS approved?  | If no, work must be stop    | ped until documents are approved         |        |
|                             | ts or details<br>ction taken:  |  |                             |  |        |
| Site Inspection             | 66-76                          |  |                             |  |        |
| Inspection comple           | eted:                          | ☑During the day  | □During the night           |  |        |
|                             |                                | d as prescribed and co                                     | ommanding attention         | ?<br>o provide details and rectify signs | ∠Yes   |
|                             | es or details<br>ection taken: |  |                             |  |        |

| Site Inspection                      |  | 3 - 7         |
|--------------------------------------|--|---------------|
| Sign sizes as prescribed?            |  |               |
|                                      |  | Yes           |
|                                      | If no provide details and rectify signs  | □ No          |
| Comments or details of action taken: |  |               |
| Signs are mounted level and          | suitably clear of travel lanes?  |               |
|                                      | If no provide details and rectify signs  | ☐ Yes         |
| Comments or details of action taken: |  |               |
| Has temporary delineation be         | een applied as prescribed, with permanent markings obliterated?  |               |
|                                      | If no provide details of action required to rectify delineation  | ☐ Yes<br>☑ No |
| Comments or details of action taken: | 78   |               |
| Are registered trailers i.e. VM      | S / light towers; suitably clear of travel lanes and delineated?  If no provide details and rectify location | ✓ Yes         |
| Comments or details of action taken: | RAS BUARIO'S GAREZ   |               |
| Are temporary speed zones of         | perating as prescribed?  |               |
|                                      | If no provide details and discuss with work supervisor   | ✓ Yes         |
| Comments or details of action taken: | BORN SPEED REDUCTION (ESTOPS).   |               |
| Are PTCD positioned as pres          | cribed in TGS?   | ✓Yes          |
|                                      | If no provide details of action required to rectify  | □ No          |
| Comments or details of action taken: | PTCO USED = GATE-6 - GATE-14 (WOOLIBRAR).  |               |

| ne, have suitable escape route?                     | ✓ Yes   |
|---|---|
| If no provide details of action required to rectify | □ No  |
|   |   |
| nd safe for work vehicles?                          | ✓ Yes   |
| If no provide details of action required to rectify | □ No  |
|   |   |
| downstream of last activity.                        | ✓ Yes   |
| If no provide details of action required to rectify | □ No  |
|   |   |
|   | If no provide details of action required to rectify  and safe for work vehicles?  If no provide details of action required to rectify |

| Comments or details of action taken:  Has TMP identified and addressed key TTM risks?  | rovide details and implement controls to rectify | □ No              |
|--|--|-------------------|
| Comments or details of action taken:  Has TMP identified and addressed key TTM risks?  | rovide details and implement controls to rectify | □ No              |
| of action taken:  Has TMP identified and addressed key TTM risks?  |  |                   |
| and the state of t |  |                   |
| п по р   | rovide details and implement controls to rectify | ✓ Yes             |
| Comments or details of action taken:   |  |                   |
| Have key TTM risks been addressed on site?   |  | ✓ Yes             |
| If no provide det  | ails of additional hazards and controls required | □ No              |
| Comments or details of action taken:   |  |                   |
| Have copies of Shift Inspections been sighted as completed as  | s required?                                      |                   |
| If no provide details and discuss wit  | th nominated rep completing Shift Inspections    | ✓ Yes  □ No □ N/A |
| Comments or details of action taken:   |  |                   |
| dditional comments:  |  |                   |
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|  |            |                |        | 1-1-1 |
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|  |            |                |        |       |
|  |            |                |        |       |
|  | Docat form | ns - pages 273 | to 277 |       |

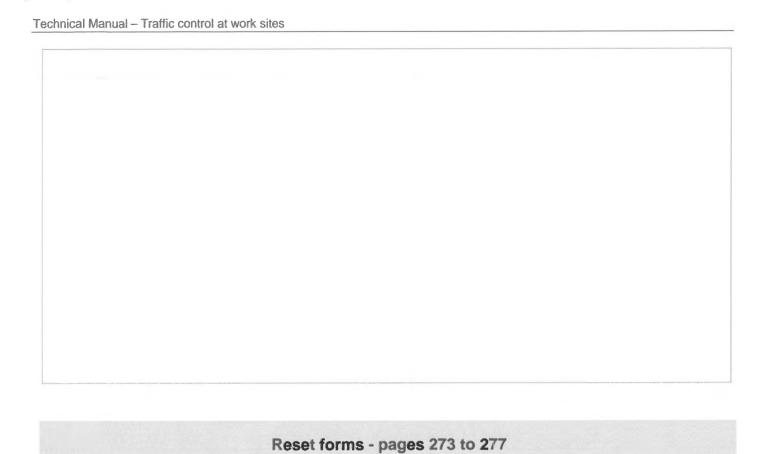
| Completed by:                       |   |   |  |                   |
|-------------------------------------|---|---|--|-------------------|
| Name: Koriwa                        | WIKAIRE   | Signature:  | Thy a-                                   |                   |
| TMP Reference: N2NS/N               | ENEW HNY  | TGS Reference:  | 79671REV3-29758-<br>30180 REVI - 31838-  | 30210<br>30746 RE |
| Date: 24-7-2                        | 022   | Inspection type   | ☐ Pre-opening   ☑ V                      | Veekly            |
| Desktop review                      |   |   |  |                   |
| Is a copy of the location TM        | P and relevant TGS ava  | ilable?   |  | ☐ Yes             |
|                                     | If no inspe   | ection must not be underta  | ken until documents are obtained         | □ No              |
| Details of TMP and TGS:             | -29671REV3<br>-29873 29758<br>-30210<br>-30210<br>-30180REV1 -1 | - Gastz<br>- Gast 6<br>- Gast 7<br>Gurly Stitlers<br>marbtu RD<br>Gast 11-RMS PAD | -80746 Reus-6<br>-2021-0685-m            | 907E1<br>11LIE RO |
| Are the location TMP and re         | elevant TGS approved?   | If no, work must be stopp   | ped until documents are approved         | ✓ Yes             |
| Comments or details of action taken |   |   |  |                   |
| Site Inspection                     |   |   |  | ANC YEAR          |
| Inspection completed:               | ✓ During the day  | □During the night   |  |                   |
| Signs and devices position          | ed as prescribed and co   |   | ?<br>o provide details and rectify signs | ✓ Yes             |
| Comments or details of action taken |   |   |  |                   |

| Site Inspection                      |  |               |
|--------------------------------------|--|---------------|
| Sign sizes as prescribed?            |  | ∠ Yes         |
|                                      | If no provide details and rectify signs  | □ No          |
| Comments or details of action taken: |  |               |
| Signs are mounted level and          | suitably clear of travel lanes?  | <b>∠</b> Yes  |
|                                      | If no provide details and rectify signs  | □ No          |
| Comments or details of action taken: |  |               |
| Has temporary delineation be         | een applied as prescribed, with permanent markings obliterated?  If no provide details of action required to rectify delineation | ☐ Yes<br>☑ No |
| Comments or details of action taken: | Na   |               |
| Are registered trailers i.e. VM      | S / light towers; suitably clear of travel lanes and delineated?  If no provide details and rectify location                     | ✓ Yes   □ No  |
| Comments or details of action taken: | RAS BOARDS AT GAST 2 SOUTHBOUND RAS DAM  | 1960 -        |
| Are temporary speed zones of         | perating as prescribed?  |               |
|                                      | If no provide details and discuss with work supervisor   | □ No          |
| Comments or details of action taken: | GATE 1 3 BORN SPEED REDUCTION GURLEY SETTLERS SORN SPEED REDUCTION GATE 1 3 BORN SPEED REDUCTION (PTCD). MARDEN RD)              |               |
| Are PTCD positioned as pres          |  | Yes No        |
| Comments or details of action taken: |  |               |

| Site Inspection                               |  |       |
|---|--|-------|
| Are manual traffic controllers clear of trave | el lane, have suitable escape route?   | Yes   |
|   | If no provide details of action required to rectify                                    | □ No  |
| Comments or details of action taken:          |  |       |
| Are site accesses and egresses well define    | ed and safe for work vehicles?   | ✓ Yes |
| Service Services                              | If no provide details of action required to rectify                                    | □ No  |
| Comments or details of action taken:          |  |       |
| Termination signs are suitably located? i.e   | e. D downstream of last activity.  If no provide details of action required to rectify | Yes   |
|   | ii no provide details of action required to recury                                     | □ No  |
| Comments or details of action taken:          |  |       |

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| Is worksite layout operating safely as into | ended?   |       |
|---|--|-------|
| is worksite layout operating salery as life | enueu :  | Yes   |
|   | If no provide details and implement controls to rectify                  | □ No  |
| Comments or details of action taken:        |  |       |
| Has TMP identified and addressed key T      | TM risks?  | ✓ Yes |
|   | If no provide details and implement controls to rectify                  | □ No  |
| Comments or details of action taken:        |  |       |
| Have key TTM risks been addressed on s      | site?  If no provide details of additional hazards and controls required | ✓ Yes |
| Comments or details of action taken:        |  |       |
| Have copies of Shift Inspections been sig   | ghted as completed as required?  |       |
| If no prov                                  |  | ✓ Yes |
|   |  | □ N/A |
| Comments or details of action taken:        |  |       |
| dditional comments:                         |  |       |
| Coertoto.                                   | PARRABRI. CREW FORGOT ESTOP CONTROL &                                    | t 1   |
| - ISSUE ITAS BEEN COR                       | CECTED.  |       |



5 3 B

#### E.3 Weekly TTM inspection checklist

| Completed by:                        |                      |   | 0.0                               |          |
|--------------------------------------|----------------------|---|-----------------------------------|----------|
| Name: ZACHARS                        | UAUGH                | Signature:  | Elgil                             |          |
| TMP Reference: Stage                 | 1-NZNZ               | TGS Reference:                                      | z9671, z823                       | 9, 28288 |
| Date: 27/7/2                         | 2                    | Inspection type                                     | ☐ Pre-opening                     | Weekly   |
| Desktop review                       |                      |   |                                   |          |
| Is a copy of the location TMP        | and relevant TGS ava | nilable?  |                                   | Yes      |
|                                      | If no insp           | ection must not be underta                          | ken until documents are obtain    | ned 🗆 No |
| Details of TMP and TGS:              |                      | 1 - NZNZ<br>71, Z8Z95,                              |                                   | ,        |
| Comments or details of action taken: | vant TGS approved?   | if no, work must be stopp                           | oed until documents are appro     | Yes No   |
| Site Inspection                      |                      |   |                                   |          |
| Inspection completed:                | ☑During the day      | ☐During the night                                   |                                   |          |
| Signs and devices positioned         |                      | Security and bear and the security and the security | ?                                 | Yes      |
| Countless of thous                   |                      | If no   | o provide details and rectify sig |          |
| Comments or details of action taken: |                      |   |                                   |          |

| Site Inspection   |  |       |
|---|--|-------|
| Sign sizes as prescribed?   |  |       |
|   | If no provide details and rectify signs  | ☐ Yes |
|   | n no provide details and rectify signs   | LI NO |
| Comments or details of action taken:  |  |       |
| Signs are mounted level and suita   | bly clear of travel lanes?   | Yes   |
|   | If no provide details and rectify signs  | □ No  |
| Comments or details of action taken:  |  |       |
| Has temporary delineation been a  | pplied as prescribed, with permanent markings obliterated?   | ☐ Yes |
|   | If no provide details of action required to rectify delineation  | ☑ No  |
| Comments or details of action taken:  Are registered trailers i.e. VMS / li | ght towers; suitably clear of travel lanes and delineated?  If no provide details and rectify location | ☐ Yes |
| Comments or details of action taken:  |  |       |
| Are temporary speed zones opera   | iting as prescribed?   | 50 V  |
|   | If no provide details and discuss with work supervisor   | ☐ Yes |
| Comments or details of action taken:  |  |       |
| Are PTCD positioned as prescribe  | ed in TGS?   | ☐ Yes |
|   | If no provide details of action required to rectify  | □ No  |
| Comments or details of action taken:  |  |       |

| Site Inspection                            |   |       |
|--|---|-------|
| Are manual traffic controllers clear of tr | ravel lane, have suitable escape route?             | ☐ Yes |
|  | If no provide details of action required to rectify | □ No  |
| Comments or details of action taken:       |   |       |
| Are site accesses and egresses well de     | fined and safe for work vehicles?                   | Yes   |
|  | If no provide details of action required to rectify | □ No  |
| Comments or details of action taken:       |   | /     |
| Termination signs are suitably located?    | i.e. D downstream of last activity.                 | Yes   |
|  | If no provide details of action required to rectify | □ No  |
| Comments or details of action taken:       |   |       |

| Comments or details of action taken:  Has TMP identified and addressed key TTM risks?  If no provide details and implement of action taken:  Comments or details of action taken:  If no provide details of additional hazards and comments or details of action taken: | nt controls to rectify | ☐ Yes ☐ No                                     |
|---|------------------------|--|
| Comments or details of action taken:  Has TMP identified and addressed key TTM risks?  If no provide details and implement of action taken:  Have key TTM risks been addressed on site?  If no provide details of additional hazards and Comments or details            | nt controls to rectify | ✓ Ye   |
| of action taken:  Has TMP identified and addressed key TTM risks?  If no provide details and implement  Comments or details of action taken:  Have key TTM risks been addressed on site?  If no provide details of additional hazards and Comments or details           |                        | □ No   |
| Comments or details of action taken:  lave key TTM risks been addressed on site?  If no provide details of additional hazards and comments or details   |                        | □ No   |
| Comments or details of action taken:  ave key TTM risks been addressed on site?  If no provide details of additional hazards and Comments or details  |                        |  |
| of action taken: lave key TTM risks been addressed on site?  If no provide details of additional hazards an  Comments or details  | nd controls required   | ₽ Ye   |
| If no provide details of additional hazards an  | nd controls required   | □ Ye   |
| Comments or details   | nd controls required   |  |
|   |                        | □ No   |
|   |                        |  |
| ave copies of Shift Inspections been sighted as completed as required?  |                        |  |
| If no provide details and discuss with nominated rep completing   |                        | <ul><li>✓ Yes</li><li>No</li><li>N/A</li></ul> |
| Comments or details   |                        |  |
| of action taken:  |                        |  |
| ditional comments:  |                        |  |
|   |                        |  |
|   |                        |  |
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| l at work sites |  |  |
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| Completed by:                        |                            | Secretary Secretary       |                                     |        |
|--------------------------------------|----------------------------|---------------------------|-------------------------------------|--------|
| Name: Sree-Ann                       | a Adams.                   | Signature:                | Julio                               |        |
| TMP Reference: Stac 1-               | NZNS                       | TGS Reference:            | 29671, 28239                        |        |
| Reference: Stag 1 - Date: 01/08/12   | 2022                       | Inspection type           | ☐ Pre-opening ☐                     | Weekly |
| Desktop review                       |                            |                           |                                     |        |
| Is a copy of the location TMP        | and relevant TGS ava       | ilable?                   |                                     | ☐ Yes  |
|                                      | If no inspe                | ction must not be underta | ken until documents are obtained    |        |
| Details of TMP and TGS:              | Stag 1 - DZ1<br>29671,2828 | US<br>39, 28288           |                                     |        |
| Are the location TMP and rele        | evant TGS approved?        |                           |                                     | ☑ Yes  |
|                                      |                            | If no, work must be stopp | oed until documents are approved    |        |
| Comments or details of action taken: | •                          |                           |                                     |        |
| Site Inspection                      |                            |                           | 10 13 AC 15                         |        |
| Inspection completed:                | ☑During the day            | ☐During the night         |                                     |        |
| Signs and devices positioned         | d as prescribed and co     | mmanding attention        | ?                                   | Yes    |
|                                      |                            | lf no                     | o provide details and rectify signs |        |
| Comments or details of action taken: |                            |                           |                                     |        |

| Site Inspection  |   |               |
|--|---|---------------|
| Sign sizes as prescribed?  |   | Yes           |
|  | If no provide details and rectify signs                                 | ☑ Yes         |
|  | ii no provide details and rectify signs                                 | LI NO         |
| Comments or details of action taken:                                   |   |               |
| Signs are mounted level and  | suitably clear of travel lanes?   | 1             |
|  | If no provide details and rectify signs                                 | ☑ Yes<br>□ No |
| Comments or details of action taken:                                   |   |               |
| Has temporary delineation be   | en applied as prescribed, with permanent markings obliterated?          | □ Yes         |
|  | If no provide details of action required to rectify delineation         | ☑ No          |
| Comments or details of action taken:  Are registered trailers i.e. VM3 | N   A  S / light towers; suitably clear of travel lanes and delineated? | ☑ Yes         |
|  | If no provide details and rectify location                              | □ No          |
| Comments or details of action taken:                                   |   |               |
| Are temporary speed zones o  | perating as prescribed?   |               |
|  | If no provide details and discuss with work supervisor                  | Yes  No       |
| Comments or details of action taken:                                   |   |               |
| Are PTCD positioned as preso   | eribed in TGS?  | Yes           |
|  | If no provide details of action required to rectify                     | □ No          |
| Comments or details of action taken:                                   |   |               |

| Site Inspection  |        |
|--|--------|
| Are manual traffic controllers clear of travel lane, have suitable escape route? | Yes    |
| If no provide details of action required to rectif                               | ✓ □ No |
| Comments or details of action taken:   |        |
| Are site accesses and egresses well defined and safe for work vehicles?          | Yes    |
| If no provide details of action required to rectif                               | ✓ □ No |
| Comments or details of action taken:   |        |
| Termination signs are suitably located? i.e. D downstream of last activity.      | Yes    |
| If no provide details of action required to rectif                               | ✓ □ No |
| Comments or details of action taken:   |        |

| worksite layout operating safely     | as intended?  | [] Yes        |
|--------------------------------------|---|---------------|
|                                      | If no provide details and implement controls to rectify           |               |
|                                      | The provide details and implement control to recary               | □ No          |
| Comments or details                  |   |               |
| of action taken:                     |   |               |
| as TMP identified and addressed      | key TTM risks?  | □Ye:          |
|                                      | If no provide details and implement controls to rectify           | □ No          |
| Comments or details of action taken: |   |               |
| ave key TTM risks been addresse      | ed on site?   | Yes           |
|                                      | If no provide details of additional hazards and controls required | □ No          |
| Comments or details of action taken: |   |               |
| ave copies of Shift Inspections be   | een sighted as completed as required?                             |               |
|                                      |   | ☑ Yes         |
| If                                   | 없이 보다 그 경에 되면 자꾸를 보다면 하는데 그리는 이번 불통이 하면 바쁜 그리는 때 이 물리를 하는데 살아 하다. | □ No<br>□ N/A |
| Comments or details of action taken: |   |               |
|                                      |   |               |
| itional comments:                    |   |               |
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| Completed by:                                 |                        |                           |  |               |
|---|------------------------|---------------------------|--|---------------|
| Name: Bree-Anne                               | a Delemos              | Signature:                | Jeuletun                                 | •             |
| TMP Reference: Stage  Date: 7106/12012 8:28am | a Delemos<br>-NSN &    | TGS Reference:            | 24671,28234,28                           | 288<br>Weekly |
| Desktop review                                |                        |                           |  |               |
| Is a copy of the location TMP                 |                        |                           | iken until documents are obtained        | ✓Yes □ No     |
| Details of TMP and TGS:                       | * Stage 1 -            | -NBNS<br>239, 28288       | -  |               |
| Are the location TMP and rele                 | evant TGS approved?    | If no, work must be stopp | oed until documents are approved         | ✓ Yes         |
| Comments or details of action taken:          |                        |                           |  |               |
| Site Inspection                               |                        |                           |  |               |
| Inspection completed:                         | ☑During the day        | □During the night         |  |               |
| Signs and devices positioned                  | d as prescribed and co |                           | ?<br>o provide details and rectify signs | ☐ Yes☐ No     |
| Comments or details of action taken:          |                        |                           | b  |               |
|   |                        |                           |  |               |

| Site Inspection                      |   | VII.   |
|--------------------------------------|---|--------|
| Sign sizes as prescribed?            |   | -fy    |
|                                      | If no provide details and rectify signs   | □ No   |
|                                      |   | L NO   |
| Comments or details of action taken: |   |        |
| Signs are mounted level and          | suitably clear of travel lanes?   | Yes    |
|                                      | If no provide details and rectify signs   | □ No   |
| Comments or details of action taken: |   |        |
| Has temporary delineation be         | en applied as prescribed, with permanent markings obliterated?  If no provide details of action required to rectify delineation | Yes No |
| Comments or details of action taken: | NA  |        |
| Are registered trailers i.e. VM      | S / light towers; suitably clear of travel lanes and delineated?  | Yes    |
|                                      | If no provide details and rectify location  | ☑ Yes  |
| Comments or details of action taken: |   |        |
| Are temporary speed zones o          | perating as prescribed?   |        |
|                                      |   | □ Yes  |
|                                      | if no provide details and discuss with work supervisor  | □ No   |
| Comments or details of action taken: |   |        |
| Are PTCD positioned as preso         | cribed in TGS?  | Yes    |
|                                      | If no provide details of action required to rectify   | ☐ No   |
| Comments or details of action taken: |   |        |

| have suitable escape route?                         | Yes  |
|---|--|
| If no provide details of action required to rectify | □ No   |
|   |  |
| safe for work vehicles?                             | Yes  |
| If no provide details of action required to rectify | □ No   |
|   |  |
| vnstream of last activity.                          | Yes  |
| If no provide details of action required to rectify | □ No   |
|   |  |
|   | If no provide details of action required to rectify safe for work vehicles?  If no provide details of action required to rectify |

| s worksite layout operating safely as in | tended?  |               |
|--|--|---------------|
| s worksite layout operating salely as in | terided r  | ☑ Yes         |
|  | If no provide details and implement controls to rectify            | □ No          |
| Comments or details of action taken:     |  |               |
| Has TMP identified and addressed key T   | TM risks?  If no provide details and implement controls to rectify | ✓Yes          |
|  | ii no provide details and implement controls to rectify            | □ No          |
| Comments or details of action taken:     |  |               |
| Have key TTM risks been addressed on     | site?  | ☑ Yes         |
|  | If no provide details of additional hazards and controls required  | □ No          |
| Comments or details of action taken:     |  |               |
| lave copies of Shift Inspections been s  | ighted as completed as required?                                   |               |
|  |  | Yes           |
| If no pro                                |  | □ No<br>□ N/A |
| Comments or details of action taken:     |  |               |
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| ditional comments:                       |  |               |
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| Completed b       | y:                                   |  |                            |   |   |
|-------------------|--------------------------------------|--|----------------------------|---|---|
| Name:             | KURINA                               | Wikarkt  | Signature:                 | School                                  |   |
| TMP<br>Reference: | NZNS/n                               | lessen my  | TGS Reference:             |   |   |
| Date:             | 17-8-2                               |  | Inspection type            | ☐ Pre-opening                           | Weekly                                    |
| Desktop revi      | ew                                   |  |                            |   |   |
| Is a copy of th   | e location TMP                       | and relevant TGS ava   | ilable?                    |   | ☑ Yes                                     |
|                   |                                      | If no inspe  | ection must not be underta | ken until documents are o               |   |
| Comr              | -                                    | 1917 REV3<br>19758<br>30210<br>-32358 REV 2<br>evant TGS approved? | = 30180<br>STAC            | REV 1  jt 1  ped until documents are ap | ✓ Yes                                     |
|                   |                                      |  |                            |   |   |
| Site Inspecti     | on                                   |  |                            |   |   |
| Inspection co     |                                      | ☑During the day  | ☑During the night          |   | 044 154 154 154 154 154 154 154 154 154 1 |
|                   |                                      | LX3057-808   | If no                      | ?<br>o provide details and recti        | ✓ Yes ☐ No                                |
|                   | ments or details<br>of action taken: | LX3057-BOB<br>AFTERNOONE<br>NIGHT SHIFT                            | SMIPT                      |   |   |

| Site Inspection                      |   |              |
|--------------------------------------|---|--------------|
| Sign sizes as prescribed?            |   | ✓Yes         |
|                                      | If no provide details and rectify signs   | □ No         |
| Comments or details                  |   |              |
| of action taken:                     |   |              |
| Signs are mounted level and          | suitably clear of travel lanes?   | Yes          |
|                                      | If no provide details and rectify signs   | □ No         |
| Comments or details of action taken: |   |              |
| Has temporary delineation be         | een applied as prescribed, with permanent markings obliterated?   | □ Yes        |
|                                      | If no provide details of action required to rectify delineation   | No           |
| Comments or details of action taken: | NA  |              |
| Are registered trailers i.e. VM      | IS / light towers; suitably clear of travel lanes and delineated?  If no provide details and rectify location | ✓ Yes   □ No |
| Comments or details of action taken: | LX3057-BOBBINAM PTS/TRAFFIC LIGHTS AND<br>GATEZ-RAS BOARDS  | n)           |
| Are temporary speed zones of         | operating as prescribed?  |              |
|                                      | if no provide details and discuss with work supervisor  | Yes     □ No |
| Comments or details                  | 6910PS SKUP GOEN SPEED REDUCTION  |              |
| of action taken:                     | GURN SPHED REDUCTION  |              |
| Are PTCD positioned as pres          | cribed in TGS?  | ✓ Yes        |
|                                      | If no provide details of action required to rectify   | □ No         |
| Comments or details of action taken: | PTCD USED - LYJOST BOBBINAM - MAKOLU ROAD.  |              |

| Site Inspection                                |   |       |
|--|---|-------|
| Are manual traffic controllers clear of travel | ane, have suitable escape route?                    | Yes   |
|  | If no provide details of action required to rectify | □ No  |
| Comments or details of action taken:           |   |       |
| Are site accesses and egresses well defined    | and safe for work vehicles?                         | Yes   |
|  | If no provide details of action required to rectify | □ No  |
| Comments or details of action taken:           |   |       |
| Termination signs are suitably located? i.e. [ | downstream of last activity.                        | ✓ Yes |
|  | If no provide details of action required to rectify | □ No  |
| Comments or details of action taken:           |   |       |
|  |   |       |

| Is worksite layout operating safe    | dy as intended?   |                    |
|--------------------------------------|---|--------------------|
| is worksite layout operating sale    | ny as intended f  | Yes                |
|                                      | If no provide details and implement controls to rectify                           | □ No               |
| Comments or details of action taken: | LX3057-BOBBIWAA = DAY MAKEEK  |                    |
| Has TMP identified and address       | ed key TTM risks?  If no provide details and implement controls to rectify        | ☐ Yes              |
| Comments or details of action taken: |   |                    |
| Have key TTM risks been addres       | sed on site?  | ✓Yes               |
|                                      | If no provide details of additional hazards and controls required                 | ☐ No               |
| Comments or details of action taken: |   |                    |
| Have copies of Shift Inspections     | been sighted as completed as required?  |                    |
|                                      | If no provide details and discuss with nominated rep completing Shift inspections | ✓ Yes  ☐ No  ☐ N/A |
| Comments or details of action taken: |   |                    |
| dditional comments:                  |   |                    |
| * No 155Ut5                          |   |                    |

| Completed by:                |  |                   |                                    |            |
|------------------------------|--|-------------------|------------------------------------|------------|
| Name: Koeini                 | a WIKAIRK  | Signature:        | Thata                              |            |
| TMP Reference: STAGE         | 2 NZNS/NEWEU HW  | TGS Reference:    |                                    |            |
| Date: 24-8                   | - 2022   | Inspection type   | ☐ Pre-opening ☐                    | Weekly     |
| Desktop review               | <b>这</b> ,乃一个4   | 4 1               |                                    |            |
| Is a copy of the location    | n TMP and relevant TGS ava<br>If no inspe              |                   | ken until documents are obtaine    | ☐ Yes ☐ No |
| Details of TMP and TGS       | 5: -29758<br>-30210<br>-29708<br>-32358 REV2<br>-30212 | - 3               | 6180 REV 1                         |            |
| Are the location TMP a       | nd relevant TGS approved?                              |                   | ed until documents are approve     | ✓ Yes      |
| Comments or d<br>of action t |  | -                 |                                    |            |
| Site Inspection              |  |                   |                                    |            |
| Inspection completed:        |  | □During the night |                                    |            |
| Signs and devices pos        | itioned as prescribed and co                           |                   | o provide details and rectify sign | Yes No     |
| Comments or of action t      |  |                   |                                    |            |

| Site Inspection                      |   |             |
|--------------------------------------|---|-------------|
| Sign sizes as prescribed?            |   | _~.         |
|                                      | ·····································                             | Yes         |
|                                      | If no provide details and rectify signs                           | □ No        |
| Comments or details of action taken: |   |             |
| Signs are mounted level and          | suitably clear of travel lanes?                                   |             |
|                                      | If no provide details and rectify signs                           | ✓ Yes       |
| Comments or details of action taken: |   |             |
| Has temporary delineation be         | een applied as prescribed, with permanent markings obliterated?   | □ Yes       |
|                                      | If no provide details of action required to rectify delineation   | □ No        |
| Comments or details of action taken: | NA  |             |
| Are registered trailers i.e. VN      | IS / light towers; suitably clear of travel lanes and delineated? | ✓ Yes       |
|                                      | If no provide details and rectify location                        | □ No        |
| Comments or details of action taken: | LY3057 - BUBBINAM<br>GASE 2 - RAS BUMEDS                          |             |
| Are temporary speed zones            | operating as prescribed?  |             |
|                                      | If no provide details and discuss with work supervisor            | Yes □ No    |
| Comments or details of action taken: | BORN S/R ESTOP SETUP  |             |
| Are PTCD positioned as pres          | cribed in TGS?  |             |
|                                      | If no provide details of action required to rectify               | ✓ Yes  □ No |
| Comments or details                  | LY3057 - BOBBINAM   |             |
| of action taken:                     | gast 2  |             |
|                                      | MARDEW ROAD   |             |

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| Site Inspection  |   |       |
|--|---|-------|
| Are manual traffic controllers clear of travel lane, have su | itable escape route?                                | ∠ Yes |
|  | If no provide details of action required to rectify | □No   |
| Comments or details of action taken:                         |   |       |
| Are site accesses and egresses well defined and safe for     | work vehicles?                                      | ∠ Yes |
|  | If no provide details of action required to rectify | □ No  |
| Comments or details of action taken:                         |   |       |
| Termination signs are suitably located? i.e. D downstream    | n of last activity.                                 | ✓ Yes |
|  | If no provide details of action required to rectify | □ No  |
| Comments or details of action taken:                         |   |       |

| Post site inspection confirmation         |   |       |
|---|---|-------|
| Is worksite layout operating safely as in | tended?   |       |
|   | le no provide detalle and implement controls to rectife.  | Yes   |
|   | If no provide details and implement controls to rectify   | □ No  |
| Comments or details                       |   |       |
| of action taken:                          |   |       |
|   |   |       |
| Loc TMD identified and addressed key T    | TM vialsa?  |       |
| Has TMP identified and addressed key T    | I M FISKS F   | ∠ Yes |
|   | If no provide details and implement controls to rectify   | □ No  |
| Comments or details                       |   |       |
| of action taken:                          |   |       |
|   |   |       |
| Have key TTM risks been addressed on      | oito?   |       |
| nave key i i wi iisks been addressed on   | Site!   | ∠ Yes |
|   | If no provide details of additional hazards and controls required   | □ No  |
| Comments or details                       |   |       |
| of action taken:                          |   |       |
|   |   |       |
|   |   |       |
| Have copies of Shift Inspections been si  |   |       |
|   | HELD (1) HE | Yes   |
| If no pro                                 | vide details and discuss with nominated rep completing Shift Inspections  | □ No  |
|   |   | □ N/A |
| Comments or details                       |   |       |
| of action taken:                          |   |       |
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| dditional comments:                       |   |       |
| N 100 00 11 11 1 10 0                     |   |       |
| * MARDELL ROAD                            |   |       |
| - ISSUES WITH ESTORY                      |   |       |
| - REPLACED NITH AN                        | other str.  |       |
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| echnical Manual – Traffic control at wo | rk sites |  |
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| Completed by      |                                  |                        |                           |  |        |
|-------------------|----------------------------------|------------------------|---------------------------|--|--------|
| Name:             | KORINA                           | Willoid                | Signature:                | A Ma                                     |        |
| TMP<br>Reference: | N2NS/                            | NIKORE                 | TGS Reference:            |  |        |
| Date:             |                                  | 2012                   | Inspection type           | ☐ Pre-opening ☐                          | Weekly |
| Desktop revie     | w                                |                        |                           | 1 1 V 2 1 1                              |        |
| Is a copy of the  | location TMP                     | and relevant TGS ava   |                           | ken until documents are obtained         | ☐ Yes  |
| Details of TMP a  | and TGS:                         | 29708 - 298            | 73- 30180 K               | P(V ]                                    |        |
| Are the location  | TMP and rele                     | evant TGS approved?    | If no, work must be stopp | ped until documents are approved         | Yes    |
|                   | ents or details<br>action taken: |                        |                           |  |        |
| Site Inspection   | n                                |                        |                           |  |        |
| Inspection com    | pleted:                          | ☑During the day        | ☐During the night         |  |        |
| Signs and device  | ces positioned                   | d as prescribed and co |                           | ?<br>o provide details and rectify signs | ✓ Yes  |
|                   | ents or details<br>action taken: |                        |                           |  |        |

| Site Inspection                      | A STATE OF THE STA |             |
|--------------------------------------|--|-------------|
| Sign sizes as prescribed?            |  | Yes         |
|                                      | If no provide details and rectify signs  | ☑ Yes       |
|                                      | ii ne previde detane una recuity digite  | LINO        |
| Comments or details of action taken: |  |             |
| Signs are mounted level and          | suitably clear of travel lanes?  | ✓Yes        |
|                                      | If no provide details and rectify signs  | □ No        |
| Comments or details of action taken: |  |             |
| Has temporary delineation be         | en applied as prescribed, with permanent markings obliterated?   | ∠ Yes       |
|                                      | If no provide details of action required to rectify delineation  | □ No        |
| Comments or details of action taken: | Na   |             |
| Are registered trailers i.e. VM      | S / light towers; suitably clear of travel lanes and delineated?  If no provide details and rectify location   | ✓ Yes       |
| Comments or details of action taken: | RAS BOARD'S AT GATE 2  |             |
| Are temporary speed zones of         | perating as prescribed?  |             |
|                                      | If no provide details and discuss with work supervisor   | ✓ Yes  ☐ No |
| Comments or details of action taken: |  |             |
| Are PTCD positioned as pres          | cribed in TGS?   | ✓ Yes       |
|                                      | If no provide details of action required to rectify  | □ No        |
| Comments or details of action taken: |  |             |

| re suitable escape route?                           | ✓ Yes   |
|---|---|
| If no provide details of action required to rectify | □ No  |
|   |   |
| e for work vehicles?                                | ✓Yes  |
| If no provide details of action required to rectify | □ No  |
|   |   |
| tream of last activity.                             | ✓Yes  |
| If no provide details of action required to rectify | □ No  |
|   |   |
|   | If no provide details of action required to rectify  e for work vehicles?  If no provide details of action required to rectify  cream of last activity. |

| ost site inspection confirmation                  |  |                        |
|---|--|------------------------|
| worksite layout operating safely as int           | lended?  | ∠ Ye                   |
|   | if no provide details and implement controls to rectify                  | □ No                   |
| Comments or details of action taken:              |  |                        |
| las TMP identified and addressed key T            | TM risks?  If no provide details and implement controls to rectify       | ✓ Ye                   |
| Comments or details of action taken:              |  |                        |
| lave key TTM risks been addressed on s            | site?  | Yes                    |
|   | If no provide details of additional hazards and controls required        | □ No                   |
| Comments or details of action taken:              |  |                        |
| lave copies of Shift Inspections been significant | ghted as completed as required?  |                        |
| If no prov  | vide details and discuss with nominated rep completing Shift Inspections | ☑ Yes<br>□ No<br>□ N/A |
| Comments or details of action taken:              |  |                        |
| ditional comments:                                |  |                        |
| and the comments.                                 |  |                        |
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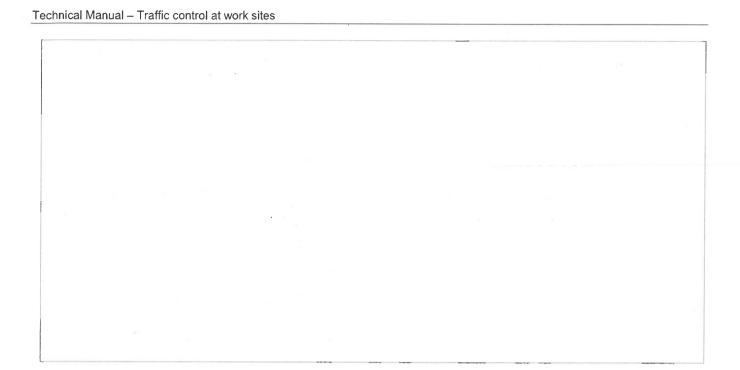
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| Completed b       | y:                                   |                      |                           |  |             |
|-------------------|--------------------------------------|----------------------|---------------------------|--|-------------|
| Name:             | KORINA F<br>NINS/NE                  | JIKA INT             | Signature:                | Ahkla_                                   |             |
| TMP<br>Reference: | NZNS/NE                              | VELL INVY            | TGS Reference:            |  |             |
| Date:             | 14-9-27                              | *                    | Inspection type           | ☐ Pre-opening                            | Veekly      |
| Desktop revi      | ew                                   |                      |                           |  |             |
| Is a copy of th   | e location TMP a                     | ind relevant TGS ava |                           | ken until documents are obtained         | □ Yes       |
| Details of TMF    | and TGS:                             | 29708-29             | 7873 - 311                | 39 - 30210                               |             |
| Are the location  | on TMP and relev                     | rant TGS approved?   | If no, work must be stopp | ped until documents are approved         | ∠ Yes  □ No |
|                   | nents or details<br>of action taken: |                      |                           |  |             |
| Site Inspecti     | on                                   |                      |                           |  |             |
| Inspection co     | Habitata Bull Hard Barrier           | □During the day      | ☐During the night         |  |             |
|                   | 1.                                   | as prescribed and co | ommanding attention       | ?<br>o provide details and rectify signs | ✓ Yes       |
|                   | ments or details<br>of action taken: |                      |                           |  |             |

| Site Inspection                      |  |       |
|--------------------------------------|--|-------|
| Sign sizes as prescribed?            |  | ₩ Vac |
|                                      | If no provide details and rectify signs  |       |
|                                      |  |       |
| Comments or details of action taken: |  |       |
| Signs are mounted level and s        | uitably clear of travel lanes?   | ∠ Yes |
|                                      | If no provide details and rectify signs  | □ No  |
| Comments or details of action taken: |  |       |
| Has temporary delineation bee        | n applied as prescribed, with permanent markings obliterated?  | □ Yes |
| 21.53%                               | If no provide details of action required to rectify delineation  | □ No  |
| Comments or details of action taken: | NA   |       |
| Are registered trailers i.e. VMS     | / light towers; suitably clear of travel lanes and delineated?  If no provide details and rectify location | ✓ Yes |
| Comments or details of action taken: | VMS BOARDS CIATE 2 & RAS BOM   | eds.  |
| Are temporary speed zones op         | erating as prescribed?   |       |
|                                      | If no provide details and discuss with work supervisor   | ✓ Yes |
| Comments or details of action taken: | - BOKN SPEED REDUCTION (ESTOPS).   |       |
|                                      | - GORN SPEED REDUCTION (ESTOPS).   |       |
| Are PTCD positioned as prescr        | ibed in TGS?   | ∠Yes  |
|                                      | If no provide details of action required to rectify  | □ No  |
| Comments or details of action taken: |  |       |

| Site Inspection                                   |   |       |
|---|---|-------|
| Are manual traffic controllers clear of travel la | ne, have suitable escape route?                     | ∠ Yes |
|   | If no provide details of action required to rectify | □ No  |
| Comments or details of action taken:              |   |       |
| Are site accesses and egresses well defined a     | nd safe for work vehicles?                          | ✓ Yes |
|   | If no provide details of action required to rectify | □ No  |
| Comments or details of action taken:              |   |       |
| Termination signs are suitably located? i.e. D    | downstream of last activity.                        | Z Yes |
|   | If no provide details of action required to rectify | □ No  |
| Comments or details of action taken:              |   |       |

| s worksite layout operating safely as in | tended?  | Ye                   |
|--|--|----------------------|
|  | If no provide details and implement controls to rectify                  | □ No                 |
| Comments or details of action taken:     |  |                      |
| as TMP identified and addressed key 1    | TM risks?  |                      |
|  | If no provide details and implement controls to rectify                  | ✓ Ye                 |
| Comments or details of action taken:     |  |                      |
| ave key TTM risks been addressed on      | site?  | ✓ Yes                |
|  | If no provide details of additional hazards and controls required        | □ No                 |
| Comments or details of action taken:     |  |                      |
| ave copies of Shift Inspections been si  |  |                      |
| If no pro                                | vide details and discuss with nominated rep completing Shift Inspections | ✓ Yes   ☐ No   ☐ N/A |
| Comments or details of action taken:     |  |                      |
| ditional comments:                       |  |                      |
|  |  |                      |
|  |  |                      |
|  |  |                      |
|  |  |                      |



| Completed by:                           |                            |                               |                                     |             |
|---|----------------------------|-------------------------------|-------------------------------------|-------------|
| Name: KORINA                            | WIKAKE                     | Signature:                    | Ahro                                |             |
| TMP Reference: N2NS                     | kneu uny                   | TGS Reference:                |                                     |             |
| Date: 21-9-27                           |                            | Inspection type               | ☐ Pre-opening                       | Veekly      |
| Desktop review                          | 4.50 42.5                  |                               |                                     |             |
| Is a copy of the location TM            | P and relevant TGS ava     | ilable?                       |                                     | ∠ Yes       |
|   |                            |                               | ken until documents are obtained    | □ No        |
| Details of TMP and TGS:                 | 33859 - 298<br>30210 REV 3 | 52 REV 2 - 2<br>- 2021 - 0685 | 9873 ~ 31139<br>5                   |             |
| Are the location TMP and re             | levant TGS approved?       | If no, work must be stopp     | ed until documents are approved     | ✓ Yes  □ No |
| Comments or details<br>of action taken: |                            |                               |                                     |             |
| Site Inspection                         |                            |                               |                                     |             |
| Inspection completed:                   | ☑During the day            | ☐During the night             |                                     |             |
| Signs and devices positione             | ed as prescribed and co    | mmanding attention?           | ?                                   | ✓Yes        |
|   |                            | If no                         | o provide details and rectify signs | □ No        |
| Comments or details<br>of action taken: |                            |                               |                                     |             |

| Site Inspection                      |   |              |
|--------------------------------------|---|--------------|
| Sign sizes as prescribed?            | nated patients are something and patient as the same accompanies. | ✓ Yes        |
|                                      | If no provide details and rectify signs                           | ∠ Yes        |
|                                      | " no provide details and rectify signs                            | □ NO         |
| Comments or details of action taken: |   |              |
| Signs are mounted level and          | suitably clear of travel lanes?                                   | Yes          |
|                                      | If no provide details and rectify signs                           | □ No         |
| Comments or details of action taken: |   |              |
| Has temporary delineation be         | en applied as prescribed, with permanent markings obliterated?    | □ Yes        |
|                                      | If no provide details of action required to rectify delineation   | □ No         |
| Comments or details of action taken: | NA  |              |
| Are registered trailers i.e. VM      | S / light towers; suitably clear of travel lanes and delineated?  | <b>≥</b> Yes |
|                                      | If no provide details and rectify location                        | □ No         |
| Comments or details of action taken: | CASE 2 LX3055   |              |
| Are temporary speed zones o          | perating as prescribed?   |              |
|                                      | If no provide details and discuss with work supervisor            | ✓ Yes        |
| Comments or details of action taken: | - ESTOPS GORN, SPEED REDUCTION                                    |              |
|                                      | - SPEED REDUCTION 80RV  |              |
| Are PTCD positioned as pres          | cribed in TGS?  | ✓Yes         |
|                                      | If no provide details of action required to rectify               | □ No         |
| Comments or details of action taken: | -GATES -TREMBYNE LAWE<br>-GATES -KANIMBLA ROAD<br>-6ATES          |              |
|                                      | - GATE 6 - KANIMISLA ROAD   |              |
|                                      | -6×162  |              |

| Site Inspection                                    |   |              |
|--|---|--------------|
| Are manual traffic controllers clear of travel lan | e, have suitable escape route?                      | ∠ Yes        |
|  | If no provide details of action required to rectify | □ No         |
| Comments or details of action taken:               |   |              |
| Are site accesses and egresses well defined an     | d safe for work vehicles?                           | <b>⊘</b> Yes |
|  | If no provide details of action required to rectify | □ No         |
| Comments or details of action taken:               |   |              |
| Termination signs are suitably located? i.e. D d   | ownstream of last activity.                         | <b>∠</b> Yes |
|  | If no provide details of action required to rectify | □ No         |
| Comments or details of action taken:               |   |              |
|  | · · · · · · · · · · · · · · · · · · ·               |              |

| s worksite layout operating safely as in | ntended?  | ₽'Ye:         |
|--|---|---------------|
|  | If no provide details and implement controls to rectify             | □ No          |
| Comments or details of action taken:     |   |               |
| as TMP identified and addressed key      | TTM risks?  If no provide details and implement controls to rectify | ✓ Ye     ☐ No |
| Comments or details of action taken:     |   |               |
| ave key TTM risks been addressed on      | site?   | <b>Z</b> ¹Ye  |
|  | If no provide details of additional hazards and controls required   | □ No          |
| ave copies of Shift Inspections been s   |   | <b>☑</b> Yes  |
| If no pr                                 |   | □ No<br>□ N/A |
| Comments or details of action taken:     |   |               |
| ditional comments:                       |   |               |
|  |   |               |

| Completed b       | y:                                   |  |                            |  |              |
|-------------------|--------------------------------------|--|----------------------------|--|--------------|
| Name:             | KORINA                               | VIKENEE                                    | Signature:                 | ENAO-                                    | •            |
| TMP<br>Reference: | N2NS/n                               | EN NEWELL HWY                              | TGS Reference:             |  |              |
| Date:             | 28-9-                                | 22   | Inspection type            | ☐ Pre-opening                            | Weekly       |
| Desktop revi      | ew                                   |  |                            |  |              |
| Is a copy of th   | e location TMF                       | and relevant TGS ava                       | ilable?                    |  | <b>∠</b> Yes |
|                   | weeks Alby                           | If no inspe                                | ection must not be underta | ken until documents are obtained         | □ No         |
| Details of TMF    | and TGS:                             | 29708<br>29873<br>30210 NEV 3<br>2021-0685 | 3/139<br>29758/            | REV 1                                    |              |
| Are the location  | on TMP and rel                       | evant TGS approved?                        | If no, work must be stopp  | ned until documents are approved         | ✓Yes         |
| Comr              | nents or details<br>of action taken: |  |                            |  |              |
| Site Inspecti     | on                                   |  |                            |  |              |
| Inspection co     | mpleted:                             |  | ☐During the night          |  |              |
| Signs and dev     | rices positione                      | d as prescribed and co                     |                            | ?<br>o provide details and rectify signs | Yes No       |
|                   | ments or details<br>of action taken: |  |                            |  |              |

| Site Inspection                      |  |               |
|--------------------------------------|--|---------------|
| Sign sizes as prescribed?            | Treated between the case 4 to 30 to 50                   | Z Yes         |
|                                      | If no provide details and rectify signs  | □ No          |
| Comments or details                  |  |               |
| of action taken:                     |  |               |
| Signs are mounted level and          | suitably clear of travel lanes?  | ✓ Yes         |
|                                      | If no provide details and rectify signs  | □ No          |
| Comments or details of action taken: |  |               |
| Has temporary delineation be         | een applied as prescribed, with permanent markings obliterated?  If no provide details of action required to rectify delineation | □ Yes<br>ℤ No |
| Comments or details of action taken: | Ng   |               |
| Are registered trailers i.e. VN      | IS / light towers; suitably clear of travel lanes and delineated?  If no provide details and rectify location                    | .⊉Yes         |
| Comments or details of action taken: | GATE 2<br>ADVANCED WARNING VMS (BOBBINA & GALATI   |               |
| Are temporary speed zones            | operating as prescribed?   | <b>∠</b> Yes  |
|                                      | If no provide details and discuss with work supervisor   | □ No          |
| Comments or details of action taken: |  |               |
| Are PTCD positioned as pres          | scribed in TGS?  If no provide details of action required to rectify   | ✓Yes          |
| Comments or details of action taken: |  |               |
|                                      |  |               |

| Site Inspection                                     |   |       |
|---|---|-------|
| Are manual traffic controllers clear of travel lane | , have suitable escape route?                       | Yes   |
|   | If no provide details of action required to rectify | □ No  |
| Comments or details of action taken:                |   |       |
| Are site accesses and egresses well defined and     | safe for work vehicles?                             | ✓ Yes |
|   | If no provide details of action required to rectify | □ No  |
| Comments or details of action taken:                |   |       |
| Termination signs are suitably located? i.e. D do   | wnstream of last activity.                          | Yes   |
|   | If no provide details of action required to rectify | □ No  |
| Comments or details of action taken:                |   |       |

| Post site inspection confirmation  |               |
|--|---------------|
| Is worksite layout operating safely as intended?   | Yes           |
| if no provide details and implement controls to rectify  |               |
|  |               |
| Comments or details of action taken:   |               |
| Has TMP identified and addressed key TTM risks?  | Yes           |
| If no provide details and implement controls to rectify  |               |
| If no provide details and implement controls to rectify  | □ No          |
| Comments or details of action taken:   |               |
| Have key TTM risks been addressed on site?   | ✓Yes          |
| If no provide details of additional hazards and controls required  | 4             |
| of action taken:  Have copies of Shift Inspections been sighted as completed as required?  If no provide details and discuss with nominated rep completing Shift Inspections | ∠ Yes         |
| ir no provide details and discuss with nonlinated rep completing Shift inspections   | □ No<br>□ N/A |
| Comments or details of action taken:   |               |
| Additional comments:   |               |
|  |               |

| Completed by:                        |                            |                            |  |   |
|--------------------------------------|----------------------------|----------------------------|--|---|
| Name: KORINA                         | WIKAIRE                    | Signature:                 | Elfa-  | _   |
| TMP Reference: N2NS/NE               | WELL HWY                   | TGS Reference:             |  |   |
| Date: 5-10-20                        | WIKAIRE<br>WEU HWY         | Inspection type            | ☐ Pre-opening ☐ \(\begin{aligned} \text{\$\overline{\text{\$\sigma}}}\\ \text{\$\sigma}\\ \text{\$\sigma}\\\ \text{\$\sigma}\\\ \text{\$\sigma}\\\ \text{\$\sigma}\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\ | Veekly  |
| Desktop review                       |                            |                            |  |   |
| Is a copy of the location TMI        | and relevant TGS ava       | ilable?                    |  | ∠ Yes   |
|                                      | ff no inspe                | ection must not be underta | ken until documents are obtained   | □ No  |
| Details of TMP and TGS:              | -29671 REV 3               | -29758                     | PEV 2  | 1   |
|                                      | - 29758                    | -33470                     | REU3.  |   |
|                                      | -31139                     |                            |  |   |
|                                      | -24852 REVZ<br>-32358 REVZ |                            |  |   |
|                                      | - 2021-0685                |                            |  |   |
| Are the location TMP and re          | evant TGS approved?        |                            |  | Z Yes   |
|                                      |                            | If no, work must be stopp  | ed until documents are approved  | □ No  |
| Comments or details of action taken: |                            |                            |  | d.  |
| Site Inspection                      |                            |                            |  |   |
| Inspection completed:                | ✓ During the day           | □During the night          |  |   |
| Signs and devices positione          |                            |                            | ?  |   |
|                                      |                            | If no                      | provide details and rectify signs  | Yes     □ No     ■     No     ■ |
| Comments or details                  |                            |                            |  |   |
| of action taken:                     |                            |                            |  |   |

| Site Inspection                                   |  |       |
|---|--|-------|
| Sign sizes as prescribed?                         |  | Yes   |
|   | If no provide details and rectify signs  | □ No  |
| Comments or details of action taken:              |  |       |
| Signs are mounted level and suitably clear of     | travel lanes?  | ✓ Yes |
|   | If no provide details and rectify signs  | □ No  |
| Comments or details of action taken:              |  |       |
| Has temporary delineation been applied as p       | rescribed, with permanent markings obliterated?  If no provide details of action required to rectify delineation | ☐ Yes |
| Comments or details of action taken:              | Na   |       |
| Are registered trailers i.e. VMS / light towers;  | suitably clear of travel lanes and delineated?   | ∠Yes  |
|   | If no provide details and rectify location   | □ No  |
| Comments or details—CATE2 of action taken: Y2 VmS | (ADVANCED WARNING)   |       |
| Are temporary speed zones operating as pre        | scribed?   | ≥ Yes |
|   | If no provide details and discuss with work supervisor   | □ No  |
| Comments or details of action taken:              |  |       |
| Are PTCD positioned as prescribed in TGS?         | If no provide details of action required to rectify  | ✓ Yes |
| Comments or details of action taken:              |  |       |

| Site Inspection                            |   |       |
|--|---|-------|
| Are manual traffic controllers clear of tr | avel lane, have suitable escape route?              | ✓ Yes |
|  | If no provide details of action required to rectify | □ No  |
| Comments or details of action taken:       |   |       |
| Are site accesses and egresses well def    | ined and safe for work vehicles?                    | ✓ Yes |
|  | If no provide details of action required to rectify | □ No  |
| Comments or details of action taken:       |   |       |
| Termination signs are suitably located?    | i.e. D downstream of last activity.                 | ✓ Yes |
|  | If no provide details of action required to rectify | □ No  |
| Comments or details of action taken:       |   |       |

| worksite layout operating safely as  | intended?   | TX W         |
|--------------------------------------|---|--------------|
|                                      | If no avertide details and implement controls to reatify                    | Z Ye         |
|                                      | If no provide details and implement controls to rectify                     | □ No         |
| Comments or details                  |   |              |
| of action taken:                     |   |              |
|                                      |   |              |
|                                      |   |              |
| as TMP identified and addressed key  | y TTM risks?  | ∠ Ye         |
|                                      | If no provide details and implement controls to rectify                     | □ No         |
|                                      |   |              |
| Comments or details of action taken: |   |              |
| or action taken:                     |   |              |
|                                      |   |              |
| ave key TTM risks been addressed o   | on site?  |              |
|                                      |   | ∠ Ye         |
|                                      | If no provide details of additional hazards and controls required           | □ No         |
| Comments or details                  |   |              |
| of action taken:                     |   |              |
|                                      |   |              |
|                                      |   |              |
|                                      |   |              |
| ave copies of Shift Inspections been | n sighted as completed as required?   |              |
| ave copies of Shift Inspections been |   | <b>∠</b> Yes |
|                                      |   | ∠ Yes        |
|                                      | provide details and discuss with nominated rep completing Shift Inspections | □ No         |
| If no                                | provide details and discuss with nominated rep completing Shift Inspections | ✓ Yes        |
|                                      | provide details and discuss with nominated rep completing Shift Inspections | □ No         |
| If no particular of details          | provide details and discuss with nominated rep completing Shift Inspections | □ No         |
| If no particular of details          | provide details and discuss with nominated rep completing Shift Inspections | □ No         |
| If no particular of details          | provide details and discuss with nominated rep completing Shift Inspections | □ No         |
| If no particular of details          | provide details and discuss with nominated rep completing Shift Inspections | □ No         |
| Comments or details of action taken: | provide details and discuss with nominated rep completing Shift Inspections | □ No         |
| If no particular of details          | provide details and discuss with nominated rep completing Shift Inspections | □ No         |
| Comments or details of action taken: | provide details and discuss with nominated rep completing Shift Inspections | □ No         |
| Comments or details of action taken: | provide details and discuss with nominated rep completing Shift Inspections | □ No         |
| Comments or details of action taken: | provide details and discuss with nominated rep completing Shift Inspections | □ No         |
| Comments or details of action taken: | provide details and discuss with nominated rep completing Shift Inspections | □ No         |
| Comments or details of action taken: | provide details and discuss with nominated rep completing Shift Inspections | □ No         |

| ical Manual - Traffic | control at work sites |              |            |  |
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|                       | 11000111              | Jimo pagoo   |            |  |

| Completed by:                         |   |                           |                                   |           |
|---------------------------------------|---|---------------------------|-----------------------------------|-----------|
| Name: Kokınıa Wil                     | Kmat  | Signature:                | Alda.                             |           |
| TMP Reference: N2NS /N  Date: 12-10-2 | ENEU My   | TGS Reference:            |                                   |           |
| Date: 12-10-2                         | 22  | Inspection type           | ☐ Pre-opening                     | Weekly    |
| Desktop review                        |   |                           |                                   |           |
| Is a copy of the location TMP         |   |                           | ken until documents are obtained  | ☐ Yes     |
|                                       | -29671 REV3<br>-2021-0685<br>-29852 REV2<br>-29758 KEV 1<br>-31139<br>-31139 REV2 | -                         |                                   | J         |
| Are the location TMP and rele         | vant TGS approved?  | If no, work must be stopp | ed until documents are approved   | ₽Yes □ No |
| Comments or details of action taken:  |   |                           |                                   |           |
| Site Inspection                       |   | 1. M.                     |                                   |           |
| Inspection completed:                 |   | ☐During the night         |                                   |           |
| Signs and devices positioned          | as prescribed and co  |                           | provide details and rectify signs | ☑ Yes     |
| Comments or details of action taken:  |   |                           |                                   |           |

| Site Inspection                      |  |            |
|--------------------------------------|--|------------|
| Sign sizes as prescribed?            |  | ✓ Yes      |
|                                      | If no provide details and rectify signs  | □ No       |
| Comments or details of action taken: |  |            |
| Signs are mounted level and          | suitably clear of travel lanes?  | Yes        |
|                                      | If no provide details and rectify signs  | □No        |
|                                      |  |            |
| Comments or details of action taken: |  |            |
| Has temporary delineation be         | en applied as prescribed, with permanent markings obliterated?   | □ Yes      |
|                                      | If no provide details of action required to rectify delineation  | ☑ No       |
| Comments or details of action taken: | NA   |            |
| Are registered trailers i.e. VM      | S / light towers; suitably clear of travel lanes and delineated?   | ✓Yes       |
|                                      | If no provide details and rectify location   | □ No       |
| Comments or details of action taken: | AVANCED HARCHING VMS X2 (BOBBINGA SOUTI<br>X2 VMS AT GATÉ 2 (GARATHERA LAN<br>RAS BOARDS GATE 2 (GARATHERA LAN | H).<br>VE) |
| Are temporary speed zones of         |  | Yes        |
|                                      | If no provide details and discuss with work supervisor   | □ No       |
| Comments or details of action taken: | ESTOPS - GORN<br>SPEED REDUCTIONS 80RN   |            |
| Are PTCD positioned as pres          | cribed in TGS?   | ∠ Yes      |
|                                      | If no provide details of action required to rectify  | □ No       |
| Comments or details of action taken: |  |            |

| Site Inspection                                |   |       |
|--|---|-------|
| Are manual traffic controllers clear of travel | lane, have suitable escape route?                   | ☐ Yes |
|  | If no provide details of action required to rectify | □ No  |
| Comments or details<br>of action taken:        |   |       |
| Are site accesses and egresses well defined    | and safe for work vehicles?                         | ∠ Yes |
|  | If no provide details of action required to rectify | □ No  |
| Comments or details of action taken:           |   |       |
| Termination signs are suitably located? i.e. I | O downstream of last activity.                      | Yes   |
|  | If no provide details of action required to rectify | □ No  |
| Comments or details of action taken:           |   |       |

| ost site inspection confirm            |   |  |
|--|---|--|
| worksite layout operating sa           | fely as intended?   | ∠ Ye   |
|  | If no provide details and implement controls to rectify                           | □ No   |
| Comments or details of action taken    |   |  |
| as TMP identified and address          | sed key TTM risks?  | <b>∠</b> Ye  |
|  | If no provide details and implement controls to rectify                           | □ No   |
| Comments or details of action taken    |   |  |
| ave key TTM risks been addre           | essed on site?  |  |
|  | If no provide details of additional hazards and controls required                 | ☐ Ye   |
| Comments or details<br>of action taken |   |  |
| ave copies of Shift Inspection         | s been sighted as completed as required?  |  |
|  | If no provide details and discuss with nominated rep completing Shift Inspections | <ul><li>✓ Yes</li><li>☐ No</li><li>☐ N/A</li></ul> |
| Comments or details of action taken    |   |  |
| ditional comments:                     |   |  |
|  |   |  |

| l Manual – Traffic contro |  |  |
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|                           |  |  |
|                           |  |  |

| Completed by:                        |   |  |                           |               |
|--------------------------------------|---|--|---------------------------|---------------|
| Name: KoxINA                         |   | Signature:                             | Ande                      | 5             |
| TMP Reference:                       | lwhi HWY  | TGS Reference:                         |                           |               |
| Date: 19-10-2                        | 012   | Inspection type                        | ☐ Pre-opening             | Weekly        |
| Desktop review                       |   |  |                           |               |
| Is a copy of the location TMI        |   | illable?<br>ection must not be underta | ken until documents are   | ☐ Yes ☐ No    |
| Details of TMP and TGS:              | 29671REV3<br>29758<br>30710REV3<br>32470REV1<br>1021-0685 | 3/139REV1<br>2021-157                  |                           |               |
| Are the location TMP and re          | evant TGS approved?                                       | If no, work must be stopp              | ped until documents are   | approved □ No |
| Comments or details of action taken: |   |  |                           |               |
| Site Inspection                      |   |  |                           |               |
| Inspection completed:                | □ During the day  | ☐During the night                      |                           |               |
| Signs and devices positione          | d as prescribed and co                                    |  | o provide details and rec | etify signs   |
| Comments or details of action taken: |   |  |                           | j             |

| Site Inspection                      |   |
|--------------------------------------|---|
| Sign sizes as prescribed?            | ☑ Yes   |
|                                      | If no provide details and rectify signs   |
| Comments or details of action taken: |   |
| Signs are mounted level and          | suitably clear of travel lanes?   |
|                                      | If no provide details and rectify signs ☐ No  |
| Comments or details of action taken: |   |
| Has temporary delineation be         | en applied as prescribed, with permanent markings obliterated?  If no provide details of action required to rectify delineation  No |
| Comments or details of action taken: | NA  |
| Are registered trailers i.e. VM      | S / light towers; suitably clear of travel lanes and delineated?  Yes  If no provide details and rectify location                   |
| Comments or details of action taken: | AVANULO WHENING VMS BOARDS (BOBBINIA) & GARATHERA LANG  |
| Are temporary speed zones o          | perating as prescribed?   |
|                                      | If no provide details and discuss with work supervisor  |
| Comments or details of action taken: |   |
| Are PTCD positioned as preso         | ☐ Yes   |
| Comments or details of action taken: | CREN'S ON STAND BY DUE TO WEATHER.  |

| Site Inspection                               |   |       |
|---|---|-------|
| Are manual traffic controllers clear of trave | l lane, have suitable escape route?                 | Yes   |
|   | If no provide details of action required to rectify | □ No  |
| Comments or details of action taken:          |   |       |
| Are site accesses and egresses well define    | d and safe for work vehicles?                       | Yes   |
|   | If no provide details of action required to rectify | □No   |
| Comments or details of action taken:          |   |       |
| Termination signs are suitably located? i.e.  | D downstream of last activity.                      | ∠ Yes |
|   | If no provide details of action required to rectify | □ No  |
| Comments or details of action taken:          |   |       |
|   |   |       |

| Post site inspection confirma   | tion  |           |
|---|---|-----------|
| Is worksite layout operating safe                                       | ely as intended?  | ☑ Yes     |
|   | If no provide details and implement controls to rectify                           | □ No      |
| Comments or details of action taken:                                    |   |           |
| Has TMP identified and addresse   | ed key TTM risks?   | Yes       |
|   | If no provide details and implement controls to rectify                           | □ No      |
| Comments or details of action taken:                                    |   |           |
| Have key TTM risks been addres  | sed on site?  If no provide details of additional hazards and controls required   | ✓ Yes     |
| Comments or details of action taken:                                    |   |           |
| Have copies of Shift Inspections  | been sighted as completed as required?  |           |
|   | If no provide details and discuss with nominated rep completing Shift Inspections | ☐ No☐ N/A |
| Comments or details of action taken:                                    |   | **        |
| of action taken:  Have copies of Shift Inspections  Comments or details |   |           |

#### Additional comments:

- DUE TO WEATHER CONDITIONS, ESTOP SETUPS WEEL ON HOLD.

DUE TO WEATHER (RAIN) SPEED REDUCTIONS (CANCEUED).

- LATER ON DURING THE MOOCNING AN HNY WORKS WERE CANCEUED.

- GASE 14, LEVEL CROSSING REMAIN OPEN FOR BALLAST TRAIN.....

-LX3665 GASTE 15- ADD 6, REMAINS OFFN FOR TAMPING & BANLAST TRAIN. SPOTTHES USED ON LEVEL CROSSING FOR THESE NORES.

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| Completed by:       |                               |   |                                      |                                   |               |
|---------------------|-------------------------------|---|--------------------------------------|-----------------------------------|---------------|
| Name: Ko            | eina h                        | IKAIRK  | Signature:                           | Elfo-                             |               |
| TMP<br>Reference:   | 2NS/NEW                       | the Half  | TGS Reference:                       |                                   |               |
| Date: 26            | -10-202                       | 2 、   | Inspection type                      | ☐ Pre-opening ☐                   | Weekly        |
| Desktop review      |                               |   |                                      |                                   |               |
| Is a copy of the lo | cation TMP                    | and relevant TGS ava  | ilable?                              |                                   | ✓ Yes         |
|                     |                               | If no inspe   | ction must not be underta            | ken until documents are obtained  | □ No          |
| Details of TMP an   |                               | 29671 NEV3 29758 30210KEV3. 2021-0685 29758 KEV 1 evant TGS approved? | 31139 REVZ<br>*28739 M<br>-(SWEERER) | BILE WORKS                        |               |
| Are the location    | TMP and rele                  | evant TGS approved?   | If no, work must be stopp            | ed until documents are approved   | ☑ Yes<br>□ No |
|                     | ts or details<br>ction taken: |   |                                      |                                   |               |
| Site Inspection     |                               |   |                                      |                                   |               |
| Inspection compl    | eted:                         | ✓ During the day  | ☐During the night                    |                                   |               |
| Signs and device    | s positioned                  | as prescribed and co  | mmanding attention?                  | provide details and rectify signs | ✓ Yes         |
|                     | ts or details<br>ction taken: |   |                                      | 5                                 |               |

| Site Inspection                      |  |             |
|--------------------------------------|--|-------------|
| Sign sizes as prescribed?            |  |             |
|                                      | If no provide details and rectify signs  | ∠ Yes  □ No |
| Comments or details of action taken: |  |             |
| Signs are mounted level and          | suitably clear of travel lanes?  | [ZVoo       |
|                                      | If no provide details and rectify signs  | ✓ Yes  □ No |
| Comments or details of action taken: |  |             |
| Has temporary delineation be         | een applied as prescribed, with permanent markings obliterated?  If no provide details of action required to rectify delineation | □ Yes       |
|                                      | in no provide details of dollor required to restry defined and   | □ NO        |
| Comments or details of action taken: | NA   |             |
| Are registered trailers i.e. VM      | S / light towers; suitably clear of travel lanes and delineated?  If no provide details and rectify location                     | ✓ Yes       |
| Comments or details of action taken: | AVANCED NARNING UMS BOMEDS, BOBBINAR<br>GMATHENA LANGE RAS BOARDS AT GATE 2  | € .         |
| Are temporary speed zones            | operating as prescribed?  If no provide details and discuss with work supervisor   | ☐ Yes       |
| Comments or details of action taken: | SORN SPEED REDUCTION GORN SPEED R  | EDUCTES     |
| Are PTCD positioned as pres          | cribed in TGS?   | Yes         |
| A - 10 / 14 - 10 / 14 M              | If no provide details of action required to rectify  | □ No        |
| Comments or details of action taken: |  |             |

| Site Inspection                                |   |       |
|--|---|-------|
| Are manual traffic controllers clear of travel | lane, have suitable escape route?                   | ✓ Yes |
|  | If no provide details of action required to rectify | □ No  |
| Comments or details of action taken:           |   |       |
| Are site accesses and egresses well defined    | and safe for work vehicles?                         | Yes   |
|  | If no provide details of action required to rectify | □No   |
| Comments or details of action taken:           |   |       |
| Termination signs are suitably located? i.e. I | O downstream of last activity.                      | Yes   |
|  | If no provide details of action required to rectify | □ No  |
| Comments or details of action taken:           |   |       |
|  |   | *     |

| Comments or details of action taken:          | If no provide details and implement controls to rectify             | ☐ No   |
|---|---|--------|
|   | If no provide details and implement controls to rectify             | ☐ No   |
|   |   |        |
| of action taken:                              |   |        |
|   |   |        |
| Has TMP identified and addressed key TTM ri   | isks?   | ✓ Yes  |
|   | If no provide details and implement controls to rectify             | □ No   |
| Comments or details of action taken:          |   |        |
| Have key TTM risks been addressed on site?    |   | □ Yes  |
|   | If no provide details of additional hazards and controls required   | □ No   |
| Comments or details of action taken:          |   |        |
| Have copies of Shift Inspections been sighted | d as completed as required?   |        |
| If no provide d                               | letails and discuss with nominated rep completing Shift Inspections | Yes No |
| Comments or details of action taken:          | · · · · · · · · · · · · · · · · · · ·                               |        |
|   |   |        |
| dditional comments:                           |   |        |
|   |   |        |
|   |   |        |
|   |   |        |
|   |   |        |
|   |   |        |
|   |   |        |
|   |   |        |

- GATÉ 15- PADG - CANCELLED.

- GATÉ 4-3 - CANCELLED.

- GATÉ 6-3 - CANCELLED.

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