Gunlake Quarry Continuation Project (SSD-12469087)

Submissions Report

Prepared for Gunlake Quarries Pty Ltd
March 2022

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Gunlake Quarry Continuation Project (SSD-12469087)

Submissions Report

Report Number

J190263 RP#24

Client

Gunlake Quarries Pty Ltd

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Version

v1 Final

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14 March 2022

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14 March 2022

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1 Introduction

Gunlake Quarries Pty Ltd (Gunlake) operates a hard rock quarry (the 'Quarry') located at 715 Brayton Road, Marulan NSW. The Quarry is approximately 7 kilometres (km) north-west of Marulan in the Goulburn Mulwaree local government area.

Since receiving the Gunlake Quarry Extension Project approval in 2017 (SSD 7090, NSW Land and Environmental Court Approval 20017/108663), the tonnage of saleable product dispatched by the Quarry has steadily increased. With an infrastructure boom in the Greater Sydney region, Gunlake forecast that demand for products from the Quarry will continue to increase. It is proposed to increase the tonnage of saleable products dispatched from the Quarry in response to this increased demand. This is known as the Gunlake Quarry Continuation Project (the 'Continuation Project'). The Continuation Project operations would remain similar to the currently approved Extension Project operations, with proposed changes primarily relating to the increased rate of extraction, processing and transport.

Gunlake seeks a new development approval for the Continuation Project that allows:

- ongoing Quarry operations;
- a maximum of 375 inbound and 375 outbound daily truck movements with no more than 4.2 million tonnes per annum of saleable products transported from the site in any calendar year;
- 24-hours Quarry operations Monday to Saturday, except 6 pm Saturday to 2 am Monday (with maintenance permitted outside of these hours);
- an extraction depth of 546 metres (m) Australian Hight Datum (AHD); and
- a 30-year Quarry life (from the date of Continuation Project approval).

A summary of the key elements of the approved Extension Project compared to the proposed Continuation Project is provided in Table 1.1.

Table 1.1 Extension Project compared to the Continuation Project

Project element	Approved Extension Project	Proposed Continuation Project
Extraction method	Blasting and excavation.	Blasting and excavation.
Resource	Ignimbrite hard-rock.	Ignimbrite hard-rock.
Extraction	Quarry pit - pit depth of 572 m AHD.	Quarry pit - pit depth of 546 m AHD (ie 26 m deeper than for the Extension Project). No change to pit disturbance area.
Operations	Onsite rock processing, including crushing and screening.	Onsite rock processing, including crushing and screening.

Table 1.1 Extension Project compared to the Continuation Project

Project element	Approved Extension Project	Proposed Continuation Project
Saleable product transport	Transport of up to 2.6 million tonnes per annum of saleable products. Truck movements limited to: • a maximum of 295 inbound movements and 295 outbound movements, including no more than 38 outbound truck movements on the Secondary Transport Route, per working day; and • an average of 220 inbound movements and 220 outbound movements, including no more than 25 outbound movements on the Secondary Transport Route, per working day (averaged over the working days in each quarter).	Transport of up to 4.2 million tonnes per annum of saleable products. Truck movements limited to: • a maximum of 375 inbound movements and 375 outbound movements, including no more than 38 outbound laden movements on the Secondary Transport Route, per working day; and • an average of no more than 25 outbound movements on the Secondary Transport Route, per working day (averaged over the working days in each quarter).
General infrastructure	Offices, amenity buildings, processing plant and other minor infrastructure.	Offices, amenity buildings, processing plant and other minor infrastructure.
Management of wastes	Overburden is emplaced in designated emplacement areas. Receipt of up to 30,000 tonnes of cured concrete per calendar year for beneficial reuse/recycling. No other classified waste materials to be received on site.	Overburden is emplaced in designated emplacement areas. Receipt of up to 50,000 tonnes of cured concrete per calendar year for beneficial reuse/recycling. No other classified waste materials to be received on site.
Hours of operation	24-hours quarry operations Monday to Saturday, except 6 pm Saturday to 2 am Monday. Maintenance anytime (provided that the activity is not audible at any privately-owned residence).	24-hours quarry operations Monday to Saturday, except 6 pm Saturday to 2 am Monday. Maintenance anytime (provided that the activity is not audible at any privately-owned residence).
Blasting	Up to twice weekly.	Up to twice weekly.
Quarry life	To 30 June 2042.	Extension of the quarry life to 30 years from the date of approval.

The Environmental Impact Statement (EIS) for the Continuation Project was exhibited from 8 October to 4 November 2021. Public submissions in response to the exhibition of the EIS were lodged through the Major Projects Portal, and government agencies submissions were submitted directly to the Department of Planning, Industry and Environment (now, Department of Planning and Environment (DPE)).

On 5 November 2021, DPE requested the preparation of a report detailing responses to the issues raised in the submissions. This submissions report has been prepared by EMM Consulting Pty Limited (EMM) on behalf of Gunlake.

2 Analysis of submissions

2.1 Breakdown of submissions

A total of 67 submissions were received, comprising:

- eleven agencies:
  - Goulburn Mulwaree Council (Council);
  - Department of Planning, Industry and Environment – Biodiversity and Conservation Division (BCD);
  - Department of Planning, Industry and Environment – Crown Lands (Crown Lands);
  - Environment Protection Authority (EPA);
  - Department of Primary Industries (DPI) – Agricultural Land Use Planning;
  - Geological Survey of NSW – Mining, Exploration and Geoscience (MEG);
  - Department of Premier and Cabinet – Heritage NSW;
  - Regional NSW – NSW Resources Regulator;
  - WaterNSW;
  - Transport for NSW (TfNSW); and
  - Department of Planning, Industry and Environment: Water (DPE Water).
- ten organisations:
  - the Marulan Region Chamber of Commerce;
  - Goulburn and District Education Foundation;
  - three suppliers (Camsons Pty Ltd, Days Industrial, and Hollingworth Crane Hiring Service Pty Ltd);
  - four transportation providers (Veljohn Pty Ltd, Bedrock Quarry Products and Bulk Transport, Multiquip aggregates, and Marulan Truck and Bus Pty Ltd); and
  - Twynam Investments.
- 46 community members (47 submissions were recorded on the DPE website, but there was one duplication);
  - 26 from the local area (12 submissions from Brayton, 10 from Marulan, three from Greenwich Park and one from Carrick);
  - 11 from the regional area (two from Berrima, two from Goulburn, and one respectively from Towrang, Tallong, Bungonia, Fitzroy Falls, Mittagong, Moss Vale and Big Hill); and

- nine from the broader community (two from Bolwarra and one respectively from Cremorne, Cronulla, Sandy Point, Paddington, Mosman, Neutral Bay and Telarah).

The number of submissions that provided support, opposition or comment on the proposal is outlined in Table 2.1.

Table 2.1 Number of submissions in support or objection to the proposal

Submitter type	Support/no objection	Objections	Comment	Total number of submissions
Agencies	2	0	9	11
Organisations	9	1	0	10
Public	13	31	2	46
Total	**24**	**32**	**11**	**67**

2.2 Categorised issues

The issues raised in each submission have been categorised in accordance with the *State Significant Development Guidelines – Preparing a Submissions Report* (DPIE 2021a), with sub-categories provided where relevant. The numbers of submissions raised within each category are summarised in Table 2.2, while the issues raised in each individual submission are provided in Appendix A.

As required by the guidelines, this submissions report addresses each matter based on the categories. Submitters, including government agencies, can determine where their comments are addressed with reference to the table in Appendix A.

Table 2.2 Submissions summary

Category	Agencies	Organisations	Public	Total submissions	Section addressed
No comment/no objection	3	0	0	**3**	4.1
The project					4.2
• Project clarifications	2	0	1	**3**	4.2.1
• Road upgrades	2	0	2	**4**	4.2.2
• Road condition and maintenance	2	1	7	**10**	4.2.3
• Wastewater management system	1	0	0	**1**	4.2.4
Procedural matters					4.3
• Consultation	1	0	6	**7**	4.3.1
• Land ownership	1	0	0	**1**	4.3.2
• Licences and approvals	3	0	0	**3**	4.3.3
• Independent reviews	1	0	4	**5**	4.3.4
• EIS assessment	2	0	4	**6**	4.3.5
• Management plans	3	0	0	**3**	4.3.6

Table 2.2 Submissions summary

Category	Agencies	Organisations	Public	Total submissions	Section addressed
• Conditions of consent/approval	3	0	1	**4**	4.3.7
Impacts					
• Traffic	0	0	9	**9**	4.4.1
• Road safety	0	0	15	**15**	4.4.2
• Amenity	0	1	7	**8**	4.4.3
• Socio-economic	0	8	16	**24**	4.4.4
• Water	1	0	0	**1**	4.4.5
• Biodiversity	3	0	2	**5**	4.4.6
Justification and evaluation					4.5
• Against plans, policies or guidelines	0	0	6	**6**	4.5.1
• Alternative transport feasibility	1	0	28	**29**	4.5.2
• Continuation Project is not justified	0	0	2	**2**	4.5.3
• Continuation Project is justified	0	2	7	**9**	4.5.4
Matters beyond the scope of the project	0	0	1	**1**	4.6

3 Actions taken since exhibition

3.1 Consultation

3.1.1 Consultation following EIS exhibition

Gunlake has consulted with specific organisations in relation to submissions made on the Continuation Project EIS where clarification or further discussion was required. A summary of the consultation conducted is provided in Table 3.1.

Table 3.1 Continuation Project EIS submissions consultation

Organisation	Date	Summary
Goulburn Mulwaree Mayor, Councillors and Council Executive	15 November 2021	Briefing session on the Continuation Project following exhibition of the EIS.
Goulburn Mulwaree Council meeting	16 November 2021	Gunlake attended the Council meeting, where submissions on the Continuation Project EIS were discussed.
PBC Goulburn Bus Services – school bus provider	15 December 2021	Gunlake attended a site visit with the PBC Goulburn Bus Services to discuss school bus stop requirements.
Crown Lands	December 2021–February 2022	Telephone and email correspondence in relation to the application for tenure and purchase of land.
Department of Planning and Environment (DPE)	9 February 2022	Meeting to discuss the content of the transport options review.

3.1.2 Ongoing consultation

Gunlake has been actively engaging with the Quarry's stakeholders since 2008. Ongoing consultation methods include: the Gunlake Quarry Community Consultative Committee (CCC) which was established in 2013, the Gunlake website, community programs, newsletters, the community telephone line/email, and direct consultation with stakeholders. Gunlake employs a Community and Stakeholder Relations Manager for ongoing consultation activities. Consultation has continued during and post exhibition of the Continuation Project EIS.

The Gunlake Quarry CCC met on 26 November 2021, following exhibition of the EIS. During the meeting, the committee were informed that the Submissions Report was being prepared, with an anticipated completion date within the first quarter of 2022. There were no questions or comments raised regarding the submissions response process during the meeting.

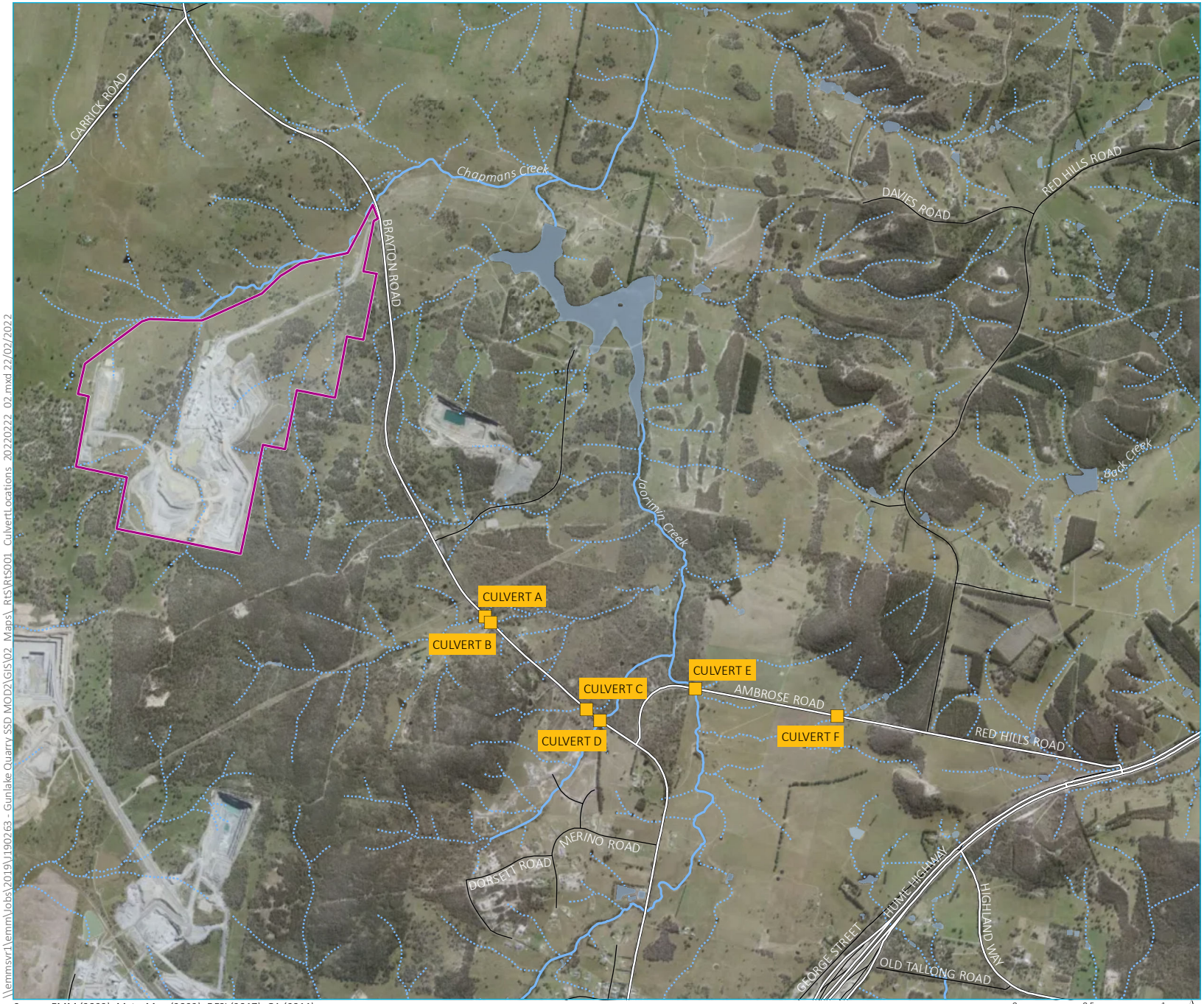
3.2 Additional mitigation measures

Gunlake has taken into consideration all of the submissions received in response to the public exhibition of the EIS.

Council requested that a consistent wide centre line treatment (WCLT) be implemented along the Primary Transport Route. The EIS identified that the current road design on the Primary Transport Route exceeds the requirements of the Austroads guidelines. However, there are some narrower sections across major culverts where the WCLT is not provided. Gunlake propose to increase the road-width across five (Culverts A to E) of the six culverts along the Primary Transport Route (Figure 3.1).

As the WCLT is about 1-m wide, the pavement across these culverts will need to be widened by about 1.2 m. The widening will be achieved by extending the road surface across the top of the existing culverts using pre-stressed precast concrete slabs with the road safety barrier fixed to the outer slab. Installation of the slabs will not disturb the watercourse or banks. Conceptual culvert widening plans are provided in Appendix B.

The culvert widening will allow the WCLT to be continued across each of these culverts, further increasing road safety.



\\emmsvr1\emm\Jobs\2019\190263 - Gunlake Quarry SSD MOD2\GIS\02 Maps\ RtS\RtS001 CulvertLocations 20220222 02.mxd 22/02/2022

Source: EMM (2022); MetroMap (2022); DFSI (2017); GA (2011)

Culvert locations

Gunlake Quarry Continuation Project
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Figure 3.1

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4 Response to submissions

4.1 No comment/no objection

Three agencies provided submissions noting no comment or no objection to the proposal:

- **NSW Resource Regulator** – no comment as the quarry product is not a scheduled mineral under the Mining Regulations.
- **DPI Agricultural Land Use Planning** – DPI considers that the Continuation Project will not have any significant impacts on agricultural land and accordingly has no objections to the Continuation Project.
- **Council** – Council does not object to the Continuation Project.

Council did comment on matters relating to the Primary Transport Route, operation of the Quarry and developer contributions, as outlined in Sections 4.2 and 4.3.

4.2 The project

The *State Significant Development Guidelines – Preparing a Submissions Report* (DPIE 2021a) identifies issues relating to "the site, the project area, the physical layout and design, key uses and activities, timing" as being in 'the project' category. Submissions grouped into this category relate to the project clarifications, road upgrades, road condition and maintenance and the wastewater management system.

4.2.1 Project clarifications

Two agencies (TfNSW and BCD) and one community member requested clarification on the project, relating to 'Area A', imagery and spatial data, traffic arrangements and traffic generation.

i Area A

Comment

BCD commented that Area 1 appears to be consistent with Area A in the original project approval for Gunlake Quarry granted in September 2008. It requested confirmation that Area 1 is the same location as Area A and noted that this area was slightly modified under Modification 2. BCD commented that the area has now been cleared and it has no record of this area being offset in the original approval as the area was to be irrigated and the overstorey vegetation was to be retained.

Response

Area 1 identified in Figure 3.1 of the EIS is not the same as Area A in the original project approval, although there is some overlap. The area was included in the biodiversity offsets for the original quarry approval. The Continuation Project has reincluded this area in the Continuation Project area to correct a previous error/oversight in the Extension Project application.

ii Imagery and spatial data

Comment

BCD made the following comments in relation to the Biodiversity Development Assessment Report (BDAR):

- the aerial imagery on the figures is not the most recent and should be updated; and
- the applicant must provide digital shape files of all spatial data used.

Response

It is not proposed to update the BDAR. However, additional biodiversity information is provided below.

Digital shape files prepared as part of preparation of the application will be provided to DPE and BCD.

iii Traffic arrangements

Comment

Community member submissions related to clarification on traffic arrangements were as follows:

- Why is Ambrose Road not used for all truck transport northbound (inbound), noting there is no reason for heavy vehicles to go through Marulan when travelling north (inbound) – the community member noted that trucks do not use the road exclusively for northbound (inbound) travel as they should.
- An explanation is requested as to why a right turn with merging lane isn't provided at the intersection of Ambrose/Red Hills Road/Hume Highway to avoid southbound (outbound) trucks passing through Marulan.

Response

The Quarry uses two transport routes, the Primary Transport Route and the Secondary Transport Route, both of which stipulate the use of Red Hills Road/Ambrose Road for all inbound (northbound) travel. No inbound trucks are permitted to travel through Marulan in accordance with the existing approval, *Gunlake Quarry Traffic Management Plan* (Gunlake Quarries 2021) and the associated Drivers Code of Conduct. As highlighted in the Drivers Code of Conduct, there are disciplinary procedures enforced for any non-conformances. This will not change as part of the Continuation Project. It is noted that heavy vehicle traffic travelling northbound through Marulan could be related to other companies and activities.

With regards to the intersection of Red Hills Road/Hume Highway[1], the Hume Highway is a TfNSW major arterial road. It would not be safe or practical to construct an at-grade intersection to allow traffic to turn right from Red Hills Road onto the southbound lane of the Hume Highway for a range of reasons including:

1. the existing arrangements are satisfactory and the level of service (A) of intersections along the Primary Transport Route would be unaffected by the Continuation Project;
2. right-turning traffic would have to cross traffic on the northbound lanes of the Hume Highway which is travelling at approximately 110 km/h;
3. due to the speed and type of road, a merging lane on the outside of the southbound lanes of the Hume Highway to accommodate right-turning traffic from Red Hills Road would need to be in the region of 1-km long, and would create conflicts with the intersection at Brayton Road to the south with associated road safety concerns;
4. TfNSW has invested in a large, complex intersection at Brayton Road, which is located approximately 3 km south of the Red Hills Road intersection and allows all turning movements; and

[1] Travelling east, Ambrose Road comes Red Hills Road at the intersection of these roads.

5. there are relatively low traffic volumes on Red Hills Road, making the upgrade economically unviable.

The Continuation Project does not propose to change the number of trucks approved to use the Secondary Transport Route (an average of 25 trucks per day and a maximum of 38 trucks per day, outbound movements only), which were first approved in 2009.

iv Traffic generation

The responses to TfNSW comments requesting clarifications on traffic generation for the Continuation Project are provided in Table 4.1.

Table 4.1 TfNSW traffic clarifications

Comment	Response
Item 1(a): Details on what measures will be implemented by the operator to ensure the most productive Performance Based Standards vehicles possible are used for the life of the development to meet the freight task and therefore minimising the total trips required for the freight task.	The transport routes are currently permitted for use by all vehicles up to 26 m in length (including rigid vehicles, truck and dogs, B-doubles and A-doubles). The trucks used to transport quarry products must meet the National Heavy Vehicle Regulator specifications for the use of 26-m B-Double transport routes. This will not change as part of the Continuation Project. The majority of quarry products are transported to Sydney. The round trip to one of the Gunlake Concrete plants is between 232 km and 322 km. There are currently substantial economic benefits, including reduced personnel, fuel and maintenance costs per tonne of product transported, to incentivise Gunlake to maximise the payload transported by each truck. The Extension Project has far higher truck pay loads imposed through the consent than other quarries. The Continuation Project does not propose to change this position.
Item 1(b): Details on the distribution of the traffic generated that will come from and be going to the north and south.	Section 2.3.1 of the Traffic Impact Assessment (TIA), provided in Appendix F.1 of the EIS, explains that trucks delivering Quarry products to markets to the north and returning from these destinations use the Primary Transport Route. The Secondary Transport Route is only used by outbound trucks travelling to markets south of the Quarry. The traffic generated is described in Table 2.1 of the TIA. In summary: • Up to 375 inbound movements and 375 outbound movements to and from the north per working day; • Up to 38 inbound and 38 outbound movements to and from the south per working day. No products are transported on local roads (including Brayton Road north of the quarry) except for deliveries to sites that are on local roads. This will not change as part of the Continuation Project.
Item 1(c): Details on how compliance with the maximum hourly numbers and maximum daily numbers will be achieved and will be able to be monitored as well as reported on.	Gunlake will continue to track compliance with maximum daily truck movements in the same manner as is currently conducted, which includes: • maintaining accurate records of all truck movements to and from the Quarry based on weighbridge records, with a summary published on the Gunlake Quarry website every 6 months; • continued implementation of the *Gunlake Quarry Traffic Management Plan* (Gunlake Quarries 2021); and • independent environmental audits conducted in accordance with the conditions of consent. The November 2019 *Gunlake Quarry Independent Environmental Audit* (International Environmental Consultants 2019) did not find any non-compliances related to truck movements and there have been no regulatory actions in this regard.

Table 4.1 TfNSW traffic clarifications

Comment	Response
Item 1(e): An explanation as to why with such a significant increase in truck movements, there is no proposed change to the maximum number of approved truck movements along the Secondary Transport Route.	Section 2 of the EIS describes the strategic context for the proposal and the need for the project. The Continuation Project is proposed to meet the increasing demand for construction material, particularly in Greater Sydney (see EIS Section 2.1.1). As such, the primary market for the increased demand for premium aggregates and civil products is to the north, which would not require increased movements along the Secondary Transport Route. The number of trucks that can use the Secondary Transport Route daily is specified in the Quarry's current consent and it is expected that a similar condition would be included in a consent for the Continuation Project.
Item 1(g): Details on the Drivers Code of Conduct and how it is managed/enforced including for drivers who are not employed by the proponent/quarry operator. TfNSW notes that the Environmental Impact Statement (EIS) in Section 6.1.3 details that the 'Truck Driver Code of Conduct' is provided in Appendix E. Appendix E from the information provided is a 'Mitigation measures table'.	The EIS details that the Drivers Code of Conduct is attached as Appendix E to the *Gunlake Quarry Traffic Management Plan*. This has since been updated (Gunlake 2021) and an updated Drivers Code of Conduct is available in Appendix B of the management plan. The management plan and Code of Conduct are available on the Gunlake Quarries website.

4.2.2 Road upgrades

Two agencies (Council and TfNSW) and two community members made submissions on road upgrades, relating to the Primary Transport Route, road rules, intersections, bridges and culverts, bus stop and upgrade commitments.

i Primary Transport Route

Comment

Council made the following submissions on the Primary Transport Route:

- An independent traffic consultant should be engaged to investigate any lighting and/or delineation upgrade at all intersections along the Primary Transport Route and if upgrades are warranted by the independent traffic consultant, then those upgrades are to be funded and installed by Gunlake.
- A structural assessment by an independent appropriately qualified engineering consultant of all bridges and culverts should be undertaken for proposed vehicles exceeding the current allowable load limit along the Primary Transport Route.
- Widening of bridges and culverts is required on the Primary Transport Route to allow a consistent wide centre line treatment to be implemented.
- Minimum 3-m trafficable clear zones should be installed for the full length of the Primary Haulage route – with the exception of bridges, culverts and other area agreed by the General Manager where it is impracticable to do so – and be constructed in line with Austroads guidelines for heavy vehicle use.
- The actions identified in the Road Safety Assessment Report for the Primary Transport Route should be implemented.

Two community members raised queries on road upgrades as follows:

- Gunlake have made alterations to Brayton Road, in the sense of pavement strengthening, but have excluded any provision such as widening or overtaking lanes to provide for the original rural traffic.

- Gunlake were required to do major upgrades to the Primary Transport Route.

Response

The Primary Transport Route was upgraded as part of the Extension Project. These road works were completed in 2018 and exceed the requirements of the Austroad Guidelines. These works included widening sections of the Primary Transport Route. Key elements of the upgrade of the Primary Transport Route included:

- the application of a 1-m wide centreline treatment (WCLT) to increase separation of opposing traffic streams;

- provision of wide sealed and unsealed shoulders that provide drivers the opportunity to recover a drifting or errant vehicle;

- provision of a minimum 3.0-m wide clear zone or safety barriers where this is not possible (eg over drainage lines) in accordance with Austroads Guidelines;

- installation of new and extended steel guardrail to prevent vehicles that have left the road hitting roadside hazards and/or traversing steep embankments and culvert headwall drop-offs;

- enhanced road delineation with guideposts, line marking, and retro-reflective pavement markers;

- upgrade of the Quarry Entrance intersection on Brayton Road to improve vehicle separation and downstream merge arrangements; and

- constructed roadside bus bays to permit public transport services (particularly school services) to move off the traffic lanes.

A review of the Primary Transport Route was completed for the Continuation Project as part of a Road Safety Audit conducted by the Australian Road Research Board (ARRB) (refer to Appendix F.2 of the EIS). ARRB has provided further advice in response to Council queries, which are provided in Appendix C and summarised below:

- **Delineation**: The Primary Transport Route currently has a good level of delineation, with centreline, edgeline, retro-reflective pavement markers, roadside guideposts, and barrier terminal chevrons all present. The *Gunlake Quarry Primary Transport Route Road Safety Audit* (provided as Appendix C of the Road Safety Assessment, EIS Appendix F.2) prepared in July 2021 identified that the existing delineation measures need further maintenance to ensure appropriate and consistent guidance in night and low visibility conditions. The road safety audit also recommended improvements to the delineation on approach to and at each of the road intersections. This includes maintenance remarking, replacing missing guideposts and replacing/installing additional chevron delineation on guardrail terminals. Enhancement of delineation at intersections is also suggested, and includes painting the concrete median islands at the Brayton/Ambrose Road intersection, installing advanced T-intersection warning signs, and extending the separation linemarking at the Hume Highway Red Hills Road junction. These are road inspection and maintenance issues. Gunlake regularly discuss the inspection and renewal program with the road authority, Goulburn Mulwaree Council and pays a tonnage-based contributions to Council in accordance with section 7.11 of the *Environmental Planning and Assessment Act 1979* (EP&A Act) to maintain and rehabilitate the Primary and Secondary Transport Routes (refer to Section 4.3.7). Further discussion is provided in Appendix C.

- **Lighting**: there is no streetlighting along the Primary Transport Route or at the three T-intersections along the route. The lack of lighting was not identified as a concern or a potential treatment to mitigate road safety risk along the Primary Transport Route by the Road Safety Audit. ARRB has further reviewed lighting along the Primary Transport Route with consideration of the Australian Standard for Lighting for Roads and Public spaces – Performance and Design Requirements (AS1158.1.1:2005). This review is presented in Appendix C. ARRB found that the intersections along the Primary Transport Route do not meet requirements for (a) Full Category V Lighting or (b) Partial Category V Lighting. The review also considered the potential benefit of (c) Flag Lighting. Flag lighting installations do not meet Category V lighting requirements of AS1158 but provide some level of alert to approaching drivers about the presence of the intersection. ARRB concluded that streetlighting to Category V standards would be out of character for the Primary Transport Route and that flag lighting would not provide a material improvement to address Council's stated concerns about safety. ARRB noted that AS1158.1.1:2005 reiterates the need to treat isolated intersections with 'retroreflective advance warning and guidance', which aligns with the road safety audit recommendations to improve and maintain delineation of the route, including at intersections.

- **Structural assessment for vehicles exceeding the allowable load limit**: The Primary and Secondary Transport Routes are gazetted as higher mass limit B-Double 25/26-m routes and suitable for use by all trucks of this size, including quarry trucks. The trucks used to transport quarry products will not change as a result of the Continuation Project and a structural assessment is not required.

- **Wide centre line treatment**: WCLT has been applied along the Primary Transport Route, with the exception of six culvert crossings (Culverts A to F) where it is currently not applied due to the narrow width of the road formation between the existing culvert headwalls, on the hill west to the Ambrose Road/Red Hills Road intersection and on the approaches to all intersections. Considering the increase in quarry traffic associated with the proposal, Gunlake proposed to extend the WCLT across five of the existing road culverts (Culverts A to E) is considered appropriate. This will require widening of the culverts and relocation of the road safety barrier (see Section 3.2). As explained in Appendix C, widening the road at Culvert F would require extensive engineering due to the physical constraints at this location. These works are considered impractical and cost prohibitive, and the scope of work required is disproportionate to the road safety risk of retaining the existing common centreline arrangement.

- **Minimum 3-m wide trafficable clear zones**: Previous upgrades of the Primary Transport Route provided minimum 3-m wide clear zones, except through deep cutting sections and across the road culvert or high fill embankments, where steel guardrail has been installed. This is considered to satisfy the requirements of the Austroads Guide. Further discussion is provided in Appendix C.

- **Road Safety Assessment Report actions**: The Road Safety Assessment Report (provided in Appendix F.2 of the EIS) recommended the following actions to improve road safety along the Primary Transport Route:

    - road-widening to accommodate an extension of the WCLT and the approved typical cross-section through locations adjacent to major culverts to provide a consistent road treatment;

    - T-intersection warning signage should be installed on each approach to Ambrose/Brayton Road and Ambrose/Red Hill Road intersections; and

    - an inspection and renewal program should be set to ensure the deterioration in surface condition, line marking, guideposts, and other delineation, etc. is identified and addressed in a timely manner.

    Gunlake agree that all actions identified in the report should be implemented, with the majority addressed through the inspection and maintenance program to be addressed by Council using section 7.11

contributions paid by Gunlake. As described above and in Section 3.2, Gunlake propose to widen Culverts A to E along the Primary Transport Route and to continue the WCLT across these culverts.

Gunlake will continue to engage Goulburn Mulwaree Council regarding warning signage and the inspection and maintenance program.

ii Road rules

Comment

Council commented that the speed limit for the Primary Transport Route should be reduced to 80 km/h for all vehicles. It is noted that the applicant, Council, the Gunlake Community Consultative Committee and the Local Member of Parliament have all previously endorsed and advocated for this outcome.

One community member commented that Gunlake have prevented overtaking on Brayton Road and propose to reduce the speed limit.

Response

Gunlake are not the road authority and do not have the ability to prevent overtaking or reduce the speed limit. However, Gunlake imposes a requirement for its drivers to adhere to an 80 km/h speed limit and as with Council, Gunlake supports a permanent reduction in speed limit along the Primary Transport Route to 80 km/h and continues to lobby TfNSW to achieve this outcome.

iii Intersections

a Red Hills Road and the Hume Highway

Comment

TfNSW requested an assessment of the impacts of the Continuation Project on the of Red Hills Road/Hume Highway intersection, including:

- the suitability of the existing deceleration lane for vehicles entering via Red Hills Road;
- the suitability of the existing acceleration lane for vehicles entering the Hume Highway from Red Hills Road;
- an assessment of the suitability of available lighting at the Red Hills Road/Hume Highway intersection; and
- measures that will be implemented to stop/prevent vehicles departing the Hume Highway via Red Hills Road cutting the corner and damaging existing infrastructure.

Response

ARRB has provided advice in response to the first three bullet points, which is provided in Appendix C. In summary:

- Based on an assessment against Austroads guidelines for heavy vehicles, the existing length of deceleration lane, as previously approved (see Appendix D) by Roads and Maritime Services (now Transport for NSW), is considered adequate.
- The acceleration lane is over 565-m long and the design was approved by the Roads and Maritime Services/TfNSW in 2018.

- There is currently 'flag' lighting installed with two luminaires (ie light fittings and the bulbs) located where Red Hills Road joins the Hume Highway. The level of lighting could be improved by replacing the existing lighting heads with LED lighting.

In response to TfNSW's comment regarding vehicles corner of the Hume Highway/Red Hills Road intersection, Gunlake notes that TfNSW has a responsibility to maintain, and if required improve, this intersection.

b Brayton Road and Ambrose Road

Comment

TfNSW commented that the Brayton Road/Ambrose Road intersection should be assessed to ensure it meets the relevant Austroads Guidelines.

Response

The Brayton Road/Ambrose Road intersection was included in the Road Safety Audit conducted by ARRB as part of the EIS (refer to Appendix F.2 of the EIS). As outlined in Appendix C, the intersection largely meets the relevant Austroads Guidelines in key areas of design and safe road performance. However, the audit found that there is no advanced intersection warning sign on either approach to the intersection with Ambrose Road and there is limited delineation of the traffic islands. Suggested corrective actions were:

- provision of side-road intersection signs on both approaches;
- painting the median islands with retroreflective white paint;
- managing roadside vegetation impacting lines of sight;
- altering the yield control from GIVE WAY to STOP; and
- renewing the line-marking approaching the intersection.

These are considered to be inspection and maintenance issues to be addressed by Council using the section 7.11 contributions paid by Gunlake. Further discussion is provided in Appendix C.

c Red Hills Road and Ambrose Road

Comment

TfNSW requested that the sight distance be reviewed for vehicles exiting the northern leg of the Red Hills Road/Ambrose Road intersection and if improvements are identified, they be implemented in accordance with Austroads Guidelines.

Response

The Red Hills Road/Ambrose Road intersection was included in the Road Safety Audit conducted by ARRB as part of the EIS (refer to Appendix F.2 of the EIS). The audit found that the line of sight is sub-optimal due to partial impediment by the guardrail and new growth of sapling trees. The following improvements to the intersection were recommended in the road safety audit:

- installation of intersection warning signs on the Ambrose Road and Red Hills Road (east) approach legs;
- trimming and maintaining roadside vegetation that impedes lines of sight;

- consideration to relocate the guardrail in the road shoulder further to the north; and
- improve maintenance of the linemarking and delineation on approach to and through the intersection.

These are considered to be inspection and maintenance issues to be addressed by Council using the section 7.11 contributions paid by Gunlake. Further discussion is provided in Appendix C.

iv School bus stop

Comment

Council recommended that Gunlake fund and install a school bus stop on the road reserve in a safe location outside Johnniefelds Quarry in accordance with TfNSW guidelines.

Response

Gunlake have consulted with the bus company responsible for school transport (PBC Goulburn Bus Services) to discuss the requirement for an additional bus stop. PBC advised that they are happy with the existing pull off bays provided by Gunlake along Brayton Road, which have been installed as part of the road upgrades to date. It was also noted that there is no requirement for a specific bus stop given that the children attending and therefore locations for collections and drop-offs alters on an ongoing basis.

v Upgrade commitment

Comment

Council noted that the applicant must complete all transport route upgrades to Council's satisfaction prior to the transportation of more than 220,000 tonnes per calendar month of quarry product from the site.

Response

Gunlake will commit to upgrading Culverts A to E prior to increasing the tonnage transported beyond the currently approved limit (2.6 million tonnes per annum).

4.2.3 Road condition and maintenance

Two agencies (Council and TfNSW), one organisation and seven community members commented on the road condition and maintenance.

i Pavement assessment

Comment

Council requested that a pavement assessment report by an independent geotechnical consultant be commissioned to investigate the integrity of the existing pavement and to determine if the pavement will achieve a 10-year pavement life with the projected heavy traffic volumes.

TfNSW requested an assessment of the need to upgrade the road pavement at the intersection of Red Hills Road/Hume Highway (eg, section that is current asphalt to concrete) noting that TfNSW has no current planned works in this area.

Response

A Pavement Structural Evaluation was conducted in October 2021 along the Primary Transport Route and the Secondary Transport Route by an independent consultant (Pavement Management Services) in accordance with

relevant local and international standards, using the methodology from the Austroads *Assessment of Remaining Service of Life of Pavements* (Austroads 2008). The assessment included evaluation of the roads under existing traffic volumes and under the Continuation Project traffic volumes. The assessment found that most of the pavement has a remaining life in excess of 20 years under existing traffic volumes. Under the increased traffic volume scenario of the Continuation Project, it was determined that the structural remaining life is at least 15 years. This assessment has been provided to Council and the full report is provided in Appendix E.

The road pavement at the Red Hills Road/Hume Highway intersection was upgraded by Gunlake as part of the Extension Project and is now under TfNSW responsibility. Gunlake's understanding of planned works in the area differs from TfNSW's submission, as it understands that Australian and NSW governments have provided $35 million to replace sections of the concrete pavement surface on the Hume Highway at Marulan: https://roads-waterways.transport.nsw.gov.au/projects/marulan-bypass/marulan-bypass-pavement-rehabilitation/index.html.

ii Ongoing maintenance

Comment

Three community members raised concerns that the transport routes are in need of regular maintenance and resealing due to potholes and breaking up of the road. The ability to service an increase in truck movements was queried, with a comment that the Continuation Project would increase damage and exacerbate the need for maintenance. One community member commented that increasing truck movements would increase vehicle damage from stones being kicked up from passing trucks. Another community submission noted that the Primary Transport Route had been assessed in relation to alignment, cross-section, markings, signage and geometry, but not for service of life or load bearing capacity and that no pavement assessment had been provided. A geotechnical investigation was requested to determine the ability of the road to withstand the number and type of proposed axle loadings. One organisation raised concern about increased road usage damaging to the roads.

One community member raised concern over the impact on the road infrastructure on the Primary Transport Route from the increase in traffic and noted that Goulburn Mulwaree Council, are held accountable for repairing the inevitable damage to the road. The quarry contributes significant amounts of money to Council, by way of their section 7.11 contributions, to ensure that the road is maintained without the Council having to divert funds from other rate payers to facilitate such work. The current repair schedule is not adequate to maintain the road appropriately so any additional traffic movements would require a review of such schedule.

Response

Gunlake pays section 7.11 contributions to Council to maintain and rehabilitate the Primary Transport Route and Secondary Transport Route, which includes maintaining the integrity of the pavement.

As with all road maintenance programs, the Council's maintenance program includes preventative long-term components to ensure the overall quality of the road is maintained and short-term reactive components to repair any damage that occurs. Regular maintenance removes the build-up of dirt and dust on the road surface and reduce the occurrence of stones being dislodged.

Gunlake's section 7.11 contributions are made on a tonnage/kilometre basis (see Section 4.3.7iii). So while the required road maintenance will increase as the number of trucks increases, so will Gunlake's payments to Council. The contributions will be approximately $1.3 million per annum (based on the 2020/21 rate and more when indexing is included) when the quarry is at full capacity.

Gunlake will continue to work with the Council and community to identify any areas requiring repair to inform the Council's maintenance program.

4.2.4 Wastewater management system

Comment

WaterNSW commented that if the proposal is approved, the current on-site wastewater management system will not have adequate capacity for the increased wastewater load generated by the increased Quarry workforce. WaterNSW requested that it be consulted in any review or upgrade of the current on-site wastewater management system.

Response

Should the Continuation Project be approved, Gunlake will re-design the wastewater management system to ensure it has adequate capacity for the Continuation Project workforce. Gunlake will consult with WaterNSW on this matter post-approval.

4.3 Procedural matters

The *State Significant Development Guidelines – Preparing a Submissions Report* (DPIE 2021a) identifies issues relating to "level or quality of engagement, compliance with the SEARs, identification of relevant statutory requirements" as being with the 'procedural matters' category. Submissions grouped into this category relate to consultation, land ownership, licences and approvals, independent reviews, EIS assessment, management plans and conditions of consent/approval.

4.3.1 Consultation

Comment

WaterNSW requested to be listed as a stakeholder in any further consultation on the project, including reviewing the Submissions Report and/or draft conditions of approval.

Six community members commented on consultation, summarised as follows:

- perceived insufficient consultation with, and consideration of, a "significant majority" of local residents;
- one community member was not aware of any community consultation and another noted that they live 3 km away from Gunlake and saw no announcement either publicly or private communication;
- no community meeting was held post-lodgement of the EIS due to COVID-19 restrictions;
- only five residents were interviewed for input into the Social Impact Assessment and the consultant that conducted the interviews was not local and had not personally visited the site;
- one representative was interviewed from eight community organisations/interest groups selected by Gunlake, many of which were considered to benefit financially from Gunlake;
- the letterbox drop was limited to residents along on the haulage routes;
- there was no consultation with future residents of Betley Park Estate; and
- the lack of input from community members during consultation was attributed to the potential feeling of fatigue due to the number of applications and modifications for the Quarry.

Response

As identified in Section 5 and Appendix D of the EIS, Gunlake undertakes ongoing consultation with the community and key agencies. Letterbox drops were targeted to the community members with the highest potential to be affected by the Continuation Project, namely residents that have been determined to be potentially sensitive receivers in the noise and air quality assessments and residents along the Primary Transport Route and the Secondary Transport Route.

The broader community was engaged through a variety of methods including online and print publications in the local media and via interviews.

The CCC was formed in accordance with the *Community Consultative Committee Guideline, State Significant Projects* (NSW Government 2019) which states that:

> The purpose of a Community Consultative Committee is to provide a forum for discussion between a proponent and representatives of the community, stakeholder groups and the local council on issues directly relating to a specific State significant project.
>
> …
>
> More specifically, the purpose of the committee is to:
>
> 1. establish good working relationships and promote information sharing between the proponent, local community, stakeholder groups and councils on individual State significant projects
>
> 2. allow the proponent to keep the community informed about projects, seek community views on projects, and respond to matters raised by the community
>
> 3. allow community members and local councils to seek information from the proponent and give the proponent feedback on the development and implementation of projects to assist with the delivery of balanced social, environmental and economic outcomes for the community, including:
>
>   - the development of new projects or proposed changes to approved projects
>   - the implementation of any conditions of approval and management plans
>   - the results of any monitoring, annual reviews or independent audits
>   - community concerns about the project
>   - the resolution of community complaints
>   - any community initiatives.

Accordingly, the CCC has been briefed though the application process and CCC members have provided community views of the project during the preparation of the EIS.

Community members can also contact Gunlake through the Community Liaison Contact Form on the Gunlake website (https://www.gunlake.com.au/quarry-community/), community telephone line (02 4841 1344) and community email address (community@gunlake.com.au).

Community members can sign-up to receive Gunlake community newsletters and blast notifications and community newsletters are also available on the website.

Gunlake employs a Community and Stakeholder Relations Manager for ongoing consultation activities.

Specific consultation for the proposed Continuation Project included:

- a letter to residents along the Primary Transport Route in October 2020;
- a factsheet on the proposed Continuation Project included in the December 2020 *Discover Marulan* community newsletter (2,000 printed copies and email distribution to 1,200 recipients);
- use of the community noticeboard in Marulan village centre;
- a community information session on 4 December 2020, covering both the Extension Project Modification 2 application and the Continuation Project, which was attended by five members of public;
- a newsletter update distributed via letterbox drop to residences along the Primary Transport Route and the Secondary Transport Route and included in the August 2021 *Discover Marulan* community newsletter;
- a letter requesting comment from Aboriginal Parties with registered interest in the project;
- meetings of the Gunlake Quarry CCC;
- interviews with a range of community members and organisations, comprising:
    - local residents and members of the CCC;
    - Marulan Rural Fire Brigade;
    - Marulan Chamber of Commerce;
    - Marulan Public School;
    - Marulan Country Women's Association;
    - the Historical Society;
    - the local police service;
    - Goulburn District Education Foundation; and
    - Mission Australia.
- briefing meeting with the Council Mayor, General Manager, and Director of Planning;
- meetings with key agencies, including Goulburn Mulwaree Council, NSW EPA, Department of Agriculture, Water and the Environment, TfNSW, NSW Police, State and Federal Members; and
- consultation via letter with government agencies in accordance with the SEARs.

A community information session was advertised for 27 August 2021 but had to be cancelled due to COVID-19 restrictions. Gunlake is committed to keeping the community and its employees safe and has therefore followed the advice of health authorities throughout the EIS process. This meant cancelling some in-person community sessions.

A community newsletter was prepared in October 2021 to coincide with the start of the public exhibition period in the absence of the planned community information session. The newsletter was distributed in the October 2021

Discover Marulan community newsletter. It provided an overview of the planning process, including the public exhibition dates and a summary of the impacts of the Continuation Project.

Gunlake understands the importance of utilising impartial and independent consultants to conduct interviews and for the Social Impact Assessment and therefore a non-local specialist conducted the interviews with community members.

4.3.2 Land ownership

One submission on land ownership was provided by Crown Lands.

Comment

There is Crown land within the quarry site (sections of former roads closed in 1911). Crown Lands note that Gunlake applied to close and purchase other Crown Roads within the development footprint in 2016, however the previously closed roads could not be incorporated as part of that request to close/purchase.

Crown Land recommend Gunlake apply to purchase the Crown land as soon as possible.

Response

Gunlake has commenced the application for tenure and purchase of the land through Crown Lands.

4.3.3 Licences and approvals

Three agencies commented on licences and approvals relating to Environment Protection License, the *Roads Act 1993* and water access license.

i Environment Protection License

Comment

EPA commented that if project approval is granted, Gunlake will need to separately apply for a licence variation to be able to import up to 50,000 tonnes of cured concrete waste per year (2,500 tonnes at any one time) and recommended that Gunlake provides details of the capacity and suitability of the quarry to receive and manage this waste and details of storage locations, tonnage verification and record keeping.

Response

Should the Continuation Project be approved, Gunlake will apply to vary the Quarry's Environment Protection Licence 13012. The additional required information will be provided in the licence variation application.

ii Approval under the *Roads Act 1993*

Comment

Council commented that detailed road work plans that outline the extent of works to be undertaken, including any supportive calculations, modelling, and geotechnical investigations, should be submitted to Council for approval under section 138 of the *Roads Act 1993*.

Response

Gunlake understands that approval under section 138 is required for works on a public road. The relevant information will be included in the section 138 application for the road works associated with widening the road at the culverts.

iii Water access licence

Comment

DPE Water commented that Gunlake will be required to source an additional 31 units of entitlement in the Goulburn Fractured Rock Groundwater Source to account for the predicted maximum groundwater take of 68 megalitres per year. Based on existing entitlement held in this water source, and the availability of entitlement via Controlled Allocations, a viable path exists to acquire the necessary entitlement. DPE Water recommend that, post approval, Gunlake should:

- ensure sufficient water entitlement is held in a water access licence/s to account for the maximum predicted take for each water source, prior to the 'water take' occurring;
- ensure that applications for water access licences proposed to account for water take by the project have been completed prior to the water take occurring; and
- be aware of the rules of the relevant water sharing plans and how they may impact the project and ability to trade water.

Response

Noted.

Gunlake will source appropriate water access licence/s for the Continuation Project. Gunlake has registered its interest to acquire the additional shares of groundwater from the Goulburn Fractured Rock Groundwater Source under the 2021 Controlled Allocation Order that closed on 30 November 2021.

4.3.4 Independent reviews

Comment

Council requested that DPE engage an independent consultant/professional to review the contents of the Noise Impact Assessment and Air Quality Impact Assessment that form part of the EIS to ensure is adequacy and to ensure that suitable conditions of consent are imposed. Council also noted that where Council requires a consultant to be engaged for the road upgrade comments, that the works be undertaken by an independent consultant funded by Gunlake to be approved by the Council's General Manager before the engagements commences.

Three community members requested that an independent review or assessment is conducted in relation to traffic and road safety for the project. One community member commented that the EIS does not appear to be independent.

Response

Consultants engaged by Gunlake are independent and assessments have been conducted with objective consideration of government guidelines, including Austroads and EPA air quality and noise assessment policies.

The assessments have been reviewed by a range of government agencies and the Council as part of preparing the submissions that this report addresses, which is a standard part of the NSW SSD assessment process. The air quality

and noise assessments were reviewed by the EPA, who did not raise concerns regarding the adequacy of the assessments.

The Continuation Project traffic impact assessment and road safety assessment (including road safety audit) were prepared by qualified independent professionals that have assessed a wide range of SSD projects in NSW. The road safety audit was led by David McTiernan, who is an International Road Assessment Programme Level 3 accredited auditor.

The Continuation Project will continue to use the Primary Transport Route which was upgraded as part of the Extension Project. DPE engaged an independent expert witness as part of the Extension Project Court proceedings, who agreed that the road upgrades conditioned as part of the Extension Project approval met Austroads guidelines for 1,000 to 3,000 vehicles per day. Council reviewed road upgrades provided as part of the Extension Project and approved them under section 138 of the Roads Act.

4.3.5 EIS assessment

Two agencies and four members of the community made submissions on the EIS assessment in relation to the groundwater assessment, BDAR, traffic impact assessment, road safety assessment, road traffic noise, air quality and the EIS main document.

i Groundwater Assessment

Two agencies (DPE Water and BCD) commented on the Continuation Project Groundwater Assessment (Appendix F.5 of the EIS).

Comment

DPE Water noted that predicted cumulative groundwater impacts are based on an analytic element groundwater flow model and categorised in accordance with the Australian groundwater modelling guidelines as a class 1 flow model. The NSW Aquifer Interference Policy Section 3.2.3 states where a development consent under Part 4, Division 4.1 of the *Environmental Planning and Assessment Act 1979* applies, the proponent's impact assessment is to be based on complex modelling platform that is:

(i) calibrated and validated (where practical) to the available baseline data that has been collected at an appropriate frequency and scale and over a sufficient period of time to incorporate typical temporal variations. In instances where an activity has a high likelihood of causing more than minimal harm to a "reliable water supply", at least 2 years of baseline data is required; and

(ii) consistent with the Australian Groundwater Modelling Guidelines; and

(iii) independently reviewed and determined to be robust and reliable, and deemed fit-for-purpose to the satisfaction of the Minister.

BCD made the following comments on the groundwater assessment for the Continuation Project:

- Four groundwater monitoring bores were used for calibration of the groundwater model, two of which are no longer functional and the remaining two are positioned in the middle of the quarry, which means there is no groundwater monitoring at the boundary of the Continuation Project or in the area where the greatest drawdown is expected to occur.

- There is a substantial difference in modelled groundwater heights before the quarry when compared to the groundwater assessment undertaken for the Holcim Lynwood Quarry. Holcim Lynwood Quarry predicted groundwater at a maximum height of ~655m AHD, whereas the Continuation Project predicts groundwater at a maximum height of ~685m AHD. Holcim Lynwood Quarry Groundwater Assessment also identifies a

geological dyke and several faults nearby which do not appear in the Continuation Project's Groundwater Assessment, despite both models covering much of the same area.

- Following completion of the Continuation Project, the final void is proposed to be left as is, with a 53-hectare footprint and a depth of approximately 100 m. This will likely continue to draw water from surrounding aquifers in perpetuity (ie act as a permanent groundwater 'sink').

- Clarification of why drawdown is not predicted to occur north of the quarry is required.

Recommendations were as follows:

- DPE Water recommend that the proponent:

  - **Post approval**: submit an independent review of the groundwater model to relevant Government agencies for review prior to implementing the Continuation Project.

  - **Within 5 years of project determination**: prepare a numerical groundwater flow model to improve the robustness of the impact predictions.

- BCD recommend that:

  - The groundwater assessment should utilise landholder bores near the boundary of the Continuation Project as well as bores at the nearby Holcim Lynwood Quarry.

  - Discrepancies between the Continuation Project model and the nearby Holcim Lynwood Quarry model need to be reconciled to demonstrate that the Continuation Project's Groundwater Assessment is scientifically rigorous and fit for purpose, including inclusion of the geological dyke, or justification as to why it was omitted.

  - The Continuation Project groundwater assessment should be revised to account for cumulative local impacts.

  - The proponent should provide clarification of the intention to obtain a new licence from unallocated water in the Groundwater Water Sharing Plan under the *Water Management Act 2000* that would enable continued extraction of 68 megalitres per year inflow at the end of the quarry's life.

Response

Since the submittal of the EIS, a site inspection on 25 January 2022 by Nathan Garvey, EMM Principal Ecologist, and John Ross, EMM National Technical Leader – Groundwater, and review of groundwater data has confirmed the following.

- A perched water table exists in the alluvium/colluvium located along the primary gully located south of the quarry. This localised system is disconnected by tens of metres from the regional groundwater system in the fractured rock aquifer and consequently will be unaffected by any drawdown in the fractured rock aquifer. A revised conceptualisation of the regional and local groundwater systems is shown in Figure 4.1 (Section A-A' orientated south-west to north-east) and Figure 4.2 (Section B-B' orientated north-west to south-east).

- Seepages across the landscape and in exposed quarry faces are ephemeral and only occur after rain. They are indications of a small percentage of rainfall infiltrating to the regional water table, or discharging in the landscape as interflow. They will be unaffected by any drawdown in the fractured rock aquifer.

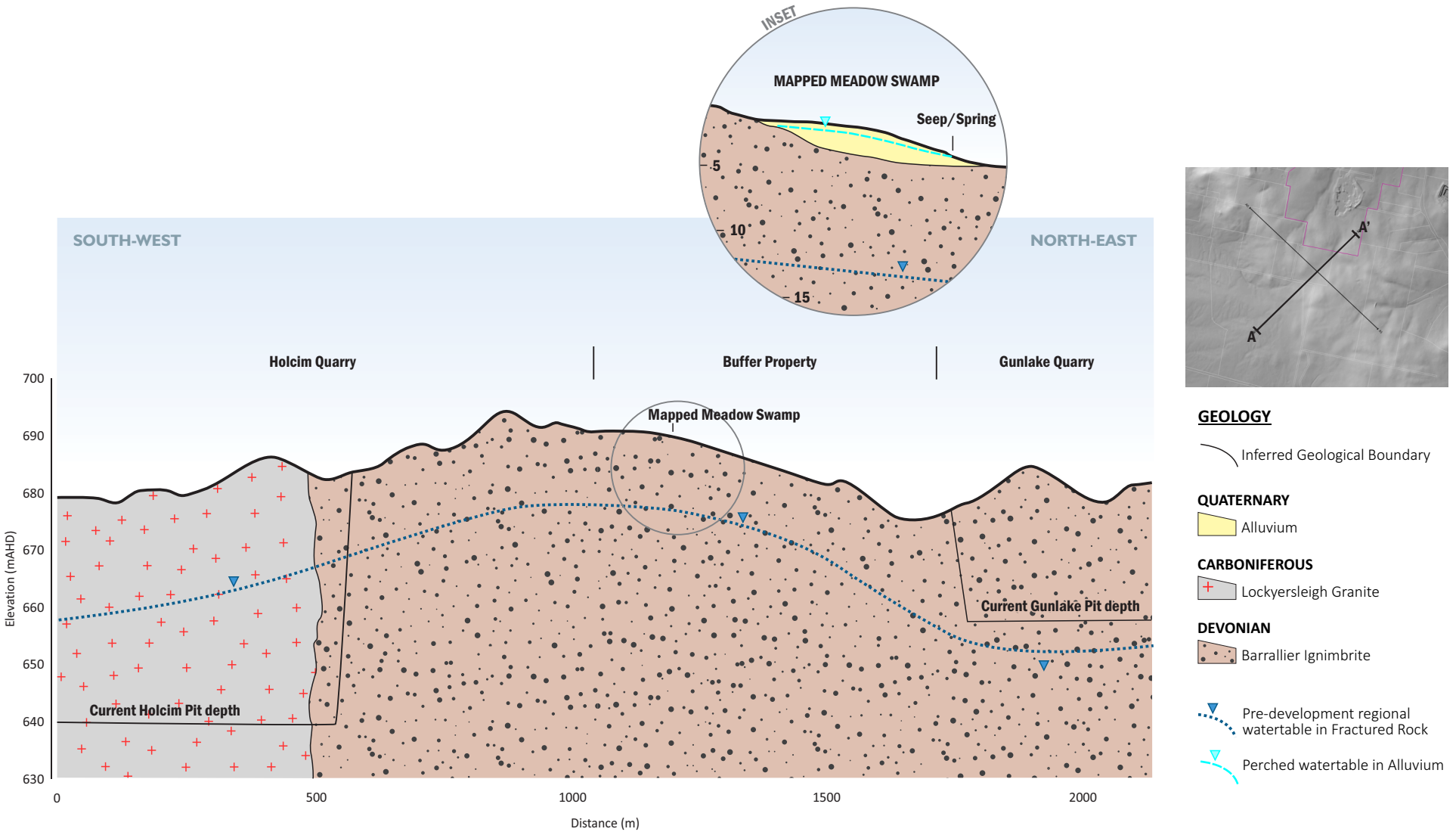
- No dykes are known within the quarry area. Dykes are most probably associated with the intrusion of the Lockyersleigh Granite located more than 1 km to the south-west and these dykes will have variable orientations, thicknesses and lengths. No dykes are shown on the published mapping for the area. Where present, the dykes weather to low-permeability clay horizons and are not conduits for regional groundwater flow. There is no justification for including them in any modelling as their distribution is unknown and they are unlikely to affect regional drawdown.

- Cumulative impacts between quarry operations are likely to be negligible given the different geologies and the low permeability of the fractured rock groundwater system. A revised appreciation of the pre-development water table and the indicative drawdown at the end of quarrying (for both the Holcim and Gunlake Quarries) in the fractured rock aquifer is provided in Figure 4.3 (section orientated south-west to north-east).

- There are only two registered water bores within 2.5 km of the quarry boundary. Two other water bores in the WaterNSW Realtime Water database are actually located in the Murrumbidgee catchment and have digitised locations that are wrong. There is negligible consumptive use of groundwater in the immediate vicinity of the quarry.

Gunlake will install additional monitoring bores to monitor the fractured rock water table at depth. Data from these additional sites is required to confirm the conceptual model (water levels, flow directions, recharge rates and water quality) before any additional modelling can be contemplated.

Gunlake has registered its interest to acquire additional groundwater shares from the Goulburn Fractured Rock Groundwater Source under the 2021 Controlled Allocation Order that closed on 30 November 2021.

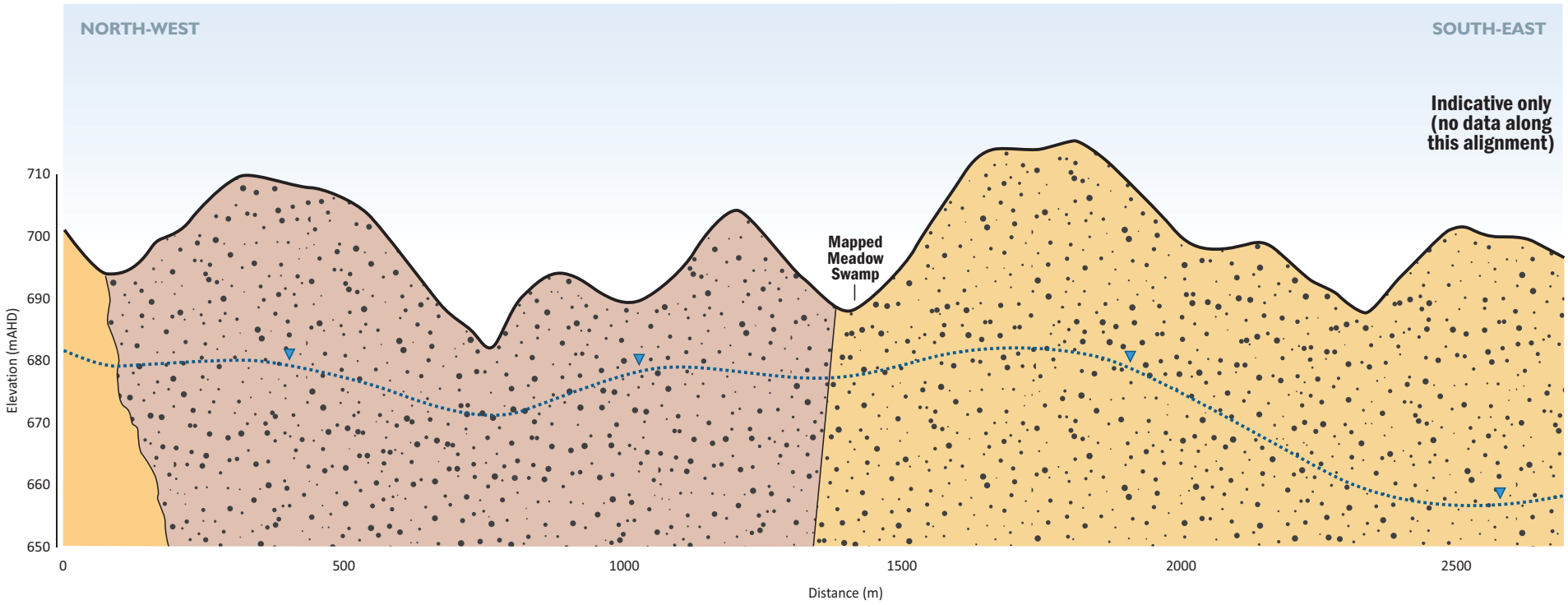


Regional geological section A–A'

Gunlake Quarry Continuation Project Submissions Report

Figure 4.1

EMM creating opportunities

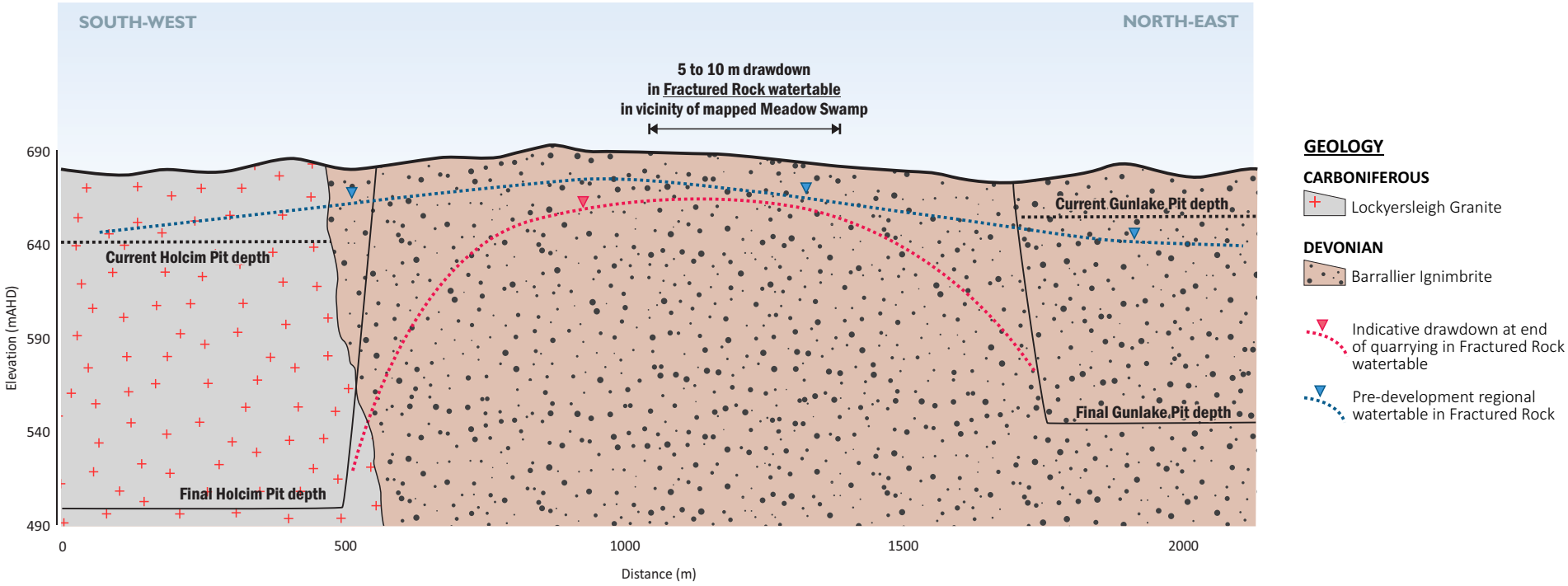


Regional geological section B–B'

Gunlake Quarry Continuation Project Submissions Report

Figure 4.2

EMM creating opportunities



Indicative drawdown of regional watertable at end of quarrying

Gunlake Quarry Continuation Project Submissions Report

Figure 4.3

EMM
creating opportunities

ii Biodiversity Development Assessment Report

The submissions made by BCD on the Biodiversity Development Assessment Report (BDAR) are summarised below.

a General

Comment

Full assessment under Chapter 4 and 5 of the Biodiversity Assessment Method (BAM) (DPIE 2020a) has not been undertaken because the BDAR claims that the Continuation Project 'will not result in direct surface impacts'. However, the prescribed impacts are not excluded from Stage 1 assessment. Therefore, several key components of the Stage 1 assessment are missing from the BDAR (outlined in further detail below).

Response

The BDAR format utilised has been accepted and endorsed by BCD and DPE on at least three other projects across three regions. Responses to specific aspects are provided in the sections below.

b Field survey and data collection

Comment

BCD commented that the BDAR states that assessment of threatened species is not required because:

- no field surveys are required for the Continuation Project because of the extensive field surveys previously undertaken across the Gunlake Quarry in 2008, 2014, 2016 and 2018; and
- there will not be any direct impacts to native vegetation or habitat for threatened species.

BCD notes that field surveys – including targeted species surveys for candidate species credit species – can only be included if data was collected in accordance with BAM 2020 and within the previous five years; as such, only the surveys undertaken in 2018 would be valid. Further, there have been no plots undertaken in the areas which may be impacted by the groundwater drawdown and therefore additional plots need to be surveyed in this area. All plot data need to be included in the BDAR and entered into the BAM Calculator to provide a baseline vegetation integrity score and credit output, which can be used as baseline values in the development of an adaptive management plan.

BCD commented that prescribed impacts can also be direct impacts, and the Stage 1 assessment requirements in BAM 2020 apply to prescribed impacts. BCD noted that the list of predicted threatened species should therefore be generated by entering BAM plot data into the BAM Calculator.

Response

The BAM Operational Manual - Stage 1 states "Surveys undertaken more than five years prior to the proposal lodgement date may be used to inform the assessment process but cannot be used in place of a species survey." No species surveys were undertaken. The data relied on relates primarily to plant community types (PCTs), and PCT mapping was verified across the broader Gunlake site during the review of the BioBanking agreement in 2018. It is highly unlikely that any substantive changes have occurred since 2018.

Entering of vegetation integrity scores into the BAM has not been required for other projects where only prescribed impacts due to changes in hydrology occur. Given the assessment looks at associations between groundwater levels and PCTs, plot data would be of little to no value. Based on EMM's extensive experience looking at groundwater dependent ecosystems, we believe that a better approach would be to develop a monitoring plan that looks at primary impacts (groundwater) and monitoring of secondary impacts (vegetation) in targeted areas (see Section 4.3.5iih).

Candidate species have been generated in accordance with Section 5.2.1 of the BAM. Plot data is not required to generate a list of predicted threatened species and the process used mirrors the BAM-C identically.

As outlined above, given there will be no direct impacts to native vegetation as a result of the Continuation Project, assessment of candidate species is not required. This is consistent with previous BDARs for prescribed impacts arising from groundwater drawdown and this approach has been endorsed for other projects by BCD and DPE.

c PCT1256 – Montane Peatland Swamps Endangered Ecological Community

Comment

BCD commented that the BDAR states that the area of PCT 1256 mapped within the prescribed impact area does not appear to support areas of Sphagnum moss and is more likely to consist of mesic vegetation including sedges and rushes. Sphagnum moss presence is highly variable in Montane Peatland Swamps and its absence does not necessarily preclude the PCT from being representative of the Montane Peatland Swamps Endangered Ecological Community. BAM plot data is required to determine if PCT 1256 meets the criteria for Montane Peatland Swamps.

Response

Figure 6.2 of the EIS shows an area of PCT 1256 'Tableland swamp meadow on impeded drainage sites of the western Sydney Basin Bioregion and South Eastern Highlands Bioregion' south of the Quarry based on publicly available regional mapping. This area was not surveyed during the preparation of the Continuation Project BDAR or earlier biodiversity surveys for Gunlake Quarry or the adjacent Lynwood Quarry.

Given BCD's comments, a supplementary field survey of the area mapped as PCT 1256 was undertaken on 25 January 2022. This survey included:

- a visual inspection of this area to review vegetation present, and condition;
- a plot undertaken in accordance with the BAM to collect data on species composition and structure; and
- digging of a borehole to assess groundwater conditions.

This field survey indicated that the vegetation at this location is dominated by exotic vegetation (see Photograph 4.1), with a cover of 77.5% for exotic species, compared to 17% for native species. The most dominant species is Yorkshire Fog (*Holucs lanatus*) over a cover score of 75%. Species, cover and abundance data is presented in Table 4.2 and the plot datasheet is provided in Appendix F.

Photograph 4.1 The area of PCT 1256 mapped south of the Gunlake Quarry, showing dominance of exotic vegetation

Table 4.2 Cover and abundance of all species recorded within the plot regionally mapped as PCT 1256

Scientific name	Common name	Native/exotic	Cover (%):	Abundance:
Acetosella vulgaris	Sheep Sorrel	Exotic	0.2	10
Carex spp.		Native	1	50
Cyperus eragrostis	Umbrella Sedge	Exotic	0.1	5
Epilobium billardierianum		Native	0.2	20
Eragrostis curvula	African Lovegrass	Exotic	0.5	25
Geranium solanderi	Native Geranium	Native	0.1	2
Gonocarpus spp.	Raspwort	Native	0.2	10
Holcus lanatus	Yorkshire Fog	Exotic	75	10000
Hypochaeris radicata	Catsear	Exotic	0.5	50
Juncus filicaulis		Native	0.1	5
Juncus usitatus		Native	10	1000
Modiola caroliniana	Red-flowered Mallow	Exotic	0.1	10
Oxalis exilis		Native	0.1	10
Paspalum distichum	Water Couch	Native	5	400
Plantago lanceolata	Lamb's Tongues	Exotic	0.1	5
Rumex brownii	Swamp Dock	Native	0.1	2
Rumex spp.	Dock	Native	0.2	10
Setaria parviflora		Exotic	1	75

The area mapped as PCT 1256 is located in a low-lying part of the landscape, typical of PCT 1256 and the Montane Peatlands and Swamps, and the borehole indicated presence of groundwater to 0.6 metres below ground level (mbgl). Historically, this area may have been a natural form of this plant community type and may have formed part of the EEC. The property is used for grazing and impacts arising from this agricultural use mean that the vegetation at this location can no longer be considered native.

The field survey has confirmed that the area is not PCT 1256 and is not part of the Montane Peatlands and Swamps endangered ecological community.

d Groundwater drawdown prescribed impact assessment

Comment

BCD commented that the BDAR states groundwater drawdown from the Continuation Project will impact only small portions of PCT 1256 (2.38 ha) and PCT 1330 (54.53 ha) at a local scale. However, scientific evidence for this conclusion is not provided and the following guidelines were not applied:

- *Method of the Identification of High Probability Groundwater Dependent Vegetation Ecosystems* (DPI Office of Water 2016);
- The *NSW Risk Assessment Guidelines for Groundwater Dependent Ecosystems* (GDE) (DPI Office of Water 2012).

The assessment of whether PCTs are GDEs should be undertaken using revised vegetation mapping in accordance with chapter 4 of BAM 2020 and habitat suitability assessment in accordance with chapter 5 of BAM 2020. The assessor should apply the 2016 GDE Guidelines, which provide a method to identify high probability GDEs that are phreatophytes.

BCD recommended that the BDAR:

- provide justification for the criteria used in Table 6.2 to infer the extent of groundwater dependency of PCTs;
- provide justification for the omission of Serious and Irreversible Impact species in Table 6.4 that have been assumed present;
- provide justification for setting the impact threshold for groundwater drawdown for PCT 1330 at >20 m, noting that a drawdown which does not exceed a groundwater level 20 metres below ground level could still result in impacts;
- consider the rate of drawdown because a rapid drop in the water table can cause severe stress and partial or complete mortality in large trees;
- consider drawdown beyond confining layers, as they could prevent communities from regaining access to groundwater after drawdown;
- consider that detection of impacts from groundwater drawdown may be difficult as the loss of species and changes in the vegetation community structure may have time lags of years to decades before becoming evident (Le Maitre et al, 1999); and
- provide a robust adaptive management plan to address the uncertainty in the nature and extent of the impact.

Response

The 2012 GDE Guidelines were used to identify and assess risks to GDEs. EMM has extensive experience in this area and is working with the NSW Government on revised guidelines due to this expertise.

The 2016 GDE identification guidelines were used to help develop broad-scale spatial models for the "identification and mapping of high probability GDEs". This method suffers from issues with scale and accuracy of groundwater models and regional vegetation mapping at these scales. Further, high probability GDEs (as determined using the method) do not indicate groundwater reliance or dependency, and the 2016 guidelines recommend this must be determined (See Section 6.1.4 of the 2016 guidelines). For this reason, more refined groundwater data and PCT data was used to look at reliance or dependency on groundwater and ascertain at the extent of drawdown that could impact on groundwater availability for GDEs.

EMM has reviewed the groundwater system conceptualisation in the vicinity of the area previously mapped as PCT 1256 based on the 25 January 2022 field inspection. The inspection indicated that the vegetation in this area is supported by a very localised perched groundwater system in the unconsolidated alluvium/colluvium that is mapped along the gully line. Shallow groundwater levels are at least 13 m and possibly 20 m above the regional water table at this location.

It is important to understand the differences between localised perched groundwater and regional groundwater in the fractured rock aquifer. At the Quarry:

- Perched groundwater is only present in the colluvium deposited within the swale area located south of the quarry on the adjoining property. This groundwater system is disconnected from the regional groundwater system at depth (see Figure 4.1). This shallow groundwater may have once supported native vegetation within the meadow swamp area; however, this area is now dominated by exotic species and is not considered remnant (see Section 4.3.5iic).

- The regional fractured rock aquifer is considered highly unlikely to support PCT 1330 vegetation.

The two groundwater systems (shallow perched aquifers and regional groundwater system) are not hydraulically connected and hence drawdown in the fractured rock aquifer as a result of quarry operations will not affect any localised perched groundwater or associated terrestrial vegetation (noting that PCT 1256 is not present).

PCT 1330 (Box Gum Woodland) is in the area below which drawdown of the fractured rock aquifer is predicted. There is no evidence of deep-rooted vegetation in the exposed quarry faces and PCT 1330 is mapped across a variety of groundwater depths. The extent of PCT 1330 is more likely to be driven by landscape features and soil composition than groundwater.

It is concluded that PCT 1330 will not be impacted by the predicted local drawdown in the regional water table.

Notwithstanding, it is proposed to install nested monitoring bores within PCT 1330 at a site outside the quarry boundary but within the predicted drawdown area to (i) confirm there is no shallow groundwater in the weathered zone that would support this community, and (ii) confirm the depth to regional groundwater in the fractured rock aquifer.

The nested monitoring bores will be used to inform an adaptive management approach. An adaptive management plan will be prepared post-approval. It will detail the actions that will be taken if monitored groundwater levels could result in impacts to PCT 1330.

e Road widening impacts

Comment

BCD commented that the Road Safety Assessment Report recommends widening along the Primary Transport Route. The BDAR does not address this road widening and needs to be amended to address any potential impacts on biodiversity.

Response

Road widening is proposed in five locations along the Primary Transport Route. As described in Section 3.2, the widening will be achieved by extending the road surface across the top of the existing culverts using pre-stresses precast concrete slabs. Installation of the slabs will not disturb the watercourse or banks.

As such, no impacts to native vegetation or species habitat will occur, and assessment under the BAM is not required.

f Vehicle strike

Comment

BCD commented that there will be a large number of trucks in and out of the site posing a strike threat to threatened woodland birds known to occur in the area, however, the BDAR does not include a prescribed impact assessment. It was noted that the BDAR states that prescribed impact assessment has not been undertaken for vehicle strike because "the traffic impact assessment identified that this will be a small percentage increase of existing traffic levels". However, BCD commented that an increase in vehicle movements of this magnitude requires a prescribed impact assessment for vehicle strikes in accordance with section 8.3.6 of BAM 2020.

Response

A vehicle strike assessment has been conducted and is provided in the discussion of impacts in Section 4.4.6.

g Serious and Irreversible impact

Comment

BCD commented that the BDAR states that a Serious and Irreversible Impact assessment is not required because there are no direct impacts. Serious and Irreversible Impact assessment against the four principles in clause 6.7 of the Biodiversity Conservation Regulation 2017 applies to all impacts to Serious and Irreversible Impact entities, irrespective of whether they are direct, indirect, uncertain or prescribed. We also note that fourteen Serious and Irreversible Impact entities are assumed present. Where presence is assumed, the assessor needs to provide a species polygon that delineates areas of suitable habitat (section 5.2.5 BAM, DPIE 2020a).

Response

Out of the species listed as Serious and Irreversible Impact species, the only species associated with PCT 1256 is Yellow Loosestrife. Yellow Loostrife is only known from limited locations such as Wingecarribee Swamp and considered highly unlikely to occur, particularly given the degraded nature of this area.

The purpose of a species polygon in the BAM is to calculate an offset liability. As offsets are not required, calculation of a species polygon is not required.

h Adaptive management plan

Comment

BCD commented that an adaptive management plan for uncertain impacts has not been provided, noting that:

- an adaptive management plan would provide vegetation integrity scores for each GDE that could be used as baseline to validate the BDAR's conclusions that groundwater drawdown presents a low risk to these communities; and
- if monitoring demonstrated that the integrity of the vegetation declines, Gunlake should be required to offset by calculating partial loss in vegetation integrity score in the BAM caluclator and retiring credits in accordance with section 8.6 of the BAM 2020.

Response

As a part of the approach to adaptive management,

If shallow groundwater is observed in the weathered zone that could support PCT 1330 and drawdown in this area is observed following extraction at the Quarry, further work to would be undertaken to assess impacts to native vegetation as part of an adaptive management approach. This could include monitoring of vegetation composition, structure, function and health. Given the time lag between a primary impact occurring (groundwater drawdown) and the consequent secondary impact (impacts to native vegetation), it is considered appropriate that the adaptive management plan is prepared in consultation with BCD following approval of the Continuation Project.

iii Traffic impact assessment (TIA)

a Interpretation of figures

Comment

One community member commented that Figures 5.8 and 5.9 in the TIA report are uninterpretable perhaps other than to road engineers and there is no table summary for current and future traffic volumes at, for example, 5- or 10-year intervals.

Response

Chapter 3 of the TIA presents current traffic volumes using schematic diagrams of the intersections being assessed and Chapter 5 of the TIA presents future traffic volumes using similar schematic diagrams. This is a standard technique for traffic assessments to enable all intersections being assessed to be shown in a one-page figure. The diagrams illustrate the predicted number of vehicles that would turn left/turn right/go straight ahead during the morning peak hour (red) and the evening peak hour (blue). The traffic volumes for 2051 are presented as these represent a worst-case scenario (ie it considers the background growth in local traffic over the full life of the Continuation Project).

Potential traffic impacts are in Section 6 of the TIA. Section 6.1 of the EIS provides a summary of the findings of the TIA.

b Operation of Johnniefelds Quarry

Comment

Two submissions noted that the TIA has references to Johnniefelds Quarry which has not been operating for several years and therefore it was recommended that references to this quarry, especially the claimed truck movements in Table 5.1, should be removed.

Response

Gunlake is aware that the Johnniefelds Quarry is not currently operational, however, the development approval for the quarry is still active and there is the potential for activities to re-commence at any time. Standard practice is to include any project with an active approval in the cumulative impact assessment, as this provides a conservative assessment of the total potential vehicles movements that are not associated with the application. Inclusion of potential traffic from Johnniefelds Quarry allows the worst-case scenario to be assessed. Should Johnniefelds Quarry not be operational throughout the Continuation Project, the cumulative traffic impacts will lower than assessed.

c Truck numbers

Comment

One community member commented that the total truck movements taken from data listed in the EMM Table 5.1 does not reflect actual maximum numbers that each extractive industry could generate. The submission noted that Marulan South Limestone Quarry Continuation Project is seeking to increase transport by road to 600,000 tonnes per annum and Gunlake Quarries is proposing to increase truck movements to 375 inbound and 375 outbound per day in this application.

Another community member commented that the *Gunlake Quarry Continuation Project Scoping Report* (EMM 2020) is in conflict with other documents such as the TIA, as it refers to an average of 345 truck movements each way, averaged over all working days of a calendar year. The Scoping Report also stated that there should be no cap on the tonnes of product transported by road per year.

Response

The proposed (now approved) increase to traffic for the Marulan South Limestone Quarry Continuation Project is included within the data presented in Table 5.1 of the TIA, which considers the proposed increase in transport to up to 600,000 tonnes per annum. The data was extracted from Table 5.3 of the Tra*ffic Impact Assessment for Continued Operations of Marulan South Limestone Mine* (Transport and Urban Planning 2019), which states a total of 218 heavy vehicle trips per day. The future traffic volumes assessment in Chapter 5 of the TIA considers the Continuation Project traffic (up to 375 inbound and 375 outbound per day).

The Scoping Report is not in conflict with the EIS documents. The Scoping Report describes an *average* of 345 truck movements each way and a *maximum* of 375 truck movements each way. This is consistent with the EIS and TIA, which describe a maximum of 375 truck movements each way. The average number of truck movements were not included in the EIS as the maximum worst-case scenario is assessed for conservativeness, so the average truck movements were not of relevance to the assessment. The proposed cap of 4.2 million tonnes per annum was determined during preparation of the EIS.

iv Road safety assessment

Comment

One community member commented that the Australian Road Research Board (ARRB) study of congestion problems is inadequate, with Level of Service only evaluated for light vehicles on Ambrose Road hill. In Appendix B of the Road Safety Assessment (Appendix F.2 of the EIS), the Austroads guidelines note that the significant 7 km road length of Brayton and Ambrose Roads should be evaluated with consideration of the percentage of slow vehicles, overtaking lanes, adjoining sections, etc. The submission noted that there should be overtaking/climbing lanes on Ambrose Road hill as well as on the inclines on Brayton Road.

Response

Ambrose Road was constructed by Gunlake as part of the original Quarry consent to provide an alternative access to the Hume Highway, minimising truck travel through Marulan. In the absence of the Quarry, all vehicles currently accessing the Hume Highway using Ambrose Road would have to use a longer route.

The overtaking lane assessment only applies to the 1.6 km hill on the westbound section of Ambrose Road. It does not apply to the whole of the Primary Transport Route.

The ARRB Road Safety Assessment found that:

> Slow moving heavy vehicles do have the potential to restrict light vehicle travel speeds along the uphill section of Ambrose Road. The proposed increase in heavy vehicle movements would increase the likelihood of light vehicles being 'held up' until heavy vehicles are able to return to the road operating speed east of the Red Hill Road intersection.
>
> However, the light vehicle volume is low and the travel time delay that would be experienced by light vehicle drivers is brief and occurs over a short length of the total journey along the Primary Transport Route; additionally, free flow conditions soon become available when joining the Hume Highway.
>
> The provision of a climbing lane is not supported since the travel time and road safety impact is considered low and the cost and environmental impacts to provide the climbing lane significant."

It is correct that these conclusions apply to non-Quarry heavy vehicles as well as light vehicles.

v Road traffic noise

Comment

One community member commented that the road traffic noise assessment relies on predictions based on the results of a road traffic noise compliance survey conducted in August 2020 at two locations on the Primary Transport Route, namely RT1 and RT2 (Figure 4.1 of the Noise impact assessment, Appendix F.3 of the EIS). The submitter noted that their residence was identified as 'representative of the nearest potentially affected receptors', however, noise monitoring that was conducted at their driveway in late 2020 has neither been taken into account nor reported on in this assessment. The community member raised that the noise levels already exceed the relevant criteria, due to the lack of recent results being provided in the noise impact assessment.

A community submission also noted that the EIS states that a residential subdivision was not considered in the noise impact assessment.

Response

Road noise monitoring was undertaken in November 2020 and was an input into the noise modelling for the Continuation Project assessment. This is referenced in the executive summary and in Section 6.1 of the Noise Impact Assessment (Appendix F.3 of the EIS), which states:

> the proposed increase to existing, approved Gunlake Quarry traffic volumes on the Primary Transport Route have been considered based on the results of the road traffic noise compliance monitoring (refer Section 3) as well as the results of additional road traffic noise monitoring undertaken by EMM in November 2020. The nearest residential facades potentially affected by the proposed increase in traffic are located on Brayton Road (west of Ambrose/Red Hills Road) and on Ambrose/Red Hills Road.

With regards to the residential subdivision, the road traffic noise impact assessment was conducted in accordance with the NSW *Road Noise Policy* (DECCW 2011), which provides criteria for existing residences. As noted in the

Noise Impact Assessment, no residential dwellings within the residential subdivision off Corriedale Drive had been completed at the time of preparing the report and no development applications have been made for lots close to the Primary Transport Route. However, the noise impact assessment did review the potential impacts for future residences and notes that impacts would be comparable to assessment locations R14 and R15 and therefore no exceedance of criteria is predicted.

vi Air quality

Comment

One community member commented that there has been no monitoring or collection of data in relation to dust deposition or blasting on their property, which is located less than 2 km to the south-east of the Gunlake Quarry pit. The submitter understood that the Continuation Project is seeking to expand the pit in the direction of their residence, which they believe will be subjected to increased levels of dust depositions, including a cumulative impact from Holcim Lynwood Quarry operations.

Response

It is not proposed to extend the lateral extent of the pit as part of the Continuation Project.

It is not possible to monitor at all receiver locations and therefore monitoring is conducted at representative locations based on meteorology, climate and the surrounding environment.

Cumulative air quality impacts were assessed, taking into consideration predictions of impacts from neighbouring quarries.

While the nearest sensitive receptors which are most likely to be affected are specifically assessed, the air quality monitoring also predicts air pollutant concentrations over a 13 km by 13 km area. The air quality assessment predicted no exceedance of any applicable criteria at any neighbouring assessment locations.

vii Environmental impact statement

Comment

One community member commented that Table 5.1 of the EIS (Potential impacts, benefits and opportunities identified by the community) is apparently based on interviews and previous development applications and states that the community in the past “has not proposed rail transport”, which the submitter identified as being a false statement. The submitted noted that a number of local residents have been involved in previous applications for Gunlake Quarry and have submitted requests for Gunlake to utilise rail. The submission challenged the EIS certification that “the information herein is neither false nor misleading”.

Response

There has been a misinterpretation from the submitter on this aspect. Table 5.1 of the EIS is highlighting aspects that have been raised by the community during consultation for the proposal. The EIS correctly identifies a community concern that “rail transport has not been proposed” as part of the Continuation Project. This item is under the ‘impacts’ column in the table identifying potential impacts, benefits and opportunities identified by the community. Additional information on the assessment of transport options is provided in Section 4.5.2.

4.3.6 Management plans

Comment

Three agencies commented on management plan requirements, as follows:

- Heritage NSW does not require any additional Aboriginal cultural heritage assessment, however, the current Heritage Management Plan must be updated to include the additional areas in the Continuation Project footprint, should the Project be approved.

- The EPA supports the proposal that voluntary acquisition rights continue to apply at residential receiver 'R2'. The EPA also supports the updating of the *Gunlake Quarry Noise and Blast Management Plan*, should the Project be approved. The EPA also stressed the importance of updating and maintaining adequate Air Quality and Water Quality Management Plans.

- DPE Water commented that the Soil and Water Management Plan will need to be updated. Recommended updates, in consultation with DPE Water, include:

    - refinement to reflect monitoring, metering and management measures to report on groundwater and surface water take and potential impacts to water sources for the Continuation Project;

    - inclusion of the outcome of a water census, which should be undertaken for registered users within 2 km of the quarry; and

    - revision of the monitoring program to include registered bores within 2 km, inclusive of the 'make good' provision.

Response

The Heritage, Air Quality, and Soil and Water management plans will all be updated upon approval of the Continuation Project.

The *Soil and Water Management Plan* will be updated to include the additional monitoring bores completed within the immediate vicinity of the quarry plus the control site established to monitor shallow and deep groundwater beneath the Box Gum Woodland plus any registered water bores within 2 km that are suitable or available for water level monitoring.

4.3.7 Conditions of consent/approval

Three agencies and one community member commented on the consent conditions in relation to management plans and data, engine breaking, Council contributions and perceived discrepancies in conditions.

i Management plans and data

Comment

Mining, Exploration and Geoscience commented that a consent condition should require provision of annual production data to MEG.

WaterNSW requested that it is listed a stakeholder in any further consultation on the project and that it is consulted regarding the review and update of the following plans as part of the Project Approval conditions:

- soil and water management plans including surface water and groundwater monitoring programs; and

- Rehabilitation and Biodiversity Offset Management Plan.

Response

Gunlake will continue to provide annual production data to MEG.

Gunlake will consult with WaterNSW during the review and update of the Soil and Water Management Plan and Rehabilitation and Biodiversity Offset Management Plan.

ii Engine breaking

Comment

Council requests that DPE consider the inclusion of a condition of consent that restricts the use of engine brakes on the entire Secondary Transport Route, and also in the vicinity of the Brayton Road/Ambrose Road intersection.

Response

Engine brakes are an essential part of heavy vehicle safety and therefore it is not feasible to prohibit their use for safety reasons. However, it is noted that the Gunlake Quarry Truck Driver Code of Conduct (Gunlake Quarries, 2021) states that all drivers must mimimise air/compression brakes unless in emergencies. Road traffic noise compliance assessments conducted in August 2020 demonstrated that road traffic noise levels generated by Gunlake Quarry and other road users during day and night periods satisfied the relevant noise limits under the Extension Project conditions.

iii Council contributions

Comment

Council requests a consent condition that section 7.11 contributions be applied in accordance with the *Goulburn Mulwaree Local Infrastructure Contributions Plan 2021*. The current rate as adopted in Council's fees and charges for 2021/22 for developments involving heavy vehicle movements on local and regional roads is $0.05090 per tonne per km.

Council requests that in the event the DPE fail to implement a condition to introduce a condition on contributions, then Council enter into a Planning Agreement with Gunlake Quarries Ltd in accordance with the provisions of section 7.4 of the EP&A Act.

Response

Council and Gunlake entered into a Deed of Agreement in 2008 that agreed to an annual road maintenance contribution under section 94 (now section 7.11) of the EP&A Act of $0.028/tonne/km to reflect the material public benefit of the bypass road. The rate was indexed to the Consumer Price Index (CPI), and is now indexed to the Producer Price Index (PPI), for Sydney as determined by the Australian Bureau of Statistics.

The deed specifically recognises that:

> The parties agree that the contributions rate specified in clause 1(a)(ii) above [ie $0.028/tonne/km] has been adjusted to reflect the material public benefit that will be obtained by the carrying out of the Road Works [ie the construction of Ambrose Road].

These section 7.11 contributions have been paid by Gunlake since the start of quarry operations and the annual contributions have increased as the annual product transport tonnage has increased. These contributions have not been used for capital works, with Gunlake paying separately for all of the road upgrades completed to date.

The calculated 2020/21 rate is $0.0393/tonne/km.

The Continuation Project is just that, a continuation of current quarry operations but with an increase in the annual tonnage of quarry products that can be transported. The material public benefit provided by Ambrose Road continues as recognised by the Deed, so it is appropriate that the section 7.11 contribution rate (indexed to PPI) also remains the same. The annual contributions will increase as the tonnage transported increases.

Given that the material public benefit adjustment to the contributions rate was previously agreed, it is requested that the anticipated condition of consent specifying a section 7.11 contribution be paid to Council, specifies that the rate to be paid is $0.0393/tonne/km, indexed to PPI for Sydney from 2020/21.

This approach is supported by the following:

- Money raised by the contribution can only be spent by the Council on the maintenance and periodic rehabilitation of the Primary Transport Route – the Council's submission does not indicate that there have been insufficient funds for these tasks to date.

- At maximum transportation of approved tonnages, Gunlake would pay about $1.3 million annually for the maintenance and periodic rehabilitation of the transport routes (based on the 2020/21 rate and more when indexing is included).

- The proposed rate is in keeping with the $0.0385/tonne/km included in the Planning Agreement between Goulburn Mulwaree Council and Multiquip Quarries provided in Appendix 4 of the Conditions of Consent for Ardmore Park Quarry (Project Approval 07_0155), which was added when Modification 3 was approved in September 2020.

Gunlake may consider entering into a Planning Agreement in place of section 7.11 contributions in the future. However, details of the potential contents of a Planning Agreement have not been provided by Council to Gunlake and therefore this is not proposed as part of the Continuation Project.

The *Planning Agreements Practice Note – February 2021,* issued by DPIE, provides principles and policy for planning agreements. Part 2, Section 2.1 'Fundamental principles' of the practice note states that:

> Planning authorities and developers that are parties to planning agreements should adhere to the following fundamental principles.
> ….
> A consent authority cannot refuse to grant development consent on the grounds that a planning agreement has not been entered into in relation to the proposed development or that the developer has not offered to enter into such an agreement.

The Council's position that, in the absence of a condition to introduce a condition on contributions, a Planning Agreement should be conditioned is therefore not supported.

iv Perceived discrepancies in conditions

Comment

One community member commented that other quarries in the area are capped at 1.5 million tonnes or less of product transported by road per annum. There are discrepancies or conflicts in conditions sought between key documents.

Response

Project approval conditions are based on the detailed consideration of each individual project application, taking into account the outcome of comprehensive environmental assessments and the strategic context of each proposed project. Therefore, it is reasonable that the project approval conditions vary between projects.

4.4 Impacts

The *State Significant Development Guidelines – Preparing a Submissions Report* (DPIE 2021a) identifies a category for the "economic, environmental and social impacts of the project (eg amenity, air, biodiversity, heritage)". Submissions grouped into this category relate to traffic, road safety, amenity, socio-economic, water and biodiversity.

4.4.1 Traffic

Comment

Nine community members made comment on the potential traffic impacts of the proposal, as summarised below:

- the increase in trucks in addition to potential road closures or delays from repair works, would increase congestion on Brayton Road and Ambrose Road, causing increased travel time for local residents;
- concern that there would be increased congestion on the Hume Highway with associated impact on commuters and visitors to Sydney, noting the cumulative impact of additional trucks from other projects;
- concern over increased congestion in suburban Sydney; and
- concern over increasing truck movements in a growing population, noting 750 truck movements on George Street is not acceptable.

Response

The TIA (Appendix F.1 of the EIS) assessed the potential impacts of increased traffic from the Continuation Project and surrounding developments up to 2051 and found that relevant intersections along the Primary Transport Route would continue to operate at the optimal level of service (LoS) A (an average of less than 14 seconds delay per vehicle).

The Road Safety Assessment Report (Appendix F.2 of the EIS) assessed the potential for increased travel times for light vehicles due to the increased number of slower moving heavy vehicles. It was found that the light vehicle volume is low (9 and 12 vehicles during the morning and evening peak hours, respectively) and the travel time delay that would be experienced by light vehicle drivers is brief and occurs over a short length of the total journey along the Primary Transport Route. Additionally, free flow conditions soon become available when joining the Hume Highway.

The Hume Highway is a major arterial road that has been designed to accommodate large volumes of traffic. The Continuation Project traffic is unlikely to impact congestion on the Hume Highway, particularly as heavy vehicles would be spread throughout the day and only approximately 10% of vehicle movements would occur during peak hours.

Most product from Gunlake Quarry is distributed to Gunlake's Concrete Plants which are located around the Greater Sydney Region. These plants are located within industrial areas, generally on or very close to major arterial roads, therefore, additional truck movements to and from these locations are unlikely to result in increased congestion within suburban areas in Sydney.

It is noted that George Street is not located on either the Primary Transport Route or the Secondary Transport Route and therefore not utilised by any trucks associated with Gunlake Quarry.

4.4.2 Road safety

Comment

Fifteen community members made comment on the potential road safety impacts of the proposal, as summarised below:

- concern that increased trucks will result in increased crash risks on rural roads and the Hume Highway;
- concern that trucks will increase road safety risks for school buses on Brayton Road;

- concern sight distances are inadequate at Brayton Road/Ambrose Road and Ambrose Road/Red Hills Road intersections;
- no overtaking lanes are provided on Brayton or Ambrose Roads particularly in steep sections;
- trucks travel at 80 km/h on Brayton Road, which is lower than the speed limit of 100 km/h; and
- damage to road condition resulting from truck use will increase road safety risks.

Response

The Road Safety Assessment conducted by ARRB as part of the Continuation Project found that the impact on road safety for all road users will be negligible, with the assessment concluding that no major road safety hazards were identified as a result of the proposed increase in heavy vehicle movements. Responses to the specific concerns raised by the community are provided below.

Crash risk

ARRB reviewed crash data from the TfNSW Centre for Road Safety over the five-year period from 2015 to 2019. The data from this period showed that three crashes were documented along the Primary Transport Route and two along the Secondary Transport Route. None of these crashes related to Gunlake heavy vehicles. Further, ARRB concluded that the recorded crash history along these Transport Routes does not indicate an existing or developing road safety problem that would be made worse by the proposed increase in heavy vehicle traffic from the Continuation Project.

School bus safety

Brayton Road is a school bus route and there are currently a small number of residences with students that use the school bus. The shoulder along the Primary Transport Route has been widened at specific areas as part of the road upgrades completed for the Extension Project. These allow the bus to pull completely off the road in dedicated school bus bays while picking-up or dropping off students. Additional school bus route signs were also installed as part of the road upgrades for the Extension Project.

Sight distances

The ARRB Road Safety Assessment Report identified that there is restricted sight distance at the Brayton Road/Ambrose Road intersection due to the horizontal and vertical alignment of Brayton Roa,d and at the Ambrose Road/Red Hills Road intersection due to obstructions from the guardrail and the new growth of sapling trees. The report provides a number of recommendations including provision of upgraded signage, reducing the speed limit, relocating the guardrail and trimming/removing the vegetation. The majority of the recommended actions are considered inspection and maintenance issues, for which Gunlake pays Section 7.11 contributions to Council. With regards to the other items, Gunlake are not the road authority and do not have the ability to reduce the speed limit or install signage. However, Gunlake will work with Council to implement upgrades.

Overtaking lanes

The Road Safety Assessment Report considered the need for a climbing/overtaking lane to be provided on steep sections of Ambrose Road. It concluded that slow moving heavy vehicles do have the potential to restrict light vehicle travel speeds along the uphill section of Ambrose Road and that the proposed increase in heavy vehicle movements would increase the likelihood of light vehicles being 'held up' until heavy vehicles are able to return to the road operating speed east of the Red Hill Road intersection. However, the light vehicle volume is low (9 and 12 vehicles during the am and pm peak hours, respectively) and the travel time delay that would be experienced by light vehicle drivers is brief and occurs over a short length of the total journey along the Primary Transport Route. Additionally, free flow conditions soon become available when joining the Hume Highway. The provision of a

climbing lane is, therefore, not supported since the travel time and road safety impact is considered low and the cost and environmental impacts to provide the climbing lane are significant.

Speed limit

Gunlake have a requirement in its Driver Code of Conduct that truck drivers adhere to an 80 km/h speed limit along the Primary Transport Route. This is in response to Council and community concerns regarding road safety. In its submission on the Continuation Project, Council commented that the speed limit for the Primary Transport Route should be reduced to 80 km/h for all vehicles. Gunlake supports this reduction and also continues to lobby TfNSW to achieve this outcome.

Road condition

Submissions and responses on road condition and maintenance are provided in Section 4.2.3. ARRB undertook a visual assessment of the road pavement surface of the Primary Transport Route as part of the Road Safety Assessment Report and concluded that the surface is generally in good condition, although a build-up of gravel was noted along sections of road which typically require sweeping maintenance to avoid obscuring line marking and creating a road safety hazard, especially for motorcyclists and cyclists. ARRB notes that, in both instances, increased traffic volumes can exacerbate these adverse road surface conditions and recommended that increased monitoring and scheduled maintenance is undertaken to retain acceptable road safety performance.

A Pavement Structural Evaluation was conducted in October 2021 along the Primary Transport Route and the Secondary Transport Route (see Section 4.2.3). The assessment found that under the increased traffic volume scenario of the Continuation Project, the structural remaining life is at least 15 years (see Appendix E).

The increase in truck movements will result in an increase in Gunlake's Section 7.11 contributions to Council to continue to fund required repairs and maintenance.

4.4.3 Amenity

Seven community members and one organisation made comment on the amenity impacts (noise, air quality and visual) of the Continuation Project in relation to:

- continued operation of the quarry; and
- existing and increased heavy vehicle use on transport routes.

Response

Amenity impacts resulting from the continued use of the quarry and trucks travelling on local roads were assessed in the *Noise Impact Assessment* (Appendix F.3 of the EIS) and *Air Quality Impact Assessment* (Appendix F.4 of the EIS). The key outcomes of the assessments in relation to amenity impacts are summarised below.

Noise

The Noise Impact Assessment modelled noise levels from Quarry operations and traffic.

Operational noise levels at all assessment locations, with the exception of one (R2, which has voluntary acquisition rights currently, and proposed to continue under the Continuation Project), were predicted to comply with relevant project noise trigger levels.

Road traffic noise levels, inclusive of Gunlake Quarry trucks associated with the Continuation Project, were predicted to satisfy the relevant road traffic noise criteria at the nearest potentially affected residences on the Primary Transport Route. Further, there will be no change to road traffic noise levels along the Secondary Transport Route as there is no proposed change to the number of quarry product trucks that use this route.

Air quality

Assessment criteria for air pollutants are provided in the Approved Methods for Modelling and Assessment of Air Pollutants in New South Wales (NSW EPA 2017) ('the Approved Methods for Modelling'). The impact assessment criteria are designed to maintain ambient air quality that allows for the protection of human health and well-being. The airborne pollutant concentrations and deposition rates predicted for the Continuation Project are below the applicable NSW EPA assessment criteria for all averaging periods.

Visual

Visual impacts of the continued quarry operations were addressed in Table 6.13 of the EIS. There will be no change to visual amenity of the Quarry site as a result of the proposal. Nevertheless, Gunlake will continue to consult with surrounding landowners regarding the visual amenity of the Quarry and will implement any reasonable additional controls to further reduce their visual impact if necessary.

Heavy vehicles outside of the Quarry site, ie on public roads, are not considered an alteration of the visual amenity given the roads are currently used for this purpose and so views will be the same, albeit experienced more frequently due to the increase in heavy vehicle movements proposed. Therefore, an increased frequency of views of heavy vehicles may have an additional visual impact, they will be minor.

4.4.4 Socio-economic

Comment

Sixteen community members and eight organisations commented on the socio-economic aspects of the Project. Of these, ten community submissions and all eight organisation submissions, including the Goulburn and District Education Foundation and the Marulan Chamber of Commerce, raised positive socio-economic benefits, summarised as follows:

- the Quarry currently provides significant employment and economic benefits within the local and regional area which would be enhanced by the Project;
- Gunlake provides significant local community benefits through the use of local businesses and suppliers and the provision of training and apprenticeships;
- Gunlake supports functions and events in the local area and provides charitable donations including sponsorship for school leavers to attend onward education and training;
- the Quarry has attracted new residents and an increase in property values; and
- Gunlake have invested in the infrastructure of the local area, including the construction and upgrading of local roads.

The remaining seven community submissions raised negative socio-economic impacts, summarised as follows:

- the current Quarry and the proposal would negatively impact property values and limit future development;
- the Quarry has resulted in a loss of permanent community in Brayton; and
- the local employment and economic benefits of the proposal would not be significantly increased beyond those of the current Quarry operations.

Response

Gunlake currently employs about 52 people full-time and about 20 contractors. In addition, around 200 contract truck drivers deliver products from the Quarry, on either a full-time or part-time basis. Of the 52 full-time staff, over 60% reside in Marulan or Goulburn and over 30% reside in nearby areas including Crookwell, Bundanoon and Berrima. Should the Continuation Project proceed, employment will increase to 70 full-time jobs and many of the part-time contract truck drivers will transition to full-time employment with the Quarry.

An Economic Assessment was completed by Gillespie Economics for the project (Appendix F.11 of the EIS). The assessment found that the project would have incremental net production benefits to NSW of $74 million (present value at 7% discount rate) comprising an additional $64 million in quarrying benefits and $10 million in ex-quarry transport benefits. The project will also provide direct economic activity, including jobs, to the local area economy, and indirect economic activity to the local area via both wage and non-wage expenditure. There will also be a significant public benefit beyond Marulan and the local area with the increased supply of low-cost construction materials into the Sydney and regional markets.

As described in the EIS, Gunlake currently provides community support in the form of their annual contribution commitments to organisations within the local and regional area. Gunlake also maintains partnerships with local employment and training services in the local and regional area, such as TAFE, Mission Australia, and the Goulburn District Education Foundation, to find apprenticeship and employment opportunities for local workers. Gunlake also sponsor local community initiatives including the Marulan Australia Day Committee, Marulan Chamber of Commerce Events, and Tallong Apple Day Festival. In addition, contributions have been made to the Marulan Public School playground upgrade, Marulan Rural Fire Brigade and Marulan Village working party. Gunlake will continue to explore funding and grant opportunities, apprenticeship and training opportunities, and local employment within the local and regional area where need is determined.

Property values are based on a range of factors, including supply and demand, interest rates, the local economy, demographics and the property's location. Data from the NSW Government Valuer General (NSW Government, 2021) indicates that median residential prices in South East Regional NSW recorded a 'strong increase' of 15% from July 2020 to July 2021, while the area in vicinity to the quarry (post code 2579) increased by 40% from 2016 to 2021 (heatmaps), which is more than the average increase for NSW of approximately 30%. This suggests that quarry operations to date have not affected property prices and potentially that the economic activity of Gunlake Quarry and the other quarries near Marulan are increasing the value of houses in the area.

The importance of the region's extractive resources to the state of NSW is recognised in a number of government strategies and plans and the Quarry has a proven state significant rock resource of approximately 180 million tonnes of ignimbrite. The economic assessment conducted as part of the EIS (Appendix F.11 of the EIS) identified an incremental increase of up to 79 jobs for local residents, with an associated incremental increase in net income of up to $6.2 million as a result of the Continuation Project.

4.4.5 Water

Comment

DPE Water noted that insufficient information was provided to confirm the ability of the proposed contingency measures to address the predicted water supply shortfall of 23 megalitres per year in a dry year. This includes confirming the ability to source this water from external suppliers or farm dams, or the ability of chemical dust suppressants to reduce water use sufficiently to reduce or prevent the need to source additional water.

A comprehensive water balance for the activity will be required to validate groundwater take and surface water take predictions and to inform model updates and licence requirements. This will need to include accurate metering of water captured and pumped around the site combined with modelled inputs and outputs. The groundwater level monitoring program will assist in verifying groundwater level changes associated with groundwater inflows and to identify any changes inconsistent with predictions.

DPE Water provided the following recommendations:

- **Prior to determination**: the proponent should provide further information to confirm the ability of the proposed contingency measures to meet water supply shortfalls during dry periods; and

- **Post approval**: the proponent should report on water take at the site each year (direct and indirect) in the Annual Review. This should include water take where a water licence is required and where an exemption applies. Where a water licence is required, the water take needs to be reviewed against existing water licence.

Response

Water balance modelling undertaken for the Surface Water Assessment (Appendix F.6 of the EIS) predicted a need for water imports of 23 ML/year under a typical dry (10th percentile) rainfall year, which is equivalent to approximately 20% of the operational water demand (113 ML/year). This was predicted for the five-year period between 2022 and 2026, prior to pit excavation below the groundwater table (when an increase in groundwater inflows will reduce the need for water imports to 0 ML/year under all rainfall conditions modelled).

If water stored on site at the start of a dry period is insufficient to meet all water requirements, the following contingency measures are proposed:

- the use of chemical dust suppressants to reduce the haul road dust suppression water demand;

- scaling of operations to reduce water use in the process plant; and

- sourcing water from alternative supply arrangements such as water purchases from a third party or new water supply works such as a new groundwater production bore. Gunlake will seek appropriate licences and approvals under the NSW *Water Management Act 2000* for any new water supply works.

4.4.6 Biodiversity

Three agencies (MEG, Crown Lands and BCD) and two community members commented on biodiversity issues in relation to the proposal.

The Mining, Exploration and Geoscience (MEG) agency noted that no additional offsets are required as indicated in the BDAR and therefore MEG has no resource sterilisation concerns to raise. The remaining issues are addressed in the sections below.

i Ongoing management

Comment

Crown Lands commented that ongoing biodiversity management and maintenance for Crown Land in the project area has not been identified, including strategies for when the Crown Land is no longer required.

Response

As described in Section 4.3.2, Gunlake has commenced the application for tenure and purchase of the Crown Land within the Quarry site. With regards to ongoing biodiversity management and maintenance, Gunlake will implement the Rehabilitation and Biodiversity Offset Management Plan for the site, which would be updated as required following Continuation Project approval.

ii Vehicle strike

Comment

One community member noted observations of dead animals beside the road and raised concern that this would increase with the Continuation Project. Another community member commented that less vehicles on the road would allow protection of wildlife.

BCD commented that an increase in vehicle movements of this magnitude requires a prescribed impact assessment for vehicle strikes in accordance with Section 8.3.6 of BAM 2020.

Response

A prescribed impact assessment for vehicle strikes has been provided below in accordance with Section 8.3.6 of BAM. Given the extent of native vegetation, the key areas for assessment are:

- Brayton Road from the Gunlake Quarry to just south of Ambrose Road; and
- Ambrose Road.

Other roads in the area, impacted by traffic from Gunlake Quarry, are largely cleared and considered to provide minimal habitat for native species at risk of fauna strike.

Increased vehicle movements associated with the Continuation Project have the potential to result in increased fauna vehicle strikes, and associated fauna mortality, particularly during crepuscular and night-time periods (Taylor & Goldingay 2010; Hoskin & Goosem 2010; DPIE 2020b). Given this, changes in vehicle movements arising from the Continuation Project during these periods was considered most pertinent to the assessment of fauna strike.

Data from Gunlake Quarry and the TIA indicates that, for the maximum daily allowable truck movements on the Primary Transport Route an average of approximately 35% of the total daily truck movements occur during night-time, based on weighbridge data provided by Gunlake. Under the current maximum allowable truck movements for the Extension Project, this equates to 103 inbound and 103 outbound truck movements during night-time. With the proposed Continuation Project in place, this would increase to approximately 131 inbound and 131 outbound truck movements during night-time.

The prescribed fauna strike impact assessment is provided in Table 4.3.

Table 4.3 Prescribed impact assessment – fauna strike

Criterion	Response
Predict the likelihood of vehicle strike to each relevant species, considering mobility, abundance, range and other relevant life cycle factors.	No data is currently available on fauna strike along either Brayton Road or Ambrose Road.
Estimate vehicle strike rates with supporting data or literature, where available.	Given the fragmented nature of native vegetation in these areas it is likely that more mobile species, such as Brushtail Possums, Wallabies, Kangaroos and Wombats, are at greatest risk. This is reflected in roadkill data from the Greater Sydney Region (LLS 2022) where these species represent over 78% of observed fauna strike. These species also represent the highest proportion of records in the local area. There are historical records of Koala in the region; however, habitat for this species on Ambrose Road is limited, reducing the likelihood of interaction between animals and vehicles.

Table 4.3 Prescribed impact assessment – fauna strike

Criterion	Response
Predict the consequences of the impacts for the persistence of the relevant species.	While there is a risk of and fauna strike on all roads, the magnitude of the increase in traffic movements on the local road network is unlikely to substantially impact fauna within the locality. This, coupled with relatively common nature of the species most likely to be subject to fauna strike means impacts to the persistence of these species in the region would be negligible.
Justify predictions of impacts with relevant literature and other published sources of information.	Given the lack of available data in the region on fauna strike, predictions are based on review of relevant literature and data from adjacent areas.

4.5 Justification and evaluation

The *State Significant Development Guidelines – Preparing a Submissions Report* (DPIE 2021a) identifies a category for the "the justification and evaluation of the project as a whole (eg consistency of project with Government plans, policies or guidelines)". Submissions grouped into this category relate to the project being unaligned with plans, policies or guidelines; alternative transport feasibility; the Continuation Project not being justified; and the Continuation Project being justified.

4.5.1 Against plans, policies or guidelines

Comment

Six community members commented that the proposal is not aligned with government net zero/carbon neutral policies.

Response

A greenhouse gas assessment is provided in Appendix F.4 of the EIS.

The Quarry produces aggregates which are used as an essential construction material in private, commercial and government projects and for which there are currently no feasible large-scale alternatives. With regards to emissions from transport, consideration of alternative transport feasibility is provided in the following section.

4.5.2 Alternative transport feasibility

Comment

One agency (TfNSW) commented that a transport options review should be conducted, consistent with the requirements in Schedule 3, Condition 29 of Land and Environment Court issued consent (Ref: Appeal No.2017/108663). The review should consider why some materials cannot be transported by means other than by public road.

DPE wrote to Gunlake on 19 January 2022 requesting that a Transport Options Review be prepared "that investigates all reasonable and feasible options for the transport of quarry products from the site."

In addition, 28 community members made submissions relating to the transport method for the Quarry, summarised as follows:

- Transport options review – Gunlake should be required to commission an independent and transparent transport options review before any further approval.

- Consistency with other quarries – both Holcim and Boral who also operate out of Marulan transport almost all of their product by rail and Gunlake Quarry should do the same.

- Economic justification:

    - The investment made by Gunlake Quarries is substantially lower by several hundreds of million dollars than the initial outlay made by Holcim's Lynwood and Boral's Peppertree quarries.

    - The additional profit from the expansion of the Quarry should be sufficient to invest in rail haulage infrastructure as the cost of rail connection as a proportion of the expected revenue over the life of the quarry is not significant.

    - Estimates of the on-road transport cost of quarry product is $0.13/tonne/km compared to the on-rail cost of $0.04/tonne/km. On this basis, the annual savings for Gunlake trucking 4.2 million tonnes per annum a distance of 160 km are $60 million.

    - To reject rail options solely based on reduced net profit is considered unacceptable.

- Government policy: *The Future Transport Strategy 2056* (TfNSW 2020) contains a strong commitment to increase the use of rail freight. If the NSW Government/DPE considers additional product from this quarry to be significant to Sydney, it should work with, and support, Gunlake on a rail haulage capability.

- General considerations:

    - One community member noted that Gunlake was offered the use of the rail line developed by Holcim if they added an extra section.

    - The use of rail would improve road safety, reduce travel time and improve amenity for the local community.

    - Due to the life span of the quarry, a long-term view must be taken whereby all the quarries transport to Sydney by rail.

    - It seems that the only likely benefit from using road transport is to reduce the overall capital investment requirement by Gunlake Quarries for the project, which is not considered a valid reason for the project to proceed on this basis.

Response

i Overview

A transport options review that describes transport options assessments for the Quarry and the applicability of previous findings to the Continuation Project is provided below.

The Quarry is not on the Main Southern Rail Line near Marulan, Gunlake do not have access to rail terminals in Sydney, and the Continuation Project application does not include rail transport. Notwithstanding, in the absence of an understanding of the engineering, social, planning, environmental and economic costs of rail transport of

Gunlake Quarry products, it is understandable that some community members see rail as a simple transport solution.

As described in the transport options assessments that have been completed for the Quarry as outlined below, this is clearly not the case and there are no reasonable or feasible alternatives to the transport of quarry products other than road transportation using the currently approved transport routes.

Any requirement for Gunlake to transport its products by rail would force it to shut its entire operation.

ii Rail transportation options

Gunlake does not have access to the following critical components which are all required to make quarry product rail transport viable (but which may not be sufficient in themselves):

- a rail spur at the point of quarrying;
- land for development of rail infrastructure near Marulan – this would involve the acquisition of private land to create a rail corridor and the obtaining of the necessary planning and environmental approvals;
- a large parcel of land to stockpile products closer to, or in, Sydney; and
- a distribution centre located close to the concrete batching plants that the Quarry supplies.

In broadest terms, the managing of freight supply chains is problematic due to:

- capacity limits and land/siding access restrictions at key national freight terminals;
- diminishing industrial land around key national freight terminals and an inadequate allocation of land for terminals;
- conflicting freight and passenger rail movements, particularly during peak periods;
- inadequate jurisdictional strategies for protecting freight corridors and strategic industrial and logistics areas from urban encroachment; and
- a lack of integrated planning and harmonisation of freight regulation and coordinated freight governance across and within governments.

Rail transport is viable for mineral exports which are hauled over long distances and commonly involves directly loading bulk materials at a major mine site and unloading them at a port (ie a single-point destination).

There is no 'rail only' method of transport for domestic bulk freight such as quarry products. Domestic bulk freight has prohibitive and costly "first and last mile" access, ie loading the material to rail close to its origin and moving the material from rail to its dispersed final urban destinations that change day to day based on customer demand. In this regard, there is no 'rail only' method for quarry products transport.

Rail transport of quarry products requires the following steps:

1. Each quarry product (there are approximately 25 types that need to be segregated in transport) is loaded to a road truck in the processing area of the quarry.
2. The quarry truck delivers each product to the rail loading facility via a public road.
3. Each quarry product is unloaded to a segregated stockpile at the rail loading facility.

4. The quarry product is loaded, via a rail loader, to a train. Segregating each product in to separate wagons.

5. The train delivers the product to a rail terminal in Sydney.

6. Each quarry product is unloaded and transported to a stockpile.

7. Each quarry product is loaded to a road truck at the rail terminal.

8. The road truck delivers each product to its destination via a public road

9. Each quarry product is unloaded at its destination.

Accordingly, the majority of aggregates transported into Greater Sydney are delivered by road.

Aggregates can be best described as a low value product and Gunlake is a 'price taker' not a 'price setter', that is, Gunlake can only sell its product by reference to the prevailing market price. Accordingly, there is only limited capacity for producers like Gunlake to absorb additional costs or to pass such additional costs onto end customers. In this context, minimising the costs of production and especially delivery costs to customers is critical to ensuring the Quarry's profitable operation.

iii Government policy

From a policy perspective, the State Government has no official planning policy which favours rail transport over road transport for the movement of freight within New South Wales. Further, there is no specific policy with respect to the preferred method of transporting quarry materials into the Sydney Region or to any other location. Rather, the strategies and plans outline desirable strategic investments in and improvements to both road and rail transport in New South Wales but do not advocate that investment in rail transport should be given priority over road transport.

The NSW Government's *Future Transport Strategy 2056* (TfNSW 2020) recognises that efficient and effective transport of goods is a major factor driving economic performance in regional NSW:

> Economic growth in regional NSW relies on the movement of goods through efficient and effective transport networks.

As noted in a submission on the Continuation Project, the strategy contains commitments to increase the use of rail freight. However, it also contains commitments to upgrade the road transport infrastructure, noting that:

> Heavy vehicles will have a significant ongoing role in delivering the growing freight task. One way of reducing overall truck movements is to increase the volume of freight carried per trip.

The strategy does not list quarry products among the dominant commodities transported by rail and recognises that heavy vehicles will have a significant ongoing freight transport role. This accords with the findings of transport options assessments completed for the Quarry.

Gunlake operates with a very high transport efficiency rate compared to other quarries, minimising the number of truck movements required to deliver quarry products into Sydney. Current policies point to further advances in road freight productivity which could be achieved by using more modern 'high productivity vehicles' (HPVs). The studies associated with the Quarry support road transport of quarry products.

iv Road transport options

All saleable products are currently transported from the Quarry to markets (primarily in Sydney) by truck. If approved, the Continuation Project will continue to use the currently approved Primary and Secondary Transport Routes.

Delivery of quarry products involves just-in-time systems, which require more frequent, shorter-haul deliveries and involve more dispersed origins and destinations.

Road-only transport of quarry products requires the following steps:

1. Each quarry product is loaded to a road truck in the processing area of the quarry.

2. The quarry truck delivers each product to its destination.

3. Each quarry product is unloaded at its destination.

The only viable transport option for the Gunlake Quarry is by road and as a result, since the establishment of the quarry, Gunlake has invested heavily in the local road network, including:

- the construction of the bypass road (Ambrose Road) that connects Brayton Road to Red Hills Road;
- upgrading of the Primary Transport Route to a standard that exceeds the Austroad Guidelines; and
- the construction of a deceleration lane and an acceleration lane on the Hume Highway, to enable safe free flowing traffic conditions.

The proposals for these roadworks did not arise from any conditions of consent or any planning instrument, instead Gunlake saw them as beneficial to the community and proactively made this provision. The result of these road works amounts to a very significant public benefit and a very significant cumulative positive impact on the local amenity within the Marulan township.

v Transport options assessments

A range of transport option assessment reports were prepared as part of the Gunlake Quarry Extension Project application (SSD-7090): *Gunlake Quarry Extension Project Transport Options Review* (EMM 2016a); *Gunlake Quarries Rail Transport Study* (Hatch 2016); *Gunlake Quarry Extension Project Road Options Assessment* (EMM 2016b); and *Transport Cost Benefit Analysis Review* (Gillespie Economics 2016). All of these studies are publicly available on the Planning Portal, under the Gunlake Quarry Extension Project.

In the Department of Planning and Environment's *Gunlake Quarry Extension Project State Significant Development Assessment* report (DPIE 2016), it was concluded that:

> Due to the proposed significant increase in the number of trucks, the Department required Gunlake to consider in detail whether there was any alternative option for transporting its products, particularly any option for Gunlake to use rail to transport its quarry products to Sydney. Following careful consideration of additional information provided by Gunlake in its RTS, particularly a cost benefit analysis of alternative rail and road options, the Department is satisfied that these options are not economically viable.

The conclusions of these comprehensive transport options assessments were considered during the NSW Land and Environment Court proceedings that approved the Gunlake Extension Project, dismissing the need for rail transport.

vi Rail transport economics for the Continuation Project

A review of the applicability of the assessment of the economic costs and benefits of the alternative rail transport options for the Extension Project to the Continuation Project has been prepared by Gillespie Economics (Gillespie Economics 2022). This concluded that when the incremental cost of the least-cost rail option is combined with the estimated net social benefits of the Continuation Project (that uses road transport), the Continuation Project would shift from having a net social benefit of $74 million (present value at 7% discount rate) to the NSW community to a net cost of $47 million (present value at 7% discount rate) to the NSW community.

It is financially unviable for Gunlake Quarries to transport quarry products by rail.

vii Conclusion

The use of the Primary Transport Route by the Continuation Project will make additional use of roads that have been specifically designed, built and upgraded by Gunlake, for the transport of products from the Quarry.

The conclusions from the extensive Extension Project transport options assessments apply to the Continuation Project, and there are no reasonable or feasible options for the transport of quarry products from the site by rail. As documented during the Extension Project application, there would be extensive environmental, social, and planning impacts associated with rail transport, including:

- land disturbance associated with the construction of new infrastructure, the train loader, stockpiles and the rail terminal;
- noise and dust impacts to neighbouring properties; and
- traffic impacts on local roads around the rail terminal.

These will not occur for the Continuation Project as proposed.

From a social welfare perspective, the Primary Transport Route is 7.8-km long and passes eight houses that are set back from the road, whereas a connection from a rail unloading terminal to the final product destinations would potentially pass thousands of houses within residential areas and require far more material handling processes.

From an economic perspective, the adoption of rail transport for the Continuation Project would shift from having a net social benefit to the NSW community of $74 million to a net cost of $47 million.

Current strategies and plans call for a light-handed approach by government, reduction in the burdens of compliance, reduction in regulatory inconsistency, cutting red tape, and achieving a level playing field. Therefore, having regard to the conclusions of the analysis of road versus rail transport, as far as the Gunlake Quarry Continuation Project is concerned and in the absence of a clear State Government policy on this issue there are no reasonable or feasible transport alternatives to the continued use of the Primary Transport Route and there is no basis for requiring rail transport for the Continuation Project.

4.5.3 Continuation Project is not justified

Comment

One community member commented that while there are a range of infrastructure programs being implemented by the State and Federal Governments, they are mostly in Greater Sydney as outlined in a range of strategies and plans. It has been observed that the majority of haulage companies that transport product from the Quarry are located within the Greater Sydney area. What justification is there to make several round trips a day, of roughly 320 km each time?

Response

As noted in DPE's *Marulan South Limestone Mine Continued Operations Project State Significant Development Assessment Report* (DPE 2021b):

> The construction of housing, roads and other infrastructure within the Greater Sydney Region relies on the supply of construction materials from mines and quarries in four key feeder areas to the north, west, south and south-west of Sydney.
>
> …
>
> [As well as Marualan South Limestone Mine] This area also contains Gunlake, Lynwood and Ardmore Park quarries...This feeder area is strategically significant, due to the size and quality of hard rock and mineral resources, its proximity to Greater Sydney and its accessibility by both road and rail.
>
> The four quarries (Peppertree, Gunlake, Lynwood and Ardmore Park) primarily produce aggregates and together, the south-west feeder area is the largest producer of hard rock material in NSW.

In summary, the Quarry is in an area identified by the NSW Government as a strategically significant construction materials feeder area.

The Quarry also provides significant benefits to regional areas outside of Greater Sydney. Gunlake adopts a preferential approach to hiring, which prioritises employment of workers with relevant skills residing within the local area, then the regional area, followed by hiring outside of these areas.

The Economic Assessment (Appendix F.11 of the EIS) found that the total incremental (ie above that of the approved Extension Project) non-labour expenditure accruing to the region each year from the Continuation Project is estimated at $20 million from 2023 to 2042 (above that of the approved Extension Project until the expiry of the Extension Project Approval in 2042), and $51 million from 2043 to 2051 (extending the Quarry life beyond the Extension Project).

4.5.4 Continuation Project is justified

Comment

Seven community members and two organisations commented on the benefits of the project, summarised as follows:

- While there will be more trucks on the road, it is a primary route which Gunlake built to keep trucks out of Marulan – the positives far outweigh the negatives.
- The Project is necessary, with decreasing access to materials in Sydney and the Southern Highlands and an increasing demand, it makes sense to increase an existing resource rather than allowing more operations to open up, or having to transport the extra materials required further.
- The current infrastructure that Gunlake built make the Continuation Project impacts on the local area minimal.
- As per the Infrastructure Market Capacity report (Infrastructure Australia 2021), the major projects to be undertaken in NSW will have a shortfall of quarry materials of approximately 48% – the expanded capacity of Gunlake Quarry would allow successful delivery of projects on budget and on time and would improve job security for not only the local workforce but for the greater construction industry.
- The Project will benefit the broader Marulan/Goulburn area and benefit the Sydney construction market and all of the communities it supports – the Gunlake team are experienced and professional in the operation of

the Marulan Quarry and endeavour to take into consideration all stakeholders including the local community, employees, customers and suppliers.

- The Project is a valuable asset to the local district and greater Sydney, and is located in an appropriate area utilising land that has poor agricultural value.
- Projects such as this are critical to build the infrastructure of NSW – there are big benefits of this project for the local community, the region and the major cities of Sydney.

Response

The comments on the justification for the project are in concurrence with the identified strategic needs of the Continuation Project described in Section 2.1 of the EIS.

4.6 Matters beyond the scope of the project

Comment

One community member suggested that a new, second quarry located along the inland rail route should be considered as an alternative option.

Response

The Quarry is well located to minimise environmental impacts and there would be few additional environmental impacts of the Continuation Project compared to the existing approved quarry operations.

Continued quarrying at the current site allows the use of the existing resource to be optimised without the additional environmental impacts that would result from a new greenfield quarry.

Any new quarry would be subject to a Development Application and is outside of the scope of this project.

5 Updated project justification

The Continuation Project EIS considered the potential impacts associated with the Continuation Project, as well as the need for the project and alternative development options. It was determined that there will be minimal impacts from the Continuation Project given that:

- the Continuation Project has been designed to restrict disturbance to previously approved areas; and
- operations will remain similar to the currently approved Extension Project operations, and truck movements will only increase on the recently upgraded Primary Transport Route that has ample capacity for these truck movements.

Benefits of the Continuation Project include continued and enhanced social and economic contribution for the local and broader community. The Continuation Project will increase the amount of aggregate and other saleable products to the Sydney and local markets (from up to 2.6 Mtpa as currently approved to up to 4.2 Mtpa) without increasing the previously approved disturbance area or significantly changing impacts from quarry operations.

6 References

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Appendix A

Summary of issues raised in each submission

			The project				Procedural matters							Impacts						Justification and evaluation				
Submitter type	Submitter	No comment /no objection	Project clarifications	Road upgrades	Road condition and maintenance	Wastewater management system	Consultation	Land ownership	Licences and approvals	Independent reviews	EIS assessment	Management plans	Conditions of consent /approval	Traffic	Road safety	Amenity	Socio-economic	Water	Biodiversity	Against plans, policies or guidelines	Alternative transport feasibility	Continuation Project is not justified	Continuation Project is justified	Matters beyond the scope of the project
		Section 4.1	Section 4.2.1	Section 4.2.2	Section 4.2.3	Section 4.2.4	Section 4.3.1	Section 4.3.2	Section 4.3.3	Section 4.3.4	Section 4.3.5	Section 4.3.6	Section 4.3.7	S. 4.4.1	S. 4.4.2	S. 4.4.3	S. 4.4.4	S. 4.4.5	S. 4.4.6	S. 4.5.1	S. 4.5.2	S. 4.5.3	S. 4.5.4	Section 4.6
Agency	Council			1	1				1	1			1											
Agency	Crown land							1											1					
Agency	EPA	1							1			1												
Agency	DPI Ag	1																						
Agency	MEG												1						1					
Agency	Heritage NSW											1												
Agency	Resources Regulator	1																						
Agency	Water NSW					1	1						1											
Agency	BCD			1							1								1					
Agency	TfNSW			1	1	1															1			
Agency	DPIE: Water								1		1	1						1						
Public	Michael Sernik			1			1														1			
Public	Michele Costello				1					1					1						1			
Public	Jeffery Hardman		1																					
Public	Clive West																				1			
Public	Jan Armstrong													1	1	1			1		1			
Public	Name Witheld													1	1		1				1			
Public	Name Witheld																				1			
Public	Bill Dobbie																				1			
Public	Name Witheld																				1			
Public	Name Witheld															1	1		1		1			
Public	Craig Bennett																1						1	
Public	Nicholas Gubbins																						1	
Public	Name Witheld													1							1			
Public	Anthony Wybrow																1						1	
Public	Ken Wray									1					1						1			
Public	Ronald Switzer						1				1			1	1	1	1				1			
Public	Name Witheld						1			1											1			
Public	Name Witheld													1	1						1			
Public	Joan Bautovich														1						1			
Public	Selwyn Davidson			1	1																1			
Public	Trevor Dennis																1							
Public	Duncan Handley														1	1				1				
Public	Name Witheld				1						1		1								1			
Public	Name Witheld														1									
Public	Rudolph Selles																				1			
Public	Peter Andrews																1							
Public	Adrienne Wray														1									
Public	Daniel Parmenter																1							
Public	Jason Mikosic																1							
Public	Jack Barclay																						1	
Public	Kieran Corsie						1								1		1			1	1			
Public	Karen Lancaster													1						1	1			
Public	Roy Barclay																						1	
Public	Mikaela Lancaster																				1			
Public	Darce Corsie						1			1	1			1	1	1				1	1			
Public	Norman Yammine															1	1				1			
Public	Elizabeth Davidson				1									1	1	1	1				1			
Public	William Ross Batstone																			1	1	1		
Public	Name Witheld																1							
Public	Richard Manning																1						1	
Public	Jean Morrison													1	1						1			
Public	Name Withheld				1		1				1				1		1			1	1	1		1
Public	Name Withheld				1																			
Public	Name Withheld																						1	
Public	Name Withheld																1							
Public	Chris Nolan				1																1			
Organisation	Twynam Investments Pty Ltd				1											1								
Organisation	Camsons Pty Ltd																1							
Organisation	Veljohn P/L																1							
Organisation	Days Industrial																1							
Organisation	Bedrock Quarry Products																						1	
Organisation	Hollingworth crane hiring service Pty Ltd																1							
Organisation	Multiquip Aggregates																1						1	
Organisation	Marulan Truck and Bus Pty Ltd																1							
Organisation	Goulburn & District Education Foundation																1							
Organisation	Marulan Region Chamber of Commerce																1							
	Total submissions	**3**	**3**	**4**	**10**	**1**	**7**	**1**	**3**	**5**	**6**	**3**	**4**	**9**	**15**	**8**	**24**	**1**	**5**	**6**	**29**	**2**	**9**	**1**

Appendix B

Culvert widening concept drawing

Page: SK 1 Job No: 22-2450

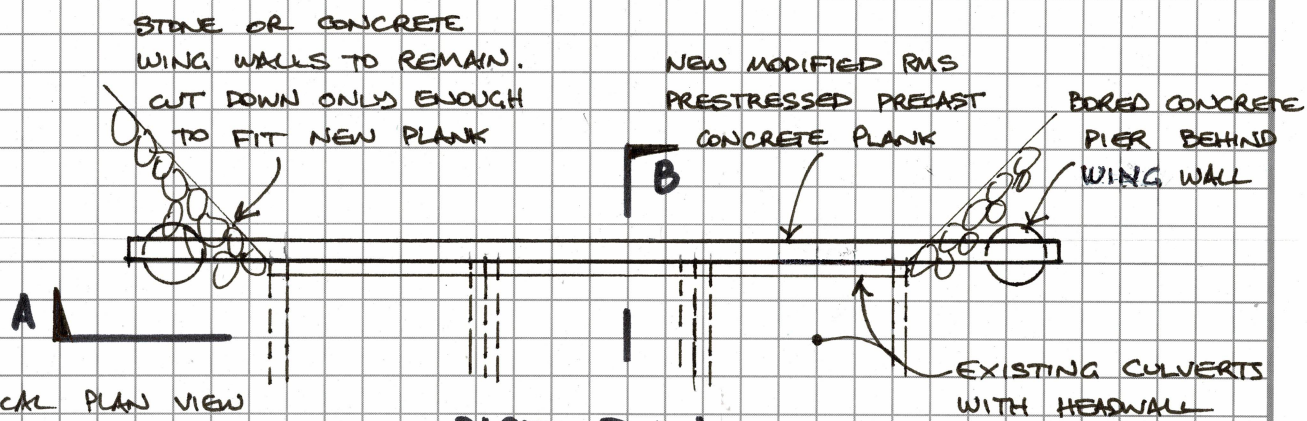
Date: 28 FEB 22

Aistrope Engineers
Consulting Civil and Structural Engineers

Project: GUNLAKE QUARRY MARULAN - ROAD WIDENING

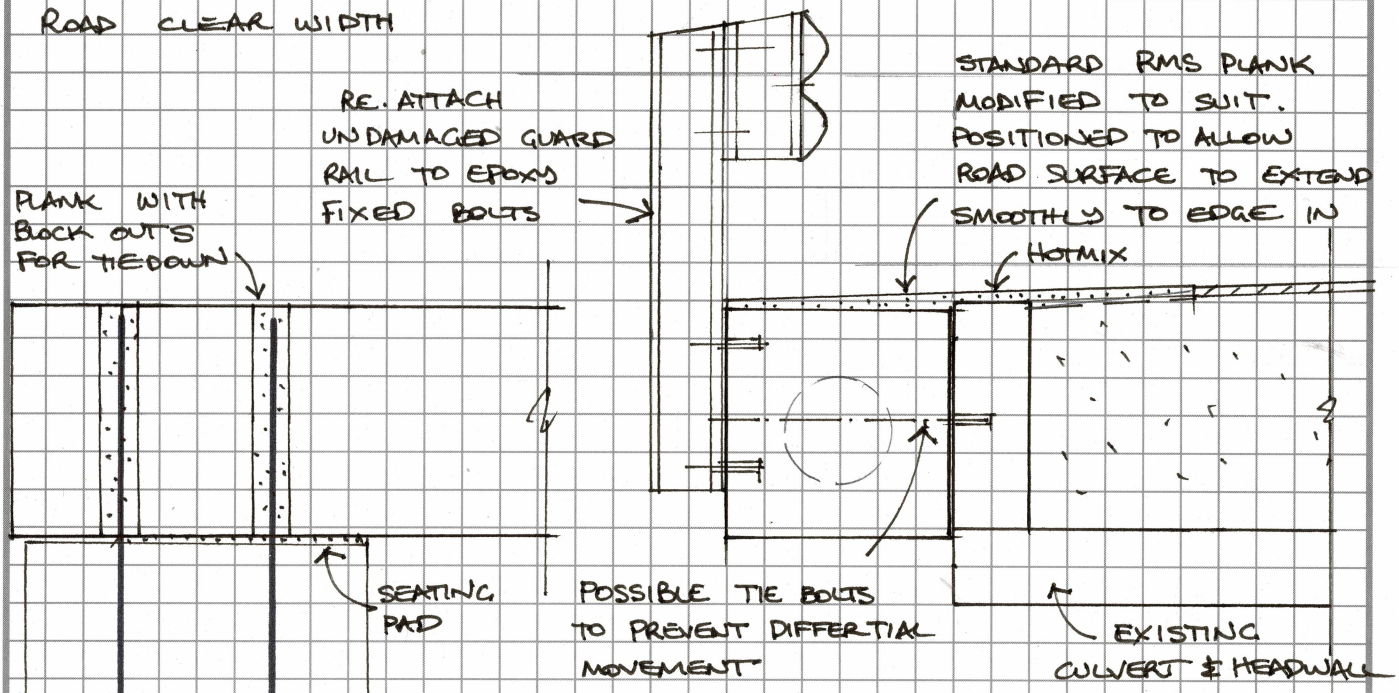
Subject: CONCEPT DETAILS FOR WIDENING AT CULVERTS

NOTE: THESE ARE CONCEPT DETAILS ONLY SUBJECT TO DETAILED DESIGN FOR EACH OF 6 CROSSINGS

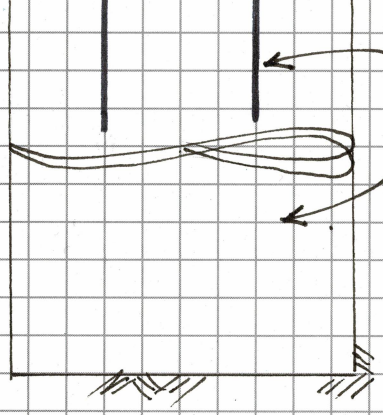


TYPICAL PLAN VIEW OF PRE-STRESSED PLANK AT SIDE OF CULVERT STRUCTURE TO EXTEND ROAD CLEAR WIDTH

PART PLAN 1:100



SECTION B 1:20



SECTION A 1:20

NOTES: 1. PLANKS TO BE SELECTED TO SPAN TO BEHIND WINGWALLS.
2. NO DISTURBANCE TO CREEK BED & BANKS.
3. IN ONE CASE TWO PLANKS ON ONE SIDE OF ROAD WHERE NO SPACE FOR WIDE JNC. - ALL OTHER CASES ADD PLANK EACH SIDE

Appendix C

ARRB responses to Council and TfNSW queries

Our Ref: 017134

Your Reference:

7 March 2022

David Kelly
Gunlake Quarries Ltd
c/- davidkelly@gunlake.com.au

Dear David,

Gunlake Quarry Continuation Project (SSD 12469087)

The correspondence from Council (17/11/2021) and from Transport for NSW (3/12/2021) for the above matter has been reviewed to identify points where ARRB can provide advice in response, and this is provided below. In preparing the advice I have referenced Austroads, Australian Standards, and the findings of the road safety audit of the Primary Transport Route completed in July 2021.

Goulburn Mulwaree Council

1. *Widening of bridges and culverts on the Primary Transport Route to allow a consistent wide centre line treatment to be implemented.*

   The wide centre line treatment (WCLT) applied along the majority of the Primary Transport Route between Gunlake Quarry and the Hume Highway adopts the cross-section illustrated in **Figure 1**.

   There are six culvert crossings along the length of the Primary Transport Route; these are marked Culvert A to F in **Figures 4**. The WCLT is not currently applied at the location of these culverts, and it is not applied along a 670 m section of Ambrose Road west of Red Hills Road. This is due to the narrow width of the road formation at each of these locations.

   The typical existing cross-section at the road culvert locations is illustrated in **Figure 2**.

   Considering the increase in quarry traffic associated with the proposal, the extension of the WCLT across five of the existing road culverts (Culverts A to E) is considered appropriate. This will require widening of the culverts and relocation of the road safety barrier to accommodate the extra space required for the WCLT and wider sealed shoulders.

   A typical cross-section for this widening arrangement is illustrated in **Figure 3**.

   Providing a WCLT across culverts A to E will require the following work:

   a. Widening the road formation.
   b. Relocating the roadside safety barriers to increase the carriageway width.
   c. Extending the sealed width.
   d. Remarking the centre and edgelines to reflect the WCLT arrangement.

   In addition to providing consistent lane marking arrangements, the road widening to extend the WCLT across the culverts will assist to further mitigate road safety risk at these locations.

   The WCLT does not currently extend through the section of Ambrose Road from Culvert F to Red Hills Road. Travelling eastbound, this section is straight and relatively short and rises steeply to the T-intersection with Red Hills Road, causing heavy vehicle traffic to slow considerably. While there are

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NSW | 36 – 42 Chippen Street, Chippendale, NSW 2008, Australia | +61 2 9282 4444
QLD | 21 McLachlan St, Fortitude Valley, QLD 4006, Australia | +61 7 3260 3500
SA | Level 1, Featherstone Place Adelaide, SA 5000, Australia | +61 8 8235 3300
WA | Suite 4B, Level 2,1 Hood Street, Subiaco, WA, 6008 | +61 8 9227 3000
arrb.com.au | ABN 68 004 620 651

good lines of sight for traffic in each direction, overtaking is restricted by linemarking; this is due to the location of the Red Hills Road intersection at the cresting of the road at the top of the incline section.

Extending the WCLT along this section of the Primary Transport Route would complete a consistent traffic arrangement, however, the physical constraints to widening the road formation in this section are considerable. In addition to widening the box culvert, works to provide a WCLT along this section would require:

a. Large cut and fill batter works between the road and the adjoining properties. These works would encroach into the adjoining properties, impacting them with fill, loss of land, removal of existing vegetation, and restriction of existing and potential future access.
b. An asymmetrical adjustment of the road alignment to avoid the altering the large gabion rock retaining wall over the crest in Ambrose/Red Hills Road. This adjustment would create undesirable 'kinks' in an otherwise straight length of road, and this may create other road safety issues for traffic traveling in each direction.
c. Fill works at the north-east and north-west corners of the Red Hills Road intersection, further encroaching into the adjoining properties.

These works are considered impractical and cost prohibitive, and the scope of work required is disproportionate to the road safety risk of retaining the existing common centreline arrangement.

Extending the WCLT without widening the road formation will result in traffic lanes and road shoulders narrower than is specified by Austroads. The effect of this would be to reduce road safety benefits relative to the existing situation, to increase wear of linemarking and to increase the potential for damage to the road shoulders. The result of this would be more frequent maintenance to preserve adequate conditions.

2. *Investigate any lighting and/or delineation upgrade at all intersections along the Primary Transport Route.*

Streetlighting upgrade

The Primary Transport Route is a rural road with minimal roadside development and no streetlighting installed along its length. Two public roads and the Quarry Access Road form three T-intersections at different locations along the route; none of these currently have streetlighting installed.

The Australian Standard for determining the warrants for road and intersection lighting and the arrangements of luminaires is ***AS1158.1.1:2005 Lighting for roads and public spaces – Performance and design requirements***. A review of Table 2.1 and other general guidance in AS1158 indicates the intersections on the Primary Transport Route do not meet the requirements for applying Category V lighting in the sub-categories of V1 to V5.

With respect to road lighting of isolated intersections, AS1158.1.1:2005 provides further guidance, stating that *'the provision of lighting on otherwise unlit roads of an intersection may be warranted in the interests of traffic safety'* and goes on the state *'where deemed necessary at a particular intersection, the lighting shall be provided to one of the levels (a), (b) or (c) of Clause 3.5.2, depending on the road authority policy and safety assessment*.'

The Standard nominates the issues that a *'safety assessment should consider'* when making a determination about providing road lighting at isolated intersections and what level (a) Full Category V Lighting, (b) Partial Category V Lighting or (c) Flag Lighting should be applied.

A review of Council's policies and standards published on their website did not identify any specific criteria or performance requirements relating to road lighting.

The safety assessment issues listed in AS1158.1.1:2005 section 3.5.1 include *'traffic density, posted speed limits, channelisation, geometry, sight distances, pedestrian and cyclist activity, previous night-time crash history and whether the intersecting roads will be lit in the future'*.

Our assessment of the Primary Transport Route and proposed Continuation Project against these issues is as follows:

a. Traffic density – is currently low, but the proposal will increase traffic flow to/from the quarry from a maximum of 295 inbound and 295 outbound daily truck movements to a maximum of 375 inbound and 375 outbound daily truck movements.

   Growth in other, non-quarry related, traffic is identified as low.

b. Posted speed limit – is 100 km/h along the Primary Transport Route; Gunlake and Council both support reducing the speed limit. Good and well-maintained delineation and appropriate warning signs in advance of the intersections is considered adequate for managing driver and road safety risk.

c. Channelisation – the Quarry entrance has linemarking channelisation, which does not represent an object impact hazard to drivers and therefore does not need streetlighting illumination.

   The Brayton Road/Ambrose Road intersection has concrete median islands installed; the July 2021 road safety audit suggested improving delineation of the intersection via maintenance of the linemarking and raised reflective pavement markers (RRPMs), painting the median islands, and installing T-intersection warning signs on all approaches.

d. Geometry – the road approaches to the intersections are generally straight with Brayton/Ambrose and Red Hills/Ambrose Road intersections positioned on crests. The geometry approaching the intersections is not considered problematic for drivers.

e. Sight distances – the July 2021 road safety audit identified the lines of sight for the Brayton/Ambrose and Red Hills/Ambrose Roads intersections are restricted in certain directions for light vehicle drivers who are entering the intersection from the side road position when viewing approaching light vehicles.

   Streetlighting will not remedy this situation and as identified in the road safety audit report, alternative measures such as STOP control, improving lines of sight (i.e., clearing vegetation, relocating the guardrail) will assist to improve this and mitigate the risk.

f. Future lighting – being a rural area, it is unlikely that road lighting is planned for any of these intersections, or the road generally, in the foreseeable future.

The July 2021 road safety audit of the Primary Transport Route (provided in the Road Safety Assessment that is Appendix F.2 of the Continuation Project EIS) raised the line-of-sight restrictions and the quality of delineation as issues. In the context of the road, the lack of lighting was not identified as a concern or a potential treatment to mitigate road safety risk. Further discussion on delineation is provided in the next sub-section, below.

Based on site conditions, and with regard to guidance in AS1158.1.1:2005, the road intersections along the Primary Transport Route do not meet requirements for level (a) and (b) lighting.

With regard to Level (c) Flag Lighting, this arrangement consists of *'one or more strategically placed luminaires'* placed to *'highlight the location of the intersection.* AS1158.1.1:2005 goes on to advise *'In doing so it is essential that care be taken not to create a source of glare for motorists on the otherwise unlit approaches'.*

Flag lighting installations do not meet Category V lighting requirements of AS1158 but are acknowledged to provide some level of alert to approaching drivers about the presence of the intersection – an effect acknowledged in the Standard.

It is noted that AS1158.1.1:2005 reiterates the need to treat isolated intersections with *'retroreflective advance warning and guidance'*, which aligns with the recommendations presented in the road safety audit report to improve and maintain delineation of the route, including the intersections.

It is our view that the installation of intersection streetlighting to Category V standards would be out of character for the Primary Transport Route and that flag lighting would not provide a material improvement to address Council's stated concerns about safety.

Delineation upgrade

The Primary Transport Route currently has a good level of delineation in place, with centreline, edgeline, retro-reflective pavement markers, roadside guideposts, and barrier terminal chevrons all present.

The July 2021 road safety audit identified that the delineation measures in place need maintenance to ensure appropriate and consistent guidance in night and low visibility conditions. The road safety audit also recommended improvements to the delineation on approach to and at each of the road intersections. This includes maintenance remarking, replacing missing guideposts and replaced/additional chevron delineation on guardrail terminals. Enhancement of delineation at intersections was also recommended; including painting the concrete median islands and installing raised reflective pavement markers at the Brayton/Ambrose Road intersection, installing advanced T-intersection warning signs, and extending the separation linemarking at the Hume Highway/Red Hills Road junction.

The level of delineation along the Primary Transport Route, if maintained in good condition, and enhanced as recommended, is expected to provide an appropriate level of guidance to motorists in night and low visibility conditions. The delineation as suggested is also expected to provide better safety performance than lighting, being more consistent along the route, more reliable if maintained, and more cost effective than lighting solutions.

3. *The intersection of Brayton Road and Ambrose Road should be assessed to ensure it meets the relevant Austroads Guidelines.*

Austroads Guidelines provide advice and guidance to road practitioners, that in combination with experience, assists the development of an optimum road design solution. Austroads acknowledges and goes to considerable effort to explain what constitutes a *'safe road environment'* explaining that:

> *Without guaranteeing absolute safety, a 'safe road environment' is one in which road users can successfully negotiate road alignments and potential conflicts with other road users, and which provides a forgiving roadside environment for errant vehicles.*

And,

> *Such a safe road environment will be achieved if it is designed and managed so that it provides:*
>
> - *a generally consistent design standard*
> - *effective transitions where a reduction in standard is necessary (i.e., there should be no 'surprises' in road design or traffic control, and the design should match road user expectations)*
> - *a controlled release of relevant information (the design matches the information processing abilities of drivers)*
> - *repeated information, where pertinent, to emphasise increased risk*
> - *for the safety needs of all road users.*

And,

Applying the principles of risk management and the Safe System approach, a safe road should:

- *be 'self-explaining' to allow road users to readily comprehend the type of road and what could be expected in terms of the elements of the design*
- *warn road users of any substandard or unusual features*
- *inform road users of conditions to be encountered*
- *guide road users through unusual sections*
- *control road users passage through conflict points or conflict sections*
- *be forgiving of errant or inappropriate behaviour.*

Designing a road to these principles is not the same as designing a road which simply meets a set of recommended values. ***A road designed to meet a set of recommended values is not necessarily safe and a road which, in some details, fails to meet these values is not necessarily unsafe****. There is no substitute for the application of sound engineering experience and judgement* (emphasis added).

Table 1 in the appendix to this advice presents an assessment of the Brayton Road/Ambrose Road intersection against sight distance criteria provided in **Austroads Guide to Road Design Part 4A** and outlines other relevant features and design arrangements in the context established by Austroads in the ***Guide to Road Design Part 1: Objectives of Road Design***.

The July 2021 road safety audit of this intersection identified some restriction of the lines of sight, noting this relates to the ability of light vehicle drivers to observe other approaching light vehicles. Heavy vehicle drivers have a significant height advantage that improves their lines of sight and allows their vehicles to be more readily seen by other motorists approaching the intersection.

As outlined in **Table 1** the intersection largely meets the relevant Austroads Guidelines in key areas of design and safe road performance. Certain shortfalls in some aspects of the road geometry that restrict, or limit lines of sight are noted, however appropriate, practical, and commonly applied alternate measures are available to mitigate the associated road safety risks. These include managing roadside vegetation impacting lines of sight, enhancing/maintaining delineation providing additional advanced intersection warning signs and altering the yield control from GIVE WAY to STOP. The application of these alternative measures is in accordance with Austroads Guidelines as described above.

4. *The sight distance be reviewed at the intersection of Red Hills Road and Ambrose Road for vehicles exiting Red Hills Road. If improvements are identified by the review, they be implemented in accordance with Austroads Guidelines.*

The July 2021 road safety audit identified the sight distances available for light passenger vehicles exiting the north leg of the Red Hills Road/Ambrose Road intersection to observe other light vehicles is less than optimal. With reference to **Figure 5**, this is due to lines of sight being partially obstructed by the road cresting and by roadside vegetation (looking to the east) and partially impeded by the roadside barrier (looking to the west).

The effect of the sight distance deficiency is less when observing slow moving heavy vehicles due to the higher profile of these vehicles being clear of low obstructions and the slow speed on approach to the intersection providing greater time to complete a turn manoeuvre.

With reference to the road safety audit, the following improvements to the intersection are recommended:

a. Installation of intersection warning signs on the Ambrose Road and Red Hills Road (east) approach legs.

b. Trimming and maintaining roadside vegetation that impedes lines of sight.

c. Consideration to relocate the guardrail in the road shoulder further to the north.

d. Improve maintenance of the linemarking and delineation on approach to and through the intersection.

As noted in the road safety audit report, these issues exist currently and these actions are considered to be the responsibility of the road authority.

5. *Minimum 3 m trafficable clear zones should be installed for the full length of the Primary Haulage route – with the exception of bridges, culverts and other area agreed by the General Manager where it is impracticable to do so - and be constructed in line with Austroads guidelines for heavy vehicle use.*

Previous improvement works along the length of the Primary Transport Route provided minimum 3 m clear zones, except through deep cutting sections and across the road culvert or high fill embankments, where steel guardrail has been installed.

The typical cross-section adopted for the Primary Transport Route with the WCLT is shown in **Figure 1**, with the minimum 3 m clear zone with traversable slopes are indicated.

Austroads Guide to Road Design Part 3 Geometric Design specifies the requirements for a traversable roadside area, with a batter slope up to 3:1 considered traversable for cars and up to 10:1 for trucks.

In the context of the Primary Transport Route, previous works provided a minimum 3 m clear zone with 4:1 verge batters and shallow table drains along the full length of the route, except where a 3 m clear zone could not be reasonably achieved; in these instances guardrail has been provided.

With reference to the Austroads Guide, the minimum 3 m trafficable clear zones requirement is considered to be satisfied.

Transport for NSW

1. An assessment of the impacts on the intersection of Red Hills Road and the Hume Highway:

   a. *The suitability of the existing deceleration lane for vehicles entering via Red Hills Road. This includes an assessment of its compliance with current Austroads Guide to Road Design requirements based on a design speed of 10 km/h over the posted speed.*

With respect to deceleration lanes, **Austroads Guide to Road Design Part 4A** stipulates the following:

*The design of deceleration turn lane length is based on the performance of cars. It is generally accepted that a design based on the performance of trucks would not be cost-effective and that **it is generally acceptable for trucks to commence deceleration in the through lane**. However, consideration should be given to providing a longer deceleration lane in situations where there is a high volume of trucks turning (emphasis added).*

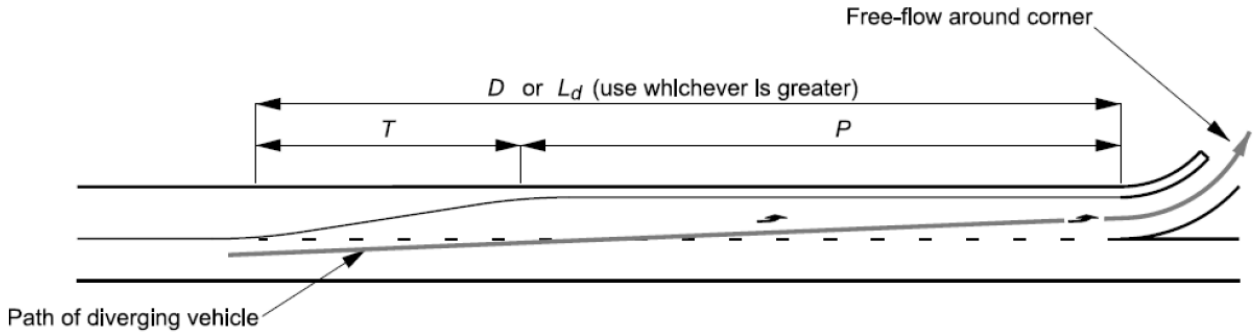
Vehicles greater than 4.5 tonnes GVM have a speed limit of 100 km/h applied and TfNSW have requested review of suitability *'…based on a design speed of 10 km/h over the posted speed'*. Given the speed limit applicable to all vehicles that are the subject of the proposal, 110 km/h has been adopt for this review.

The relevant references from Austroads in relation to the deceleration lane are the **Guide to Road Design Parts 3** and **4A**, and consideration of the suitability of the lane is based on the information in those Parts, a review of the site operations applying road design, safety, and traffic engineering experience.

The existing deceleration lane is approximately 135 m in total length (D), and 3.5 m wide. This consists of 35 m of taper (T) and 100 m of parallel lane (P). The longitudinal grade is estimated less than 1%, as measured from Nearmap.

The existing deceleration lane provides direct entry to Red Hills Road, which is a left in/left out intersection with the Hume Highway. There is no requirement for traffic exiting the Hume Highway to

stop when entering Red Hills Road, therefore, the assessment of suitability relates to a 'deceleration to a turning speed' situation, as illustrated in **Austroads Part 4A** Figure 5.1 (b) – see below.



(b) Deceleration to a turning speed

As the turning lane is free flowing (i.e., no yield requirement) there is no expectation of queuing vehicles and therefore no need for storage length (S).

Given the curve radii, it is reasonable for heavy vehicles entering Red Hills Road to adopt a turning speed of 20 km/h at the end of the deceleration lane.

The length of the deceleration lane is the greater of 'D' and L_d. 'D' can be determined by calculating taper length + length of parallel lane or referencing **Austroads Part 4A** Table 5.2.

Austroads provides a typical design deceleration rate for heavy vehicles of 2.8 m/s^2 (AGRD Part 3, Table 5.3); this is higher than the typical design rate adopted for cars (2.5 m/s^2), but lower than the maximum (stop condition) for cars (3.5 m/s^2).

With reference to Part 4A Table 5.2, for an approach speed of 110 km/h and exit speed of 20 km/h, the total length of the deceleration lane is 180 m.

Adopting the design deceleration for heavy vehicles (i.e., 2.8 m/s^2), and 110 km/h, the required length of the deceleration lane is calculated to be 159 m.

Considering heavy vehicles are reasonably expected to commence deceleration in the northbound through lane on approach to the turn lane, a lower approach speed should be applied, say 90 or 100 km/h.

The length 'D' from Part 4A Table 5.2 then ranges between 120 and 150 m; using the heavy vehicle deceleration rate, the total length ranges between 105 and 130 m.

A calculation of L_d, applying the parameters outlined in Part 4A gives a length of 71 m.

The calculated limiting length is therefore D (105 and 130 m), less than the present 135 m.

As an additional consideration of the function and operation of the site, there are two northbound traffic lanes along the Hume Highway. As stated by Austroads, it is reasonable to accept that heavy vehicles accessing Gunlake Quarry via the subject deceleration lane will indicate their intention to turn and begin to slow from the left northbound through lane. Other vehicles following behind a slowing truck then have the opportunity to match the deceleration and subsequently accelerate after Red Hills Road, or to move into the right-hand northbound lane and pass the slowing truck.

Based on the above assessments, including using the values specific to heavy vehicles, the existing length of deceleration lane, as previously approved by Roads and Maritime Services (now Transport for NSW), is considered adequate.

b. *The suitability of the existing acceleration lane for vehicles entering the Hume Highway from Red Hills Road. This includes an assessment of its compliance with current Austroads Guide to Road Design requirements based on a design speed of 10 km/h over the posted speed.*

   The acceleration lane was constructed to meet an approval condition for the Gunlake Quarry Extension Project issued in June 2017. The acceleration lane is over 565 m in length and the design was approved by the Roads and Maritime Services/Transport for NSW in 2018. Experience indicates heavy vehicles are capable of safely merging onto the Hume Highway without undue impact on through traffic.

c. *Measures that will be implemented to stop/prevent vehicles departing the Hume Highway via Red Hills Road cutting the corner (southern side of the Red Hills Road/Hume Highway intersection) and damaging existing infrastructure within the road reserve (e.g., existing pits, etc).*

   This matter is addressed separately by Gunlake.

d. *An assessment of the suitability of available lighting at the Red Hills Road/Hume Highway intersection inclusive of the deceleration and acceleration lanes and the need to provide lighting at these locations noting the increase in vehicle movements proposed and the 24/7 operation (e.g., does it comply with relevant standards). This includes details on what consultation has been had with the TfNSW to discuss lighting needs and associated technical standards (refer to the TfNSW letter dated 11 February 2021).*

   The arrangement where Red Hills Road joins the Hume Highway is a free-flowing left turn slip lane - left off the Hume Highway into Red Hills Road and left off Red Hills Road with a 565 m acceleration merge lane.

   There is currently 'flag' lighting installed with two luminaires located where Red Hills Road joins the Hume Highway. The level of lighting could be improved by replacing the existing lighting heads with LED lighting.

e. *Need to upgrade the road pavement at the intersection of Red Hills Road/Hume Highway intersection (e.g., section that is current asphalt to concrete) noting that TfNSW has no current planned works in this area.*

   This matter is addressed separately by Gunlake.

2. *TfNSW notes that the ARRB Development Road Safety Assessment Report (Project No. 017134, dated 15 September 2021) does not look at the connection of Red Hills Road and the Hume Highway.*

   The provision of the free-flowing left turn slip lane between Red Hills Road and the Hume Highway was required as part of the approval of the Gunlake Quarry Extension Project. The designs prepared for Gunlake were the subject of a RMS Major Works Authorisation Deed (WAD), including both design and pre-opening road safety audits by the Roads and Maritime Services for the upgrade in 2018.

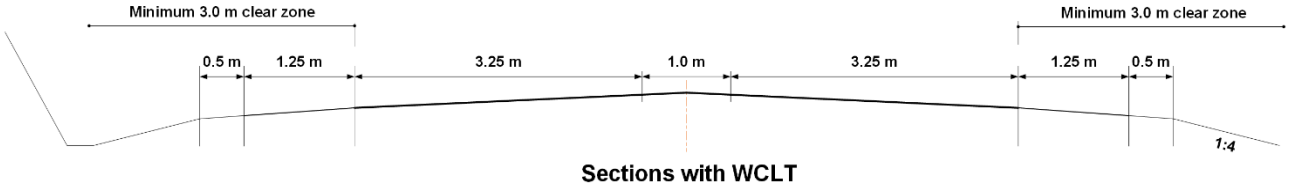
I trust this response provides information to permit Gunlake to addresses each of the points raised by Council and Transport for NSW.

Please do not hesitate to contact me if you require further information or advice.

Yours Sincerely

David McTiernan
Leader, Infrastructure Safety Performance
Safer Smarter Infrastructure

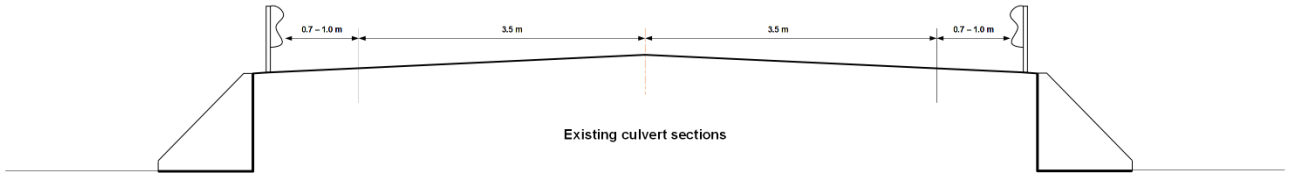
FIGURE 1 – Existing wide centreline treatment sections



Sections with WCLT

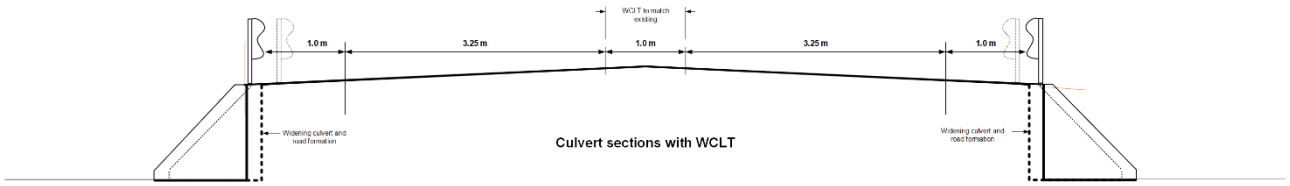
,

FIGURE 2 – Typical existing narrow road culvert section (i.e., no WCLT applied)



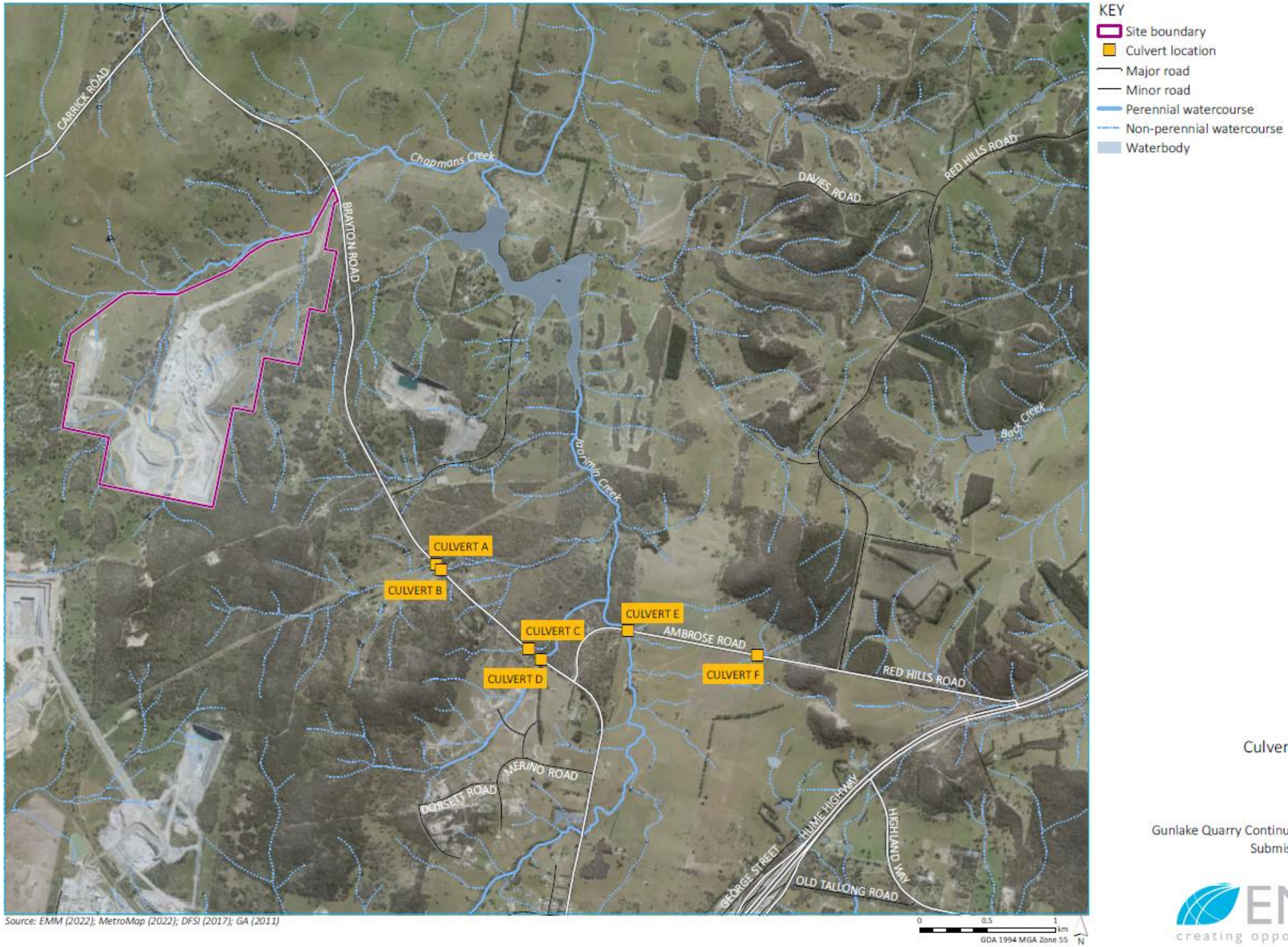
Existing culvert sections

FIGURE 3 – Suggested typical road culvert section with WCLT applied



Culvert sections with WCLT

FIGURE 4 – Culvert locations, Brayton Road



Source: EMM (2022); MetroMap (2022); DFSI (2017); GA (2011)

Culvert locations

Gunlake Quarry Continuation Project
Submissions Report
Figure 3.1

EMM
creating opportunities

FIGURE 5 – Lines of sight for light vehicle drivers exiting Red Hills Road

AS1158.1.1:2005 – Guidance Extract for Isolated Intersections

3.5 ISOLATED INTERSECTIONS

3.5.1 Application

The provision of lighting on otherwise unlit roads of an intersection may be warranted in the interests of traffic safety. Such lighting is particularly applicable to outer urban, semi-rural and rural locations. Where deemed necessary at a particular intersection, the lighting shall be provided to one of the levels (a), (b) or (c) of Clause 3.5.2, depending on the road authority policy and a safety assessment. The safety assessment should consider traffic density, posted speed limits, channelization, geometry, sight distances, pedestrian and cyclist activity, previous night-time crash history and whether the intersecting roads will be lit in the future.

3.5.2 Design rules

(a) *Full Category V lighting* Where two otherwise unlit main roads intersect and a safety audit and geometry warrant this, lighting complying with Clause 3.4 shall be provided at the intersection and at least two spans of lighting complying with Clause 3.2 shall be provided on each of the roads leading into the intersection. All of the lighting shall be Category V5 or above.

(b) *Partial Category V lighting* Where two otherwise unlit main roads intersect and a safety audit and geometry warrant this, the intersection lighting scheme shall consist of one luminaire within the 10 m zone bounding the intersection and one span of lighting on each leg. All the lighting shall be Category V5 or above.

Where a main road and a local road intersect and the local road is part of a developed area, the local road shall have lighting complying with AS/NZS 1158.3.1, Clause 3.2.3.2, and the main road shall have one luminaire within the 10 m zone bounding the intersection and one span of lighting on each leg. The lighting on the main road shall be Category V5 or above.

(c) *Flag lighting* Where otherwise unlit roads intersect and a safety audit and geometry warrant this, the intersection may be equipped with flag lighting as well as retroreflective advance warning and guidance. Flag lighting is not intended to illuminate the intersection to the requirements of (a) and (b) above but rather to alert approaching motorists to the presence of the intersection from a safe distance away.

For such applications, one or more strategically placed luminaires shall be installed to highlight the location of the intersection. In doing so, it is essential that care be taken not to create a source of glare for motorists on the otherwise unlit approaches.

The luminaires used shall be of the type normally used in Category V lighting, and the mounting height and lamp light output combination shall be as given in Table 3.2. The combination used will depend on the level of illumination required at the particular location.

TABLE 3.2

MOUNTING HEIGHT AND LIGHT OUTPUT

Nominal mounting height m	Nominal lamp light output klm	Indicative lamp HPS W
7	8	70
9	12	100
10.5	16	150
12	28	250

3.2.2.3 *Change in carriageway width*

3.2.2.3.1 *General*

A change in carriageway width that creates converging or diverging traffic streams requires illumination of the area where the change in width occurs. The requirements for convergence and divergence differ.

3.2.2.3.2 *Converging traffic lanes*

For converging traffic streams the area where this change occurs shall be illuminated by one of the following design options:

(a) An illuminance based design shall be carried out that comprises the following:

(i) *On the carriageway* The area of the carriageway extending 5 m each way along the road from the point where the convergence starts, extending 3 m out on to the carriageway from the kerb or edge line.

(ii) *On the surrounds* The area of the carriageway extending 5 m each way along the road from the point where the convergence starts, extending 3 m back on to the surrounds from the kerb or edge line.

The required values for E_{ph} and U_{E1} in Table 2.2 shall apply within the areas described in Item (i), and $0.5 \times E_{ph}$ and U_{E1} shall apply within the area described in Item (ii). See also Figure 3.2(a). OR

(b) A luminaire of the type used in the design shall be placed within 5 m of the point where convergence commences and finishes. OR

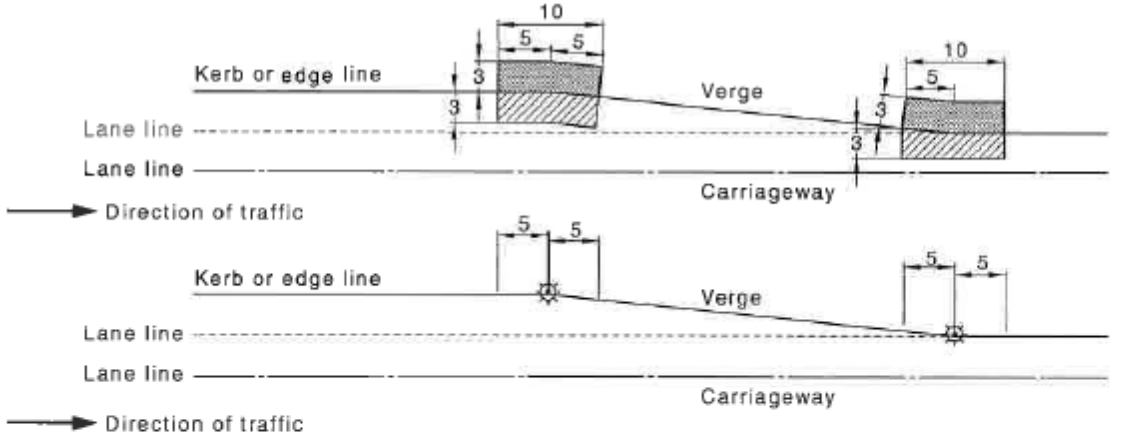
(c) A combination of treatments (a) and (b) shall be provided.

To assist in providing appropriate visual guidance to vehicle drivers at places where a change (whether abrupt or gradual) in the carriageway occurs, the luminaires shall be located to follow the change in road alignment

3.2.2.3.3 *Diverging traffic lanes*

Where there is an increase in the number of lanes on a carriageway, a specific illuminance design may be conducted where the lanes start to diverge over the area shown in Figure 3.2(b) to meet the requirements of Table 2.2 for E_{ph} and U_{E1} or a luminaire may be placed within 5 m of the point of divergence.

Where a traffic lane diverges at the centre of the road, for example for a turn bay or additional traffic lane, the most appropriate design option shall be adopted.

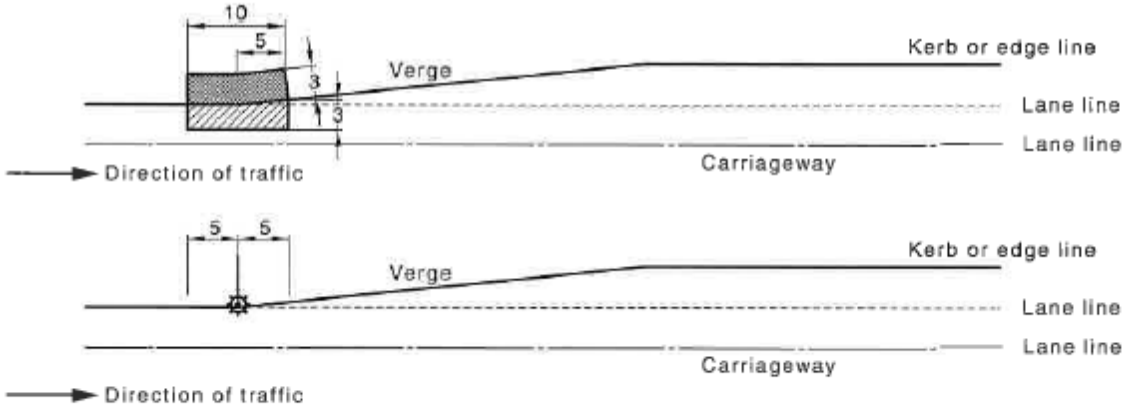


Options for design treatment - Converging traffic lanes
Alternatively a combination of either method may be applied

E_{Ph} and U_{El} apply

$0.5E_{Ph}$ and U_{El} apply

(a) Converging traffic lanes



Options for design treatment - Diverging traffic lanes

E_{Ph} and U_{El} apply

$0.5E_{Ph}$ and U_{El} apply

(b) Diverging traffic lanes

DIMENSIONS IN METRES

NOTES:

1 This treatment applies to convergences that start kerb-side, or where there is a median, that start from the median side of the carriageway.

2 Where there is a median, this luminaire may be placed on the median.

FIGURE 3.2 TYPICAL MINIMUM DESIGN AREAS FOR CONVERGING AND DIVERGING TRAFFIC LANES

TABLE 1 – Brayton/Ambrose Road intersection assessment

AUSTROADS DESIGN PARAMETER	REQUIREMENT	ASSESSMENT
Layout description	• T-intersection with median islands in all three legs. • No auxiliary lane channelisation. • GIVE WAY controlled. • Ambrose Road has a compound curve approach to the intersection. • Positioned on the crest in Brayton Road (3% and 6.5% upgradient). • Roadside vegetation along Brayton Road partially obstructs lines of sight.	✓ Median islands are adequate and appropriate. ✓ The intersection is operating at LoS A and is projected to operate at LoS A at full development as proposed. ✓ There are no intersection warning signs installed. ✓ Delineation needs improvement.
Approach sight distance (ASD) *For awareness of the intersection on minor road*	• 162 m (Ambrose approach)	✗ Requirement is not achieved due to the road curve approach. This approach sight distance cannot be reasonably achieved given the approach geometry. Estimated sight distance = ~130 m **Suggested action** – install advanced T-intersection warning sign and maintain delineation.
Safe intersection sight distance (SISD) *Minimum sight distance on the major road*	• 240 m (Brayton westbound)	✗ Not achieved due to roadside vegetation. Measured sight distance = 218 m **Suggested action** - clear/trim vegetation to improve the line of sight available to light vehicle drivers; this will then exceed the minimum SISD required.
	• 232 m (Brayton eastbound)	✓ Achieved Measured sight distance = 325 m
Minimum gap sight distance (MGSD)	• 139 m (Brayton eastbound)	✓ Achieved Measured sight distance = 325 m
	• 111 m (Brayton westbound)	✓ Achieved Measured sight distance = 218 m
Principles of risk management and the	• a generally consistent design standard	✓ The intersection is consistent with the type and function of the road and appropriate for the range of vehicles using it.

AUSTROADS DESIGN PARAMETER	REQUIREMENT	ASSESSMENT
Safe System approach	• be 'self-explaining' to allow road users to readily comprehend the type of road and what could be expected in terms of the elements of the design	✓ Requires additional signing and delineation ✓ STOP control recommended
	• warn road users of any substandard or unusual features	✓ STOP sign control recommended ✓ T-intersection warning signs on all three approaches recommended ✓ Additional delineation and linemarking to improve guidance, particularly in low-light/dark conditions
	• inform road users of conditions to be encountered	✓ T-intersection warning signs on all three approaches recommended ✓ Additional delineation and linemarking to improve guidance, particularly in low-light/dark conditions
	• guide road users through unusual sections	✓ The intersection is a typical rural T-intersection arrangement, with a clear layout. ✓ Improved regular maintenance to ensure continued guidance of motorists.
	• control road users passage through conflict points or conflict sections	✓ The intersection has median islands to reinforce travel paths, separate opposing traffic and reduce conflict points
	• be forgiving of errant or inappropriate behaviour.	✓ Median islands assist to redirect errant vehicles and prevent serious collisions. ✓ Roadsides are generally clear of serious impact hazards maintenance monitoring to ensure this into the future.

TABLE 2 – Red Hills/Ambrose Road intersection assessment

DESIGN PARAMETER	REQUIREMENT	ASSESSMENT
Layout description	• T-intersection no median islands. • Speed limit 100 km/h. • No auxiliary lane channelisation. • STOP controlled. • Ambrose/Red Hills Roads have a straight alignment approach to the intersection. • Positioned on crest in Ambrose/Red Hills Roads (+12% and +8% upgradient). • Restricted terrain due to large rock cutting and earth fill batters. • Roadside vegetation and guardrail partially obstructs lines of sight from side road leg.	✓ Operating at LoS A and projected to operate at LoS A at development. ✓ No intersection warning signs. ✓ STOP control is appropriate given the available sight distances. ✓ Delineation needs improvement.
Approach sight distance (ASD) *For awareness of the intersection on minor road*	• 162 m (Red Hills southbound approach)	✓ Achieved Estimated sight distance = 170 m
Safe intersection sight distance (SISD) *Minimum sight distance on the major road*	• 228 m (Red Hills westbound)	✗ Not achieved for light vehicles due to the road incline and roadside vegetation. This approach sight distance cannot be reasonably achieved given the approach geometry. Measured sight distance = 131 m **Suggested action** - Trimming/clearing roadside vegetation will improve line of sight available to light vehicle drivers.
	• 163 m (Ambrose eastbound)	✓ Achieved Measured sight distance = 191 m
Minimum gap sight distance (MGSD)	• 139 m (Red Hills right turn out - southbound)	✓ Achieved Measured sight distance = 191 m
	• 111 m (Red Hills right turn in - westbound)	✓ Achieved Measured sight distance = 191 m

Appendix D

TfNSW Hume Highway/Red Hills Road intersection deceleration lane approval

16/04/2015

STH09/01940A

Edward O'Neil
Rollers Australia Pty Ltd
53 Cross Street, Double Bay NSW 2028

Dear Edward O'Neil

Gunlake Quarry, Hume Highway Marulan Final Certificate

I refer to your final claim letter dated 16/04/2015 and confirm that the developer has met all of its obligations in relation to the above project as detailed in the Works Authorisation Deed.

This letter represents the Final Certificate of the project.

Arrangements have been made for release of the remaining Approved Security in the amount of $66,883.30

Please contact the undersigned on (02) 4221 2523 if you require further advice.

Yours sincerely

Ali Sawan
RMS Project Engineer

Cc General Manager, Goulburn Mulwaree Council

Appendix E

Pavement remaining life assessment

Pavement Management Services

Gunlake Quarries – FWD and Pavement Remaining life

Pavement Summary Report | Sydney NSW

TR2021268 V1R0 | 14 October 2021

Gunlake Quarries

02 4841 1344

GUNLAKE QUARRIES

Document Control

Document Information

Project Title	Pavement Summary Report
Document Title	Gunlake Quarries – FWD and Pavement Remaining life
PMS Project No.	2021272
PMS Document No.	TR2021268
Issue Number	V1R0
Issue Status	Draft

Client Information

Client	Gunlake Quarries
Client Address	715 Brayton Rd, Marulan NSW 2579
Client Contact	Mr. David Kelly
Client Document No.	N/A

Revision History

Issue	Date	Status	Comments on Content	Prepared By	Checked By	Approved By
01	14 Oct. 2021	Draft	Preliminary Draft	RA		
01	14 Oct. 2021	Final	Checked by client	RA	SM	SM

Project Team

Initials	Name	Role
RA	Rami Akl	Project Engineer
SM	Simon McBeath	General Manager
TM	Trent McDonald	Senior Engineer | Team Leader – Aviation & Pavements

Pavement Management Services
Level 2/81 1/2 George St,
The Rocks, Sydney NSW
2000
Australia

Gunlake Quaries

Level 24, 44 Market Street,
Sydney NSW
2000
Australia

14 October 2021

Dear Sir/Madam,

Please find attached herewith our report presenting the factual outcomes of the dilapidation survey carried out throughout nominated streets in Marulan, Sydney NSW. The works have been carried out as per our proposal (Ref. Q-2021268) and in line with relevant local / international standards. We trust this report meets your expectations and would welcome the opportunity to discuss any of the contents further with you in person if necessary.

If you have any queries, please contact the undersigned.

Yours faithfully,

Simon McBeath
General Manager

Executive Summary

This report presents the outcomes and methodologies adopted in the analysis of the recently completed Falling Weight Deflectometer assessment for Gunlake Quarries. Three traffic scenarios were considered separately for remaining life analysis to provide a comprehensive evaluation of potential developments.

Considering all roads evaluated as part of this study, the structural remaining life is seen to be at least 15 years based on the Austroads remaining life methodology. This analysis is based on the pavement remaining in its current configuration of a spray sealed flexible unbound pavement that is subject to permanent deformation (rutting) being the primary mode in which these roads can be expected to fail.

Contents

1 Introduction

1.1 Introduction and Background

Pavement Management Services Pty Ltd (PMS) was commisioned by Gunlake Quarries to undertake a undertake a pavement structural evaluation and provide a remaining life assessment on the pavement of Brayton Road from the Gunlake property at 715 Brayton Quarries to Marulan at the Hume Highway Interchange and Red Hills Road from the Hume Highway to Brayton Road.

To undertake the pavement investigation and prepare the remaining life report, Pavement Management Services undertook Falling Weight Deflectometer (FWD) testing on the existing pavement on 26th August 2021. Based on the FWD testing, the values for deflection and curvature and the remaining life for the various pavement sections were determined in order to assess the impact of the proposed increase to the quarry output on the pavement structure of Brayton and Red Hills Road.

1.2 Objective

The objective of this report was to determine the current structural capacity and remaining life of Brayton and Red Hills Road and assess the adequacy of the pavement to carry the additional proposed quarry traffic.

1.3 Scope of Work

The Scope of Work as instructed includes fieldwork (data aquistion) and factual reporting elements. These are outlined in the following Section 1.3.1 and 1.3.2.

1.3.1 Field Work

The scope of work included Non-Destructive Testing (NDT) in Brayton and Red Hills Road, using the following equipment:

- Falling Weight Deflectometer (FWD)

1.3.2 Reporting

The scope of reporting includes the provision of factual report documenting the methodologies applies in the fieldwork and data processing as well as a summary of testing outcomes with commentary where applicable.

1.4 Location Details

The project is located within Marulan, Sydney Australia. Figure 1-1 following shows the extent FWD and survey with individual segments identified on satellite imagery.

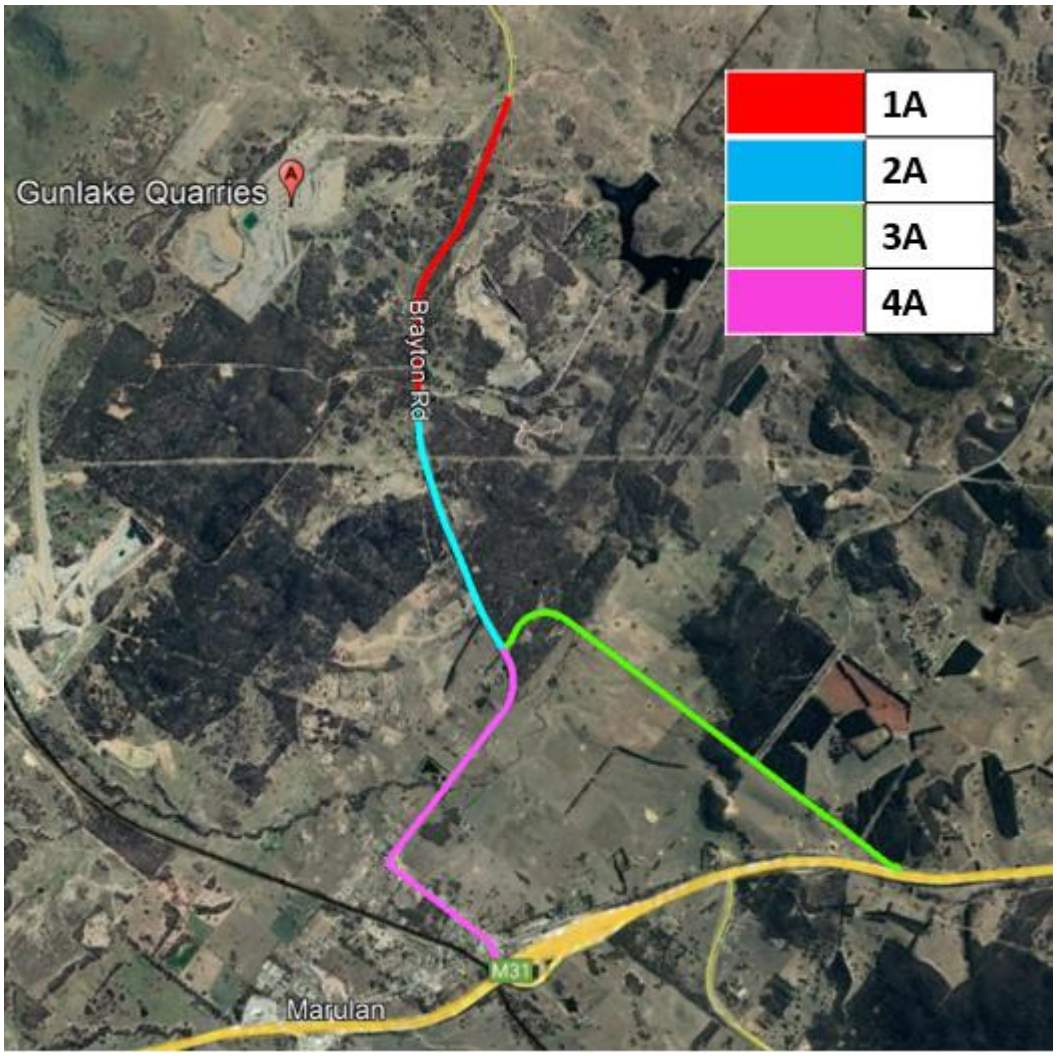


Figure 1-1 Extent of Survey in Marulan (Ref. Google Earth)

2 Methodology and Assumptions

Testing was carried out in the Outer Wheel-Path (OWP) in both the Prescribed and Counter lanes of various sections of pavements in Marulan, NSW as shown in preceding Section 1.4. The combined length of the survey came to 21.15 lane-km and comprised of 8 segments. The locations surveyed are listed in the following Table 2-1 which also provides PMS ID's (unique IDs assigned to each lane), start and end Chainages and lengths.

Table 2-1 Section Locations

PMS_ID	Road Name	Lane	Direction	Start Chainage	End Chainage	Length (km)
1A1	Brayton Road	1	P	0+000	2+225	2.225
1A2	Brayton Road	2	C	2+225	0+000	2.225
2A1	Brayton Road	1	P	0+000	1+900	1.900
2A2	Brayton Road	2	C	1+900	0+000	1.900
3A1	Red Hills Road	3	P	0+000	3+600	3.600
3A2	Red Hills Road	4	C	3+600	0+000	3.600
4A1	Brayton Road	1	P	0+000	2+850	2.850
4A2	Brayton Road	2	C	2+850	0+000	2.850

2.1 Falling Weight Deflectometer

2.1.1 Objective

The objective of the Falling Weight Deflectometer (FWD) testing was to evaluate the structural properties of the pavements included in the scope of work. This report presents the technical methodology applied and the structural properties of the respective pavements in terms of deflection and curvature.

2.1.2 Equipment

The FWD uses a series of applied loads and measured deflections to evaluate structural properties of pavement layers. The FWD generated data, combined with layer thicknesses, can be used to obtain the elastic moduli of the structural layers within a pavement structure. This information, in turn, can be used in the structural analysis to determine the estimated expected life.

The FWD uses impulse load on the pavement surface to measure the movement of the surface at a range of distance from the load (ASTM, 2009). For each location and falling weight load, the following information is collected and electronically stored:

- Station
- Surface Temperature
- GPS Location
- Air Temperature
- Peak Load
- Date/Time of Test
- Peak Deflection for nine (9) geophones

For this testing, a range of loads comprising of three (3) load drops of 40kN were applied to represent traffic loading. Testing outcomes were monitored throughout the project to ensure quality data was collected. Geophones were positioned at the locations shown in the below Figure 2-1.

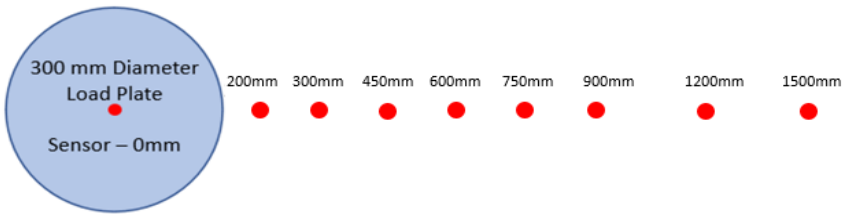


Figure 2-1: Falling Weight Deflectometer (FWD) Geophone Configuration

2.1.3 Field Activities

The FWD is a trailer mounted equipment that was towed by an Isuzu - NLR 45-150. Prior to commencing field activities, all necessary permissions / approvals were obtained as necessary. The testing was carried out on live roads with traffic control.

The FWD testing was carried out on 26th August 2021 at 25m intervals in the Outer Wheel-Path (OWP) with test points staggered across all lanes as shown in

Figure 2-2 following. At each test point the peak applied load and peak deflections were recorded from 9 geophones, with spacing ranging from under the center of the load to a distance of 1.5m from the load.

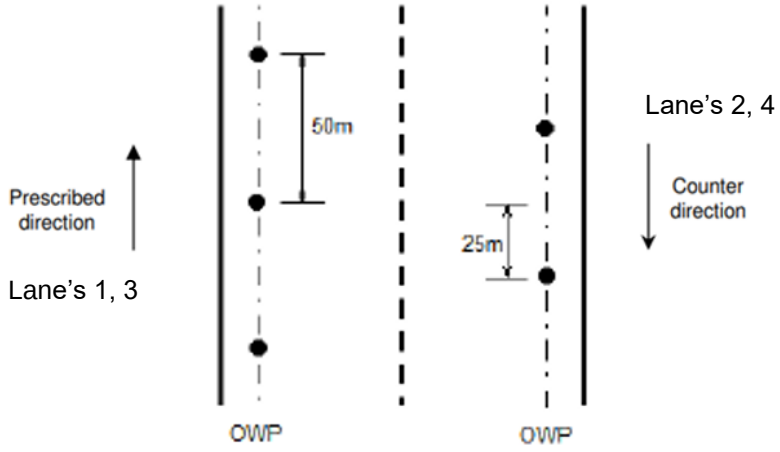


Figure 2-2: FWD Testing Points Configuration (50m Spacing)

2.1.4 Data Processing and Analysis

For this project processing and analysis of the FWD outcomes included presentation of the deflection data and curvature. A further traffic and remaining life analysis was conducted from these results.

2.1.5 Design Traffic Analysis

Three scenarios were considered for traffic loading as follows:

1. Initial case – based on traffic count data
2. Case 1 – considering an addition increase of 250 class 9 and 10 truck movements
3. Case 2 – considering an additional increase of 500 class 9 and 10 truck movements

Road traffic includes a mixture of vehicles ranging from light to heavy vehicles and all vehicles contribute to the structural deterioration of the pavement though light vehicle have a much lower impact when compared to heavy vehicles. To design a pavement structure within a defined period, the traffic is considered one of the most important factors. The design traffic of Brayton and Ambrose/Red Hills Road were determined from 13 bin vehicle classification data collected over a seven-day period from the 10th to the 17th of June 2020 supplied by Client representatives. In addition, a traffic count of trucks travelling from and returning to the quarry via the Gunlake Quarry Access Road was provided.

2.1.6 Remaining life and Overlay requirements based on Design Chart Method

The empirical design chart-based approach was used in the determination of the structural life of the pavement; the normalized deflection and curvature readings were related to the structural life in accordance with Part 5 of the Austroads Guide to Pavement Technology [3]. The following assumptions were made in undertaking this analysis:

- The remaining life and overlay requirements assume that the pavement is flexible and does not include any cemented materials.
- The pavement surface comprises predominantly a single coat seal with a thickness of approximately 25mm.
- A seasonal moisture factor of 1.0 has been used on the basis that there is no defined wet/dry season at the site. This was determined utilising Bureau of Meteorology historical rainfall data from Goulburn which showed generally consistent rainfall patterns throughout the year.

Any assessment of pavement remaining life based on the empirical design chart method is subject to the inherent limitations of empirical based methods. The more fundamentally based mechanistic-empirical approach, utilizing material characteristics such as layer modulus and environmental conditions provides a higher level of confidence in the assessment of remaining life, subject to the constraints of having accurate pavement profiles.

3 Pavement Condition Results

3.1 Structural Assessment (FWD)

3.1.1 Pavement Profiles

The pavements tested were comprised of a 25mm spray seal surface (Table 3-1) apart from small Asphalt sections throughout and shown in Table 3-2.

Table 3-1 Pavement profiles

PMS_ID	Layer Thickness (mm)	Layer Thickness (mm)			Surface Type
		Surface Thickness	Base	Subgrade	
1A1	Brayton Road	25	200	160	Spray Seal
1A2	Brayton Road	25	200	160	
2A1	Brayton Road	25	200	160	Spray Seal
2A2	Brayton Road	25	200	160	
3A1	Red Hills Road/ Ambrose Rd	25	200	160	Spray Seal
3A2	Red Hills Road/ Ambrose Rd	25	200	160	
4A1	Brayton Road	25	160	160	Spray Seal
4A2	Brayton Road	25	160	160	

Table 3-2 Additional Asphalt sections

PMS_ID	Layer Thickness (mm)	Surface Thickness	Chainage Start	Chainage End	Length (km)	Surface Type
1A1	Brayton Road	50	0+000	0+040	0.04	Asphalt
1A2	Brayton Road	50	0+000	0+040	0.04	
2A1	Brayton Road	50	1+900	1+940	0.04	Spray Seal
2A2	Brayton Road	50	1+900	1+940	0.04	
3A1	Red Hills Road/Ambrose Rd	200	3+500	3+600	0.10	Deep lift Asphalt
3A2	Red Hills Road/ Ambrose Rd	200	3+500	3+600	0.10	
4A1	Brayton Road	50	2+550	2+900	0.35	Spray Seal/Asphalt
4A2	Brayton Road	50	2+550	2+900	0.35	

3.1.2 Design Traffic

Traffic count data from three locations, comprising 13 bin classification and daily traffic volumes over a seven-day period was provided by representatives of the Client. The three traffic counter locations can be seen in Figure 3-1.

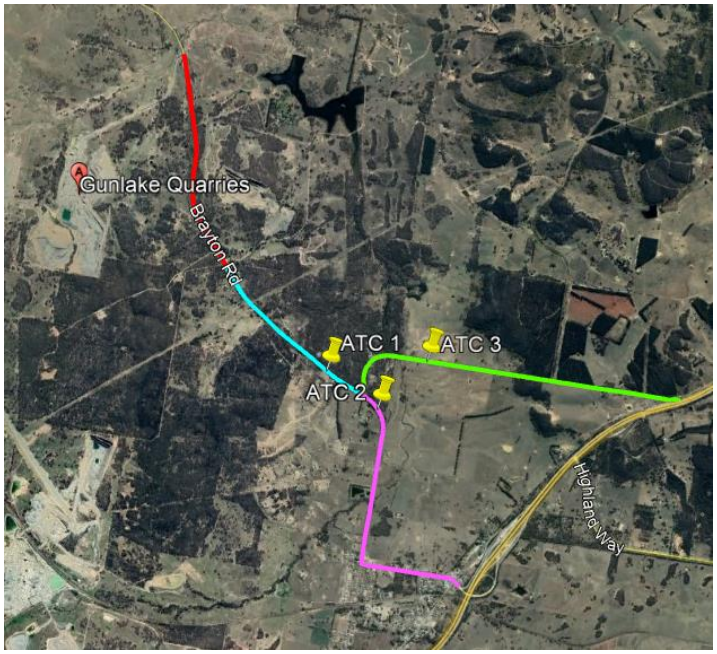


Figure 3-1: Traffic Counter locations

At each location the traffic survey recorded the volume and composition of traffic travelling in both directions over the seven-day period. The trucks carrying material from the quarry are truck and dog which based on the count data are for the most part typically classified as Class 9 or 10 trucks. Currently there are estimated to be 257 truck movement out of and into the Gunlake. 20-year design traffic volumes were determined using the traffic data and an assumed growth rate of 2%. The following Table 3-3 summarises the design traffic calculations for each section.

Table 3-3 Initial Traffic loading

PMS_ID	Layer Thickness (mm)	Traffic counter	AADT	HV Axle Groups per Day	N_{HVAG}	N_{DT}
1A1	Brayton Road	ATC 1	699	831	3.23	3.11E+06
1A2	Brayton Road	ATC 1	699	831	3.23	
2A1	Brayton Road	ATC 1	699	831	3.23	3.11E+06
2A2	Brayton Road	ATC 1	699	831	3.23	
3A1	Red Hills Road/Ambrose Rd	ATC 3	330	648	3.64	2.51E+06
3A2	Red Hills Road/ Ambrose Rd	ATC 3	330	648	3.64	
4A1	Brayton Road	ATC 2	546	186	2.27	6.17E+05
4A2	Brayton Road	ATC 2	546	186	2.27	

Due to expected increases in traffic movements out of and into the quarry, increased traffic loading values were analysed. Two cases of increased loading were considered based on client information provided. The first case involved the addition of an extra 250 class 9 and 10 trucks. A 60:40 split was used to represent the 9 axle B-Doubles and 7 axle truck and dogs respectively. The second case (Case 2) represented in Table 3-5 examines the remaining life with a further increased loading of 500 trucks from with the same composition and ratio as Case 1.

Table 3-4 Proposed Traffic Loading – Case 1

PMS_ID	Layer Thickness (mm)	Traffic counter	AADT	HV Axle Groups per Day	N_{HVAG}	N_{DT}
1A1	Brayton Road	ATC 1	951	1739	3.42	6.70E+06
1A2	Brayton Road	ATC 1	951	1739	3.42	
2A1	Brayton Road	ATC 1	951	1739	3.42	6.70E+06
2A2	Brayton Road	ATC 1	951	1739	3.42	
3A1	Red Hills Road/Ambrose Rd	ATC 3	570	1508	3.61	5.91E+06
3A2	Red Hills Road/ Ambrose Rd	ATC 3	270	1508	3.61	
4A1	Brayton Road	ATC 2	546	186	2.27	6.17E+05
4A2	Brayton Road	ATC 2	546	186	2.27	

Table 3-5 Proposed Traffic Loading – Case 2

PMS_ID	Layer Thickness (mm)	Traffic counter	AADT	HV Axle Groups per Day	N_{HVAG}	N_{DT}
1A1	Brayton Road	ATC 1	1201	2639	3.48	1.03E+07
1A2	Brayton Road	ATC 1	1201	2639	3.48	
2A1	Brayton Road	ATC 1	1201	2639	3.48	1.03E+07
2A2	Brayton Road	ATC 1	1201	2639	3.48	
3A1	Red Hills Road/Ambrose Rd	ATC 3	830	2448	3.61	9.46E+06
3A2	Red Hills Road/ Ambrose Rd	ATC 3	830	2448	3.61	
4A1	Brayton Road	ATC 2	546	186	2.27	6.17E+05
4A2	Brayton Road	ATC 2	546	186	2.27	

3.1.3 Deflection

The deflection values refer to the amount of vertical displacement that occurs in the pavement under a standard truck load. The following Table 3-6 summarises the deflection values that were recorded for the selected road pavements. Deflection results in full are attached in Appendix A.

Table 3-6: Summary of FWD Resutls - Deflection

PMS_ID	Road Name	Average	St. Deviation (mm)	Upper 10th Percentile	Lower 10th Percentile
1A1	Brayton Road	0.48	0.22	0.80	0.21
1A2	Brayton Road	0.50	0.24	0.78	0.24
2A1	Brayton Road	0.47	0.15	0.65	0.26
2A2	Brayton Road	0.59	0.38	0.84	0.17
3A1	Red Hills Road/ Ambrose Rd	0.57	0.24	0.80	0.19

PMS_ID	Road Name	Average	St. Deviation (mm)	Upper 10th Percentile	Lower 10th Percentile
3A2	Red Hills Road/ Ambrose Rd	0.61	0.23	0.84	0.20
4A1	Brayton Road	0.46	0.24	0.74	0.16
4A2	Brayton Road	0.45	0.23	0.78	0.17

These results show in terms of deflections, Ambrose Road and Red Hills Road have the highest average deflection values. Overall, the deflections can be deemed quite low ranging from 0.1mm to 1.3mm. The distribution of deflection represented in Figure 3-2 shows over 95% of deflections are less than 0.88mm meaning the pavement will be able to withstand a larger volume of traffic before permanent deformation can occur.

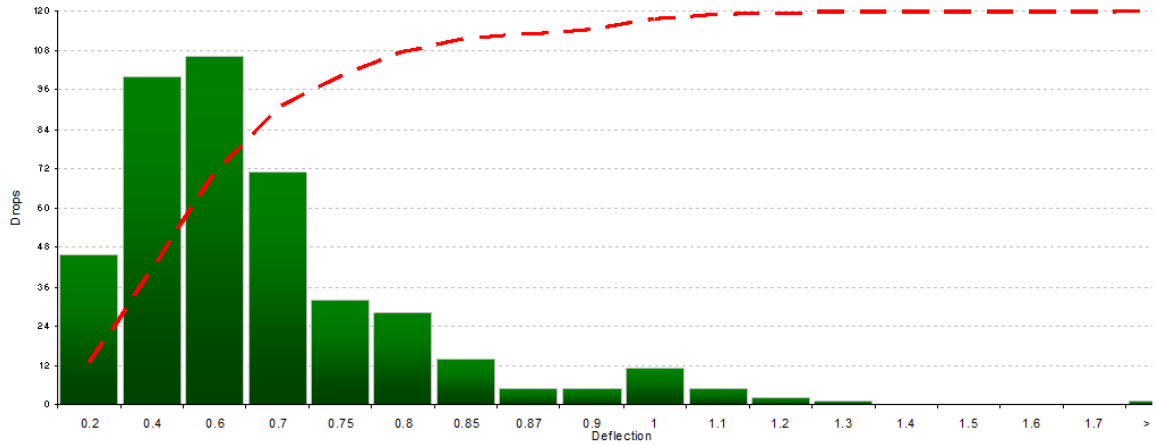


Figure 3-2 Distribution of deflection

3.1.4 Curvature

The curvature measures the shape of the deflection bowl. The higher the curvature the more likely the pavement is to crack under fatigue. High values of curvature indicate a tendency for asphalt surfacing to fatigue crack. Typically, values greater than 0.3mm indicate a weak or thin pavement; conversely low curvature values indicate a stiff pavement. Table 3-7 overleaf summarises the curvature values that were recorded for the selected road pavements. Curvature results can be found in Appendix A.

Table 3-7: Summary of FWD Resutls - Curvature

PMS_ID	Road Name	Average	St. Deviation	Upper 10th Percentile	Lower 10th Percentile
1A1	Brayton Road	0.21	0.10	0.34	0.07
1A2	Brayton Road	0.23	0.11	0.36	0.12
2A1	Brayton Road	0.20	0.08	0.28	0.07
2A2	Brayton Road	0.26	0.28	0.34	0.02
3A1	Red Hills Road/ Ambrose Rd	0.24	0.12	0.34	0.03
3A2	Red Hills Road/ Ambrose Rd	0.28	0.12	0.39	0.05

PMS_ID	Road Name	Average	St. Deviation	Upper 10th Percentile	Lower 10th Percentile
4A1	Brayton Road	0.19	0.12	0.34	0.04
4A2	Brayton Road	0.17	0.12	0.34	0.04

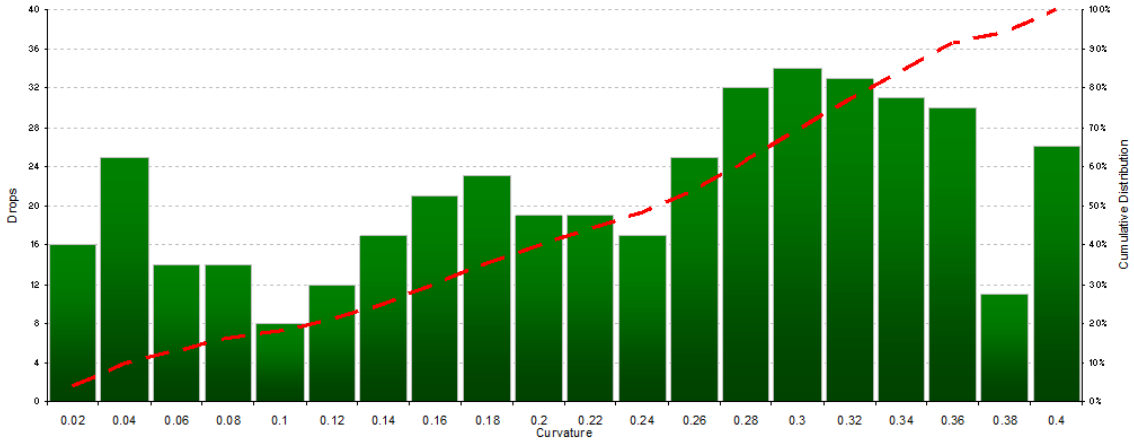


Figure 3-3 Curvature Distribution

Based on the above summarised data, several test points across all roads are noted to have values higher than 0.3 indicating sections of weak or thin pavement.

The full test results for deflection and curvature can be found in Appendix A.

3.1.5 Empirical Remaining life

The remaining life of the pavement has been assessed using the Austroads empirically derived Design Chart Method using the peak deflection to assess the number of standard axle repetitions to failure in terms of permanent deformation. This in turn, based on the current and proposed design traffic volumes for each road has been used to determine the remaining life in terms of years. The following Table 3-8 to Table 3-10 present a statistical summary of the remaining life analysis for the three traffic loading cases, considering average, lower and upper 10th percentile values.

Table 3-8 Intial Case remianing life

PMS_ID	Average remaining life.	Standard Deviation	Lower 10th Percentile	Upper10th Percentile
1A1	19.91	0.4	20	20
1A2	19.36	2.7	20	20
2A1	20.00	0.0	20	20
2A2	18.56	4.6	18.2	20
3A1	19.69	1.9	20	20
3A2	19.29	2.7	20	20
4A1	20.00	0.0	20	20
4A2	20.00	0.0	20	20

Table 3-9 Remaining life- Case 1

PMS_ID	Average remaining life.	Standard Deviation	Lower 10th Percentile	Upper10th Percentile
1A1	19.15	2.66	18.5	20
1A2	19.02	3.76	20	20
2A1	20.00	0.00	20	20
2A2	18.23	5.35	17	20
3A1	19.21	3.01	20	20
3A2	18.71	4.16	20	20
4A1*	20.00	0.00	20	20
4A2*	20.00	0.00	20	20

*No increased traffic loading considered for 4A1 and 4A2

Table 3-10 Remaining life - Case 2

PMS_ID	Average remaining life.	Standard Deviation	Lower 10th Percentile	Upper10th Percentile
1A1	18.70	3.83	15.5	20
1A2	18.87	4.14	20	20
2A1	20.00	0.00	20	20
2A2	18.15	5.56	16.8	20
3A1	18.82	3.82	20	20
3A2	18.35	4.77	15.2	20
4A1*	20.00	0.00	20	20
4A2*	20.00	0.00	20	20

*No increased traffic loading considered for 4A1 and 4A2

The summary of results shown in Table 3-8 preceding suggests that most of the pavement has a remaining life in excess of 20 years considering the initial case (with the exception of Lane 2A2). The estimated remaining life under proposed increases in traffic volumes (i.e., Case 1 and Case 2) is seen to result in accelerated structural decline in Lane 1A1, 2A2 and 3A2.

4 Summary and Conclusion

This report presents the outcomes and methodologies adopted in the analysis of the recently completed Falling Weight Deflectometer assessment for Gunlake Quarries. Three traffic scenarios were considered separately for the remaining life analysis in order to provide a comprehensive evaluation of potential developments.

Considering all roads evaluated as part of this study, the structural remaining life is seen to be at least 15 years based on the Austroads remaining life methodology. This analysis is based on the pavement remaining in its current configuration of a spray sealed flexible unbound pavement that is subject to permanent deformation (rutting) being the primary mode in which these roads can be expected to fail.

The results of FWD testing and outcomes of remaining life analysis are presented in full, attached as Appendix A and B respectively.

Appendix A

FWD Test Reports

FWD Deflection Test Report - Deflection Results

Pavement Management Services
Level 2, 81 ½ George Street, The Rocks, NSW, 2000

Project No: 2021268
Client: Gunlake
Report Date: 7/10/2021
Target Load: 40kN / 566kPa
Prepared By: Rami Akl
Reviewed By: Trent McDonald

Client_ID	Road Name	From Description	To Description	Suburb	Survey Date	Station (km)	Lane	Wheelpath	Load (kPa)	Measured Deflection Results (µm) Distance from Load (mm)										Normalised Deflection Results (µm) Distance from Load (mm)										Temperature (°C)		Deflection (mm)	Curvature (mm)	GDA94		Event
										0	200	300	450	600	750	900	1200	1500		0	200	300	450	600	750	900	1200	1500		Air	Surface			Latitude	Longitude	
1A1	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	0.000	1	OWP	589	809	564	426	267	159	87	51	30	15	777	542	409	256	153	84	49	29	15	4.0	4.0	0.78	0.24	-34.659631083727	149.979047846027	
1A1	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	0.050	1	OWP	548	346	222	157	95	57	36	25	12	7	357	229	162	98	59	37	26	12	7	4.0	4.0	0.36	0.13	-34.660076668378	149.979111373884	
1A1	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	0.100	1	OWP	587	604	309	197	107	65	45	34	20	17	582	298	190	103	62	43	33	19	16	4.0	4.0	0.58	0.28	-34.660517289119	149.979193333106	
1A1	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	0.150	1	OWP	549	648	389	253	134	74	41	25	13	6	668	401	261	138	77	42	26	13	6	4.0	4.0	0.67	0.27	-34.660960993135	149.979259303247	
1A1	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	0.200	1	OWP	556	538	298	192	122	86	61	42	25	16	547	303	195	124	88	62	43	26	16	4.0	4.0	0.55	0.24	-34.661406847469	149.979340108963	
1A1	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	0.250	1	OWP	560	573	312	194	96	50	29	23	17	11	579	316	196	97	50	29	23	17	11	4.0	4.0	0.58	0.26	-34.661869761426	149.979414503583	
1A1	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	0.300	1	OWP	582	614	325	201	97	47	33	24	16	12	597	316	195	95	46	32	23	15	11	4.0	4.0	0.60	0.28	-34.662311014866	149.979499301615	
1A1	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	0.350	1	OWP	564	613	363	241	131	71	42	30	22	15	615	364	242	132	71	42	30	22	15	5.0	6.0	0.61	0.25	-34.662748445160	149.979589706173	
1A1	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	0.400	1	OWP	578	680	328	189	84	51	34	28	23	13	666	322	185	82	50	33	27	23	13	5.0	6.0	0.67	0.34	-34.663191513390	149.979663673746	
1A1	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	0.450	1	OWP	565	701	339	188	86	62	38	31	27	17	702	340	188	86	62	38	31	27	17	5.0	6.0	0.70	0.36	-34.663649459763	149.979733690993	
1A1	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	0.500	1	OWP	569	526	242	138	65	32	30	47	8	14	523	240	137	65	32	30	46	8	14	5.0	6.0	0.52	0.28	-34.664094687292	149.979801988958	
1A1	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	0.550	1	OWP	568	358	205	138	87	66	46	33	18	10	357	204	137	86	66	46	32	18	10	5.0	6.0	0.36	0.15	-34.664538923188	149.979875065127	
1A1	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	0.600	1	OWP	583	403	253	178	123	79	60	49	28	21	391	245	173	119	76	58	48	27	21	5.0	6.0	0.39	0.15	-34.664986434666	149.979942125742	
1A1	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	0.650	1	OWP	550	469	270	179	108	75	58	47	36	23	483	278	184	111	78	59	48	37	24	6.0	6.0	0.48	0.21	-34.665429286548	149.980010529084	
1A1	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	0.700	1	OWP	603	784	486	363	236	157	109	80	50	38	736	456	341	221	147	102	75	47	36	6.0	6.0	0.74	0.28	-34.665860944858	149.980071771055	
1A1	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	0.750	1	OWP	582	898	521	361	217	133	83	59	35	16	874	507	351	211	129	81	57	34	16	6.0	6.0	0.87	0.37	-34.666313392689	149.980160704493	
1A1	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	0.800	1	OWP	574	581	338	227	121	74	41	27	13	4	573	333	224	119	73	40	27	13	4	6.0	6.0	0.57	0.24	-34.666754199439	149.980225296108	
1A1	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	0.850	1	OWP	559	327	172	127	82	58	36	27	10	6	331	174	129	83	58	37	27	10	6	6.0	6.0	0.33	0.16	-34.667195817472	149.980307570770	
1A1	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	0.900	1	OWP	562	195	193	189	189	46	13	13	8	3	197	195	190	190	46	13	13	8	3	6.0	6.0	0.20	0.00	-34.667640669799	149.980371073652	
1A1	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	0.950	1	OWP	540	254	106	57	24	11	7	4	3	2	266	111	60	25	11	7	4	3	2	6.0	6.0	0.27	0.15	-34.668083265057	149.980418404954	
1A1	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	1.000	1	OWP	571	337	223	149	88	59	41	30	16	10	334	221	147	87	59	41	30	15	10	6.0	6.0	0.33	0.11	-34.668528388379	149.980417478163	
1A1	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	1.050	1	OWP	596	835	520	360	218	142	95	68	41	27	793	493	342	207	134	90	64	39	25	6.0	6.0	0.79	0.30	-34.668974796804	149.980365275559	
1A1	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	1.100	1	OWP	578	926	559	385	241	138	90	54	36	20	907	547	377	236	135	88	53	35	19	6.0	6.0	0.91	0.36	-34.669421125559	149.980293744848	
1A1	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	1.150	1	OWP	582	903	592	440	280	179	109	63	20	14	878	576	427	272	174	106	61	19	13	6.0	6.0	0.88	0.30	-34.669873441804	149.980210071518	
1A1	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	1.200	1	OWP	561	843	507	353	225	154	105	73	45	27	850	512	356	227	155	106	74	45	28	6.0	6.0	0.85	0.34	-34.670317814891	149.980127720104	
1A1	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	1.250	1	OWP	575	820	471	303	155	85	54	39	28	21	807	463	298	153	83	53	38	28	21	6.0	6.0	0.81	0.34	-34.670752660292	149.980044796561	
1A1	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	1.300	1	OWP	590	377	219	148	88	58	39	27	20	16	362	210	142	84	56	37	26	19	15	6.0	6.0	0.36	0.15	-34.671201842124	149.979967341314	
1A1	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	1.350	1	OWP	583	324	161	98	56	30	21	14	14	5	314	156	95	55	30	21	14	14	5	6.0	7.0	0.31	0.16	-34.671649476145	149.979912019231	
1A1	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	1.400	1	OWP	571	353	190	122	72	47	31	23	11	7	350	188	121	71	47	31	23	11	6	6.0	7.0	0.35	0.16	-34.672097459692	149.979897130836	
1A1	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	1.450	1	OWP	579	367	176	105	46	22	17	12	6	4	359	172	102	45	21	17	12	6	4	6.0	7.0	0.36	0.19	-34.672549377680	149.979934984908	
1A1	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	1.500	1	OWP	562	157	66	56	46	36	28	20	12	5	158	66	56	46	36	28	20	12	5	6.0	7.0	0.16	0.09	-34.672994281907	149.980013602406	
1A1	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	1.550	1	OWP	577	373	171	88	28	13	7	2	2	6	366	167	86	28	12	6	2	1	6	7.0	8.0	0.37	0.20	-34.673430659499	149.980128380429	
1A1	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	1.600	1	OWP	573	72	51	47	34	24	19	13	6	2	71	50	47	34	24	19	13	6	2	7.0	8.0	0.07	0.02	-34.673856931631	149.980299791795	
1A1	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	1.650	1	OWP	597	303	167	109	60	36	21	14	11	4	287	158	104	57	34	20	14	10	4	7.0	8.0	0.29	0.13	-34.674269295647	149.980502114528	
1A1	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	1.700	1	OWP	587	147	108	90	71	51	36	25	9	2	141	104	86	68	49	35	24	8	1	7.0	8.0	0.14	0.04	-34.674667053670	149.980743862911	
1A1	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	1.750	1	OWP	578	444	268	194	134	94	71	59	35	23	435	263	190	131	92	70	57	34	23	7.0	8.0	0.43	0.17	-34.675058157763	149.981008334180	
1A1	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	1.800	1	OWP	585	328	173	123	82	63	54	46	43	31	317	167	119	80	61	52	44	41	30	7.0	8.0	0.32	0.15	-34.675442358183	149.981275324505	
1A1	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	1.850	1	OWP	589	196	78	42	21	13	9	9	6	2	188	75	40	20	12	9	8	6	2	7.0	8.0	0.19	0.11	-34.675833749491	149.981537620541	
1A1	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	1.900	1	OWP	595	699	345	181	58	21	9	5	2	1	665	328	172	55	20	8	5	2	1	7.0	8.0	0.67	0.34	-34.676214970623	149.981815166980	
1A1	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	1.950	1	OWP	559	358	96	29	9	0	1	3	2	6	363	97	29	9	0	1	3	2	6	7.0	8.0	0.36	0.27	-34.676614921438	149.982080244778	
1A1	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	2.000	1	OWP	549	240	130	86	49	33	24	18	12	9	247	134	89	51	34	25	19	13	9	7.0	8.0	0.25	0.11	-34.677008236273	149.982352002694	
1A1	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	2.050	1	OWP	555	249	221	198	160	125	94	73	42	29	254	225	202	163	127	95	75	42	30	7.0	8.0	0.25	0.03	-34.677405963240	149.982625762852	
1A1	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	2.100	1	OWP	557	493	189	160	121	81	42	12	24	17	500	192	162	123	82	42	12	24	17	7.0	8.0	0.50	0.31	-34.677792909530	149.982888629758	
1A1	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	2.150	1	OWP	586	410	240	167	109	76	56	43	24	16	396	232	161	105	73	54	41	23	15	7.0	8.0	0.40	0.16	-34.678177276449	149.983145832019	
1A1	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	2.200	1	OWP	554	619	407	301	200	142	104	82	60	49	632	416	307	205	145	107	84	61	50	7.0	8.0	0.63	0.22	-34.678578694631	149.983412752658	
1A1	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	2.250	1	OWP	544	210	165	139	101	74	51	35	17	8	218	172	144	105	77	53	36	18	8	7.0	8.0	0.22	0.05	-34.678962542174	149.983675141730	
1A2	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	0.025	2	OWP	566	383	227	154	86	51	31	22	13	9	383	227	154	86	51	31	22	13	9	12.0	17.0	0.38	0.16	-34.659873771913	149.979012637817	
1A2	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	0.075	2	OWP	579	939	485	303	160	89	55	40	24	20	918	474	296	157	86	54	39	23	19	12.0	17.0	0.92	0.44	-34.660308375606	149.979097387080	
1A2	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	0.125	2	OWP	582	841	520	371	244	167	107	71	34	24	818	506	361	237	162	104	69	33	23	12.0	17.0	0.82	0.31	-34.660743557067	149.979176971274	
1A2	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	0.175	2	OWP	559	375	209	149	97	74	51	39	36	26	380	212	151	98	75	51	39	37	26	12.0	17.0	0.38	0.17	-34.661219510267	149.979255802582	
1A2	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	0.225	2	OWP	579	1081	628	455	297	183	113	73	35	16	1056	614	445	291	178	110	71	34	16	12.0	17.0	1.06	0.44	-34.661665771503	149.979325493705	
1A2	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	0.275	2	OWP	573	106	91	85	74	64	50	42	31	21	105	90	84	73	63	50	42	31	21	12.0	17.0	0.11	0.01	-34.662102865256	149.979397846363	
1A2	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	0.325	2	OWP	582	710	367	232	124	77	38	20	4	2	691	357	226	120	75	37	19	4	2	12.0	17.0	0.69	0.33	-34.662551277075	149.979482972133	
1A2	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	0.375	2	OWP	577	707	396	247	133	79	49	37	23	15	693	388	242	130	78	48	37	23	15	12.0	17.0	0.69	0.31	-34.662991533895	149.979565846356	
1A2	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	0.425	2	OWP	628	704	321	176	69	33	22	23	14	11	634	290	159	62	29	20	20	13	10	12.0	17.0	0.63	0.34	-34.663431540257	149.979632856814	
1A2	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	0.475	2	OWP	582	747	324	173	65	37	16	13	3	18	727	315	168	63	35	15	13	3	17	12.0	17.0	0.73	0.41	-34.663897288727	149.979709300243	
1A2	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	0.525	2	OWP	586	699	325	200	98	47	26	18	17	7	675	314	193	95	45	25	17	17	7	12.0	17.0	0.68	0.36	-34.664340330246	149.979778137004	
1A2	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	0.575	2	OWP	563	469	271	192	115	80	55	44	28	18	472	272	193	115	80	55	44	28	18	12.0	17.0	0.47	0.20	-34.664767971880	149.979846807530	
1A2	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	0.625	2	OWP	566	363	196	146	99	79	61	48	27	22	363	196	146	99	79	61	48	27	22	12.0	17.0	0.36	0.17	-34.665211334771	149.979919236378	
1A2	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	0.675	2	OWP	553	396	218	160	113	85	67	53	40	27	405	223	163	116	86	68	54	41	27	12.0	17.0	0.41	0.18	-34.665631041925	149.979977916145	
1A2	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	0.725	2	OWP	573	674	405	281	168	109	73	54	32	23	666	399	277	166	107	72	53	32	23	12.0	17.0	0.67	0.27	-34.666116398820	149.980058311649	
1A2	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	0.775	2	OWP	577	399	228	158	103	76	57	46	30	16	391	224	155	101	75	56	45	29	16	12.0	17.0	0.39	0.17	-34.666529901785	149.980126510289	
1A2	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	0.825	2	OWP	572	1026	649	448	270	158	100	71	37	15	1015	642	443	267	156	98	70	37	14	12.0	17.0	1.02	0.37	-34.666961212169	149.980191899580	
1A2	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	0.875	2	OWP	575	248	106	63	38	27	18	15	9	4	244	104	62	37	27	17	15	8	4	12.0	17.0	0.24	0.14	-34.667413661042	149.980268144746	
1A2	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	0.925	2	OWP	560	302	126	64	26	19	11	8	6	9	305	127	64	26	19	11	8	6	9	12.0	17.0	0.31	0.18	-34.667877725295	149.980334379645	
1A2	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	0.975	2	OWP	566	265	125	87	52	33	20	13	7	12	265	125	87	52	33	20	13	7	11	12.0	17.0	0.26	0.14	-34.668318593707	149.980356685806	
1A2	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	1.025	2	OWP	565	505	291	203	130	89	62	51	28	21	506	291	204	130	89	62	51	28	21	12.0	17.0	0.51	0.21	-34.668761498405	149.980327326817	
1A2	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	1.075	2	OWP	559	347	205	148	103	74	57	44	29	16	352	208	150	104	75	58	44	29	16	11.0	15.0	0.35	0.14	-34.669212027069	149.980263673196	
1A2	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	1.125	2	OWP	572	679	389	279	170	116	79	59	30	28	672	385	276	169	115	79	58	30	28	10.0	15.0	0.67	0.29	-34.669649821022	149.980183609026	
1A2	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	1.175	2	OWP	571	600	333	223	129	80	50	35	17	12	594	330	221	128	79	50	34	16	12	9.0	14.0	0.59	0.26	-34.670089633611	149.980099787182	
1A2	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	1.225	2	OWP	565	335	184	124	69	45	29	21	15	11	336	185	124	69	45	29	21	15	11	9.0	14.0	0.34	0.15	-34.670538620651	149.980018072744	
1A2	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	1.275	2	OWP	559	245	140	97	59	45	35	26	21	15	248	141	98	60	45	35	26	21	15	9.0	14.0	0.25	0.11	-34.670972693249	149.979939480401	
1A2	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	1.325	2	OWP	555	324	151	87	35	15	6	3	4	1	331	154	88	36	15	6	3	4	1	9.0	14.0	0.33	0.18	-34.671441069752	149.979866904354	
1A2	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	1.375	2	OWP	556	283	154	106	66	45	31	24	17	9	288	157	107	67	46	31	24	17	9	9.0	14.0	0.29	0.13	-34.671886641849	149.979831530089	
1A2	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	1.425	2	OWP	561	507	271	170	83	50	34	28	17	7	511	273	171	84	50	34	28	17	7	9.0	14.0	0.51	0.24	-34.672340981720	149.979847969874	
1A2	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	1.475	2	OWP	559	294	149	88	46	35	24	18	10	9	297	151	89	46	35	24	18	10	9	9.0	14.0	0.30	0.15	-34.672779778215	149.979901292635	
1A2	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	1.525	2	OWP	555	92	77	68	55	44	34	27	13	6	94	78	70	56	45	34	27	14	6	9.0	13.0	0.09	0.02	-34.673223622601	149.980002717094	
1A2	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	1.575	2	OWP	564	120	53	49	41	32	25	21	12	7	121	53	49	41	32	25	21	12	7	9.0	12.0	0.12	0.07	-34.673664392747	149.980141962187	
1A2	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	1.625	2	OWP	544	35	42	42	30	28	22	17	6	4	36	44	43	31	29	22	17	7	4	9.0	10.0	0.04	-0.01	-34.674072922363	149.980330717423	
1A2	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	1.675	2	OWP	573	589	256	147	76	42	26	20	10	6	581	253	145	75	42	26	19	10	6	9.0	10.0	0.58	0.33	-34.674487325288	149.980557665601	
1A2	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	1.725	2	OWP	571	499	300	232	166	124	96	79	55	44	495	297	230	164	123	95	78	54	44	9.0	10.0	0.49	0.20	-34.674877013816	149.980806862131	
1A2	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	1.775	2	OWP	557	385	211	147	90	65	46	37	24	15	391	214	149	92	66	46	37	24	15	9.0	10.0	0.39	0.18	-34.675270190869	149.981077230823	

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1A2	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	1.825	2	OWP	582	389	206	148	95	70	48	42	32	11	378	200	144	92	68	47	41	31	11	8.0	9.0	0.38	0.18	-34.675672916453	149.981354379082
1A2	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	1.875	2	OWP	558	539	267	161	62	26	9	3	2	0	547	271	163	63	26	9	3	2	0	8.0	9.0	0.55	0.28	-34.676055416485	149.981621627478
1A2	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	1.925	2	OWP	598	456	187	99	38	14	11	32	9	10	432	177	94	36	13	10	30	8	9	8.0	9.0	0.43	0.25	-34.676444864436	149.981887483721
1A2	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	1.975	2	OWP	559	346	151	102	57	40	24	14	7	7	350	153	103	58	40	24	14	7	7	8.0	9.0	0.35	0.20	-34.676829809919	149.982152512984
1A2	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	2.025	2	OWP	570	718	365	231	123	74	47	34	21	7	713	363	229	122	73	47	33	20	7	8.0	9.0	0.71	0.35	-34.677225504370	149.982429507036
1A2	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	2.075	2	OWP	561	506	264	179	109	73	52	44	25	18	510	267	181	110	74	53	44	25	18	8.0	9.0	0.51	0.24	-34.677619218086	149.982693618401
1A2	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	2.125	2	OWP	571	733	411	255	132	78	53	36	17	14	726	407	253	131	78	53	35	17	14	8.0	9.0	0.73	0.32	-34.678016122063	149.982959546591
1A2	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	2.175	2	OWP	572	779	472	350	230	150	99	70	36	10	771	467	346	228	148	98	70	35	10	7.0	8.0	0.77	0.30	-34.678420040016	149.983233815486
1A2	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	2.225	2	OWP	600	835	501	332	192	126	95	70	51	38	788	472	313	181	119	90	66	48	36	7.0	8.0	0.79	0.32	-34.678814936197	149.983496680515
2A1	Brayton Road	Brayton Road	Ambrose Road	Gunlake	26/08/2021	0.000	1	OWP	564	510	345	227	125	62	21	9	11	19	511	346	227	126	62	21	9	11	19	13.0	20.0	0.51	0.17	-34.679026219049	149.983728892324
2A1	Brayton Road	Brayton Road	Ambrose Road	Gunlake	26/08/2021	0.050	1	OWP	554	228	147	116	77	46	34	21	13	7	233	150	119	79	47	35	21	13	7	13.0	20.0	0.23	0.08	-34.679430085647	149.983993240652
2A1	Brayton Road	Brayton Road	Ambrose Road	Gunlake	26/08/2021	0.100	1	OWP	556	219	160	131	95	70	49	36	23	14	223	162	133	96	71	50	36	24	14	13.0	20.0	0.22	0.06	-34.679824463815	149.984258351668
2A1	Brayton Road	Brayton Road	Ambrose Road	Gunlake	26/08/2021	0.150	1	OWP	561	436	232	162	106	76	57	47	32	27	440	234	163	107	77	58	48	33	27	13.0	20.0	0.44	0.21	-34.680216877039	149.984523885818
2A1	Brayton Road	Brayton Road	Ambrose Road	Gunlake	26/08/2021	0.200	1	OWP	575	500	284	201	121	80	50	36	24	19	492	280	198	119	78	49	35	24	19	13.0	20.0	0.49	0.21	-34.680599098302	149.984799164805
2A1	Brayton Road	Brayton Road	Ambrose Road	Gunlake	26/08/2021	0.250	1	OWP	580	485	272	183	106	64	37	24	10	4	473	265	179	104	63	36	23	9	4	13.0	20.0	0.47	0.21	-34.680988323232	149.985068528589
2A1	Brayton Road	Brayton Road	Ambrose Road	Gunlake	26/08/2021	0.300	1	OWP	566	386	211	148	95	63	41	30	19	7	386	211	148	95	63	41	30	18	7	13.0	20.0	0.39	0.17	-34.681375645224	149.985346822322
2A1	Brayton Road	Brayton Road	Ambrose Road	Gunlake	26/08/2021	0.350	1	OWP	551	529	287	187	96	47	20	10	2	1	544	295	192	98	48	21	10	2	1	13.0	20.0	0.54	0.25	-34.681740910196	149.985638170641
2A1	Brayton Road	Brayton Road	Ambrose Road	Gunlake	26/08/2021	0.400	1	OWP	563	469	204	126	71	42	28	22	9	5	471	205	127	71	43	29	22	9	5	13.0	20.0	0.47	0.27	-34.682096911425	149.985965894181
2A1	Brayton Road	Brayton Road	Ambrose Road	Gunlake	26/08/2021	0.450	1	OWP	583	608	325	225	128	75	41	24	9	6	591	316	218	124	73	40	23	8	6	13.0	20.0	0.59	0.28	-34.682434762650	149.986333009103
2A1	Brayton Road	Brayton Road	Ambrose Road	Gunlake	26/08/2021	0.500	1	OWP	560	270	214	184	142	111	84	60	34	16	272	216	186	143	112	85	61	35	16	13.0	20.0	0.27	0.06	-34.682754597149	149.986715621881
2A1	Brayton Road	Brayton Road	Ambrose Road	Gunlake	26/08/2021	0.550	1	OWP	561	600	297	181	100	54	34	21	12	6	605	299	183	101	55	34	21	12	6	13.0	20.0	0.60	0.31	-34.683069606430	149.987105396414
2A1	Brayton Road	Brayton Road	Ambrose Road	Gunlake	26/08/2021	0.600	1	OWP	558	341	167	107	60	39	26	20	15	11	346	170	108	60	39	26	20	15	11	13.0	20.0	0.35	0.18	-34.683372602104	149.987493904284
2A1	Brayton Road	Brayton Road	Ambrose Road	Gunlake	26/08/2021	0.650	1	OWP	582	539	279	195	121	85	63	59	39	28	524	272	190	118	83	61	58	38	27	13.0	20.0	0.52	0.25	-34.683684891684	149.987890519966
2A1	Brayton Road	Brayton Road	Ambrose Road	Gunlake	26/08/2021	0.700	1	OWP	565	653	341	258	158	128	87	67	56	42	654	341	258	158	128	87	67	56	42	13.0	20.0	0.65	0.31	-34.683997074692	149.988279058718
2A1	Brayton Road	Brayton Road	Ambrose Road	Gunlake	26/08/2021	0.750	1	OWP	581	607	343	245	159	112	80	63	43	29	591	334	239	155	109	78	61	42	29	13.0	20.0	0.59	0.26	-34.684308942017	149.988674839837
2A1	Brayton Road	Brayton Road	Ambrose Road	Gunlake	26/08/2021	0.800	1	OWP	571	681	395	281	184	121	86	63	30	19	675	392	279	183	120	86	62	30	19	13.0	20.0	0.67	0.28	-34.684620551238	149.989067768440
2A1	Brayton Road	Brayton Road	Ambrose Road	Gunlake	26/08/2021	0.850	1	OWP	570	659	384	268	158	93	59	39	17	8	654	381	266	157	93	58	39	17	8	13.0	20.0	0.65	0.27	-34.684931817027	149.989460974156
2A1	Brayton Road	Brayton Road	Ambrose Road	Gunlake	26/08/2021	0.900	1	OWP	594	628	351	239	142	90	57	38	20	14	598	334	228	135	86	54	36	19	13	13.0	20.0	0.60	0.26	-34.685233276753	149.989856279439
2A1	Brayton Road	Brayton Road	Ambrose Road	Gunlake	26/08/2021	0.950	1	OWP	574	479	267	194	117	91	60	41	27	22	472	263	191	115	90	59	41	26	22	13.0	20.0	0.47	0.21	-34.685525127696	149.990272514125
2A1	Brayton Road	Brayton Road	Ambrose Road	Gunlake	26/08/2021	1.000	1	OWP	562	581	327	241	161	112	81	64	35	18	585	329	242	162	112	81	65	35	18	13.0	20.0	0.59	0.26	-34.685812385906	149.990685204947
2A1	Brayton Road	Brayton Road	Ambrose Road	Gunlake	26/08/2021	1.050	1	OWP	570	496	246	152	81	50	30	21	12	3	492	244	151	80	50	30	21	12	3	13.0	20.0	0.49	0.25	-34.686095235194	149.991111742629
2A1	Brayton Road	Brayton Road	Ambrose Road	Gunlake	26/08/2021	1.100	1	OWP	572	570	316	220	135	97	65	46	21	12	564	312	217	133	96	64	45	21	11	13.0	20.0	0.56	0.25	-34.686380400180	149.991532957964
2A1	Brayton Road	Brayton Road	Ambrose Road	Gunlake	26/08/2021	1.150	1	OWP	579	357	222	168	116	81	64	56	31	17	349	217	164	113	79	63	54	30	17	13.0	20.0	0.35	0.13	-34.686662846510	149.991979333224
2A1	Brayton Road	Brayton Road	Ambrose Road	Gunlake	26/08/2021	1.200	1	OWP	553	326	179	119	73	45	35	27	19	6	333	183	121	74	46	36	28	20	6	13.0	20.0	0.33	0.15	-34.686946573377	149.992403128958
2A1	Brayton Road	Brayton Road	Ambrose Road	Gunlake	26/08/2021	1.250	1	OWP	548	447	276	201	128	92	61	46	27	17	462	285	208	132	94	63	48	28	17	13.0	20.0	0.46	0.18	-34.687233739686	149.992817865530
2A1	Brayton Road	Brayton Road	Ambrose Road	Gunlake	26/08/2021	1.300	1	OWP	572	185	161	143	118	94	73	56	32	18	183	159	141	117	93	73	56	31	18	13.0	20.0	0.18	0.02	-34.687518704983	149.993240136686
2A1	Brayton Road	Brayton Road	Ambrose Road	Gunlake	26/08/2021	1.350	1	OWP	582	473	335	266	179	120	79	53	18	29	460	326	258	174	117	77	52	18	28	13.0	20.0	0.46	0.13	-34.687814317592	149.993661214559
2A1	Brayton Road	Brayton Road	Ambrose Road	Gunlake	26/08/2021	1.400	1	OWP	563	667	387	259	149	86	47	38	18	11	671	389	260	149	86	47	38	18	11	13.0	20.0	0.67	0.28	-34.688115217358	149.994082469727
2A1	Brayton Road	Brayton Road	Ambrose Road	Gunlake	26/08/2021	1.450	1	OWP	569	662	407	280	168	104	64	41	18	6	658	405	279	167	103	63	41	18	6	13.0	20.0	0.66	0.25	-34.688408254458	149.994494555826
2A1	Brayton Road	Brayton Road	Ambrose Road	Gunlake	26/08/2021	1.500	1	OWP	585	678	421	308	199	132	91	69	46	29	656	408	298	192	128	88	67	44	28	13.0	20.0	0.66	0.25	-34.688720759824	149.994941346797
2A1	Brayton Road	Brayton Road	Ambrose Road	Gunlake	26/08/2021	1.550	1	OWP	567	650	347	215	107	55	31	17	5	6	649	346	215	107	55	31	17	5	6	13.0	20.0	0.65	0.30	-34.688999147964	149.995332857720
2A1	Brayton Road	Brayton Road	Ambrose Road	Gunlake	26/08/2021	1.600	1	OWP	569	465	249	142	68	34	19	15	7	7	462	247	141	67	34	19	15	7	7	13.0	20.0	0.46	0.22	-34.689277259879	149.995746266164
2A1	Brayton Road	Brayton Road	Ambrose Road	Gunlake	26/08/2021	1.650	1	OWP	566	645	390	276	164	104	80	63	42	32	645	390	276	164	104	80	63	42	32	13.0	20.0	0.65	0.26	-34.689547006519	149.996188648107
2A1	Brayton Road	Brayton Road	Ambrose Road	Gunlake	26/08/2021	1.700	1	OWP	591	384	200	128	68	44	33	26	22	18	368	192	122	65	42	31	25	21	18	13.0	20.0	0.37	0.18	-34.689788541432	149.996646350129
2A1	Brayton Road	Brayton Road	Ambrose Road	Gunlake	26/08/2021	1.750	1	OWP	564	295	227	200	129	107	91	77	60	44	295	227	200	129	107	92	77	60	44	13.0	20.0	0.30	0.07	-34.690022672494	149.997102488267
2A1	Brayton Road	Brayton Road	Ambrose Road	Gunlake	26/08/2021	1.800	1	OWP	561	332	219	195	162	106	63	51	26	19	335	221	197	163	107	64	51	26	20	13.0	20.0	0.33	0.11	-34.690252845564	149.997560302382
2A1	Brayton Road	Brayton Road	Ambrose Road	Gunlake	26/08/2021	1.850	1	OWP	573	282	214	191	115	94	74	53	30	17	278	212	189	114	93	73	53	30	16	13.0	20.0	0.28	0.07	-34.690489390630	149.998024849194
2A1	Brayton Road	Brayton Road	Ambrose Road	Gunlake	26/08/2021	1.900	1	OWP	567	226	146	117	61	37	16	11	6	5	225	146	117	61	37	16	11	6	5	13.0	20.0	0.23	0.08	-34.690723588125	149.998489992148
2A2	Brayton Road	Ambrose Road	Brayton Road	Gunlake	26/08/2021	0.025	2	OWP	581	1235	576	438	295	210	155	104	55	28	1203	561	426	287	205	150	101	54	27	15.0	24.0	1.20	0.64	-34.679258728036	149.983800392536
2A2	Brayton Road	Ambrose Road	Brayton Road	Gunlake	26/08/2021	0.075	2	OWP	577	573	316	199	116	77	34	29	13	10	562	310	195	114	76	34	28	13	10	15.0	24.0	0.56	0.25	-34.679643175163	149.984062781162
2A2	Brayton Road	Ambrose Road	Brayton Road	Gunlake	26/08/2021	0.125	2	OWP	570	515	316	229	152	105	71	51	33	22	511	313	227	151	104	70	51	32	22	15.0	24.0	0.51	0.20	-34.680035544591	149.984328372357
2A2	Brayton Road	Ambrose Road	Brayton Road	Gunlake	26/08/2021	0.175	2	OWP	561	285	165	110	70	48	30	29	18	22	287	166	111	71	48	30	29	18	22	15.0	24.0	0.29	0.12	-34.680417198841	149.984591458769
2A2	Brayton Road	Ambrose Road	Brayton Road	Gunlake	26/08/2021	0.225	2	OWP	578	271	141	93	52	40	29	20	18	8	265	138	91	51	39	29	20	18	8	15.0	24.0	0.27	0.13	-34.680814848368	149.984873361277
2A2	Brayton Road	Ambrose Road	Brayton Road	Gunlake	26/08/2021	0.275	2	OWP	576	645	350	248	135	85	34	16	5	0	634	344	244	133	84	33	16	5	0	15.0	24.0	0.63	0.29	-34.681199601205	149.985143227120
2A2	Brayton Road	Ambrose Road	Brayton Road	Gunlake	26/08/2021	0.325	2	OWP	573	562	326	245	151	96	56	36	14	7	555	322	241	149	94	56	36	14	7	15.0	24.0	0.56	0.23	-34.681576344834	149.985425151500
2A2	Brayton Road	Ambrose Road	Brayton Road	Gunlake	26/08/2021	0.375	2	OWP	583	515	293	216	143	104	65	34	15	0	500	284	210	139	101	63	33	14	0	15.0	24.0	0.50	0.22	-34.681940784578	149.985734518194
2A2	Brayton Road	Ambrose Road	Brayton Road	Gunlake	26/08/2021	0.425	2	OWP	577	526	287	187	111	59	32	18	5	13	515	281	183	108	58	32	18	5	12	15.0	24.0	0.52	0.23	-34.682290205653	149.986079581656
2A2	Brayton Road	Ambrose Road	Brayton Road	Gunlake	26/08/2021	0.475	2	OWP	572	674	355	252	141	78	45	24	10	1	667	351	249	140	77	45	24	10	1	15.0	24.0	0.67	0.32	-34.682611612293	149.986450252917
2A2	Brayton Road	Ambrose Road	Brayton Road	Gunlake	26/08/2021	0.525	2	OWP	589	597	304	187	111	60	34	20	10	5	573	292	180	107	58	33	20	9	5	15.0	24.0	0.57	0.28	-34.682928084184	149.986841744912
2A2	Brayton Road	Ambrose Road	Brayton Road	Gunlake	26/08/2021	0.575	2	OWP	558	515	288	211	126	89	54	35	21	15	522	292	214	128	90	54	35	22	15	15.0	24.0	0.52	0.23	-34.683236640715	149.987229881457
2A2	Brayton Road	Ambrose Road	Brayton Road	Gunlake	26/08/2021	0.625	2	OWP	575	397	195	131	84	65	47	41	28	22	390	191	129	83	64	46	40	27	22	15.0	24.0	0.39	0.20	-34.683549930269	149.987627146024
2A2	Brayton Road	Ambrose Road	Brayton Road	Gunlake	26/08/2021	0.675	2	OWP	577	484	293	206	124	100	63	55	35	22	475	287	202	122	98	62	54	34	21	15.0	24.0	0.47	0.19	-34.683861195416	149.988018529625
2A2	Brayton Road	Ambrose Road	Brayton Road	Gunlake	26/08/2021	0.725	2	OWP	553	613	360	250	162	106	77	56	34	26	627	368	256	166	109	78	57	34	27	15.0	24.0	0.63	0.26	-34.684175730253	149.988417655128
2A2	Brayton Road	Ambrose Road	Brayton Road	Gunlake	26/08/2021	0.775	2	OWP	565	522	289	220	164	123	95	76	52	34	523	290	221	164	123	95	76	52	34	15.0	24.0	0.52	0.23	-34.684488574368	149.988794786165
2A2	Brayton Road	Ambrose Road	Brayton Road	Gunlake	26/08/2021	0.825	2	OWP	550	112	93	79	60	45	31	21	9	3	115	95	82	62	46	32	22	9	3	15.0	24.0	0.12	0.02	-34.684800557546	149.989197013977
2A2	Brayton Road	Ambrose Road	Brayton Road	Gunlake	26/08/2021	0.875	2	OWP	558	156	145	128	107	85	68	53	30	15	158	147	129	109	86	69	53	30	15	15.0	24.0	0.16	0.01	-34.685104784063	149.989585310173
2A2	Brayton Road	Ambrose Road	Brayton Road	Gunlake	26/08/2021	0.925	2	OWP	657	219	203	185	150	123	98	79	48	30	188	175	159	129	106	84	68	42	26	15.0	24.0	0.19	0.01	-34.685400855091	149.989994064347
2A2	Brayton Road	Ambrose Road	Brayton Road	Gunlake	26/08/2021	0.975	2	OWP	592	2456	625	465	294	195	122	87	27	29	2348	598	445	281	187	117	83	26	28	15.0	24.0	2.35	1.75	-34.685710273404	149.990427383544
2A2	Brayton Road	Ambrose Road	Brayton Road	Gunlake	26/08/2021	1.025	2	OWP	566	739	465	337	221	142	91	58	26	15	738	465	337	221	142	91	58	26	15	15.0	24.0	0.74	0.27	-34.685989709302	149.990845824589
2A2	Brayton Road	Ambrose Road	Brayton Road	Gunlake	26/08/2021	1.075	2	OWP	574	447	233	145	75	48	37	28	15	23	440	229	143	74	48	36	28	14	22	15.0	24.0	0.44	0.21	-34.686278269925	149.991276067989
2A2	Brayton Road	Ambrose Road	Brayton Road	Gunlake	26/08/2021	1.125	2	OWP	569	794	510	376	246	167	119	94	51	34	789	508	374	245	166	119	93	51	34	14.0	22.0	0.79	0.28	-34.686557522052	149.991699421292
2A2	Brayton Road	Ambrose Road	Brayton Road	Gunlake	26/08/2021	1.175	2	OWP	565	970	539	401	270	181	116	84	46	21	971	540	401	270	181	116	84	46	21	14.0	22.0	0.97	0.43	-34.686854863137	149.992152705621
2A2	Brayton Road	Ambrose Road	Brayton Road	Gunlake	26/08/2021	1.225	2	OWP	578	785	472	346	219	145	97	58	23	17	768	462	339	215	142	95	57	22	16	14.0	22.0	0.77	0.31	-34.687131896906	149.992573854256
2A2	Brayton Road	Ambrose Road	Brayton Road	Gunlake	26/08/2021	1.275	2	OWP	599	1043	644	433	241	129	68	34	8	4	985	609	409	228	122	64	32	8	4	14.0	22.0	0.98	0.38	-34.687422406674	149.993002013649
2A2	Brayton Road	Ambrose Road	Brayton Road	Gunlake	26/08/2021	1.325	2	OWP	579	585	273	155	57	21	6	3	11	7	571	266	151	55	21	6	3	10	7	14.0	22.0	0.57	0.30	-34.687714118101	149.993423315221
2A2	Brayton Road	Ambrose Road	Brayton Road	Gunlake	26/08/2021	1.375	2	OWP	576	828	492	308	151	84	39	17	1	12	814	483	303	148	83	38	16	1	12	14.0	22.0	0.81	0.33	-34.688015976190	149.993838452313
2A2	Brayton Road	Ambrose Road	Brayton Road	Gunlake	26/08/2021	1.425	2	OWP	571	754	432	321	196	129	86	63	27	16	748	428	318	194	128	85	62	27	16	14.0	22.0	0.75	0.32	-34.688317587870	149.994256375859
2A2	Brayton Road	Ambrose Road	Brayton Road	Gunlake	26/08/2021	1.475	2	OWP	578	512	326	236	154	105	73	59	38	24	502	319	231	151	103	71	58	37	23	14.0	22.0	0.50	0.18	-34.688598589127	149.994669556929
2A2	Brayton Road	Ambrose Road	Brayton Road	Gunlake	26/08/2021	1.525	2	OWP	562	794	494	396	276	201	139	102	58	36	799	497	399	278	202	140	103	58	37	14.0	22.0	0.80	0.30	-34.688889453708	149.995080528492
2A2	Brayton Road	Ambrose Road	Brayton Road	Gunlake	26/08/2021	1.575	2	OWP	572	672	371	226	113	57	26	7	4	3	665	367	223	112	57	26	7	4	3	14.0	22.0	0.66	0.30	-34.689171704139	149.995502019209
2A2	Brayton Road	Ambrose Road	Brayton Road	Gunlake	26/08/2021	1.625	2	OWP	575	719	402	271	134	67	37	20	12	1	708	395	266	131	66	36	20	12	1	14.0	22.0	0.71	0.31	-34.689450493046	149.995915470895
2A2	Brayton Road	Ambrose Road	Brayton Road	Gunlake	26/08/2021	1.675	2	OWP	551	447	231	148	83	57	41	31	22	17	459	237	152	85	59	42	31	22	17	14.0	22.0	0.46	0.22	-34.689700209053	149.996376956114
2A2	Brayton Road	Ambrose Road	Brayton Road	Gunlake	26/08/2021	1.725	2	OWP	582	165	147	144	133	123	105	97	81	67	160	143	140	130	120	102	94	79	65	14.0	22.0	0.16	0.02	-34.689943525320	149.996823521965
2A2	Brayton Road	Ambrose Road	Brayton Road	Gunlake	26/08/2021	1.775	2	OWP	568	167	163	147	121	105	87	75	55	37	166	163	146	120	105	87	74	55	36	14.0	22.0	0.17	0.00	-34.690171532706	149.997285247980
2A2	Brayton Road	Ambrose Road	Brayton Road	Gunlake	26/08/2021	1.825	2	OWP	575	441	344	301	241	132	101	73	45	25	434	338	296	237	130	99	71	44	25	14.0	22.0	0.43	0.10	-34.690405848610	149.997746500860
2A2	Brayton Road	Ambrose Road	Brayton Road	Gunlake	26/08/2021	1.875	2	OWP	561	460	376	315	199	134	79	59	30	17	464	379	318	201	135	80	59	30	17	14.0	22.0	0.46	0.08	-34.690643047825	149.998205764405
2A2	Brayton Road	Ambrose Road	Brayton Road	Gunlake	26/08/2021	1.925	2	OWP	568	167	153	145	123	118	97	89	64	39	166	152	144	123	117	97	89	64	39	14.0	22.0	0.17	0.01	-34.690907833859	149.998697045749
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	26/08/2021	0.000	1	OWP	548	94	71	66	65	52	40	36	19	6	97	74	68	67	54	41	37	19	6	16.0	25.0	0.10	0.02	-34.690886399309	149.998874420980
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	26/08/2021	0.050	1	OWP	596	686	325	177	55	20	6	11	11	9	652	309	168	52	19	5	10	10	8	16.0	25.0	0.65	0.34	-34.690495049587	149.999143725490
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	26/08/2021	0.100	1	OWP	569	106	78	69	52	42	28	19	6	1	105	77	68	52	42	27	19	6	1	16.0	25.0	0.11	0.03	-34.690043733882	149.999142926612
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	26/08/2021	0.150	1	OWP	572	860	600	428	244	145	86	59	36	25	851	594	424	242	144	85	59	36	25	16.0	25.0	0.85	0.26	-34.689602477890	149.999102481469
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	26/08/2021	0.200	1	OWP	577	863	513	329	181	112	72	56	30	19	846	503	322	177	110	71	55	29	18	16.0	25.0	0.85	0.34	-34.689153626168	149.999139653598
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	26/08/2021	0.250	1	OWP	560	490	261	165	92	58	40	29	17	12	496	264	167	93	59	40	30	17	12	16.0	25.0	0.50	0.23	-34.688719303147	149.999278472922
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	26/08/2021	0.300	1	OWP	562	723	412	283	160	99	67	51	29	24	728	415	285	161	100	67	51	30	24	16.0	25.0	0.73	0.31	-34.688323007952	149.999523320040
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	26/08/2021	0.350	1	OWP	570	350	187	116	65	44	32	23	14	9	347	186	115	65	43	32	23	14	9	16.0	25.0	0.35	0.16	-34.687967419900	149.999871522397
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	26/08/2021	0.400	1	OWP	571	364	174	94	40	17	9	6	3	2	361	172	93	40	17	9	6	3	2	16.0	25.0	0.36	0.19	-34.687683891401	150.000299328577

										0	200	300	450	600	750	900	1200	1500	0	200	300	450	600	750	900	1200	1500	Air	Surface			Latitude	Longitude
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	26/08/2021	0.450	1	OWP	575	330	165	121	67	20	0	22	2	5	325	162	119	66	19	0	22	1	5	16.0	25.0	0.32	0.16	-34.687473673085	150.000780271842
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	26/08/2021	0.500	1	OWP	559	628	285	160	63	25	10	5	3	5	635	288	162	64	25	10	5	3	5	16.0	25.0	0.64	0.35	-34.687354501014	150.001291006095
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	26/08/2021	0.550	1	OWP	562	460	259	180	110	74	54	41	26	16	463	260	181	110	74	54	41	27	16	16.0	25.0	0.46	0.20	-34.687320647251	150.001827497535
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	26/08/2021	0.600	1	OWP	560	793	495	349	184	100	58	41	24	17	802	500	353	186	101	58	41	24	17	16.0	25.0	0.80	0.30	-34.687375715677	150.002391085637
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	26/08/2021	0.650	1	OWP	581	799	472	309	166	100	64	51	35	30	778	459	301	161	98	62	50	34	29	16.0	25.0	0.78	0.32	-34.687449081162	150.002927944560
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	26/08/2021	0.701	1	OWP	572	655	382	253	128	71	44	32	18	19	648	378	250	127	70	43	32	18	18	16.0	25.0	0.65	0.27	-34.687520047828	150.003467998491
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	26/08/2021	0.750	1	OWP	567	747	419	261	127	65	41	28	25	16	746	418	260	127	65	41	28	24	16	16.0	25.0	0.75	0.33	-34.687587200421	150.003999653797
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	26/08/2021	0.800	1	OWP	580	777	443	301	162	91	52	36	19	12	758	433	294	158	88	51	35	19	12	16.0	25.0	0.76	0.33	-34.687656211479	150.004533965199
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	26/08/2021	0.850	1	OWP	576	776	428	249	102	52	19	13	11	16	762	421	245	100	51	18	13	10	15	16.0	25.0	0.76	0.34	-34.687719860747	150.005064603386
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	26/08/2021	0.900	1	OWP	567	715	399	277	141	72	43	33	22	14	713	398	277	140	72	43	33	21	14	16.0	25.0	0.71	0.32	-34.687792201461	150.005609295345
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	26/08/2021	0.950	1	OWP	561	648	360	241	131	89	57	42	29	22	653	363	243	132	90	57	42	29	23	16.0	25.0	0.65	0.29	-34.687864930629	150.006171669729
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	26/08/2021	1.000	1	OWP	562	619	336	206	116	78	52	47	38	30	623	338	208	116	79	53	48	38	30	16.0	25.0	0.62	0.29	-34.687933035525	150.006710501924
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	26/08/2021	1.050	1	OWP	582	684	335	206	102	61	36	27	20	13	665	326	200	99	60	35	26	20	12	16.0	25.0	0.67	0.34	-34.688003346384	150.007250545945
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	26/08/2021	1.100	1	OWP	552	616	303	192	108	64	44	32	22	13	631	310	197	111	66	45	33	22	13	16.0	25.0	0.63	0.32	-34.688072222405	150.007798344581
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	26/08/2021	1.150	1	OWP	563	619	284	167	83	53	30	23	19	8	623	286	168	84	53	30	23	19	8	16.0	25.0	0.62	0.34	-34.688147318111	150.008339838078
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	26/08/2021	1.200	1	OWP	558	741	444	307	170	99	62	44	35	18	752	450	311	172	101	62	44	35	18	16.0	25.0	0.75	0.30	-34.688216310577	150.008874160212
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	26/08/2021	1.240	1	OWP	556	867	464	292	143	66	39	28	25	15	883	472	297	145	67	40	29	25	15	16.0	25.0	0.88	0.41	-34.688272342146	150.009299384352
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	26/08/2021	1.300	1	OWP	576	930	524	338	168	86	47	31	15	16	914	514	332	165	85	46	30	14	16	16.0	25.0	0.91	0.40	-34.688359579790	150.009951982261
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	26/08/2021	1.350	1	OWP	577	1165	732	498	250	118	63	32	13	13	1142	718	488	245	116	62	31	13	13	16.0	25.0	1.14	0.42	-34.688431788975	150.010502522302
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	26/08/2021	1.400	1	OWP	547	180	179	174	81	68	56	43	34	17	187	185	180	84	70	58	45	35	18	16.0	25.0	0.19	0.00	-34.688503893403	150.011061844493
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	26/08/2021	1.450	1	OWP	556	607	316	191	102	61	38	24	15	13	618	322	194	103	62	38	25	16	14	16.0	25.0	0.62	0.30	-34.688572795469	150.011601950258
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	26/08/2021	1.500	1	OWP	560	704	403	253	127	69	48	32	25	22	712	407	256	128	69	48	32	25	22	16.0	25.0	0.71	0.31	-34.688640061722	150.012138549061
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	26/08/2021	1.550	1	OWP	561	758	427	251	126	76	50	40	32	28	764	431	253	127	77	51	40	33	29	16.0	25.0	0.76	0.33	-34.688707836452	150.012670260528
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	26/08/2021	1.600	1	OWP	577	556	286	175	85	47	31	27	19	12	545	281	172	83	46	30	27	19	11	16.0	25.0	0.55	0.26	-34.688780522648	150.013201704233
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	26/08/2021	1.650	1	OWP	565	711	416	267	143	84	54	44	26	22	712	416	267	143	84	54	44	26	22	16.0	25.0	0.71	0.30	-34.688852204222	150.013739158733
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	26/08/2021	1.700	1	OWP	575	883	509	350	203	128	80	57	36	23	869	501	345	199	125	79	56	35	23	16.0	25.0	0.87	0.37	-34.688932320927	150.014308348916
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	26/08/2021	1.750	1	OWP	565	585	308	197	104	61	41	29	20	16	585	308	197	104	61	41	29	20	16	16.0	25.0	0.59	0.28	-34.688996940905	150.014841495112
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	26/08/2021	1.800	1	OWP	589	552	299	209	122	80	46	43	18	31	531	287	200	117	77	44	42	17	29	16.0	25.0	0.53	0.24	-34.689066105218	150.015381085277
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	26/08/2021	1.850	1	OWP	560	642	390	261	132	61	34	23	17	17	649	394	264	134	62	34	23	17	17	16.0	25.0	0.65	0.25	-34.689134473305	150.015919778669
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	26/08/2021	1.900	1	OWP	627	277	203	181	133	103	76	53	30	22	250	183	163	120	93	69	48	27	19	16.0	25.0	0.25	0.07	-34.689203817369	150.016456187537
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	26/08/2021	1.950	1	OWP	551	215	158	134	96	69	47	35	14	14	221	162	138	98	71	48	36	14	14	16.0	25.0	0.22	0.06	-34.689271813185	150.016978669296
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	26/08/2021	2.000	1	OWP	564	247	216	189	155	125	103	81	54	34	247	216	189	156	126	103	81	54	34	16.0	25.0	0.25	0.03	-34.689342683789	150.017518804017
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	26/08/2021	2.050	1	OWP	570	757	419	286	146	88	47	34	18	14	752	416	283	145	88	46	34	18	14	16.0	25.0	0.75	0.34	-34.689409415120	150.018052575886
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	26/08/2021	2.100	1	OWP	551	760	464	322	191	127	92	79	45	29	781	476	330	197	131	95	81	47	29	16.0	25.0	0.78	0.30	-34.689477740610	150.018591641128
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	26/08/2021	2.150	1	OWP	565	802	483	337	216	144	102	79	44	32	803	484	338	217	144	102	79	44	32	16.0	24.0	0.80	0.32	-34.689551838603	150.019118418819
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	26/08/2021	2.200	1	OWP	561	585	347	222	117	68	43	35	27	16	590	350	224	118	68	43	36	27	16	16.0	24.0	0.59	0.24	-34.689621815978	150.019659473796
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	26/08/2021	2.250	1	OWP	548	318	154	86	45	30	23	19	12	10	328	159	89	46	31	24	19	13	11	16.0	24.0	0.33	0.17	-34.689689756140	150.020196431581
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	27/08/2021	2.300	1	OWP	562	632	320	165	84	45	22	17	12	11	637	322	166	85	46	22	17	12	11	11.0	16.0	0.64	0.31	-34.689758193223	150.020716311979
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	27/08/2021	2.350	1	OWP	555	284	132	86	62	44	30	21	9	24	289	135	88	63	45	31	22	9	25	11.0	16.0	0.29	0.15	-34.689823385927	150.021254259570
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	27/08/2021	2.400	1	OWP	561	511	241	131	55	30	14	10	6	5	515	243	132	55	30	14	10	6	5	11.0	16.0	0.52	0.27	-34.689892142484	150.021795792123
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	27/08/2021	2.450	1	OWP	560	313	146	85	45	25	17	12	7	5	316	148	86	45	26	17	12	7	5	11.0	16.0	0.32	0.17	-34.689963839540	150.022331597487
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	27/08/2021	2.500	1	OWP	571	131	123	114	102	90	78	67	37	30	130	122	113	101	89	77	66	37	30	11.0	16.0	0.13	0.01	-34.690033516505	150.022874938729
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	27/08/2021	2.550	1	OWP	562	80	80	76	50	44	33	27	14	6	80	80	77	50	44	34	27	14	6	11.0	16.0	0.08	0.00	-34.690103462982	150.023408469539
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	27/08/2021	2.600	1	OWP	566	602	308	171	67	26	11	6	5	5	602	308	171	67	26	10	6	5	5	11.0	16.0	0.60	0.29	-34.690175075460	150.023946871477
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	27/08/2021	2.650	1	OWP	578	436	218	114	56	48	24	25	14	15	427	213	112	54	47	24	24	13	14	11.0	16.0	0.43	0.21	-34.690246619122	150.024483329953
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	27/08/2021	2.700	1	OWP	581	606	306	189	94	53	35	24	16	10	590	298	184	92	52	34	24	15	10	11.0	16.0	0.59	0.29	-34.690317075802	150.025013613187
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	27/08/2021	2.750	1	OWP	571	682	384	254	135	88	48	31	28	30	676	381	252	134	87	48	31	28	30	11.0	16.0	0.68	0.30	-34.690387621884	150.025555423503
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	27/08/2021	2.800	1	OWP	569	287	141	82	41	25	17	14	10	5	285	140	81	40	25	17	14	10	5	11.0	16.0	0.29	0.15	-34.690449705622	150.026100384561
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	27/08/2021	2.850	1	OWP	568	106	82	75	65	58	46	35	20	13	105	82	75	65	58	46	35	20	13	11.0	16.0	0.11	0.02	-34.690518650190	150.026637737859
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	27/08/2021	2.900	1	OWP	566	63	54	47	38	31	24	19	11	7	63	54	47	38	31	24	18	11	7	11.0	16.0	0.06	0.01	-34.690586783108	150.027167839590
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	27/08/2021	2.950	1	OWP	578	772	419	257	118	65	44	31	19	13	756	411	252	115	64	43	31	18	12	11.0	16.0	0.76	0.35	-34.690642250217	150.027693415040
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	27/08/2021	3.000	1	OWP	564	651	334	200	102	64	46	34	27	17	653	335	201	102	64	46	34	27	17	11.0	17.0	0.65	0.32	-34.690708204001	150.028236921883
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	27/08/2021	3.050	1	OWP	573	979	598	404	222	138	96	74	51	34	967	590	399	219	137	95	73	50	33	11.0	17.0	0.97	0.38	-34.690773426459	150.028764060797
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	27/08/2021	3.100	1	OWP	561	776	465	324	195	128	96	76	52	36	782	469	326	197	129	97	77	52	36	11.0	17.0	0.78	0.31	-34.690837801134	150.029297600006
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	27/08/2021	3.150	1	OWP	580	771	452	294	179	128	100	82	60	42	752	441	287	174	125	98	80	59	41	11.0	17.0	0.75	0.31	-34.690906498766	150.029840606067
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	27/08/2021	3.200	1	OWP	578	737	441	307	189	129	100	82	59	43	721	432	301	185	126	98	80	57	42	11.0	17.0	0.72	0.29	-34.690980175262	150.030385248588
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	27/08/2021	3.250	1	OWP	569	691	396	252	144	96	75	64	51	32	687	394	251	143	95	75	63	51	32	11.0	17.0	0.69	0.29	-34.691054214353	150.030919530451
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	27/08/2021	3.300	1	OWP	567	583	301	194	108	66	48	40	34	24	582	301	193	107	66	48	40	34	24	11.0	17.0	0.58	0.28	-34.691132497042	150.031452699450
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	27/08/2021	3.350	1	OWP	568	653	333	199	96	51	38	28	17	11	651	331	198	96	51	37	28	16	11	11.0	17.0	0.65	0.32	-34.691220081737	150.031980696379
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	27/08/2021	3.400	1	OWP	580	272	239	213	169	134	101	75	32	9	265	233	207	165	131	99	73	31	9	11.0	17.0	0.27	0.03	-34.691298720999	150.032525959434
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	27/08/2021	3.450	1	OWP	569	726	447	305	178	106	67	46	21	14	722	444	303	177	106	66	46	21	14	11.0	17.0	0.72	0.28	-34.691371943179	150.033061017774
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	27/08/2021	3.500	1	OWP	692	568	431	345	258	184	116	68	29	15	465	352	282	211	150	94	56	24	12	11.0	17.0	0.46	0.11	-34.691426819690	150.033571211618
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	27/08/2021	3.550	1	OWP	570	142	125	114	96	81	64	51	31	18	141	124	113	96	80	64	50	31	18	11.0	17.0	0.14	0.02	-34.691328545397	150.034226837224
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	26/08/2021	0.025	2	OWP	554	410	264	202	132	86	60	44	20	9	419	270	207	134	87	61	45	20	9	16.0	23.0	0.42	0.15	-34.690736564181	149.999142042643
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	26/08/2021	0.075	2	OWP	561	763	357	180	50	0	1	0	0	3	770	360	182	51	0	1	0	0	3	16.0	23.0	0.77	0.41	-34.690270788648	149.999223631244
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	26/08/2021	0.125	2	OWP	559	121	109	108	99	96	64	43	14	4	122	110	109	100	98	65	44	14	4	16.0	23.0	0.12	0.01	-34.689826844003	149.999185469332
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	26/08/2021	0.175	2	OWP	564	871	460	320	173	101	57	40	20	5	874	462	321	174	101	57	40	20	5	16.0	23.0	0.87	0.41	-34.689381572101	149.999173312800
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	26/08/2021	0.225	2	OWP	560	771	414	285	158	88	58	37	22	22	779	418	288	160	89	58	38	22	22	16.0	23.0	0.78	0.36	-34.688966084893	149.999254126602
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	26/08/2021	0.275	2	OWP	576	756	424	306	177	114	71	56	19	4	743	416	301	173	112	70	55	18	4	16.0	23.0	0.74	0.33	-34.688575543147	149.999429629301
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	26/08/2021	0.325	2	OWP	587	726	359	222	112	46	22	10	3	7	700	346	214	108	45	21	10	3	7	16.0	23.0	0.70	0.35	-34.688197891264	149.999718338957
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	26/08/2021	0.375	2	OWP	591	833	383	184	42	0	0	0	0	0	798	367	176	41	0	0	0	0	0	16.0	23.0	0.80	0.43	-34.687866163861	150.000106233409
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	26/08/2021	0.425	2	OWP	597	733	323	155	47	2	4	0	5	8	695	306	147	44	2	3	0	5	8	16.0	23.0	0.69	0.39	-34.687619029370	150.000560782700
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	26/08/2021	0.475	2	OWP	562	509	257	130	46	15	6	7	8	4	512	258	130	47	15	6	7	8	4	16.0	23.0	0.51	0.25	-34.687453289643	150.001060007654
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	26/08/2021	0.525	2	OWP	564	998	634	435	273	169	107	70	23	12	1001	636	436	274	170	108	70	23	12	16.0	23.0	1.00	0.37	-34.687382776157	150.001577850204
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	26/08/2021	0.575	2	OWP	581	836	487	307	144	74	36	21	9	5	814	474	299	140	72	35	20	9	5	16.0	23.0	0.81	0.34	-34.687394809951	150.002119793960
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	26/08/2021	0.625	2	OWP	561	817	471	317	179	97	52	37	21	14	824	475	320	180	98	52	37	21	14	16.0	23.0	0.82	0.35	-34.687463240274	150.002663968747
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	26/08/2021	0.675	2	OWP	571	682	341	225	118	68	45	43	40	14	675	338	223	117	67	44	43	40	14	16.0	23.0	0.68	0.34	-34.687530163311	150.003197081400
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	26/08/2021	0.725	2	OWP	569	675	351	220	110	63	44	34	22	15	671	349	218	110	63	44	34	22	15	16.0	23.0	0.67	0.32	-34.687603453414	150.003732447885
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	26/08/2021	0.775	2	OWP	577	993	559	426	250	156	102	53	25	17	974	549	418	245	153	100	52	25	17	16.0	23.0	0.97	0.43	-34.687676977090	150.004287269262
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	26/08/2021	0.825	2	OWP	569	730	374	252	127	80	48	35	25	14	726	372	250	126	79	47	35	25	14	16.0	23.0	0.73	0.35	-34.687744068430	150.004805297255
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	26/08/2021	0.875	2	OWP	558	619	338	216	120	77	53	42	30	22	627	343	219	122	78	54	43	30	23	16.0	23.0	0.63	0.28	-34.687813951772	150.005341091092
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	26/08/2021	0.925	2	OWP	570	599	311	179	91	64	44	36	18	30	595	309	178	91	64	43	35	18	30	16.0	23.0	0.59	0.29	-34.687889441602	150.005911224548
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	26/08/2021	0.975	2	OWP	566	656	385	261	143	87	57	39	26	24	656	385	261	143	87	57	39	25	24	16.0	23.0	0.66	0.27	-34.687958553245	150.006451200078
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	26/08/2021	1.025	2	OWP	560	517	266	161	94	58	39	30	20	13	522	268	162	95	58	39	30	20	13	16.0	23.0	0.52	0.25	-34.688027231452	150.006995526673
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	26/08/2021	1.075	2	OWP	585	708	366	243	132	83	53	40	26	24	685	354	235	128	80	51	39	25	24	16.0	23.0	0.68	0.33	-34.688099068549	150.007530425219
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	26/08/2021	1.125	2	OWP	564	649	350	229	124	77	51	35	24	16	651	351	230	125	78	51	35	24	16	16.0	23.0	0.65	0.30	-34.688166828839	150.008056114601
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	26/08/2021	1.175	2	OWP	577	728	380	252	132	77	40	34	13	26	714	372	247	129	75	40	33	13	26	16.0	23.0	0.71	0.34	-34.688237702530	150.008585203315
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	26/08/2021	1.225	2	OWP	568	829	460	294	142	77	46	34	27	19	826	458	293	142	77	46	34	27	19	16.0	23.0	0.83	0.37	-34.688308203617	150.009122211218
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	26/08/2021	1.275	2	OWP	578	1097	443	298	169	80	44	28	13	18	1074	433	292	165	79	43	27	12	18	16.0	23.0	1.07	0.64	-34.688383415036	150.009704783109
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	26/08/2021	1.325	2	OWP	581	1011	570	383	180	89	47	36	20	13	985	555	373	176	86	45	35	20	12	16.0	23.0	0.99	0.43	-34.688453983145	150.010247245162
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	26/08/2021	1.375	2	OWP	562	1106	603	377	162	65	27	17	19	16	1114	607	380	163	65	28	17	19	16	16.0	23.0	1.11	0.51	-34.688523220874	150.010782500850
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	26/08/2021	1.425	2	OWP	582	735	388	245	128	80	48	37	19	10	714	377	238	125	78	46	36	19	10	16.0	23.0	0.71	0.34	-34.688588307024	150.011321487984
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	26/08/2021	1.475	2	OWP	567	560	288	178	87	46	27	17	13	14	558	288	178	87	46	26	17	13	13	16.0	23.0	0.56	0.27	-34.688660796248	150.011857807765
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	26/08/2021	1.525	2	OWP	585	751	448	313	178	107	67	51	33	18	726	433	303	172	103	65	50	32	17	16.0	23.0	0.73	0.29	-34.688730938186	150.012396159340
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	26/08/2021	1.575	2	OWP	552	505	281	188	107	68	51	40	29	25	518	288	193	110	70	52	40	30	26	16.0	23.0	0.52	0.23	-34.688796453806	150.012929920380
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	26/08/2021	1.625	2	OWP	574	664	397	273	150	88	58	43	24	20	655	391	269	148	87	57	42	24	20	16.0	23.0	0.65	0.26	-34.688860781744	150.013469507020

										0	200	300	450	600	750	900	1200	1500	0	200	300	450	600	750	900	1200	1500	Air	Surface			Latitude	Longitude
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	26/08/2021	1.675	2	OWP	564	490	277	189	111	72	51	38	25	16	492	278	189	111	72	51	38	25	16	16.0	23.0	0.49	0.21	-34.688936692907	150.014019200356
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	26/08/2021	1.725	2	OWP	578	769	382	236	117	66	40	31	20	12	753	374	231	114	64	39	31	19	12	16.0	23.0	0.75	0.38	-34.689012004750	150.014576417749
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	26/08/2021	1.775	2	OWP	560	472	291	210	129	81	50	34	28	21	477	294	212	130	82	51	34	28	21	16.0	23.0	0.48	0.18	-34.689082482887	150.015114177045
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	26/08/2021	1.825	2	OWP	560	421	217	131	77	49	36	27	21	21	425	219	132	78	50	36	28	21	22	16.0	23.0	0.43	0.21	-34.689152153358	150.015646159916
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	26/08/2021	1.875	2	OWP	558	74	70	67	59	56	46	39	31	21	75	71	68	60	57	47	39	31	21	16.0	23.0	0.08	0.00	-34.689221184890	150.016182887008
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	26/08/2021	1.925	2	OWP	567	724	397	261	152	88	52	30	15	16	722	396	261	151	88	52	30	15	16	16.0	23.0	0.72	0.33	-34.689287024267	150.016716138172
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	26/08/2021	1.975	2	OWP	570	719	378	235	124	72	48	32	21	11	714	375	233	123	71	47	32	21	11	16.0	23.0	0.71	0.34	-34.689355075847	150.017252837344
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	26/08/2021	2.025	2	OWP	567	597	346	227	138	87	57	42	27	15	595	345	227	138	87	57	42	27	15	16.0	23.0	0.60	0.25	-34.689424372528	150.017781070008
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	26/08/2021	2.075	2	OWP	559	825	505	347	197	117	78	50	34	21	835	512	351	199	118	79	51	34	22	16.0	23.0	0.84	0.32	-34.689490326023	150.018324999377
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	26/08/2021	2.125	2	OWP	576	701	426	295	178	118	83	65	42	33	689	418	290	175	116	81	64	41	32	16.0	23.0	0.69	0.27	-34.689565547651	150.018864362927
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	26/08/2021	2.175	2	OWP	571	707	431	305	186	124	88	66	44	31	701	427	302	185	123	87	65	44	31	16.0	24.0	0.70	0.27	-34.689635111152	150.019403143715
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	26/08/2021	2.225	2	OWP	641	717	390	261	138	82	50	39	22	15	633	345	230	121	72	44	34	20	13	16.0	24.0	0.63	0.29	-34.689706271239	150.019946526599
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	27/08/2021	2.275	2	OWP	564	456	196	117	57	39	25	19	15	11	457	197	118	57	39	25	19	15	11	11.0	17.0	0.46	0.26	-34.689772141279	150.020458564429
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	27/08/2021	2.325	2	OWP	593	531	214	108	33	24	5	3	0	6	506	204	103	31	23	4	3	0	5	11.0	17.0	0.51	0.30	-34.689848061114	150.020991210005
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	27/08/2021	2.375	2	OWP	578	590	240	108	36	8	3	4	1	2	577	235	106	35	8	3	4	1	2	11.0	17.0	0.58	0.34	-34.689917941881	150.021519253568
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	27/08/2021	2.425	2	OWP	568	133	109	94	73	61	46	34	17	6	133	109	93	72	61	46	34	16	6	11.0	17.0	0.13	0.02	-34.689984236625	150.022062552975
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	27/08/2021	2.475	2	OWP	566	148	116	104	80	64	47	35	16	7	148	116	104	80	64	47	35	16	7	11.0	17.0	0.15	0.03	-34.690051855952	150.022595675024
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	27/08/2021	2.525	2	OWP	545	436	229	133	63	30	17	8	3	5	453	238	138	66	31	17	8	3	6	11.0	17.0	0.45	0.22	-34.690123505413	150.023155851763
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	27/08/2021	2.575	2	OWP	576	484	221	136	64	35	18	10	8	16	475	217	134	63	34	17	10	8	16	11.0	17.0	0.48	0.26	-34.690190546306	150.023703239709
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	27/08/2021	2.625	2	OWP	556	687	364	212	101	49	30	22	12	17	699	371	216	103	50	30	22	12	17	11.0	17.0	0.70	0.33	-34.690265194745	150.024220737301
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	27/08/2021	2.675	2	OWP	557	90	65	60	48	39	32	26	17	12	92	66	61	49	39	32	26	17	12	11.0	17.0	0.09	0.03	-34.690331363785	150.024726205970
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	27/08/2021	2.725	2	OWP	596	619	285	196	97	51	27	20	12	8	588	270	186	92	48	26	19	12	8	11.0	17.0	0.59	0.32	-34.690407359050	150.025277213344
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	27/08/2021	2.775	2	OWP	590	657	341	217	106	53	32	24	14	11	630	327	208	101	51	31	23	13	10	11.0	17.0	0.63	0.30	-34.690473999959	150.025804751103
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	27/08/2021	2.825	2	OWP	579	562	294	184	80	41	16	15	10	4	549	287	180	78	40	15	15	10	4	11.0	17.0	0.55	0.26	-34.690537809318	150.026354437473
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	27/08/2021	2.875	2	OWP	589	954	585	381	170	57	7	5	0	0	916	562	366	164	54	7	5	0	0	11.0	17.0	0.92	0.35	-34.690616388624	150.026880904769
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	27/08/2021	2.925	2	OWP	578	689	397	248	125	76	37	32	6	16	675	389	242	122	75	36	31	6	15	11.0	17.0	0.67	0.29	-34.690673436027	150.027412217533
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	27/08/2021	2.975	2	OWP	587	811	463	282	134	77	50	31	8	17	782	446	272	129	74	48	30	7	16	11.0	17.0	0.78	0.34	-34.690740563871	150.027974686469
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	27/08/2021	3.025	2	OWP	582	558	292	173	92	62	43	36	27	16	543	284	169	90	60	42	35	27	15	11.0	17.0	0.54	0.26	-34.690799185073	150.028500854635
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	27/08/2021	3.075	2	OWP	563	577	297	202	125	85	66	54	38	29	580	298	203	126	85	67	54	38	29	11.0	17.0	0.58	0.28	-34.690862645899	150.029031989094
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	27/08/2021	3.125	2	OWP	571	607	322	226	139	102	79	67	50	40	602	319	224	138	101	78	66	50	40	11.0	17.0	0.60	0.28	-34.690930486372	150.029575881690
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	27/08/2021	3.175	2	OWP	572	510	257	167	100	80	62	59	39	40	505	254	165	98	80	61	58	39	40	11.0	17.0	0.50	0.25	-34.690999158813	150.030100161764
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	27/08/2021	3.225	2	OWP	555	629	319	205	122	85	68	56	46	33	641	325	209	124	86	70	57	46	33	11.0	17.0	0.64	0.32	-34.691075473275	150.030642275352
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	27/08/2021	3.275	2	OWP	575	670	381	232	130	82	58	44	34	28	659	375	229	128	80	57	43	33	28	11.0	17.0	0.66	0.28	-34.691147132431	150.031167604128
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	27/08/2021	3.325	2	OWP	576	178	160	142	116	99	76	57	34	24	175	157	140	114	97	74	56	33	24	11.0	17.0	0.18	0.02	-34.691224384324	150.031702933379
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	27/08/2021	3.375	2	OWP	578	543	292	199	119	85	54	42	22	15	531	285	195	116	83	53	41	21	14	11.0	17.0	0.53	0.25	-34.691308676244	150.032247024574
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	27/08/2021	3.425	2	OWP	644	178	138	128	108	96	78	65	43	27	156	121	112	95	85	69	57	38	24	11.0	17.0	0.16	0.03	-34.691379801918	150.032780289272
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	27/08/2021	3.475	2	OWP	594	542	380	296	214	145	100	71	38	22	516	362	282	204	138	95	67	37	21	11.0	17.0	0.52	0.15	-34.691444372234	150.033306946424
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	27/08/2021	3.525	2	OWP	580	149	103	100	85	84	42	37	27	24	145	101	98	83	82	40	36	26	24	11.0	17.0	0.15	0.04	-34.691452577560	150.033913306725
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	27/08/2021	3.575	2	OWP	660	469	211	148	88	64	46	37	28	29	402	181	127	75	55	39	32	24	25	11.0	17.0	0.40	0.22	-34.691444331867	150.034373887185
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	0.000	1	OWP	559	53	46	46	38	35	29	26	19	12	53	47	46	39	35	30	27	19	13	8.0	9.0	0.05	0.01	-34.690955551313	149.998926536546
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	0.050	1	OWP	540	132	27	25	25	19	15	13	7	4	138	29	27	26	20	15	13	7	5	8.0	9.0	0.14	0.11	-34.691193982723	149.999385856129
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	0.100	1	OWP	553	154	132	58	51	45	39	33	23	16	157	135	60	52	46	40	34	24	16	8.0	9.0	0.16	0.02	-34.691473885403	149.999863828168
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	0.150	1	OWP	597	295	269	255	224	211	179	168	78	51	280	255	242	212	200	170	159	74	49	8.0	9.0	0.28	0.02	-34.691783284770	150.000264323005
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	0.200	1	OWP	567	160	149	140	133	91	84	77	50	43	159	148	140	132	90	83	77	50	43	8.0	9.0	0.16	0.01	-34.692133221664	150.000619012966
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	0.250	1	OWP	552	279	197	176	144	115	95	82	44	17	286	202	180	148	117	97	84	45	17	8.0	9.0	0.29	0.08	-34.692517077977	150.000897985407
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	0.300	1	OWP	548	127	100	84	68	55	40	32	22	13	131	103	87	70	57	41	33	23	13	8.0	9.0	0.13	0.03	-34.692920733481	150.001137123829
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	0.350	1	OWP	556	264	211	195	108	90	66	52	37	33	269	215	198	110	91	67	52	37	33	8.0	9.0	0.27	0.05	-34.693377305061	150.001290423458
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	0.400	1	OWP	551	300	204	171	129	100	76	58	33	16	308	209	176	133	102	78	59	34	17	8.0	9.0	0.31	0.10	-34.693821737017	150.001363233700
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	0.450	1	OWP	554	457	320	253	155	104	85	68	45	33	466	327	258	158	106	87	70	46	33	8.0	9.0	0.47	0.14	-34.694297076995	150.001357594495
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	0.500	1	OWP	557	200	162	157	110	97	84	72	40	29	204	165	159	112	98	85	73	41	29	8.0	9.0	0.20	0.04	-34.694763336619	150.001275251829
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	0.550	1	OWP	549	130	95	90	82	74	66	59	48	34	134	98	93	84	76	68	61	49	35	8.0	9.0	0.13	0.04	-34.695196789736	150.001189058369
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	0.600	1	OWP	540	229	104	94	82	75	65	58	42	34	240	109	98	86	78	68	60	44	36	8.0	9.0	0.24	0.13	-34.695640764054	150.001102833913
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	0.650	1	OWP	539	221	136	120	111	100	86	74	50	37	232	142	125	117	105	91	78	53	39	8.0	9.0	0.23	0.09	-34.696083365634	150.001011629624
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	0.700	1	OWP	558	323	231	217	186	81	63	55	40	27	327	234	220	189	82	64	56	40	27	8.0	9.0	0.33	0.09	-34.696525918219	150.000924759096
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	0.750	1	OWP	577	257	142	126	107	92	74	60	42	30	252	139	123	105	91	73	59	41	30	8.0	9.0	0.25	0.11	-34.696977332472	150.000830957804
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	0.800	1	OWP	544	448	144	117	101	95	78	66	48	35	466	150	122	105	99	81	68	50	37	8.0	9.0	0.47	0.32	-34.697421873885	150.000740002545
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	0.850	1	OWP	547	392	244	202	167	155	123	101	69	56	406	252	209	173	160	127	105	71	58	8.0	10.0	0.41	0.15	-34.697862826670	150.000646032164
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	0.900	1	OWP	553	412	234	177	147	123	92	61	42	25	421	239	181	151	126	94	63	43	25	8.0	10.0	0.42	0.18	-34.698338178308	150.000556691645
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	0.950	1	OWP	563	391	229	188	159	136	113	96	68	47	393	230	188	160	136	113	96	68	48	8.0	10.0	0.39	0.16	-34.698768500904	150.000470199679
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	1.000	1	OWP	581	415	225	165	93	85	78	70	51	42	404	219	161	90	82	76	68	49	41	8.0	10.0	0.40	0.19	-34.699198410308	150.000385955720
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	1.050	1	OWP	593	274	147	123	112	97	92	77	57	57	261	141	118	107	92	88	73	54	54	9.0	11.0	0.26	0.12	-34.699640754021	150.000294626524
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	1.100	1	OWP	550	255	89	74	70	64	59	55	46	35	262	91	77	72	65	61	56	47	36	9.0	11.0	0.26	0.17	-34.700083037815	150.000205415018
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	1.150	1	OWP	575	224	171	153	134	125	100	87	59	50	221	168	150	132	123	98	86	58	50	9.0	11.0	0.22	0.05	-34.700523879757	150.000112703090
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	1.250	1	OWP	580	756	483	343	222	152	108	81	53	40	738	471	335	216	149	105	79	52	39	9.0	11.0	0.74	0.27	-34.701404936502	149.999947772650
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	1.300	1	OWP	569	470	254	184	113	72	52	38	23	17	467	252	183	112	72	52	37	23	17	9.0	11.0	0.47	0.22	-34.701846690640	149.999862069300
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	1.350	1	OWP	575	749	399	277	156	93	62	48	32	24	738	392	273	154	92	61	47	32	24	9.0	11.0	0.74	0.35	-34.702293899373	149.999766226952
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	1.400	1	OWP	585	770	412	302	198	118	70	52	27	20	745	398	292	191	114	67	50	26	19	9.0	11.0	0.74	0.35	-34.702727458592	149.999657531183
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	1.450	1	OWP	584	595	315	218	133	90	50	49	15	19	576	305	211	129	87	49	48	14	18	9.0	11.0	0.58	0.27	-34.703170795133	149.999546681737
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	1.500	1	OWP	559	742	362	232	125	74	38	27	17	12	751	366	235	126	75	38	27	18	12	9.0	11.0	0.75	0.39	-34.703608711609	149.999436930496
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	1.550	1	OWP	573	653	333	195	122	74	44	29	21	18	644	329	193	120	73	43	29	21	17	9.0	11.0	0.64	0.32	-34.704048529659	149.999345957561
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	1.600	1	OWP	573	763	419	302	186	116	75	52	35	21	753	414	299	183	115	74	52	34	20	10.0	12.0	0.75	0.34	-34.704490905713	149.999268001824
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	1.650	1	OWP	575	745	436	324	203	133	98	73	49	31	733	429	319	200	131	96	72	48	31	10.0	12.0	0.73	0.30	-34.704929462478	149.999184218882
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	1.700	1	OWP	573	762	425	302	181	121	76	55	37	24	753	420	298	179	119	75	55	37	24	10.0	12.0	0.75	0.33	-34.705373807197	149.999107633750
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	1.750	1	OWP	556	643	303	193	102	56	38	31	23	20	654	308	196	104	57	39	32	24	20	10.0	12.0	0.65	0.35	-34.705812933433	149.999029566003
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	1.800	1	OWP	543	323	170	118	78	53	37	27	18	15	337	177	123	81	55	38	28	19	15	10.0	12.0	0.34	0.16	-34.706256492911	149.998948376730
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	1.850	1	OWP	581	475	217	108	83	59	40	32	23	17	463	212	105	81	58	38	31	22	17	10.0	12.0	0.46	0.25	-34.706623915686	149.999022615546
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	1.900	1	OWP	564	666	358	231	132	83	56	44	31	22	668	359	232	132	83	56	44	31	22	10.0	12.0	0.67	0.31	-34.706700382010	149.999560134684
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	1.950	1	OWP	576	625	332	219	129	83	57	44	30	23	614	326	215	126	81	56	43	29	23	10.0	12.0	0.61	0.29	-34.706770688271	150.000086925526
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	2.000	1	OWP	562	555	334	246	162	111	77	57	36	25	559	337	248	163	112	77	57	36	25	10.0	12.0	0.56	0.22	-34.706861458542	150.000620828434
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	2.050	1	OWP	560	536	273	196	129	93	69	55	40	32	542	276	198	130	94	70	55	40	33	10.0	12.0	0.54	0.27	-34.706915523336	150.001164138921
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	2.100	1	OWP	547	491	320	244	167	120	86	66	42	32	507	331	253	173	124	88	68	44	33	10.0	12.0	0.51	0.18	-34.706988268768	150.001698001592
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	2.150	1	OWP	566	413	229	165	121	94	73	67	48	37	413	229	165	121	94	73	67	48	37	10.0	12.0	0.41	0.18	-34.707065212226	150.002228055718
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	2.200	1	OWP	569	600	309	203	123	82	59	45	28	19	596	307	202	122	82	58	45	28	19	10.0	12.0	0.60	0.29	-34.707129601996	150.002765019834
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	2.250	1	OWP	557	614	304	191	91	50	26	19	11	8	624	308	194	92	51	27	20	11	8	10.0	12.0	0.62	0.32	-34.707203059606	150.003294930359
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	2.300	1	OWP	573	579	305	207	114	64	36	28	18	10	571	301	205	112	64	35	27	18	9	10.0	12.0	0.57	0.27	-34.707273030074	150.003832680979
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	2.350	1	OWP	562	1066	638	419	244	166	122	95	77	49	1073	643	422	245	167	123	96	77	49	10.0	12.0	1.07	0.43	-34.707342754291	150.004372379242
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	2.400	1	OWP	582	1021	483	316	191	116	65	41	13	9	993	469	307	185	113	63	40	13	9	10.0	12.0	0.99	0.52	-34.707418841007	150.004905803323
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	2.450	1	OWP	556	476	249	151	75	45	27	25	15	14	484	254	153	77	46	28	25	15	14	10.0	12.0	0.48	0.23	-34.707495331274	150.005456830100
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	2.500	1	OWP	561	487	418	360	282	216	162	121	72	44	491	422	363	284	218	163	122	72	44	10.0	14.0	0.49	0.07	-34.707561261963	150.005992266757
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	2.550	1	OWP	566	207	150	114	74	45	27	16	5	1	207	150	114	74	45	27	16	5	1	10.0	14.0	0.21	0.06	-34.707635314232	150.006527901419
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	2.600	1	OWP	549	95	78	67	51	34	21	14	6	3	98	80	69	52	35	22	14	6	3	10.0	14.0	0.10	0.02	-34.707692250289	150.007066111081
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	2.650	1	OWP	563	716	583	488	369	271	191	133	68	41	719	586	490	371	272	192	134	68	41	10.0	15.0	0.72	0.13	-34.707759792346	150.007622448479
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	2.700	1	OWP	545	330	273	233	181	140	105	81	52	35	342	284	242	188	145	109	84	54	36	10.0	15.0	0.34	0.06	-34.707823846367	150.008158995302
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	2.750	1	OWP	573	706	475	375	259	162	111	88	50	32	697	469	371	255	160	110	87	49	32	10.0	15.0	0.70	0.23	-34.707888398962	150.008708882786
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	2.800	1	OWP	585	890	547	362	190	105	58	40	17	14	861	529	351	184	101	56	39	16	14	10.0	15.0	0.86	0.33	-34.708058031269	150.009202975055
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	2.850	1	OWP	567	545	419	327	226	146	91	57	28	20	544	418	327	225	145	91	57	28	20	10.0	15.0	0.54	0.13	-34.708389880643	150.009560175804

																															Latitude	Longitude
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	0.025	2	OWP	562	77	60	57	42	37	28	22	14	7	78	61	57	42	37	29	23	14	7	11.0	16.0	0.08	0.02	-34.691145672578	149.999171224703
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	0.075	2	OWP	576	159	135	120	95	83	57	46	20	13	156	133	117	94	81	56	45	20	13	11.0	16.0	0.16	0.02	-34.691380161331	149.999626877968
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	0.125	2	OWP	558	205	168	158	142	126	107	92	62	40	207	170	161	144	128	108	93	63	41	11.0	16.0	0.21	0.04	-34.691672023375	150.000060214972
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	0.175	2	OWP	558	234	197	177	151	134	109	60	44	28	237	200	180	153	136	110	61	45	28	11.0	16.0	0.24	0.04	-34.691997545790	150.000434781047
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	0.225	2	OWP	561	670	507	372	266	159	75	42	17	21	676	512	375	268	161	76	42	17	21	11.0	16.0	0.68	0.16	-34.692369362530	150.000738001648
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	0.275	2	OWP	573	373	257	207	144	100	68	46	19	9	368	253	205	143	98	67	46	19	9	11.0	16.0	0.37	0.12	-34.692768890190	150.000994488416
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	0.325	2	OWP	566	244	189	166	130	101	79	63	38	24	244	189	166	130	101	79	63	37	23	11.0	16.0	0.24	0.05	-34.693187743900	150.001184244726
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	0.375	2	OWP	573	376	341	301	235	182	113	71	41	21	372	337	297	232	179	111	70	41	21	11.0	16.0	0.37	0.03	-34.693624085317	150.001290889969
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	0.425	2	OWP	566	338	212	192	147	129	94	38	28	18	338	211	192	147	129	94	38	28	18	11.0	16.0	0.34	0.13	-34.694068699230	150.001316718708
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	0.475	2	OWP	561	245	206	182	152	118	90	69	38	23	247	207	183	153	119	90	69	38	23	11.0	16.0	0.25	0.04	-34.694539172046	150.001262975469
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	0.525	2	OWP	565	143	111	112	97	89	77	70	53	40	143	111	112	97	89	78	70	53	40	10.0	15.0	0.14	0.03	-34.694984368341	150.001173364990
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	0.575	2	OWP	562	175	114	102	94	89	73	60	32	26	176	114	103	95	89	73	61	32	26	10.0	15.0	0.18	0.06	-34.695425342287	150.001087074150
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	0.625	2	OWP	541	252	125	120	100	60	51	44	33	26	263	130	126	105	62	53	46	35	27	10.0	15.0	0.26	0.13	-34.695871240817	150.000996821166
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	0.675	2	OWP	579	374	233	189	155	139	119	102	78	51	366	227	185	152	136	116	100	76	49	10.0	15.0	0.37	0.14	-34.696309590530	150.000910082687
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	0.725	2	OWP	566	370	199	160	128	104	82	65	45	32	370	199	160	128	104	82	65	45	32	10.0	15.0	0.37	0.17	-34.696767268168	150.000819401090
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	0.775	2	OWP	561	280	152	135	103	84	66	55	41	26	282	153	136	103	85	67	55	41	26	10.0	15.0	0.28	0.13	-34.697220531178	150.000726290011
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	0.820	2	OWP	557	346	196	170	138	120	91	74	54	40	351	199	173	140	122	93	75	54	41	10.0	15.0	0.35	0.15	-34.697663091441	150.000636308358
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	0.875	2	OWP	570	413	253	204	150	117	92	68	46	29	410	251	203	149	116	92	68	46	28	10.0	15.0	0.41	0.16	-34.698114059316	150.000551595800
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	0.925	2	OWP	565	328	158	138	122	112	92	78	54	35	328	158	138	122	112	92	78	54	35	10.0	15.0	0.33	0.17	-34.698548682454	150.000457519574
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	0.975	2	OWP	561	313	125	100	85	78	65	59	45	33	316	126	101	86	78	66	60	46	33	10.0	15.0	0.32	0.19	-34.698987135331	150.000369595551
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	1.025	2	OWP	565	343	200	187	157	87	72	66	55	45	344	200	187	157	87	72	66	55	45	10.0	15.0	0.34	0.14	-34.699417955893	150.000276821600
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	1.075	2	OWP	562	180	81	70	63	67	51	48	42	31	181	82	70	63	68	52	48	42	31	10.0	15.0	0.18	0.10	-34.699868602181	150.000192906390
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	1.125	2	OWP	534	155	102	94	88	81	73	66	52	41	164	108	99	93	86	78	70	55	43	10.0	15.0	0.16	0.06	-34.700299037817	150.000110042032
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	1.175	2	OWP	590	111	107	103	95	89	80	72	59	47	106	102	99	91	85	77	69	56	45	10.0	15.0	0.11	0.00	-34.700741319224	150.000025624224
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	1.225	2	OWP	568	824	475	329	207	143	101	80	52	42	821	473	327	207	142	100	80	52	41	10.0	15.0	0.82	0.35	-34.701189659417	149.999388894573
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	1.275	2	OWP	565	825	529	402	269	190	144	107	65	47	826	530	403	269	190	144	107	65	47	10.0	15.0	0.83	0.30	-34.701624067941	149.999854519401
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	1.325	2	OWP	559	708	356	244	130	77	48	35	24	19	716	360	247	132	78	48	35	24	19	10.0	15.0	0.72	0.36	-34.702063131210	149.999762090526
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	1.375	2	OWP	564	362	200	135	83	54	39	30	20	16	363	201	135	83	54	39	30	20	16	10.0	15.0	0.36	0.16	-34.702501563409	149.999663912200
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	1.425	2	OWP	553	454	227	155	92	63	42	32	22	15	465	232	158	95	64	43	32	23	15	10.0	15.0	0.47	0.23	-34.702942296269	149.999547104801
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	1.475	2	OWP	579	388	206	142	92	65	49	40	26	20	379	201	138	90	64	48	39	26	20	10.0	15.0	0.38	0.18	-34.703378455083	149.999442149885
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	1.525	2	OWP	579	788	375	228	106	55	33	27	16	13	770	366	222	104	53	33	26	16	13	10.0	15.0	0.77	0.40	-34.703816607497	149.999334352216
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	1.575	2	OWP	544	316	174	116	70	45	33	24	16	13	329	181	120	73	47	34	25	17	13	10.0	15.0	0.33	0.15	-34.704265331785	149.999252679617
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	1.625	2	OWP	587	705	378	268	155	97	60	44	29	23	680	365	258	150	93	58	43	28	22	10.0	15.0	0.68	0.31	-34.704709665200	149.999169344109
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	1.675	2	OWP	563	815	492	341	219	159	100	77	47	24	819	495	343	220	160	100	77	48	24	10.0	15.0	0.82	0.32	-34.705170694459	149.999085365109
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	1.725	2	OWP	589	811	411	266	151	101	59	48	37	31	779	395	255	145	97	57	46	35	29	10.0	15.0	0.78	0.38	-34.705610525088	149.999006287801
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	1.775	2	OWP	576	963	436	271	122	85	50	47	23	22	946	429	266	119	83	49	47	23	21	10.0	15.0	0.95	0.52	-34.706053592473	149.998921386217
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	1.825	2	OWP	557	327	198	146	93	66	47	39	27	19	332	201	148	94	67	47	39	28	19	10.0	15.0	0.33	0.13	-34.706492562026	149.998834358982
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	1.875	2	OWP	575	569	286	187	110	73	57	46	34	26	560	281	184	108	72	56	45	33	26	10.0	15.0	0.56	0.28	-34.706729484935	149.999298204620
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	1.925	2	OWP	578	750	430	288	158	96	68	53	36	30	734	421	282	155	94	66	52	35	29	10.0	15.0	0.74	0.31	-34.706786026584	149.999825454877
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	1.975	2	OWP	573	859	497	359	218	136	85	59	37	29	849	491	354	215	135	84	59	36	28	10.0	15.0	0.85	0.36	-34.706858536845	150.000363047149
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	2.025	2	OWP	582	613	367	271	167	114	78	62	44	33	596	357	263	163	111	76	60	43	32	10.0	15.0	0.60	0.24	-34.706928622240	150.000907964790
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	2.075	2	OWP	572	681	466	365	253	177	128	98	67	49	673	461	361	250	175	126	97	67	48	10.0	15.0	0.67	0.21	-34.706998292991	150.001439097634
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	2.125	2	OWP	568	701	419	311	204	152	109	86	57	40	698	417	310	203	151	109	86	57	40	10.0	15.0	0.70	0.28	-34.707070157839	150.001969103759
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	2.175	2	OWP	561	661	371	267	173	118	91	71	52	35	667	374	270	175	119	92	71	52	36	10.0	15.0	0.67	0.29	-34.707147349800	150.002505059936
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	2.225	2	OWP	565	608	347	209	117	78	54	35	18	8	608	348	210	117	78	54	35	18	8	10.0	15.0	0.61	0.26	-34.707219041575	150.003036496921
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	2.275	2	OWP	575	796	553	425	304	147	85	59	34	13	783	544	418	299	145	84	58	34	12	10.0	15.0	0.78	0.24	-34.707293990360	150.003580678518
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	2.325	2	OWP	562	664	340	238	144	96	72	52	29	19	668	342	240	145	97	72	52	30	19	10.0	15.0	0.67	0.33	-34.707366431167	150.004118767806
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	2.375	2	OWP	565	593	328	230	138	86	52	33	15	6	594	328	230	138	86	52	33	15	6	10.0	15.0	0.59	0.27	-34.707440931803	150.004659405060
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	2.425	2	OWP	577	374	165	103	41	31	15	9	4	4	366	162	101	40	30	15	8	3	4	10.0	15.0	0.37	0.20	-34.707515977753	150.005188159905
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	2.475	2	OWP	572	423	334	269	188	131	85	56	25	11	419	330	266	186	130	84	55	25	11	10.0	15.0	0.42	0.09	-34.707577821451	150.005715980537
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	2.525	2	OWP	557	230	194	167	130	102	74	55	29	16	234	197	170	132	103	76	56	29	16	10.0	15.0	0.23	0.04	-34.707644757823	150.006245859901
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	2.575	2	OWP	579	422	346	297	227	174	122	90	50	27	413	339	290	222	170	119	88	49	27	10.0	15.0	0.41	0.07	-34.707707126560	150.006789495734
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	2.625	2	OWP	567	266	209	177	131	95	62	41	17	8	266	208	177	131	95	62	41	17	8	10.0	15.0	0.27	0.06	-34.707773704470	150.007347669591
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	2.675	2	OWP	567	472	375	305	212	141	90	58	25	13	471	374	304	211	141	89	57	25	13	10.0	15.0	0.47	0.10	-34.707838566719	150.007870639704
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	2.725	2	OWP	567	285	234	204	161	130	99	78	50	31	285	234	204	161	130	99	77	49	31	10.0	15.0	0.29	0.05	-34.707906772390	150.008409187560
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	2.775	2	OWP	576	392	260	203	146	115	88	69	43	26	385	255	200	144	113	87	68	42	26	10.0	15.0	0.39	0.13	-34.707980910853	150.008910727381
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	2.825	2	OWP	557	149	110	90	70	55	47	40	29	21	151	112	92	71	56	47	41	29	21	10.0	15.0	0.15	0.04	-34.708279920244	150.009293442944

Appendix B

Remaining Life Results

PAVEMENT MANAGEMENT SERVICES

FWD Deflection Test Report - Remaining Life Results (Uncontrolled for Information Purposes Only)

Pavement Management Services

Innovation Center, Room IC1.20, 90 Sippy Downs Drive
Sippy Downs, QLD, 4556

Report Date: 7-Oct-21 **Client:** Gunlake **Prepared By:** Rami Akl

Project No.: 2021268 **Reviewed By:** Trent McDonald

Client_ID	Road Name	From Description	To Description	Suburb	Survey Date	Station (km)	Lane	Wheelpath	Surface			FWD Measured		DSF	CSF	Temperature Adjustment Factor		Adjusted		Permanent Deformation				Fatigue			GDA94		Event
									Type	Thickness (mm)	Temp (°C)	Deflection (mm)	Curvature (mm)			Deflection	Curvature	Deflection (mm)	Curvature (mm)	Remaining Life ESA's	Remaining Life Yrs	Overlay (mm) Granular	Overlay (mm) Asphalt	Remaining Life ESA's	Remaining Life Yrs	Remaining Life Asphalt	Latitude	Longitude	
1A1	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	0.000	1	OWP	Asphal	50	4.0	0.78	0.24	1.15	1.00	1.11	1.34	1.00	0.32	2.81E+06	9	34	24	4.41E+04	0	145	-34.659631083727	149.979047846027	
1A1	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	0.050	1	OWP	Seal	25	4.0	0.36	0.13	1.10	1.00	1.00	1.00	0.40	0.13	1.00E+08	20	0	0	N/A	N/A	N/A	-34.660076668378	149.979111373884	
1A1	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	0.100	1	OWP	Seal	25	4.0	0.58	0.28	1.10	1.00	1.00	1.00	0.64	0.28	1.00E+08	20	0	0	N/A	N/A	N/A	-34.660517289119	149.979193333106	
1A1	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	0.150	1	OWP	Seal	25	4.0	0.67	0.27	1.10	1.00	1.00	1.00	0.74	0.27	1.00E+08	20	0	0	N/A	N/A	N/A	-34.660960993135	149.979259303247	
1A1	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	0.200	1	OWP	Seal	25	4.0	0.55	0.24	1.10	1.00	1.00	1.00	0.60	0.24	1.00E+08	20	0	0	N/A	N/A	N/A	-34.661406847469	149.979340108963	
1A1	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	0.250	1	OWP	Seal	25	4.0	0.58	0.26	1.10	1.00	1.00	1.00	0.64	0.26	1.00E+08	20	0	0	N/A	N/A	N/A	-34.661869761426	149.979414503583	
1A1	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	0.300	1	OWP	Seal	25	4.0	0.60	0.28	1.10	1.00	1.00	1.00	0.66	0.28	1.00E+08	20	0	0	N/A	N/A	N/A	-34.662311014866	149.979499301615	
1A1	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	0.350	1	OWP	Seal	25	6.0	0.61	0.25	1.10	1.00	1.00	1.00	0.67	0.25	1.00E+08	20	0	0	N/A	N/A	N/A	-34.662748445160	149.979589706173	
1A1	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	0.400	1	OWP	Seal	25	6.0	0.67	0.34	1.10	1.00	1.00	1.00	0.74	0.34	1.00E+08	20	0	0	N/A	N/A	N/A	-34.663191513390	149.979663673746	
1A1	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	0.450	1	OWP	Seal	25	6.0	0.70	0.36	1.10	1.00	1.00	1.00	0.77	0.36	1.00E+08	20	0	0	N/A	N/A	N/A	-34.663649459763	149.979733690993	
1A1	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	0.500	1	OWP	Seal	25	6.0	0.52	0.28	1.10	1.00	1.00	1.00	0.57	0.28	1.00E+08	20	0	0	N/A	N/A	N/A	-34.664094687292	149.979801988958	
1A1	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	0.550	1	OWP	Seal	25	6.0	0.36	0.15	1.10	1.00	1.00	1.00	0.40	0.15	1.00E+08	20	0	0	N/A	N/A	N/A	-34.664538923188	149.979875065127	
1A1	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	0.600	1	OWP	Seal	25	6.0	0.39	0.15	1.10	1.00	1.00	1.00	0.43	0.15	1.00E+08	20	0	0	N/A	N/A	N/A	-34.664986434666	149.979942125742	
1A1	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	0.650	1	OWP	Seal	25	6.0	0.48	0.21	1.10	1.00	1.00	1.00	0.53	0.21	1.00E+08	20	0	0	N/A	N/A	N/A	-34.665429286548	149.980010529084	
1A1	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	0.700	1	OWP	Seal	25	6.0	0.74	0.28	1.10	1.00	1.00	1.00	0.81	0.28	6.37E+07	20	0	0	N/A	N/A	N/A	-34.665860944858	149.980071771055	
1A1	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	0.750	1	OWP	Seal	25	6.0	0.87	0.37	1.10	1.00	1.00	1.00	0.96	0.37	4.23E+06	14	17	24	N/A	N/A	N/A	-34.666313392689	149.980160704493	
1A1	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	0.800	1	OWP	Seal	25	6.0	0.57	0.24	1.10	1.00	1.00	1.00	0.63	0.24	1.00E+08	20	0	0	N/A	N/A	N/A	-34.666754199439	149.980225296108	
1A1	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	0.850	1	OWP	Seal	25	6.0	0.33	0.16	1.10	1.00	1.00	1.00	0.36	0.16	1.00E+08	20	0	0	N/A	N/A	N/A	-34.667195817472	149.980307570770	
1A1	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	0.900	1	OWP	Seal	25	6.0	0.20	0.00	1.10	1.00	1.00	1.00	0.22	0.00	1.00E+08	20	0	0	N/A	N/A	N/A	-34.667640669799	149.980371073652	
1A1	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	0.950	1	OWP	Seal	25	6.0	0.27	0.15	1.10	1.00	1.00	1.00	0.30	0.15	1.00E+08	20	0	0	N/A	N/A	N/A	-34.668083265057	149.980418404954	
1A1	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	1.000	1	OWP	Seal	25	6.0	0.33	0.11	1.10	1.00	1.00	1.00	0.36	0.11	1.00E+08	20	0	0	N/A	N/A	N/A	-34.668528388379	149.980417478163	
1A1	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	1.050	1	OWP	Seal	25	6.0	0.79	0.30	1.10	1.00	1.00	1.00	0.87	0.30	1.51E+07	20	0	0	N/A	N/A	N/A	-34.668974796804	149.980365275559	
1A1	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	1.100	1	OWP	Seal	25	6.0	0.91	0.36	1.10	1.00	1.00	1.00	1.00	0.36	2.81E+06	9	34	24	N/A	N/A	N/A	-34.669421125559	149.980293744848	
1A1	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	1.150	1	OWP	Seal	25	6.0	0.88	0.30	1.10	1.00	1.00	1.00	0.97	0.30	3.79E+06	12	21	24	N/A	N/A	N/A	-34.669873441804	149.980210071518	
1A1	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	1.200	1	OWP	Seal	25	6.0	0.85	0.34	1.10	1.00	1.00	1.00	0.94	0.34	5.34E+06	17	9	24	N/A	N/A	N/A	-34.670317814891	149.980127720104	
1A1	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	1.250	1	OWP	Seal	25	6.0	0.81	0.34	1.10	1.00	1.00	1.00	0.89	0.34	1.07E+07	20	0	0	N/A	N/A	N/A	-34.670752660292	149.980044796561	
1A1	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	1.300	1	OWP	Seal	25	6.0	0.36	0.15	1.10	1.00	1.00	1.00	0.40	0.15	1.00E+08	20	0	0	N/A	N/A	N/A	-34.671201842124	149.979967341314	
1A1	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	1.350	1	OWP	Seal	25	7.0	0.31	0.16	1.10	1.00	1.00	1.00	0.34	0.16	1.00E+08	20	0	0	N/A	N/A	N/A	-34.671649476145	149.979912019231	
1A1	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	1.400	1	OWP	Seal	25	7.0	0.35	0.16	1.10	1.00	1.00	1.00	0.38	0.16	1.00E+08	20	0	0	N/A	N/A	N/A	-34.672097459692	149.979897130836	
1A1	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	1.450	1	OWP	Seal	25	7.0	0.36	0.19	1.10	1.00	1.00	1.00	0.40	0.19	1.00E+08	20	0	0	N/A	N/A	N/A	-34.672549377680	149.979934984908	
1A1	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	1.500	1	OWP	Seal	25	7.0	0.16	0.09	1.10	1.00	1.00	1.00	0.18	0.09	1.00E+08	20	0	0	N/A	N/A	N/A	-34.672994281907	149.980013602406	
1A1	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	1.550	1	OWP	Seal	25	8.0	0.37	0.20	1.10	1.00	1.00	1.00	0.41	0.20	1.00E+08	20	0	0	N/A	N/A	N/A	-34.673430659499	149.980128380429	
1A1	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	1.600	1	OWP	Seal	25	8.0	0.07	0.02	1.10	1.00	1.00	1.00	0.08	0.02	1.00E+08	20	0	0	N/A	N/A	N/A	-34.673856931631	149.980299791795	
1A1	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	1.650	1	OWP	Seal	25	8.0	0.29	0.13	1.10	1.00	1.00	1.00	0.32	0.13	1.00E+08	20	0	0	N/A	N/A	N/A	-34.674269295647	149.980502114528	
1A1	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	1.700	1	OWP	Seal	25	8.0	0.14	0.04	1.10	1.00	1.00	1.00	0.15	0.04	1.00E+08	20	0	0	N/A	N/A	N/A	-34.674667053670	149.980743862911	
1A1	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	1.750	1	OWP	Seal	25	8.0	0.43	0.17	1.10	1.00	1.00	1.00	0.47	0.17	1.00E+08	20	0	0	N/A	N/A	N/A	-34.675058157763	149.981008334180	
1A1	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	1.800	1	OWP	Seal	25	8.0	0.32	0.15	1.10	1.00	1.00	1.00	0.35	0.15	1.00E+08	20	0	0	N/A	N/A	N/A	-34.675442358183	149.981275324505	
1A1	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	1.850	1	OWP	Seal	25	8.0	0.19	0.11	1.10	1.00	1.00	1.00	0.21	0.11	1.00E+08	20	0	0	N/A	N/A	N/A	-34.675833749491	149.981537620541	
1A1	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	1.900	1	OWP	Seal	25	8.0	0.67	0.34	1.10	1.00	1.00	1.00	0.74	0.34	1.00E+08	20	0	0	N/A	N/A	N/A	-34.676214970623	149.981815166980	
1A1	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	1.950	1	OWP	Seal	25	8.0	0.36	0.27	1.10	1.00	1.00	1.00	0.40	0.27	1.00E+08	20	0	0	N/A	N/A	N/A	-34.676614921438	149.982080244778	
1A1	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	2.000	1	OWP	Seal	25	8.0	0.25	0.11	1.10	1.00	1.00	1.00	0.28	0.11	1.00E+08	20	0	0	N/A	N/A	N/A	-34.677008236273	149.982352002694	
1A1	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	2.050	1	OWP	Seal	25	8.0	0.25	0.03	1.10	1.00	1.00	1.00	0.28	0.03	1.00E+08	20	0	0	N/A	N/A	N/A	-34.677405963240	149.982625762852	
1A1	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	2.100	1	OWP	Seal	25	8.0	0.50	0.31	1.10	1.00	1.00	1.00	0.55	0.31	1.00E+08	20	0	0	N/A	N/A	N/A	-34.677792909530	149.982888629758	
1A1	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	2.150	1	OWP	Seal	25	8.0	0.40	0.16	1.10	1.00	1.00	1.00	0.44	0.16	1.00E+08	20	0	0	N/A	N/A	N/A	-34.678177276449	149.983145832019	
1A1	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	2.200	1	OWP	Seal	25	8.0	0.63	0.22	1.10	1.00	1.00	1.00	0.69	0.22	1.00E+08	20	0	0	N/A	N/A	N/A	-34.678578694631	149.983412752658	
1A1	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	2.250	1	OWP	Seal	25	8.0	0.22	0.05	1.10	1.00	1.00	1.00	0.24	0.05	1.00E+08	20	0	0	N/A	N/A	N/A	-34.678962542174	149.983675141730	
1A2	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	2.225	2	OWP	Seal	25	8.0	0.79	0.32	1.10	1.00	1.00	1.00	0.87	0.32	1.51E+07	20	0	0	N/A	N/A	N/A	-34.678814936197	149.983496680515	
1A2	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	2.175	2	OWP	Seal	25	8.0	0.77	0.30	1.10	1.00	1.00	1.00	0.85	0.30	2.24E+07	20	0	0	N/A	N/A	N/A	-34.678420040016	149.983233815486	
1A2	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	2.125	2	OWP	Seal	25	9.0	0.73	0.32	1.10	1.00	1.00	1.00	0.80	0.32	1.00E+08	20	0	0	N/A	N/A	N/A	-34.678016122063	149.982959546591	
1A2	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	2.075	2	OWP	Seal	25	9.0	0.51	0.24	1.10	1.00	1.00	1.00	0.56	0.24	1.00E+08	20	0	0	N/A	N/A	N/A	-34.677619218086	149.982693618401	
1A2	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	2.025	2	OWP	Seal	25	9.0	0.71	0.35	1.10	1.00	1.00	1.00	0.78	0.35	1.00E+08	20	0	0	N/A	N/A	N/A	-34.677225504370	149.982429507036	
1A2	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	1.975	2	OWP	Seal	25	9.0	0.35	0.20	1.10	1.00	1.00	1.00	0.38	0.20	1.00E+08	20	0	0	N/A	N/A	N/A	-34.676829809919	149.982152512984	
1A2	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	1.925	2	OWP	Seal	25	9.0	0.43	0.25	1.10	1.00	1.00	1.00	0.47	0.25	1.00E+08	20	0	0	N/A	N/A	N/A	-34.676444864436	149.981887483721	
1A2	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	1.875	2	OWP	Seal	25	9.0	0.55	0.28	1.10	1.00	1.00	1.00	0.60	0.28	1.00E+08	20	0	0	N/A	N/A	N/A	-34.676055416485	149.981621627478	
1A2	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	1.825	2	OWP	Seal	25	9.0	0.38	0.18	1.10	1.00	1.00	1.00	0.42	0.18	1.00E+08	20	0	0	N/A	N/A	N/A	-34.675672916453	149.981354379082	
1A2	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	1.775	2	OWP	Seal	25	10.0	0.39	0.18	1.10	1.00	1.00	1.00	0.43	0.18	1.00E+08	20	0	0	N/A	N/A	N/A	-34.675270190869	149.981077230823	
1A2	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	1.725	2	OWP	Seal	25	10.0	0.49	0.20	1.10	1.00	1.00	1.00	0.54	0.20	1.00E+08	20	0	0	N/A	N/A	N/A	-34.674877013816	149.980806862131	
1A2	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	1.675	2	OWP	Seal	25	10.0	0.58	0.33	1.10	1.00	1.00	1.00	0.64	0.33	1.00E+08	20	0	0	N/A	N/A	N/A	-34.674487325288	149.980557665601	
1A2	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	1.625	2	OWP	Seal	25	10.0	0.04	-0.01	1.10	1.00	1.00	1.00	0.04	-0.01	1.00E+08	20	0	0	N/A	N/A	N/A	-34.674072922363	149.980330717423	
1A2	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	1.575	2	OWP	Seal	25	12.0	0.12	0.07	1.10	1.00	1.00	1.00	0.13	0.07	1.00E+08	20	0	0	N/A	N/A	N/A	-34.673664392747	149.980141962187	
1A2	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	1.525	2	OWP	Seal	25	13.0	0.09	0.02	1.10	1.00	1.00	1.00	0.10	0.02	1.00E+08	20	0	0	N/A	N/A	N/A	-34.673223622601	149.980002717094	
1A2	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	1.475	2	OWP	Seal	25	14.0	0.30	0.15	1.10	1.00	1.00	1.00	0.33	0.15	1.00E+08	20	0	0	N/A	N/A	N/A	-34.672779778215	149.979901292635	
1A2	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	1.425	2	OWP	Seal	25	14.0	0.51	0.24	1.10	1.00	1.00	1.00	0.56	0.24	1.00E+08	20	0	0	N/A	N/A	N/A	-34.672340981720	149.979847969874	
1A2	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	1.375	2	OWP	Seal	25	14.0	0.29	0.13	1.10	1.00	1.00	1.00	0.32	0.13	1.00E+08	20	0	0	N/A	N/A	N/A	-34.671886641849	149.979831530089	
1A2	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	1.325	2	OWP	Seal	25	14.0	0.33	0.18	1.10	1.00	1.00	1.00	0.36	0.18	1.00E+08	20	0	0	N/A	N/A	N/A	-34.671441069752	149.979866904354	
1A2	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	1.275	2	OWP	Seal	25	14.0	0.25	0.11	1.10	1.00	1.00	1.00	0.28	0.11	1.00E+08	20	0	0	N/A	N/A	N/A	-34.670972693249	149.979939480401	
1A2	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	1.225	2	OWP	Seal	25	14.0	0.34	0.15	1.10	1.00	1.00	1.00	0.37	0.15	1.00E+08	20	0	0	N/A	N/A	N/A	-34.670538620651	149.980018072744	
1A2	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	1.175	2	OWP	Seal	25	14.0	0.59	0.26	1.10	1.00	1.00	1.00	0.65	0.26	1.00E+08	20	0	0	N/A	N/A	N/A	-34.670089633611	149.980099787182	
1A2	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	1.125	2	OWP	Seal	25	15.0	0.67	0.29	1.10	1.00	1.00	1.00	0.74	0.29	1.00E+08	20	0	0	N/A	N/A	N/A	-34.669649821022	149.980183609026	
1A2	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	1.075	2	OWP	Seal	25	15.0	0.35	0.14	1.10	1.00	1.00	1.00	0.38	0.14	1.00E+08	20	0	0	N/A	N/A	N/A	-34.669212027069	149.980263673196	
1A2	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	1.025	2	OWP	Seal	25	17.0	0.51	0.21	1.10	1.00	1.00	1.00	0.56	0.21	1.00E+08	20	0	0	N/A	N/A	N/A	-34.668761498405	149.980327326817	
1A2	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	0.975	2	OWP	Seal	25	17.0	0.26	0.14	1.10	1.00	1.00	1.00	0.29	0.14	1.00E+08	20	0	0	N/A	N/A	N/A	-34.668318593707	149.980356685806	
1A2	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	0.925	2	OWP	Seal	25	17.0	0.31	0.18	1.10	1.00	1.00	1.00	0.34	0.18	1.00E+08	20	0	0	N/A	N/A	N/A	-34.667877725295	149.980334379645	
1A2	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	0.875	2	OWP	Seal	25	17.0	0.24	0.14	1.10	1.00	1.00	1.00	0.26	0.14	1.00E+08	20	0	0	N/A	N/A	N/A	-34.667413661042	149.980268144746	
1A2	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	0.825	2	OWP	Seal	25	17.0	1.02	0.37	1.10	1.00	1.00	1.00	1.12	0.37	1.10E+06	4	79	28	N/A	N/A	N/A	-34.666961212169	149.980191899580	
1A2	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	0.775	2	OWP	Seal	25	17.0	0.39	0.17	1.10	1.00	1.00	1.00	0.43	0.17	1.00E+08	20	0	0	N/A	N/A	N/A	-34.666529901785	149.980126510289	
1A2	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	0.725	2	OWP	Seal	25	17.0	0.67	0.27	1.10	1.00	1.00	1.00	0.74	0.27	1.00E+08	20	0	0	N/A	N/A	N/A	-34.666116398820	149.980058311649	
1A2	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	0.675	2	OWP	Seal	25	17.0	0.41	0.18	1.10	1.00	1.00	1.00	0.45	0.18	1.00E+08	20	0	0	N/A	N/A	N/A	-34.665631041925	149.979977916145	
1A2	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	0.625	2	OWP	Seal	25	17.0	0.36	0.17	1.10	1.00	1.00	1.00	0.40	0.17	1.00E+08	20	0	0	N/A	N/A	N/A	-34.665211334771	149.979919236378	
1A2	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	0.575	2	OWP	Seal	25	17.0	0.47	0.20	1.10	1.00	1.00	1.00	0.52	0.20	1.00E+08	20	0	0	N/A	N/A	N/A	-34.664767971880	149.979846807530	
1A2	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	0.525	2	OWP	Seal	25	17.0	0.68	0.36	1.10	1.00	1.00	1.00	0.75	0.36	1.00E+08	20	0	0	N/A	N/A	N/A	-34.664340330246	149.979778137004	
1A2	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	0.475	2	OWP	Seal	25	17.0	0.73	0.41	1.10	1.00	1.00	1.00	0.80	0.41	1.00E+08	20	0	0	N/A	N/A	N/A	-34.663897288727	149.979709300243	
1A2	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	0.425	2	OWP	Seal	25	17.0	0.63	0.34	1.10	1.00	1.00	1.00	0.69	0.34	1.00E+08	20	0	0	N/A	N/A	N/A	-34.663431540257	149.979632856814	

					Date	(km)			Type	(mm)	(°C)	(mm)	(mm)			Deflection	Curvature	(mm)	(mm)	ESA's	Yrs	Granular	Asphalt	ESA's	Yrs	Asphalt	Latitude	Longitude
1A2	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	0.375	2	OWP	Seal	25	17.0	0.69	0.31	1.10	1.00	1.00	1.00	0.76	0.31	1.00E+08	20	0	0	N/A	N/A	N/A	-34.662991533895	149.979565846356
1A2	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	0.325	2	OWP	Seal	25	17.0	0.69	0.33	1.10	1.00	1.00	1.00	0.76	0.33	1.00E+08	20	0	0	N/A	N/A	N/A	-34.662551277075	149.979482972133
1A2	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	0.275	2	OWP	Seal	25	17.0	0.11	0.01	1.10	1.00	1.00	1.00	0.12	0.01	1.00E+08	20	0	0	N/A	N/A	N/A	-34.662102865256	149.979397846363
1A2	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	0.225	2	OWP	Seal	25	17.0	1.06	0.44	1.10	1.00	1.00	1.00	1.17	0.44	8.22E+05	3	97	33	N/A	N/A	N/A	-34.661665771503	149.979325493705
1A2	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	0.175	2	OWP	Seal	25	17.0	0.38	0.17	1.10	1.00	1.00	1.00	0.42	0.17	1.00E+08	20	0	0	N/A	N/A	N/A	-34.661219510267	149.979255802582
1A2	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	0.125	2	OWP	Seal	25	17.0	0.82	0.31	1.10	1.00	1.00	1.00	0.90	0.31	9.17E+06	20	0	0	N/A	N/A	N/A	-34.660743557067	149.979176971274
1A2	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	0.075	2	OWP	Seal	25	17.0	0.92	0.44	1.10	1.00	1.00	1.00	1.01	0.44	2.56E+06	9	38	24	N/A	N/A	N/A	-34.660308375606	149.979097387080
1A2	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	0.025	2	OWP	Asphal	50	17.0	0.38	0.16	1.15	1.00	1.07	1.19	0.47	0.19	1.00E+08	20	0	0	5.67E+05	2	115	-34.659873771913	149.979012637817
2A1	Brayton Road	Brayton Road	Ambrose Road	Gunlake	26/08/2021	0.000	1	OWP	Seal	25	20.0	0.51	0.17	1.10	1.00	1.00	1.00	0.56	0.17	1.00E+08	20	0	0	N/A	N/A	N/A	-34.679026219049	149.983728892324
2A1	Brayton Road	Brayton Road	Ambrose Road	Gunlake	26/08/2021	0.050	1	OWP	Seal	25	20.0	0.23	0.08	1.10	1.00	1.00	1.00	0.25	0.08	1.00E+08	20	0	0	N/A	N/A	N/A	-34.679430085647	149.983993240652
2A1	Brayton Road	Brayton Road	Ambrose Road	Gunlake	26/08/2021	0.100	1	OWP	Seal	25	20.0	0.22	0.06	1.10	1.00	1.00	1.00	0.24	0.06	1.00E+08	20	0	0	N/A	N/A	N/A	-34.679824463815	149.984258351668
2A1	Brayton Road	Brayton Road	Ambrose Road	Gunlake	26/08/2021	0.150	1	OWP	Seal	25	20.0	0.44	0.21	1.10	1.00	1.00	1.00	0.48	0.21	1.00E+08	20	0	0	N/A	N/A	N/A	-34.680216877039	149.984523885818
2A2	Brayton Road	Ambrose Road	Brayton Road	Gunlake	26/08/2021	1.625	2	OWP	Seal	25	22.0	0.71	0.31	1.10	1.00	1.00	1.00	0.78	0.31	1.00E+08	20	0	0	N/A	N/A	N/A	-34.689450493046	149.995915470895
2A2	Brayton Road	Ambrose Road	Brayton Road	Gunlake	26/08/2021	1.575	2	OWP	Seal	25	22.0	0.66	0.30	1.10	1.00	1.00	1.00	0.73	0.30	1.00E+08	20	0	0	N/A	N/A	N/A	-34.689171704139	149.995502019209
2A2	Brayton Road	Ambrose Road	Brayton Road	Gunlake	26/08/2021	1.525	2	OWP	Seal	25	22.0	0.80	0.30	1.10	1.00	1.00	1.00	0.88	0.30	1.26E+07	20	0	0	N/A	N/A	N/A	-34.688889453708	149.995080528492
2A2	Brayton Road	Ambrose Road	Brayton Road	Gunlake	26/08/2021	1.475	2	OWP	Seal	25	22.0	0.50	0.18	1.10	1.00	1.00	1.00	0.55	0.18	1.00E+08	20	0	0	N/A	N/A	N/A	-34.688598589127	149.994669556929
2A2	Brayton Road	Ambrose Road	Brayton Road	Gunlake	26/08/2021	1.425	2	OWP	Seal	25	22.0	0.75	0.32	1.10	1.00	1.00	1.00	0.82	0.32	4.70E+07	20	0	0	N/A	N/A	N/A	-34.688317587870	149.994256375859
2A2	Brayton Road	Ambrose Road	Brayton Road	Gunlake	26/08/2021	1.375	2	OWP	Seal	25	22.0	0.81	0.33	1.10	1.00	1.00	1.00	0.89	0.33	1.07E+07	20	0	0	N/A	N/A	N/A	-34.688015976190	149.993838452313
2A2	Brayton Road	Ambrose Road	Brayton Road	Gunlake	26/08/2021	1.325	2	OWP	Seal	25	22.0	0.57	0.30	1.10	1.00	1.00	1.00	0.63	0.30	1.00E+08	20	0	0	N/A	N/A	N/A	-34.687714118101	149.993423315221
2A2	Brayton Road	Ambrose Road	Brayton Road	Gunlake	26/08/2021	1.275	2	OWP	Seal	25	22.0	0.98	0.38	1.10	1.00	1.00	1.00	1.08	0.38	1.45E+06	5	65	24	N/A	N/A	N/A	-34.687422406674	149.993002013649
2A2	Brayton Road	Ambrose Road	Brayton Road	Gunlake	26/08/2021	1.225	2	OWP	Seal	25	22.0	0.77	0.31	1.10	1.00	1.00	1.00	0.85	0.31	2.24E+07	20	0	0	N/A	N/A	N/A	-34.687131896906	149.992573854256
2A2	Brayton Road	Ambrose Road	Brayton Road	Gunlake	26/08/2021	1.175	2	OWP	Seal	25	22.0	0.97	0.43	1.10	1.00	1.00	1.00	1.07	0.43	1.56E+06	5	61	24	N/A	N/A	N/A	-34.686854863137	149.992152705621
2A2	Brayton Road	Ambrose Road	Brayton Road	Gunlake	26/08/2021	1.125	2	OWP	Seal	25	22.0	0.79	0.28	1.10	1.00	1.00	1.00	0.87	0.28	1.51E+07	20	0	0	N/A	N/A	N/A	-34.686557522052	149.991699421292
2A2	Brayton Road	Ambrose Road	Brayton Road	Gunlake	26/08/2021	1.075	2	OWP	Seal	25	24.0	0.44	0.21	1.10	1.00	1.00	1.00	0.48	0.21	1.00E+08	20	0	0	N/A	N/A	N/A	-34.686278269925	149.991276067989
2A2	Brayton Road	Ambrose Road	Brayton Road	Gunlake	26/08/2021	1.025	2	OWP	Seal	25	24.0	0.74	0.27	1.10	1.00	1.00	1.00	0.81	0.27	6.37E+07	20	0	0	N/A	N/A	N/A	-34.685989709302	149.990845824589
2A2	Brayton Road	Ambrose Road	Brayton Road	Gunlake	26/08/2021	0.975	2	OWP	Seal	25	24.0	2.35	1.75	1.10	1.00	1.00	1.00	2.58	1.75	3.75E+02	0	417	136	N/A	N/A	N/A	-34.685710273404	149.990427383544
2A2	Brayton Road	Ambrose Road	Brayton Road	Gunlake	26/08/2021	0.925	2	OWP	Seal	25	24.0	0.19	0.01	1.10	1.00	1.00	1.00	0.21	0.01	1.00E+08	20	0	0	N/A	N/A	N/A	-34.685400855091	149.989994064347
2A2	Brayton Road	Ambrose Road	Brayton Road	Gunlake	26/08/2021	0.875	2	OWP	Seal	25	24.0	0.16	0.01	1.10	1.00	1.00	1.00	0.18	0.01	1.00E+08	20	0	0	N/A	N/A	N/A	-34.685104784063	149.989585310173
2A2	Brayton Road	Ambrose Road	Brayton Road	Gunlake	26/08/2021	0.825	2	OWP	Seal	25	24.0	0.12	0.02	1.10	1.00	1.00	1.00	0.13	0.02	1.00E+08	20	0	0	N/A	N/A	N/A	-34.684800557546	149.989197013977
2A2	Brayton Road	Ambrose Road	Brayton Road	Gunlake	26/08/2021	0.775	2	OWP	Seal	25	24.0	0.52	0.23	1.10	1.00	1.00	1.00	0.57	0.23	1.00E+08	20	0	0	N/A	N/A	N/A	-34.684488574368	149.988794786165
2A2	Brayton Road	Ambrose Road	Brayton Road	Gunlake	26/08/2021	0.725	2	OWP	Seal	25	24.0	0.63	0.26	1.10	1.00	1.00	1.00	0.69	0.26	1.00E+08	20	0	0	N/A	N/A	N/A	-34.684175730253	149.988417655128
2A2	Brayton Road	Ambrose Road	Brayton Road	Gunlake	26/08/2021	0.675	2	OWP	Seal	25	24.0	0.47	0.19	1.10	1.00	1.00	1.00	0.52	0.19	1.00E+08	20	0	0	N/A	N/A	N/A	-34.683861195416	149.988018529625
2A2	Brayton Road	Ambrose Road	Brayton Road	Gunlake	26/08/2021	0.625	2	OWP	Seal	25	24.0	0.39	0.20	1.10	1.00	1.00	1.00	0.43	0.20	1.00E+08	20	0	0	N/A	N/A	N/A	-34.683548930269	149.987627146024
2A2	Brayton Road	Ambrose Road	Brayton Road	Gunlake	26/08/2021	0.575	2	OWP	Seal	25	24.0	0.52	0.23	1.10	1.00	1.00	1.00	0.57	0.23	1.00E+08	20	0	0	N/A	N/A	N/A	-34.683236640715	149.987229881457
2A2	Brayton Road	Ambrose Road	Brayton Road	Gunlake	26/08/2021	0.525	2	OWP	Seal	25	24.0	0.57	0.28	1.10	1.00	1.00	1.00	0.63	0.28	1.00E+08	20	0	0	N/A	N/A	N/A	-34.682928084184	149.986841744912
2A2	Brayton Road	Ambrose Road	Brayton Road	Gunlake	26/08/2021	0.475	2	OWP	Seal	25	24.0	0.67	0.32	1.10	1.00	1.00	1.00	0.74	0.32	1.00E+08	20	0	0	N/A	N/A	N/A	-34.682611612293	149.986450252917
2A2	Brayton Road	Ambrose Road	Brayton Road	Gunlake	26/08/2021	0.425	2	OWP	Seal	25	24.0	0.52	0.23	1.10	1.00	1.00	1.00	0.57	0.23	1.00E+08	20	0	0	N/A	N/A	N/A	-34.682290205653	149.986079581656
2A2	Brayton Road	Ambrose Road	Brayton Road	Gunlake	26/08/2021	0.375	2	OWP	Seal	25	24.0	0.50	0.22	1.10	1.00	1.00	1.00	0.55	0.22	1.00E+08	20	0	0	N/A	N/A	N/A	-34.681940784578	149.985734518194
2A2	Brayton Road	Ambrose Road	Brayton Road	Gunlake	26/08/2021	0.325	2	OWP	Seal	25	24.0	0.56	0.23	1.10	1.00	1.00	1.00	0.62	0.23	1.00E+08	20	0	0	N/A	N/A	N/A	-34.681576344834	149.985425151500
2A2	Brayton Road	Ambrose Road	Brayton Road	Gunlake	26/08/2021	0.275	2	OWP	Seal	25	24.0	0.63	0.29	1.10	1.00	1.00	1.00	0.69	0.29	1.00E+08	20	0	0	N/A	N/A	N/A	-34.681199601205	149.985143227120
2A2	Brayton Road	Ambrose Road	Brayton Road	Gunlake	26/08/2021	0.225	2	OWP	Seal	25	24.0	0.27	0.13	1.10	1.00	1.00	1.00	0.30	0.13	1.00E+08	20	0	0	N/A	N/A	N/A	-34.680814848368	149.984873361277
2A1	Brayton Road	Brayton Road	Ambrose Road	Gunlake	26/08/2021	0.200	1	OWP	Seal	25	20.0	0.49	0.21	1.10	1.00	1.00	1.00	0.54	0.21	1.00E+08	20	0	0	N/A	N/A	N/A	-34.680599098302	149.984799164805
2A1	Brayton Road	Brayton Road	Ambrose Road	Gunlake	26/08/2021	0.250	1	OWP	Seal	25	20.0	0.47	0.21	1.10	1.00	1.00	1.00	0.52	0.21	1.00E+08	20	0	0	N/A	N/A	N/A	-34.680988323232	149.985068528589
2A1	Brayton Road	Brayton Road	Ambrose Road	Gunlake	26/08/2021	0.300	1	OWP	Seal	25	20.0	0.39	0.17	1.10	1.00	1.00	1.00	0.43	0.17	1.00E+08	20	0	0	N/A	N/A	N/A	-34.681375645224	149.985346822322
2A1	Brayton Road	Brayton Road	Ambrose Road	Gunlake	26/08/2021	0.350	1	OWP	Seal	25	20.0	0.54	0.25	1.10	1.00	1.00	1.00	0.59	0.25	1.00E+08	20	0	0	N/A	N/A	N/A	-34.681740910196	149.985638170641
2A1	Brayton Road	Brayton Road	Ambrose Road	Gunlake	26/08/2021	0.400	1	OWP	Seal	25	20.0	0.47	0.27	1.10	1.00	1.00	1.00	0.52	0.27	1.00E+08	20	0	0	N/A	N/A	N/A	-34.682096911425	149.985965894181
2A1	Brayton Road	Brayton Road	Ambrose Road	Gunlake	26/08/2021	0.450	1	OWP	Seal	25	20.0	0.59	0.28	1.10	1.00	1.00	1.00	0.65	0.28	1.00E+08	20	0	0	N/A	N/A	N/A	-34.682434762650	149.986333009103
2A1	Brayton Road	Brayton Road	Ambrose Road	Gunlake	26/08/2021	0.500	1	OWP	Seal	25	20.0	0.27	0.06	1.10	1.00	1.00	1.00	0.30	0.06	1.00E+08	20	0	0	N/A	N/A	N/A	-34.682754597149	149.986715621881
2A1	Brayton Road	Brayton Road	Ambrose Road	Gunlake	26/08/2021	0.550	1	OWP	Seal	25	20.0	0.60	0.31	1.10	1.00	1.00	1.00	0.66	0.31	1.00E+08	20	0	0	N/A	N/A	N/A	-34.683069606430	149.987105396414
2A1	Brayton Road	Brayton Road	Ambrose Road	Gunlake	26/08/2021	0.600	1	OWP	Seal	25	20.0	0.35	0.18	1.10	1.00	1.00	1.00	0.38	0.18	1.00E+08	20	0	0	N/A	N/A	N/A	-34.683372602104	149.987493904284
2A1	Brayton Road	Brayton Road	Ambrose Road	Gunlake	26/08/2021	0.650	1	OWP	Seal	25	20.0	0.52	0.25	1.10	1.00	1.00	1.00	0.57	0.25	1.00E+08	20	0	0	N/A	N/A	N/A	-34.683684891684	149.987890519966
2A1	Brayton Road	Brayton Road	Ambrose Road	Gunlake	26/08/2021	0.700	1	OWP	Seal	25	20.0	0.65	0.31	1.10	1.00	1.00	1.00	0.72	0.31	1.00E+08	20	0	0	N/A	N/A	N/A	-34.683997074692	149.988279058718
2A1	Brayton Road	Brayton Road	Ambrose Road	Gunlake	26/08/2021	0.750	1	OWP	Seal	25	20.0	0.59	0.26	1.10	1.00	1.00	1.00	0.65	0.26	1.00E+08	20	0	0	N/A	N/A	N/A	-34.684308942017	149.988674839837
2A1	Brayton Road	Brayton Road	Ambrose Road	Gunlake	26/08/2021	0.800	1	OWP	Seal	25	20.0	0.67	0.28	1.10	1.00	1.00	1.00	0.74	0.28	1.00E+08	20	0	0	N/A	N/A	N/A	-34.684620551238	149.989067768440
2A1	Brayton Road	Brayton Road	Ambrose Road	Gunlake	26/08/2021	0.850	1	OWP	Seal	25	20.0	0.65	0.27	1.10	1.00	1.00	1.00	0.72	0.27	1.00E+08	20	0	0	N/A	N/A	N/A	-34.684931817027	149.989460974156
2A1	Brayton Road	Brayton Road	Ambrose Road	Gunlake	26/08/2021	0.900	1	OWP	Seal	25	20.0	0.60	0.26	1.10	1.00	1.00	1.00	0.66	0.26	1.00E+08	20	0	0	N/A	N/A	N/A	-34.685233276753	149.989856279439
2A1	Brayton Road	Brayton Road	Ambrose Road	Gunlake	26/08/2021	0.950	1	OWP	Seal	25	20.0	0.47	0.21	1.10	1.00	1.00	1.00	0.52	0.21	1.00E+08	20	0	0	N/A	N/A	N/A	-34.685525127696	149.990272514125
2A1	Brayton Road	Brayton Road	Ambrose Road	Gunlake	26/08/2021	1.000	1	OWP	Seal	25	20.0	0.59	0.26	1.10	1.00	1.00	1.00	0.65	0.26	1.00E+08	20	0	0	N/A	N/A	N/A	-34.685812385906	149.990685204947
2A1	Brayton Road	Brayton Road	Ambrose Road	Gunlake	26/08/2021	1.050	1	OWP	Seal	25	20.0	0.49	0.25	1.10	1.00	1.00	1.00	0.54	0.25	1.00E+08	20	0	0	N/A	N/A	N/A	-34.686095235194	149.991111742629
2A1	Brayton Road	Brayton Road	Ambrose Road	Gunlake	26/08/2021	1.100	1	OWP	Seal	25	20.0	0.56	0.25	1.10	1.00	1.00	1.00	0.62	0.25	1.00E+08	20	0	0	N/A	N/A	N/A	-34.686380400180	149.991532957964
2A1	Brayton Road	Brayton Road	Ambrose Road	Gunlake	26/08/2021	1.150	1	OWP	Seal	25	20.0	0.35	0.13	1.10	1.00	1.00	1.00	0.38	0.13	1.00E+08	20	0	0	N/A	N/A	N/A	-34.686662846510	149.991979333224
2A1	Brayton Road	Brayton Road	Ambrose Road	Gunlake	26/08/2021	1.200	1	OWP	Seal	25	20.0	0.33	0.15	1.10	1.00	1.00	1.00	0.36	0.15	1.00E+08	20	0	0	N/A	N/A	N/A	-34.686946573377	149.992403128958
2A1	Brayton Road	Brayton Road	Ambrose Road	Gunlake	26/08/2021	1.250	1	OWP	Seal	25	20.0	0.46	0.18	1.10	1.00	1.00	1.00	0.51	0.18	1.00E+08	20	0	0	N/A	N/A	N/A	-34.687233739686	149.992817865530
2A1	Brayton Road	Brayton Road	Ambrose Road	Gunlake	26/08/2021	1.300	1	OWP	Seal	25	20.0	0.18	0.02	1.10	1.00	1.00	1.00	0.20	0.02	1.00E+08	20	0	0	N/A	N/A	N/A	-34.687518704983	149.993240136686
2A1	Brayton Road	Brayton Road	Ambrose Road	Gunlake	26/08/2021	1.350	1	OWP	Seal	25	20.0	0.46	0.13	1.10	1.00	1.00	1.00	0.51	0.13	1.00E+08	20	0	0	N/A	N/A	N/A	-34.687814317592	149.993661214559
2A1	Brayton Road	Brayton Road	Ambrose Road	Gunlake	26/08/2021	1.400	1	OWP	Seal	25	20.0	0.67	0.28	1.10	1.00	1.00	1.00	0.74	0.28	1.00E+08	20	0	0	N/A	N/A	N/A	-34.688115217358	149.994082469727
2A1	Brayton Road	Brayton Road	Ambrose Road	Gunlake	26/08/2021	1.450	1	OWP	Seal	25	20.0	0.66	0.25	1.10	1.00	1.00	1.00	0.73	0.25	1.00E+08	20	0	0	N/A	N/A	N/A	-34.688408254458	149.994494555826
2A1	Brayton Road	Brayton Road	Ambrose Road	Gunlake	26/08/2021	1.500	1	OWP	Seal	25	20.0	0.66	0.25	1.10	1.00	1.00	1.00	0.73	0.25	1.00E+08	20	0	0	N/A	N/A	N/A	-34.688720759824	149.994941346797
2A1	Brayton Road	Brayton Road	Ambrose Road	Gunlake	26/08/2021	1.550	1	OWP	Seal	25	20.0	0.65	0.30	1.10	1.00	1.00	1.00	0.72	0.30	1.00E+08	20	0	0	N/A	N/A	N/A	-34.688999147964	149.995332857720
2A1	Brayton Road	Brayton Road	Ambrose Road	Gunlake	26/08/2021	1.600	1	OWP	Seal	25	20.0	0.46	0.22	1.10	1.00	1.00	1.00	0.51	0.22	1.00E+08	20	0	0	N/A	N/A	N/A	-34.689277259879	149.995746266164
2A1	Brayton Road	Brayton Road	Ambrose Road	Gunlake	26/08/2021	1.650	1	OWP	Seal	25	20.0	0.65	0.26	1.10	1.00	1.00	1.00	0.72	0.26	1.00E+08	20	0	0	N/A	N/A	N/A	-34.689547006519	149.996188648107
2A1	Brayton Road	Brayton Road	Ambrose Road	Gunlake	26/08/2021	1.700	1	OWP	Seal	25	20.0	0.37	0.18	1.10	1.00	1.00	1.00	0.41	0.18	1.00E+08	20	0	0	N/A	N/A	N/A	-34.689788541432	149.996646350129
2A1	Brayton Road	Brayton Road	Ambrose Road	Gunlake	26/08/2021	1.750	1	OWP	Seal	25	20.0	0.30	0.07	1.10	1.00	1.00	1.00	0.33	0.07	1.00E+08	20	0	0	N/A	N/A	N/A	-34.690022672494	149.997102488267
2A1	Brayton Road	Brayton Road	Ambrose Road	Gunlake	26/08/2021	1.800	1	OWP	Seal	25	20.0	0.33	0.11	1.10	1.00	1.00	1.00	0.36	0.11	1.00E+08	20	0	0	N/A	N/A	N/A	-34.690252845564	149.997560302382
2A1	Brayton Road	Brayton Road	Ambrose Road	Gunlake	26/08/2021	1.850	1	OWP	Seal	25	20.0	0.28	0.07	1.10	1.00	1.00	1.00	0.31	0.07	1.00E+08	20	0	0	N/A	N/A	N/A	-34.690489390630	149.998024849194
2A1	Brayton Road	Brayton Road	Ambrose Road	Gunlake	26/08/2021	1.900	1	OWP	Asphal	50	20.0	0.23	0.08	1.15	1.00	1.05	1.13	0.28	0.09	1.00E+08	20	0	0	1.00E+07	20	0	-34.690723588125	149.998489992148
2A2	Brayton Road	Ambrose Road	Brayton Road	Gunlake	26/08/2021	1.925	2	OWP	Asphal	50	22.0	0.17	0.01	1.15	1.00	1.03	1.09	0.20	0.01	1.00E+08	20	0	0	1.00E+07	20	0	-34.690907833859	149.998697045749
2A2	Brayton Road	Ambrose Road	Brayton Road	Gunlake	26/08/2021	1.875	2	OWP	Seal	25	22.0	0.46	0.08	1.10	1.00	1.00	1.00	0.51	0.08	1.00E+08	20	0	0	N/A	N/A	N/A	-34.690643047825	149.998205764405
2A2	Brayton Road	Ambrose Road	Brayton Road	Gunlake	26/08/2021	1.825	2	OWP	Seal	25	22.0	0.43	0.10	1.10	1.00	1.00	1.00	0.47	0.10	1.00E+08	20	0	0	N/A	N/A	N/A	-34.690405848610	149.997746500860
2A2	Brayton Road	Ambrose Road	Brayton Road	Gunlake	26/08/2021	1.775	2	OWP	Seal	25	22.0	0.17	0.00	1.10	1.00	1.00	1.00	0.19	0.00	1.00E+08	20	0	0	N/A	N/A	N/A	-34.690171532706	149.997285247980
2A2	Brayton Road	Ambrose Road	Brayton Road	Gunlake	26/08/2021	1.725	2	OWP	Seal	25	22.0	0.16	0.02	1.10	1.00	1.00	1.00	0.18	0.02	1.00E+08	20	0	0	N/A	N/A	N/A	-34.689943525320	149.996823521965
2A2	Brayton Road	Ambrose Road	Brayton Road	Gunlake	26/08/2021	1.675	2	OWP	Seal	25	22.0	0.46	0.22	1.10	1.00	1.00	1.00	0.51	0.22	1.00E+08	20	0	0	N/A	N/A	N/A	-34.689700209053	149.996376956114
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	26/08/2021	0.450	1	OWP	Seal	25	25.0	0.32	0.16	1.10	1.00	1.00	1.00	0.35	0.16	1.00E+08	20	0	0	N/A	N/A	N/A	-34.687473673085	150.000780271842
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	26/08/2021	0.500	1	OWP	Seal	25	25.0	0.64	0.35	1.10	1.00	1.00	1.00	0.70	0.35	1.00E+08	20	0	0	N/A	N/A	N/A	-34.687354501014	150.001291006095
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	26/08/2021	0.550	1	OWP	Seal	25	25.0	0.46	0.20	1.10	1.00	1.00	1.00	0.51	0.20	1.00E+08	20	0	0	N/A	N/A	N/A	-34.687320647251	150.001827497535
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	26/08/2021	0.600	1	OWP	Seal	25	25.0	0.80	0.30	1.10	1.00	1.00	1.00	0.88	0.30	1.26E+07	20	0	0	N/A	N/A	N/A	-34.687375715677	150.002391085637
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	26/08/2021	0.650	1	OWP	Seal	25	25.0	0.78	0.32	1.10	1.00	1.00	1.00	0.86	0.32	1.83E+07	20	0	0	N/A	N/A	N/A	-34.687449081162	150.002927944560
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	26/08/2021	0.701	1	OWP	Seal	25	25.0	0.65	0.27	1.10	1.00	1.00	1.00	0.72	0.27	1.00E+08	20	0	0	N/A	N/A	N/A	-34.687520047828	150.003467998491
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	26/08/2021	0.750	1	OWP	Seal	25	25.0	0.75	0.33	1.10	1.00	1.00	1.00	0.82	0.33	4.70E+07	20	0	0	N/A	N/A	N/A	-34.687587200421	150.003999653797
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	26/08/2021	0.800	1	OWP	Seal	25	25.0	0.76	0.33	1.10	1.00	1.00	1.00	0.84	0.33	2.81E+07	20	0	0	N/A	N/A	N/A	-34.687656211479	150.004533965199
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	26/08/2021	0.850	1	OWP	Seal	25	25.0	0.76	0.34	1.10	1.00	1.00	1.00	0.84	0.34	2.81E+07	20	0	0	N/A	N/A	N/A	-34.687719860747	150.005064603386
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	26/08/2021	0.900	1	OWP	Seal	25	25.0	0.71	0.32	1.10	1.00	1.00	1.00	0.78	0.32	1.00E+08	20	0	0	N/A	N/A	N/A	-34.687792201461	150.005609295345
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	26/08/2021	0.950	1	OWP	Seal	25	25.0	0.65	0.29	1.10	1.00	1.00	1.00	0.72	0.29	1.00E+08	20	0	0	N/A	N/A	N/A	-34.687864930629	150.006171669729
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	26/08/2021	1.000	1	OWP	Seal	25	25.0	0.62	0.29	1.10	1.00	1.00	1.00	0.68	0.29	1.00E+08	20	0	0	N/A	N/A	N/A	-34.687933035525	150.006710501924
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	26/08/2021	1.050	1	OWP	Seal	25	25.0	0.67	0.34	1.10	1.00	1.00	1.00	0.74	0.34	1.00E+08	20	0	0	N/A	N/A	N/A	-34.688003346384	150.007250545945

					Date	(km)			Type	(mm)	(°C)	(mm)	(mm)			Deflection	Curvature	(mm)	(mm)	ESA's	Yrs	Granular	Asphalt	ESA's	Yrs	Asphalt	Latitude	Longitude
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	26/08/2021	1.100	1	OWP	Seal	25	25.0	0.63	0.32	1.10	1.00	1.00	1.00	0.69	0.32	1.00E+08	20	0	0	N/A	N/A	N/A	-34.688072222405	150.007798344581
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	26/08/2021	1.150	1	OWP	Seal	25	25.0	0.62	0.34	1.10	1.00	1.00	1.00	0.68	0.34	1.00E+08	20	0	0	N/A	N/A	N/A	-34.688147318111	150.008339838078
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	26/08/2021	1.200	1	OWP	Seal	25	25.0	0.75	0.30	1.10	1.00	1.00	1.00	0.82	0.30	4.70E+07	20	0	0	N/A	N/A	N/A	-34.688216310577	150.008874160212
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	26/08/2021	1.240	1	OWP	Seal	25	25.0	0.88	0.41	1.10	1.00	1.00	1.00	0.97	0.41	3.79E+06	14	17	24	N/A	N/A	N/A	-34.688272342146	150.009299384352
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	26/08/2021	1.300	1	OWP	Seal	25	25.0	0.91	0.40	1.10	1.00	1.00	1.00	1.00	0.40	2.81E+06	10	29	24	N/A	N/A	N/A	-34.688359579790	150.009951982261
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	26/08/2021	1.350	1	OWP	Seal	25	25.0	1.14	0.42	1.10	1.00	1.00	1.00	1.25	0.42	5.31E+05	2	119	42	N/A	N/A	N/A	-34.688431788975	150.010502522302
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	26/08/2021	1.400	1	OWP	Seal	25	25.0	0.19	0.00	1.10	1.00	1.00	1.00	0.21	0.00	1.00E+08	20	0	0	N/A	N/A	N/A	-34.688503893403	150.011061844493
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	26/08/2021	1.450	1	OWP	Seal	25	25.0	0.62	0.30	1.10	1.00	1.00	1.00	0.68	0.30	1.00E+08	20	0	0	N/A	N/A	N/A	-34.688572795469	150.011601950258
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	26/08/2021	1.500	1	OWP	Seal	25	25.0	0.71	0.31	1.10	1.00	1.00	1.00	0.78	0.31	1.00E+08	20	0	0	N/A	N/A	N/A	-34.688640061722	150.012138549061
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	26/08/2021	1.550	1	OWP	Seal	25	25.0	0.76	0.33	1.10	1.00	1.00	1.00	0.84	0.33	2.81E+07	20	0	0	N/A	N/A	N/A	-34.688707836452	150.012670260528
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	26/08/2021	1.600	1	OWP	Seal	25	25.0	0.55	0.26	1.10	1.00	1.00	1.00	0.60	0.26	1.00E+08	20	0	0	N/A	N/A	N/A	-34.688780522648	150.013201704233
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	26/08/2021	1.650	1	OWP	Seal	25	25.0	0.71	0.30	1.10	1.00	1.00	1.00	0.78	0.30	1.00E+08	20	0	0	N/A	N/A	N/A	-34.688852204222	150.013739158733
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	26/08/2021	1.700	1	OWP	Seal	25	25.0	0.87	0.37	1.10	1.00	1.00	1.00	0.96	0.37	4.23E+06	15	13	24	N/A	N/A	N/A	-34.688932320927	150.014308348916
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	26/08/2021	1.750	1	OWP	Seal	25	25.0	0.59	0.28	1.10	1.00	1.00	1.00	0.65	0.28	1.00E+08	20	0	0	N/A	N/A	N/A	-34.688996940905	150.014841495112
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	26/08/2021	1.800	1	OWP	Seal	25	25.0	0.53	0.24	1.10	1.00	1.00	1.00	0.58	0.24	1.00E+08	20	0	0	N/A	N/A	N/A	-34.689066105218	150.015381085277
2A2	Brayton Road	Ambrose Road	Brayton Road	Gunlake	26/08/2021	0.175	2	OWP	Seal	25	24.0	0.29	0.12	1.10	1.00	1.00	1.00	0.32	0.12	1.00E+08	20	0	0	N/A	N/A	N/A	-34.680417198841	149.984591458769
2A2	Brayton Road	Ambrose Road	Brayton Road	Gunlake	26/08/2021	0.125	2	OWP	Seal	25	24.0	0.51	0.20	1.10	1.00	1.00	1.00	0.56	0.20	1.00E+08	20	0	0	N/A	N/A	N/A	-34.680035544591	149.984328372357
2A2	Brayton Road	Ambrose Road	Brayton Road	Gunlake	26/08/2021	0.075	2	OWP	Seal	25	24.0	0.56	0.25	1.10	1.00	1.00	1.00	0.62	0.25	1.00E+08	20	0	0	N/A	N/A	N/A	-34.679643175163	149.984062781162
2A2	Brayton Road	Ambrose Road	Brayton Road	Gunlake	26/08/2021	0.025	2	OWP	Seal	25	24.0	1.20	0.64	1.10	1.00	1.00	1.00	1.32	0.64	3.62E+05	1	146	52	N/A	N/A	N/A	-34.679258728036	149.983800392536
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	26/08/2021	0.000	1	OWP	Asphal	50	25.0	0.10	0.02	1.15	1.00	1.02	1.04	0.12	0.02	1.00E+08	20	0	0	1.00E+07	20	0	-34.690886399309	149.998874420980
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	26/08/2021	0.050	1	OWP	Seal	25	25.0	0.65	0.34	1.10	1.00	1.00	1.00	0.72	0.34	1.00E+08	20	0	0	N/A	N/A	N/A	-34.690495049587	149.999143725490
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	26/08/2021	0.100	1	OWP	Seal	25	25.0	0.11	0.03	1.10	1.00	1.00	1.00	0.12	0.03	1.00E+08	20	0	0	N/A	N/A	N/A	-34.690043733882	149.999142926612
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	26/08/2021	0.150	1	OWP	Seal	25	25.0	0.85	0.26	1.10	1.00	1.00	1.00	0.94	0.26	5.34E+06	18	4	24	N/A	N/A	N/A	-34.689602477890	149.999102481469
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	26/08/2021	0.200	1	OWP	Seal	25	25.0	0.85	0.34	1.10	1.00	1.00	1.00	0.94	0.34	5.34E+06	18	4	24	N/A	N/A	N/A	-34.689153626168	149.999139653598
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	26/08/2021	0.250	1	OWP	Seal	25	25.0	0.50	0.23	1.10	1.00	1.00	1.00	0.55	0.23	1.00E+08	20	0	0	N/A	N/A	N/A	-34.688719303147	149.999278472922
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	26/08/2021	0.300	1	OWP	Seal	25	25.0	0.73	0.31	1.10	1.00	1.00	1.00	0.80	0.31	1.00E+08	20	0	0	N/A	N/A	N/A	-34.688323007952	149.999523320040
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	26/08/2021	0.350	1	OWP	Seal	25	25.0	0.35	0.16	1.10	1.00	1.00	1.00	0.38	0.16	1.00E+08	20	0	0	N/A	N/A	N/A	-34.687967419900	149.999871522397
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	26/08/2021	0.400	1	OWP	Seal	25	25.0	0.36	0.19	1.10	1.00	1.00	1.00	0.40	0.19	1.00E+08	20	0	0	N/A	N/A	N/A	-34.687683891401	150.000299328577
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	26/08/2021	1.850	1	OWP	Seal	25	25.0	0.65	0.25	1.10	1.00	1.00	1.00	0.72	0.25	1.00E+08	20	0	0	N/A	N/A	N/A	-34.689134473305	150.015919778669
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	26/08/2021	1.900	1	OWP	Seal	25	25.0	0.25	0.07	1.10	1.00	1.00	1.00	0.28	0.07	1.00E+08	20	0	0	N/A	N/A	N/A	-34.689203817369	150.016456187537
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	26/08/2021	1.950	1	OWP	Seal	25	25.0	0.22	0.06	1.10	1.00	1.00	1.00	0.24	0.06	1.00E+08	20	0	0	N/A	N/A	N/A	-34.689271813185	150.016978669296
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	26/08/2021	2.000	1	OWP	Seal	25	25.0	0.25	0.03	1.10	1.00	1.00	1.00	0.28	0.03	1.00E+08	20	0	0	N/A	N/A	N/A	-34.689342683789	150.017518804017
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	26/08/2021	2.050	1	OWP	Seal	25	25.0	0.75	0.34	1.10	1.00	1.00	1.00	0.82	0.34	4.70E+07	20	0	0	N/A	N/A	N/A	-34.689409415120	150.018052575886
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	26/08/2021	2.100	1	OWP	Seal	25	25.0	0.78	0.30	1.10	1.00	1.00	1.00	0.86	0.30	1.83E+07	20	0	0	N/A	N/A	N/A	-34.689477740610	150.018591641128
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	26/08/2021	2.150	1	OWP	Seal	25	24.0	0.80	0.32	1.10	1.00	1.00	1.00	0.88	0.32	1.26E+07	20	0	0	N/A	N/A	N/A	-34.689551838603	150.019118418819
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	26/08/2021	2.200	1	OWP	Seal	25	24.0	0.59	0.24	1.10	1.00	1.00	1.00	0.65	0.24	1.00E+08	20	0	0	N/A	N/A	N/A	-34.689621815978	150.019659473796
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	26/08/2021	2.250	1	OWP	Seal	25	24.0	0.33	0.17	1.10	1.00	1.00	1.00	0.36	0.17	1.00E+08	20	0	0	N/A	N/A	N/A	-34.689689756140	150.020196431581
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	27/08/2021	2.300	1	OWP	Seal	25	16.0	0.64	0.31	1.10	1.00	1.00	1.00	0.70	0.31	1.00E+08	20	0	0	N/A	N/A	N/A	-34.689758193223	150.020716311979
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	27/08/2021	2.350	1	OWP	Seal	25	16.0	0.29	0.15	1.10	1.00	1.00	1.00	0.32	0.15	1.00E+08	20	0	0	N/A	N/A	N/A	-34.689823385927	150.021254259570
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	27/08/2021	2.400	1	OWP	Seal	25	16.0	0.52	0.27	1.10	1.00	1.00	1.00	0.57	0.27	1.00E+08	20	0	0	N/A	N/A	N/A	-34.689892142484	150.021795792123
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	27/08/2021	2.450	1	OWP	Seal	25	16.0	0.32	0.17	1.10	1.00	1.00	1.00	0.35	0.17	1.00E+08	20	0	0	N/A	N/A	N/A	-34.689963839540	150.022331597487
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	27/08/2021	2.500	1	OWP	Seal	25	16.0	0.13	0.01	1.10	1.00	1.00	1.00	0.14	0.01	1.00E+08	20	0	0	N/A	N/A	N/A	-34.690033516505	150.022874938729
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	27/08/2021	2.550	1	OWP	Seal	25	16.0	0.08	0.00	1.10	1.00	1.00	1.00	0.09	0.00	1.00E+08	20	0	0	N/A	N/A	N/A	-34.690103462982	150.023408469539
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	27/08/2021	2.600	1	OWP	Seal	25	16.0	0.60	0.29	1.10	1.00	1.00	1.00	0.66	0.29	1.00E+08	20	0	0	N/A	N/A	N/A	-34.690175075460	150.023946871477
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	27/08/2021	2.650	1	OWP	Seal	25	16.0	0.43	0.21	1.10	1.00	1.00	1.00	0.47	0.21	1.00E+08	20	0	0	N/A	N/A	N/A	-34.690246619122	150.024483329953
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	27/08/2021	2.700	1	OWP	Seal	25	16.0	0.59	0.29	1.10	1.00	1.00	1.00	0.65	0.29	1.00E+08	20	0	0	N/A	N/A	N/A	-34.690317075802	150.025013613187
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	27/08/2021	2.750	1	OWP	Seal	25	16.0	0.68	0.30	1.10	1.00	1.00	1.00	0.75	0.30	1.00E+08	20	0	0	N/A	N/A	N/A	-34.690387621884	150.025555423503
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	27/08/2021	2.800	1	OWP	Seal	25	16.0	0.29	0.15	1.10	1.00	1.00	1.00	0.32	0.15	1.00E+08	20	0	0	N/A	N/A	N/A	-34.690449705622	150.026100384561
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	27/08/2021	2.850	1	OWP	Seal	25	16.0	0.11	0.02	1.10	1.00	1.00	1.00	0.12	0.02	1.00E+08	20	0	0	N/A	N/A	N/A	-34.690518650190	150.026637737859
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	27/08/2021	2.900	1	OWP	Seal	25	16.0	0.06	0.01	1.10	1.00	1.00	1.00	0.07	0.01	1.00E+08	20	0	0	N/A	N/A	N/A	-34.690586783108	150.027167839590
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	27/08/2021	2.950	1	OWP	Seal	25	16.0	0.76	0.35	1.10	1.00	1.00	1.00	0.84	0.35	2.81E+07	20	0	0	N/A	N/A	N/A	-34.690642250217	150.027693415040
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	27/08/2021	3.000	1	OWP	Seal	25	17.0	0.65	0.32	1.10	1.00	1.00	1.00	0.72	0.32	1.00E+08	20	0	0	N/A	N/A	N/A	-34.690708204001	150.028236921883
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	27/08/2021	3.050	1	OWP	Seal	25	17.0	0.97	0.38	1.10	1.00	1.00	1.00	1.07	0.38	1.56E+06	6	57	24	N/A	N/A	N/A	-34.690773426459	150.028764060797
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	27/08/2021	3.100	1	OWP	Seal	25	17.0	0.78	0.31	1.10	1.00	1.00	1.00	0.86	0.31	1.83E+07	20	0	0	N/A	N/A	N/A	-34.690837801134	150.029297600006
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	27/08/2021	3.150	1	OWP	Seal	25	17.0	0.75	0.31	1.10	1.00	1.00	1.00	0.82	0.31	4.70E+07	20	0	0	N/A	N/A	N/A	-34.690906498766	150.029840606067
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	27/08/2021	3.200	1	OWP	Seal	25	17.0	0.72	0.29	1.10	1.00	1.00	1.00	0.79	0.29	1.00E+08	20	0	0	N/A	N/A	N/A	-34.690980175262	150.030385248588
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	27/08/2021	3.250	1	OWP	Seal	25	17.0	0.69	0.29	1.10	1.00	1.00	1.00	0.76	0.29	1.00E+08	20	0	0	N/A	N/A	N/A	-34.691054214353	150.030919530451
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	27/08/2021	3.300	1	OWP	Seal	25	17.0	0.58	0.28	1.10	1.00	1.00	1.00	0.64	0.28	1.00E+08	20	0	0	N/A	N/A	N/A	-34.691132497042	150.031452699450
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	27/08/2021	3.350	1	OWP	Seal	25	17.0	0.65	0.32	1.10	1.00	1.00	1.00	0.72	0.32	1.00E+08	20	0	0	N/A	N/A	N/A	-34.691220081737	150.031980696379
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	27/08/2021	3.400	1	OWP	Seal	25	17.0	0.27	0.03	1.10	1.00	1.00	1.00	0.30	0.03	1.00E+08	20	0	0	N/A	N/A	N/A	-34.691298720999	150.032525959434
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	27/08/2021	3.450	1	OWP	Seal	25	17.0	0.72	0.28	1.10	1.00	1.00	1.00	0.79	0.28	1.00E+08	20	0	0	N/A	N/A	N/A	-34.691371943179	150.033061017774
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	27/08/2021	3.500	1	OWP	Asphal	200	17.0	0.46	0.11	1.29	1.00	1.22	1.72	0.72	0.19	1.00E+08	20	0	0	5.67E+05	2	110	-34.691426819690	150.033571211618
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	27/08/2021	3.550	1	OWP	Asphal	200	17.0	0.14	0.02	1.29	1.00	1.22	1.72	0.22	0.03	1.00E+08	20	0	0	1.00E+07	20	0	-34.691328545397	150.034226837224
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	26/08/2021	2.225	2	OWP	Seal	25	24.0	0.63	0.29	1.10	1.00	1.00	1.00	0.69	0.29	1.00E+08	20	0	0	N/A	N/A	N/A	-34.689706271239	150.019946526599
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	26/08/2021	2.175	2	OWP	Seal	25	24.0	0.70	0.27	1.10	1.00	1.00	1.00	0.77	0.27	1.00E+08	20	0	0	N/A	N/A	N/A	-34.689635111152	150.019403143715
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	26/08/2021	2.125	2	OWP	Seal	25	23.0	0.69	0.27	1.10	1.00	1.00	1.00	0.76	0.27	1.00E+08	20	0	0	N/A	N/A	N/A	-34.689565547651	150.018864362927
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	26/08/2021	2.075	2	OWP	Seal	25	23.0	0.84	0.32	1.10	1.00	1.00	1.00	0.92	0.32	6.90E+06	20	0	0	N/A	N/A	N/A	-34.689490326023	150.018324999377
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	26/08/2021	2.025	2	OWP	Seal	25	23.0	0.60	0.25	1.10	1.00	1.00	1.00	0.66	0.25	1.00E+08	20	0	0	N/A	N/A	N/A	-34.689424372528	150.017781070008
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	2.175	2	OWP	Seal	25	15.0	0.67	0.29	1.10	1.00	1.00	1.00	0.74	0.29	1.00E+08	20	0	0	N/A	N/A	N/A	-34.707147349800	150.002505059936
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	2.125	2	OWP	Seal	25	15.0	0.70	0.28	1.10	1.00	1.00	1.00	0.77	0.28	1.00E+08	20	0	0	N/A	N/A	N/A	-34.707070157839	150.001969103759
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	2.075	2	OWP	Seal	25	15.0	0.67	0.21	1.10	1.00	1.00	1.00	0.74	0.21	1.00E+08	20	0	0	N/A	N/A	N/A	-34.706998292991	150.001439097634
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	2.025	2	OWP	Seal	25	15.0	0.60	0.24	1.10	1.00	1.00	1.00	0.66	0.24	1.00E+08	20	0	0	N/A	N/A	N/A	-34.706928622240	150.000907964790
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	1.975	2	OWP	Seal	25	15.0	0.85	0.36	1.10	1.00	1.00	1.00	0.94	0.36	5.34E+06	20	0	0	N/A	N/A	N/A	-34.706858536845	150.000363047149
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	1.925	2	OWP	Seal	25	15.0	0.74	0.31	1.10	1.00	1.00	1.00	0.81	0.31	6.37E+07	20	0	0	N/A	N/A	N/A	-34.706786026584	149.999825454877
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	1.875	2	OWP	Seal	25	15.0	0.56	0.28	1.10	1.00	1.00	1.00	0.62	0.28	1.00E+08	20	0	0	N/A	N/A	N/A	-34.706729484935	149.999298204620
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	1.825	2	OWP	Seal	25	15.0	0.33	0.13	1.10	1.00	1.00	1.00	0.36	0.13	1.00E+08	20	0	0	N/A	N/A	N/A	-34.706492562026	149.998834358982
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	1.775	2	OWP	Seal	25	15.0	0.95	0.52	1.10	1.00	1.00	1.00	1.04	0.52	1.97E+06	20	0	0	N/A	N/A	N/A	-34.706053592473	149.998921386217
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	1.725	2	OWP	Seal	25	15.0	0.78	0.38	1.10	1.00	1.00	1.00	0.86	0.38	1.83E+07	20	0	0	N/A	N/A	N/A	-34.705610525088	149.999006287801
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	1.675	2	OWP	Seal	25	15.0	0.82	0.32	1.10	1.00	1.00	1.00	0.90	0.32	9.17E+06	20	0	0	N/A	N/A	N/A	-34.705170694459	149.999085365109
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	1.625	2	OWP	Seal	25	15.0	0.68	0.31	1.10	1.00	1.00	1.00	0.75	0.31	1.00E+08	20	0	0	N/A	N/A	N/A	-34.704709665200	149.999169344109
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	1.575	2	OWP	Seal	25	15.0	0.33	0.15	1.10	1.00	1.00	1.00	0.36	0.15	1.00E+08	20	0	0	N/A	N/A	N/A	-34.704265331785	149.999252679617
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	1.525	2	OWP	Seal	25	15.0	0.77	0.40	1.10	1.00	1.00	1.00	0.85	0.40	2.24E+07	20	0	0	N/A	N/A	N/A	-34.703816607497	149.999334352216
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	1.475	2	OWP	Seal	25	15.0	0.38	0.18	1.10	1.00	1.00	1.00	0.42	0.18	1.00E+08	20	0	0	N/A	N/A	N/A	-34.703378455083	149.999442149885
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	1.425	2	OWP	Seal	25	15.0	0.47	0.23	1.10	1.00	1.00	1.00	0.52	0.23	1.00E+08	20	0	0	N/A	N/A	N/A	-34.702942296269	149.999547104801
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	1.375	2	OWP	Seal	25	15.0	0.36	0.16	1.10	1.00	1.00	1.00	0.40	0.16	1.00E+08	20	0	0	N/A	N/A	N/A	-34.702501563409	149.999663912200
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	1.325	2	OWP	Seal	25	15.0	0.72	0.36	1.10	1.00	1.00	1.00	0.79	0.36	1.00E+08	20	0	0	N/A	N/A	N/A	-34.702063131210	149.999762090526
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	1.275	2	OWP	Seal	25	15.0	0.83	0.30	1.10	1.00	1.00	1.00	0.91	0.30	7.92E+06	20	0	0	N/A	N/A	N/A	-34.701624067941	149.999854519401
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	1.225	2	OWP	Seal	25	15.0	0.82	0.35	1.10	1.00	1.00	1.00	0.90	0.35	9.17E+06	20	0	0	N/A	N/A	N/A	-34.701189659417	149.999938894573
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	1.175	2	OWP	Seal	25	15.0	0.11	0.00	1.10	1.00	1.00	1.00	0.12	0.00	1.00E+08	20	0	0	N/A	N/A	N/A	-34.700741319224	150.000025624224
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	1.125	2	OWP	Seal	25	15.0	0.16	0.06	1.10	1.00	1.00	1.00	0.18	0.06	1.00E+08	20	0	0	N/A	N/A	N/A	-34.700299037817	150.000110042032
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	1.075	2	OWP	Seal	25	15.0	0.18	0.10	1.10	1.00	1.00	1.00	0.20	0.10	1.00E+08	20	0	0	N/A	N/A	N/A	-34.699868602181	150.000192906390
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	1.025	2	OWP	Seal	25	15.0	0.34	0.14	1.10	1.00	1.00	1.00	0.37	0.14	1.00E+08	20	0	0	N/A	N/A	N/A	-34.699417955893	150.000276821600
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	0.975	2	OWP	Seal	25	15.0	0.32	0.19	1.10	1.00	1.00	1.00	0.35	0.19	1.00E+08	20	0	0	N/A	N/A	N/A	-34.698987135331	150.000369595551
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	0.925	2	OWP	Seal	25	15.0	0.33	0.17	1.10	1.00	1.00	1.00	0.36	0.17	1.00E+08	20	0	0	N/A	N/A	N/A	-34.698548682454	150.000457519574
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	0.875	2	OWP	Seal	25	15.0	0.41	0.16	1.10	1.00	1.00	1.00	0.45	0.16	1.00E+08	20	0	0	N/A	N/A	N/A	-34.698114059316	150.000551595800

					Date	(km)			Type	(mm)	(°C)	(mm)	(mm)			Deflection	Curvature	(mm)	(mm)	ESA's	Yrs	Granular	Asphalt	ESA's	Yrs	Asphalt	Latitude	Longitude
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	0.820	2	OWP	Seal	25	15.0	0.35	0.15	1.10	1.00	1.00	1.00	0.38	0.15	1.00E+08	20	0	0	N/A	N/A	N/A	-34.697663091441	150.000636308358
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	26/08/2021	1.975	2	OWP	Seal	25	23.0	0.71	0.34	1.10	1.00	1.00	1.00	0.78	0.34	1.00E+08	20	0	0	N/A	N/A	N/A	-34.689355075847	150.017252837344
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	26/08/2021	1.925	2	OWP	Seal	25	23.0	0.72	0.33	1.10	1.00	1.00	1.00	0.79	0.33	1.00E+08	20	0	0	N/A	N/A	N/A	-34.689287024267	150.016716138172
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	26/08/2021	1.875	2	OWP	Seal	25	23.0	0.08	0.00	1.10	1.00	1.00	1.00	0.09	0.00	1.00E+08	20	0	0	N/A	N/A	N/A	-34.689221184890	150.016182887008
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	26/08/2021	1.825	2	OWP	Seal	25	23.0	0.43	0.21	1.10	1.00	1.00	1.00	0.47	0.21	1.00E+08	20	0	0	N/A	N/A	N/A	-34.689152153358	150.015646159916
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	26/08/2021	1.775	2	OWP	Seal	25	23.0	0.48	0.18	1.10	1.00	1.00	1.00	0.53	0.18	1.00E+08	20	0	0	N/A	N/A	N/A	-34.689082482887	150.015114177045
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	26/08/2021	1.725	2	OWP	Seal	25	23.0	0.75	0.38	1.10	1.00	1.00	1.00	0.82	0.38	4.70E+07	20	0	0	N/A	N/A	N/A	-34.689012004750	150.014576417749
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	26/08/2021	1.675	2	OWP	Seal	25	23.0	0.49	0.21	1.10	1.00	1.00	1.00	0.54	0.21	1.00E+08	20	0	0	N/A	N/A	N/A	-34.688936692907	150.014019200356
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	26/08/2021	1.625	2	OWP	Seal	25	23.0	0.65	0.26	1.10	1.00	1.00	1.00	0.72	0.26	1.00E+08	20	0	0	N/A	N/A	N/A	-34.688860781744	150.013469507020
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	26/08/2021	1.575	2	OWP	Seal	25	23.0	0.52	0.23	1.10	1.00	1.00	1.00	0.57	0.23	1.00E+08	20	0	0	N/A	N/A	N/A	-34.688796453806	150.012929920380
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	26/08/2021	1.525	2	OWP	Seal	25	23.0	0.73	0.29	1.10	1.00	1.00	1.00	0.80	0.29	1.00E+08	20	0	0	N/A	N/A	N/A	-34.688730938186	150.012396159340
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	26/08/2021	1.475	2	OWP	Seal	25	23.0	0.56	0.27	1.10	1.00	1.00	1.00	0.62	0.27	1.00E+08	20	0	0	N/A	N/A	N/A	-34.688660796248	150.011857807765
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	26/08/2021	1.425	2	OWP	Seal	25	23.0	0.71	0.34	1.10	1.00	1.00	1.00	0.78	0.34	1.00E+08	20	0	0	N/A	N/A	N/A	-34.688588307024	150.011321487984
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	26/08/2021	1.375	2	OWP	Seal	25	23.0	1.11	0.51	1.10	1.00	1.00	1.00	1.22	0.51	6.25E+05	3	110	38	N/A	N/A	N/A	-34.688523220874	150.010782500850
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	26/08/2021	1.325	2	OWP	Seal	25	23.0	0.99	0.43	1.10	1.00	1.00	1.00	1.09	0.43	1.34E+06	5	64	24	N/A	N/A	N/A	-34.688453983145	150.010247245162
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	26/08/2021	1.275	2	OWP	Seal	25	23.0	1.07	0.64	1.10	1.00	1.00	1.00	1.18	0.64	7.78E+05	3	96	33	N/A	N/A	N/A	-34.688383415036	150.009704783109
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	26/08/2021	1.225	2	OWP	Seal	25	23.0	0.83	0.37	1.10	1.00	1.00	1.00	0.91	0.37	7.92E+06	20	0	0	N/A	N/A	N/A	-34.688308203617	150.009122211218
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	26/08/2021	1.175	2	OWP	Seal	25	23.0	0.71	0.34	1.10	1.00	1.00	1.00	0.78	0.34	1.00E+08	20	0	0	N/A	N/A	N/A	-34.688237702530	150.008585203315
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	26/08/2021	1.125	2	OWP	Seal	25	23.0	0.65	0.30	1.10	1.00	1.00	1.00	0.72	0.30	1.00E+08	20	0	0	N/A	N/A	N/A	-34.688166828839	150.008056114601
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	26/08/2021	1.075	2	OWP	Seal	25	23.0	0.68	0.33	1.10	1.00	1.00	1.00	0.75	0.33	1.00E+08	20	0	0	N/A	N/A	N/A	-34.688099068549	150.007530425219
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	26/08/2021	1.025	2	OWP	Seal	25	23.0	0.52	0.25	1.10	1.00	1.00	1.00	0.57	0.25	1.00E+08	20	0	0	N/A	N/A	N/A	-34.688027231452	150.006995526673
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	26/08/2021	0.975	2	OWP	Seal	25	23.0	0.66	0.27	1.10	1.00	1.00	1.00	0.73	0.27	1.00E+08	20	0	0	N/A	N/A	N/A	-34.687958553245	150.006451200078
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	26/08/2021	0.925	2	OWP	Seal	25	23.0	0.59	0.29	1.10	1.00	1.00	1.00	0.65	0.29	1.00E+08	20	0	0	N/A	N/A	N/A	-34.687889441602	150.005911224548
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	26/08/2021	0.875	2	OWP	Seal	25	23.0	0.63	0.28	1.10	1.00	1.00	1.00	0.69	0.28	1.00E+08	20	0	0	N/A	N/A	N/A	-34.687813951772	150.005341091092
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	26/08/2021	0.825	2	OWP	Seal	25	23.0	0.73	0.35	1.10	1.00	1.00	1.00	0.80	0.35	1.00E+08	20	0	0	N/A	N/A	N/A	-34.687744068430	150.004805297255
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	26/08/2021	0.775	2	OWP	Seal	25	23.0	0.97	0.43	1.10	1.00	1.00	1.00	1.07	0.43	1.56E+06	6	57	24	N/A	N/A	N/A	-34.687676977090	150.004287269262
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	26/08/2021	0.725	2	OWP	Seal	25	23.0	0.67	0.32	1.10	1.00	1.00	1.00	0.74	0.32	1.00E+08	20	0	0	N/A	N/A	N/A	-34.687603453414	150.003732447885
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	26/08/2021	0.675	2	OWP	Seal	25	23.0	0.68	0.34	1.10	1.00	1.00	1.00	0.75	0.34	1.00E+08	20	0	0	N/A	N/A	N/A	-34.687530163311	150.003197081400
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	26/08/2021	0.625	2	OWP	Seal	25	23.0	0.82	0.35	1.10	1.00	1.00	1.00	0.90	0.35	9.17E+06	20	0	0	N/A	N/A	N/A	-34.687463240274	150.002663968747
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	26/08/2021	0.575	2	OWP	Seal	25	23.0	0.81	0.34	1.10	1.00	1.00	1.00	0.89	0.34	1.07E+07	20	0	0	N/A	N/A	N/A	-34.687394809951	150.002119793960
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	26/08/2021	0.525	2	OWP	Seal	25	23.0	1.00	0.37	1.10	1.00	1.00	1.00	1.10	0.37	1.25E+06	5	68	24	N/A	N/A	N/A	-34.687382776157	150.001577850204
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	26/08/2021	0.475	2	OWP	Seal	25	23.0	0.51	0.25	1.10	1.00	1.00	1.00	0.56	0.25	1.00E+08	20	0	0	N/A	N/A	N/A	-34.687453289643	150.001060007654
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	26/08/2021	0.425	2	OWP	Seal	25	23.0	0.69	0.39	1.10	1.00	1.00	1.00	0.76	0.39	1.00E+08	20	0	0	N/A	N/A	N/A	-34.687619029370	150.000560782700
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	26/08/2021	0.375	2	OWP	Seal	25	23.0	0.80	0.43	1.10	1.00	1.00	1.00	0.88	0.43	1.26E+07	20	0	0	N/A	N/A	N/A	-34.687866163861	150.000106233409
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	26/08/2021	0.325	2	OWP	Seal	25	23.0	0.70	0.35	1.10	1.00	1.00	1.00	0.77	0.35	1.00E+08	20	0	0	N/A	N/A	N/A	-34.688197891264	149.999718338957
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	26/08/2021	0.275	2	OWP	Seal	25	23.0	0.74	0.33	1.10	1.00	1.00	1.00	0.81	0.33	6.37E+07	20	0	0	N/A	N/A	N/A	-34.688575543147	149.999429629301
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	26/08/2021	0.225	2	OWP	Seal	25	23.0	0.78	0.36	1.10	1.00	1.00	1.00	0.86	0.36	1.83E+07	20	0	0	N/A	N/A	N/A	-34.688966084893	149.999254126602
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	26/08/2021	0.175	2	OWP	Seal	25	23.0	0.87	0.41	1.10	1.00	1.00	1.00	0.96	0.41	4.23E+06	15	13	24	N/A	N/A	N/A	-34.689381572101	149.999173312800
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	26/08/2021	0.125	2	OWP	Seal	25	23.0	0.12	0.01	1.10	1.00	1.00	1.00	0.13	0.01	1.00E+08	20	0	0	N/A	N/A	N/A	-34.689826844003	149.999185469332
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	26/08/2021	0.075	2	OWP	Seal	25	23.0	0.77	0.41	1.10	1.00	1.00	1.00	0.85	0.41	2.24E+07	20	0	0	N/A	N/A	N/A	-34.690270788648	149.999223631244
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	26/08/2021	0.025	2	OWP	Asphal	50	23.0	0.42	0.15	1.15	1.00	1.03	1.07	0.50	0.16	1.00E+08	20	0	0	1.32E+06	5	95	-34.690736564181	149.999142042643
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	27/08/2021	3.575	2	OWP	Asphal	200	17.0	0.40	0.22	1.29	1.00	1.22	1.72	0.63	0.38	1.00E+08	20	0	0	1.90E+04	0	150	-34.691444331867	150.034373887185
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	27/08/2021	3.525	2	OWP	Asphal	200	17.0	0.15	0.04	1.29	1.00	1.22	1.72	0.24	0.07	1.00E+08	20	0	0	1.00E+07	20	0	-34.691452577560	150.033913306725
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	27/08/2021	3.475	2	OWP	Seal	25	17.0	0.52	0.15	1.10	1.00	1.00	1.00	0.57	0.15	1.00E+08	20	0	0	N/A	N/A	N/A	-34.691444372234	150.033306946424
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	27/08/2021	3.425	2	OWP	Seal	25	17.0	0.16	0.03	1.10	1.00	1.00	1.00	0.18	0.03	1.00E+08	20	0	0	N/A	N/A	N/A	-34.691379801918	150.032780289272
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	27/08/2021	3.375	2	OWP	Seal	25	17.0	0.53	0.25	1.10	1.00	1.00	1.00	0.58	0.25	1.00E+08	20	0	0	N/A	N/A	N/A	-34.691308676244	150.032247024574
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	27/08/2021	3.325	2	OWP	Seal	25	17.0	0.18	0.02	1.10	1.00	1.00	1.00	0.20	0.02	1.00E+08	20	0	0	N/A	N/A	N/A	-34.691224384324	150.031702933379
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	27/08/2021	3.275	2	OWP	Seal	25	17.0	0.66	0.28	1.10	1.00	1.00	1.00	0.73	0.28	1.00E+08	20	0	0	N/A	N/A	N/A	-34.691147132431	150.031167604128
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	27/08/2021	3.225	2	OWP	Seal	25	17.0	0.64	0.32	1.10	1.00	1.00	1.00	0.70	0.32	1.00E+08	20	0	0	N/A	N/A	N/A	-34.691075473275	150.030642275352
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	27/08/2021	3.175	2	OWP	Seal	25	17.0	0.50	0.25	1.10	1.00	1.00	1.00	0.55	0.25	1.00E+08	20	0	0	N/A	N/A	N/A	-34.690999158813	150.030100161764
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	27/08/2021	3.125	2	OWP	Seal	25	17.0	0.60	0.28	1.10	1.00	1.00	1.00	0.66	0.28	1.00E+08	20	0	0	N/A	N/A	N/A	-34.690930486372	150.029575881690
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	27/08/2021	3.075	2	OWP	Seal	25	17.0	0.58	0.28	1.10	1.00	1.00	1.00	0.64	0.28	1.00E+08	20	0	0	N/A	N/A	N/A	-34.690862645899	150.029031989094
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	27/08/2021	3.025	2	OWP	Seal	25	17.0	0.54	0.26	1.10	1.00	1.00	1.00	0.59	0.26	1.00E+08	20	0	0	N/A	N/A	N/A	-34.690799185073	150.028500854635
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	27/08/2021	2.975	2	OWP	Seal	25	17.0	0.78	0.34	1.10	1.00	1.00	1.00	0.86	0.34	1.83E+07	20	0	0	N/A	N/A	N/A	-34.690740563871	150.027974686469
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	27/08/2021	2.925	2	OWP	Seal	25	17.0	0.67	0.29	1.10	1.00	1.00	1.00	0.74	0.29	1.00E+08	20	0	0	N/A	N/A	N/A	-34.690673436027	150.027412217533
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	27/08/2021	2.875	2	OWP	Seal	25	17.0	0.92	0.35	1.10	1.00	1.00	1.00	1.01	0.35	2.56E+06	10	33	24	N/A	N/A	N/A	-34.690616388624	150.026880904769
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	27/08/2021	2.825	2	OWP	Seal	25	17.0	0.55	0.26	1.10	1.00	1.00	1.00	0.60	0.26	1.00E+08	20	0	0	N/A	N/A	N/A	-34.690537809318	150.026354437473
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	27/08/2021	2.775	2	OWP	Seal	25	17.0	0.63	0.30	1.10	1.00	1.00	1.00	0.69	0.30	1.00E+08	20	0	0	N/A	N/A	N/A	-34.690473999959	150.025804751103
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	27/08/2021	2.725	2	OWP	Seal	25	17.0	0.59	0.32	1.10	1.00	1.00	1.00	0.65	0.32	1.00E+08	20	0	0	N/A	N/A	N/A	-34.690407359050	150.025277213344
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	27/08/2021	2.675	2	OWP	Seal	25	17.0	0.09	0.03	1.10	1.00	1.00	1.00	0.10	0.03	1.00E+08	20	0	0	N/A	N/A	N/A	-34.690331363785	150.024726205970
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	27/08/2021	2.625	2	OWP	Seal	25	17.0	0.70	0.33	1.10	1.00	1.00	1.00	0.77	0.33	1.00E+08	20	0	0	N/A	N/A	N/A	-34.690265194745	150.024220737301
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	27/08/2021	2.575	2	OWP	Seal	25	17.0	0.48	0.26	1.10	1.00	1.00	1.00	0.53	0.26	1.00E+08	20	0	0	N/A	N/A	N/A	-34.690190546306	150.023703239709
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	27/08/2021	2.525	2	OWP	Seal	25	17.0	0.45	0.22	1.10	1.00	1.00	1.00	0.50	0.22	1.00E+08	20	0	0	N/A	N/A	N/A	-34.690123505413	150.023155851763
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	27/08/2021	2.475	2	OWP	Seal	25	17.0	0.15	0.03	1.10	1.00	1.00	1.00	0.16	0.03	1.00E+08	20	0	0	N/A	N/A	N/A	-34.690051855952	150.022595675024
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	27/08/2021	2.425	2	OWP	Seal	25	17.0	0.13	0.02	1.10	1.00	1.00	1.00	0.14	0.02	1.00E+08	20	0	0	N/A	N/A	N/A	-34.689984236625	150.022062552975
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	27/08/2021	2.375	2	OWP	Seal	25	17.0	0.58	0.34	1.10	1.00	1.00	1.00	0.64	0.34	1.00E+08	20	0	0	N/A	N/A	N/A	-34.689917941881	150.021519253568
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	27/08/2021	2.325	2	OWP	Seal	25	17.0	0.51	0.30	1.10	1.00	1.00	1.00	0.56	0.30	1.00E+08	20	0	0	N/A	N/A	N/A	-34.689848061114	150.020991210005
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	27/08/2021	2.275	2	OWP	Seal	25	17.0	0.46	0.26	1.10	1.00	1.00	1.00	0.51	0.26	1.00E+08	20	0	0	N/A	N/A	N/A	-34.689772141279	150.020458564429
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	0.000	1	OWP	Seal	25	9.0	0.05	0.01	1.10	1.00	1.00	1.00	0.06	0.01	1.00E+08	20	0	0	N/A	N/A	N/A	-34.690955551313	149.998926536546
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	0.775	2	OWP	Seal	25	15.0	0.28	0.13	1.10	1.00	1.00	1.00	0.31	0.13	1.00E+08	20	0	0	N/A	N/A	N/A	-34.697220531178	150.000726290011
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	0.725	2	OWP	Seal	25	15.0	0.37	0.17	1.10	1.00	1.00	1.00	0.41	0.17	1.00E+08	20	0	0	N/A	N/A	N/A	-34.696767268168	150.000819401090
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	0.675	2	OWP	Seal	25	15.0	0.37	0.14	1.10	1.00	1.00	1.00	0.41	0.14	1.00E+08	20	0	0	N/A	N/A	N/A	-34.696309590530	150.000910082687
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	0.625	2	OWP	Seal	25	15.0	0.26	0.13	1.10	1.00	1.00	1.00	0.29	0.13	1.00E+08	20	0	0	N/A	N/A	N/A	-34.695871240817	150.000996821166
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	0.575	2	OWP	Seal	25	15.0	0.18	0.06	1.10	1.00	1.00	1.00	0.20	0.06	1.00E+08	20	0	0	N/A	N/A	N/A	-34.695425342287	150.001087074150
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	0.525	2	OWP	Seal	25	15.0	0.14	0.03	1.10	1.00	1.00	1.00	0.15	0.03	1.00E+08	20	0	0	N/A	N/A	N/A	-34.694984368341	150.001173364990
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	0.475	2	OWP	Seal	25	16.0	0.25	0.04	1.10	1.00	1.00	1.00	0.28	0.04	1.00E+08	20	0	0	N/A	N/A	N/A	-34.694539172046	150.001262975469
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	0.425	2	OWP	Seal	25	16.0	0.34	0.13	1.10	1.00	1.00	1.00	0.37	0.13	1.00E+08	20	0	0	N/A	N/A	N/A	-34.694068699230	150.001316718708
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	0.375	2	OWP	Seal	25	16.0	0.37	0.03	1.10	1.00	1.00	1.00	0.41	0.03	1.00E+08	20	0	0	N/A	N/A	N/A	-34.693624085317	150.001290889969
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	0.325	2	OWP	Seal	25	16.0	0.24	0.05	1.10	1.00	1.00	1.00	0.26	0.05	1.00E+08	20	0	0	N/A	N/A	N/A	-34.693187743900	150.001184244726
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	0.275	2	OWP	Seal	25	16.0	0.37	0.12	1.10	1.00	1.00	1.00	0.41	0.12	1.00E+08	20	0	0	N/A	N/A	N/A	-34.692768890190	150.000994488416
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	0.225	2	OWP	Seal	25	16.0	0.68	0.16	1.10	1.00	1.00	1.00	0.75	0.16	1.00E+08	20	0	0	N/A	N/A	N/A	-34.692369362530	150.000738001648
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	0.175	2	OWP	Seal	25	16.0	0.24	0.04	1.10	1.00	1.00	1.00	0.26	0.04	1.00E+08	20	0	0	N/A	N/A	N/A	-34.691997545790	150.000434781047
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	0.125	2	OWP	Seal	25	16.0	0.21	0.04	1.10	1.00	1.00	1.00	0.23	0.04	1.00E+08	20	0	0	N/A	N/A	N/A	-34.691672023375	150.000060214972
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	0.075	2	OWP	Seal	25	16.0	0.16	0.02	1.10	1.00	1.00	1.00	0.18	0.02	1.00E+08	20	0	0	N/A	N/A	N/A	-34.691380161331	149.999626877968
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	0.050	1	OWP	Seal	25	9.0	0.14	0.11	1.10	1.00	1.00	1.00	0.15	0.11	1.00E+08	20	0	0	N/A	N/A	N/A	-34.691193982723	149.999385856129
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	0.100	1	OWP	Seal	25	9.0	0.16	0.02	1.10	1.00	1.00	1.00	0.18	0.02	1.00E+08	20	0	0	N/A	N/A	N/A	-34.691473885403	149.999863828168
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	0.150	1	OWP	Seal	25	9.0	0.28	0.02	1.10	1.00	1.00	1.00	0.31	0.02	1.00E+08	20	0	0	N/A	N/A	N/A	-34.691783284770	150.000264323005
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	0.200	1	OWP	Seal	25	9.0	0.16	0.01	1.10	1.00	1.00	1.00	0.18	0.01	1.00E+08	20	0	0	N/A	N/A	N/A	-34.692133221664	150.000619012966
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	0.250	1	OWP	Seal	25	9.0	0.29	0.08	1.10	1.00	1.00	1.00	0.32	0.08	1.00E+08	20	0	0	N/A	N/A	N/A	-34.692517077977	150.000897985407
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	0.300	1	OWP	Seal	25	9.0	0.13	0.03	1.10	1.00	1.00	1.00	0.14	0.03	1.00E+08	20	0	0	N/A	N/A	N/A	-34.692920733481	150.001137123829
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	0.350	1	OWP	Seal	25	9.0	0.27	0.05	1.10	1.00	1.00	1.00	0.30	0.05	1.00E+08	20	0	0	N/A	N/A	N/A	-34.693377305061	150.001290423458
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	0.400	1	OWP	Seal	25	9.0	0.31	0.10	1.10	1.00	1.00	1.00	0.34	0.10	1.00E+08	20	0	0	N/A	N/A	N/A	-34.693821737017	150.001363233700
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	0.450	1	OWP	Seal	25	9.0	0.47	0.14	1.10	1.00	1.00	1.00	0.52	0.14	1.00E+08	20	0	0	N/A	N/A	N/A	-34.694297076995	150.001357594495
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	0.500	1	OWP	Seal	25	9.0	0.20	0.04	1.10	1.00	1.00	1.00	0.22	0.04	1.00E+08	20	0	0	N/A	N/A	N/A	-34.694763336619	150.001275251829
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	0.550	1	OWP	Seal	25	9.0	0.13	0.04	1.10	1.00	1.00	1.00	0.14	0.04	1.00E+08	20	0	0	N/A	N/A	N/A	-34.695196789736	150.001189058369

					Date	(km)			Type	(mm)	(°C)	(mm)	(mm)			Deflection	Curvature	(mm)	(mm)	ESA's	Yrs	Granular	Asphalt	ESA's	Yrs	Asphalt	Latitude	Longitude
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	0.600	1	OWP	Seal	25	9.0	0.24	0.13	1.10	1.00	1.00	1.00	0.26	0.13	1.00E+08	20	0	0	N/A	N/A	N/A	-34.695640764054	150.001102833913
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	0.650	1	OWP	Seal	25	9.0	0.23	0.09	1.10	1.00	1.00	1.00	0.25	0.09	1.00E+08	20	0	0	N/A	N/A	N/A	-34.696083365634	150.001011629624
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	0.700	1	OWP	Seal	25	9.0	0.33	0.09	1.10	1.00	1.00	1.00	0.36	0.09	1.00E+08	20	0	0	N/A	N/A	N/A	-34.696525918219	150.000924759096
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	0.750	1	OWP	Seal	25	9.0	0.25	0.11	1.10	1.00	1.00	1.00	0.28	0.11	1.00E+08	20	0	0	N/A	N/A	N/A	-34.696977332472	150.000830957804
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	0.800	1	OWP	Seal	25	9.0	0.47	0.32	1.10	1.00	1.00	1.00	0.52	0.32	1.00E+08	20	0	0	N/A	N/A	N/A	-34.697421873885	150.000740002545
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	0.850	1	OWP	Seal	25	10.0	0.41	0.15	1.10	1.00	1.00	1.00	0.45	0.15	1.00E+08	20	0	0	N/A	N/A	N/A	-34.697862826670	150.000646032164
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	0.900	1	OWP	Seal	25	10.0	0.42	0.18	1.10	1.00	1.00	1.00	0.46	0.18	1.00E+08	20	0	0	N/A	N/A	N/A	-34.698338178308	150.000556691645
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	0.950	1	OWP	Seal	25	10.0	0.39	0.16	1.10	1.00	1.00	1.00	0.43	0.16	1.00E+08	20	0	0	N/A	N/A	N/A	-34.698768500904	150.000470199679
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	1.000	1	OWP	Seal	25	10.0	0.40	0.19	1.10	1.00	1.00	1.00	0.44	0.19	1.00E+08	20	0	0	N/A	N/A	N/A	-34.699198410308	150.000385955720
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	1.050	1	OWP	Seal	25	11.0	0.26	0.12	1.10	1.00	1.00	1.00	0.29	0.12	1.00E+08	20	0	0	N/A	N/A	N/A	-34.699640754021	150.000294626524
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	1.100	1	OWP	Seal	25	11.0	0.26	0.17	1.10	1.00	1.00	1.00	0.29	0.17	1.00E+08	20	0	0	N/A	N/A	N/A	-34.700083037815	150.000205415018
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	1.150	1	OWP	Seal	25	11.0	0.22	0.05	1.10	1.00	1.00	1.00	0.24	0.05	1.00E+08	20	0	0	N/A	N/A	N/A	-34.700523879757	150.000112703090
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	1.250	1	OWP	Seal	25	11.0	0.74	0.27	1.10	1.00	1.00	1.00	0.81	0.27	6.37E+07	20	0	0	N/A	N/A	N/A	-34.701404936502	149.999947772650
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	1.300	1	OWP	Seal	25	11.0	0.47	0.22	1.10	1.00	1.00	1.00	0.52	0.22	1.00E+08	20	0	0	N/A	N/A	N/A	-34.701846690640	149.999862069300
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	1.350	1	OWP	Seal	25	11.0	0.74	0.35	1.10	1.00	1.00	1.00	0.81	0.35	6.37E+07	20	0	0	N/A	N/A	N/A	-34.702293899373	149.999766226952
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	1.400	1	OWP	Seal	25	11.0	0.74	0.35	1.10	1.00	1.00	1.00	0.81	0.35	6.37E+07	20	0	0	N/A	N/A	N/A	-34.702727458592	149.999657531183
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	1.450	1	OWP	Seal	25	11.0	0.58	0.27	1.10	1.00	1.00	1.00	0.64	0.27	1.00E+08	20	0	0	N/A	N/A	N/A	-34.703170795133	149.999546681737
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	1.500	1	OWP	Seal	25	11.0	0.75	0.39	1.10	1.00	1.00	1.00	0.82	0.39	4.70E+07	20	0	0	N/A	N/A	N/A	-34.703608711609	149.999436930496
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	1.550	1	OWP	Seal	25	11.0	0.64	0.32	1.10	1.00	1.00	1.00	0.70	0.32	1.00E+08	20	0	0	N/A	N/A	N/A	-34.704048529659	149.999345957561
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	1.600	1	OWP	Seal	25	12.0	0.75	0.34	1.10	1.00	1.00	1.00	0.82	0.34	4.70E+07	20	0	0	N/A	N/A	N/A	-34.704490905713	149.999268001824
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	1.650	1	OWP	Seal	25	12.0	0.73	0.30	1.10	1.00	1.00	1.00	0.80	0.30	1.00E+08	20	0	0	N/A	N/A	N/A	-34.704929462478	149.999184218882
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	1.700	1	OWP	Seal	25	12.0	0.75	0.33	1.10	1.00	1.00	1.00	0.82	0.33	4.70E+07	20	0	0	N/A	N/A	N/A	-34.705373807197	149.999107633750
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	1.750	1	OWP	Seal	25	12.0	0.65	0.35	1.10	1.00	1.00	1.00	0.72	0.35	1.00E+08	20	0	0	N/A	N/A	N/A	-34.705812933433	149.999029566003
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	1.800	1	OWP	Seal	25	12.0	0.34	0.16	1.10	1.00	1.00	1.00	0.37	0.16	1.00E+08	20	0	0	N/A	N/A	N/A	-34.706256492911	149.998948376730
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	1.850	1	OWP	Seal	25	12.0	0.46	0.25	1.10	1.00	1.00	1.00	0.51	0.25	1.00E+08	20	0	0	N/A	N/A	N/A	-34.706623915686	149.999022615546
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	1.900	1	OWP	Seal	25	12.0	0.67	0.31	1.10	1.00	1.00	1.00	0.74	0.31	1.00E+08	20	0	0	N/A	N/A	N/A	-34.706700382010	149.999560134684
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	1.950	1	OWP	Seal	25	12.0	0.61	0.29	1.10	1.00	1.00	1.00	0.67	0.29	1.00E+08	20	0	0	N/A	N/A	N/A	-34.706770688271	150.000086925526
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	2.000	1	OWP	Seal	25	12.0	0.56	0.22	1.10	1.00	1.00	1.00	0.62	0.22	1.00E+08	20	0	0	N/A	N/A	N/A	-34.706861458542	150.000620828434
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	2.050	1	OWP	Seal	25	12.0	0.54	0.27	1.10	1.00	1.00	1.00	0.59	0.27	1.00E+08	20	0	0	N/A	N/A	N/A	-34.706915523336	150.001164138921
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	2.100	1	OWP	Seal	25	12.0	0.51	0.18	1.10	1.00	1.00	1.00	0.56	0.18	1.00E+08	20	0	0	N/A	N/A	N/A	-34.706988268768	150.001698001592
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	2.150	1	OWP	Seal	25	12.0	0.41	0.18	1.10	1.00	1.00	1.00	0.45	0.18	1.00E+08	20	0	0	N/A	N/A	N/A	-34.707065212226	150.002228055718
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	2.200	1	OWP	Seal	25	12.0	0.60	0.29	1.10	1.00	1.00	1.00	0.66	0.29	1.00E+08	20	0	0	N/A	N/A	N/A	-34.707129601996	150.002765019834
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	2.250	1	OWP	Seal	25	12.0	0.62	0.32	1.10	1.00	1.00	1.00	0.68	0.32	1.00E+08	20	0	0	N/A	N/A	N/A	-34.707203059606	150.003294930359
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	2.300	1	OWP	Seal	25	12.0	0.57	0.27	1.10	1.00	1.00	1.00	0.63	0.27	1.00E+08	20	0	0	N/A	N/A	N/A	-34.707273030074	150.003832680979
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	2.350	1	OWP	Seal	25	12.0	1.07	0.43	1.10	1.00	1.00	1.00	1.18	0.43	7.78E+05	20	0	0	N/A	N/A	N/A	-34.707342754291	150.004372379242
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	2.400	1	OWP	Seal	25	12.0	0.99	0.52	1.10	1.00	1.00	1.00	1.09	0.52	1.34E+06	20	0	0	N/A	N/A	N/A	-34.707418841007	150.004905803323
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	2.450	1	OWP	Seal	25	12.0	0.48	0.23	1.10	1.00	1.00	1.00	0.53	0.23	1.00E+08	20	0	0	N/A	N/A	N/A	-34.707495331274	150.005456830100
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	2.500	1	OWP	Asphal	50	14.0	0.49	0.07	1.15	1.00	1.09	1.27	0.61	0.09	1.00E+08	20	0	0	1.00E+07	20	0	-34.707561261963	150.005992266757
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	2.550	1	OWP	Asphal	50	14.0	0.21	0.06	1.15	1.00	1.09	1.27	0.26	0.08	1.00E+08	20	0	0	1.00E+07	20	0	-34.707635314232	150.006527901419
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	2.600	1	OWP	Asphal	50	14.0	0.10	0.02	1.15	1.00	1.09	1.27	0.13	0.03	1.00E+08	20	0	0	1.00E+07	20	0	-34.707692250289	150.007066111081
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	2.650	1	OWP	Asphal	50	15.0	0.72	0.13	1.15	1.00	1.09	1.24	0.90	0.16	9.17E+06	20	0	0	1.32E+06	20	0	-34.707759792346	150.007622448479
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	2.700	1	OWP	Asphal	50	15.0	0.34	0.06	1.15	1.00	1.09	1.24	0.43	0.07	1.00E+08	20	0	0	1.00E+07	20	0	-34.707823846367	150.008158995302
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	2.750	1	OWP	Asphal	50	15.0	0.70	0.23	1.15	1.00	1.09	1.24	0.88	0.29	1.26E+07	20	0	0	7.15E+04	3	0	-34.707888398962	150.008708882786
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	2.800	1	OWP	Asphal	50	15.0	0.86	0.33	1.15	1.00	1.09	1.24	1.08	0.41	1.45E+06	20	0	0	1.31E+04	1	90	-34.708058031269	150.009202975055
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	2.850	1	OWP	Asphal	50	15.0	0.54	0.13	1.15	1.00	1.09	1.24	0.68	0.16	1.00E+08	20	0	0	1.32E+06	20	0	-34.708389880643	150.009560175804
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	2.825	2	OWP	Asphal	50	15.0	0.15	0.04	1.15	1.00	1.09	1.24	0.19	0.05	1.00E+08	20	0	0	1.00E+07	20	0	-34.708279920244	150.009293442944
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	2.775	2	OWP	Asphal	50	15.0	0.39	0.13	1.15	1.00	1.09	1.24	0.49	0.16	1.00E+08	20	0	0	1.32E+06	20	0	-34.707980910853	150.008910727381
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	2.725	2	OWP	Asphal	50	15.0	0.29	0.05	1.15	1.00	1.09	1.24	0.36	0.06	1.00E+08	20	0	0	1.00E+07	20	0	-34.707906772390	150.008409187560
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	2.675	2	OWP	Asphal	50	15.0	0.47	0.10	1.15	1.00	1.09	1.24	0.59	0.12	1.00E+08	20	0	0	5.39E+06	20	0	-34.707838566719	150.007870639704
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	2.625	2	OWP	Asphal	50	15.0	0.27	0.06	1.15	1.00	1.09	1.24	0.34	0.07	1.00E+08	20	0	0	1.00E+07	20	0	-34.707773704470	150.007347669591
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	2.575	2	OWP	Asphal	50	15.0	0.41	0.07	1.15	1.00	1.09	1.24	0.51	0.09	1.00E+08	20	0	0	1.00E+07	20	0	-34.707707126560	150.006789495734
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	2.525	2	OWP	Asphal	50	15.0	0.23	0.04	1.15	1.00	1.09	1.24	0.29	0.05	1.00E+08	20	0	0	1.00E+07	20	0	-34.707644757823	150.006245859901
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	2.475	2	OWP	Seal	25	15.0	0.42	0.09	1.10	1.00	1.00	1.00	0.46	0.09	1.00E+08	20	0	0	N/A	N/A	N/A	-34.707577821451	150.005715980537
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	2.425	2	OWP	Seal	25	15.0	0.37	0.20	1.10	1.00	1.00	1.00	0.41	0.20	1.00E+08	20	0	0	N/A	N/A	N/A	-34.707515977753	150.005188159905
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	2.375	2	OWP	Seal	25	15.0	0.59	0.27	1.10	1.00	1.00	1.00	0.65	0.27	1.00E+08	20	0	0	N/A	N/A	N/A	-34.707440931803	150.004659405060
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	2.325	2	OWP	Seal	25	15.0	0.67	0.33	1.10	1.00	1.00	1.00	0.74	0.33	1.00E+08	20	0	0	N/A	N/A	N/A	-34.707366431167	150.004118767806
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	2.275	2	OWP	Seal	25	15.0	0.78	0.24	1.10	1.00	1.00	1.00	0.86	0.24	1.83E+07	20	0	0	N/A	N/A	N/A	-34.707293990360	150.003580678518
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	2.225	2	OWP	Seal	25	15.0	0.61	0.26	1.10	1.00	1.00	1.00	0.67	0.26	1.00E+08	20	0	0	N/A	N/A	N/A	-34.707219041575	150.003036496921
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	0.025	2	OWP	Seal	25	16.0	0.08	0.02	1.10	1.00	1.00	1.00	0.09	0.02	1.00E+08	20	0	0	N/A	N/A	N/A	-34.691145672578	149.999171224703

PAVEMENT MANAGEMENT SERVICES

FWD Deflection Test Report - Remaining Life Results (Uncontrolled for Information Purposes Only)

Pavement Management Services

Innovation Center, Room IC1.20, 90 Sippy Downs Drive
Sippy Downs, QLD, 4556

Report Date: 7-Oct-21 **Client:** Gunlake **Prepared By:** Rami Akl

Project No.: 2021268 **Reviewed By:** Trent McDonald

Client_ID	Road Name	From Description	To Description	Suburb	Survey Date	Station (km)	Lane	Wheelpath	Surface			FWD Measured		DSF	CSF	Temperature Adjustment Factor		Adjusted		Permanent Deformation				Fatigue			GDA94		Event
									Type	Thickness (mm)	Temp (°C)	Deflection (mm)	Curvature (mm)			Deflection	Curvature	Deflection (mm)	Curvature (mm)	Remaining Life ESA's	Remaining Life Yrs	Overlay (mm) Granular	Overlay (mm) Asphalt	Remaining Life ESA's	Remaining Life Yrs	Remaining Life Asphalt	Latitude	Longitude	
1A1	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	0.000	1	OWP	Asphal	50	4.0	0.78	0.24	1.15	1.00	1.11	1.34	1.00	0.32	2.81E+06	6	47	24	N/A	N/A	N/A	-34.659631083727	149.979047846027	
1A1	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	0.050	1	OWP	Seal	25	4.0	0.36	0.13	1.10	1.00	1.00	1.00	0.40	0.13	1.00E+08	20	0	0	N/A	N/A	N/A	-34.660076668378	149.979111373884	
1A1	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	0.100	1	OWP	Seal	25	4.0	0.58	0.28	1.10	1.00	1.00	1.00	0.64	0.28	1.00E+08	20	0	0	N/A	N/A	N/A	-34.660517289119	149.979193333106	
1A1	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	0.150	1	OWP	Seal	25	4.0	0.67	0.27	1.10	1.00	1.00	1.00	0.74	0.27	1.00E+08	20	0	0	N/A	N/A	N/A	-34.660960993135	149.979259303247	
1A1	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	0.200	1	OWP	Seal	25	4.0	0.55	0.24	1.10	1.00	1.00	1.00	0.60	0.24	1.00E+08	20	0	0	N/A	N/A	N/A	-34.661406847469	149.979340108963	
1A1	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	0.250	1	OWP	Seal	25	4.0	0.58	0.26	1.10	1.00	1.00	1.00	0.64	0.26	1.00E+08	20	0	0	N/A	N/A	N/A	-34.661869761426	149.979414503583	
1A1	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	0.300	1	OWP	Seal	25	4.0	0.60	0.28	1.10	1.00	1.00	1.00	0.66	0.28	1.00E+08	20	0	0	N/A	N/A	N/A	-34.662311014866	149.979499301615	
1A1	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	0.350	1	OWP	Seal	25	6.0	0.61	0.25	1.10	1.00	1.00	1.00	0.67	0.25	1.00E+08	20	0	0	N/A	N/A	N/A	-34.662748445160	149.979589706173	
1A1	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	0.400	1	OWP	Seal	25	6.0	0.67	0.34	1.10	1.00	1.00	1.00	0.74	0.34	1.00E+08	20	0	0	N/A	N/A	N/A	-34.663191513390	149.979663673746	
1A1	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	0.450	1	OWP	Seal	25	6.0	0.70	0.36	1.10	1.00	1.00	1.00	0.77	0.36	1.00E+08	20	0	0	N/A	N/A	N/A	-34.663649459763	149.979733690993	
1A1	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	0.500	1	OWP	Seal	25	6.0	0.52	0.28	1.10	1.00	1.00	1.00	0.57	0.28	1.00E+08	20	0	0	N/A	N/A	N/A	-34.664094687292	149.979801988958	
1A1	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	0.550	1	OWP	Seal	25	6.0	0.36	0.15	1.10	1.00	1.00	1.00	0.40	0.15	1.00E+08	20	0	0	N/A	N/A	N/A	-34.664538923188	149.979875065127	
1A1	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	0.600	1	OWP	Seal	25	6.0	0.39	0.15	1.10	1.00	1.00	1.00	0.43	0.15	1.00E+08	20	0	0	N/A	N/A	N/A	-34.664986434666	149.979942125742	
1A1	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	0.650	1	OWP	Seal	25	6.0	0.48	0.21	1.10	1.00	1.00	1.00	0.53	0.21	1.00E+08	20	0	0	N/A	N/A	N/A	-34.665429286548	149.980010529084	
1A1	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	0.700	1	OWP	Seal	25	6.0	0.74	0.28	1.10	1.00	1.00	1.00	0.81	0.28	6.37E+07	20	0	0	N/A	N/A	N/A	-34.665860944858	149.980071771055	
1A1	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	0.750	1	OWP	Seal	25	6.0	0.87	0.37	1.10	1.00	1.00	1.00	0.96	0.37	4.23E+06	9	31	24	N/A	N/A	N/A	-34.666313392689	149.980160704493	
1A1	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	0.800	1	OWP	Seal	25	6.0	0.57	0.24	1.10	1.00	1.00	1.00	0.63	0.24	1.00E+08	20	0	0	N/A	N/A	N/A	-34.666754199439	149.980225296108	
1A1	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	0.850	1	OWP	Seal	25	6.0	0.33	0.16	1.10	1.00	1.00	1.00	0.36	0.16	1.00E+08	20	0	0	N/A	N/A	N/A	-34.667195817472	149.980307570770	
1A1	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	0.900	1	OWP	Seal	25	6.0	0.20	0.00	1.10	1.00	1.00	1.00	0.22	0.00	1.00E+08	20	0	0	N/A	N/A	N/A	-34.667640669799	149.980371073652	
1A1	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	0.950	1	OWP	Seal	25	6.0	0.27	0.15	1.10	1.00	1.00	1.00	0.30	0.15	1.00E+08	20	0	0	N/A	N/A	N/A	-34.668083265057	149.980418404954	
1A1	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	1.000	1	OWP	Seal	25	6.0	0.33	0.11	1.10	1.00	1.00	1.00	0.36	0.11	1.00E+08	20	0	0	N/A	N/A	N/A	-34.668528388379	149.980417478163	
1A1	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	1.050	1	OWP	Seal	25	6.0	0.79	0.30	1.10	1.00	1.00	1.00	0.87	0.30	1.51E+07	20	0	0	N/A	N/A	N/A	-34.668974796804	149.980365275559	
1A1	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	1.100	1	OWP	Seal	25	6.0	0.91	0.36	1.10	1.00	1.00	1.00	1.00	0.36	2.81E+06	6	47	24	N/A	N/A	N/A	-34.669421125559	149.980293744848	
1A1	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	1.150	1	OWP	Seal	25	6.0	0.88	0.30	1.10	1.00	1.00	1.00	0.97	0.30	3.79E+06	8	35	24	N/A	N/A	N/A	-34.669873441804	149.980210071518	
1A1	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	1.200	1	OWP	Seal	25	6.0	0.85	0.34	1.10	1.00	1.00	1.00	0.94	0.34	5.34E+06	11	22	24	N/A	N/A	N/A	-34.670317814891	149.980127720104	
1A1	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	1.250	1	OWP	Seal	25	6.0	0.81	0.34	1.10	1.00	1.00	1.00	0.89	0.34	1.07E+07	20	0	24	N/A	N/A	N/A	-34.670752660292	149.980044796561	
1A1	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	1.300	1	OWP	Seal	25	6.0	0.36	0.15	1.10	1.00	1.00	1.00	0.40	0.15	1.00E+08	20	0	0	N/A	N/A	N/A	-34.671201842124	149.979967341314	
1A1	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	1.350	1	OWP	Seal	25	7.0	0.31	0.16	1.10	1.00	1.00	1.00	0.34	0.16	1.00E+08	20	0	0	N/A	N/A	N/A	-34.671649476145	149.979912019231	
1A1	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	1.400	1	OWP	Seal	25	7.0	0.35	0.16	1.10	1.00	1.00	1.00	0.38	0.16	1.00E+08	20	0	0	N/A	N/A	N/A	-34.672097459692	149.979897130836	
1A1	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	1.450	1	OWP	Seal	25	7.0	0.36	0.19	1.10	1.00	1.00	1.00	0.40	0.19	1.00E+08	20	0	0	N/A	N/A	N/A	-34.672549377680	149.979934984908	
1A1	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	1.500	1	OWP	Seal	25	7.0	0.16	0.09	1.10	1.00	1.00	1.00	0.18	0.09	1.00E+08	20	0	0	N/A	N/A	N/A	-34.672994281907	149.980013602406	
1A1	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	1.550	1	OWP	Seal	25	8.0	0.37	0.20	1.10	1.00	1.00	1.00	0.41	0.20	1.00E+08	20	0	0	N/A	N/A	N/A	-34.673430659499	149.980128380429	
1A1	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	1.600	1	OWP	Seal	25	8.0	0.07	0.02	1.10	1.00	1.00	1.00	0.08	0.02	1.00E+08	20	0	0	N/A	N/A	N/A	-34.673856931631	149.980299791795	
1A1	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	1.650	1	OWP	Seal	25	8.0	0.29	0.13	1.10	1.00	1.00	1.00	0.32	0.13	1.00E+08	20	0	0	N/A	N/A	N/A	-34.674269295647	149.980502114528	
1A1	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	1.700	1	OWP	Seal	25	8.0	0.14	0.04	1.10	1.00	1.00	1.00	0.15	0.04	1.00E+08	20	0	0	N/A	N/A	N/A	-34.674667053670	149.980743862911	
1A1	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	1.750	1	OWP	Seal	25	8.0	0.43	0.17	1.10	1.00	1.00	1.00	0.47	0.17	1.00E+08	20	0	0	N/A	N/A	N/A	-34.675058157763	149.981008334180	
1A1	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	1.800	1	OWP	Seal	25	8.0	0.32	0.15	1.10	1.00	1.00	1.00	0.35	0.15	1.00E+08	20	0	0	N/A	N/A	N/A	-34.675442358183	149.981275324505	
1A1	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	1.850	1	OWP	Seal	25	8.0	0.19	0.11	1.10	1.00	1.00	1.00	0.21	0.11	1.00E+08	20	0	0	N/A	N/A	N/A	-34.675833749491	149.981537620541	
1A1	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	1.900	1	OWP	Seal	25	8.0	0.67	0.34	1.10	1.00	1.00	1.00	0.74	0.34	1.00E+08	20	0	0	N/A	N/A	N/A	-34.676214970623	149.981815166980	
1A1	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	1.950	1	OWP	Seal	25	8.0	0.36	0.27	1.10	1.00	1.00	1.00	0.40	0.27	1.00E+08	20	0	0	N/A	N/A	N/A	-34.676614921438	149.982080244778	
1A1	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	2.000	1	OWP	Seal	25	8.0	0.25	0.11	1.10	1.00	1.00	1.00	0.28	0.11	1.00E+08	20	0	0	N/A	N/A	N/A	-34.677008236273	149.982352002694	
1A1	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	2.050	1	OWP	Seal	25	8.0	0.25	0.03	1.10	1.00	1.00	1.00	0.28	0.03	1.00E+08	20	0	0	N/A	N/A	N/A	-34.677405963240	149.982625762852	
1A1	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	2.100	1	OWP	Seal	25	8.0	0.50	0.31	1.10	1.00	1.00	1.00	0.55	0.31	1.00E+08	20	0	0	N/A	N/A	N/A	-34.677792909530	149.982888629758	
1A1	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	2.150	1	OWP	Seal	25	8.0	0.40	0.16	1.10	1.00	1.00	1.00	0.44	0.16	1.00E+08	20	0	0	N/A	N/A	N/A	-34.678177276449	149.983145832019	
1A1	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	2.200	1	OWP	Seal	25	8.0	0.63	0.22	1.10	1.00	1.00	1.00	0.69	0.22	1.00E+08	20	0	0	N/A	N/A	N/A	-34.678578694631	149.983412752658	
1A1	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	2.250	1	OWP	Seal	25	8.0	0.22	0.05	1.10	1.00	1.00	1.00	0.24	0.05	1.00E+08	20	0	0	N/A	N/A	N/A	-34.678962542174	149.983675141730	
1A2	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	2.225	2	OWP	Seal	25	8.0	0.79	0.32	1.10	1.00	1.00	1.00	0.87	0.32	1.51E+07	20	0	0	N/A	N/A	N/A	-34.678814936197	149.983496680515	
1A2	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	2.175	2	OWP	Seal	25	8.0	0.77	0.30	1.10	1.00	1.00	1.00	0.85	0.30	2.24E+07	20	0	0	N/A	N/A	N/A	-34.678420040016	149.983233815486	
1A2	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	2.125	2	OWP	Seal	25	9.0	0.73	0.32	1.10	1.00	1.00	1.00	0.80	0.32	1.00E+08	20	0	0	N/A	N/A	N/A	-34.678016122063	149.982959546591	
1A2	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	2.075	2	OWP	Seal	25	9.0	0.51	0.24	1.10	1.00	1.00	1.00	0.56	0.24	1.00E+08	20	0	0	N/A	N/A	N/A	-34.677619218086	149.982693618401	
1A2	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	2.025	2	OWP	Seal	25	9.0	0.71	0.35	1.10	1.00	1.00	1.00	0.78	0.35	1.00E+08	20	0	0	N/A	N/A	N/A	-34.677225504370	149.982429507036	
1A2	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	1.975	2	OWP	Seal	25	9.0	0.35	0.20	1.10	1.00	1.00	1.00	0.38	0.20	1.00E+08	20	0	0	N/A	N/A	N/A	-34.676829809919	149.982152512984	
1A2	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	1.925	2	OWP	Seal	25	9.0	0.43	0.25	1.10	1.00	1.00	1.00	0.47	0.25	1.00E+08	20	0	0	N/A	N/A	N/A	-34.676444864436	149.981887483721	
1A2	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	1.875	2	OWP	Seal	25	9.0	0.55	0.28	1.10	1.00	1.00	1.00	0.60	0.28	1.00E+08	20	0	0	N/A	N/A	N/A	-34.676055416485	149.981621627478	
1A2	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	1.825	2	OWP	Seal	25	9.0	0.38	0.18	1.10	1.00	1.00	1.00	0.42	0.18	1.00E+08	20	0	0	N/A	N/A	N/A	-34.675672916453	149.981354379082	
1A2	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	1.775	2	OWP	Seal	25	10.0	0.39	0.18	1.10	1.00	1.00	1.00	0.43	0.18	1.00E+08	20	0	0	N/A	N/A	N/A	-34.675270190869	149.981077230823	
1A2	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	1.725	2	OWP	Seal	25	10.0	0.49	0.20	1.10	1.00	1.00	1.00	0.54	0.20	1.00E+08	20	0	0	N/A	N/A	N/A	-34.674877013816	149.980806862131	
1A2	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	1.675	2	OWP	Seal	25	10.0	0.58	0.33	1.10	1.00	1.00	1.00	0.64	0.33	1.00E+08	20	0	0	N/A	N/A	N/A	-34.674487325288	149.980557665601	
1A2	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	1.625	2	OWP	Seal	25	10.0	0.04	-0.01	1.10	1.00	1.00	1.00	0.04	-0.01	1.00E+08	20	0	0	N/A	N/A	N/A	-34.674072922363	149.980330717423	
1A2	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	1.575	2	OWP	Seal	25	12.0	0.12	0.07	1.10	1.00	1.00	1.00	0.13	0.07	1.00E+08	20	0	0	N/A	N/A	N/A	-34.673664392747	149.980141962187	
1A2	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	1.525	2	OWP	Seal	25	13.0	0.09	0.02	1.10	1.00	1.00	1.00	0.10	0.02	1.00E+08	20	0	0	N/A	N/A	N/A	-34.673223622601	149.980002717094	
1A2	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	1.475	2	OWP	Seal	25	14.0	0.30	0.15	1.10	1.00	1.00	1.00	0.33	0.15	1.00E+08	20	0	0	N/A	N/A	N/A	-34.672779778215	149.979901292635	
1A2	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	1.425	2	OWP	Seal	25	14.0	0.51	0.24	1.10	1.00	1.00	1.00	0.56	0.24	1.00E+08	20	0	0	N/A	N/A	N/A	-34.672340981720	149.979847969874	
1A2	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	1.375	2	OWP	Seal	25	14.0	0.29	0.13	1.10	1.00	1.00	1.00	0.32	0.13	1.00E+08	20	0	0	N/A	N/A	N/A	-34.671886641849	149.979831530089	
1A2	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	1.325	2	OWP	Seal	25	14.0	0.33	0.18	1.10	1.00	1.00	1.00	0.36	0.18	1.00E+08	20	0	0	N/A	N/A	N/A	-34.671441069752	149.979866904354	
1A2	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	1.275	2	OWP	Seal	25	14.0	0.25	0.11	1.10	1.00	1.00	1.00	0.28	0.11	1.00E+08	20	0	0	N/A	N/A	N/A	-34.670972693249	149.979939480401	
1A2	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	1.225	2	OWP	Seal	25	14.0	0.34	0.15	1.10	1.00	1.00	1.00	0.37	0.15	1.00E+08	20	0	0	N/A	N/A	N/A	-34.670538620651	149.980018072744	
1A2	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	1.175	2	OWP	Seal	25	14.0	0.59	0.26	1.10	1.00	1.00	1.00	0.65	0.26	1.00E+08	20	0	0	N/A	N/A	N/A	-34.670089633611	149.980099787182	
1A2	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	1.125	2	OWP	Seal	25	15.0	0.67	0.29	1.10	1.00	1.00	1.00	0.74	0.29	1.00E+08	20	0	0	N/A	N/A	N/A	-34.669649821022	149.980183609026	
1A2	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	1.075	2	OWP	Seal	25	15.0	0.35	0.14	1.10	1.00	1.00	1.00	0.38	0.14	1.00E+08	20	0	0	N/A	N/A	N/A	-34.669212027069	149.980263673196	
1A2	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	1.025	2	OWP	Seal	25	17.0	0.51	0.21	1.10	1.00	1.00	1.00	0.56	0.21	1.00E+08	20	0	0	N/A	N/A	N/A	-34.668761498405	149.980327326817	
1A2	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	0.975	2	OWP	Seal	25	17.0	0.26	0.14	1.10	1.00	1.00	1.00	0.29	0.14	1.00E+08	20	0	0	N/A	N/A	N/A	-34.668318593707	149.980356685806	
1A2	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	0.925	2	OWP	Seal	25	17.0	0.31	0.18	1.10	1.00	1.00	1.00	0.34	0.18	1.00E+08	20	0	0	N/A	N/A	N/A	-34.667877725295	149.980334379645	
1A2	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	0.875	2	OWP	Seal	25	17.0	0.24	0.14	1.10	1.00	1.00	1.00	0.26	0.14	1.00E+08	20	0	0	N/A	N/A	N/A	-34.667413661042	149.980268144746	
1A2	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	0.825	2	OWP	Seal	25	17.0	1.02	0.37	1.10	1.00	1.00	1.00	1.12	0.37	1.10E+06	3	93	33	N/A	N/A	N/A	-34.666961212169	149.980191899580	
1A2	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	0.775	2	OWP	Seal	25	17.0	0.39	0.17	1.10	1.00	1.00	1.00	0.43	0.17	1.00E+08	20	0	0	N/A	N/A	N/A	-34.666529901785	149.980126510289	
1A2	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	0.725	2	OWP	Seal	25	17.0	0.67	0.27	1.10	1.00	1.00	1.00	0.74	0.27	1.00E+08	20	0	0	N/A	N/A	N/A	-34.666116398820	149.980058311649	
1A2	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	0.675	2	OWP	Seal	25	17.0	0.41	0.18	1.10	1.00	1.00	1.00	0.45	0.18	1.00E+08	20	0	0	N/A	N/A	N/A	-34.665631041925	149.979977916145	
1A2	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	0.625	2	OWP	Seal	25	17.0	0.36	0.17	1.10	1.00	1.00	1.00	0.40	0.17	1.00E+08	20	0	0	N/A	N/A	N/A	-34.665211334771	149.979912936378	
1A2	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	0.575	2	OWP	Seal	25	17.0	0.47	0.20	1.10	1.00	1.00	1.00	0.52	0.20	1.00E+08	20	0	0	N/A	N/A	N/A	-34.664767971880	149.979846807530	
1A2	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	0.525	2	OWP	Seal	25	17.0	0.68	0.36	1.10	1.00	1.00	1.00	0.75	0.36	1.00E+08	20	0	0	N/A	N/A	N/A	-34.664340330246	149.979778137004	
1A2	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	0.475	2	OWP	Seal	25	17.0	0.73	0.41	1.10	1.00	1.00	1.00	0.80	0.41	1.00E+08	20	0	0	N/A	N/A	N/A	-34.663897288727	149.979709300243	
1A2	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	0.425	2	OWP	Seal	25	17.0	0.63	0.34	1.10	1.00	1.00	1.00	0.69	0.34	1.00E+08	20	0	0	N/A	N/A	N/A	-34.663431540257	149.979632856814	

					Date	(km)			Type	(mm)	(°C)	(mm)	(mm)			Deflection	Curvature	(mm)	(mm)	ESA's	Yrs	Granular	Asphalt	ESA's	Yrs	Asphalt	Latitude	Longitude
1A2	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	0.375	2	OWP	Seal	25	17.0	0.69	0.31	1.10	1.00	1.00	1.00	0.76	0.31	1.00E+08	20	0	0	N/A	N/A	N/A	-34.662991533895	149.979565846356
1A2	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	0.325	2	OWP	Seal	25	17.0	0.69	0.33	1.10	1.00	1.00	1.00	0.76	0.33	1.00E+08	20	0	0	N/A	N/A	N/A	-34.662551277075	149.979482972133
1A2	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	0.275	2	OWP	Seal	25	17.0	0.11	0.01	1.10	1.00	1.00	1.00	0.12	0.01	1.00E+08	20	0	0	N/A	N/A	N/A	-34.662102865256	149.979397846363
1A2	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	0.225	2	OWP	Seal	25	17.0	1.06	0.44	1.10	1.00	1.00	1.00	1.17	0.44	8.22E+05	2	111	38	N/A	N/A	N/A	-34.661665771503	149.979325493705
1A2	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	0.175	2	OWP	Seal	25	17.0	0.38	0.17	1.10	1.00	1.00	1.00	0.42	0.17	1.00E+08	20	0	0	N/A	N/A	N/A	-34.661219510267	149.979255802582
1A2	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	0.125	2	OWP	Seal	25	17.0	0.82	0.31	1.10	1.00	1.00	1.00	0.90	0.31	9.17E+06	18	5	24	N/A	N/A	N/A	-34.660743557067	149.979176971274
1A2	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	0.075	2	OWP	Seal	25	17.0	0.92	0.44	1.10	1.00	1.00	1.00	1.01	0.44	2.56E+06	6	51	24	N/A	N/A	N/A	-34.660308375606	149.979097387080
1A2	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	0.025	2	OWP	Asphal	50	17.0	0.38	0.16	1.15	1.00	1.07	1.19	0.47	0.19	1.00E+08	20	0	0	N/A	N/A	N/A	-34.659873771913	149.979012637817
2A1	Brayton Road	Brayton Road	Ambrose Road	Gunlake	26/08/2021	0.000	1	OWP	Seal	25	20.0	0.51	0.17	1.10	1.00	1.00	1.00	0.56	0.17	1.00E+08	20	0	0	N/A	N/A	N/A	-34.679026219049	149.983728892324
2A1	Brayton Road	Brayton Road	Ambrose Road	Gunlake	26/08/2021	0.050	1	OWP	Seal	25	20.0	0.23	0.08	1.10	1.00	1.00	1.00	0.25	0.08	1.00E+08	20	0	0	N/A	N/A	N/A	-34.679430085647	149.983993240652
2A1	Brayton Road	Brayton Road	Ambrose Road	Gunlake	26/08/2021	0.100	1	OWP	Seal	25	20.0	0.22	0.06	1.10	1.00	1.00	1.00	0.24	0.06	1.00E+08	20	0	0	N/A	N/A	N/A	-34.679824463815	149.984258351668
2A1	Brayton Road	Brayton Road	Ambrose Road	Gunlake	26/08/2021	0.150	1	OWP	Seal	25	20.0	0.44	0.21	1.10	1.00	1.00	1.00	0.48	0.21	1.00E+08	20	0	0	N/A	N/A	N/A	-34.680216877039	149.984523885818
2A2	Brayton Road	Ambrose Road	Brayton Road	Gunlake	26/08/2021	1.625	2	OWP	Seal	25	22.0	0.71	0.31	1.10	1.00	1.00	1.00	0.78	0.31	1.00E+08	20	0	0	N/A	N/A	N/A	-34.689450493046	149.995915470895
2A2	Brayton Road	Ambrose Road	Brayton Road	Gunlake	26/08/2021	1.575	2	OWP	Seal	25	22.0	0.66	0.30	1.10	1.00	1.00	1.00	0.73	0.30	1.00E+08	20	0	0	N/A	N/A	N/A	-34.689171704139	149.995502019209
2A2	Brayton Road	Ambrose Road	Brayton Road	Gunlake	26/08/2021	1.525	2	OWP	Seal	25	22.0	0.80	0.30	1.10	1.00	1.00	1.00	0.88	0.30	1.26E+07	20	0	0	N/A	N/A	N/A	-34.688889453708	149.995080528492
2A2	Brayton Road	Ambrose Road	Brayton Road	Gunlake	26/08/2021	1.475	2	OWP	Seal	25	22.0	0.50	0.18	1.10	1.00	1.00	1.00	0.55	0.18	1.00E+08	20	0	0	N/A	N/A	N/A	-34.688598589127	149.994669556929
2A2	Brayton Road	Ambrose Road	Brayton Road	Gunlake	26/08/2021	1.425	2	OWP	Seal	25	22.0	0.75	0.32	1.10	1.00	1.00	1.00	0.82	0.32	4.70E+07	20	0	0	N/A	N/A	N/A	-34.688317587870	149.994256375859
2A2	Brayton Road	Ambrose Road	Brayton Road	Gunlake	26/08/2021	1.375	2	OWP	Seal	25	22.0	0.81	0.33	1.10	1.00	1.00	1.00	0.89	0.33	1.07E+07	20	0	24	N/A	N/A	N/A	-34.688015976190	149.993838452313
2A2	Brayton Road	Ambrose Road	Brayton Road	Gunlake	26/08/2021	1.325	2	OWP	Seal	25	22.0	0.57	0.30	1.10	1.00	1.00	1.00	0.63	0.30	1.00E+08	20	0	0	N/A	N/A	N/A	-34.687714118101	149.993423315221
2A2	Brayton Road	Ambrose Road	Brayton Road	Gunlake	26/08/2021	1.275	2	OWP	Seal	25	22.0	0.98	0.38	1.10	1.00	1.00	1.00	1.08	0.38	1.45E+06	3	78	28	N/A	N/A	N/A	-34.687422406674	149.993002013649
2A2	Brayton Road	Ambrose Road	Brayton Road	Gunlake	26/08/2021	1.225	2	OWP	Seal	25	22.0	0.77	0.31	1.10	1.00	1.00	1.00	0.85	0.31	2.24E+07	20	0	0	N/A	N/A	N/A	-34.687131896906	149.992573854256
2A2	Brayton Road	Ambrose Road	Brayton Road	Gunlake	26/08/2021	1.175	2	OWP	Seal	25	22.0	0.97	0.43	1.10	1.00	1.00	1.00	1.07	0.43	1.56E+06	4	74	28	N/A	N/A	N/A	-34.686854863137	149.992152705621
2A2	Brayton Road	Ambrose Road	Brayton Road	Gunlake	26/08/2021	1.125	2	OWP	Seal	25	22.0	0.79	0.28	1.10	1.00	1.00	1.00	0.87	0.28	1.51E+07	20	0	0	N/A	N/A	N/A	-34.686557522052	149.991699421292
2A2	Brayton Road	Ambrose Road	Brayton Road	Gunlake	26/08/2021	1.075	2	OWP	Seal	25	24.0	0.44	0.21	1.10	1.00	1.00	1.00	0.48	0.21	1.00E+08	20	0	0	N/A	N/A	N/A	-34.686278269925	149.991276067989
2A2	Brayton Road	Ambrose Road	Brayton Road	Gunlake	26/08/2021	1.025	2	OWP	Seal	25	24.0	0.74	0.27	1.10	1.00	1.00	1.00	0.81	0.27	6.37E+07	20	0	0	N/A	N/A	N/A	-34.685989709302	149.990845824589
2A2	Brayton Road	Ambrose Road	Brayton Road	Gunlake	26/08/2021	0.975	2	OWP	Seal	25	24.0	2.35	1.75	1.10	1.00	1.00	1.00	2.58	1.75	3.75E+02	0	430	141	N/A	N/A	N/A	-34.685710273404	149.990427383544
2A2	Brayton Road	Ambrose Road	Brayton Road	Gunlake	26/08/2021	0.925	2	OWP	Seal	25	24.0	0.19	0.01	1.10	1.00	1.00	1.00	0.21	0.01	1.00E+08	20	0	0	N/A	N/A	N/A	-34.685400855091	149.989994064347
2A2	Brayton Road	Ambrose Road	Brayton Road	Gunlake	26/08/2021	0.875	2	OWP	Seal	25	24.0	0.16	0.01	1.10	1.00	1.00	1.00	0.18	0.01	1.00E+08	20	0	0	N/A	N/A	N/A	-34.685104784063	149.989585310173
2A2	Brayton Road	Ambrose Road	Brayton Road	Gunlake	26/08/2021	0.825	2	OWP	Seal	25	24.0	0.12	0.02	1.10	1.00	1.00	1.00	0.13	0.02	1.00E+08	20	0	0	N/A	N/A	N/A	-34.684800557546	149.989197013977
2A2	Brayton Road	Ambrose Road	Brayton Road	Gunlake	26/08/2021	0.775	2	OWP	Seal	25	24.0	0.52	0.23	1.10	1.00	1.00	1.00	0.57	0.23	1.00E+08	20	0	0	N/A	N/A	N/A	-34.684488574368	149.988794786165
2A2	Brayton Road	Ambrose Road	Brayton Road	Gunlake	26/08/2021	0.725	2	OWP	Seal	25	24.0	0.63	0.26	1.10	1.00	1.00	1.00	0.69	0.26	1.00E+08	20	0	0	N/A	N/A	N/A	-34.684175730253	149.988417655128
2A2	Brayton Road	Ambrose Road	Brayton Road	Gunlake	26/08/2021	0.675	2	OWP	Seal	25	24.0	0.47	0.19	1.10	1.00	1.00	1.00	0.52	0.19	1.00E+08	20	0	0	N/A	N/A	N/A	-34.683861195416	149.988018529625
2A2	Brayton Road	Ambrose Road	Brayton Road	Gunlake	26/08/2021	0.625	2	OWP	Seal	25	24.0	0.39	0.20	1.10	1.00	1.00	1.00	0.43	0.20	1.00E+08	20	0	0	N/A	N/A	N/A	-34.683548930269	149.987627146024
2A2	Brayton Road	Ambrose Road	Brayton Road	Gunlake	26/08/2021	0.575	2	OWP	Seal	25	24.0	0.52	0.23	1.10	1.00	1.00	1.00	0.57	0.23	1.00E+08	20	0	0	N/A	N/A	N/A	-34.683236640715	149.987229881457
2A2	Brayton Road	Ambrose Road	Brayton Road	Gunlake	26/08/2021	0.525	2	OWP	Seal	25	24.0	0.57	0.28	1.10	1.00	1.00	1.00	0.63	0.28	1.00E+08	20	0	0	N/A	N/A	N/A	-34.682928084184	149.986841744912
2A2	Brayton Road	Ambrose Road	Brayton Road	Gunlake	26/08/2021	0.475	2	OWP	Seal	25	24.0	0.67	0.32	1.10	1.00	1.00	1.00	0.74	0.32	1.00E+08	20	0	0	N/A	N/A	N/A	-34.682611612293	149.986450252917
2A2	Brayton Road	Ambrose Road	Brayton Road	Gunlake	26/08/2021	0.425	2	OWP	Seal	25	24.0	0.52	0.23	1.10	1.00	1.00	1.00	0.57	0.23	1.00E+08	20	0	0	N/A	N/A	N/A	-34.682290205653	149.986079581656
2A2	Brayton Road	Ambrose Road	Brayton Road	Gunlake	26/08/2021	0.375	2	OWP	Seal	25	24.0	0.50	0.22	1.10	1.00	1.00	1.00	0.55	0.22	1.00E+08	20	0	0	N/A	N/A	N/A	-34.681940784578	149.985734518194
2A2	Brayton Road	Ambrose Road	Brayton Road	Gunlake	26/08/2021	0.325	2	OWP	Seal	25	24.0	0.56	0.23	1.10	1.00	1.00	1.00	0.62	0.23	1.00E+08	20	0	0	N/A	N/A	N/A	-34.681576344834	149.985425151500
2A2	Brayton Road	Ambrose Road	Brayton Road	Gunlake	26/08/2021	0.275	2	OWP	Seal	25	24.0	0.63	0.29	1.10	1.00	1.00	1.00	0.69	0.29	1.00E+08	20	0	0	N/A	N/A	N/A	-34.681199601205	149.985143227120
2A2	Brayton Road	Ambrose Road	Brayton Road	Gunlake	26/08/2021	0.225	2	OWP	Seal	25	24.0	0.27	0.13	1.10	1.00	1.00	1.00	0.30	0.13	1.00E+08	20	0	0	N/A	N/A	N/A	-34.680814848368	149.984873361277
2A1	Brayton Road	Brayton Road	Ambrose Road	Gunlake	26/08/2021	0.200	1	OWP	Seal	25	20.0	0.49	0.21	1.10	1.00	1.00	1.00	0.54	0.21	1.00E+08	20	0	0	N/A	N/A	N/A	-34.680599098302	149.984799164805
2A1	Brayton Road	Brayton Road	Ambrose Road	Gunlake	26/08/2021	0.250	1	OWP	Seal	25	20.0	0.47	0.21	1.10	1.00	1.00	1.00	0.52	0.21	1.00E+08	20	0	0	N/A	N/A	N/A	-34.680988323232	149.985068528589
2A1	Brayton Road	Brayton Road	Ambrose Road	Gunlake	26/08/2021	0.300	1	OWP	Seal	25	20.0	0.39	0.17	1.10	1.00	1.00	1.00	0.43	0.17	1.00E+08	20	0	0	N/A	N/A	N/A	-34.681375645224	149.985346822322
2A1	Brayton Road	Brayton Road	Ambrose Road	Gunlake	26/08/2021	0.350	1	OWP	Seal	25	20.0	0.54	0.25	1.10	1.00	1.00	1.00	0.59	0.25	1.00E+08	20	0	0	N/A	N/A	N/A	-34.681740910196	149.985638170641
2A1	Brayton Road	Brayton Road	Ambrose Road	Gunlake	26/08/2021	0.400	1	OWP	Seal	25	20.0	0.47	0.27	1.10	1.00	1.00	1.00	0.52	0.27	1.00E+08	20	0	0	N/A	N/A	N/A	-34.682096911425	149.985965894181
2A1	Brayton Road	Brayton Road	Ambrose Road	Gunlake	26/08/2021	0.450	1	OWP	Seal	25	20.0	0.59	0.28	1.10	1.00	1.00	1.00	0.65	0.28	1.00E+08	20	0	0	N/A	N/A	N/A	-34.682434762650	149.986333009103
2A1	Brayton Road	Brayton Road	Ambrose Road	Gunlake	26/08/2021	0.500	1	OWP	Seal	25	20.0	0.27	0.06	1.10	1.00	1.00	1.00	0.30	0.06	1.00E+08	20	0	0	N/A	N/A	N/A	-34.682754597149	149.986715621881
2A1	Brayton Road	Brayton Road	Ambrose Road	Gunlake	26/08/2021	0.550	1	OWP	Seal	25	20.0	0.60	0.31	1.10	1.00	1.00	1.00	0.66	0.31	1.00E+08	20	0	0	N/A	N/A	N/A	-34.683069606430	149.987105396414
2A1	Brayton Road	Brayton Road	Ambrose Road	Gunlake	26/08/2021	0.600	1	OWP	Seal	25	20.0	0.35	0.18	1.10	1.00	1.00	1.00	0.38	0.18	1.00E+08	20	0	0	N/A	N/A	N/A	-34.683372602104	149.987493904284
2A1	Brayton Road	Brayton Road	Ambrose Road	Gunlake	26/08/2021	0.650	1	OWP	Seal	25	20.0	0.52	0.25	1.10	1.00	1.00	1.00	0.57	0.25	1.00E+08	20	0	0	N/A	N/A	N/A	-34.683684891684	149.987890519966
2A1	Brayton Road	Brayton Road	Ambrose Road	Gunlake	26/08/2021	0.700	1	OWP	Seal	25	20.0	0.65	0.31	1.10	1.00	1.00	1.00	0.72	0.31	1.00E+08	20	0	0	N/A	N/A	N/A	-34.683997074692	149.988279058718
2A1	Brayton Road	Brayton Road	Ambrose Road	Gunlake	26/08/2021	0.750	1	OWP	Seal	25	20.0	0.59	0.26	1.10	1.00	1.00	1.00	0.65	0.26	1.00E+08	20	0	0	N/A	N/A	N/A	-34.684308942017	149.988674839837
2A1	Brayton Road	Brayton Road	Ambrose Road	Gunlake	26/08/2021	0.800	1	OWP	Seal	25	20.0	0.67	0.28	1.10	1.00	1.00	1.00	0.74	0.28	1.00E+08	20	0	0	N/A	N/A	N/A	-34.684620551238	149.989067768440
2A1	Brayton Road	Brayton Road	Ambrose Road	Gunlake	26/08/2021	0.850	1	OWP	Seal	25	20.0	0.65	0.27	1.10	1.00	1.00	1.00	0.72	0.27	1.00E+08	20	0	0	N/A	N/A	N/A	-34.684931817027	149.989460974156
2A1	Brayton Road	Brayton Road	Ambrose Road	Gunlake	26/08/2021	0.900	1	OWP	Seal	25	20.0	0.60	0.26	1.10	1.00	1.00	1.00	0.66	0.26	1.00E+08	20	0	0	N/A	N/A	N/A	-34.685233276753	149.989856279439
2A1	Brayton Road	Brayton Road	Ambrose Road	Gunlake	26/08/2021	0.950	1	OWP	Seal	25	20.0	0.47	0.21	1.10	1.00	1.00	1.00	0.52	0.21	1.00E+08	20	0	0	N/A	N/A	N/A	-34.685525127696	149.990272514125
2A1	Brayton Road	Brayton Road	Ambrose Road	Gunlake	26/08/2021	1.000	1	OWP	Seal	25	20.0	0.59	0.26	1.10	1.00	1.00	1.00	0.65	0.26	1.00E+08	20	0	0	N/A	N/A	N/A	-34.685812385906	149.990685204947
2A1	Brayton Road	Brayton Road	Ambrose Road	Gunlake	26/08/2021	1.050	1	OWP	Seal	25	20.0	0.49	0.25	1.10	1.00	1.00	1.00	0.54	0.25	1.00E+08	20	0	0	N/A	N/A	N/A	-34.686095235194	149.991111742629
2A1	Brayton Road	Brayton Road	Ambrose Road	Gunlake	26/08/2021	1.100	1	OWP	Seal	25	20.0	0.56	0.25	1.10	1.00	1.00	1.00	0.62	0.25	1.00E+08	20	0	0	N/A	N/A	N/A	-34.686380400180	149.991532957964
2A1	Brayton Road	Brayton Road	Ambrose Road	Gunlake	26/08/2021	1.150	1	OWP	Seal	25	20.0	0.35	0.13	1.10	1.00	1.00	1.00	0.38	0.13	1.00E+08	20	0	0	N/A	N/A	N/A	-34.686662846510	149.991979333224
2A1	Brayton Road	Brayton Road	Ambrose Road	Gunlake	26/08/2021	1.200	1	OWP	Seal	25	20.0	0.33	0.15	1.10	1.00	1.00	1.00	0.36	0.15	1.00E+08	20	0	0	N/A	N/A	N/A	-34.686946573377	149.992403128958
2A1	Brayton Road	Brayton Road	Ambrose Road	Gunlake	26/08/2021	1.250	1	OWP	Seal	25	20.0	0.46	0.18	1.10	1.00	1.00	1.00	0.51	0.18	1.00E+08	20	0	0	N/A	N/A	N/A	-34.687233739686	149.992817865530
2A1	Brayton Road	Brayton Road	Ambrose Road	Gunlake	26/08/2021	1.300	1	OWP	Seal	25	20.0	0.18	0.02	1.10	1.00	1.00	1.00	0.20	0.02	1.00E+08	20	0	0	N/A	N/A	N/A	-34.687518704983	149.993240136686
2A1	Brayton Road	Brayton Road	Ambrose Road	Gunlake	26/08/2021	1.350	1	OWP	Seal	25	20.0	0.46	0.13	1.10	1.00	1.00	1.00	0.51	0.13	1.00E+08	20	0	0	N/A	N/A	N/A	-34.687814317592	149.993661214559
2A1	Brayton Road	Brayton Road	Ambrose Road	Gunlake	26/08/2021	1.400	1	OWP	Seal	25	20.0	0.67	0.28	1.10	1.00	1.00	1.00	0.74	0.28	1.00E+08	20	0	0	N/A	N/A	N/A	-34.688115217358	149.994082469727
2A1	Brayton Road	Brayton Road	Ambrose Road	Gunlake	26/08/2021	1.450	1	OWP	Seal	25	20.0	0.66	0.25	1.10	1.00	1.00	1.00	0.73	0.25	1.00E+08	20	0	0	N/A	N/A	N/A	-34.688408254458	149.994494555826
2A1	Brayton Road	Brayton Road	Ambrose Road	Gunlake	26/08/2021	1.500	1	OWP	Seal	25	20.0	0.66	0.25	1.10	1.00	1.00	1.00	0.73	0.25	1.00E+08	20	0	0	N/A	N/A	N/A	-34.688720759824	149.994941346797
2A1	Brayton Road	Brayton Road	Ambrose Road	Gunlake	26/08/2021	1.550	1	OWP	Seal	25	20.0	0.65	0.30	1.10	1.00	1.00	1.00	0.72	0.30	1.00E+08	20	0	0	N/A	N/A	N/A	-34.688999147964	149.995332857720
2A1	Brayton Road	Brayton Road	Ambrose Road	Gunlake	26/08/2021	1.600	1	OWP	Seal	25	20.0	0.46	0.22	1.10	1.00	1.00	1.00	0.51	0.22	1.00E+08	20	0	0	N/A	N/A	N/A	-34.689277259879	149.995746266164
2A1	Brayton Road	Brayton Road	Ambrose Road	Gunlake	26/08/2021	1.650	1	OWP	Seal	25	20.0	0.65	0.26	1.10	1.00	1.00	1.00	0.72	0.26	1.00E+08	20	0	0	N/A	N/A	N/A	-34.689547006519	149.996188648107
2A1	Brayton Road	Brayton Road	Ambrose Road	Gunlake	26/08/2021	1.700	1	OWP	Seal	25	20.0	0.37	0.18	1.10	1.00	1.00	1.00	0.41	0.18	1.00E+08	20	0	0	N/A	N/A	N/A	-34.689788541432	149.996646350129
2A1	Brayton Road	Brayton Road	Ambrose Road	Gunlake	26/08/2021	1.750	1	OWP	Seal	25	20.0	0.30	0.07	1.10	1.00	1.00	1.00	0.33	0.07	1.00E+08	20	0	0	N/A	N/A	N/A	-34.690022672494	149.997102488267
2A1	Brayton Road	Brayton Road	Ambrose Road	Gunlake	26/08/2021	1.800	1	OWP	Seal	25	20.0	0.33	0.11	1.10	1.00	1.00	1.00	0.36	0.11	1.00E+08	20	0	0	N/A	N/A	N/A	-34.690252845564	149.997560302382
2A1	Brayton Road	Brayton Road	Ambrose Road	Gunlake	26/08/2021	1.850	1	OWP	Seal	25	20.0	0.28	0.07	1.10	1.00	1.00	1.00	0.31	0.07	1.00E+08	20	0	0	N/A	N/A	N/A	-34.690489390630	149.998024849194
2A1	Brayton Road	Brayton Road	Ambrose Road	Gunlake	26/08/2021	1.900	1	OWP	Asphal	50	20.0	0.23	0.08	1.15	1.00	1.05	1.13	0.28	0.09	1.00E+08	20	0	0	N/A	N/A	N/A	-34.690723588125	149.998489992148
2A2	Brayton Road	Ambrose Road	Brayton Road	Gunlake	26/08/2021	1.925	2	OWP	Asphal	50	22.0	0.17	0.01	1.15	1.00	1.03	1.09	0.20	0.01	1.00E+08	20	0	0	N/A	N/A	N/A	-34.690907833859	149.998697045749
2A2	Brayton Road	Ambrose Road	Brayton Road	Gunlake	26/08/2021	1.875	2	OWP	Seal	25	22.0	0.46	0.08	1.10	1.00	1.00	1.00	0.51	0.08	1.00E+08	20	0	0	N/A	N/A	N/A	-34.690643047825	149.998205764405
2A2	Brayton Road	Ambrose Road	Brayton Road	Gunlake	26/08/2021	1.825	2	OWP	Seal	25	22.0	0.43	0.10	1.10	1.00	1.00	1.00	0.47	0.10	1.00E+08	20	0	0	N/A	N/A	N/A	-34.690405848610	149.997746500860
2A2	Brayton Road	Ambrose Road	Brayton Road	Gunlake	26/08/2021	1.775	2	OWP	Seal	25	22.0	0.17	0.00	1.10	1.00	1.00	1.00	0.19	0.00	1.00E+08	20	0	0	N/A	N/A	N/A	-34.690171532706	149.997285247980
2A2	Brayton Road	Ambrose Road	Brayton Road	Gunlake	26/08/2021	1.725	2	OWP	Seal	25	22.0	0.16	0.02	1.10	1.00	1.00	1.00	0.18	0.02	1.00E+08	20	0	0	N/A	N/A	N/A	-34.689943525320	149.996823521965
2A2	Brayton Road	Ambrose Road	Brayton Road	Gunlake	26/08/2021	1.675	2	OWP	Seal	25	22.0	0.46	0.22	1.10	1.00	1.00	1.00	0.51	0.22	1.00E+08	20	0	0	N/A	N/A	N/A	-34.689700209053	149.996376956114
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	26/08/2021	0.450	1	OWP	Seal	25	25.0	0.32	0.16	1.10	1.00	1.00	1.00	0.35	0.16	1.00E+08	20	0	0	N/A	N/A	N/A	-34.687473673085	150.000780271842
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	26/08/2021	0.500	1	OWP	Seal	25	25.0	0.64	0.35	1.10	1.00	1.00	1.00	0.70	0.35	1.00E+08	20	0	0	N/A	N/A	N/A	-34.687354501014	150.001291006095
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	26/08/2021	0.550	1	OWP	Seal	25	25.0	0.46	0.20	1.10	1.00	1.00	1.00	0.51	0.20	1.00E+08	20	0	0	N/A	N/A	N/A	-34.687320647251	150.001827497535
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	26/08/2021	0.600	1	OWP	Seal	25	25.0	0.80	0.30	1.10	1.00	1.00	1.00	0.88	0.30	1.26E+07	20	0	0	N/A	N/A	N/A	-34.687375715677	150.002391085637
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	26/08/2021	0.650	1	OWP	Seal	25	25.0	0.78	0.32	1.10	1.00	1.00	1.00	0.86	0.32	1.83E+07	20	0	0	N/A	N/A	N/A	-34.687449081162	150.002927944560
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	26/08/2021	0.701	1	OWP	Seal	25	25.0	0.65	0.27	1.10	1.00	1.00	1.00	0.72	0.27	1.00E+08	20	0	0	N/A	N/A	N/A	-34.687520047828	150.003467998491
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	26/08/2021	0.750	1	OWP	Seal	25	25.0	0.75	0.33	1.10	1.00	1.00	1.00	0.82	0.33	4.70E+07	20	0	0	N/A	N/A	N/A	-34.687587200421	150.003999653797
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	26/08/2021	0.800	1	OWP	Seal	25	25.0	0.76	0.33	1.10	1.00	1.00	1.00	0.84	0.33	2.81E+07	20	0	0	N/A	N/A	N/A	-34.687656211479	150.004533965199
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	26/08/2021	0.850	1	OWP	Seal	25	25.0	0.76	0.34	1.10	1.00	1.00	1.00	0.84	0.34	2.81E+07	20	0	0	N/A	N/A	N/A	-34.687719860747	150.005064603386
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	26/08/2021	0.900	1	OWP	Seal	25	25.0	0.71	0.32	1.10	1.00	1.00	1.00	0.78	0.32	1.00E+08	20	0	0	N/A	N/A	N/A	-34.687792201461	150.005609295345
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	26/08/2021	0.950	1	OWP	Seal	25	25.0	0.65	0.29	1.10	1.00	1.00	1.00	0.72	0.29	1.00E+08	20	0	0	N/A	N/A	N/A	-34.687864930629	150.006171669729
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	26/08/2021	1.000	1	OWP	Seal	25	25.0	0.62	0.29	1.10	1.00	1.00	1.00	0.68	0.29	1.00E+08	20	0	0	N/A	N/A	N/A	-34.687933035525	150.006710501924
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	26/08/2021	1.050	1	OWP	Seal	25	25.0	0.67	0.34	1.10	1.00	1.00	1.00	0.74	0.34	1.00E+08	20	0	0	N/A	N/A	N/A	-34.688003346384	150.007250545945

					Date	(km)			Type	(mm)	(°C)	(mm)	(mm)			Deflection	Curvature	(mm)	(mm)	ESA's	Yrs	Granular	Asphalt	ESA's	Yrs	Asphalt	Latitude	Longitude
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	26/08/2021	1.100	1	OWP	Seal	25	25.0	0.63	0.32	1.10	1.00	1.00	1.00	0.69	0.32	1.00E+08	20	0	0	N/A	N/A	N/A	-34.688072222405	150.007798344581
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	26/08/2021	1.150	1	OWP	Seal	25	25.0	0.62	0.34	1.10	1.00	1.00	1.00	0.68	0.34	1.00E+08	20	0	0	N/A	N/A	N/A	-34.688147318111	150.008339838078
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	26/08/2021	1.200	1	OWP	Seal	25	25.0	0.75	0.30	1.10	1.00	1.00	1.00	0.82	0.30	4.70E+07	20	0	0	N/A	N/A	N/A	-34.688216310577	150.008874160212
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	26/08/2021	1.240	1	OWP	Seal	25	25.0	0.88	0.41	1.10	1.00	1.00	1.00	0.97	0.41	3.79E+06	9	30	24	N/A	N/A	N/A	-34.688272342146	150.009299384352
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	26/08/2021	1.300	1	OWP	Seal	25	25.0	0.91	0.40	1.10	1.00	1.00	1.00	1.00	0.40	2.81E+06	7	43	24	N/A	N/A	N/A	-34.688359579790	150.009951982261
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	26/08/2021	1.350	1	OWP	Seal	25	25.0	1.14	0.42	1.10	1.00	1.00	1.00	1.25	0.42	5.31E+05	1	133	47	N/A	N/A	N/A	-34.688431788975	150.010502522302
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	26/08/2021	1.400	1	OWP	Seal	25	25.0	0.19	0.00	1.10	1.00	1.00	1.00	0.21	0.00	1.00E+08	20	0	0	N/A	N/A	N/A	-34.688503893403	150.011061844493
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	26/08/2021	1.450	1	OWP	Seal	25	25.0	0.62	0.30	1.10	1.00	1.00	1.00	0.68	0.30	1.00E+08	20	0	0	N/A	N/A	N/A	-34.688572795469	150.011601950258
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	26/08/2021	1.500	1	OWP	Seal	25	25.0	0.71	0.31	1.10	1.00	1.00	1.00	0.78	0.31	1.00E+08	20	0	0	N/A	N/A	N/A	-34.688640061722	150.012138549061
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	26/08/2021	1.550	1	OWP	Seal	25	25.0	0.76	0.33	1.10	1.00	1.00	1.00	0.84	0.33	2.81E+07	20	0	0	N/A	N/A	N/A	-34.688707836452	150.012670260528
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	26/08/2021	1.600	1	OWP	Seal	25	25.0	0.55	0.26	1.10	1.00	1.00	1.00	0.60	0.26	1.00E+08	20	0	0	N/A	N/A	N/A	-34.688780522648	150.013201704233
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	26/08/2021	1.650	1	OWP	Seal	25	25.0	0.71	0.30	1.10	1.00	1.00	1.00	0.78	0.30	1.00E+08	20	0	0	N/A	N/A	N/A	-34.688852204222	150.013739158733
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	26/08/2021	1.700	1	OWP	Seal	25	25.0	0.87	0.37	1.10	1.00	1.00	1.00	0.96	0.37	4.23E+06	10	26	24	N/A	N/A	N/A	-34.688932320927	150.014308348916
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	26/08/2021	1.750	1	OWP	Seal	25	25.0	0.59	0.28	1.10	1.00	1.00	1.00	0.65	0.28	1.00E+08	20	0	0	N/A	N/A	N/A	-34.688996940905	150.014841495112
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	26/08/2021	1.800	1	OWP	Seal	25	25.0	0.53	0.24	1.10	1.00	1.00	1.00	0.58	0.24	1.00E+08	20	0	0	N/A	N/A	N/A	-34.689066105218	150.015381085277
2A2	Brayton Road	Ambrose Road	Brayton Road	Gunlake	26/08/2021	0.175	2	OWP	Seal	25	24.0	0.29	0.12	1.10	1.00	1.00	1.00	0.32	0.12	1.00E+08	20	0	0	N/A	N/A	N/A	-34.680417198841	149.984591458769
2A2	Brayton Road	Ambrose Road	Brayton Road	Gunlake	26/08/2021	0.125	2	OWP	Seal	25	24.0	0.51	0.20	1.10	1.00	1.00	1.00	0.56	0.20	1.00E+08	20	0	0	N/A	N/A	N/A	-34.680035544591	149.984328372357
2A2	Brayton Road	Ambrose Road	Brayton Road	Gunlake	26/08/2021	0.075	2	OWP	Seal	25	24.0	0.56	0.25	1.10	1.00	1.00	1.00	0.62	0.25	1.00E+08	20	0	0	N/A	N/A	N/A	-34.679643175163	149.984062781162
2A2	Brayton Road	Ambrose Road	Brayton Road	Gunlake	26/08/2021	0.025	2	OWP	Seal	25	24.0	1.20	0.64	1.10	1.00	1.00	1.00	1.32	0.64	3.62E+05	1	159	56	N/A	N/A	N/A	-34.679258728036	149.983800392536
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	26/08/2021	0.000	1	OWP	Asphal	50	25.0	0.10	0.02	1.15	1.00	1.02	1.04	0.12	0.02	1.00E+08	20	0	0	1.00E+07	20	0	-34.690886399309	149.998874420980
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	26/08/2021	0.050	1	OWP	Seal	25	25.0	0.65	0.34	1.10	1.00	1.00	1.00	0.72	0.34	1.00E+08	20	0	0	N/A	N/A	N/A	-34.690495049587	149.999143725490
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	26/08/2021	0.100	1	OWP	Seal	25	25.0	0.11	0.03	1.10	1.00	1.00	1.00	0.12	0.03	1.00E+08	20	0	0	N/A	N/A	N/A	-34.690043733882	149.999142926612
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	26/08/2021	0.150	1	OWP	Seal	25	25.0	0.85	0.26	1.10	1.00	1.00	1.00	0.94	0.26	5.34E+06	12	18	24	N/A	N/A	N/A	-34.689602477890	149.999102481469
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	26/08/2021	0.200	1	OWP	Seal	25	25.0	0.85	0.34	1.10	1.00	1.00	1.00	0.94	0.34	5.34E+06	12	18	24	N/A	N/A	N/A	-34.689153626168	149.999139653598
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	26/08/2021	0.250	1	OWP	Seal	25	25.0	0.50	0.23	1.10	1.00	1.00	1.00	0.55	0.23	1.00E+08	20	0	0	N/A	N/A	N/A	-34.688719303147	149.999278472922
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	26/08/2021	0.300	1	OWP	Seal	25	25.0	0.73	0.31	1.10	1.00	1.00	1.00	0.80	0.31	1.00E+08	20	0	0	N/A	N/A	N/A	-34.688323007952	149.999523320040
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	26/08/2021	0.350	1	OWP	Seal	25	25.0	0.35	0.16	1.10	1.00	1.00	1.00	0.38	0.16	1.00E+08	20	0	0	N/A	N/A	N/A	-34.687967419900	149.999871522397
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	26/08/2021	0.400	1	OWP	Seal	25	25.0	0.36	0.19	1.10	1.00	1.00	1.00	0.40	0.19	1.00E+08	20	0	0	N/A	N/A	N/A	-34.687683891401	150.000299328577
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	26/08/2021	1.850	1	OWP	Seal	25	25.0	0.65	0.25	1.10	1.00	1.00	1.00	0.72	0.25	1.00E+08	20	0	0	N/A	N/A	N/A	-34.689134473305	150.015919778669
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	26/08/2021	1.900	1	OWP	Seal	25	25.0	0.25	0.07	1.10	1.00	1.00	1.00	0.28	0.07	1.00E+08	20	0	0	N/A	N/A	N/A	-34.689203817369	150.016456187537
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	26/08/2021	1.950	1	OWP	Seal	25	25.0	0.22	0.06	1.10	1.00	1.00	1.00	0.24	0.06	1.00E+08	20	0	0	N/A	N/A	N/A	-34.689271813185	150.016978669296
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	26/08/2021	2.000	1	OWP	Seal	25	25.0	0.25	0.03	1.10	1.00	1.00	1.00	0.28	0.03	1.00E+08	20	0	0	N/A	N/A	N/A	-34.689342683789	150.017518804017
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	26/08/2021	2.050	1	OWP	Seal	25	25.0	0.75	0.34	1.10	1.00	1.00	1.00	0.82	0.34	4.70E+07	20	0	0	N/A	N/A	N/A	-34.689409415120	150.018052575886
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	26/08/2021	2.100	1	OWP	Seal	25	25.0	0.78	0.30	1.10	1.00	1.00	1.00	0.86	0.30	1.83E+07	20	0	0	N/A	N/A	N/A	-34.689477740610	150.018591641128
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	26/08/2021	2.150	1	OWP	Seal	25	24.0	0.80	0.32	1.10	1.00	1.00	1.00	0.88	0.32	1.26E+07	20	0	0	N/A	N/A	N/A	-34.689551838603	150.019118418819
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	26/08/2021	2.200	1	OWP	Seal	25	24.0	0.59	0.24	1.10	1.00	1.00	1.00	0.65	0.24	1.00E+08	20	0	0	N/A	N/A	N/A	-34.689621815978	150.019659473796
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	26/08/2021	2.250	1	OWP	Seal	25	24.0	0.33	0.17	1.10	1.00	1.00	1.00	0.36	0.17	1.00E+08	20	0	0	N/A	N/A	N/A	-34.689689756140	150.020196431581
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	27/08/2021	2.300	1	OWP	Seal	25	16.0	0.64	0.31	1.10	1.00	1.00	1.00	0.70	0.31	1.00E+08	20	0	0	N/A	N/A	N/A	-34.689758193223	150.020716311979
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	27/08/2021	2.350	1	OWP	Seal	25	16.0	0.29	0.15	1.10	1.00	1.00	1.00	0.32	0.15	1.00E+08	20	0	0	N/A	N/A	N/A	-34.689823385927	150.021254259570
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	27/08/2021	2.400	1	OWP	Seal	25	16.0	0.52	0.27	1.10	1.00	1.00	1.00	0.57	0.27	1.00E+08	20	0	0	N/A	N/A	N/A	-34.689892142484	150.021795792123
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	27/08/2021	2.450	1	OWP	Seal	25	16.0	0.32	0.17	1.10	1.00	1.00	1.00	0.35	0.17	1.00E+08	20	0	0	N/A	N/A	N/A	-34.689963839540	150.022331597487
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	27/08/2021	2.500	1	OWP	Seal	25	16.0	0.13	0.01	1.10	1.00	1.00	1.00	0.14	0.01	1.00E+08	20	0	0	N/A	N/A	N/A	-34.690033516505	150.022874938729
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	27/08/2021	2.550	1	OWP	Seal	25	16.0	0.08	0.00	1.10	1.00	1.00	1.00	0.09	0.00	1.00E+08	20	0	0	N/A	N/A	N/A	-34.690103462982	150.023408469539
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	27/08/2021	2.600	1	OWP	Seal	25	16.0	0.60	0.29	1.10	1.00	1.00	1.00	0.66	0.29	1.00E+08	20	0	0	N/A	N/A	N/A	-34.690175075460	150.023946871477
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	27/08/2021	2.650	1	OWP	Seal	25	16.0	0.43	0.21	1.10	1.00	1.00	1.00	0.47	0.21	1.00E+08	20	0	0	N/A	N/A	N/A	-34.690246619122	150.024483329953
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	27/08/2021	2.700	1	OWP	Seal	25	16.0	0.59	0.29	1.10	1.00	1.00	1.00	0.65	0.29	1.00E+08	20	0	0	N/A	N/A	N/A	-34.690317075802	150.025013613187
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	27/08/2021	2.750	1	OWP	Seal	25	16.0	0.68	0.30	1.10	1.00	1.00	1.00	0.75	0.30	1.00E+08	20	0	0	N/A	N/A	N/A	-34.690387621884	150.025555423503
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	27/08/2021	2.800	1	OWP	Seal	25	16.0	0.29	0.15	1.10	1.00	1.00	1.00	0.32	0.15	1.00E+08	20	0	0	N/A	N/A	N/A	-34.690449705622	150.026100384561
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	27/08/2021	2.850	1	OWP	Seal	25	16.0	0.11	0.02	1.10	1.00	1.00	1.00	0.12	0.02	1.00E+08	20	0	0	N/A	N/A	N/A	-34.690518650190	150.026637737859
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	27/08/2021	2.900	1	OWP	Seal	25	16.0	0.06	0.01	1.10	1.00	1.00	1.00	0.07	0.01	1.00E+08	20	0	0	N/A	N/A	N/A	-34.690586783108	150.027167839590
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	27/08/2021	2.950	1	OWP	Seal	25	16.0	0.76	0.35	1.10	1.00	1.00	1.00	0.84	0.35	2.81E+07	20	0	0	N/A	N/A	N/A	-34.690642250217	150.027693415040
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	27/08/2021	3.000	1	OWP	Seal	25	17.0	0.65	0.32	1.10	1.00	1.00	1.00	0.72	0.32	1.00E+08	20	0	0	N/A	N/A	N/A	-34.690708204001	150.028236921883
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	27/08/2021	3.050	1	OWP	Seal	25	17.0	0.97	0.38	1.10	1.00	1.00	1.00	1.07	0.38	1.56E+06	4	70	24	N/A	N/A	N/A	-34.690773426459	150.028764060797
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	27/08/2021	3.100	1	OWP	Seal	25	17.0	0.78	0.31	1.10	1.00	1.00	1.00	0.86	0.31	1.83E+07	20	0	0	N/A	N/A	N/A	-34.690837801134	150.029297600006
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	27/08/2021	3.150	1	OWP	Seal	25	17.0	0.75	0.31	1.10	1.00	1.00	1.00	0.82	0.31	4.70E+07	20	0	0	N/A	N/A	N/A	-34.690906498766	150.029840606067
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	27/08/2021	3.200	1	OWP	Seal	25	17.0	0.72	0.29	1.10	1.00	1.00	1.00	0.79	0.29	1.00E+08	20	0	0	N/A	N/A	N/A	-34.690980175262	150.030385248588
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	27/08/2021	3.250	1	OWP	Seal	25	17.0	0.69	0.29	1.10	1.00	1.00	1.00	0.76	0.29	1.00E+08	20	0	0	N/A	N/A	N/A	-34.691054214353	150.030919530451
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	27/08/2021	3.300	1	OWP	Seal	25	17.0	0.58	0.28	1.10	1.00	1.00	1.00	0.64	0.28	1.00E+08	20	0	0	N/A	N/A	N/A	-34.691132497042	150.031452699450
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	27/08/2021	3.350	1	OWP	Seal	25	17.0	0.65	0.32	1.10	1.00	1.00	1.00	0.72	0.32	1.00E+08	20	0	0	N/A	N/A	N/A	-34.691220081737	150.031980696379
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	27/08/2021	3.400	1	OWP	Seal	25	17.0	0.27	0.03	1.10	1.00	1.00	1.00	0.30	0.03	1.00E+08	20	0	0	N/A	N/A	N/A	-34.691298720999	150.032525959434
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	27/08/2021	3.450	1	OWP	Seal	25	17.0	0.72	0.28	1.10	1.00	1.00	1.00	0.79	0.28	1.00E+08	20	0	0	N/A	N/A	N/A	-34.691371943179	150.033061017774
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	27/08/2021	3.500	1	OWP	Asphal	200	17.0	0.46	0.11	1.29	1.00	1.22	1.72	0.72	0.19	1.00E+08	20	0	0	5.67E+05	1	125	-34.691426819690	150.033571211618
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	27/08/2021	3.550	1	OWP	Asphal	200	17.0	0.14	0.02	1.29	1.00	1.22	1.72	0.22	0.03	1.00E+08	20	0	0	1.00E+07	20	0	-34.691328545397	150.034226837224
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	26/08/2021	2.225	2	OWP	Seal	25	24.0	0.63	0.29	1.10	1.00	1.00	1.00	0.69	0.29	1.00E+08	20	0	0	N/A	N/A	N/A	-34.689706271239	150.019946526599
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	26/08/2021	2.175	2	OWP	Seal	25	24.0	0.70	0.27	1.10	1.00	1.00	1.00	0.77	0.27	1.00E+08	20	0	0	N/A	N/A	N/A	-34.689635111152	150.019403143715
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	26/08/2021	2.125	2	OWP	Seal	25	23.0	0.69	0.27	1.10	1.00	1.00	1.00	0.76	0.27	1.00E+08	20	0	0	N/A	N/A	N/A	-34.689565547651	150.018864362927
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	26/08/2021	2.075	2	OWP	Seal	25	23.0	0.84	0.32	1.10	1.00	1.00	1.00	0.92	0.32	6.90E+06	15	9	24	N/A	N/A	N/A	-34.689490326023	150.018324999377
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	26/08/2021	2.025	2	OWP	Seal	25	23.0	0.60	0.25	1.10	1.00	1.00	1.00	0.66	0.25	1.00E+08	20	0	0	N/A	N/A	N/A	-34.689424372528	150.017781070008
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	2.175	2	OWP	Seal	25	15.0	0.67	0.29	1.10	1.00	1.00	1.00	0.74	0.29	1.00E+08	20	0	0	N/A	N/A	N/A	-34.707147349800	150.002505059936
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	2.125	2	OWP	Seal	25	15.0	0.70	0.28	1.10	1.00	1.00	1.00	0.77	0.28	1.00E+08	20	0	0	N/A	N/A	N/A	-34.707070157839	150.001969103759
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	2.075	2	OWP	Seal	25	15.0	0.67	0.21	1.10	1.00	1.00	1.00	0.74	0.21	1.00E+08	20	0	0	N/A	N/A	N/A	-34.706998292991	150.001439097634
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	2.025	2	OWP	Seal	25	15.0	0.60	0.24	1.10	1.00	1.00	1.00	0.66	0.24	1.00E+08	20	0	0	N/A	N/A	N/A	-34.706928622240	150.000907964790
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	1.975	2	OWP	Seal	25	15.0	0.85	0.36	1.10	1.00	1.00	1.00	0.94	0.36	5.34E+06	20	0	0	N/A	N/A	N/A	-34.706858536845	150.000363047149
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	1.925	2	OWP	Seal	25	15.0	0.74	0.31	1.10	1.00	1.00	1.00	0.81	0.31	6.37E+07	20	0	0	N/A	N/A	N/A	-34.706786026584	149.999825454877
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	1.875	2	OWP	Seal	25	15.0	0.56	0.28	1.10	1.00	1.00	1.00	0.62	0.28	1.00E+08	20	0	0	N/A	N/A	N/A	-34.706729484935	149.999298204620
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	1.825	2	OWP	Seal	25	15.0	0.33	0.13	1.10	1.00	1.00	1.00	0.36	0.13	1.00E+08	20	0	0	N/A	N/A	N/A	-34.706492562026	149.998834358982
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	1.775	2	OWP	Seal	25	15.0	0.95	0.52	1.10	1.00	1.00	1.00	1.04	0.52	1.97E+06	20	0	0	N/A	N/A	N/A	-34.706053592473	149.998921386217
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	1.725	2	OWP	Seal	25	15.0	0.78	0.38	1.10	1.00	1.00	1.00	0.86	0.38	1.83E+07	20	0	0	N/A	N/A	N/A	-34.705610525088	149.999006287801
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	1.675	2	OWP	Seal	25	15.0	0.82	0.32	1.10	1.00	1.00	1.00	0.90	0.32	9.17E+06	20	0	0	N/A	N/A	N/A	-34.705170694459	149.999085365109
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	1.625	2	OWP	Seal	25	15.0	0.68	0.31	1.10	1.00	1.00	1.00	0.75	0.31	1.00E+08	20	0	0	N/A	N/A	N/A	-34.704709665200	149.999169344109
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	1.575	2	OWP	Seal	25	15.0	0.33	0.15	1.10	1.00	1.00	1.00	0.36	0.15	1.00E+08	20	0	0	N/A	N/A	N/A	-34.704265331785	149.999252679617
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	1.525	2	OWP	Seal	25	15.0	0.77	0.40	1.10	1.00	1.00	1.00	0.85	0.40	2.24E+07	20	0	0	N/A	N/A	N/A	-34.703816607497	149.999334352216
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	1.475	2	OWP	Seal	25	15.0	0.38	0.18	1.10	1.00	1.00	1.00	0.42	0.18	1.00E+08	20	0	0	N/A	N/A	N/A	-34.703378455083	149.999442149885
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	1.425	2	OWP	Seal	25	15.0	0.47	0.23	1.10	1.00	1.00	1.00	0.52	0.23	1.00E+08	20	0	0	N/A	N/A	N/A	-34.702942296269	149.999547104801
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	1.375	2	OWP	Seal	25	15.0	0.36	0.16	1.10	1.00	1.00	1.00	0.40	0.16	1.00E+08	20	0	0	N/A	N/A	N/A	-34.702501563409	149.999663912200
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	1.325	2	OWP	Seal	25	15.0	0.72	0.36	1.10	1.00	1.00	1.00	0.79	0.36	1.00E+08	20	0	0	N/A	N/A	N/A	-34.702063131210	149.999762090526
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	1.275	2	OWP	Seal	25	15.0	0.83	0.30	1.10	1.00	1.00	1.00	0.91	0.30	7.92E+06	20	0	0	N/A	N/A	N/A	-34.701624067941	149.999854519401
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	1.225	2	OWP	Seal	25	15.0	0.82	0.35	1.10	1.00	1.00	1.00	0.90	0.35	9.17E+06	20	0	0	N/A	N/A	N/A	-34.701189659417	149.999938894573
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	1.175	2	OWP	Seal	25	15.0	0.11	0.00	1.10	1.00	1.00	1.00	0.12	0.00	1.00E+08	20	0	0	N/A	N/A	N/A	-34.700741319224	150.000025624224
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	1.125	2	OWP	Seal	25	15.0	0.16	0.06	1.10	1.00	1.00	1.00	0.18	0.06	1.00E+08	20	0	0	N/A	N/A	N/A	-34.700299037817	150.000110042032
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	1.075	2	OWP	Seal	25	15.0	0.18	0.10	1.10	1.00	1.00	1.00	0.20	0.10	1.00E+08	20	0	0	N/A	N/A	N/A	-34.699868602181	150.000192906390
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	1.025	2	OWP	Seal	25	15.0	0.34	0.14	1.10	1.00	1.00	1.00	0.37	0.14	1.00E+08	20	0	0	N/A	N/A	N/A	-34.699417955893	150.000276821600
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	0.975	2	OWP	Seal	25	15.0	0.32	0.19	1.10	1.00	1.00	1.00	0.35	0.19	1.00E+08	20	0	0	N/A	N/A	N/A	-34.698987135331	150.000369595551
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	0.925	2	OWP	Seal	25	15.0	0.33	0.17	1.10	1.00	1.00	1.00	0.36	0.17	1.00E+08	20	0	0	N/A	N/A	N/A	-34.698548682454	150.000457519574
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	0.875	2	OWP	Seal	25	15.0	0.41	0.16	1.10	1.00	1.00	1.00	0.45	0.16	1.00E+08	20	0	0	N/A	N/A	N/A	-34.698114059316	150.000551595800

					Date	(km)			Type	(mm)	(°C)	(mm)	(mm)			Deflection	Curvature	(mm)	(mm)	ESA's	Yrs	Granular	Asphalt	ESA's	Yrs	Asphalt	Latitude	Longitude
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	0.820	2	OWP	Seal	25	15.0	0.35	0.15	1.10	1.00	1.00	1.00	0.38	0.15	1.00E+08	20	0	0	N/A	N/A	N/A	-34.697663091441	150.000636308358
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	26/08/2021	1.975	2	OWP	Seal	25	23.0	0.71	0.34	1.10	1.00	1.00	1.00	0.78	0.34	1.00E+08	20	0	0	N/A	N/A	N/A	-34.689355075847	150.017252837344
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	26/08/2021	1.925	2	OWP	Seal	25	23.0	0.72	0.33	1.10	1.00	1.00	1.00	0.79	0.33	1.00E+08	20	0	0	N/A	N/A	N/A	-34.689287024267	150.016716138172
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	26/08/2021	1.875	2	OWP	Seal	25	23.0	0.08	0.00	1.10	1.00	1.00	1.00	0.09	0.00	1.00E+08	20	0	0	N/A	N/A	N/A	-34.689221184890	150.016182887008
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	26/08/2021	1.825	2	OWP	Seal	25	23.0	0.43	0.21	1.10	1.00	1.00	1.00	0.47	0.21	1.00E+08	20	0	0	N/A	N/A	N/A	-34.689152153358	150.015646159916
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	26/08/2021	1.775	2	OWP	Seal	25	23.0	0.48	0.18	1.10	1.00	1.00	1.00	0.53	0.18	1.00E+08	20	0	0	N/A	N/A	N/A	-34.689082482887	150.015114177045
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	26/08/2021	1.725	2	OWP	Seal	25	23.0	0.75	0.38	1.10	1.00	1.00	1.00	0.82	0.38	4.70E+07	20	0	0	N/A	N/A	N/A	-34.689012004750	150.014576417749
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	26/08/2021	1.675	2	OWP	Seal	25	23.0	0.49	0.21	1.10	1.00	1.00	1.00	0.54	0.21	1.00E+08	20	0	0	N/A	N/A	N/A	-34.688936692907	150.014019200356
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	26/08/2021	1.625	2	OWP	Seal	25	23.0	0.65	0.26	1.10	1.00	1.00	1.00	0.72	0.26	1.00E+08	20	0	0	N/A	N/A	N/A	-34.688860781744	150.013469507020
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	26/08/2021	1.575	2	OWP	Seal	25	23.0	0.52	0.23	1.10	1.00	1.00	1.00	0.57	0.23	1.00E+08	20	0	0	N/A	N/A	N/A	-34.688796453806	150.012929920380
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	26/08/2021	1.525	2	OWP	Seal	25	23.0	0.73	0.29	1.10	1.00	1.00	1.00	0.80	0.29	1.00E+08	20	0	0	N/A	N/A	N/A	-34.688730938186	150.012396159340
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	26/08/2021	1.475	2	OWP	Seal	25	23.0	0.56	0.27	1.10	1.00	1.00	1.00	0.62	0.27	1.00E+08	20	0	0	N/A	N/A	N/A	-34.688660796248	150.011857807765
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	26/08/2021	1.425	2	OWP	Seal	25	23.0	0.71	0.34	1.10	1.00	1.00	1.00	0.78	0.34	1.00E+08	20	0	0	N/A	N/A	N/A	-34.688588307024	150.011321487984
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	26/08/2021	1.375	2	OWP	Seal	25	23.0	1.11	0.51	1.10	1.00	1.00	1.00	1.22	0.51	6.25E+05	2	123	42	N/A	N/A	N/A	-34.688523220874	150.010782500850
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	26/08/2021	1.325	2	OWP	Seal	25	23.0	0.99	0.43	1.10	1.00	1.00	1.00	1.09	0.43	1.34E+06	3	77	28	N/A	N/A	N/A	-34.688453983145	150.010247245162
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	26/08/2021	1.275	2	OWP	Seal	25	23.0	1.07	0.64	1.10	1.00	1.00	1.00	1.18	0.64	7.78E+05	2	109	38	N/A	N/A	N/A	-34.688383415036	150.009704783109
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	26/08/2021	1.225	2	OWP	Seal	25	23.0	0.83	0.37	1.10	1.00	1.00	1.00	0.91	0.37	7.92E+06	17	4	24	N/A	N/A	N/A	-34.688308203617	150.009122211218
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	26/08/2021	1.175	2	OWP	Seal	25	23.0	0.71	0.34	1.10	1.00	1.00	1.00	0.78	0.34	1.00E+08	20	0	0	N/A	N/A	N/A	-34.688237702530	150.008585203315
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	26/08/2021	1.125	2	OWP	Seal	25	23.0	0.65	0.30	1.10	1.00	1.00	1.00	0.72	0.30	1.00E+08	20	0	0	N/A	N/A	N/A	-34.688166828839	150.008056114601
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	26/08/2021	1.075	2	OWP	Seal	25	23.0	0.68	0.33	1.10	1.00	1.00	1.00	0.75	0.33	1.00E+08	20	0	0	N/A	N/A	N/A	-34.688099068549	150.007530425219
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	26/08/2021	1.025	2	OWP	Seal	25	23.0	0.52	0.25	1.10	1.00	1.00	1.00	0.57	0.25	1.00E+08	20	0	0	N/A	N/A	N/A	-34.688027231452	150.006995526673
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	26/08/2021	0.975	2	OWP	Seal	25	23.0	0.66	0.27	1.10	1.00	1.00	1.00	0.73	0.27	1.00E+08	20	0	0	N/A	N/A	N/A	-34.687958553245	150.006451200078
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	26/08/2021	0.925	2	OWP	Seal	25	23.0	0.59	0.29	1.10	1.00	1.00	1.00	0.65	0.29	1.00E+08	20	0	0	N/A	N/A	N/A	-34.687889441602	150.005911224548
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	26/08/2021	0.875	2	OWP	Seal	25	23.0	0.63	0.28	1.10	1.00	1.00	1.00	0.69	0.28	1.00E+08	20	0	0	N/A	N/A	N/A	-34.687813951772	150.005341091092
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	26/08/2021	0.825	2	OWP	Seal	25	23.0	0.73	0.35	1.10	1.00	1.00	1.00	0.80	0.35	1.00E+08	20	0	0	N/A	N/A	N/A	-34.687744068430	150.004805297255
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	26/08/2021	0.775	2	OWP	Seal	25	23.0	0.97	0.43	1.10	1.00	1.00	1.00	1.07	0.43	1.56E+06	4	70	24	N/A	N/A	N/A	-34.687676977090	150.004287269262
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	26/08/2021	0.725	2	OWP	Seal	25	23.0	0.67	0.32	1.10	1.00	1.00	1.00	0.74	0.32	1.00E+08	20	0	0	N/A	N/A	N/A	-34.687603453414	150.003732447885
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	26/08/2021	0.675	2	OWP	Seal	25	23.0	0.68	0.34	1.10	1.00	1.00	1.00	0.75	0.34	1.00E+08	20	0	0	N/A	N/A	N/A	-34.687530163311	150.003197081400
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	26/08/2021	0.625	2	OWP	Seal	25	23.0	0.82	0.35	1.10	1.00	1.00	1.00	0.90	0.35	9.17E+06	19	0	24	N/A	N/A	N/A	-34.687463240274	150.002663968747
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	26/08/2021	0.575	2	OWP	Seal	25	23.0	0.81	0.34	1.10	1.00	1.00	1.00	0.89	0.34	1.07E+07	20	0	0	N/A	N/A	N/A	-34.687394809951	150.002119793960
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	26/08/2021	0.525	2	OWP	Seal	25	23.0	1.00	0.37	1.10	1.00	1.00	1.00	1.10	0.37	1.25E+06	3	81	28	N/A	N/A	N/A	-34.687382776157	150.001577850204
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	26/08/2021	0.475	2	OWP	Seal	25	23.0	0.51	0.25	1.10	1.00	1.00	1.00	0.56	0.25	1.00E+08	20	0	0	N/A	N/A	N/A	-34.687453289643	150.001060007654
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	26/08/2021	0.425	2	OWP	Seal	25	23.0	0.69	0.39	1.10	1.00	1.00	1.00	0.76	0.39	1.00E+08	20	0	0	N/A	N/A	N/A	-34.687619029370	150.000560782700
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	26/08/2021	0.375	2	OWP	Seal	25	23.0	0.80	0.43	1.10	1.00	1.00	1.00	0.88	0.43	1.26E+07	20	0	0	N/A	N/A	N/A	-34.687866163861	150.000106233409
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	26/08/2021	0.325	2	OWP	Seal	25	23.0	0.70	0.35	1.10	1.00	1.00	1.00	0.77	0.35	1.00E+08	20	0	0	N/A	N/A	N/A	-34.688197891264	149.999718338957
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	26/08/2021	0.275	2	OWP	Seal	25	23.0	0.74	0.33	1.10	1.00	1.00	1.00	0.81	0.33	6.37E+07	20	0	0	N/A	N/A	N/A	-34.688575543147	149.999429629301
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	26/08/2021	0.225	2	OWP	Seal	25	23.0	0.78	0.36	1.10	1.00	1.00	1.00	0.86	0.36	1.83E+07	20	0	0	N/A	N/A	N/A	-34.688966084893	149.999254126602
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	26/08/2021	0.175	2	OWP	Seal	25	23.0	0.87	0.41	1.10	1.00	1.00	1.00	0.96	0.41	4.23E+06	10	26	24	N/A	N/A	N/A	-34.689381572101	149.999173312800
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	26/08/2021	0.125	2	OWP	Seal	25	23.0	0.12	0.01	1.10	1.00	1.00	1.00	0.13	0.01	1.00E+08	20	0	0	N/A	N/A	N/A	-34.689826844003	149.999185469332
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	26/08/2021	0.075	2	OWP	Seal	25	23.0	0.77	0.41	1.10	1.00	1.00	1.00	0.85	0.41	2.24E+07	20	0	0	N/A	N/A	N/A	-34.690270788648	149.999223631244
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	26/08/2021	0.025	2	OWP	Asphal	50	23.0	0.42	0.15	1.15	1.00	1.03	1.07	0.50	0.16	1.00E+08	20	0	0	1.32E+06	3	115	-34.690736564181	149.999142042643
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	27/08/2021	3.575	2	OWP	Asphal	200	17.0	0.40	0.22	1.29	1.00	1.22	1.72	0.63	0.38	1.00E+08	20	0	0	1.90E+04	0	150	-34.691444331867	150.034373887185
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	27/08/2021	3.525	2	OWP	Asphal	200	17.0	0.15	0.04	1.29	1.00	1.22	1.72	0.24	0.07	1.00E+08	20	0	0	1.00E+07	20	0	-34.691452577560	150.033913306725
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	27/08/2021	3.475	2	OWP	Seal	25	17.0	0.52	0.15	1.10	1.00	1.00	1.00	0.57	0.15	1.00E+08	20	0	0	N/A	N/A	N/A	-34.691444372234	150.033306946424
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	27/08/2021	3.425	2	OWP	Seal	25	17.0	0.16	0.03	1.10	1.00	1.00	1.00	0.18	0.03	1.00E+08	20	0	0	N/A	N/A	N/A	-34.691379801918	150.032780289272
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	27/08/2021	3.375	2	OWP	Seal	25	17.0	0.53	0.25	1.10	1.00	1.00	1.00	0.58	0.25	1.00E+08	20	0	0	N/A	N/A	N/A	-34.691308676244	150.032247024574
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	27/08/2021	3.325	2	OWP	Seal	25	17.0	0.18	0.02	1.10	1.00	1.00	1.00	0.20	0.02	1.00E+08	20	0	0	N/A	N/A	N/A	-34.691224384324	150.031702933379
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	27/08/2021	3.275	2	OWP	Seal	25	17.0	0.66	0.28	1.10	1.00	1.00	1.00	0.73	0.28	1.00E+08	20	0	0	N/A	N/A	N/A	-34.691147132431	150.031167604128
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	27/08/2021	3.225	2	OWP	Seal	25	17.0	0.64	0.32	1.10	1.00	1.00	1.00	0.70	0.32	1.00E+08	20	0	0	N/A	N/A	N/A	-34.691075473275	150.030642275352
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	27/08/2021	3.175	2	OWP	Seal	25	17.0	0.50	0.25	1.10	1.00	1.00	1.00	0.55	0.25	1.00E+08	20	0	0	N/A	N/A	N/A	-34.690999158813	150.030100161764
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	27/08/2021	3.125	2	OWP	Seal	25	17.0	0.60	0.28	1.10	1.00	1.00	1.00	0.66	0.28	1.00E+08	20	0	0	N/A	N/A	N/A	-34.690930486372	150.029575881690
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	27/08/2021	3.075	2	OWP	Seal	25	17.0	0.58	0.28	1.10	1.00	1.00	1.00	0.64	0.28	1.00E+08	20	0	0	N/A	N/A	N/A	-34.690862645899	150.029031989094
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	27/08/2021	3.025	2	OWP	Seal	25	17.0	0.54	0.26	1.10	1.00	1.00	1.00	0.59	0.26	1.00E+08	20	0	0	N/A	N/A	N/A	-34.690799185073	150.028500854635
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	27/08/2021	2.975	2	OWP	Seal	25	17.0	0.78	0.34	1.10	1.00	1.00	1.00	0.86	0.34	1.83E+07	20	0	0	N/A	N/A	N/A	-34.690740563871	150.027974686469
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	27/08/2021	2.925	2	OWP	Seal	25	17.0	0.67	0.29	1.10	1.00	1.00	1.00	0.74	0.29	1.00E+08	20	0	0	N/A	N/A	N/A	-34.690673436027	150.027412217533
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	27/08/2021	2.875	2	OWP	Seal	25	17.0	0.92	0.35	1.10	1.00	1.00	1.00	1.01	0.35	2.56E+06	6	47	24	N/A	N/A	N/A	-34.690616388624	150.026880904769
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	27/08/2021	2.825	2	OWP	Seal	25	17.0	0.55	0.26	1.10	1.00	1.00	1.00	0.60	0.26	1.00E+08	20	0	0	N/A	N/A	N/A	-34.690537809318	150.026354437473
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	27/08/2021	2.775	2	OWP	Seal	25	17.0	0.63	0.30	1.10	1.00	1.00	1.00	0.69	0.30	1.00E+08	20	0	0	N/A	N/A	N/A	-34.690473999959	150.025804751103
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	27/08/2021	2.725	2	OWP	Seal	25	17.0	0.59	0.32	1.10	1.00	1.00	1.00	0.65	0.32	1.00E+08	20	0	0	N/A	N/A	N/A	-34.690407359050	150.025277213344
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	27/08/2021	2.675	2	OWP	Seal	25	17.0	0.09	0.03	1.10	1.00	1.00	1.00	0.10	0.03	1.00E+08	20	0	0	N/A	N/A	N/A	-34.690331363785	150.024726205970
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	27/08/2021	2.625	2	OWP	Seal	25	17.0	0.70	0.33	1.10	1.00	1.00	1.00	0.77	0.33	1.00E+08	20	0	0	N/A	N/A	N/A	-34.690265194745	150.024220737301
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	27/08/2021	2.575	2	OWP	Seal	25	17.0	0.48	0.26	1.10	1.00	1.00	1.00	0.53	0.26	1.00E+08	20	0	0	N/A	N/A	N/A	-34.690190546306	150.023703239709
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	27/08/2021	2.525	2	OWP	Seal	25	17.0	0.45	0.22	1.10	1.00	1.00	1.00	0.50	0.22	1.00E+08	20	0	0	N/A	N/A	N/A	-34.690123505413	150.023155851763
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	27/08/2021	2.475	2	OWP	Seal	25	17.0	0.15	0.03	1.10	1.00	1.00	1.00	0.16	0.03	1.00E+08	20	0	0	N/A	N/A	N/A	-34.690051855952	150.022595675024
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	27/08/2021	2.425	2	OWP	Seal	25	17.0	0.13	0.02	1.10	1.00	1.00	1.00	0.14	0.02	1.00E+08	20	0	0	N/A	N/A	N/A	-34.689984236625	150.022062552975
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	27/08/2021	2.375	2	OWP	Seal	25	17.0	0.58	0.34	1.10	1.00	1.00	1.00	0.64	0.34	1.00E+08	20	0	0	N/A	N/A	N/A	-34.689917941881	150.021519253568
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	27/08/2021	2.325	2	OWP	Seal	25	17.0	0.51	0.30	1.10	1.00	1.00	1.00	0.56	0.30	1.00E+08	20	0	0	N/A	N/A	N/A	-34.689848061114	150.020991210005
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	27/08/2021	2.275	2	OWP	Seal	25	17.0	0.46	0.26	1.10	1.00	1.00	1.00	0.51	0.26	1.00E+08	20	0	0	N/A	N/A	N/A	-34.689772141279	150.020458564429
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	0.000	1	OWP	Seal	25	9.0	0.05	0.01	1.10	1.00	1.00	1.00	0.06	0.01	1.00E+08	20	0	0	N/A	N/A	N/A	-34.690955551313	149.998926536546
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	0.775	2	OWP	Seal	25	15.0	0.28	0.13	1.10	1.00	1.00	1.00	0.31	0.13	1.00E+08	20	0	0	N/A	N/A	N/A	-34.697220531178	150.000726290011
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	0.725	2	OWP	Seal	25	15.0	0.37	0.17	1.10	1.00	1.00	1.00	0.41	0.17	1.00E+08	20	0	0	N/A	N/A	N/A	-34.696767268168	150.000819401090
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	0.675	2	OWP	Seal	25	15.0	0.37	0.14	1.10	1.00	1.00	1.00	0.41	0.14	1.00E+08	20	0	0	N/A	N/A	N/A	-34.696309590530	150.000910082687
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	0.625	2	OWP	Seal	25	15.0	0.26	0.13	1.10	1.00	1.00	1.00	0.29	0.13	1.00E+08	20	0	0	N/A	N/A	N/A	-34.695871240817	150.000996821166
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	0.575	2	OWP	Seal	25	15.0	0.18	0.06	1.10	1.00	1.00	1.00	0.20	0.06	1.00E+08	20	0	0	N/A	N/A	N/A	-34.695425342287	150.001087074150
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	0.525	2	OWP	Seal	25	15.0	0.14	0.03	1.10	1.00	1.00	1.00	0.15	0.03	1.00E+08	20	0	0	N/A	N/A	N/A	-34.694984368341	150.001173364990
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	0.475	2	OWP	Seal	25	16.0	0.25	0.04	1.10	1.00	1.00	1.00	0.28	0.04	1.00E+08	20	0	0	N/A	N/A	N/A	-34.694539172046	150.001262975469
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	0.425	2	OWP	Seal	25	16.0	0.34	0.13	1.10	1.00	1.00	1.00	0.37	0.13	1.00E+08	20	0	0	N/A	N/A	N/A	-34.694068699230	150.001316718708
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	0.375	2	OWP	Seal	25	16.0	0.37	0.03	1.10	1.00	1.00	1.00	0.41	0.03	1.00E+08	20	0	0	N/A	N/A	N/A	-34.693624085317	150.001290889969
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	0.325	2	OWP	Seal	25	16.0	0.24	0.05	1.10	1.00	1.00	1.00	0.26	0.05	1.00E+08	20	0	0	N/A	N/A	N/A	-34.693187743900	150.001184244726
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	0.275	2	OWP	Seal	25	16.0	0.37	0.12	1.10	1.00	1.00	1.00	0.41	0.12	1.00E+08	20	0	0	N/A	N/A	N/A	-34.692768890190	150.000994488416
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	0.225	2	OWP	Seal	25	16.0	0.68	0.16	1.10	1.00	1.00	1.00	0.75	0.16	1.00E+08	20	0	0	N/A	N/A	N/A	-34.692369362530	150.000738001648
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	0.175	2	OWP	Seal	25	16.0	0.24	0.04	1.10	1.00	1.00	1.00	0.26	0.04	1.00E+08	20	0	0	N/A	N/A	N/A	-34.691997545790	150.000434781047
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	0.125	2	OWP	Seal	25	16.0	0.21	0.04	1.10	1.00	1.00	1.00	0.23	0.04	1.00E+08	20	0	0	N/A	N/A	N/A	-34.691672023375	150.000060214972
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	0.075	2	OWP	Seal	25	16.0	0.16	0.02	1.10	1.00	1.00	1.00	0.18	0.02	1.00E+08	20	0	0	N/A	N/A	N/A	-34.691380161331	149.999626877968
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	0.050	1	OWP	Seal	25	9.0	0.14	0.11	1.10	1.00	1.00	1.00	0.15	0.11	1.00E+08	20	0	0	N/A	N/A	N/A	-34.691193982723	149.999385856129
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	0.100	1	OWP	Seal	25	9.0	0.16	0.02	1.10	1.00	1.00	1.00	0.18	0.02	1.00E+08	20	0	0	N/A	N/A	N/A	-34.691473885403	149.999863828168
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	0.150	1	OWP	Seal	25	9.0	0.28	0.02	1.10	1.00	1.00	1.00	0.31	0.02	1.00E+08	20	0	0	N/A	N/A	N/A	-34.691783284770	150.000264323005
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	0.200	1	OWP	Seal	25	9.0	0.16	0.01	1.10	1.00	1.00	1.00	0.18	0.01	1.00E+08	20	0	0	N/A	N/A	N/A	-34.692133221664	150.000619012966
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	0.250	1	OWP	Seal	25	9.0	0.29	0.08	1.10	1.00	1.00	1.00	0.32	0.08	1.00E+08	20	0	0	N/A	N/A	N/A	-34.692517077977	150.000897985407
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	0.300	1	OWP	Seal	25	9.0	0.13	0.03	1.10	1.00	1.00	1.00	0.14	0.03	1.00E+08	20	0	0	N/A	N/A	N/A	-34.692920733481	150.001137123829
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	0.350	1	OWP	Seal	25	9.0	0.27	0.05	1.10	1.00	1.00	1.00	0.30	0.05	1.00E+08	20	0	0	N/A	N/A	N/A	-34.693377305061	150.001290423458
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	0.400	1	OWP	Seal	25	9.0	0.31	0.10	1.10	1.00	1.00	1.00	0.34	0.10	1.00E+08	20	0	0	N/A	N/A	N/A	-34.693821737017	150.001363233700
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	0.450	1	OWP	Seal	25	9.0	0.47	0.14	1.10	1.00	1.00	1.00	0.52	0.14	1.00E+08	20	0	0	N/A	N/A	N/A	-34.694297076995	150.001357594495
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	0.500	1	OWP	Seal	25	9.0	0.20	0.04	1.10	1.00	1.00	1.00	0.22	0.04	1.00E+08	20	0	0	N/A	N/A	N/A	-34.694763336619	150.001275251829
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	0.550	1	OWP	Seal	25	9.0	0.13	0.04	1.10	1.00	1.00	1.00	0.14	0.04	1.00E+08	20	0	0	N/A	N/A	N/A	-34.695196789736	150.001189058369

					Date	(km)			Type	(mm)	(°C)	(mm)	(mm)			Deflection	Curvature	(mm)	(mm)	ESA's	Yrs	Granular	Asphalt	ESA's	Yrs	Asphalt	Latitude	Longitude
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	0.600	1	OWP	Seal	25	9.0	0.24	0.13	1.10	1.00	1.00	1.00	0.26	0.13	1.00E+08	20	0	0	N/A	N/A	N/A	-34.695640764054	150.001102833913
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	0.650	1	OWP	Seal	25	9.0	0.23	0.09	1.10	1.00	1.00	1.00	0.25	0.09	1.00E+08	20	0	0	N/A	N/A	N/A	-34.696083365634	150.001011629624
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	0.700	1	OWP	Seal	25	9.0	0.33	0.09	1.10	1.00	1.00	1.00	0.36	0.09	1.00E+08	20	0	0	N/A	N/A	N/A	-34.696525918219	150.000924759096
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	0.750	1	OWP	Seal	25	9.0	0.25	0.11	1.10	1.00	1.00	1.00	0.28	0.11	1.00E+08	20	0	0	N/A	N/A	N/A	-34.696977332472	150.000830957804
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	0.800	1	OWP	Seal	25	9.0	0.47	0.32	1.10	1.00	1.00	1.00	0.52	0.32	1.00E+08	20	0	0	N/A	N/A	N/A	-34.697421873885	150.000740002545
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	0.850	1	OWP	Seal	25	10.0	0.41	0.15	1.10	1.00	1.00	1.00	0.45	0.15	1.00E+08	20	0	0	N/A	N/A	N/A	-34.697862826670	150.000646032164
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	0.900	1	OWP	Seal	25	10.0	0.42	0.18	1.10	1.00	1.00	1.00	0.46	0.18	1.00E+08	20	0	0	N/A	N/A	N/A	-34.698338178308	150.000556691645
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	0.950	1	OWP	Seal	25	10.0	0.39	0.16	1.10	1.00	1.00	1.00	0.43	0.16	1.00E+08	20	0	0	N/A	N/A	N/A	-34.698768500904	150.000470199679
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	1.000	1	OWP	Seal	25	10.0	0.40	0.19	1.10	1.00	1.00	1.00	0.44	0.19	1.00E+08	20	0	0	N/A	N/A	N/A	-34.699198410308	150.000385955720
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	1.050	1	OWP	Seal	25	11.0	0.26	0.12	1.10	1.00	1.00	1.00	0.29	0.12	1.00E+08	20	0	0	N/A	N/A	N/A	-34.699640754021	150.000294626524
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	1.100	1	OWP	Seal	25	11.0	0.26	0.17	1.10	1.00	1.00	1.00	0.29	0.17	1.00E+08	20	0	0	N/A	N/A	N/A	-34.700083037815	150.000205415018
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	1.150	1	OWP	Seal	25	11.0	0.22	0.05	1.10	1.00	1.00	1.00	0.24	0.05	1.00E+08	20	0	0	N/A	N/A	N/A	-34.700523879757	150.000112703090
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	1.250	1	OWP	Seal	25	11.0	0.74	0.27	1.10	1.00	1.00	1.00	0.81	0.27	6.37E+07	20	0	0	N/A	N/A	N/A	-34.701404936502	149.999947772650
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	1.300	1	OWP	Seal	25	11.0	0.47	0.22	1.10	1.00	1.00	1.00	0.52	0.22	1.00E+08	20	0	0	N/A	N/A	N/A	-34.701846690640	149.999862069300
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	1.350	1	OWP	Seal	25	11.0	0.74	0.35	1.10	1.00	1.00	1.00	0.81	0.35	6.37E+07	20	0	0	N/A	N/A	N/A	-34.702293899373	149.999766226952
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	1.400	1	OWP	Seal	25	11.0	0.74	0.35	1.10	1.00	1.00	1.00	0.81	0.35	6.37E+07	20	0	0	N/A	N/A	N/A	-34.702727458592	149.999657531183
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	1.450	1	OWP	Seal	25	11.0	0.58	0.27	1.10	1.00	1.00	1.00	0.64	0.27	1.00E+08	20	0	0	N/A	N/A	N/A	-34.703170795133	149.999546681737
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	1.500	1	OWP	Seal	25	11.0	0.75	0.39	1.10	1.00	1.00	1.00	0.82	0.39	4.70E+07	20	0	0	N/A	N/A	N/A	-34.703608711609	149.999436930496
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	1.550	1	OWP	Seal	25	11.0	0.64	0.32	1.10	1.00	1.00	1.00	0.70	0.32	1.00E+08	20	0	0	N/A	N/A	N/A	-34.704048529659	149.999345957561
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	1.600	1	OWP	Seal	25	12.0	0.75	0.34	1.10	1.00	1.00	1.00	0.82	0.34	4.70E+07	20	0	0	N/A	N/A	N/A	-34.704490905713	149.999268001824
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	1.650	1	OWP	Seal	25	12.0	0.73	0.30	1.10	1.00	1.00	1.00	0.80	0.30	1.00E+08	20	0	0	N/A	N/A	N/A	-34.704929462478	149.999184218882
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	1.700	1	OWP	Seal	25	12.0	0.75	0.33	1.10	1.00	1.00	1.00	0.82	0.33	4.70E+07	20	0	0	N/A	N/A	N/A	-34.705373807197	149.999107633750
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	1.750	1	OWP	Seal	25	12.0	0.65	0.35	1.10	1.00	1.00	1.00	0.72	0.35	1.00E+08	20	0	0	N/A	N/A	N/A	-34.705812933433	149.999029566003
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	1.800	1	OWP	Seal	25	12.0	0.34	0.16	1.10	1.00	1.00	1.00	0.37	0.16	1.00E+08	20	0	0	N/A	N/A	N/A	-34.706256492911	149.998948376730
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	1.850	1	OWP	Seal	25	12.0	0.46	0.25	1.10	1.00	1.00	1.00	0.51	0.25	1.00E+08	20	0	0	N/A	N/A	N/A	-34.706623915686	149.999022615546
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	1.900	1	OWP	Seal	25	12.0	0.67	0.31	1.10	1.00	1.00	1.00	0.74	0.31	1.00E+08	20	0	0	N/A	N/A	N/A	-34.706700382010	149.999560134684
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	1.950	1	OWP	Seal	25	12.0	0.61	0.29	1.10	1.00	1.00	1.00	0.67	0.29	1.00E+08	20	0	0	N/A	N/A	N/A	-34.706770688271	150.000086925526
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	2.000	1	OWP	Seal	25	12.0	0.56	0.22	1.10	1.00	1.00	1.00	0.62	0.22	1.00E+08	20	0	0	N/A	N/A	N/A	-34.706861458542	150.000620828434
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	2.050	1	OWP	Seal	25	12.0	0.54	0.27	1.10	1.00	1.00	1.00	0.59	0.27	1.00E+08	20	0	0	N/A	N/A	N/A	-34.706915523336	150.001164138921
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	2.100	1	OWP	Seal	25	12.0	0.51	0.18	1.10	1.00	1.00	1.00	0.56	0.18	1.00E+08	20	0	0	N/A	N/A	N/A	-34.706988268768	150.001698001592
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	2.150	1	OWP	Seal	25	12.0	0.41	0.18	1.10	1.00	1.00	1.00	0.45	0.18	1.00E+08	20	0	0	N/A	N/A	N/A	-34.707065212226	150.002228055718
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	2.200	1	OWP	Seal	25	12.0	0.60	0.29	1.10	1.00	1.00	1.00	0.66	0.29	1.00E+08	20	0	0	N/A	N/A	N/A	-34.707129601996	150.002765019834
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	2.250	1	OWP	Seal	25	12.0	0.62	0.32	1.10	1.00	1.00	1.00	0.68	0.32	1.00E+08	20	0	0	N/A	N/A	N/A	-34.707203059606	150.003294930359
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	2.300	1	OWP	Seal	25	12.0	0.57	0.27	1.10	1.00	1.00	1.00	0.63	0.27	1.00E+08	20	0	0	N/A	N/A	N/A	-34.707273030074	150.003832680979
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	2.350	1	OWP	Seal	25	12.0	1.07	0.43	1.10	1.00	1.00	1.00	1.18	0.43	7.78E+05	20	0	0	N/A	N/A	N/A	-34.707342754291	150.004372379242
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	2.400	1	OWP	Seal	25	12.0	0.99	0.52	1.10	1.00	1.00	1.00	1.09	0.52	1.34E+06	20	0	0	N/A	N/A	N/A	-34.707418841007	150.004905803323
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	2.450	1	OWP	Seal	25	12.0	0.48	0.23	1.10	1.00	1.00	1.00	0.53	0.23	1.00E+08	20	0	0	N/A	N/A	N/A	-34.707495331274	150.005456830100
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	2.500	1	OWP	Asphal	50	14.0	0.49	0.07	1.15	1.00	1.09	1.27	0.61	0.09	1.00E+08	20	0	0	1.00E+07	20	0	-34.707561261963	150.005992266757
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	2.550	1	OWP	Asphal	50	14.0	0.21	0.06	1.15	1.00	1.09	1.27	0.26	0.08	1.00E+08	20	0	0	1.00E+07	20	0	-34.707635314232	150.006527901419
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	2.600	1	OWP	Asphal	50	14.0	0.10	0.02	1.15	1.00	1.09	1.27	0.13	0.03	1.00E+08	20	0	0	1.00E+07	20	0	-34.707692250289	150.007066111081
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	2.650	1	OWP	Asphal	50	15.0	0.72	0.13	1.15	1.00	1.09	1.24	0.90	0.16	9.17E+06	20	0	0	1.32E+06	20	0	-34.707759792346	150.007622448479
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	2.700	1	OWP	Asphal	50	15.0	0.34	0.06	1.15	1.00	1.09	1.24	0.43	0.07	1.00E+08	20	0	0	1.00E+07	20	0	-34.707823846367	150.008158995302
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	2.750	1	OWP	Asphal	50	15.0	0.70	0.23	1.15	1.00	1.09	1.24	0.88	0.29	1.26E+07	20	0	0	7.15E+04	3	0	-34.707888398962	150.008708882786
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	2.800	1	OWP	Asphal	50	15.0	0.86	0.33	1.15	1.00	1.09	1.24	1.08	0.41	1.45E+06	20	0	0	1.31E+04	1	90	-34.708058031269	150.009202975055
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	2.850	1	OWP	Asphal	50	15.0	0.54	0.13	1.15	1.00	1.09	1.24	0.68	0.16	1.00E+08	20	0	0	1.32E+06	20	0	-34.708389880643	150.009560175804
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	2.825	2	OWP	Asphal	50	15.0	0.15	0.04	1.15	1.00	1.09	1.24	0.19	0.05	1.00E+08	20	0	0	1.00E+07	20	0	-34.708279920244	150.009293442944
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	2.775	2	OWP	Asphal	50	15.0	0.39	0.13	1.15	1.00	1.09	1.24	0.49	0.16	1.00E+08	20	0	0	1.32E+06	20	0	-34.707980910853	150.008910727381
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	2.725	2	OWP	Asphal	50	15.0	0.29	0.05	1.15	1.00	1.09	1.24	0.36	0.06	1.00E+08	20	0	0	1.00E+07	20	0	-34.707906772390	150.008409187560
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	2.675	2	OWP	Asphal	50	15.0	0.47	0.10	1.15	1.00	1.09	1.24	0.59	0.12	1.00E+08	20	0	0	5.39E+06	20	0	-34.707838566719	150.007870639704
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	2.625	2	OWP	Asphal	50	15.0	0.27	0.06	1.15	1.00	1.09	1.24	0.34	0.07	1.00E+08	20	0	0	1.00E+07	20	0	-34.707773704470	150.007347669591
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	2.575	2	OWP	Asphal	50	15.0	0.41	0.07	1.15	1.00	1.09	1.24	0.51	0.09	1.00E+08	20	0	0	1.00E+07	20	0	-34.707707126560	150.006789495734
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	2.525	2	OWP	Asphal	50	15.0	0.23	0.04	1.15	1.00	1.09	1.24	0.29	0.05	1.00E+08	20	0	0	1.00E+07	20	0	-34.707644757823	150.006245859901
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	2.475	2	OWP	Seal	25	15.0	0.42	0.09	1.10	1.00	1.00	1.00	0.46	0.09	1.00E+08	20	0	0	N/A	N/A	N/A	-34.707577821451	150.005715980537
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	2.425	2	OWP	Seal	25	15.0	0.37	0.20	1.10	1.00	1.00	1.00	0.41	0.20	1.00E+08	20	0	0	N/A	N/A	N/A	-34.707515977753	150.005188159905
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	2.375	2	OWP	Seal	25	15.0	0.59	0.27	1.10	1.00	1.00	1.00	0.65	0.27	1.00E+08	20	0	0	N/A	N/A	N/A	-34.707440931803	150.004659405060
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	2.325	2	OWP	Seal	25	15.0	0.67	0.33	1.10	1.00	1.00	1.00	0.74	0.33	1.00E+08	20	0	0	N/A	N/A	N/A	-34.707366431167	150.004118767806
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	2.275	2	OWP	Seal	25	15.0	0.78	0.24	1.10	1.00	1.00	1.00	0.86	0.24	1.83E+07	20	0	0	N/A	N/A	N/A	-34.707293990360	150.003580678518
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	2.225	2	OWP	Seal	25	15.0	0.61	0.26	1.10	1.00	1.00	1.00	0.67	0.26	1.00E+08	20	0	0	N/A	N/A	N/A	-34.707219041575	150.003036496921
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	0.025	2	OWP	Seal	25	16.0	0.08	0.02	1.10	1.00	1.00	1.00	0.09	0.02	1.00E+08	20	0	0	N/A	N/A	N/A	-34.691145672578	149.999171224703

PAVEMENT MANAGEMENT SERVICES

FWD Deflection Test Report - Remaining Life Results (Uncontrolled for Information Purposes Only)

Pavement Management Services

Innovation Center, Room IC1.20, 90 Sippy Downs Drive
Sippy Downs, QLD, 4556

Report Date: 7-Oct-21 **Client:** Gunlake **Prepared By:** Rami Akl

Project No.: 2021268 **Reviewed By:** Trent McDonald

Client_ID	Road Name	From Description	To Description	Suburb	Survey Date	Station (km)	Lane	Wheelpath	Surface			FWD Measured		DSF	CSF	Temperature Adjustment Factor		Adjusted		Permanent Deformation				Fatigue			GDA94		Event
									Type	Thickness (mm)	Temp (°C)	Deflection (mm)	Curvature (mm)			Deflection	Curvature	Deflection (mm)	Curvature (mm)	Remaining Life ESA's	Remaining Life Yrs	Overlay (mm) Granular	Overlay (mm) Asphalt	Remaining Life ESA's	Remaining Life Yrs	Remaining Life Asphalt	Latitude	Longitude	
1A1	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	0.000	1	OWP	Asphal	50	4.0	0.78	0.24	1.15	1.00	1.11	1.34	1.00	0.32	2.81E+06	9	34	24	4.41E+04	0	145	-34.659631083727	149.979047846027	
1A1	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	0.050	1	OWP	Seal	25	4.0	0.36	0.13	1.10	1.00	1.00	1.00	0.40	0.13	1.00E+08	20	0	0	N/A	N/A	N/A	-34.660076668378	149.979111373884	
1A1	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	0.100	1	OWP	Seal	25	4.0	0.58	0.28	1.10	1.00	1.00	1.00	0.64	0.28	1.00E+08	20	0	0	N/A	N/A	N/A	-34.660517289119	149.979193333106	
1A1	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	0.150	1	OWP	Seal	25	4.0	0.67	0.27	1.10	1.00	1.00	1.00	0.74	0.27	1.00E+08	20	0	0	N/A	N/A	N/A	-34.660960993135	149.979259303247	
1A1	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	0.200	1	OWP	Seal	25	4.0	0.55	0.24	1.10	1.00	1.00	1.00	0.60	0.24	1.00E+08	20	0	0	N/A	N/A	N/A	-34.661406847469	149.979340108963	
1A1	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	0.250	1	OWP	Seal	25	4.0	0.58	0.26	1.10	1.00	1.00	1.00	0.64	0.26	1.00E+08	20	0	0	N/A	N/A	N/A	-34.661869761426	149.979414503583	
1A1	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	0.300	1	OWP	Seal	25	4.0	0.60	0.28	1.10	1.00	1.00	1.00	0.66	0.28	1.00E+08	20	0	0	N/A	N/A	N/A	-34.662311014866	149.979499301615	
1A1	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	0.350	1	OWP	Seal	25	6.0	0.61	0.25	1.10	1.00	1.00	1.00	0.67	0.25	1.00E+08	20	0	0	N/A	N/A	N/A	-34.662748445160	149.979589706173	
1A1	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	0.400	1	OWP	Seal	25	6.0	0.67	0.34	1.10	1.00	1.00	1.00	0.74	0.34	1.00E+08	20	0	0	N/A	N/A	N/A	-34.663191513390	149.979663673746	
1A1	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	0.450	1	OWP	Seal	25	6.0	0.70	0.36	1.10	1.00	1.00	1.00	0.77	0.36	1.00E+08	20	0	0	N/A	N/A	N/A	-34.663649459763	149.979733690993	
1A1	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	0.500	1	OWP	Seal	25	6.0	0.52	0.28	1.10	1.00	1.00	1.00	0.57	0.28	1.00E+08	20	0	0	N/A	N/A	N/A	-34.664094687292	149.979801988958	
1A1	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	0.550	1	OWP	Seal	25	6.0	0.36	0.15	1.10	1.00	1.00	1.00	0.40	0.15	1.00E+08	20	0	0	N/A	N/A	N/A	-34.664538923188	149.979875065127	
1A1	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	0.600	1	OWP	Seal	25	6.0	0.39	0.15	1.10	1.00	1.00	1.00	0.43	0.15	1.00E+08	20	0	0	N/A	N/A	N/A	-34.664986434666	149.979942125742	
1A1	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	0.650	1	OWP	Seal	25	6.0	0.48	0.21	1.10	1.00	1.00	1.00	0.53	0.21	1.00E+08	20	0	0	N/A	N/A	N/A	-34.665429286548	149.980010529084	
1A1	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	0.700	1	OWP	Seal	25	6.0	0.74	0.28	1.10	1.00	1.00	1.00	0.81	0.28	6.37E+07	20	0	0	N/A	N/A	N/A	-34.665860944858	149.980071771055	
1A1	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	0.750	1	OWP	Seal	25	6.0	0.87	0.37	1.10	1.00	1.00	1.00	0.96	0.37	4.23E+06	14	17	24	N/A	N/A	N/A	-34.666313392689	149.980160704493	
1A1	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	0.800	1	OWP	Seal	25	6.0	0.57	0.24	1.10	1.00	1.00	1.00	0.63	0.24	1.00E+08	20	0	0	N/A	N/A	N/A	-34.666754199439	149.980225296108	
1A1	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	0.850	1	OWP	Seal	25	6.0	0.33	0.16	1.10	1.00	1.00	1.00	0.36	0.16	1.00E+08	20	0	0	N/A	N/A	N/A	-34.667195817472	149.980307570770	
1A1	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	0.900	1	OWP	Seal	25	6.0	0.20	0.00	1.10	1.00	1.00	1.00	0.22	0.00	1.00E+08	20	0	0	N/A	N/A	N/A	-34.667640669799	149.980371073652	
1A1	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	0.950	1	OWP	Seal	25	6.0	0.27	0.15	1.10	1.00	1.00	1.00	0.30	0.15	1.00E+08	20	0	0	N/A	N/A	N/A	-34.668083265057	149.980418404954	
1A1	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	1.000	1	OWP	Seal	25	6.0	0.33	0.11	1.10	1.00	1.00	1.00	0.36	0.11	1.00E+08	20	0	0	N/A	N/A	N/A	-34.668528388379	149.980417478163	
1A1	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	1.050	1	OWP	Seal	25	6.0	0.79	0.30	1.10	1.00	1.00	1.00	0.87	0.30	1.51E+07	20	0	0	N/A	N/A	N/A	-34.668974796804	149.980365275559	
1A1	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	1.100	1	OWP	Seal	25	6.0	0.91	0.36	1.10	1.00	1.00	1.00	1.00	0.36	2.81E+06	9	34	24	N/A	N/A	N/A	-34.669421125559	149.980293744848	
1A1	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	1.150	1	OWP	Seal	25	6.0	0.88	0.30	1.10	1.00	1.00	1.00	0.97	0.30	3.79E+06	12	21	24	N/A	N/A	N/A	-34.669873441804	149.980210071518	
1A1	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	1.200	1	OWP	Seal	25	6.0	0.85	0.34	1.10	1.00	1.00	1.00	0.94	0.34	5.34E+06	17	9	24	N/A	N/A	N/A	-34.670317814891	149.980127720104	
1A1	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	1.250	1	OWP	Seal	25	6.0	0.81	0.34	1.10	1.00	1.00	1.00	0.89	0.34	1.07E+07	20	0	0	N/A	N/A	N/A	-34.670752660292	149.980044796561	
1A1	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	1.300	1	OWP	Seal	25	6.0	0.36	0.15	1.10	1.00	1.00	1.00	0.40	0.15	1.00E+08	20	0	0	N/A	N/A	N/A	-34.671201842124	149.979967341314	
1A1	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	1.350	1	OWP	Seal	25	7.0	0.31	0.16	1.10	1.00	1.00	1.00	0.34	0.16	1.00E+08	20	0	0	N/A	N/A	N/A	-34.671649476145	149.979912019231	
1A1	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	1.400	1	OWP	Seal	25	7.0	0.35	0.16	1.10	1.00	1.00	1.00	0.38	0.16	1.00E+08	20	0	0	N/A	N/A	N/A	-34.672097459692	149.979897130836	
1A1	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	1.450	1	OWP	Seal	25	7.0	0.36	0.19	1.10	1.00	1.00	1.00	0.40	0.19	1.00E+08	20	0	0	N/A	N/A	N/A	-34.672549377680	149.979934984908	
1A1	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	1.500	1	OWP	Seal	25	7.0	0.16	0.09	1.10	1.00	1.00	1.00	0.18	0.09	1.00E+08	20	0	0	N/A	N/A	N/A	-34.672994281907	149.980013602406	
1A1	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	1.550	1	OWP	Seal	25	8.0	0.37	0.20	1.10	1.00	1.00	1.00	0.41	0.20	1.00E+08	20	0	0	N/A	N/A	N/A	-34.673430659499	149.980128380429	
1A1	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	1.600	1	OWP	Seal	25	8.0	0.07	0.02	1.10	1.00	1.00	1.00	0.08	0.02	1.00E+08	20	0	0	N/A	N/A	N/A	-34.673856931631	149.980299791795	
1A1	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	1.650	1	OWP	Seal	25	8.0	0.29	0.13	1.10	1.00	1.00	1.00	0.32	0.13	1.00E+08	20	0	0	N/A	N/A	N/A	-34.674269295647	149.980502114528	
1A1	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	1.700	1	OWP	Seal	25	8.0	0.14	0.04	1.10	1.00	1.00	1.00	0.15	0.04	1.00E+08	20	0	0	N/A	N/A	N/A	-34.674667053670	149.980743862911	
1A1	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	1.750	1	OWP	Seal	25	8.0	0.43	0.17	1.10	1.00	1.00	1.00	0.47	0.17	1.00E+08	20	0	0	N/A	N/A	N/A	-34.675058157763	149.981008334180	
1A1	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	1.800	1	OWP	Seal	25	8.0	0.32	0.15	1.10	1.00	1.00	1.00	0.35	0.15	1.00E+08	20	0	0	N/A	N/A	N/A	-34.675442358183	149.981275324505	
1A1	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	1.850	1	OWP	Seal	25	8.0	0.19	0.11	1.10	1.00	1.00	1.00	0.21	0.11	1.00E+08	20	0	0	N/A	N/A	N/A	-34.675833749491	149.981537620541	
1A1	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	1.900	1	OWP	Seal	25	8.0	0.67	0.34	1.10	1.00	1.00	1.00	0.74	0.34	1.00E+08	20	0	0	N/A	N/A	N/A	-34.676214970623	149.981815166980	
1A1	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	1.950	1	OWP	Seal	25	8.0	0.36	0.27	1.10	1.00	1.00	1.00	0.40	0.27	1.00E+08	20	0	0	N/A	N/A	N/A	-34.676614921438	149.982080244778	
1A1	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	2.000	1	OWP	Seal	25	8.0	0.25	0.11	1.10	1.00	1.00	1.00	0.28	0.11	1.00E+08	20	0	0	N/A	N/A	N/A	-34.677008236273	149.982352002694	
1A1	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	2.050	1	OWP	Seal	25	8.0	0.25	0.03	1.10	1.00	1.00	1.00	0.28	0.03	1.00E+08	20	0	0	N/A	N/A	N/A	-34.677405963240	149.982625762852	
1A1	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	2.100	1	OWP	Seal	25	8.0	0.50	0.31	1.10	1.00	1.00	1.00	0.55	0.31	1.00E+08	20	0	0	N/A	N/A	N/A	-34.677792909530	149.982888629758	
1A1	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	2.150	1	OWP	Seal	25	8.0	0.40	0.16	1.10	1.00	1.00	1.00	0.44	0.16	1.00E+08	20	0	0	N/A	N/A	N/A	-34.678177276449	149.983145832019	
1A1	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	2.200	1	OWP	Seal	25	8.0	0.63	0.22	1.10	1.00	1.00	1.00	0.69	0.22	1.00E+08	20	0	0	N/A	N/A	N/A	-34.678578694631	149.983412752658	
1A1	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	2.250	1	OWP	Seal	25	8.0	0.22	0.05	1.10	1.00	1.00	1.00	0.24	0.05	1.00E+08	20	0	0	N/A	N/A	N/A	-34.678962542174	149.983675141730	
1A2	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	2.225	2	OWP	Seal	25	8.0	0.79	0.32	1.10	1.00	1.00	1.00	0.87	0.32	1.51E+07	20	0	0	N/A	N/A	N/A	-34.678814936197	149.983496680515	
1A2	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	2.175	2	OWP	Seal	25	8.0	0.77	0.30	1.10	1.00	1.00	1.00	0.85	0.30	2.24E+07	20	0	0	N/A	N/A	N/A	-34.678420040016	149.983233815486	
1A2	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	2.125	2	OWP	Seal	25	9.0	0.73	0.32	1.10	1.00	1.00	1.00	0.80	0.32	1.00E+08	20	0	0	N/A	N/A	N/A	-34.678016122063	149.982959546591	
1A2	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	2.075	2	OWP	Seal	25	9.0	0.51	0.24	1.10	1.00	1.00	1.00	0.56	0.24	1.00E+08	20	0	0	N/A	N/A	N/A	-34.677619218086	149.982693618401	
1A2	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	2.025	2	OWP	Seal	25	9.0	0.71	0.35	1.10	1.00	1.00	1.00	0.78	0.35	1.00E+08	20	0	0	N/A	N/A	N/A	-34.677225504370	149.982429507036	
1A2	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	1.975	2	OWP	Seal	25	9.0	0.35	0.20	1.10	1.00	1.00	1.00	0.38	0.20	1.00E+08	20	0	0	N/A	N/A	N/A	-34.676829809919	149.982152512984	
1A2	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	1.925	2	OWP	Seal	25	9.0	0.43	0.25	1.10	1.00	1.00	1.00	0.47	0.25	1.00E+08	20	0	0	N/A	N/A	N/A	-34.676444864436	149.981887483721	
1A2	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	1.875	2	OWP	Seal	25	9.0	0.55	0.28	1.10	1.00	1.00	1.00	0.60	0.28	1.00E+08	20	0	0	N/A	N/A	N/A	-34.676055416485	149.981621627478	
1A2	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	1.825	2	OWP	Seal	25	9.0	0.38	0.18	1.10	1.00	1.00	1.00	0.42	0.18	1.00E+08	20	0	0	N/A	N/A	N/A	-34.675672916453	149.981354379082	
1A2	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	1.775	2	OWP	Seal	25	10.0	0.39	0.18	1.10	1.00	1.00	1.00	0.43	0.18	1.00E+08	20	0	0	N/A	N/A	N/A	-34.675270190869	149.981077230823	
1A2	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	1.725	2	OWP	Seal	25	10.0	0.49	0.20	1.10	1.00	1.00	1.00	0.54	0.20	1.00E+08	20	0	0	N/A	N/A	N/A	-34.674877013816	149.980806862131	
1A2	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	1.675	2	OWP	Seal	25	10.0	0.58	0.33	1.10	1.00	1.00	1.00	0.64	0.33	1.00E+08	20	0	0	N/A	N/A	N/A	-34.674487325288	149.980557665601	
1A2	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	1.625	2	OWP	Seal	25	10.0	0.04	-0.01	1.10	1.00	1.00	1.00	0.04	-0.01	1.00E+08	20	0	0	N/A	N/A	N/A	-34.674072922363	149.980330717423	
1A2	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	1.575	2	OWP	Seal	25	12.0	0.12	0.07	1.10	1.00	1.00	1.00	0.13	0.07	1.00E+08	20	0	0	N/A	N/A	N/A	-34.673664392747	149.980141962187	
1A2	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	1.525	2	OWP	Seal	25	13.0	0.09	0.02	1.10	1.00	1.00	1.00	0.10	0.02	1.00E+08	20	0	0	N/A	N/A	N/A	-34.673223622601	149.980002717094	
1A2	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	1.475	2	OWP	Seal	25	14.0	0.30	0.15	1.10	1.00	1.00	1.00	0.33	0.15	1.00E+08	20	0	0	N/A	N/A	N/A	-34.672779778215	149.979901292635	
1A2	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	1.425	2	OWP	Seal	25	14.0	0.51	0.24	1.10	1.00	1.00	1.00	0.56	0.24	1.00E+08	20	0	0	N/A	N/A	N/A	-34.672340981720	149.979847969874	
1A2	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	1.375	2	OWP	Seal	25	14.0	0.29	0.13	1.10	1.00	1.00	1.00	0.32	0.13	1.00E+08	20	0	0	N/A	N/A	N/A	-34.671886641849	149.979831530089	
1A2	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	1.325	2	OWP	Seal	25	14.0	0.33	0.18	1.10	1.00	1.00	1.00	0.36	0.18	1.00E+08	20	0	0	N/A	N/A	N/A	-34.671441069752	149.979866904354	
1A2	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	1.275	2	OWP	Seal	25	14.0	0.25	0.11	1.10	1.00	1.00	1.00	0.28	0.11	1.00E+08	20	0	0	N/A	N/A	N/A	-34.670972693249	149.979939480401	
1A2	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	1.225	2	OWP	Seal	25	14.0	0.34	0.15	1.10	1.00	1.00	1.00	0.37	0.15	1.00E+08	20	0	0	N/A	N/A	N/A	-34.670538620651	149.980018072744	
1A2	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	1.175	2	OWP	Seal	25	14.0	0.59	0.26	1.10	1.00	1.00	1.00	0.65	0.26	1.00E+08	20	0	0	N/A	N/A	N/A	-34.670089633611	149.980099787182	
1A2	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	1.125	2	OWP	Seal	25	15.0	0.67	0.29	1.10	1.00	1.00	1.00	0.74	0.29	1.00E+08	20	0	0	N/A	N/A	N/A	-34.669649821022	149.980183609026	
1A2	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	1.075	2	OWP	Seal	25	15.0	0.35	0.14	1.10	1.00	1.00	1.00	0.38	0.14	1.00E+08	20	0	0	N/A	N/A	N/A	-34.669212027069	149.980263673196	
1A2	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	1.025	2	OWP	Seal	25	17.0	0.51	0.21	1.10	1.00	1.00	1.00	0.56	0.21	1.00E+08	20	0	0	N/A	N/A	N/A	-34.668761498405	149.980327326817	
1A2	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	0.975	2	OWP	Seal	25	17.0	0.26	0.14	1.10	1.00	1.00	1.00	0.29	0.14	1.00E+08	20	0	0	N/A	N/A	N/A	-34.668318593707	149.980356685806	
1A2	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	0.925	2	OWP	Seal	25	17.0	0.31	0.18	1.10	1.00	1.00	1.00	0.34	0.18	1.00E+08	20	0	0	N/A	N/A	N/A	-34.667877725295	149.980334379645	
1A2	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	0.875	2	OWP	Seal	25	17.0	0.24	0.14	1.10	1.00	1.00	1.00	0.26	0.14	1.00E+08	20	0	0	N/A	N/A	N/A	-34.667413661042	149.980268144746	
1A2	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	0.825	2	OWP	Seal	25	17.0	1.02	0.37	1.10	1.00	1.00	1.00	1.12	0.37	1.10E+06	4	79	28	N/A	N/A	N/A	-34.666961212169	149.980191899580	
1A2	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	0.775	2	OWP	Seal	25	17.0	0.39	0.17	1.10	1.00	1.00	1.00	0.43	0.17	1.00E+08	20	0	0	N/A	N/A	N/A	-34.666529901785	149.980126510289	
1A2	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	0.725	2	OWP	Seal	25	17.0	0.67	0.27	1.10	1.00	1.00	1.00	0.74	0.27	1.00E+08	20	0	0	N/A	N/A	N/A	-34.666116398820	149.980058311649	
1A2	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	0.675	2	OWP	Seal	25	17.0	0.41	0.18	1.10	1.00	1.00	1.00	0.45	0.18	1.00E+08	20	0	0	N/A	N/A	N/A	-34.665631041925	149.979977916145	
1A2	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	0.625	2	OWP	Seal	25	17.0	0.36	0.17	1.10	1.00	1.00	1.00	0.40	0.17	1.00E+08	20	0	0	N/A	N/A	N/A	-34.665211334771	149.979919236378	
1A2	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	0.575	2	OWP	Seal	25	17.0	0.47	0.20	1.10	1.00	1.00	1.00	0.52	0.20	1.00E+08	20	0	0	N/A	N/A	N/A	-34.664767971880	149.979846807530	
1A2	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	0.525	2	OWP	Seal	25	17.0	0.68	0.36	1.10	1.00	1.00	1.00	0.75	0.36	1.00E+08	20	0	0	N/A	N/A	N/A	-34.664340330246	149.979778137004	
1A2	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	0.475	2	OWP	Seal	25	17.0	0.73	0.41	1.10	1.00	1.00	1.00	0.80	0.41	1.00E+08	20	0	0	N/A	N/A	N/A	-34.663897288727	149.979709300243	
1A2	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	0.425	2	OWP	Seal	25	17.0	0.63	0.34	1.10	1.00	1.00	1.00	0.69	0.34	1.00E+08	20	0	0	N/A	N/A	N/A	-34.663431540257	149.979632856814	

					Date	(km)			Type	(mm)	(°C)	(mm)	(mm)			Deflection	Curvature	(mm)	(mm)	ESA's	Yrs	Granular	Asphalt	ESA's	Yrs	Asphalt	Latitude	Longitude
1A2	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	0.375	2	OWP	Seal	25	17.0	0.69	0.31	1.10	1.00	1.00	1.00	0.76	0.31	1.00E+08	20	0	0	N/A	N/A	N/A	-34.662991533895	149.979565846356
1A2	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	0.325	2	OWP	Seal	25	17.0	0.69	0.33	1.10	1.00	1.00	1.00	0.76	0.33	1.00E+08	20	0	0	N/A	N/A	N/A	-34.662551277075	149.979482972133
1A2	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	0.275	2	OWP	Seal	25	17.0	0.11	0.01	1.10	1.00	1.00	1.00	0.12	0.01	1.00E+08	20	0	0	N/A	N/A	N/A	-34.662102865256	149.979397846363
1A2	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	0.225	2	OWP	Seal	25	17.0	1.06	0.44	1.10	1.00	1.00	1.00	1.17	0.44	8.22E+05	3	97	33	N/A	N/A	N/A	-34.661665771503	149.979325493705
1A2	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	0.175	2	OWP	Seal	25	17.0	0.38	0.17	1.10	1.00	1.00	1.00	0.42	0.17	1.00E+08	20	0	0	N/A	N/A	N/A	-34.661219510267	149.979255802582
1A2	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	0.125	2	OWP	Seal	25	17.0	0.82	0.31	1.10	1.00	1.00	1.00	0.90	0.31	9.17E+06	20	0	0	N/A	N/A	N/A	-34.660743557067	149.979176971274
1A2	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	0.075	2	OWP	Seal	25	17.0	0.92	0.44	1.10	1.00	1.00	1.00	1.01	0.44	2.56E+06	9	38	24	N/A	N/A	N/A	-34.660308375606	149.979097387080
1A2	Brayton Road	Brayton Road	Brayton Road	Gunlake	26/08/2021	0.025	2	OWP	Asphal	50	17.0	0.38	0.16	1.15	1.00	1.07	1.19	0.47	0.19	1.00E+08	20	0	0	5.67E+05	2	115	-34.659873771913	149.979012637817
2A1	Brayton Road	Brayton Road	Ambrose Road	Gunlake	26/08/2021	0.000	1	OWP	Seal	25	20.0	0.51	0.17	1.10	1.00	1.00	1.00	0.56	0.17	1.00E+08	20	0	0	N/A	N/A	N/A	-34.679026219049	149.983728892324
2A1	Brayton Road	Brayton Road	Ambrose Road	Gunlake	26/08/2021	0.050	1	OWP	Seal	25	20.0	0.23	0.08	1.10	1.00	1.00	1.00	0.25	0.08	1.00E+08	20	0	0	N/A	N/A	N/A	-34.679430085647	149.983993240652
2A1	Brayton Road	Brayton Road	Ambrose Road	Gunlake	26/08/2021	0.100	1	OWP	Seal	25	20.0	0.22	0.06	1.10	1.00	1.00	1.00	0.24	0.06	1.00E+08	20	0	0	N/A	N/A	N/A	-34.679824463815	149.984258351668
2A1	Brayton Road	Brayton Road	Ambrose Road	Gunlake	26/08/2021	0.150	1	OWP	Seal	25	20.0	0.44	0.21	1.10	1.00	1.00	1.00	0.48	0.21	1.00E+08	20	0	0	N/A	N/A	N/A	-34.680216877039	149.984523885818
2A2	Brayton Road	Ambrose Road	Brayton Road	Gunlake	26/08/2021	1.625	2	OWP	Seal	25	22.0	0.71	0.31	1.10	1.00	1.00	1.00	0.78	0.31	1.00E+08	20	0	0	N/A	N/A	N/A	-34.689450493046	149.995915470895
2A2	Brayton Road	Ambrose Road	Brayton Road	Gunlake	26/08/2021	1.575	2	OWP	Seal	25	22.0	0.66	0.30	1.10	1.00	1.00	1.00	0.73	0.30	1.00E+08	20	0	0	N/A	N/A	N/A	-34.689171704139	149.995502019209
2A2	Brayton Road	Ambrose Road	Brayton Road	Gunlake	26/08/2021	1.525	2	OWP	Seal	25	22.0	0.80	0.30	1.10	1.00	1.00	1.00	0.88	0.30	1.26E+07	20	0	0	N/A	N/A	N/A	-34.688889453708	149.995080528492
2A2	Brayton Road	Ambrose Road	Brayton Road	Gunlake	26/08/2021	1.475	2	OWP	Seal	25	22.0	0.50	0.18	1.10	1.00	1.00	1.00	0.55	0.18	1.00E+08	20	0	0	N/A	N/A	N/A	-34.688598589127	149.994669556929
2A2	Brayton Road	Ambrose Road	Brayton Road	Gunlake	26/08/2021	1.425	2	OWP	Seal	25	22.0	0.75	0.32	1.10	1.00	1.00	1.00	0.82	0.32	4.70E+07	20	0	0	N/A	N/A	N/A	-34.688317587870	149.994256375859
2A2	Brayton Road	Ambrose Road	Brayton Road	Gunlake	26/08/2021	1.375	2	OWP	Seal	25	22.0	0.81	0.33	1.10	1.00	1.00	1.00	0.89	0.33	1.07E+07	20	0	0	N/A	N/A	N/A	-34.688015976190	149.993838452313
2A2	Brayton Road	Ambrose Road	Brayton Road	Gunlake	26/08/2021	1.325	2	OWP	Seal	25	22.0	0.57	0.30	1.10	1.00	1.00	1.00	0.63	0.30	1.00E+08	20	0	0	N/A	N/A	N/A	-34.687714118101	149.993423315221
2A2	Brayton Road	Ambrose Road	Brayton Road	Gunlake	26/08/2021	1.275	2	OWP	Seal	25	22.0	0.98	0.38	1.10	1.00	1.00	1.00	1.08	0.38	1.45E+06	5	65	24	N/A	N/A	N/A	-34.687422406674	149.993002013649
2A2	Brayton Road	Ambrose Road	Brayton Road	Gunlake	26/08/2021	1.225	2	OWP	Seal	25	22.0	0.77	0.31	1.10	1.00	1.00	1.00	0.85	0.31	2.24E+07	20	0	0	N/A	N/A	N/A	-34.687131896906	149.992573854256
2A2	Brayton Road	Ambrose Road	Brayton Road	Gunlake	26/08/2021	1.175	2	OWP	Seal	25	22.0	0.97	0.43	1.10	1.00	1.00	1.00	1.07	0.43	1.56E+06	5	61	24	N/A	N/A	N/A	-34.686854863137	149.992152705621
2A2	Brayton Road	Ambrose Road	Brayton Road	Gunlake	26/08/2021	1.125	2	OWP	Seal	25	22.0	0.79	0.28	1.10	1.00	1.00	1.00	0.87	0.28	1.51E+07	20	0	0	N/A	N/A	N/A	-34.686557522052	149.991699421292
2A2	Brayton Road	Ambrose Road	Brayton Road	Gunlake	26/08/2021	1.075	2	OWP	Seal	25	24.0	0.44	0.21	1.10	1.00	1.00	1.00	0.48	0.21	1.00E+08	20	0	0	N/A	N/A	N/A	-34.686278269925	149.991276067989
2A2	Brayton Road	Ambrose Road	Brayton Road	Gunlake	26/08/2021	1.025	2	OWP	Seal	25	24.0	0.74	0.27	1.10	1.00	1.00	1.00	0.81	0.27	6.37E+07	20	0	0	N/A	N/A	N/A	-34.685989709302	149.990845824589
2A2	Brayton Road	Ambrose Road	Brayton Road	Gunlake	26/08/2021	0.975	2	OWP	Seal	25	24.0	2.35	1.75	1.10	1.00	1.00	1.00	2.58	1.75	3.75E+02	0	417	136	N/A	N/A	N/A	-34.685710273404	149.990427383544
2A2	Brayton Road	Ambrose Road	Brayton Road	Gunlake	26/08/2021	0.925	2	OWP	Seal	25	24.0	0.19	0.01	1.10	1.00	1.00	1.00	0.21	0.01	1.00E+08	20	0	0	N/A	N/A	N/A	-34.685400855091	149.989994064347
2A2	Brayton Road	Ambrose Road	Brayton Road	Gunlake	26/08/2021	0.875	2	OWP	Seal	25	24.0	0.16	0.01	1.10	1.00	1.00	1.00	0.18	0.01	1.00E+08	20	0	0	N/A	N/A	N/A	-34.685104784063	149.989585310173
2A2	Brayton Road	Ambrose Road	Brayton Road	Gunlake	26/08/2021	0.825	2	OWP	Seal	25	24.0	0.12	0.02	1.10	1.00	1.00	1.00	0.13	0.02	1.00E+08	20	0	0	N/A	N/A	N/A	-34.684800557546	149.989197013977
2A2	Brayton Road	Ambrose Road	Brayton Road	Gunlake	26/08/2021	0.775	2	OWP	Seal	25	24.0	0.52	0.23	1.10	1.00	1.00	1.00	0.57	0.23	1.00E+08	20	0	0	N/A	N/A	N/A	-34.684488574368	149.988794786165
2A2	Brayton Road	Ambrose Road	Brayton Road	Gunlake	26/08/2021	0.725	2	OWP	Seal	25	24.0	0.63	0.26	1.10	1.00	1.00	1.00	0.69	0.26	1.00E+08	20	0	0	N/A	N/A	N/A	-34.684175730253	149.988417655128
2A2	Brayton Road	Ambrose Road	Brayton Road	Gunlake	26/08/2021	0.675	2	OWP	Seal	25	24.0	0.47	0.19	1.10	1.00	1.00	1.00	0.52	0.19	1.00E+08	20	0	0	N/A	N/A	N/A	-34.683861195416	149.988018529625
2A2	Brayton Road	Ambrose Road	Brayton Road	Gunlake	26/08/2021	0.625	2	OWP	Seal	25	24.0	0.39	0.20	1.10	1.00	1.00	1.00	0.43	0.20	1.00E+08	20	0	0	N/A	N/A	N/A	-34.683548930269	149.987627146024
2A2	Brayton Road	Ambrose Road	Brayton Road	Gunlake	26/08/2021	0.575	2	OWP	Seal	25	24.0	0.52	0.23	1.10	1.00	1.00	1.00	0.57	0.23	1.00E+08	20	0	0	N/A	N/A	N/A	-34.683236640715	149.987229881457
2A2	Brayton Road	Ambrose Road	Brayton Road	Gunlake	26/08/2021	0.525	2	OWP	Seal	25	24.0	0.57	0.28	1.10	1.00	1.00	1.00	0.63	0.28	1.00E+08	20	0	0	N/A	N/A	N/A	-34.682928084184	149.986841744912
2A2	Brayton Road	Ambrose Road	Brayton Road	Gunlake	26/08/2021	0.475	2	OWP	Seal	25	24.0	0.67	0.32	1.10	1.00	1.00	1.00	0.74	0.32	1.00E+08	20	0	0	N/A	N/A	N/A	-34.682611612293	149.986450252917
2A2	Brayton Road	Ambrose Road	Brayton Road	Gunlake	26/08/2021	0.425	2	OWP	Seal	25	24.0	0.52	0.23	1.10	1.00	1.00	1.00	0.57	0.23	1.00E+08	20	0	0	N/A	N/A	N/A	-34.682290205653	149.986079581656
2A2	Brayton Road	Ambrose Road	Brayton Road	Gunlake	26/08/2021	0.375	2	OWP	Seal	25	24.0	0.50	0.22	1.10	1.00	1.00	1.00	0.55	0.22	1.00E+08	20	0	0	N/A	N/A	N/A	-34.681940784578	149.985734518194
2A2	Brayton Road	Ambrose Road	Brayton Road	Gunlake	26/08/2021	0.325	2	OWP	Seal	25	24.0	0.56	0.23	1.10	1.00	1.00	1.00	0.62	0.23	1.00E+08	20	0	0	N/A	N/A	N/A	-34.681576344834	149.985425151500
2A2	Brayton Road	Ambrose Road	Brayton Road	Gunlake	26/08/2021	0.275	2	OWP	Seal	25	24.0	0.63	0.29	1.10	1.00	1.00	1.00	0.69	0.29	1.00E+08	20	0	0	N/A	N/A	N/A	-34.681199601205	149.985143227120
2A2	Brayton Road	Ambrose Road	Brayton Road	Gunlake	26/08/2021	0.225	2	OWP	Seal	25	24.0	0.27	0.13	1.10	1.00	1.00	1.00	0.30	0.13	1.00E+08	20	0	0	N/A	N/A	N/A	-34.680814848368	149.984873361277
2A1	Brayton Road	Brayton Road	Ambrose Road	Gunlake	26/08/2021	0.200	1	OWP	Seal	25	20.0	0.49	0.21	1.10	1.00	1.00	1.00	0.54	0.21	1.00E+08	20	0	0	N/A	N/A	N/A	-34.680599098302	149.984799164805
2A1	Brayton Road	Brayton Road	Ambrose Road	Gunlake	26/08/2021	0.250	1	OWP	Seal	25	20.0	0.47	0.21	1.10	1.00	1.00	1.00	0.52	0.21	1.00E+08	20	0	0	N/A	N/A	N/A	-34.680988323232	149.985068528589
2A1	Brayton Road	Brayton Road	Ambrose Road	Gunlake	26/08/2021	0.300	1	OWP	Seal	25	20.0	0.39	0.17	1.10	1.00	1.00	1.00	0.43	0.17	1.00E+08	20	0	0	N/A	N/A	N/A	-34.681375645224	149.985346822322
2A1	Brayton Road	Brayton Road	Ambrose Road	Gunlake	26/08/2021	0.350	1	OWP	Seal	25	20.0	0.54	0.25	1.10	1.00	1.00	1.00	0.59	0.25	1.00E+08	20	0	0	N/A	N/A	N/A	-34.681740910196	149.985638170641
2A1	Brayton Road	Brayton Road	Ambrose Road	Gunlake	26/08/2021	0.400	1	OWP	Seal	25	20.0	0.47	0.27	1.10	1.00	1.00	1.00	0.52	0.27	1.00E+08	20	0	0	N/A	N/A	N/A	-34.682096911425	149.985965894181
2A1	Brayton Road	Brayton Road	Ambrose Road	Gunlake	26/08/2021	0.450	1	OWP	Seal	25	20.0	0.59	0.28	1.10	1.00	1.00	1.00	0.65	0.28	1.00E+08	20	0	0	N/A	N/A	N/A	-34.682434762650	149.986333009103
2A1	Brayton Road	Brayton Road	Ambrose Road	Gunlake	26/08/2021	0.500	1	OWP	Seal	25	20.0	0.27	0.06	1.10	1.00	1.00	1.00	0.30	0.06	1.00E+08	20	0	0	N/A	N/A	N/A	-34.682754597149	149.986715621881
2A1	Brayton Road	Brayton Road	Ambrose Road	Gunlake	26/08/2021	0.550	1	OWP	Seal	25	20.0	0.60	0.31	1.10	1.00	1.00	1.00	0.66	0.31	1.00E+08	20	0	0	N/A	N/A	N/A	-34.683069606430	149.987105396414
2A1	Brayton Road	Brayton Road	Ambrose Road	Gunlake	26/08/2021	0.600	1	OWP	Seal	25	20.0	0.35	0.18	1.10	1.00	1.00	1.00	0.38	0.18	1.00E+08	20	0	0	N/A	N/A	N/A	-34.683372602104	149.987493904284
2A1	Brayton Road	Brayton Road	Ambrose Road	Gunlake	26/08/2021	0.650	1	OWP	Seal	25	20.0	0.52	0.25	1.10	1.00	1.00	1.00	0.57	0.25	1.00E+08	20	0	0	N/A	N/A	N/A	-34.683684891684	149.987890519966
2A1	Brayton Road	Brayton Road	Ambrose Road	Gunlake	26/08/2021	0.700	1	OWP	Seal	25	20.0	0.65	0.31	1.10	1.00	1.00	1.00	0.72	0.31	1.00E+08	20	0	0	N/A	N/A	N/A	-34.683997074692	149.988279058718
2A1	Brayton Road	Brayton Road	Ambrose Road	Gunlake	26/08/2021	0.750	1	OWP	Seal	25	20.0	0.59	0.26	1.10	1.00	1.00	1.00	0.65	0.26	1.00E+08	20	0	0	N/A	N/A	N/A	-34.684308942017	149.988674839837
2A1	Brayton Road	Brayton Road	Ambrose Road	Gunlake	26/08/2021	0.800	1	OWP	Seal	25	20.0	0.67	0.28	1.10	1.00	1.00	1.00	0.74	0.28	1.00E+08	20	0	0	N/A	N/A	N/A	-34.684620551238	149.989067768440
2A1	Brayton Road	Brayton Road	Ambrose Road	Gunlake	26/08/2021	0.850	1	OWP	Seal	25	20.0	0.65	0.27	1.10	1.00	1.00	1.00	0.72	0.27	1.00E+08	20	0	0	N/A	N/A	N/A	-34.684931817027	149.989460974156
2A1	Brayton Road	Brayton Road	Ambrose Road	Gunlake	26/08/2021	0.900	1	OWP	Seal	25	20.0	0.60	0.26	1.10	1.00	1.00	1.00	0.66	0.26	1.00E+08	20	0	0	N/A	N/A	N/A	-34.685233276753	149.989856279439
2A1	Brayton Road	Brayton Road	Ambrose Road	Gunlake	26/08/2021	0.950	1	OWP	Seal	25	20.0	0.47	0.21	1.10	1.00	1.00	1.00	0.52	0.21	1.00E+08	20	0	0	N/A	N/A	N/A	-34.685525127696	149.990272514125
2A1	Brayton Road	Brayton Road	Ambrose Road	Gunlake	26/08/2021	1.000	1	OWP	Seal	25	20.0	0.59	0.26	1.10	1.00	1.00	1.00	0.65	0.26	1.00E+08	20	0	0	N/A	N/A	N/A	-34.685812385906	149.990685204947
2A1	Brayton Road	Brayton Road	Ambrose Road	Gunlake	26/08/2021	1.050	1	OWP	Seal	25	20.0	0.49	0.25	1.10	1.00	1.00	1.00	0.54	0.25	1.00E+08	20	0	0	N/A	N/A	N/A	-34.686095235194	149.991111742629
2A1	Brayton Road	Brayton Road	Ambrose Road	Gunlake	26/08/2021	1.100	1	OWP	Seal	25	20.0	0.56	0.25	1.10	1.00	1.00	1.00	0.62	0.25	1.00E+08	20	0	0	N/A	N/A	N/A	-34.686380400180	149.991532957964
2A1	Brayton Road	Brayton Road	Ambrose Road	Gunlake	26/08/2021	1.150	1	OWP	Seal	25	20.0	0.35	0.13	1.10	1.00	1.00	1.00	0.38	0.13	1.00E+08	20	0	0	N/A	N/A	N/A	-34.686662846510	149.991979333224
2A1	Brayton Road	Brayton Road	Ambrose Road	Gunlake	26/08/2021	1.200	1	OWP	Seal	25	20.0	0.33	0.15	1.10	1.00	1.00	1.00	0.36	0.15	1.00E+08	20	0	0	N/A	N/A	N/A	-34.686946573377	149.992403128958
2A1	Brayton Road	Brayton Road	Ambrose Road	Gunlake	26/08/2021	1.250	1	OWP	Seal	25	20.0	0.46	0.18	1.10	1.00	1.00	1.00	0.51	0.18	1.00E+08	20	0	0	N/A	N/A	N/A	-34.687233739686	149.992817865530
2A1	Brayton Road	Brayton Road	Ambrose Road	Gunlake	26/08/2021	1.300	1	OWP	Seal	25	20.0	0.18	0.02	1.10	1.00	1.00	1.00	0.20	0.02	1.00E+08	20	0	0	N/A	N/A	N/A	-34.687518704983	149.993240136686
2A1	Brayton Road	Brayton Road	Ambrose Road	Gunlake	26/08/2021	1.350	1	OWP	Seal	25	20.0	0.46	0.13	1.10	1.00	1.00	1.00	0.51	0.13	1.00E+08	20	0	0	N/A	N/A	N/A	-34.687814317592	149.993661214559
2A1	Brayton Road	Brayton Road	Ambrose Road	Gunlake	26/08/2021	1.400	1	OWP	Seal	25	20.0	0.67	0.28	1.10	1.00	1.00	1.00	0.74	0.28	1.00E+08	20	0	0	N/A	N/A	N/A	-34.688115217358	149.994082469727
2A1	Brayton Road	Brayton Road	Ambrose Road	Gunlake	26/08/2021	1.450	1	OWP	Seal	25	20.0	0.66	0.25	1.10	1.00	1.00	1.00	0.73	0.25	1.00E+08	20	0	0	N/A	N/A	N/A	-34.688408254458	149.994494555826
2A1	Brayton Road	Brayton Road	Ambrose Road	Gunlake	26/08/2021	1.500	1	OWP	Seal	25	20.0	0.66	0.25	1.10	1.00	1.00	1.00	0.73	0.25	1.00E+08	20	0	0	N/A	N/A	N/A	-34.688720759824	149.994941346797
2A1	Brayton Road	Brayton Road	Ambrose Road	Gunlake	26/08/2021	1.550	1	OWP	Seal	25	20.0	0.65	0.30	1.10	1.00	1.00	1.00	0.72	0.30	1.00E+08	20	0	0	N/A	N/A	N/A	-34.688999147964	149.995332857720
2A1	Brayton Road	Brayton Road	Ambrose Road	Gunlake	26/08/2021	1.600	1	OWP	Seal	25	20.0	0.46	0.22	1.10	1.00	1.00	1.00	0.51	0.22	1.00E+08	20	0	0	N/A	N/A	N/A	-34.689277259879	149.995746266164
2A1	Brayton Road	Brayton Road	Ambrose Road	Gunlake	26/08/2021	1.650	1	OWP	Seal	25	20.0	0.65	0.26	1.10	1.00	1.00	1.00	0.72	0.26	1.00E+08	20	0	0	N/A	N/A	N/A	-34.689547006519	149.996188648107
2A1	Brayton Road	Brayton Road	Ambrose Road	Gunlake	26/08/2021	1.700	1	OWP	Seal	25	20.0	0.37	0.18	1.10	1.00	1.00	1.00	0.41	0.18	1.00E+08	20	0	0	N/A	N/A	N/A	-34.689788541432	149.996646350129
2A1	Brayton Road	Brayton Road	Ambrose Road	Gunlake	26/08/2021	1.750	1	OWP	Seal	25	20.0	0.30	0.07	1.10	1.00	1.00	1.00	0.33	0.07	1.00E+08	20	0	0	N/A	N/A	N/A	-34.690022672494	149.997102488267
2A1	Brayton Road	Brayton Road	Ambrose Road	Gunlake	26/08/2021	1.800	1	OWP	Seal	25	20.0	0.33	0.11	1.10	1.00	1.00	1.00	0.36	0.11	1.00E+08	20	0	0	N/A	N/A	N/A	-34.690252845564	149.997560302382
2A1	Brayton Road	Brayton Road	Ambrose Road	Gunlake	26/08/2021	1.850	1	OWP	Seal	25	20.0	0.28	0.07	1.10	1.00	1.00	1.00	0.31	0.07	1.00E+08	20	0	0	N/A	N/A	N/A	-34.690489390630	149.998024849194
2A1	Brayton Road	Brayton Road	Ambrose Road	Gunlake	26/08/2021	1.900	1	OWP	Asphal	50	20.0	0.23	0.08	1.15	1.00	1.05	1.13	0.28	0.09	1.00E+08	20	0	0	1.00E+07	20	0	-34.690723588125	149.998489992148
2A2	Brayton Road	Ambrose Road	Brayton Road	Gunlake	26/08/2021	1.925	2	OWP	Asphal	50	22.0	0.17	0.01	1.15	1.00	1.03	1.09	0.20	0.01	1.00E+08	20	0	0	1.00E+07	20	0	-34.690907833859	149.998697045749
2A2	Brayton Road	Ambrose Road	Brayton Road	Gunlake	26/08/2021	1.875	2	OWP	Seal	25	22.0	0.46	0.08	1.10	1.00	1.00	1.00	0.51	0.08	1.00E+08	20	0	0	N/A	N/A	N/A	-34.690643047825	149.998205764405
2A2	Brayton Road	Ambrose Road	Brayton Road	Gunlake	26/08/2021	1.825	2	OWP	Seal	25	22.0	0.43	0.10	1.10	1.00	1.00	1.00	0.47	0.10	1.00E+08	20	0	0	N/A	N/A	N/A	-34.690405848610	149.997746500860
2A2	Brayton Road	Ambrose Road	Brayton Road	Gunlake	26/08/2021	1.775	2	OWP	Seal	25	22.0	0.17	0.00	1.10	1.00	1.00	1.00	0.19	0.00	1.00E+08	20	0	0	N/A	N/A	N/A	-34.690171532706	149.997285247980
2A2	Brayton Road	Ambrose Road	Brayton Road	Gunlake	26/08/2021	1.725	2	OWP	Seal	25	22.0	0.16	0.02	1.10	1.00	1.00	1.00	0.18	0.02	1.00E+08	20	0	0	N/A	N/A	N/A	-34.689943525320	149.996823521965
2A2	Brayton Road	Ambrose Road	Brayton Road	Gunlake	26/08/2021	1.675	2	OWP	Seal	25	22.0	0.46	0.22	1.10	1.00	1.00	1.00	0.51	0.22	1.00E+08	20	0	0	N/A	N/A	N/A	-34.689700209053	149.996376956114
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	26/08/2021	0.450	1	OWP	Seal	25	25.0	0.32	0.16	1.10	1.00	1.00	1.00	0.35	0.16	1.00E+08	20	0	0	N/A	N/A	N/A	-34.687473673085	150.000780271842
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	26/08/2021	0.500	1	OWP	Seal	25	25.0	0.64	0.35	1.10	1.00	1.00	1.00	0.70	0.35	1.00E+08	20	0	0	N/A	N/A	N/A	-34.687354501014	150.001291006095
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	26/08/2021	0.550	1	OWP	Seal	25	25.0	0.46	0.20	1.10	1.00	1.00	1.00	0.51	0.20	1.00E+08	20	0	0	N/A	N/A	N/A	-34.687320647251	150.001827497535
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	26/08/2021	0.600	1	OWP	Seal	25	25.0	0.80	0.30	1.10	1.00	1.00	1.00	0.88	0.30	1.26E+07	20	0	0	N/A	N/A	N/A	-34.687375715677	150.002391085637
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	26/08/2021	0.650	1	OWP	Seal	25	25.0	0.78	0.32	1.10	1.00	1.00	1.00	0.86	0.32	1.83E+07	20	0	0	N/A	N/A	N/A	-34.687449081162	150.002927944560
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	26/08/2021	0.701	1	OWP	Seal	25	25.0	0.65	0.27	1.10	1.00	1.00	1.00	0.72	0.27	1.00E+08	20	0	0	N/A	N/A	N/A	-34.687520047828	150.003467998491
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	26/08/2021	0.750	1	OWP	Seal	25	25.0	0.75	0.33	1.10	1.00	1.00	1.00	0.82	0.33	4.70E+07	20	0	0	N/A	N/A	N/A	-34.687587200421	150.003999653797
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	26/08/2021	0.800	1	OWP	Seal	25	25.0	0.76	0.33	1.10	1.00	1.00	1.00	0.84	0.33	2.81E+07	20	0	0	N/A	N/A	N/A	-34.687656211479	150.004533965199
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	26/08/2021	0.850	1	OWP	Seal	25	25.0	0.76	0.34	1.10	1.00	1.00	1.00	0.84	0.34	2.81E+07	20	0	0	N/A	N/A	N/A	-34.687719860747	150.005064603386
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	26/08/2021	0.900	1	OWP	Seal	25	25.0	0.71	0.32	1.10	1.00	1.00	1.00	0.78	0.32	1.00E+08	20	0	0	N/A	N/A	N/A	-34.687792201461	150.005609295345
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	26/08/2021	0.950	1	OWP	Seal	25	25.0	0.65	0.29	1.10	1.00	1.00	1.00	0.72	0.29	1.00E+08	20	0	0	N/A	N/A	N/A	-34.687864930629	150.006171669729
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	26/08/2021	1.000	1	OWP	Seal	25	25.0	0.62	0.29	1.10	1.00	1.00	1.00	0.68	0.29	1.00E+08	20	0	0	N/A	N/A	N/A	-34.687933035525	150.006710501924
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	26/08/2021	1.050	1	OWP	Seal	25	25.0	0.67	0.34	1.10	1.00	1.00	1.00	0.74	0.34	1.00E+08	20	0	0	N/A	N/A	N/A	-34.688003346384	150.007250545945

					Date	(km)			Type	(mm)	(°C)	(mm)	(mm)			Deflection	Curvature	(mm)	(mm)	ESA's	Yrs	Granular	Asphalt	ESA's	Yrs	Asphalt	Latitude	Longitude
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	26/08/2021	1.100	1	OWP	Seal	25	25.0	0.63	0.32	1.10	1.00	1.00	1.00	0.69	0.32	1.00E+08	20	0	0	N/A	N/A	N/A	-34.688072222405	150.007798344581
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	26/08/2021	1.150	1	OWP	Seal	25	25.0	0.62	0.34	1.10	1.00	1.00	1.00	0.68	0.34	1.00E+08	20	0	0	N/A	N/A	N/A	-34.688147318111	150.008339838078
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	26/08/2021	1.200	1	OWP	Seal	25	25.0	0.75	0.30	1.10	1.00	1.00	1.00	0.82	0.30	4.70E+07	20	0	0	N/A	N/A	N/A	-34.688216310577	150.008874160212
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	26/08/2021	1.240	1	OWP	Seal	25	25.0	0.88	0.41	1.10	1.00	1.00	1.00	0.97	0.41	3.79E+06	14	17	24	N/A	N/A	N/A	-34.688272342146	150.009299384352
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	26/08/2021	1.300	1	OWP	Seal	25	25.0	0.91	0.40	1.10	1.00	1.00	1.00	1.00	0.40	2.81E+06	10	29	24	N/A	N/A	N/A	-34.688359579790	150.009951982261
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	26/08/2021	1.350	1	OWP	Seal	25	25.0	1.14	0.42	1.10	1.00	1.00	1.00	1.25	0.42	5.31E+05	2	119	42	N/A	N/A	N/A	-34.688431788975	150.010502522302
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	26/08/2021	1.400	1	OWP	Seal	25	25.0	0.19	0.00	1.10	1.00	1.00	1.00	0.21	0.00	1.00E+08	20	0	0	N/A	N/A	N/A	-34.688503893403	150.011061844493
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	26/08/2021	1.450	1	OWP	Seal	25	25.0	0.62	0.30	1.10	1.00	1.00	1.00	0.68	0.30	1.00E+08	20	0	0	N/A	N/A	N/A	-34.688572795469	150.011601950258
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	26/08/2021	1.500	1	OWP	Seal	25	25.0	0.71	0.31	1.10	1.00	1.00	1.00	0.78	0.31	1.00E+08	20	0	0	N/A	N/A	N/A	-34.688640061722	150.012138549061
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	26/08/2021	1.550	1	OWP	Seal	25	25.0	0.76	0.33	1.10	1.00	1.00	1.00	0.84	0.33	2.81E+07	20	0	0	N/A	N/A	N/A	-34.688707836452	150.012670260528
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	26/08/2021	1.600	1	OWP	Seal	25	25.0	0.55	0.26	1.10	1.00	1.00	1.00	0.60	0.26	1.00E+08	20	0	0	N/A	N/A	N/A	-34.688780522648	150.013201704233
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	26/08/2021	1.650	1	OWP	Seal	25	25.0	0.71	0.30	1.10	1.00	1.00	1.00	0.78	0.30	1.00E+08	20	0	0	N/A	N/A	N/A	-34.688852204222	150.013739158733
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	26/08/2021	1.700	1	OWP	Seal	25	25.0	0.87	0.37	1.10	1.00	1.00	1.00	0.96	0.37	4.23E+06	15	13	24	N/A	N/A	N/A	-34.688932320927	150.014308348916
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	26/08/2021	1.750	1	OWP	Seal	25	25.0	0.59	0.28	1.10	1.00	1.00	1.00	0.65	0.28	1.00E+08	20	0	0	N/A	N/A	N/A	-34.688996940905	150.014841495112
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	26/08/2021	1.800	1	OWP	Seal	25	25.0	0.53	0.24	1.10	1.00	1.00	1.00	0.58	0.24	1.00E+08	20	0	0	N/A	N/A	N/A	-34.689066105218	150.015381085277
2A2	Brayton Road	Ambrose Road	Brayton Road	Gunlake	26/08/2021	0.175	2	OWP	Seal	25	24.0	0.29	0.12	1.10	1.00	1.00	1.00	0.32	0.12	1.00E+08	20	0	0	N/A	N/A	N/A	-34.680417198841	149.984591458769
2A2	Brayton Road	Ambrose Road	Brayton Road	Gunlake	26/08/2021	0.125	2	OWP	Seal	25	24.0	0.51	0.20	1.10	1.00	1.00	1.00	0.56	0.20	1.00E+08	20	0	0	N/A	N/A	N/A	-34.680035544591	149.984328372357
2A2	Brayton Road	Ambrose Road	Brayton Road	Gunlake	26/08/2021	0.075	2	OWP	Seal	25	24.0	0.56	0.25	1.10	1.00	1.00	1.00	0.62	0.25	1.00E+08	20	0	0	N/A	N/A	N/A	-34.679643175163	149.984062781162
2A2	Brayton Road	Ambrose Road	Brayton Road	Gunlake	26/08/2021	0.025	2	OWP	Seal	25	24.0	1.20	0.64	1.10	1.00	1.00	1.00	1.32	0.64	3.62E+05	1	146	52	N/A	N/A	N/A	-34.679258728036	149.983800392536
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	26/08/2021	0.000	1	OWP	Asphal	50	25.0	0.10	0.02	1.15	1.00	1.02	1.04	0.12	0.02	1.00E+08	20	0	0	1.00E+07	20	0	-34.690886399309	149.998874420980
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	26/08/2021	0.050	1	OWP	Seal	25	25.0	0.65	0.34	1.10	1.00	1.00	1.00	0.72	0.34	1.00E+08	20	0	0	N/A	N/A	N/A	-34.690495049587	149.999143725490
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	26/08/2021	0.100	1	OWP	Seal	25	25.0	0.11	0.03	1.10	1.00	1.00	1.00	0.12	0.03	1.00E+08	20	0	0	N/A	N/A	N/A	-34.690043733882	149.999142926612
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	26/08/2021	0.150	1	OWP	Seal	25	25.0	0.85	0.26	1.10	1.00	1.00	1.00	0.94	0.26	5.34E+06	18	4	24	N/A	N/A	N/A	-34.689602477890	149.999102481469
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	26/08/2021	0.200	1	OWP	Seal	25	25.0	0.85	0.34	1.10	1.00	1.00	1.00	0.94	0.34	5.34E+06	18	4	24	N/A	N/A	N/A	-34.689153626168	149.999139653598
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	26/08/2021	0.250	1	OWP	Seal	25	25.0	0.50	0.23	1.10	1.00	1.00	1.00	0.55	0.23	1.00E+08	20	0	0	N/A	N/A	N/A	-34.688719303147	149.999278472922
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	26/08/2021	0.300	1	OWP	Seal	25	25.0	0.73	0.31	1.10	1.00	1.00	1.00	0.80	0.31	1.00E+08	20	0	0	N/A	N/A	N/A	-34.688323007952	149.999523320040
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	26/08/2021	0.350	1	OWP	Seal	25	25.0	0.35	0.16	1.10	1.00	1.00	1.00	0.38	0.16	1.00E+08	20	0	0	N/A	N/A	N/A	-34.687967419900	149.999871522397
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	26/08/2021	0.400	1	OWP	Seal	25	25.0	0.36	0.19	1.10	1.00	1.00	1.00	0.40	0.19	1.00E+08	20	0	0	N/A	N/A	N/A	-34.687683891401	150.000299328577
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	26/08/2021	1.850	1	OWP	Seal	25	25.0	0.65	0.25	1.10	1.00	1.00	1.00	0.72	0.25	1.00E+08	20	0	0	N/A	N/A	N/A	-34.689134473305	150.015919778669
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	26/08/2021	1.900	1	OWP	Seal	25	25.0	0.25	0.07	1.10	1.00	1.00	1.00	0.28	0.07	1.00E+08	20	0	0	N/A	N/A	N/A	-34.689203817369	150.016456187537
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	26/08/2021	1.950	1	OWP	Seal	25	25.0	0.22	0.06	1.10	1.00	1.00	1.00	0.24	0.06	1.00E+08	20	0	0	N/A	N/A	N/A	-34.689271813185	150.016978669296
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	26/08/2021	2.000	1	OWP	Seal	25	25.0	0.25	0.03	1.10	1.00	1.00	1.00	0.28	0.03	1.00E+08	20	0	0	N/A	N/A	N/A	-34.689342683789	150.017518804017
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	26/08/2021	2.050	1	OWP	Seal	25	25.0	0.75	0.34	1.10	1.00	1.00	1.00	0.82	0.34	4.70E+07	20	0	0	N/A	N/A	N/A	-34.689409415120	150.018052575886
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	26/08/2021	2.100	1	OWP	Seal	25	25.0	0.78	0.30	1.10	1.00	1.00	1.00	0.86	0.30	1.83E+07	20	0	0	N/A	N/A	N/A	-34.689477740610	150.018591641128
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	26/08/2021	2.150	1	OWP	Seal	25	24.0	0.80	0.32	1.10	1.00	1.00	1.00	0.88	0.32	1.26E+07	20	0	0	N/A	N/A	N/A	-34.689551838603	150.019118418819
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	26/08/2021	2.200	1	OWP	Seal	25	24.0	0.59	0.24	1.10	1.00	1.00	1.00	0.65	0.24	1.00E+08	20	0	0	N/A	N/A	N/A	-34.689621815978	150.019659473796
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	26/08/2021	2.250	1	OWP	Seal	25	24.0	0.33	0.17	1.10	1.00	1.00	1.00	0.36	0.17	1.00E+08	20	0	0	N/A	N/A	N/A	-34.689689756140	150.020196431581
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	27/08/2021	2.300	1	OWP	Seal	25	16.0	0.64	0.31	1.10	1.00	1.00	1.00	0.70	0.31	1.00E+08	20	0	0	N/A	N/A	N/A	-34.689758193223	150.020716311979
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	27/08/2021	2.350	1	OWP	Seal	25	16.0	0.29	0.15	1.10	1.00	1.00	1.00	0.32	0.15	1.00E+08	20	0	0	N/A	N/A	N/A	-34.689823385927	150.021254259570
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	27/08/2021	2.400	1	OWP	Seal	25	16.0	0.52	0.27	1.10	1.00	1.00	1.00	0.57	0.27	1.00E+08	20	0	0	N/A	N/A	N/A	-34.689892142484	150.021795792123
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	27/08/2021	2.450	1	OWP	Seal	25	16.0	0.32	0.17	1.10	1.00	1.00	1.00	0.35	0.17	1.00E+08	20	0	0	N/A	N/A	N/A	-34.689963839540	150.022331597487
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	27/08/2021	2.500	1	OWP	Seal	25	16.0	0.13	0.01	1.10	1.00	1.00	1.00	0.14	0.01	1.00E+08	20	0	0	N/A	N/A	N/A	-34.690033516505	150.022874938729
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	27/08/2021	2.550	1	OWP	Seal	25	16.0	0.08	0.00	1.10	1.00	1.00	1.00	0.09	0.00	1.00E+08	20	0	0	N/A	N/A	N/A	-34.690103462982	150.023408469539
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	27/08/2021	2.600	1	OWP	Seal	25	16.0	0.60	0.29	1.10	1.00	1.00	1.00	0.66	0.29	1.00E+08	20	0	0	N/A	N/A	N/A	-34.690175075460	150.023946871477
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	27/08/2021	2.650	1	OWP	Seal	25	16.0	0.43	0.21	1.10	1.00	1.00	1.00	0.47	0.21	1.00E+08	20	0	0	N/A	N/A	N/A	-34.690246619122	150.024483329953
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	27/08/2021	2.700	1	OWP	Seal	25	16.0	0.59	0.29	1.10	1.00	1.00	1.00	0.65	0.29	1.00E+08	20	0	0	N/A	N/A	N/A	-34.690317075802	150.025013613187
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	27/08/2021	2.750	1	OWP	Seal	25	16.0	0.68	0.30	1.10	1.00	1.00	1.00	0.75	0.30	1.00E+08	20	0	0	N/A	N/A	N/A	-34.690387621884	150.025555423503
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	27/08/2021	2.800	1	OWP	Seal	25	16.0	0.29	0.15	1.10	1.00	1.00	1.00	0.32	0.15	1.00E+08	20	0	0	N/A	N/A	N/A	-34.690449705622	150.026100384561
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	27/08/2021	2.850	1	OWP	Seal	25	16.0	0.11	0.02	1.10	1.00	1.00	1.00	0.12	0.02	1.00E+08	20	0	0	N/A	N/A	N/A	-34.690518650190	150.026637737859
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	27/08/2021	2.900	1	OWP	Seal	25	16.0	0.06	0.01	1.10	1.00	1.00	1.00	0.07	0.01	1.00E+08	20	0	0	N/A	N/A	N/A	-34.690586783108	150.027167839590
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	27/08/2021	2.950	1	OWP	Seal	25	16.0	0.76	0.35	1.10	1.00	1.00	1.00	0.84	0.35	2.81E+07	20	0	0	N/A	N/A	N/A	-34.690642250217	150.027693415040
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	27/08/2021	3.000	1	OWP	Seal	25	17.0	0.65	0.32	1.10	1.00	1.00	1.00	0.72	0.32	1.00E+08	20	0	0	N/A	N/A	N/A	-34.690708204001	150.028236921883
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	27/08/2021	3.050	1	OWP	Seal	25	17.0	0.97	0.38	1.10	1.00	1.00	1.00	1.07	0.38	1.56E+06	6	57	24	N/A	N/A	N/A	-34.690773426459	150.028764060797
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	27/08/2021	3.100	1	OWP	Seal	25	17.0	0.78	0.31	1.10	1.00	1.00	1.00	0.86	0.31	1.83E+07	20	0	0	N/A	N/A	N/A	-34.690837801134	150.029297600006
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	27/08/2021	3.150	1	OWP	Seal	25	17.0	0.75	0.31	1.10	1.00	1.00	1.00	0.82	0.31	4.70E+07	20	0	0	N/A	N/A	N/A	-34.690906498766	150.029840606067
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	27/08/2021	3.200	1	OWP	Seal	25	17.0	0.72	0.29	1.10	1.00	1.00	1.00	0.79	0.29	1.00E+08	20	0	0	N/A	N/A	N/A	-34.690980175262	150.030385248588
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	27/08/2021	3.250	1	OWP	Seal	25	17.0	0.69	0.29	1.10	1.00	1.00	1.00	0.76	0.29	1.00E+08	20	0	0	N/A	N/A	N/A	-34.691054214353	150.030919530451
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	27/08/2021	3.300	1	OWP	Seal	25	17.0	0.58	0.28	1.10	1.00	1.00	1.00	0.64	0.28	1.00E+08	20	0	0	N/A	N/A	N/A	-34.691132497042	150.031452699450
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	27/08/2021	3.350	1	OWP	Seal	25	17.0	0.65	0.32	1.10	1.00	1.00	1.00	0.72	0.32	1.00E+08	20	0	0	N/A	N/A	N/A	-34.691220081737	150.031980696379
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	27/08/2021	3.400	1	OWP	Seal	25	17.0	0.27	0.03	1.10	1.00	1.00	1.00	0.30	0.03	1.00E+08	20	0	0	N/A	N/A	N/A	-34.691298720999	150.032525959434
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	27/08/2021	3.450	1	OWP	Seal	25	17.0	0.72	0.28	1.10	1.00	1.00	1.00	0.79	0.28	1.00E+08	20	0	0	N/A	N/A	N/A	-34.691371943179	150.033061017774
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	27/08/2021	3.500	1	OWP	Asphal	200	17.0	0.46	0.11	1.29	1.00	1.22	1.72	0.72	0.19	1.00E+08	20	0	0	5.67E+05	2	110	-34.691426819690	150.033571211618
3A1	Red Hills Road	Brayton Road	Hume Hwy	Gunlake	27/08/2021	3.550	1	OWP	Asphal	200	17.0	0.14	0.02	1.29	1.00	1.22	1.72	0.22	0.03	1.00E+08	20	0	0	1.00E+07	20	0	-34.691328545397	150.034226837224
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	26/08/2021	2.225	2	OWP	Seal	25	24.0	0.63	0.29	1.10	1.00	1.00	1.00	0.69	0.29	1.00E+08	20	0	0	N/A	N/A	N/A	-34.689706271239	150.019946526599
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	26/08/2021	2.175	2	OWP	Seal	25	24.0	0.70	0.27	1.10	1.00	1.00	1.00	0.77	0.27	1.00E+08	20	0	0	N/A	N/A	N/A	-34.689635111152	150.019403143715
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	26/08/2021	2.125	2	OWP	Seal	25	23.0	0.69	0.27	1.10	1.00	1.00	1.00	0.76	0.27	1.00E+08	20	0	0	N/A	N/A	N/A	-34.689565547651	150.018864362927
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	26/08/2021	2.075	2	OWP	Seal	25	23.0	0.84	0.32	1.10	1.00	1.00	1.00	0.92	0.32	6.90E+06	20	0	0	N/A	N/A	N/A	-34.689490326023	150.018324999377
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	26/08/2021	2.025	2	OWP	Seal	25	23.0	0.60	0.25	1.10	1.00	1.00	1.00	0.66	0.25	1.00E+08	20	0	0	N/A	N/A	N/A	-34.689424372528	150.017781070008
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	2.175	2	OWP	Seal	25	15.0	0.67	0.29	1.10	1.00	1.00	1.00	0.74	0.29	1.00E+08	20	0	0	N/A	N/A	N/A	-34.707147349800	150.002505059936
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	2.125	2	OWP	Seal	25	15.0	0.70	0.28	1.10	1.00	1.00	1.00	0.77	0.28	1.00E+08	20	0	0	N/A	N/A	N/A	-34.707070157839	150.001969103759
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	2.075	2	OWP	Seal	25	15.0	0.67	0.21	1.10	1.00	1.00	1.00	0.74	0.21	1.00E+08	20	0	0	N/A	N/A	N/A	-34.706998292991	150.001439097634
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	2.025	2	OWP	Seal	25	15.0	0.60	0.24	1.10	1.00	1.00	1.00	0.66	0.24	1.00E+08	20	0	0	N/A	N/A	N/A	-34.706928622240	150.000907964790
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	1.975	2	OWP	Seal	25	15.0	0.85	0.36	1.10	1.00	1.00	1.00	0.94	0.36	5.34E+06	20	0	0	N/A	N/A	N/A	-34.706858536845	150.000363047149
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	1.925	2	OWP	Seal	25	15.0	0.74	0.31	1.10	1.00	1.00	1.00	0.81	0.31	6.37E+07	20	0	0	N/A	N/A	N/A	-34.706786026584	149.999825454877
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	1.875	2	OWP	Seal	25	15.0	0.56	0.28	1.10	1.00	1.00	1.00	0.62	0.28	1.00E+08	20	0	0	N/A	N/A	N/A	-34.706729484935	149.999298204620
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	1.825	2	OWP	Seal	25	15.0	0.33	0.13	1.10	1.00	1.00	1.00	0.36	0.13	1.00E+08	20	0	0	N/A	N/A	N/A	-34.706492562026	149.998834358982
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	1.775	2	OWP	Seal	25	15.0	0.95	0.52	1.10	1.00	1.00	1.00	1.04	0.52	1.97E+06	20	0	0	N/A	N/A	N/A	-34.706053592473	149.998921386217
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	1.725	2	OWP	Seal	25	15.0	0.78	0.38	1.10	1.00	1.00	1.00	0.86	0.38	1.83E+07	20	0	0	N/A	N/A	N/A	-34.705610525088	149.999006287801
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	1.675	2	OWP	Seal	25	15.0	0.82	0.32	1.10	1.00	1.00	1.00	0.90	0.32	9.17E+06	20	0	0	N/A	N/A	N/A	-34.705170694459	149.999085365109
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	1.625	2	OWP	Seal	25	15.0	0.68	0.31	1.10	1.00	1.00	1.00	0.75	0.31	1.00E+08	20	0	0	N/A	N/A	N/A	-34.704709665200	149.999169344109
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	1.575	2	OWP	Seal	25	15.0	0.33	0.15	1.10	1.00	1.00	1.00	0.36	0.15	1.00E+08	20	0	0	N/A	N/A	N/A	-34.704265331785	149.999252679617
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	1.525	2	OWP	Seal	25	15.0	0.77	0.40	1.10	1.00	1.00	1.00	0.85	0.40	2.24E+07	20	0	0	N/A	N/A	N/A	-34.703816607497	149.999334352216
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	1.475	2	OWP	Seal	25	15.0	0.38	0.18	1.10	1.00	1.00	1.00	0.42	0.18	1.00E+08	20	0	0	N/A	N/A	N/A	-34.703378455083	149.999442149885
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	1.425	2	OWP	Seal	25	15.0	0.47	0.23	1.10	1.00	1.00	1.00	0.52	0.23	1.00E+08	20	0	0	N/A	N/A	N/A	-34.702942296269	149.999547104801
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	1.375	2	OWP	Seal	25	15.0	0.36	0.16	1.10	1.00	1.00	1.00	0.40	0.16	1.00E+08	20	0	0	N/A	N/A	N/A	-34.702501563409	149.999663912200
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	1.325	2	OWP	Seal	25	15.0	0.72	0.36	1.10	1.00	1.00	1.00	0.79	0.36	1.00E+08	20	0	0	N/A	N/A	N/A	-34.702063131210	149.999762090526
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	1.275	2	OWP	Seal	25	15.0	0.83	0.30	1.10	1.00	1.00	1.00	0.91	0.30	7.92E+06	20	0	0	N/A	N/A	N/A	-34.701624067941	149.999854519401
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	1.225	2	OWP	Seal	25	15.0	0.82	0.35	1.10	1.00	1.00	1.00	0.90	0.35	9.17E+06	20	0	0	N/A	N/A	N/A	-34.701189659417	149.999938894573
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	1.175	2	OWP	Seal	25	15.0	0.11	0.00	1.10	1.00	1.00	1.00	0.12	0.00	1.00E+08	20	0	0	N/A	N/A	N/A	-34.700741319224	150.000025624224
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	1.125	2	OWP	Seal	25	15.0	0.16	0.06	1.10	1.00	1.00	1.00	0.18	0.06	1.00E+08	20	0	0	N/A	N/A	N/A	-34.700299037817	150.000110042032
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	1.075	2	OWP	Seal	25	15.0	0.18	0.10	1.10	1.00	1.00	1.00	0.20	0.10	1.00E+08	20	0	0	N/A	N/A	N/A	-34.699868602181	150.000192906390
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	1.025	2	OWP	Seal	25	15.0	0.34	0.14	1.10	1.00	1.00	1.00	0.37	0.14	1.00E+08	20	0	0	N/A	N/A	N/A	-34.699417955893	150.000276821600
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	0.975	2	OWP	Seal	25	15.0	0.32	0.19	1.10	1.00	1.00	1.00	0.35	0.19	1.00E+08	20	0	0	N/A	N/A	N/A	-34.698987135331	150.000369595551
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	0.925	2	OWP	Seal	25	15.0	0.33	0.17	1.10	1.00	1.00	1.00	0.36	0.17	1.00E+08	20	0	0	N/A	N/A	N/A	-34.698548682454	150.000457519574
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	0.875	2	OWP	Seal	25	15.0	0.41	0.16	1.10	1.00	1.00	1.00	0.45	0.16	1.00E+08	20	0	0	N/A	N/A	N/A	-34.698114059316	150.000551595800

					Date	(km)			Type	(mm)	(°C)	(mm)	(mm)			Deflection	Curvature	(mm)	(mm)	ESA's	Yrs	Granular	Asphalt	ESA's	Yrs	Asphalt	Latitude	Longitude
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	0.820	2	OWP	Seal	25	15.0	0.35	0.15	1.10	1.00	1.00	1.00	0.38	0.15	1.00E+08	20	0	0	N/A	N/A	N/A	-34.697663091441	150.000636308358
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	26/08/2021	1.975	2	OWP	Seal	25	23.0	0.71	0.34	1.10	1.00	1.00	1.00	0.78	0.34	1.00E+08	20	0	0	N/A	N/A	N/A	-34.689355075847	150.017252837344
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	26/08/2021	1.925	2	OWP	Seal	25	23.0	0.72	0.33	1.10	1.00	1.00	1.00	0.79	0.33	1.00E+08	20	0	0	N/A	N/A	N/A	-34.689287024267	150.016716138172
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	26/08/2021	1.875	2	OWP	Seal	25	23.0	0.08	0.00	1.10	1.00	1.00	1.00	0.09	0.00	1.00E+08	20	0	0	N/A	N/A	N/A	-34.689221184890	150.016182887008
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	26/08/2021	1.825	2	OWP	Seal	25	23.0	0.43	0.21	1.10	1.00	1.00	1.00	0.47	0.21	1.00E+08	20	0	0	N/A	N/A	N/A	-34.689152153358	150.015646159916
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	26/08/2021	1.775	2	OWP	Seal	25	23.0	0.48	0.18	1.10	1.00	1.00	1.00	0.53	0.18	1.00E+08	20	0	0	N/A	N/A	N/A	-34.689082482887	150.015114177045
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	26/08/2021	1.725	2	OWP	Seal	25	23.0	0.75	0.38	1.10	1.00	1.00	1.00	0.82	0.38	4.70E+07	20	0	0	N/A	N/A	N/A	-34.689012004750	150.014576417749
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	26/08/2021	1.675	2	OWP	Seal	25	23.0	0.49	0.21	1.10	1.00	1.00	1.00	0.54	0.21	1.00E+08	20	0	0	N/A	N/A	N/A	-34.688936692907	150.014019200356
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	26/08/2021	1.625	2	OWP	Seal	25	23.0	0.65	0.26	1.10	1.00	1.00	1.00	0.72	0.26	1.00E+08	20	0	0	N/A	N/A	N/A	-34.688860781744	150.013469507020
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	26/08/2021	1.575	2	OWP	Seal	25	23.0	0.52	0.23	1.10	1.00	1.00	1.00	0.57	0.23	1.00E+08	20	0	0	N/A	N/A	N/A	-34.688796453806	150.012929920380
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	26/08/2021	1.525	2	OWP	Seal	25	23.0	0.73	0.29	1.10	1.00	1.00	1.00	0.80	0.29	1.00E+08	20	0	0	N/A	N/A	N/A	-34.688730938186	150.012396159340
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	26/08/2021	1.475	2	OWP	Seal	25	23.0	0.56	0.27	1.10	1.00	1.00	1.00	0.62	0.27	1.00E+08	20	0	0	N/A	N/A	N/A	-34.688660796248	150.011857807765
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	26/08/2021	1.425	2	OWP	Seal	25	23.0	0.71	0.34	1.10	1.00	1.00	1.00	0.78	0.34	1.00E+08	20	0	0	N/A	N/A	N/A	-34.688588307024	150.011321487984
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	26/08/2021	1.375	2	OWP	Seal	25	23.0	1.11	0.51	1.10	1.00	1.00	1.00	1.22	0.51	6.25E+05	3	110	38	N/A	N/A	N/A	-34.688523220874	150.010782500850
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	26/08/2021	1.325	2	OWP	Seal	25	23.0	0.99	0.43	1.10	1.00	1.00	1.00	1.09	0.43	1.34E+06	5	64	24	N/A	N/A	N/A	-34.688453983145	150.010247245162
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	26/08/2021	1.275	2	OWP	Seal	25	23.0	1.07	0.64	1.10	1.00	1.00	1.00	1.18	0.64	7.78E+05	3	96	33	N/A	N/A	N/A	-34.688383415036	150.009704783109
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	26/08/2021	1.225	2	OWP	Seal	25	23.0	0.83	0.37	1.10	1.00	1.00	1.00	0.91	0.37	7.92E+06	20	0	0	N/A	N/A	N/A	-34.688308203617	150.009122211218
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	26/08/2021	1.175	2	OWP	Seal	25	23.0	0.71	0.34	1.10	1.00	1.00	1.00	0.78	0.34	1.00E+08	20	0	0	N/A	N/A	N/A	-34.688237702530	150.008585203315
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	26/08/2021	1.125	2	OWP	Seal	25	23.0	0.65	0.30	1.10	1.00	1.00	1.00	0.72	0.30	1.00E+08	20	0	0	N/A	N/A	N/A	-34.688166828839	150.008056114601
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	26/08/2021	1.075	2	OWP	Seal	25	23.0	0.68	0.33	1.10	1.00	1.00	1.00	0.75	0.33	1.00E+08	20	0	0	N/A	N/A	N/A	-34.688099068549	150.007530425219
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	26/08/2021	1.025	2	OWP	Seal	25	23.0	0.52	0.25	1.10	1.00	1.00	1.00	0.57	0.25	1.00E+08	20	0	0	N/A	N/A	N/A	-34.688027231452	150.006995526673
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	26/08/2021	0.975	2	OWP	Seal	25	23.0	0.66	0.27	1.10	1.00	1.00	1.00	0.73	0.27	1.00E+08	20	0	0	N/A	N/A	N/A	-34.687958553245	150.006451200078
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	26/08/2021	0.925	2	OWP	Seal	25	23.0	0.59	0.29	1.10	1.00	1.00	1.00	0.65	0.29	1.00E+08	20	0	0	N/A	N/A	N/A	-34.687889441602	150.005911224548
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	26/08/2021	0.875	2	OWP	Seal	25	23.0	0.63	0.28	1.10	1.00	1.00	1.00	0.69	0.28	1.00E+08	20	0	0	N/A	N/A	N/A	-34.687813951772	150.005341091092
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	26/08/2021	0.825	2	OWP	Seal	25	23.0	0.73	0.35	1.10	1.00	1.00	1.00	0.80	0.35	1.00E+08	20	0	0	N/A	N/A	N/A	-34.687744068430	150.004805297255
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	26/08/2021	0.775	2	OWP	Seal	25	23.0	0.97	0.43	1.10	1.00	1.00	1.00	1.07	0.43	1.56E+06	6	57	24	N/A	N/A	N/A	-34.687676977090	150.004287269262
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	26/08/2021	0.725	2	OWP	Seal	25	23.0	0.67	0.32	1.10	1.00	1.00	1.00	0.74	0.32	1.00E+08	20	0	0	N/A	N/A	N/A	-34.687603453414	150.003732447885
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	26/08/2021	0.675	2	OWP	Seal	25	23.0	0.68	0.34	1.10	1.00	1.00	1.00	0.75	0.34	1.00E+08	20	0	0	N/A	N/A	N/A	-34.687530163311	150.003197081400
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	26/08/2021	0.625	2	OWP	Seal	25	23.0	0.82	0.35	1.10	1.00	1.00	1.00	0.90	0.35	9.17E+06	20	0	0	N/A	N/A	N/A	-34.687463240274	150.002663968747
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	26/08/2021	0.575	2	OWP	Seal	25	23.0	0.81	0.34	1.10	1.00	1.00	1.00	0.89	0.34	1.07E+07	20	0	0	N/A	N/A	N/A	-34.687394809951	150.002119793960
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	26/08/2021	0.525	2	OWP	Seal	25	23.0	1.00	0.37	1.10	1.00	1.00	1.00	1.10	0.37	1.25E+06	5	68	24	N/A	N/A	N/A	-34.687382776157	150.001577850204
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	26/08/2021	0.475	2	OWP	Seal	25	23.0	0.51	0.25	1.10	1.00	1.00	1.00	0.56	0.25	1.00E+08	20	0	0	N/A	N/A	N/A	-34.687453289643	150.001060007654
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	26/08/2021	0.425	2	OWP	Seal	25	23.0	0.69	0.39	1.10	1.00	1.00	1.00	0.76	0.39	1.00E+08	20	0	0	N/A	N/A	N/A	-34.687619029370	150.000560782700
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	26/08/2021	0.375	2	OWP	Seal	25	23.0	0.80	0.43	1.10	1.00	1.00	1.00	0.88	0.43	1.26E+07	20	0	0	N/A	N/A	N/A	-34.687866163861	150.000106233409
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	26/08/2021	0.325	2	OWP	Seal	25	23.0	0.70	0.35	1.10	1.00	1.00	1.00	0.77	0.35	1.00E+08	20	0	0	N/A	N/A	N/A	-34.688197891264	149.999718338957
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	26/08/2021	0.275	2	OWP	Seal	25	23.0	0.74	0.33	1.10	1.00	1.00	1.00	0.81	0.33	6.37E+07	20	0	0	N/A	N/A	N/A	-34.688575543147	149.999429629301
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	26/08/2021	0.225	2	OWP	Seal	25	23.0	0.78	0.36	1.10	1.00	1.00	1.00	0.86	0.36	1.83E+07	20	0	0	N/A	N/A	N/A	-34.688966084893	149.999254126602
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	26/08/2021	0.175	2	OWP	Seal	25	23.0	0.87	0.41	1.10	1.00	1.00	1.00	0.96	0.41	4.23E+06	15	13	24	N/A	N/A	N/A	-34.689381572101	149.999173312800
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	26/08/2021	0.125	2	OWP	Seal	25	23.0	0.12	0.01	1.10	1.00	1.00	1.00	0.13	0.01	1.00E+08	20	0	0	N/A	N/A	N/A	-34.689826844003	149.999185469332
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	26/08/2021	0.075	2	OWP	Seal	25	23.0	0.77	0.41	1.10	1.00	1.00	1.00	0.85	0.41	2.24E+07	20	0	0	N/A	N/A	N/A	-34.690270788648	149.999223631244
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	26/08/2021	0.025	2	OWP	Asphal	50	23.0	0.42	0.15	1.15	1.00	1.03	1.07	0.50	0.16	1.00E+08	20	0	0	1.32E+06	5	95	-34.690736564181	149.999142042643
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	27/08/2021	3.575	2	OWP	Asphal	200	17.0	0.40	0.22	1.29	1.00	1.22	1.72	0.63	0.38	1.00E+08	20	0	0	1.90E+04	0	150	-34.691444331867	150.034373887185
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	27/08/2021	3.525	2	OWP	Asphal	200	17.0	0.15	0.04	1.29	1.00	1.22	1.72	0.24	0.07	1.00E+08	20	0	0	1.00E+07	20	0	-34.691452577560	150.033913306725
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	27/08/2021	3.475	2	OWP	Seal	25	17.0	0.52	0.15	1.10	1.00	1.00	1.00	0.57	0.15	1.00E+08	20	0	0	N/A	N/A	N/A	-34.691444372234	150.033306946424
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	27/08/2021	3.425	2	OWP	Seal	25	17.0	0.16	0.03	1.10	1.00	1.00	1.00	0.18	0.03	1.00E+08	20	0	0	N/A	N/A	N/A	-34.691379801918	150.032780289272
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	27/08/2021	3.375	2	OWP	Seal	25	17.0	0.53	0.25	1.10	1.00	1.00	1.00	0.58	0.25	1.00E+08	20	0	0	N/A	N/A	N/A	-34.691308676244	150.032247024574
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	27/08/2021	3.325	2	OWP	Seal	25	17.0	0.18	0.02	1.10	1.00	1.00	1.00	0.20	0.02	1.00E+08	20	0	0	N/A	N/A	N/A	-34.691224384324	150.031702933379
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	27/08/2021	3.275	2	OWP	Seal	25	17.0	0.66	0.28	1.10	1.00	1.00	1.00	0.73	0.28	1.00E+08	20	0	0	N/A	N/A	N/A	-34.691147132431	150.031167604128
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	27/08/2021	3.225	2	OWP	Seal	25	17.0	0.64	0.32	1.10	1.00	1.00	1.00	0.70	0.32	1.00E+08	20	0	0	N/A	N/A	N/A	-34.691075473275	150.030642275352
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	27/08/2021	3.175	2	OWP	Seal	25	17.0	0.50	0.25	1.10	1.00	1.00	1.00	0.55	0.25	1.00E+08	20	0	0	N/A	N/A	N/A	-34.690999158813	150.030100161764
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	27/08/2021	3.125	2	OWP	Seal	25	17.0	0.60	0.28	1.10	1.00	1.00	1.00	0.66	0.28	1.00E+08	20	0	0	N/A	N/A	N/A	-34.690930486372	150.029575881690
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	27/08/2021	3.075	2	OWP	Seal	25	17.0	0.58	0.28	1.10	1.00	1.00	1.00	0.64	0.28	1.00E+08	20	0	0	N/A	N/A	N/A	-34.690862645899	150.029031989094
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	27/08/2021	3.025	2	OWP	Seal	25	17.0	0.54	0.26	1.10	1.00	1.00	1.00	0.59	0.26	1.00E+08	20	0	0	N/A	N/A	N/A	-34.690799185073	150.028500854635
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	27/08/2021	2.975	2	OWP	Seal	25	17.0	0.78	0.34	1.10	1.00	1.00	1.00	0.86	0.34	1.83E+07	20	0	0	N/A	N/A	N/A	-34.690740563871	150.027974686469
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	27/08/2021	2.925	2	OWP	Seal	25	17.0	0.67	0.29	1.10	1.00	1.00	1.00	0.74	0.29	1.00E+08	20	0	0	N/A	N/A	N/A	-34.690673436027	150.027412217533
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	27/08/2021	2.875	2	OWP	Seal	25	17.0	0.92	0.35	1.10	1.00	1.00	1.00	1.01	0.35	2.56E+06	10	33	24	N/A	N/A	N/A	-34.690616388624	150.026880904769
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	27/08/2021	2.825	2	OWP	Seal	25	17.0	0.55	0.26	1.10	1.00	1.00	1.00	0.60	0.26	1.00E+08	20	0	0	N/A	N/A	N/A	-34.690537809318	150.026354437473
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	27/08/2021	2.775	2	OWP	Seal	25	17.0	0.63	0.30	1.10	1.00	1.00	1.00	0.69	0.30	1.00E+08	20	0	0	N/A	N/A	N/A	-34.690473999959	150.025804751103
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	27/08/2021	2.725	2	OWP	Seal	25	17.0	0.59	0.32	1.10	1.00	1.00	1.00	0.65	0.32	1.00E+08	20	0	0	N/A	N/A	N/A	-34.690407359050	150.025277213344
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	27/08/2021	2.675	2	OWP	Seal	25	17.0	0.09	0.03	1.10	1.00	1.00	1.00	0.10	0.03	1.00E+08	20	0	0	N/A	N/A	N/A	-34.690331363785	150.024726205970
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	27/08/2021	2.625	2	OWP	Seal	25	17.0	0.70	0.33	1.10	1.00	1.00	1.00	0.77	0.33	1.00E+08	20	0	0	N/A	N/A	N/A	-34.690265194745	150.024220737301
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	27/08/2021	2.575	2	OWP	Seal	25	17.0	0.48	0.26	1.10	1.00	1.00	1.00	0.53	0.26	1.00E+08	20	0	0	N/A	N/A	N/A	-34.690190546306	150.023703239709
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	27/08/2021	2.525	2	OWP	Seal	25	17.0	0.45	0.22	1.10	1.00	1.00	1.00	0.50	0.22	1.00E+08	20	0	0	N/A	N/A	N/A	-34.690123505413	150.023155851763
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	27/08/2021	2.475	2	OWP	Seal	25	17.0	0.15	0.03	1.10	1.00	1.00	1.00	0.16	0.03	1.00E+08	20	0	0	N/A	N/A	N/A	-34.690051855952	150.022595675024
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	27/08/2021	2.425	2	OWP	Seal	25	17.0	0.13	0.02	1.10	1.00	1.00	1.00	0.14	0.02	1.00E+08	20	0	0	N/A	N/A	N/A	-34.689984236625	150.022062552975
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	27/08/2021	2.375	2	OWP	Seal	25	17.0	0.58	0.34	1.10	1.00	1.00	1.00	0.64	0.34	1.00E+08	20	0	0	N/A	N/A	N/A	-34.689917941881	150.021519253568
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	27/08/2021	2.325	2	OWP	Seal	25	17.0	0.51	0.30	1.10	1.00	1.00	1.00	0.56	0.30	1.00E+08	20	0	0	N/A	N/A	N/A	-34.689848061114	150.020991210005
3A2	Red Hills Road	Hume Hwy	Brayton Road	Gunlake	27/08/2021	2.275	2	OWP	Seal	25	17.0	0.46	0.26	1.10	1.00	1.00	1.00	0.51	0.26	1.00E+08	20	0	0	N/A	N/A	N/A	-34.689772141279	150.020458564429
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	0.000	1	OWP	Seal	25	9.0	0.05	0.01	1.10	1.00	1.00	1.00	0.06	0.01	1.00E+08	20	0	0	N/A	N/A	N/A	-34.690955551313	149.998926536546
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	0.775	2	OWP	Seal	25	15.0	0.28	0.13	1.10	1.00	1.00	1.00	0.31	0.13	1.00E+08	20	0	0	N/A	N/A	N/A	-34.697220531178	150.000726290011
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	0.725	2	OWP	Seal	25	15.0	0.37	0.17	1.10	1.00	1.00	1.00	0.41	0.17	1.00E+08	20	0	0	N/A	N/A	N/A	-34.696767268168	150.000819401090
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	0.675	2	OWP	Seal	25	15.0	0.37	0.14	1.10	1.00	1.00	1.00	0.41	0.14	1.00E+08	20	0	0	N/A	N/A	N/A	-34.696309590530	150.000910082687
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	0.625	2	OWP	Seal	25	15.0	0.26	0.13	1.10	1.00	1.00	1.00	0.29	0.13	1.00E+08	20	0	0	N/A	N/A	N/A	-34.695871240817	150.000996821166
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	0.575	2	OWP	Seal	25	15.0	0.18	0.06	1.10	1.00	1.00	1.00	0.20	0.06	1.00E+08	20	0	0	N/A	N/A	N/A	-34.695425342287	150.001087074150
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	0.525	2	OWP	Seal	25	15.0	0.14	0.03	1.10	1.00	1.00	1.00	0.15	0.03	1.00E+08	20	0	0	N/A	N/A	N/A	-34.694984368341	150.001173364990
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	0.475	2	OWP	Seal	25	16.0	0.25	0.04	1.10	1.00	1.00	1.00	0.28	0.04	1.00E+08	20	0	0	N/A	N/A	N/A	-34.694539172046	150.001262975469
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	0.425	2	OWP	Seal	25	16.0	0.34	0.13	1.10	1.00	1.00	1.00	0.37	0.13	1.00E+08	20	0	0	N/A	N/A	N/A	-34.694068699230	150.001316718708
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	0.375	2	OWP	Seal	25	16.0	0.37	0.03	1.10	1.00	1.00	1.00	0.41	0.03	1.00E+08	20	0	0	N/A	N/A	N/A	-34.693624085317	150.001290889969
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	0.325	2	OWP	Seal	25	16.0	0.24	0.05	1.10	1.00	1.00	1.00	0.26	0.05	1.00E+08	20	0	0	N/A	N/A	N/A	-34.693187743900	150.001184244726
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	0.275	2	OWP	Seal	25	16.0	0.37	0.12	1.10	1.00	1.00	1.00	0.41	0.12	1.00E+08	20	0	0	N/A	N/A	N/A	-34.692768890190	150.000994488416
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	0.225	2	OWP	Seal	25	16.0	0.68	0.16	1.10	1.00	1.00	1.00	0.75	0.16	1.00E+08	20	0	0	N/A	N/A	N/A	-34.692369362530	150.000738001648
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	0.175	2	OWP	Seal	25	16.0	0.24	0.04	1.10	1.00	1.00	1.00	0.26	0.04	1.00E+08	20	0	0	N/A	N/A	N/A	-34.691997545790	150.000434781047
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	0.125	2	OWP	Seal	25	16.0	0.21	0.04	1.10	1.00	1.00	1.00	0.23	0.04	1.00E+08	20	0	0	N/A	N/A	N/A	-34.691672023375	150.000060214972
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	0.075	2	OWP	Seal	25	16.0	0.16	0.02	1.10	1.00	1.00	1.00	0.18	0.02	1.00E+08	20	0	0	N/A	N/A	N/A	-34.691380161331	149.999626877968
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	0.050	1	OWP	Seal	25	9.0	0.14	0.11	1.10	1.00	1.00	1.00	0.15	0.11	1.00E+08	20	0	0	N/A	N/A	N/A	-34.691193982723	149.999385856129
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	0.100	1	OWP	Seal	25	9.0	0.16	0.02	1.10	1.00	1.00	1.00	0.18	0.02	1.00E+08	20	0	0	N/A	N/A	N/A	-34.691473885403	149.999863828168
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	0.150	1	OWP	Seal	25	9.0	0.28	0.02	1.10	1.00	1.00	1.00	0.31	0.02	1.00E+08	20	0	0	N/A	N/A	N/A	-34.691783284770	150.000264323005
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	0.200	1	OWP	Seal	25	9.0	0.16	0.01	1.10	1.00	1.00	1.00	0.18	0.01	1.00E+08	20	0	0	N/A	N/A	N/A	-34.692133221664	150.000619012966
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	0.250	1	OWP	Seal	25	9.0	0.29	0.08	1.10	1.00	1.00	1.00	0.32	0.08	1.00E+08	20	0	0	N/A	N/A	N/A	-34.692517077977	150.000897985407
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	0.300	1	OWP	Seal	25	9.0	0.13	0.03	1.10	1.00	1.00	1.00	0.14	0.03	1.00E+08	20	0	0	N/A	N/A	N/A	-34.692920733481	150.001137123829
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	0.350	1	OWP	Seal	25	9.0	0.27	0.05	1.10	1.00	1.00	1.00	0.30	0.05	1.00E+08	20	0	0	N/A	N/A	N/A	-34.693377305061	150.001290423458
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	0.400	1	OWP	Seal	25	9.0	0.31	0.10	1.10	1.00	1.00	1.00	0.34	0.10	1.00E+08	20	0	0	N/A	N/A	N/A	-34.693821737017	150.001363233700
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	0.450	1	OWP	Seal	25	9.0	0.47	0.14	1.10	1.00	1.00	1.00	0.52	0.14	1.00E+08	20	0	0	N/A	N/A	N/A	-34.694297076995	150.001357594495
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	0.500	1	OWP	Seal	25	9.0	0.20	0.04	1.10	1.00	1.00	1.00	0.22	0.04	1.00E+08	20	0	0	N/A	N/A	N/A	-34.694763336619	150.001275251829
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	0.550	1	OWP	Seal	25	9.0	0.13	0.04	1.10	1.00	1.00	1.00	0.14	0.04	1.00E+08	20	0	0	N/A	N/A	N/A	-34.695196789736	150.001189058369

					Date	(km)			Type	(mm)	(°C)	(mm)	(mm)			Deflection	Curvature	(mm)	(mm)	ESA's	Yrs	Granular	Asphalt	ESA's	Yrs	Asphalt	Latitude	Longitude
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	0.600	1	OWP	Seal	25	9.0	0.24	0.13	1.10	1.00	1.00	1.00	0.26	0.13	1.00E+08	20	0	0	N/A	N/A	N/A	-34.695640764054	150.001102833913
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	0.650	1	OWP	Seal	25	9.0	0.23	0.09	1.10	1.00	1.00	1.00	0.25	0.09	1.00E+08	20	0	0	N/A	N/A	N/A	-34.696083365634	150.001011629624
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	0.700	1	OWP	Seal	25	9.0	0.33	0.09	1.10	1.00	1.00	1.00	0.36	0.09	1.00E+08	20	0	0	N/A	N/A	N/A	-34.696525918219	150.000924759096
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	0.750	1	OWP	Seal	25	9.0	0.25	0.11	1.10	1.00	1.00	1.00	0.28	0.11	1.00E+08	20	0	0	N/A	N/A	N/A	-34.696977332472	150.000830957804
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	0.800	1	OWP	Seal	25	9.0	0.47	0.32	1.10	1.00	1.00	1.00	0.52	0.32	1.00E+08	20	0	0	N/A	N/A	N/A	-34.697421873885	150.000740002545
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	0.850	1	OWP	Seal	25	10.0	0.41	0.15	1.10	1.00	1.00	1.00	0.45	0.15	1.00E+08	20	0	0	N/A	N/A	N/A	-34.697862826670	150.000646032164
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	0.900	1	OWP	Seal	25	10.0	0.42	0.18	1.10	1.00	1.00	1.00	0.46	0.18	1.00E+08	20	0	0	N/A	N/A	N/A	-34.698338178308	150.000556691645
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	0.950	1	OWP	Seal	25	10.0	0.39	0.16	1.10	1.00	1.00	1.00	0.43	0.16	1.00E+08	20	0	0	N/A	N/A	N/A	-34.698768500904	150.000470199679
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	1.000	1	OWP	Seal	25	10.0	0.40	0.19	1.10	1.00	1.00	1.00	0.44	0.19	1.00E+08	20	0	0	N/A	N/A	N/A	-34.699198410308	150.000385955720
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	1.050	1	OWP	Seal	25	11.0	0.26	0.12	1.10	1.00	1.00	1.00	0.29	0.12	1.00E+08	20	0	0	N/A	N/A	N/A	-34.699640754021	150.000294626524
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	1.100	1	OWP	Seal	25	11.0	0.26	0.17	1.10	1.00	1.00	1.00	0.29	0.17	1.00E+08	20	0	0	N/A	N/A	N/A	-34.700083037815	150.000205415018
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	1.150	1	OWP	Seal	25	11.0	0.22	0.05	1.10	1.00	1.00	1.00	0.24	0.05	1.00E+08	20	0	0	N/A	N/A	N/A	-34.700523879757	150.000112703090
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	1.250	1	OWP	Seal	25	11.0	0.74	0.27	1.10	1.00	1.00	1.00	0.81	0.27	6.37E+07	20	0	0	N/A	N/A	N/A	-34.701404936502	149.999947772650
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	1.300	1	OWP	Seal	25	11.0	0.47	0.22	1.10	1.00	1.00	1.00	0.52	0.22	1.00E+08	20	0	0	N/A	N/A	N/A	-34.701846690640	149.999862069300
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	1.350	1	OWP	Seal	25	11.0	0.74	0.35	1.10	1.00	1.00	1.00	0.81	0.35	6.37E+07	20	0	0	N/A	N/A	N/A	-34.702293899373	149.999766226952
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	1.400	1	OWP	Seal	25	11.0	0.74	0.35	1.10	1.00	1.00	1.00	0.81	0.35	6.37E+07	20	0	0	N/A	N/A	N/A	-34.702727458592	149.999657531183
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	1.450	1	OWP	Seal	25	11.0	0.58	0.27	1.10	1.00	1.00	1.00	0.64	0.27	1.00E+08	20	0	0	N/A	N/A	N/A	-34.703170795133	149.999546681737
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	1.500	1	OWP	Seal	25	11.0	0.75	0.39	1.10	1.00	1.00	1.00	0.82	0.39	4.70E+07	20	0	0	N/A	N/A	N/A	-34.703608711609	149.999436930496
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	1.550	1	OWP	Seal	25	11.0	0.64	0.32	1.10	1.00	1.00	1.00	0.70	0.32	1.00E+08	20	0	0	N/A	N/A	N/A	-34.704048529659	149.999345957561
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	1.600	1	OWP	Seal	25	12.0	0.75	0.34	1.10	1.00	1.00	1.00	0.82	0.34	4.70E+07	20	0	0	N/A	N/A	N/A	-34.704490905713	149.999268001824
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	1.650	1	OWP	Seal	25	12.0	0.73	0.30	1.10	1.00	1.00	1.00	0.80	0.30	1.00E+08	20	0	0	N/A	N/A	N/A	-34.704929462478	149.999184218882
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	1.700	1	OWP	Seal	25	12.0	0.75	0.33	1.10	1.00	1.00	1.00	0.82	0.33	4.70E+07	20	0	0	N/A	N/A	N/A	-34.705373807197	149.999107633750
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	1.750	1	OWP	Seal	25	12.0	0.65	0.35	1.10	1.00	1.00	1.00	0.72	0.35	1.00E+08	20	0	0	N/A	N/A	N/A	-34.705812933433	149.999029566003
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	1.800	1	OWP	Seal	25	12.0	0.34	0.16	1.10	1.00	1.00	1.00	0.37	0.16	1.00E+08	20	0	0	N/A	N/A	N/A	-34.706256492911	149.998948376730
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	1.850	1	OWP	Seal	25	12.0	0.46	0.25	1.10	1.00	1.00	1.00	0.51	0.25	1.00E+08	20	0	0	N/A	N/A	N/A	-34.706623915686	149.999022615546
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	1.900	1	OWP	Seal	25	12.0	0.67	0.31	1.10	1.00	1.00	1.00	0.74	0.31	1.00E+08	20	0	0	N/A	N/A	N/A	-34.706700382010	149.999560134684
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	1.950	1	OWP	Seal	25	12.0	0.61	0.29	1.10	1.00	1.00	1.00	0.67	0.29	1.00E+08	20	0	0	N/A	N/A	N/A	-34.706770688271	150.000086925526
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	2.000	1	OWP	Seal	25	12.0	0.56	0.22	1.10	1.00	1.00	1.00	0.62	0.22	1.00E+08	20	0	0	N/A	N/A	N/A	-34.706861458542	150.000620828434
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	2.050	1	OWP	Seal	25	12.0	0.54	0.27	1.10	1.00	1.00	1.00	0.59	0.27	1.00E+08	20	0	0	N/A	N/A	N/A	-34.706915523336	150.001164138921
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	2.100	1	OWP	Seal	25	12.0	0.51	0.18	1.10	1.00	1.00	1.00	0.56	0.18	1.00E+08	20	0	0	N/A	N/A	N/A	-34.706988268768	150.001698001592
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	2.150	1	OWP	Seal	25	12.0	0.41	0.18	1.10	1.00	1.00	1.00	0.45	0.18	1.00E+08	20	0	0	N/A	N/A	N/A	-34.707065212226	150.002228055718
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	2.200	1	OWP	Seal	25	12.0	0.60	0.29	1.10	1.00	1.00	1.00	0.66	0.29	1.00E+08	20	0	0	N/A	N/A	N/A	-34.707129601996	150.002765019834
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	2.250	1	OWP	Seal	25	12.0	0.62	0.32	1.10	1.00	1.00	1.00	0.68	0.32	1.00E+08	20	0	0	N/A	N/A	N/A	-34.707203059606	150.003294930359
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	2.300	1	OWP	Seal	25	12.0	0.57	0.27	1.10	1.00	1.00	1.00	0.63	0.27	1.00E+08	20	0	0	N/A	N/A	N/A	-34.707273030074	150.003832680979
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	2.350	1	OWP	Seal	25	12.0	1.07	0.43	1.10	1.00	1.00	1.00	1.18	0.43	7.78E+05	20	0	0	N/A	N/A	N/A	-34.707342754291	150.004372379242
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	2.400	1	OWP	Seal	25	12.0	0.99	0.52	1.10	1.00	1.00	1.00	1.09	0.52	1.34E+06	20	0	0	N/A	N/A	N/A	-34.707418841007	150.004905803323
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	2.450	1	OWP	Seal	25	12.0	0.48	0.23	1.10	1.00	1.00	1.00	0.53	0.23	1.00E+08	20	0	0	N/A	N/A	N/A	-34.707495331274	150.005456830100
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	2.500	1	OWP	Asphal	50	14.0	0.49	0.07	1.15	1.00	1.09	1.27	0.61	0.09	1.00E+08	20	0	0	1.00E+07	20	0	-34.707561261963	150.005992266757
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	2.550	1	OWP	Asphal	50	14.0	0.21	0.06	1.15	1.00	1.09	1.27	0.26	0.08	1.00E+08	20	0	0	1.00E+07	20	0	-34.707635314232	150.006527901419
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	2.600	1	OWP	Asphal	50	14.0	0.10	0.02	1.15	1.00	1.09	1.27	0.13	0.03	1.00E+08	20	0	0	1.00E+07	20	0	-34.707692250289	150.007066111081
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	2.650	1	OWP	Asphal	50	15.0	0.72	0.13	1.15	1.00	1.09	1.24	0.90	0.16	9.17E+06	20	0	0	1.32E+06	20	0	-34.707759792346	150.007622448479
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	2.700	1	OWP	Asphal	50	15.0	0.34	0.06	1.15	1.00	1.09	1.24	0.43	0.07	1.00E+08	20	0	0	1.00E+07	20	0	-34.707823846367	150.008158995302
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	2.750	1	OWP	Asphal	50	15.0	0.70	0.23	1.15	1.00	1.09	1.24	0.88	0.29	1.26E+07	20	0	0	7.15E+04	3	0	-34.707888398962	150.008708882786
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	2.800	1	OWP	Asphal	50	15.0	0.86	0.33	1.15	1.00	1.09	1.24	1.08	0.41	1.45E+06	20	0	0	1.31E+04	1	90	-34.708058031269	150.009202975055
4A1	Brayton Road	Ambrose Road	Hume Hwy	Gunlake	27/08/2021	2.850	1	OWP	Asphal	50	15.0	0.54	0.13	1.15	1.00	1.09	1.24	0.68	0.16	1.00E+08	20	0	0	1.32E+06	20	0	-34.708389880643	150.009560175804
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	2.825	2	OWP	Asphal	50	15.0	0.15	0.04	1.15	1.00	1.09	1.24	0.19	0.05	1.00E+08	20	0	0	1.00E+07	20	0	-34.708279920244	150.009293442944
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	2.775	2	OWP	Asphal	50	15.0	0.39	0.13	1.15	1.00	1.09	1.24	0.49	0.16	1.00E+08	20	0	0	1.32E+06	20	0	-34.707980910853	150.008910727381
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	2.725	2	OWP	Asphal	50	15.0	0.29	0.05	1.15	1.00	1.09	1.24	0.36	0.06	1.00E+08	20	0	0	1.00E+07	20	0	-34.707906772390	150.008409187560
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	2.675	2	OWP	Asphal	50	15.0	0.47	0.10	1.15	1.00	1.09	1.24	0.59	0.12	1.00E+08	20	0	0	5.39E+06	20	0	-34.707838566719	150.007870639704
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	2.625	2	OWP	Asphal	50	15.0	0.27	0.06	1.15	1.00	1.09	1.24	0.34	0.07	1.00E+08	20	0	0	1.00E+07	20	0	-34.707773704470	150.007347669591
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	2.575	2	OWP	Asphal	50	15.0	0.41	0.07	1.15	1.00	1.09	1.24	0.51	0.09	1.00E+08	20	0	0	1.00E+07	20	0	-34.707707126560	150.006789495734
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	2.525	2	OWP	Asphal	50	15.0	0.23	0.04	1.15	1.00	1.09	1.24	0.29	0.05	1.00E+08	20	0	0	1.00E+07	20	0	-34.707644757823	150.006245859901
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	2.475	2	OWP	Seal	25	15.0	0.42	0.09	1.10	1.00	1.00	1.00	0.46	0.09	1.00E+08	20	0	0	N/A	N/A	N/A	-34.707577821451	150.005715980537
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	2.425	2	OWP	Seal	25	15.0	0.37	0.20	1.10	1.00	1.00	1.00	0.41	0.20	1.00E+08	20	0	0	N/A	N/A	N/A	-34.707515977753	150.005188159905
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	2.375	2	OWP	Seal	25	15.0	0.59	0.27	1.10	1.00	1.00	1.00	0.65	0.27	1.00E+08	20	0	0	N/A	N/A	N/A	-34.707440931803	150.004659405060
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	2.325	2	OWP	Seal	25	15.0	0.67	0.33	1.10	1.00	1.00	1.00	0.74	0.33	1.00E+08	20	0	0	N/A	N/A	N/A	-34.707366431167	150.004118767806
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	2.275	2	OWP	Seal	25	15.0	0.78	0.24	1.10	1.00	1.00	1.00	0.86	0.24	1.83E+07	20	0	0	N/A	N/A	N/A	-34.707293990360	150.003580678518
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	2.225	2	OWP	Seal	25	15.0	0.61	0.26	1.10	1.00	1.00	1.00	0.67	0.26	1.00E+08	20	0	0	N/A	N/A	N/A	-34.707219041575	150.003036496921
4A2	Brayton Road	Hume Hwy	Ambrose Road	Gunlake	27/08/2021	0.025	2	OWP	Seal	25	16.0	0.08	0.02	1.10	1.00	1.00	1.00	0.09	0.02	1.00E+08	20	0	0	N/A	N/A	N/A	-34.691145672578	149.999171224703

Appendix F

Plot datasheet – PCT 1256

BAM Site – Field Survey Form

Plot ID:	P01	**Date:**	25/01/22	**Project number:**	J190263	**Plot dimensions:**	20x50
Datum:	GDA94	**Easting:**	771,435	**Recorders:**	RP		
Zone:	55	**Northing:**	6,158,155	**IBRA region:**	Sydney Basin	**Midline bearing:**	202
Plant Community Type:				**Condition class:**	Exotic	**PCT confidence:**	high
Vegetation Class:				**EEC:**	no	**EEC confidence:**	high

Record easting and northing at 0 m on midline. Dimensions (Shape) of 0.04 ha base plot.

BAM Attribute (400 m2 plot)		Sum values
Count of Native Richness	Trees:	0
	Shrubs:	0
	Grasses etc.:	4
	Forbs:	6
	Ferns:	0
	Other:	0
Sum of Cover of native vascular plants by growth form group	Trees:	0
	Shrubs:	0
	Grasses etc.:	16.1
	Forbs:	0.9
	Ferns:	0
	Other:	0
High Threat Weed cover:		0.8

BAM Attribute (1000 m2 plot) DBH			
DBH	**Tree stem count**		
80 + cm:	0	**Length of logs (m) (≥10 cm diameter, >50 cm in length)**	0
50 – 79 cm:	0		
30 – 49 cm:	0		
20 – 29 cm:	0	**Tree hollow count**	0
10 – 19 cm:	0		
5 – 9 cm:	0		
< 5 cm:	0		

Counts apply when no. of tree stems within a size class is ≤ 10. Estimates can be used when > 10 (eg. 10, 20, 30..., 100, 200, 300...). For multi-stemmed tree, only largest living stem is included in the count. Tree stems must be living.
For hollows, count only the presence of a stem containing hollows. For a multi-stemmed tree, only the largest stem is included in the count/estimate. Stems may be dead and may be shrubs.

BAM Attribute (1 x 1 m plots)	Litter cover (%)				
Subplot:	**1**	**2**	**3**	**4**	**5**
Subplot score (%):	2	1	10	10	15
Average litter cover (%):	7.6				

Litter cover is assessed as the average percentage ground cover of litter recorded from five 1 m x 1 m plots centred at 5, 15, 25, 35, 45 m along the plot midline. Litter cover includes leaves, seeds, twigs, branchlets and branches (less than 10 cm in diameter). Assessors may also record the cover of rock, bare ground and cryptogams.

Physiography and site features

Footslope at top of hill. Colluvium soil.

Plot Disturbance

Grazed by feral goat

GF Code: see Growth Form definitions in Appendix 1; N: native, E: exotic, HTE: high threat exotic; GF – circle code if 'top 3'; Cover: 0.1, 0.2, 0.3, ..., 1, 2, 3, ..., 10, 15, 20, 25, ...100% (foliage cover)
Note: 0.1% cover represents an area of approximately 63 x 63 cm or a circle about 71 cm across, 0.5% cover represents an area of approximately 1.4 x 1.4 m, and 1% = 2.0 x 2.0 m, 5% = 4 x 5 m, 25% = 10 x 10 m
Abundance: 1, 2, 3, ..., 10, 20, 30, ... 100, 200, ..., 1000, ...

Project name:	J190263				
Recorders:	RP	**Plot ID:**	P01	**Date:**	25/01/22

GF Code	Scientific name	Cover	Abundance	Voucher	N, E or HTE
	Holcus lanatus (Yorkshire Fog)	75	10000	no	E
Grass & grasslike (GG)	*Juncus usitatus*	10	1000	no	N
Grass & grasslike (GG)	*Carex spp.*	1	50	no	N
Forb (FG)	*Epilobium billardierianum*	0.2	20	no	N
	Hypochaeris radicata (Catsear)	0.5	50	no	E
Grass & grasslike (GG)	*Paspalum distichum (Water Couch)*	5	400	no	N
	Plantago lanceolata (Lamb's Tongues)	0.1	5	no	E
Forb (FG)	*Oxalis exilis*	0.1	10	no	N
	Acetosella vulgaris (Sheep Sorrel)	0.2	10	no	HTE
Forb (FG)	*Rumex spp. (Dock)*	0.2	10	no	N
	Modiola caroliniana (Red-flowered Mallow)	0.1	10	no	E
	Cyperus eragrostis (Umbrella Sedge)	0.1	5	no	HTE
Forb (FG)	*Gonocarpus spp. (Raspwort)*	0.2	10	no	N
Forb (FG)	*Rumex brownii (Swamp Dock)*	0.1	2	no	N
Grass & grasslike (GG)	*Juncus filicaulis*	0.1	5	no	N
	Eragrostis curvula (African Lovegrass)	0.5	25	no	HTE
	Setaria parviflora	1	75	no	E
Forb (FG)	*Geranium solanderi (Native Geranium)*	0.1	2	no	N