



Perilya Broken Hill Limited
ABN: 46 099 761 289

Modification Report

for the

Adjustment of the
Averaging Period for
Ore Transportation

at the

**Broken Hill
North Mine**

SSD 7538



Prepared by:

R.W. CORKERY & CO. PTY. LIMITED



No. 1 Shaft, 1910



No. 2 Shaft & Concentrator, 1940



No. 3 Shaft, 1958



No. 3 Shaft, 2016

July 2019

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Prepared for:

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July 2019



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EXECUTIVE SUMMARY

Introduction

This *Modification Report* has been prepared by R.W. Corkery & Co. Pty Ltd (RWC) on behalf of Perilya Broken Hill Limited (the Applicant) to support the application to modify Development Consent SSD 7538 for the Broken Hill North Mine. The Proposed Modification is being sought under Section 4.55(1A) of the *Environmental Planning and Assessment Act 1979* (EP&A Act).

Proposed Modification

It is proposed that the modification to SSD 7538 is made to allow for the averaging period under Condition 8 of Schedule 2 of SSD7538 for truck movements from the Mine Site to be changed from 16 laden truck movements per day, averaged over a calendar quarter to be averaged over a calendar year. No modification of the following approved limits are sought.

- Annual approved production rate.
- Daily maximum transportation rate of 32 laden movements.
- Hourly maximum transportation rate of 4 laden movements.
- Class or type of vehicle approved for the transportation of ore.
- Transportation route or hours.

Justification of the Proposed Modification

The Applicant's three operations in Broken Hill, namely the Southern Operations, North Mine and Potosi Mine are operated in a coordinated manner to ensure a consistent supply and grade of ore to the Southern Operations Concentrator. When one or more of the operations suffers production-related issues, the other operations are able to increase production to cover the shortfall.

Between January to June 2019, production at each of the Applicant's operations were adversely impacted by a combination of operational factors resulting in a substantial shortfall in produced metal when compare with budget. Such production challenges are not unusual for remnant mining operations, where managing safe and efficient access to historic mining areas at times results in unavoidable delays.

In order to manage these challenges, the Applicant relies on maximum flexibility at each of its operations, including North Mine. The current requirement to average daily vehicle movements over a calendar quarter rather than over a calendar year adversely impacts on the Applicant's ability to achieve the required flexibility of production. This is because, "lost" vehicle movements in one quarter cannot be regained in a subsequent quarter. This would be further exacerbated if production were to be negatively impacted in two consecutive quarters.

Engagement

The Applicant has engaged with the EPA, Broken Hill City Council and RMS, each of whom have stated that they have no objection to the Proposed Modification as there would be no additional impacts.



Assessment of Additional Impacts

The Applicant has concluded that there would be no additional traffic, road noise, air quality, human health risk or socio-economic impacts associated with the Proposed Modification.

Evaluation of Merits

The Applicant contends that the Proposed Modification would be of minimal environmental impact and substantially the same development as that originally approved.

1. INTRODUCTION

1.1 SCOPE

This *Modification Report* has been prepared by R.W. Corkery & Co. Pty Ltd (RWC) on behalf of Perilya Broken Hill Limited (the Applicant) to support the application to modify Development Consent SSD 7538 for the Broken Hill North Mine (**Figure 1**).

It is proposed that the modification to SSD 7538 is made to allow for the averaging period under Condition 8 of Schedule 2 for truck movements from the Mine Site to be changed from 16 laden truck movements per day, averaged over a calendar quarter to be averaged over a calendar year (the Proposed Modification). Section 2 provides a detailed description of the Proposed Modification.

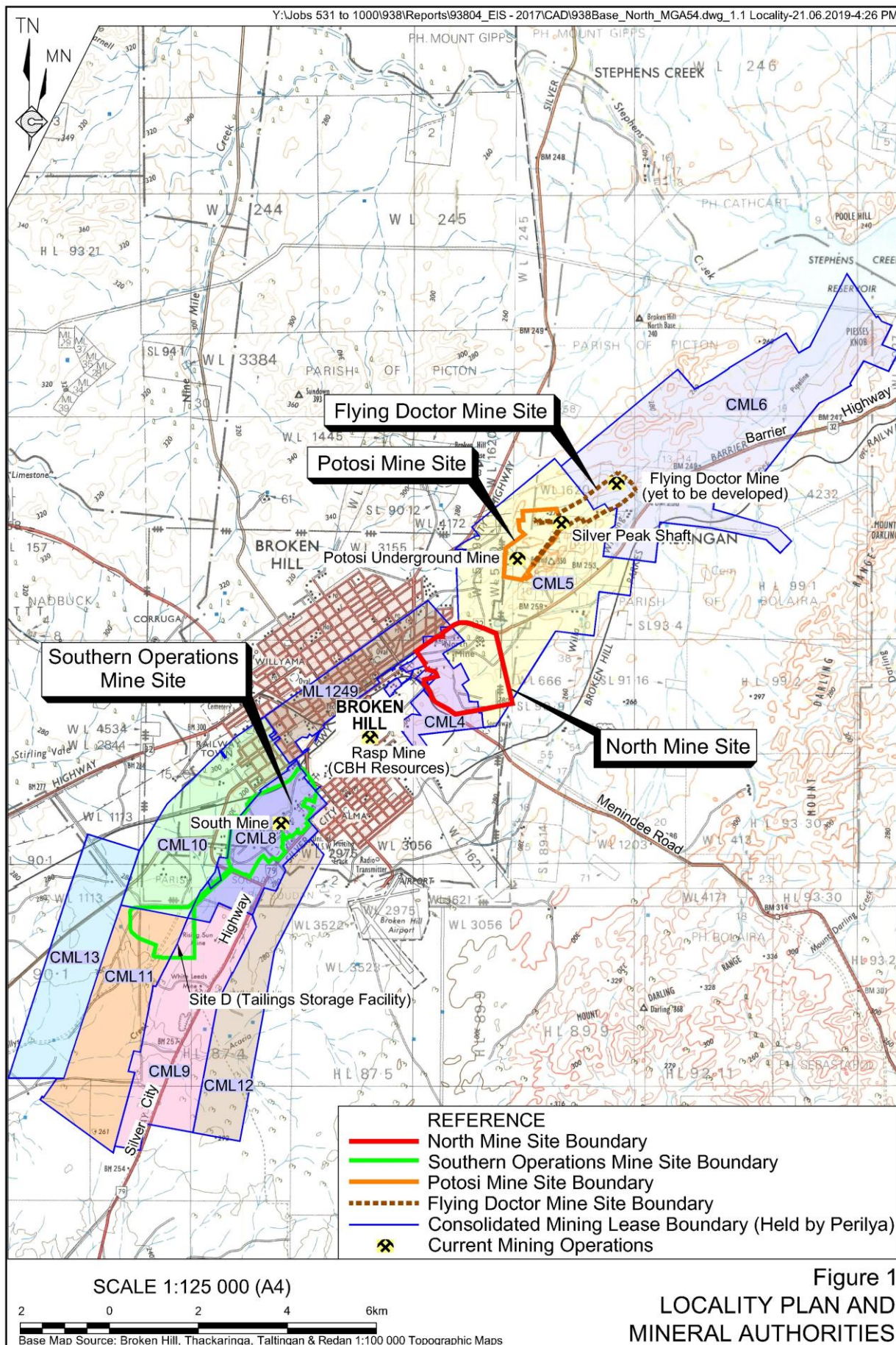
The proposed modification to SSD 7538 is being sought under Section 4.55(1A) of the *Environmental Planning and Assessment Act 1979* (EP&A Act) as the modified components of the Project have been assessed to have a minimal environmental impact. Should the Proposed Modification be approved, it would be the second modification of SSD 7538.

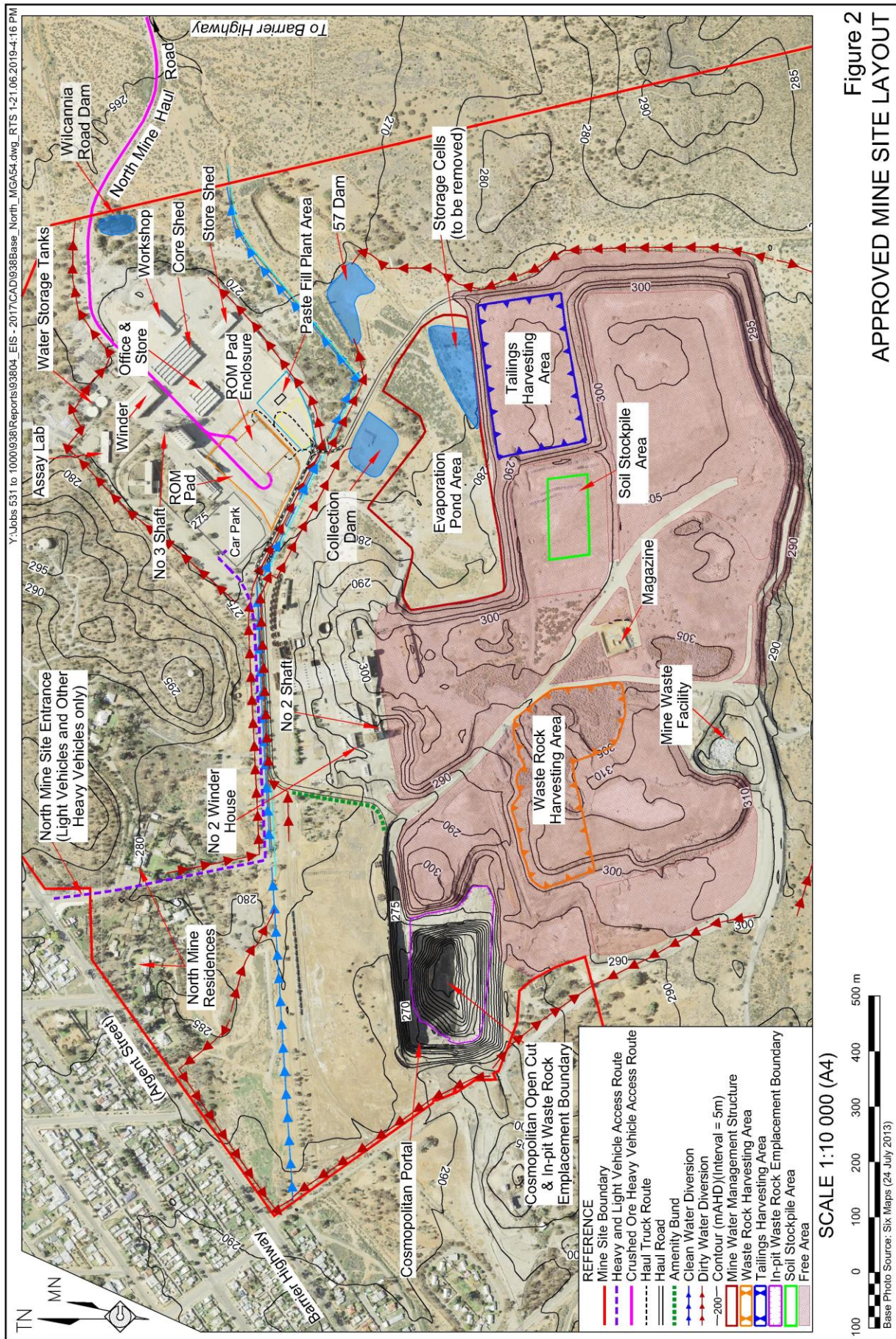
1.2 APPROVED OPERATIONS

1.2.1 North Mine

The North Mine operates under Development Consent SSD 7538, which was granted on 22 December 2017. The consent was modified for the first time on 7 September 2018 (MOD1). The modified consent allows for the following activities to be undertaken (**Figure 2**).

- Remediation the existing Cosmopolitan access ramp, portal and decline to the 12 Level (limit of the existing decline) to facilitate safe and efficient access to the underground workings
- Restoration and upgrade of the existing electrical, ventilation, air and water services, including on surface and within the decline, No. 2 and No. 3 Shafts, No. 3 Return Air Rise.
- Extension of the existing decline from the 12 Level to link with the existing decline between the 32 Level and the 38 Level.
- Exploration drilling from underground to further define remnant ore and identify additional ore lenses and lodes.
- Development of access drives to permit access by modern mining equipment.
- Extraction of remnant ore and ore below the base of previous mining operations, including within the Fitzpatrick Area at a maximum rate of 300,000tpa for a total of 4.2Mt over the 25-year life of the Mine, namely until 18 August 2043.
- Transportation of extracted ore to the surface ROM Pad using underground haul trucks, including establishment of a haulage route utilising existing roads and a proposed haul road cutting.





- Transportation of extracted waste rock for placement either within completed stopes underground or within the in-pit waste rock emplacement in the Cosmopolitan Open Cut.
- Extraction of waste rock from the existing surface waste rock emplacement for transportation back underground, as required.
- Harvesting of tailings from a former Tailings Storage Facility for mixing with water and cement in a proposed Paste Fill Plant for use backfilling completed stopes.
- Re-establishment of surface infrastructure required to support the mining operation, including a ROM pad, office and store, workshop and fuel store, change house and car park, services (power, water, air and communications), surface magazine and ancillary infrastructure.
- Stockpiling and crushing ore within the existing ROM Pad using a mobile crusher.
- Loading and transportation of the crushed ore to the Southern Operations using A-double road trains utilising the existing North Mine Haul Road, Barrier Highway, Iodide Road, Crystal Street and Gypsum Street (**Figure 3**).
- Dewatering of the existing workings and transferring that water to the Southern Operations or an on-site evaporation pond.

The transported ore is processed using the Southern Operations Concentrator under the continuing use rights held for that operation.

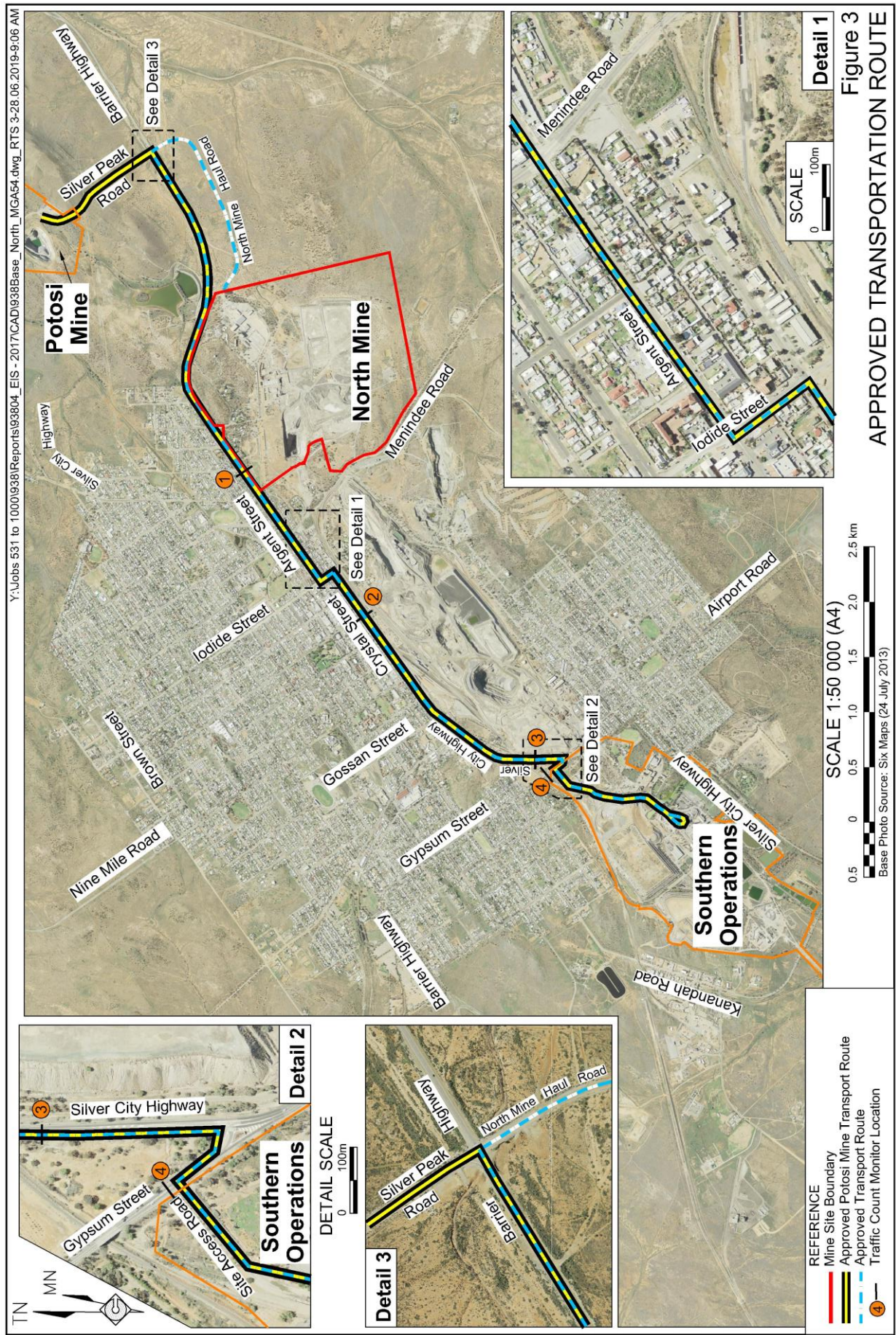
Mining operations under SSD7538 recommenced on 22 December 2018.

1.2.2 Southern Operations

The Southern Operations comprises two components, the South Mine and Site D. The South Mine incorporates the underground mining operations, a concentrator and associated infrastructure and offices. Site D comprises a Tailings Storage Facility. (**Figure 1**). For the purposes of this document, all activities at the Southern Operations are undertaken within the Southern Operations Mine Site.

The South Mine operates under the continuing use rights conferred by Section 109(1) of the EP&A Act. Activities that are undertaken at the South Mine include the following.

- Extraction of ore using underground mining methods. Ore and waste rock (referred to hereafter as mullock) is removed from the mine using both shaft haulage and via a decline. The historic rate of extraction of ore from the Mine has been between 0.9 million tonnes per annum (Mtpa) and 1.75Mtpa. Mining is expected to be completed in 2030.
- Crushing and screening of ore and stockpiling of the crushed ore on a crushed ore stockpile.



- Receipt of ore from the Applicant's other operations, including the Potosi Mine and North Mine. Approval also exists for ore from the Flying Doctor Mine to be transported to the Southern Operations.
- Processing of ore using the Southern Operations Concentrator to produce separate lead and zinc concentrates.
- Transportation of lead and zinc concentrates from the Southern Operations Mine Site to Port Pirie by rail.
- Transfer of tailings to Site D and return of recovered water.

Site D, which is located on unincorporated land outside the Broken Hill Local Government Area, operates under an approval granted by the then Minister for Mineral Resources on 11 September 1985. The Tailings Storage Facility comprises four cells, two of which have been completed and have been rehabilitated or are in the process of being rehabilitated, with Cell 3 the current active cell. The footprint of Cell 4 is currently used by Essential Water for a brine pond associated with the Broken Hill water treatment plant. That cell will be converted to a Tailings Storage Facility when Cell 3 approaches its design capacity.

1.2.3 Potosi Mine

The Potosi Mine is operated by the Applicant under DA448/2004 originally approved by the NSW Land and Environment Court and modified most recently on 12 May 2014. That approval permits the following.

- Operation of an underground mine to extract ore from the Potosi and Silver Peak ore bodies and an average rate of 400 000tpa.
- Transportation of ore and waste rock to the surface via two declines.
- Storage and crushing of ore at surface using mobile crushing equipment.
- Loading of crushed ore into covered A-double trucks for transportation to the Southern Operations Mine Site via the approved transportation route (**Figure 3**).

2. DESCRIPTION OF THE PROPOSED MODIFICATION

2.1 PROPOSED MODIFICATION

Condition 8 of Schedule 2 of SSD7538 identifies the maximum rate of transportation from the North Mine as follows.

“The Applicant must ensure that the development does not generate more than:

- a) 32 ore laden truck movements per day;
- b) 4 ore laden truck movements per hour; and
- c) 16 ore laden truck movements per day when averaged over a calendar quarter.”

The Applicant proposes to amend SSD7538 as follows.

“The Applicant must ensure that the North Mine and Potosi Mine together do not generate more than:

- a) 32 ore laden truck movements per day;
- b) 4 ore laden truck movements per hour; and
- c) 16 ore laden truck movements per day when averaged over a calendar ~~quarter~~ year.”

No other modifications to SSD7538 are sought. In particular, the Applicant notes that no modification of the following is sought.

- Annual approved production rate.
- Daily maximum transportation rate of 32 laden movements.
- Hourly maximum transportation rate of 4 laden movements.
- Class or type of vehicle approved for the transportation of ore.
- Transportation route or hours.

2.2 JUSTIFICATION OF THE PROPOSED MODIFICATION

The Applicant’s operations in Broken Hill, namely the Southern Operations, North Mine and Potosi Mine are operated in a coordinated manner to ensure a consistent supply and grade of ore to the Southern Operations Concentrator. Consistent supply of ore is essential for the efficient operation of the concentrator and to enable the Applicant to meet its contractual obligations to its customers.

In order to achieve this, each of the Applicant’s operations require flexibility to be able to respond to production challenges at its other operations. Between January and June 2019, a range of challenges have impacted on each of the Applicant’s operations. **Appendix 1** presents a detailed overview of those challenges which may be summarised as follows.

- At the Southern Operations, fewer tonnes were produced at a substantially lower grade than expected, resulting in a shortfall of 7,537t of metal compared with budgeted production.



- At the Potosi Mine, substantially fewer tonnes were produced at a lower grade than expected, resulting in shortfall of 2,535t of metal compared with budgeted production.
- At the North Mine, production was initially substantially higher than budgeted, largely as a result of transportation to surface of ore that had been stockpiled underground prior to the receipt of all required approvals in late 2018. However, once those stockpiles had been cleared, marginally fewer tonnes were produced at a lower grade than budgeted. During this period 139 743t of ore was transported, compared with the budget estimate of 101 823t. Average daily transportation during Q1 2019 was 15.6 laden movements per day. By contrast, average daily transportation during Q2 2019 was only 11.4 laden movements per day.
- The impact of the above on overall production across the Applicant's business was a net production shortfall of 7,712t of metal, or 12.8% less than expected. This combined with commodity prices that are 16.9% and 11.5% lower for lead and zinc respectively less than forecast, is having a significant negative impact on the Applicant's business.

The production challenges experienced at each of the Applicant's operations are not unusual for remnant mining operations, where managing safe and efficient access to historic mining areas at times results in unavoidable delays. Similarly, commodity price fluctuations are a normal part of the mining industry.

In order to manage these challenges, the Applicant relies on each of its operations, including North Mine, to support the overall business, requiring the maximum flexibility to increase production and associated transportation rates as required. Indeed, the Applicant has revised its budgeted production for North Mine to bring the 2019 production rate up to approximately 300,000t or the maximum permissible production.

The current restriction under Condition 8 of Schedule 2 of SSD7538 to average daily vehicle movements over a calendar quarter rather than over a calendar year will adversely impact on the Applicant's ability to achieve this budgeted production rate because, "lost" vehicle movements from the North Mine in one quarter cannot be regained in a subsequent quarter. This would be further exacerbated if production were to be negatively impacted in two consecutive quarters.

In order to effectively manage its business, the Applicant requires the flexibility to increase production within the current maximum annual, daily and hourly limits, to respond to operational challenges as they arise.

3. STATUTORY CONTEXT

3.1 ENVIRONMENTAL PLANNING AND ASSESSMENT ACT 1979

SSD7538 was originally approved on 22 December 2017 and was subsequently modified under Section 4.55(1A) of the *Environmental Planning and Assessment Act 1979* on 7 September 2018.

The Proposed Modification is sought under Section 4.55(1A) of the *Environmental Planning and Assessment Act 1979* (EP&A Act). **Table 1** reproduces relevant text from that subsection and justifies the application in relation to each of the matters to be addressed.

Table 1
Section 4.55(1A) Requirements

Requirement	How/Where addressed
A consent authority may, on application being made by the applicant or any other person entitled to act on a consent granted by the consent authority and subject to and in accordance with the regulations, modify the consent if:	- The Minister is the consent authority for SSD7538. The Development Consent was determined and subsequently modified by a senior officer of the Department of Planning under delegation. - The Applicant is entitled to act on SSD7538
a) it is satisfied that the proposed modification is of minimal environmental impact, and	Section 6 presents an assessment of impacts of the Proposed Modification.
b) it is satisfied that the development to which the consent as modified relates is substantially the same development as the development for which the consent was originally granted and before that consent as originally granted was modified (if at all), and	Section 7 presents an assessment of whether the Proposed Modification is substantially the same as the development for which the consent was originally granted.
c) it has notified the application in accordance with: i. the regulations, if the regulations so require, or ii. a development control plan, if the consent authority is a council that has made a development control plan that requires the notification or advertising of applications for modification of a development consent, and	- This is a matter for the Department; however, Section 5 presents the consultation undertaken by the Applicant during preparation of this Modification Report. - The Applicant is not aware of any relevant Development Control Plan that applies to the Proposed Modification.
d) it has considered any submissions made concerning the proposed modification within any period prescribed by the regulations or provided by the development control plan, as the case may be.	This is a matter for the Department; however, the Applicant anticipates that any relevant submissions received by the Department will be provided to the Applicant and that Applicant will provide a response to each as required.

3.2 OTHER RELEVANT LEGISLATION

Table 2 presents an overview of other relevant legislation and provides an overview of how each is or is not relevant to the Proposed Modification.

Table 2
Other Relevant Legislation

Legislation	Relevance and Where Addressed
<i>Environment Protection and Biodiversity Conservation Act 1999 (Cth)</i>	As the Proposed Modification would not affect any matter of National Environmental Significance, this legislation is not relevant.
<i>Protection of the Environment Operations Act 1997</i>	The Applicant holds EPL2683 for the North Mine. Section 5 describes consultation undertaken with the Environment Protection Authority and Section 6 provides an assessment of impacts associated with the Proposed Modification relevant to this Act.
<i>Roads Act 1993</i>	Section 5 describes consultation undertaken with the Environment Protection Authority and Section 6 provides an assessment of impacts associated with the Proposed Modification relevant to this Act.
<i>Mining Act 1992</i>	The Applicant holds Consolidated Mining Leases (CLMs) 5 and 6. As the Proposed Modification would not impact on matters relevant to this Act, it has not been considered further.
<i>Water Management Act 2000</i>	The Applicant holds a range of licences and approvals under this Act. As the Proposed Modification would not impact on matters relevant to this Act, it has not been considered further.
<i>National Parks and Wildlife Act 1974</i>	The Proposed Modification would not impact on matters relevant to these Acts. As a result, they have not been considered further.
<i>Biodiversity Conservation Act 2016</i>	
<i>Heritage Act 1977</i>	

4. ENGAGEMENT

Table 3 presents a consultation log with the relevant Government agencies in relation to the Proposed Modification.

Table 3
Agency Consultation Log

Date	Method of Consultation	Summary of Consultation
Department of Planning		
13/06/2019	Outgoing letter via email	The Applicant provided a brief letter to the Department outlining the Proposed Modification and application pathway.
18/06/2019	Teleconference	The Applicant and Departmental officers discussed the application. Key outcomes were as follows. - The Application is to be submitted under Section 4.55(1A) of the EP&A Act. - The Applicant is to consult the EPA, RMS and Broken Hill City Council. - The Applicant is to submit the above letter via the Planning Portal.
20/06/2019	Incoming letter	Letter received confirming the above and stating that: - no formal assessment requirements will be issued; - advice in relation to biodiversity impacts will need to be provided; and - the application is to include a justification of the Proposed Modification including operational efficiencies and socio-economic implications
Environment Protection Authority		
20/06/2019	Telephone call and follow up letter via email	The Applicant briefed officers of the EPA on the Proposed Modification. No matters or concerns were raised
02/07/2019	Incoming email	The EPA email confirmation to the Applicant communicating that it had no objection to the MOD2 application.
Roads and Maritime Service		
20/06/2019	Telephone call and follow up letter via email	The Applicant briefed officers of the RMS on the Proposed Modification. No matters or concerns were raised
04/07/2019	Incoming letter	The RMS provided a letter via email to the Applicant communicating that it had no objection to the MOD2 application.
Broken Hill City Council		
21/06/2019	Telephone call and follow up letter via email	The Applicant briefed Council officers on the Proposed Modification. No matters or concerns were raised
24/06/2019	Incoming email	Council responded via email and stated “that Broken Hill City Council raises no objection to the proposed modification. Also, Council agrees that the proposed modification will have no impacts on the VPA and no modification to this will be required. Council is also confident that the proposal will have no impact on the local traffic and amenity of the City”

5. ASSESSMENT OF ADDITIONAL IMPACTS

5.1 INTRODUCTION

The following subsections provide an overview and assessment of the key environmental issues that have been identified as potential constraints on the Proposed Modification. The principal environmental issues, namely transportation, road traffic noise, air quality and socio-economic impacts are reviewed in detail. In each case, the existing environment and approved impacts are briefly described before potential additional impacts are identified and assessed.

Section 6.6 provides a review of all other relevant environmental aspects.

In all cases management measures identified in the documentation associated with the original application for development consent and MOD1, as well as existing approved Management Plans, would continue to be implemented.

5.2 TRANSPORTATION

Figure 3 presents the approved transportation route. In summary, the Applicant transports ore from the North Mine to the Southern Operations via the North Mine Haul Road, Barrier Highway/Argent Street, Iodide Street, Crystal Street/Silver City Highway and Gypsum Street.

The North Mine Haul Road, previously referred to as the Potosi Haul Road, is an unsealed, two-way private road maintained by the Applicant. Gypsum Street is a sealed, two lane Local road administered by Broken Hill City Council. The remainder of the transportation route is a sealed two-lane State Road approved for use by A-double road trains.

The Applicant is currently in consultation with Roads and Maritime Service in relation to a range of upgrades to roads along the approved transportation route.

The following limitations apply to transportation operations.

- Maximum vehicle size30m A-double road trains
- Hours of transportation.....8:00am to 6:00pm, 7 days a week
- Maximum number of ore laden vehicles
 - per day32
 - per hour.....4
 - per day, averaged over a calendar quarter16

The Proposed Modification would not modify the above, with the exception of the averaging period for laden ore vehicles from quarterly to annually.

The currently approved *Transport Management Plan* includes a range of management and mitigation measures in Section 9 of that document. In addition, the Applicant requires that all drivers abide by a Driver's Code of Conduct presented as Appendix 1 of that document. The *Transport Management Plan* would continue to apply to all transportation operations, with the only modification required should the Proposed Modification be approved being that associated with the changed averaging period for laden vehicle movements.

The Applicant notes that when it was transporting ore in January 2019 at a rate of approximately 38 000t per month, requiring 655 ore laden movements, or an average of 21.1 movements per day, there were no complaints and no road-traffic related incidents. This is despite the fact that this was the first month during which North Mine ore was transported and the most likely period during which residents and motorists would notice the additional transportation.

It is unlikely that motorists using the public road network or residents of Broken Hill would be impacted by or, indeed notice, the Proposed Modification for the following reasons.

- The Proposed Modification would not change the frequency or hours during which ore is transported from the North Mine.
- The Proposed Modification would not increase the maximum number of vehicles per day, nor the amount of material that may be transported annually.
- There would be no change in the management measures to be implemented by the Applicant to appropriately manage road transportation operations.

For the above reasons, there would be no additional damage to roads, nor reduction in road safety as a result of the Proposed Modification. Indeed, this has been acknowledged by Broken Hill City Council who note that no modification to the VPA for the Mine is required.

5.3 ROAD TRAFFIC NOISE

Road traffic noise impacts for the original application for development consent were assessed by Muller Acoustic Consulting Pty Ltd (MAC), with the resulting report presented as Part 3 of the *Specialist Consultant Studies Compendium* that accompanies RWC (2017) and are summarised in Section 4.4 of that report. In summary, MAC concluded that the North Mine, as approved, would not exceed the relevant road traffic noise criterion of 60dBA_{Lmax} at any residence along the approved transportation route.

As the Proposed Modification would not increase the number of vehicle passbys during a single day, the Proposed Modification would similarly not exceed the road traffic noise criterion at any residence along the transportation route.

The currently approved *Noise Management Plan* includes a range of management and mitigation measures in Section 9 of that document. In addition, the Applicant requires that all drivers abide by the Driver's Code of Conduct which includes limitation on the use of compression braking and other noisy driving practices. The *Noise Management Plan* would continue to apply to all operations, including transportation operations, with no substantive modifications envisaged as a result of the Proposed Modification.

Finally, the Applicant notes that it has not received a road traffic noise-related complaint since it commenced operations at the North Mine. Indeed, there have been no road traffic noise-related complaints since truck haulage from the Potosi Mine commenced in March 2013, with approximately 58,410 loads of ore transported from that time to the end of H1 2019.

5.4 AIR QUALITY AND HUMAN HEALTH RISKS

Air quality impacts for the original application for development consent was assessed by Pacific Environment (2017a and 2017b). In summary, the assessment determined that the North Mine, as approved, would not result in air quality-related impacts that would exceed the relevant criteria at any residence.

Similarly, a Human Health Risk Assessment for the development consent undertaken by ToxConsult (2017) determined that the North Mine as approved would not result in additional risk of increased blood lead levels in residents surrounding the Mine Site.

The Proposed Modification would not result in:

- additional or increased on-site activities with the potential to generate dust; or
- additional transportation during any 24-hour or annual assessment period.

The currently approved *Air Quality Management Plan* includes a range of management and mitigation measures in Section 9 of that document, including a requirement to cover loads and manage dust emissions on sealed and unsealed roads. The *Air Quality Management Plan* would continue to apply to all operations, including transportation operations, with no substantive modifications envisaged as a result of the Proposed Modification.

As a result, the Applicant contends that the Proposed Modification would not result in increased air quality-related impacts, nor an increased risk of elevated blood lead levels for surrounding residents.

5.5 SOCIO-ECONOMIC IMPACTS

The Applicant contends that the Proposed Modification would not result in any adverse impacts for residents of Broken Hill. By contrast, the Proposed Modification would enable the Applicant to more efficiently manage its operations and respond to unforeseen events or circumstances. This would result in a more robust operation and reduced uncertainty for the Applicant's employees, contractors and suppliers, as well as those businesses and individuals that rely upon the flow on effects from the Applicant's overall operations.

In light of the above, the Applicant contends that the Proposed Modification would result in a positive socio-economic outcome.

5.6 OTHER ENVIRONMENTAL ISSUES

Table 4 presents an overview of the remaining environmental issues for which the Applicant contends that there would be no significant additional impacts and justifies this contention for each.

Table 4
Other Environmental Issues

Issue	Nature of Additional Impact and Justification
Biodiversity	Nil. The Proposed Modification would not result in additional disturbance of land, not increased risk of interaction between ore transportation vehicles and wildlife.
Vibration	Nil. The Proposed Modification would not result in changes to blasting practices or controls.
Historic or Aboriginal heritage	Nil. The Proposed Modification would not result in additional disturbance of land, nor an increased risk of damage to any site of historic significance.
Surface water or groundwater	Nil. The Proposed Modification would not result in additional disturbance of land nor changes to the existing dewatering operations or surface water management measures.
Visual amenity	Nil. The Proposed Modification would not result in additional disturbance of land nor changes to the visual landscape within the Mine Site.
Bushfire	Nil. The Proposed Modification would not result in additional disturbance of land nor increased risk of bushfire.
Soils, land capability or agricultural lands	Nil. The Proposed Modification would not result in additional disturbance of land.

6. EVALUATION OF MERITS

6.1 INTRODUCTION

This section concludes the *Modification Report* and provides an evaluation of the merits of the Proposed Modification, including an assessment of whether the Proposed Modification would be substantially the same development as the development for which the consent was originally granted, as well as an assessment of those matters identified in Section 4.15 of the *Environmental Planning and Assessment Act 1979*.

6.2 SUBSTANTIALLY THE SAME DEVELOPMENT

Section 4.55(1A) states that the consent authority must be:

“satisfied that the development to which the consent as modified relates is substantially the same development as the development for which the consent was originally granted and before that consent as originally granted was modified”

The Applicant contends that the Proposed Modification would be substantially the same development as that originally approved because the Proposed Modification would not result in changes to any of the following.

- The approved area of disturbance.
- The approved mining, processing or ancillary activities.
- The approved hours of operation.
- The approved annual production rate.
- The approved hourly or daily maximum transportation rate.
- The approved class or type of vehicle used for transportation of ore.
- The approved transportation route, as modified by MOD1.
- The approved management and mitigation measures embodied in any of the management plans.

6.3 SECTION 4.15(1) CONSIDERATIONS

Section 4.15(1) of the EP&A Act sets out the matters for consideration by a consent authority when determining an application for development consent. **Table 5** presents the matters identified in that subsection and how each has been addressed in this document

.



Table 5
Section 4.15(1) Considerations

Requirement	How/Where addressed
In determining a development application, a consent authority is to take into consideration such of the following matters as are of relevance to the development the subject of the development application:	
(a) the provisions of: (i) any environmental planning instrument, and	An assessment of relevant planning instruments is provided in RWC (2017). The Mine remains permissible under the Broken Hill Local Environment Plan 2013.
(ii) any proposed instrument that is or has been the subject of public consultation under this Act and that has been notified to the consent authority (unless the Planning Secretary has notified the consent authority that the making of the proposed instrument has been deferred indefinitely or has not been approved), and	The Applicant is not aware of any proposed planning instruments that may be relevant.
(iii) any development control plan, and	The Applicant is not aware of any development control plans that may be relevant.
(iiia) any planning agreement that has been entered into under section 7.4, or any draft planning agreement that a developer has offered to enter into under section 7.4, and	The Applicant has a Voluntary Planning Agreement with Broken Hill City Council. Council has confirmed that no amendment to this agreement is required.
(iv) the regulations (to the extent that they prescribe matters for the purposes of this paragraph), that apply to the land to which the development application relates,	This is a matter for the department, however, the applicant contends that all matters relevant to the Proposed Modification have been adequately addressed.
(b) the likely impacts of that development, including environmental impacts on both the natural and built environments, and social and economic impacts in the locality,	Section 6 provides an assessment of additional impacts associated with the Proposed Modification.
(c) the suitability of the site for the development,	The Mine Site has been the subject of mining operations since 1883 and is suitable for the Proposed Modification
(d) any submissions made in accordance with this Act or the regulations,	This is a matter for the Department; however, the Applicant anticipates that any relevant submissions received by the Department will be provided to the Applicant and that Applicant will provide a response to each as required.
(e) the public interest.	The Applicant contends that the Proposed Modification would be in the public interest for the reasons escribed in Section 6.5.

7. REFERENCES

Pacific Environment (PE) 2017a, *Air Quality and Greenhouse Gas Assessment* presented as Part 1 of the *Specialist Consultant Studies Compendium* that accompanied the *Environmental Impact Statement*. Prepared for Perilya Broken Hill Limited.

Pacific Environment (PE) 2017b. *Perilya Broken Hill North Mine – Air Quality Assessment Update*, presented as Appendix 1 to the *Response to Submissions*. Prepared for Perilya Broken Hill Limited.

R.W. Corkery & Co. Pty Ltd (RWC) 2017. *Environmental Impact Statement*. Prepared for Perilya Broken Hill Limited.

ToxConsult 2017. *Perilya Broken Hill North Mine Human Health Risk Assessment* presented as Appendix 2 to the *Response to Submissions*. Prepared for Perilya Broken Hill Limited.

Appendix 1

Perilya Broken Hill Production Statistics – January 2019 to June 2019

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A1.1 INTRODUCTION

As described in Section 2.2, the Applicant's three operations in Broken Hill, namely the Southern Operations, North Mine and Potosi Mine are operated in a coordinated manner to ensure a consistent supply and grade of ore to the Southern Operations Concentrator. A range of production challenges during the first 6 months of 2019 has adversely impacted on the Applicant's business. Section 2.2 provides an overview of those challenges. The following subsections substantiate the information provided in that Section.

A1.2 MINING PERFORMANCE – ALL OPERATIONS

The following present an overview of the performance of the mining performance of the Applicant's Broken Hill operations month by month and for the year to date (YTD) period 1 January to 30 June 2019. This information is consistent with the information presented to the Applicant's employees throughout 2019.

Southern Operations

Figure A1 presents the material movements, grade and metal production from the Southern Operations YTD. In summary, the Southern Operations produced 4.1% fewer tonnes at a combined grade that was 14.2% less than budget, resulting in an under production of 7,537t of combined lead and zinc. This is due to a combination of operational factors that include loss of flexibility resulting from covering the shortfall of metal tonnes planned from North Mine in the 2018 budget prior to receipt of all approvals required to commence mining operations.

Potosi Mine

Figure A2 presents the material movements, grade and metal production from the Potosi Mine YTD. In summary, the Potosi Mine produced 10.7% fewer tonnes at a combined grade that was 7.8% less than budget, resulting in an under production of 2,535t of combined lead and zinc. This shortfall was largely due to reduced material movements between January and March and a reduction in zinc grade caused by a combination of operational factors that include loss of flexibility resulting from covering the shortfall of metal tonnes planned from North Mine in the 2018 budget prior to receipt of all approvals required to commence mining operations.

North Mine

Figure A3 presents the material movements, grade and metal production from the North Mine YTD. In summary, the North Mine produced 51.3% more tonnes in January and February than budgeted, when ore previously stockpiled underground was brought to surface. However, once the stockpiles ore had been cleared, production returned to close to budget levels, with production levels for the YTD being 37.2% higher than budget. The combined grade of North Mine ore was 0.79% lower than budget, however, the above budget rate of ore transportation resulted in the North Mine producing 2,862t more lead and zinc than budgeted.

Combined Operations

Figure A4 presents the combined material movements, grade and metal production for Applicant's combined operations YTD. In summary, the Applicant produced 0.4% more tonnes than budgeted, primarily as a result of ore stockpiled underground at the North Mine at the start of the period. However, the combined grade was 10.3% lower than budget, with a shortfall of 7,712t of lead and zinc, or 12.8% less than budget. This YTD shortfall in metal production combined with commodity prices that are 16.9% for lead and 11.5% for zinc less than forecast, is having a significant negative impact on the Applicant's business.

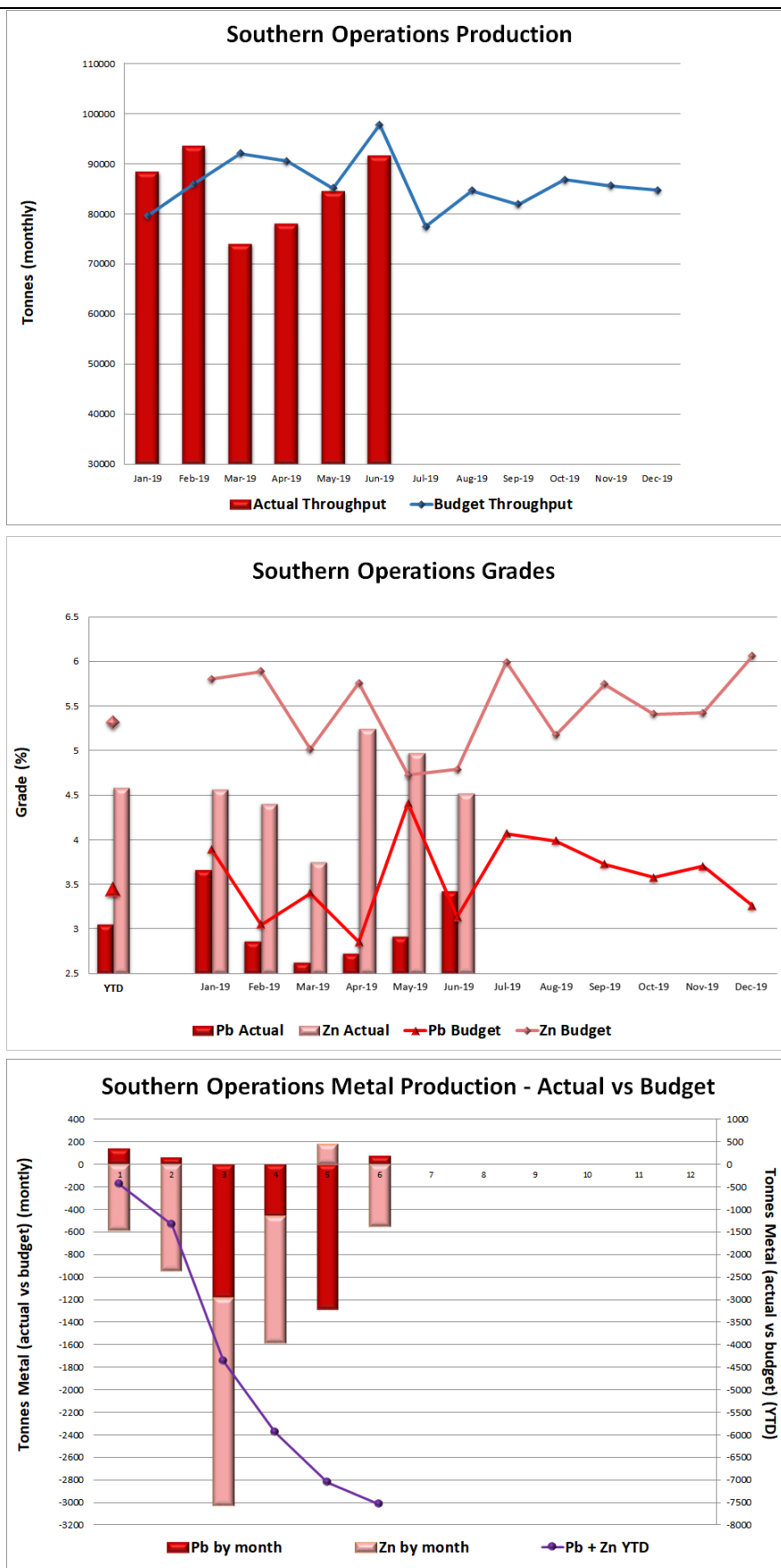
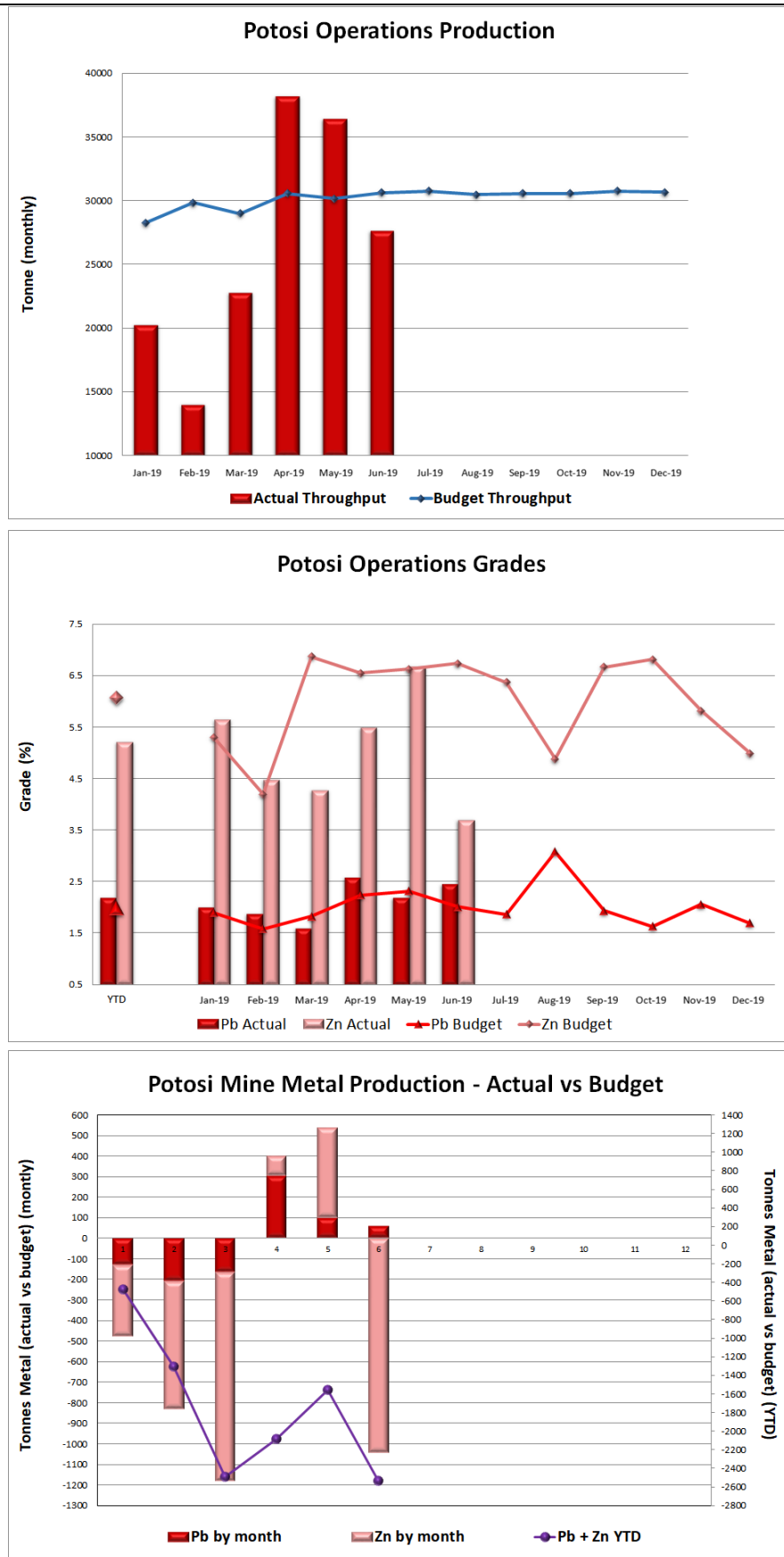


Figure A1

Source: Perilya Broken Hill Limited

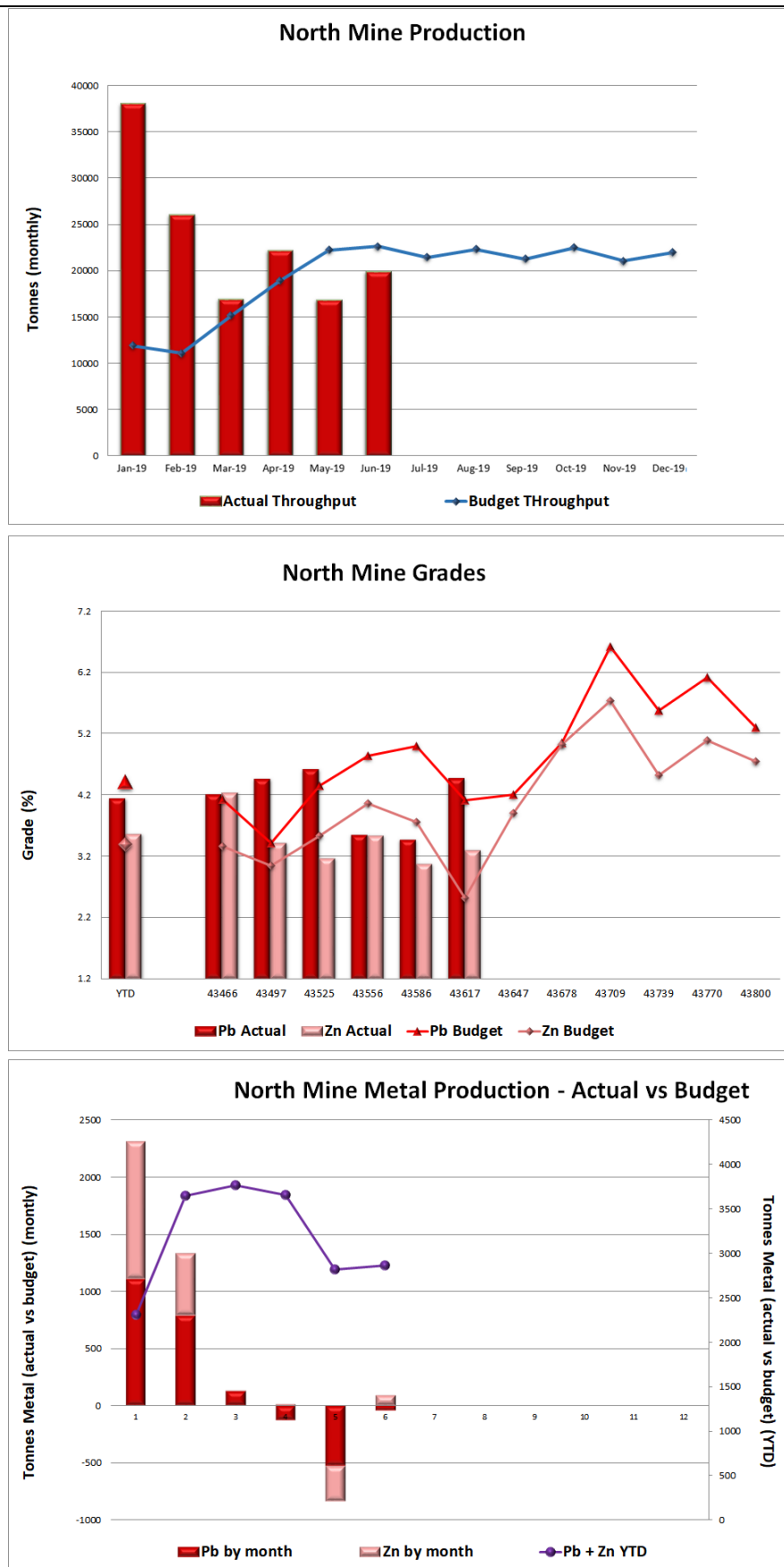
SOUTHERN OPERATIONS YTD PRODUCTION VS BUDGET



Source: Perilya Broken Hill Limited

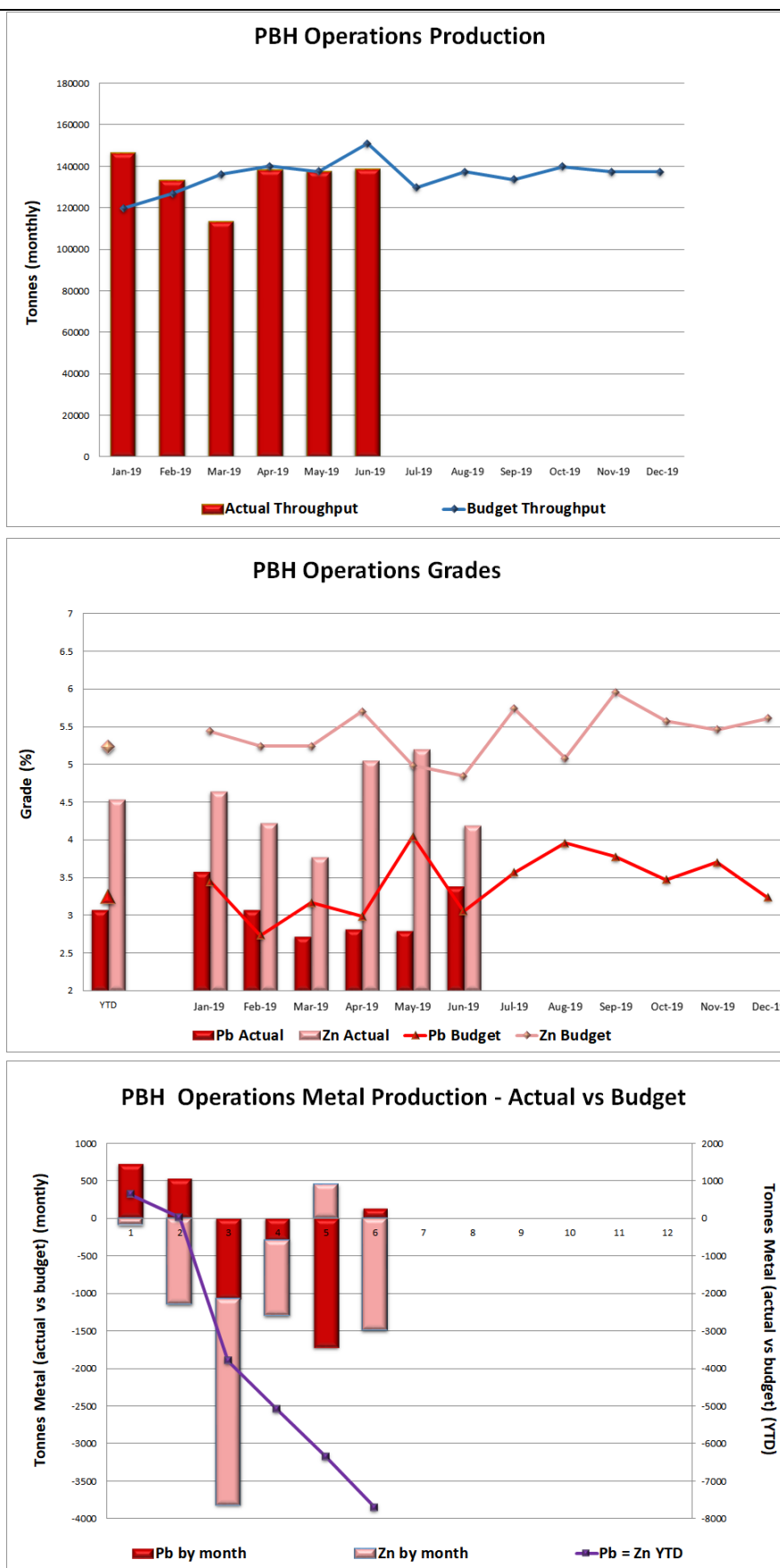
Figure A2
POTOSI MINE YTD PRODUCTION VS BUDGET





Source: Perilya Broken Hill Limited

Figure A3
NORTH MINE YTD PRODUCTION VS BUDGET



Source: Perilya Broken Hill Limited

Figure A4
COMBINED OPERATIONS YTD PRODUCTION VS BUDGET



A1.3 TRANSPORTATION PERFORMANCE – NORTH MINE

Figure A5 presents the daily laden vehicle movements from the North Mine YTD. The data may be summarised as follows.

- The maximum number of laden vehicle movements per day was 32.
- Transportation rates in January was substantially higher than in February to June as a result of transportation of ore that had been stockpiled underground.
- Average laden vehicle movements during Q1 2019 were 15.6 per day.
- Average laden vehicle movements during Q2 2019 were 11.4 per day.

As noted in Section 2.2, Condition 8 of Schedule 2 of SSD7538 as currently drafted means that the “lost” vehicle movements in Q2 2019 cannot be regained in subsequent quarters. This would be further exacerbated if production is negatively impacted in subsequent quarters. As a result, in order to effectively manage its business, the Applicant requires the flexibility to increase production within the current maximum annual, daily and hourly limits, to respond to operational challenges as they arise.

