

## OUTSTANDING VALUE DEMONSTRATED BY PREFEASIBILITY STUDY OUTCOMES FOR THE LADY JULIE GOLD PROJECT

Magnetic Resources NL (Magnetic or the Company) is pleased to announce the results of a Prefeasibility Study (PFS) on its 100% owned Lady Julie Gold Project (Project), situated in the Laverton, Western Australia gold region. The outcomes of the study show a technically and financially robust Project.

### PFS Highlights:

- Confirming a financially robust Project with low-cost, high margin gold production of 720,000 oz (averaging 87,000 oz/year) over a 9-year life of mine (LOM).
- Pre-tax IRR of 85% at A\$2,800/oz, increasing to 108% at the current spot price of A\$3,100/oz.
- Total EBITDA of A\$982M at A\$2,800/oz, increasing to A\$1,191M at the current spot price of ~A\$3,100/oz.
- Life of mine average C1 (operating) cost of A\$1,434/oz and AISC of A\$1,445/oz, including sustaining capital of \$8M.
- Pre-tax NPV8 of \$547M at A\$2,800/oz, increasing to A\$690M at the current spot price of ~A\$3,100/oz.
- Payback period of 15 months from production.
- Open pit Mining inventory of 13.6Mt @1.78g/t Au, containing 773,700oz gold. Total life of mine production includes approximately 77% Indicated and 23% of Inferred Mineral Resource, with the initial 5 years of production from the Indicated Resource.
- Development capital of A\$93.4M (including 15% contingency provision for the plant cost estimate), assuming a standalone 1.8 Mtpa processing plant and 3 months pre-production activities.
- Cost estimates have been based on the current inflationary environment and supported by industry quotes for personnel, equipment and consumable unit costs. Plant capital is based on 2021 P&ID level quotes updated to present.
- A Mining Proposal will now be prepared and submitted to advance a further mining lease application and regulatory approval to allow for mining.
- The PFS is shown at the end of this ASX Release.

Commenting on the PFS outcomes, Magnetic's Managing Director, George Sakalidis, said:

"The excellent PFS outcome demonstrates that Magnetic's Lady Julie Gold Project is one of the highest margins, undeveloped gold projects in Australia. The Project's low-cost profile and strong financial return metrics are primarily driven by the extraordinary near-surface, high-grade nature of the Lady Julie Central and Lady Julie North 4 deposits. This low-cost profile places the Project in the bottom half of the cost curve of gold producers in Australia."

"The PFS focuses on mining the Indicated and Inferred resources of Lady Julie North 4, Lady Julie Central and Hawks Nest 9. Lady Julie North 4 is by far the largest contributor to the study producing over 11.5Mt of ore during its operation."



“Further refinement of the Project’s economics will be carried out in 2024 with scope to further improve the economics of the Project from boosting process recoveries and modifying processing scenarios. More significantly, potential exists to further increase production and mine life estimates from the inclusion of resources drilled since the last update provided in November 2023. The Magnetic team has been very successful in defining new targets and making new discoveries with recent deep drilling confirming the resource continuity below Lady Julie North 4. 2024 promises to be a very exciting year for the Company”.

**Cautionary statement:**

The production inventory and forecast financial information referred to in the PFS comprise Indicated Mineral Resources (approximately 77%) and Inferred Mineral Resources (approximately 23%). The Company has concluded that it has reasonable grounds for disclosing a production target which includes the foregoing amount of Inferred Mineral Resources, including on the basis that the Inferred material has been scheduled such that less than 5% of the ore mined in the first 5 years is in the Inferred category, with the remainder mined through the LOM. The Inferred Mineral Resource does not have a material effect on the technical and economic viability of the Lady Julie Gold Project. Accordingly, Magnetic has concluded that it is satisfied that the financial viability of the development case modelled in the PFS is not dependent on the inclusion of Inferred Mineral Resources early in the production schedule given an estimated payment period of 15 months from the commencement of production.

There is a low level of geological confidence associated with Inferred Mineral Resources and there is no certainty that further exploration work will result in the determination of Indicated Mineral Resources or that the production target itself will be realised. Further drilling is planned with the aim of converting Inferred Mineral Resources to Indicated Mineral Resources.

The Company is not in a position to estimate any Ore Reserves or to provide any assurance of an economic development case. Given the uncertainties involved, investors should not make any investment decisions based solely on the results of the PFS.

This announcement has been prepared in compliance with the JORC Code (2012) and the ASX Listing Rules. All material assumptions, including sufficient progression of all JORC Code (2012) modifying factors, on which the production target and forecast financial information are based have been disclosed in this announcement.

**Project funding sources and strategy:**

Given the technical and economic attractiveness of the PFS, Magnetic has reasonable grounds to believe the Project could be financed via a combination of debt and equity. To achieve the range of outcomes indicated in the PFS, approximately \$93.4M of capital is required prior to reaching production.

At this stage of the Project, no formal discussions have yet commenced with potential financiers. However, consistent with typical project development financing, Magnetic expects debt could potentially be secured from a range of sources including Australian banks, resource credit funds, export credit agencies, Government agencies, or in conjunction with product sales or offtake agreements.

The Company may also consider commencing a formal strategic partnering process whereby alternative funding options, including undertaking a corporate transaction, a joint venture partnership, a partial asset sale and/or offtake pre-payment, could be undertaken if it maximises shareholder value over the long term.

Given the early stage of the Project, there is no certainty that Magnetic will be able to source funding as and when required. It is also possible that required funding may only be available on terms that may be dilutive to or otherwise affect the value of Magnetics’ existing shares.

Magnetic has formed the view that there is a reasonable basis to believe that requisite future funding for development of the Project will be available when required based on the following:



Magnetic has a market capitalisation of approximately A\$240 million and a strong track record of raising equity funding for the advancement of the Project. Approximately \$17m has been raised from sophisticated investors, brokers and existing shareholders.

Demand for gold is expected to be strong and funding for quality resource projects delivering production of this metal is likely to be available. The Project has the potential to become a mid-tier mine in a western jurisdiction which is expected to attract a range of financiers and partners.

The Project is in Western Australia, one of the world's best mining jurisdictions with a stable political and regulatory environment. This is highly attractive for financiers and partners due to the low levels of sovereign, legal, operational and financial risk.

Economic viability at this early stage of the Project, in a range of scenarios, has been demonstrated by strong free cashflow and a capital investment payback period of 1.3years as outlined in the PFS.

This announcement has been authorised for release by Managing Director George Sakalidis.

For more information on the company visit [www.magres.com.au](http://www.magres.com.au)

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#### **Competent Persons Statement:**

The information in this report is based on and fairly represents information compiled by George Sakalidis BSc (Hons), who is a member of the Australasian Institute of Mining and Metallurgy. George Sakalidis is a Director of Magnetic Resources NL. George Sakalidis has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. George Sakalidis consents to the inclusion of this information in the form and context in which it appears in this report.

The Information in this report relates to:

1. Promising 200m wide 0.7g/t soil geochemistry associated with extensive 1km long NS porphyries at newly named Hawks Nest 9. MAU ASX Release 15 October 2018
2. 1.1km NNW Mineralised Gold Intersections at HN9. MAU ASX Release 7 November 2018
3. Surface drilled Mineralisation extends to significant 1.5km at HN9. MAU Release 20 November 2018
4. Hawks Nest Delivers with 8m @ 4.2g/t Gold from 4m MAU Release 29 January 2018
5. Robust Near Surface High-grade Zone of 7m @ 4.5g/t Gold from 5m from 1m splits. MAU Release 5 March 2018
6. Hawks Nest Geochemical Survey Outlines Potential Extensions to the Prospective 7m @ 4.5g/t Gold Intersected. MAU Release 20 March 2018
7. An 865m RC drilling programme started testing promising 7m at 4.5g/t gold and eight separate anomalous soil geochemical targets at HN5. MAU Release 10 May 2018
8. Large Gold Mineralised Shear Zone Greater Than 250m at Hawks Nest 5. MAU Release 9 June 2018
9. Gold Geochemical Target Zone Grows to Significant 2km in Length at HN9. MAU Release 7 January 2019
10. Significant 2km Gold Target is open to the East on 83% of the 24 Lines Drilled at HN9. MAU Release 4 February 2019
11. Significant 2.1km Gold Target Still open to North, South, East and at Depth. MAU Release 25 March 2019
12. Gold Target Enlarged By 47% to Significant 3.1km and is still open to the North, East and at Depth. MAU Release 22 May 2019
13. HN9 Prospective Zone Enlarged by 170% with Lady Julie Tenements. MAU Release 24 June 2019
14. 200m-Wide Gold Zone Open to The Northeast and Very Extensive Surface Gold Mineralisation Confirmed at HN9 Laverton. MAU Release 27 June 2019
15. 200m Wide Gold Zone Open to the North and New 800m Anomalous Gold Zone defined at HN9 Laverton. MAU Release 4 September 2019



16. Highest Grades Outlined at HN9 and are being Followed Up and Lady Julie Shallow Drilling Commencing Shortly. MAU Release 14 October 2019
17. Central Part of HN9 Shows Significant Thickening of The Mineralised Zone to 28m. MAU Release 28 November 2019
18. Multiple Silicified Porphyry Horizons from Deep Drilling and 57m Mineralised Feeder Zone at MAU Release 17 January 2020
19. Very High-Grade Intersection of 4m at 49g/t Adjacent to 70m Thick Mineralised Feeder Zone MAU Release 5 February 2020
20. 20 km of thickened porphyry units outlined by ground magnetic interpretation at Hawks Nest 9. MAU Release 9 March 2020
21. Further Thick Down Plunge Extensions and NW Extension Shown up at HN9. MAU Release 18 May 2020
22. Four Stacked Thickened Porphyry Lodes at HN9. MAU Release 3 August 2020
23. High-Grade Intersections in Thickened Zone at HN9. MAU Release 18 September 2020
24. Follow up of 16m at 1.16g/t gold from 64m at Lady Julie MAU Release 2 November 2020
25. Shallow Seismic searching for multiple thickened lodes MAU Release 16 November 2020
26. New thickened zone in southern part of Hawks Nest 9. MAU Release 1 December 2020
27. Two RC rigs now operating at HN9 and Lady Julie. MAU Release 11 January 2020
28. Nine gold targets defined over 14km at HN5, HN6, HN9 and Lady Julie. MAU Release 3 June 2021
29. Lady Julie delivers with 38m at 3.6g/t gold from 32m. MAU Release 23 June 2021
30. Lady Julie North expanded with purchase of tenements. MAU Release 8 June 2021
31. Multiple thick and high-grade zones located at Lady Julie. MAU Release 16 August 2021
32. Multiple thick high-grade intersections from surface at Lady Julie. MAU Release 14 September 2021
33. Thick high-grade intersections are open to the southeast at Lady Julie. MAU Release 22 October 2021
34. High-grade intersections and vertical shoots at Lady Julie. MAU Release 10 January 2022
35. Thicker intersections continue to grow Lady Julie1 and 4 and Homeward Bound. MAU Release 21 February 2022
36. Ten high priority targets & thick intersections – Lady Julie. MAU Release 12 April 2022
37. Second parallel mineralised structure at Lady Julie Central. MAU Release 11 May 2022
38. Lady Julie North 4 delivers with thick intersections. MAU Release 30 May 2022
39. Maiden Mineral Resource Estimate. MAU Release 27 June 2022
40. Thick 56m at 2.2g/t gold at Lady Julie North 4. MAU Release 20 July 2022
41. Drilling commences at Lady Julie North 4. MAU Release 15 August 2022
42. Blue Cap Mining to undertake early works. MAU Release 14 September 2022
43. Mineralisation expands both to north and east at Lady Julie North 4. MAU Release 27 September 2022
44. Early Works progress at Laverton Project. MAU Release 24 October 2022
45. High grade thick intersections at Lady Julie Project. MAU Release 17 November 2022
46. Thickest intersections to date at Lady Julie North 4. MAU Release 21 December 2022
47. Positive metallurgical results from Lady Julie. MAU Release 25 January 2023
48. Expands mineral resource estimate. MAU Release 3 February 2023
49. Early works good progress at Laverton project. MAU Release 15 February 2023
50. Thick intersections remain open at depth at Lady Julie North 4. MAU Release 20 February 2023.
51. Thickest intersection of 96m at 1.23g/t Au at Lady Julie North 4. MAU Release 11 April 2023
52. Further thick intersections and deeper drilling completed at Lady Julie North 4. MAU Release 14 June 2023
53. Best thick intersections to date of 60m at 3.6g/t from 96m at lady Julie North 4. MAU Release 23 June 2023
54. High-grade of 30m at 5.53g/t within 52m thick breccia zone. MAU Release 14 July 2023
55. Intersection of 31m at 3.5g/t from 160m extends Lady Julie. MAU Release 31 July 2023
56. 112m at 1.8g/t gold from 172m extends Lady Julie North 4. MAU ASX Release 7 August 2023
57. 40m at 7.2g/t Au from 192m extends Lady Julie North 4. MAU ASX Release 22 August 2023
58. 50m thick gold rich breccia and silica pyrite zones at LNJ4. MAU ASX Release 8 September 2023
59. Thick intersections extend mineralised zones at Lady Julie North 4. MAU ASX Release 26 September 2023
60. Best thick intersections to date 126m at 2.8g/t at LNJ4. MAU ASX Release 19 October 2023.
61. Mining Lease application over the Lady Julie North4 Deposit, MAU Release 13 December 2023.
62. 550m down dip extension at Lady Julie North 4. MAU Release 31 January 2024

All of which are available on [www.magres.com.au](http://www.magres.com.au)

#### **Forward Looking Statements:**

This announcement contains forward-looking statements. Generally, the words "expect", "potential", "intend", "estimate", "will" and similar expressions identify forward-looking statements. By their very nature forward-looking statements are subject to known and unknown risks and uncertainties that may cause our actual results, performance or achievements, to differ materially from those expressed or implied in any of our forward-looking statements, which are not guarantees of future performance. Statements in this announcement regarding Magnetic's business or proposed business, which are not historical facts, are forward-looking statements that involve risks and uncertainties, such as Mineral Resource estimates, market prices of commodities (including gold), capital and operating costs, changes in project parameters as plans continue to be evaluated, continued availability of capital and financing and general economic, market or



business conditions, and statements that describe Magnetic's future plans, objectives or goals, including words to the effect that Magnetic or Magnetic's management expects a stated condition or result to occur.

Forward-looking statements are based on estimates and assumptions that, while considered reasonable by Magnetic, are inherently subject to significant technical, business, economic, competitive, political and social uncertainties and contingencies. Since forward-looking statements address future events and conditions, by their very nature, they involve inherent risks and uncertainties. Actual results in each case could differ materially from those currently anticipated in such statements. Investors are cautioned not to place undue reliance on forward-looking statements, which speak only as of the date they are made.

Magnetic has concluded that it has a reasonable basis for providing these forward-looking statements and the forecast financial information included in this announcement. This includes the assumption that there is a reasonable basis to expect that it will be able to fund the development of the Project upon successful delivery of key development milestones when required. To achieve the outcomes indicated in the PFS, it is estimated that pre-production funding of approximately A\$93.4M (including 15% contingency provision for the plant cost estimate), assuming a standalone 1.8 Mtpa processing plant and three months re-production activities.

There is no certainty that Magnetic will be able to source that amount of funding when required. It is also possible that such funding may only be available on terms that may be dilutive to or otherwise affect the value of Magnetic's shares. It is also possible that Magnetic could pursue other value realisation strategies such as a partial sale or joint venture of the Project. This could materially reduce Magnetic's proportionate ownership of the Project. Other detailed reasons for these conclusions are outlined throughout this announcement (including the Project funding sources and strategy and Risks sections of this announcement).

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# JORC Code, 2012 Edition – Table 1

## Section 1 Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections.)

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul style="list-style-type: none"> <li>Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report.</li> <li>In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases, more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.</li> </ul>	<ul style="list-style-type: none"> <li>For RAB sampling, 1m completed by Duketon (A22722)</li> <li>For RAB sampling, 4m composites completed by Gwalia (A29728)</li> <li>For AC sampling, 4m composites and 1m splits completed by Metex (A62445, A72419)</li> <li>For RC sampling, 2m composites completed by Julia Mines (A18060) and 5m composites completed by Placer (A34935)</li> <li>All the reported historical drilling and their relevant sampling procedures, QAQC and analytical methods etc. are referred to in the original WAMEX reports (references in the main text of ASX release of 7 November 2018).</li> <li>The targets at Lady Julie and HN9 have been tested by RC drilling and more recently at Lady Julie by diamond drilling.</li> <li>Sampling and QAQC procedures are carried out using Magnetic's protocols as per industry sound practice.</li> <li>RC drilling was used to obtain bulk 1m samples from which composite 4m samples were prepared by spear sampling of the bulk 1m samples. 3kg of the composite sample was pulverized to produce a 50g charge for fire assay for gold. The assay results of the composite samples are used to determine which 1m samples of 3kg taken from the rig's cyclone and splitter are selected for fire assay using the same method. The cyclone and splitter are cleaned regularly to minimize contamination.</li> <li>Diamond drill core was cut in half and 1m intervals submitted for fire assay using the same method as the RC drill samples.</li> </ul>
Drilling techniques	<ul style="list-style-type: none"> <li>Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).</li> </ul>	<ul style="list-style-type: none"> <li>Rotary air blast (RAB) drilling with a blade bit.</li> <li>Reverse Circulation (RC) drilling was carried out using a face sampling hammer with a nominal diameter of 140mm.</li> <li>Aircore (AC) drilling with a 100mm diameter blade bit.</li> <li>Diamond drilling using a standard PQ, HQ and NQ tubes. Core was oriented where practicable using a gyroscopic tool.</li> </ul>
Drill sample recovery	<ul style="list-style-type: none"> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to</li> </ul>	<ul style="list-style-type: none"> <li>RC sample recoveries are visually estimated qualitatively on a metre basis.</li> <li>Various drilling additive (including muds and foams) have been used to condition the RC holes to maximize recoveries and sample quality.</li> <li>Diamond drill core recoveries are measured and recorded.</li> <li>Insufficient drilling and geochemical data is available at the present stage to evaluate potential sample bias. Drill</li> </ul>



Criteria	JORC Code explanation	Commentary
	<i>preferential loss/gain of fine/coarse material.</i>	samples are sometimes wet which may result in sample bias because of preferential loss/gain of fine/coarse material.
Logging	<ul style="list-style-type: none"> <li>• <i>Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</i></li> <li>• <i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</i></li> <li>• <i>The total length and percentage of the relevant intersections logged.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Lithology, alteration and veining is recorded and imported into the Magnetic Resources central database. The logging is of sufficient standard to support a geological resource.</li> <li>• All drill holes were logged in full.</li> <li>• The visual identification of the breccia zone is from systematic logging of the drill core. The amount of gold mineralisation is not possible to be estimated, and metal grades can only be determined by laboratory assay. Identification of the breccia zones and estimations of the proportion of disseminated pyrite in those zones have been made by an experienced geologist.</li> </ul>
Sub-sampling techniques and sample preparation	<ul style="list-style-type: none"> <li>• <i>If core, whether cut or sawn and whether quarter, half or all core taken.</i></li> <li>• <i>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</i></li> <li>• <i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i></li> <li>• <i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i></li> <li>• <i>Measures taken to ensure that the sampling is representative of the in-situ material collected, including for instance results for field duplicate/second-half sampling.</i></li> <li>• <i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i></li> </ul>	<ul style="list-style-type: none"> <li>• RC samples are cyclone split to produce a 2-3kg sample. 4m composite samples are prepared by tube sampling bulk 1m samples.</li> <li>• Where practicable duplicate 1m RC samples are taken and stored on site for reference.</li> <li>• Sample sizes are appropriate for the grain size being sampled.</li> <li>• Core samples are sawn and half core taken for assay, normally in 1m intervals.</li> </ul>
Quality of assay data and laboratory tests	<ul style="list-style-type: none"> <li>• <i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i></li> <li>• <i>For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</i></li> <li>• <i>Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.</i></li> </ul>	<ul style="list-style-type: none"> <li>• RC samples are assayed using a 40g or 50g charge and a fire assay method with an AAS finish which is regarded as appropriate. The technique provides an estimate of the total gold content.</li> <li>• Standard reference materials are routinely inserted into the sample stream submitted to the assay laboratory.</li> <li>• Internal standards and duplicates are used by the NATA registered laboratory conducting the analyses.</li> </ul>
Verification of sampling and assaying	<ul style="list-style-type: none"> <li>• <i>The verification of significant intersections by either independent or alternative company personnel.</i></li> </ul>	<ul style="list-style-type: none"> <li>• No independent verification of drill intersections has yet been carried out.</li> <li>• Twin holes are planned to be drilled.</li> </ul>

Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>	<ul style="list-style-type: none"> <li>Primary data is entered into an in-house database and checked by the database manager.</li> <li>No adjustment of assay data other than averaging of repeat and duplicate assays</li> <li>No verification of historically reported drilling has been carried out</li> </ul>
Location of data points	<ul style="list-style-type: none"> <li>Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	<ul style="list-style-type: none"> <li>Drill collars located by hand-held GPS with an accuracy of +/- 5m and subsequently are being surveyed with a differential GPS with an accuracy of +/- 5cm.</li> <li>Grid system: MGAz51 GDA94.</li> <li>Topographic control using regional DEM data and over selected areas using a drone survey.</li> </ul>
Data spacing and distribution	<ul style="list-style-type: none"> <li>Data spacing for reporting of Exploration Results.</li> <li>Whether the data spacing, and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</li> <li>Whether sample compositing has been applied.</li> </ul>	<ul style="list-style-type: none"> <li>Drilling was carried out at HN9 and Lady Julie using drill spacings ranging from 40m x 20m to 20m x 20m.</li> <li>The data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource estimation procedure and classification applied.</li> </ul> <p>RC sample compositing into 4m composites has been used and followed up with 1m sampling where composite grades are greater than 0.2g/t Au.</p>
Orientation of data in relation to geological structure	<ul style="list-style-type: none"> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</li> </ul>	<ul style="list-style-type: none"> <li>Drilling at Lady Julie and HN9 has been carried out orthogonal to strike and across a generally east-dipping sequence. Detailed structural controls at Lady Julie have yet to be confirmed but no sampling bias has been identified to date.</li> </ul>
Sample security	<ul style="list-style-type: none"> <li>The measures taken to ensure sample security.</li> </ul>	<ul style="list-style-type: none"> <li>Samples were stored in the field prior to dispatch to Kalgoorlie using a commercial freight company.</li> </ul>
Audits or reviews	<ul style="list-style-type: none"> <li>The results of any audits or reviews of sampling techniques and data.</li> </ul>	<ul style="list-style-type: none"> <li>No audits or reviews of the sampling techniques and data from historical drilling have been carried out.</li> </ul>

## Section 2 Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section.)

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	<ul style="list-style-type: none"> <li>Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.</li> </ul>	<ul style="list-style-type: none"> <li>Lady Julie is situated on P38/4170, P38/4346 and P38/4379-4384. HN9 is situated on exploration Licence E38/3127, M38/1041 and P38/4126. All these tenements are held 100% by Magnetic Resources NL.</li> <li>All the above are granted tenements with no known impediments to obtaining a licence to operate.</li> </ul>



Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"> <li><i>The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.</i></li> </ul>	
<i>Exploration done by other parties</i>	<ul style="list-style-type: none"> <li><i>Acknowledgment and appraisal of exploration by other parties.</i></li> </ul>	<ul style="list-style-type: none"> <li>Lady Julie and HN9 have been subject to historical exploration, refer to text</li> </ul>
<i>Geology</i>	<ul style="list-style-type: none"> <li><i>Deposit type, geological setting and style of mineralisation.</i></li> </ul>	<ul style="list-style-type: none"> <li>Lady Julie: Various shear-controlled mineralization styles including silicified and stockworked felsic porphyry, silicified and stockworked ultramafic, and breccia zones and silica-pyrite alteration mainly within carbonate.</li> <li>HN9: Two mineralization styles have been observed: quartz veining and stockworking in felsic porphyries and shear-hosted quartz veins on porphyry-amphibolite contacts.</li> </ul>
<i>Drill hole Information</i>	<ul style="list-style-type: none"> <li><i>A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:</i> <ul style="list-style-type: none"> <li><i>easting and northing of the drill hole collar</i></li> <li><i>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</i></li> <li><i>dip and azimuth of the hole</i></li> <li><i>down hole length and interception depth</i></li> <li><i>hole length.</i></li> </ul> </li> <li><i>If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.</i></li> </ul>	<ul style="list-style-type: none"> <li>Refer to table 5 in ASX Information Release dated 31/01/24.</li> </ul>
<i>Data aggregation methods</i>	<ul style="list-style-type: none"> <li><i>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.</i></li> <li><i>Where aggregate intercepts incorporate short lengths of high-grade results and longer lengths of low- grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.</i></li> <li><i>The assumptions used for any reporting of metal equivalent values should be clearly stated.</i></li> </ul>	<ul style="list-style-type: none"> <li>No weighting or cutting of gold values, other than averaging of duplicate and repeat analyses.</li> </ul>

Criteria	JORC Code explanation	Commentary
Relationship between mineralisation widths and intercept lengths	<p><i>These relationships are particularly important in the reporting of Exploration Results.</i></p> <ul style="list-style-type: none"> <li><i>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</i></li> <li><i>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').</i></li> </ul>	<ul style="list-style-type: none"> <li>Mineralisation widths at Lady Julie are interpreted to range from 70% to 95% of true width.</li> <li>Mineralisation widths at HN9 are interpreted to range from 80% to 100% of true width.</li> </ul>
Diagrams	<ul style="list-style-type: none"> <li><i>Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported. These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.</i></li> </ul>	<ul style="list-style-type: none"> <li>Refer to text.</li> </ul>
Balanced reporting	<ul style="list-style-type: none"> <li><i>Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced avoiding misleading reporting of Exploration Results.</i></li> </ul>	<ul style="list-style-type: none"> <li>Plus 1g/t Au intersections from the RC drilling have been reported in the release in ASX Information Release dated 31/01/24.</li> </ul>
Other substantive exploration data	<ul style="list-style-type: none"> <li><i>Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.</i></li> </ul>	<ul style="list-style-type: none"> <li>Metallurgical results refer to ASX Release 27/10/2020 Positive metallurgical results from Hawks Nest 9 and ASX Release 25/01/2023 Positive metallurgical results from Lady Julie.</li> </ul>
Further work	<ul style="list-style-type: none"> <li><i>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</i></li> <li><i>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</i></li> </ul>	<ul style="list-style-type: none"> <li>Further drilling is planned at LJN4 with the aim of converting Inferred Mineral Resources to Indicated Mineral Resources within the proposed open pit shell. Depending on results of the current drilling program, step-out drilling to test depth extensions of LJN4 is being planned.</li> </ul>

### Section 3 Estimation and Reporting of Mineral Resources

(Criteria listed in section 1, and where relevant in section 2, also apply to this section.)

Criteria	Explanation
<i>Database integrity</i>	<ul style="list-style-type: none"> <li>Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes.] <b>Magnetic's database manager regularly reviewed and compared the raw assay and positional data with data used for the Mineral Resource estimation.</b></li> <li>Data validation procedures used. <b>Data is stored, processed and validated in Micromine software.</b></li> </ul>
<i>Site visits</i>	<ul style="list-style-type: none"> <li>Comment on any site visits undertaken by the Competent Person and the outcome of those visits. <b>Mr Cullum has visited the site 3 times in the last 12 months. Key outcomes of the visits include locating potential water sources, locating potential rock dump and tailings dam sites, and infrastructure locations.</b></li> <li>If no site visits have been undertaken indicate why this is the case.</li> </ul>
<i>Geological interpretation</i>	<ul style="list-style-type: none"> <li>Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit. Confidence in the geological interpretation is appropriate for the Mineral Resource classification applied.</li> <li>Nature of the data used and of any assumptions made. <b>Data used for geological interpretation is mainly obtained from detailed logging of RC and diamond drill holes but also includes assay data and aeromagnetic and ground magnetic data.</b></li> <li>The effect, if any, of alternative interpretations on Mineral Resource estimation. <b>The confidence in the geological interpretation, based on extensive drilling and 3D modelling, is such that alternative interpretations have not been considered.</b> The use of geology in guiding and controlling Mineral Resource estimation.</li> <li><b>Geology and recording of structural data, together with 3D modelling of this and assay data, has been important in guiding and controlling Mineral Resource estimation.</b></li> <li>The factors affecting continuity both of grade and geology. <b>LJN4, LJ Central and HN9 are all structurally controlled mesothermal gold deposits. Major factors include the interplay between shear structures and rock types of varying competence, persistence of shear structures in or along favourable rock types or contacts and the occurrence of geochemically reactive rock types such as carbonates and black shales.</b></li> </ul>
<i>Dimensions</i>	<ul style="list-style-type: none"> <li>The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource. <b>LJN4 exists as a series of shallow E dipping lenses with a strike length of 750m, thickness of 100m, and continuing from near surface to current depths below surface of 350m – it remains open at depth. LJC is similar but smaller with a strike length of 250m and final depth below surface of 150m. HN9 is generally a single shallow NE dipping structure with strike length of 1km, width of 10-30m and depth below surface of 100m</b></li> </ul>
<i>Estimation and modelling techniques</i>	<ul style="list-style-type: none"> <li>The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used. <b>Statistical analysis of each domain dataset resulted in variable top-cutting of assays to remove no more than .05% of samples. Data was assigned to specific domains for each lens and block grade estimates within domain wireframes relied on similarly tagged data. The estimation technique was inverse distance squared, with dynamic anisotropy (a version of kriging). Search ellipsoids had axes 60x40x10.</b></li> <li>The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data. <b>N/A This is a greenfield site so there are no production records. Check assays were undertaken as part of normal QA/QC.</b></li> <li>The assumptions made regarding recovery of by-products. <b>N/A</b></li> <li>Estimation of deleterious elements or other non-grade variables of economic significance (eg sulphur for acid mine drainage characterisation). <b>N/A</b></li> <li>In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed. <b>The blocks are 10x10x5, drill spacing is generally 25x25 (expanding to 50x50</b></li> </ul>

Criteria	Explanation
	<p><b>at depth), and the search ellipsoid used in interpolation has axes 60x40x10.</b></p> <ul style="list-style-type: none"> <li>Any assumptions behind modelling of selective mining units. <b>Block size was selected to represent minimum mining unit.</b></li> </ul>
<i>Estimation and modelling techniques (continued)</i>	<ul style="list-style-type: none"> <li>Any assumptions about correlation between variables. <b>N/A</b></li> <li>Description of how the geological interpretation was used to control the resource estimates. <b>Wireframes were snapped between drillhole intercepts on section and then checked between sections. Assays within each wireframe domain were used to calculate grades from blocks tagged with the same domain designator.</b></li> <li>Discussion of basis for using or not using grade cutting or capping. <b>As above, each domain was assessed by statistical analysis to determine whether to apply a topcut. As a notional guide, 20g/t Au is used for reference.</b></li> <li>The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available. <b>Swath plots constructed in each of 3 dimensions are used to compare drill assay with block model grade. Individual variances are noted and corrections made if necessary.</b></li> </ul>
<i>Moisture</i>	<ul style="list-style-type: none"> <li>Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content. <b>Dry basis only</b></li> </ul>
<i>Cut-off parameters</i>	<ul style="list-style-type: none"> <li>The basis of the adopted cut-off grade(s) or quality parameters applied. <b>Cutoff grades were assessed using estimated costs to complete mining and processing of a tonne of ore, relative to the likely recovery and revenue gained. See PFS for details.</b></li> </ul>
<i>Mining factors or assumptions</i>	<ul style="list-style-type: none"> <li>Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made. Open pit mining was the method chosen as the most economical method of ore extraction. <b>Mining dilution of 15%, mining recovery of 95%, and minimum mining width of 20m</b></li> </ul>
<i>Metallurgical factors or assumptions</i>	<ul style="list-style-type: none"> <li>The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made. The ore processing technique proposed is practiced throughout the Goldfields – crushing and grinding followed by gravity separation and cyanide leaching. <b>Recoveries, power and consumable demand have all been estimated for each oxidation state of each orebody, based on testwork on composited drill core samples. Recoveries of 93%/93%/92% have been used for oxide/trans/fresh ore respectively.</b></li> </ul>
<i>Environmental factors or assumptions</i>	<ul style="list-style-type: none"> <li>Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made. <b>Low grade ore is stockpiled for possible later treatment. Waste is maintained in large dumps. Tailings will be stored either in a constructed dam within the waste dump footprint, or into a depleted pit. Both ore and waste have been characterised as Non Acid Forming so no special storage treatment is proposed. The tailings dams will be covered with waste rock after mining – the dumps will be battered, with topsoil spread and ripped to aid revegetation.</b></li> </ul>
<i>Bulk density</i>	<ul style="list-style-type: none"> <li>Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples. <b>Bulk densities for each oxidation state in each orebody have been assessed using drill core in wet tests. The results are reported in the PFS.</b></li> </ul>

Criteria	Explanation
	<ul style="list-style-type: none"> <li>The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc), moisture and differences between rock and alteration zones within the deposit. <b>As above.</b></li> <li>Discuss assumptions for bulk density estimates used in the evaluation process of the different materials. <b>As above.</b></li> </ul>
<i>Classification</i>	<ul style="list-style-type: none"> <li>The basis for the classification of the Mineral Resources into varying confidence categories. <b>The basis for classification is generally associated with confidence in ore continuity and drill intercept spacing – where drill data density is less than 25x25, and there is good geological continuity, the resource will be classified as Indicated. If the density is more than 25x25 and less than 50x50, the classification becomes Inferred. No other classification is used. No specific determination of reserve has been made.</b></li> <li>Whether appropriate account has been taken of all relevant factors (ie relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data). <b>Yes – the basis is generally the geologist’s interpretation of the resource and its continuity. Where there is doubt, this translates to restricting the wireframes or lowering the classification.</b></li> <li>Whether the result appropriately reflects the Competent Person’s view of the deposit. <b>They do.</b></li> </ul>
<i>Audits or reviews.</i>	<ul style="list-style-type: none"> <li>The results of any audits or reviews of Mineral Resource estimates. <b>None conducted.</b></li> </ul>
<i>Discussion of relative accuracy/ confidence</i>	<ul style="list-style-type: none"> <li>Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate. <b>As above, swath plots are constructed after each interpolation run to verify the accuracy of the estimate, and test the sensitivity to grade variability.</b></li> <li>The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used. <b>Local only.</b></li> <li>These statements of relative accuracy and confidence of the estimate should be compared with production data, where available. <b>N/A</b></li> </ul>

#### Section 4 Estimation and Reporting of Open Pit Mining Inventory



Criteria	Explanation
<p><i>Mineral Resource estimate for conversion to Open Pit Mining Inventory</i></p>	<ul style="list-style-type: none"> <li>Description of the Mineral Resource estimate used as a basis for the conversion to an Ore Reserve. <b>The Mineral Resource has been estimated and reported previously, as noted in previous sections. The resource block models were evaluated by third party open pit optimizer using a range of economic modifying factors (detailed fully in the PFS document). The optimization parameters were subsequently verified by detailed scheduling and zero-base costing.</b></li> <li>Clear statement as to whether the Mineral Resources are reported additional to, or inclusive of the Ore Reserve. <b>The resource and open pit mining inventory statements are reported separately. The mining inventory is a subset of the resource total.</b></li> </ul>
<p><i>Site visits</i></p>	<ul style="list-style-type: none"> <li>Comment on any site visits undertaken by the Competent Person and the outcome of those visits. <b>Site visits completed in June 2023, November 2023 and January 2024 by Mr Cullum, a competent person, who completed the economic evaluation.</b></li> <li>If no visits have been undertaken, indicate why this is the case.</li> </ul>
<p><i>Study status</i></p>	<ul style="list-style-type: none"> <li>The type and level of study undertaken to enable Mineral Resources to be converted to Ore Reserves. <b>A Pre-Feasibility Study was undertaken to convert resources to an open pit mining inventory (OPMI)</b></li> <li>The Code requires that a study of at least Pre-Feasibility Study level has been undertaken to convert Mineral Resource to Ore Reserves. Such studies will have been Carried out and will have determined a mine plan that is technically achievable and economically viable, and that material Modifying Factors have been considered. <b>The OPMI was computed using detailed pit designs. Capacity based extraction was used to schedule pit depletion and hence production estimates.</b></li> <li><b>The resource block model was adjusted with mining recovery and extraction factors to suit the deposit style and configuration.</b></li> </ul>
<p><i>Cut-off parameters</i></p>	<ul style="list-style-type: none"> <li>The basis of the cutoff grade(s) or quality parameters applied. <b>The processing cutoff (0.6g/t Au) utilized the mined grade, process recovery, and cost factors for ex-pit haulage, processing, administration and recovery. The gold price (AUD2800/oz) was the standard used for the study. Revenue was adjusted for royalty.</b></li> <li><b>The incremental cutoff (0.4g/t Au) used the same factors excluding ex pit haulage, ie it assumed the mineralized rock was stockpiled on surface.</b></li> </ul>
<p><i>Mining factors or assumptions</i></p>	<ul style="list-style-type: none"> <li>The method and assumptions used as reported in the Pre-Feasibility or Feasibility Study to convert the Mineral Resource to an Ore Reserve (ie either by application of appropriate factors by optimisation or by preliminary or detailed design) <b>Optimisation was the method used to interrogate the block model to create pit shells. The desired pit shell (based on planned gold price) was then adjusted to incorporate a ramp and to factor geotechnical considerations. The adjusted pit design led to a mining inventory. Optimisation factors were selected based on recent experience or test results.</b></li> <li>The choice, nature and appropriateness of the selected mining method and other mining parameters including associated design issues such as pre-strip, access, etc <b>Open pit mining was the chosen method of extraction because it allowed the appropriate scale to extract the resource in the most economical fashion. . The pre-strip requirement for each orebody was considered in selecting the extraction sequence for scheduling.</b></li> <li>The assumption made regarding geotechnical parameters (eg pit slopes, stope sizes, etc), grade control, and pre-production drilling. <b>Pit wall slope angles were calculated following detailed analysis of diamond drill core, with drilling located to test the rocks near the planned pit walls. Geotechnical modelling (with up to 4 modes of failure assessed in each pit) has been undertaken by a consultant in the field.</b></li> <li>The major assumption made and Mineral resource model used for pit and stope optimisation (if appropriate) <b>In each case, the block model used for optimisation represented the latest resource estimate for each of the mineralized zones, LJN4, LJC and HN9. The resources were reported to the ASX in November 2023.</b></li> <li>The mining dilution factors used. <b>The mining factors employed were – dilution 15%, recovery 95%. There were considered appropriate for the ore configuration and its impact on mining.</b></li> <li>The mining recovery factor used. <b>Recovery as above</b></li> <li>Any minimum mining width used. <b>A minimum mining width of 20m was used in considering cutbacks.</b></li> </ul>

	<ul style="list-style-type: none"> <li>The manner in which Inferred Mineral Resource are utilised in mining studies and the sensitivity of the outcome to their inclusion. <b>The Inferred resource has been included in the mineral inventory estimation – it represents 44% of the total. When scheduling the inventory, the Inferred category material is not mined until after year 4 by which time project payback has been achieved. The Inferred resource grade is similar to that in Indicated category so the impact on overall economics by this inclusion is low.</b></li> <li>The infrastructure requirements of the selected mining methods. <b>Open pit mining will require little in the way of infrastructure, and it will be temporary in nature. It will comprise offices, workshops, fuel storage and distribution, change facilities, dewatering pumping and storage capacity, small magazine. Personnel will be FIFO and accommodation will be provided in Laverton.</b></li> </ul>
<p><i>Metallurgical factors or assumptions</i></p>	<ul style="list-style-type: none"> <li>The metallurgical process proposed and the appropriateness of that process to the style of mineralisation. <b>The ore is free milling and is similar to many other deposits in the Eastern and Northern Goldfields. Processing will require crushing and grinding, followed by gravity separation and finally cyanide leaching. Gold recoveries in excess of 92% have been demonstrated in testwork on each ore oxidation state.</b> Whether the metallurgical process is well-tested technology or novel in nature. <b>The metallurgical processes are well tested and well understood.</b></li> <li>The nature, amount and representativeness of metallurgical test work undertaken, the nature of the metallurgical domaining applied and the corresponding metallurgical recovery factors applied. <b>Composite samples from drill cuttings (representing each oxidation state) have been tested. Larger testing is underway to verify earlier results. Recoveries of 92, 93 and 93% for fresh, transition and oxide ores respectively have been used in modelling.</b></li> <li>Any assumptions or allowances made for deleterious elements. <b>No deleterious elements noted in testwork. There was some preg robbing potential noted in some LJC samples but this had no impact on overall recovery.</b></li> <li>The existence of any bulk sample or pilot scale test work and the degree to which such samples are considered representative of the orebody as a whole. <b>The composite samples collected were from drilling at various locations in each deposit so provided a broad mix of each oxidation state.</b></li> <li>For minerals that are defined by a specification, has the ore reserve estimation been based on the appropriate mineralogy to meet the specification. <b>Resource assessment is based on gold assay only.</b></li> </ul>
<p><i>Environmental</i></p>	<ul style="list-style-type: none"> <li>The status of studies of potential environmental impacts of the mining and processing operation. Details of waste rock characterisation and the consideration of potential sites, status of design options, considered and, where applicable, the status of approvals for process residue storage and waste dumps should be reported. <b>Baseline environmental studies (flora, fauna, soil, rock, surface hydrology, groundwater) have all been completed over the Project area. The studies found no threatened or endangered species, and concluded that while local impact will be significant, there is limited impact on a broader scale.</b></li> <li><b>Ore and waste characterization for each oxidation state in each mineralized zone was assessed. In all cases, both ore and waste are non-acid forming so the need for encapsulation (for waste rock) or tailings dam lining should not be required. In the latter case, tailings will be neutralized before being pumped to the dam to remove any residual cyanide.</b></li> <li><b>Approval for dumps has yet to be gained with the Mining Proposal now under preparation.</b></li> </ul>
<p><i>Infrastructure</i></p>	<ul style="list-style-type: none"> <li>The existence of appropriate infrastructure: availability of land for plant development, power, water, transportation (particularly for bulk commodities), labour, accommodation; or the ease with which the infrastructure can be provided, or assessed. <b>There is no infrastructure on the site, however Laverton is 17 km away and there is an all-weather shire road at the lease boundary. It is planned to accommodate employees in Laverton (at a camp to be constructed) and bus employees to and from site. All other facilities will be mobilized for the operation and will be sited near the orebodies. There is sufficient land to accommodate all required services.</b></li> </ul>
<p><i>Costs</i></p>	<ul style="list-style-type: none"> <li>The derivation of, or assumptions made, regarding projected capital costs in the study. <b>The capital cost for the plant was prepared by Ammjohn using a recent detailed cost estimate for a similar project and cost escalations based on component enquiries. The constructed cost is estimated at plus/minus 20%. A contingency of 15% of plant cost has been applied. Other capital costs have been estimated on the basis of recent Establishment and Mobilisation experience.</b></li> </ul>

	<ul style="list-style-type: none"> <li>The methodology used to estimate operating costs. <b>Operating costs have been based on quoted hire rates for equipment, full on-costed labour rates (labour hire quotes), and current estimates for major commodities. Productivity is based on recent experience in similar mining operations.</b></li> <li><b>Costs are worked up from a zero base and then checked against industry unit cost experience. There is no allowance for inflation.</b></li> <li><b>The same principle applies for mining, processing and administration.</b></li> <li>Allowances made for the content of deleterious elements – <b>N/A</b></li> <li>The source of exchange rates used in the study – <b>N/A</b></li> <li>Derivation of transportation charges – <b>recent contracted rates in area for bulk commodity transport.</b></li> <li>The basis for forecasting or source of treatment and refining charges, penalties for failure to meet specification, etc. <b>It is planned to process ore at a dedicated plant on site. The only penalty applied to lower grade is lower revenue. Refining charges are quoted by Perth mint.</b></li> <li>The allowances made for royalties payable, both Government and private. <b>Calculations have incorporated a 2.5% NSR Government royalty and a contingent 1% NSR royalty.</b></li> </ul>
<i>Revenue factors</i>	<ul style="list-style-type: none"> <li>The derivation of, or assumptions made regarding revenue factors including head grade, metal or commodity price(s) exchange rates, transportation and treatment charges, penalties, net smelter returns, etc. <b>The product leaving site will be dore bars. Samples will be analysed prior to transport to Perth Mint then when received to ensure consistency. While costs for transport and refining have been considered, no penalties are applicable.</b></li> <li>The derivation of assumptions made of metal or commodity price(s), for the principal metals, minerals and co-products. <b>Modelling has used a gold price of AUD2,800/oz basis for revenue estimation – which is 10% below current spot price and is the lowest price in the last 12 month.</b></li> </ul>
<i>Market assessment</i>	<ul style="list-style-type: none"> <li>The demand, supply and stock situation for the particular commodity, consumption trends and factors likely to affect supply and demand into the future. <b>Gold is not traded as an industrial commodity – the largest holdings are retained by central banks who have been buying gold in the last 2 years. Gold demand increases in times of tension or when countries rebalance their reserves.</b></li> <li>A customer and competitor analysis along with the identification of likely market windows for the product. <b>Gold is an internationally traded commodity sourced from many countries, with Australia being one of the top 3 producers. Gold produced from the Project will be sold through the Perth mint at prices set daily by the LME.</b></li> <li>Price and volume forecasts and the basis for these forecasts. <b>Supply and demand of gold is not linked to industrial usage so forward estimates generally balance supply and demand. Price has risen from AUD553/oz to AUD3,100/oz over the last 18 years, a CAGR of 10.0%. No price growth is assumed in the model.</b></li> <li>For industrial minerals the customer specification, testing and acceptance requirements prior to a supply contract. <b>N/A</b></li> </ul>
<i>Economic</i>	<ul style="list-style-type: none"> <li>The inputs to the economic analysis to produce the net present value (NPV) in the study, the source and confidence of these economic inputs including estimated inflation, discount rate, etc. <b>An inflation rate of 0 has been applied to both costs and revenue. The discount rate used in NPV calculation was 8%. The project cashflow to compute NPV was derived from costing/revenue computed on a quarterly basis linked to production scheduled from the designed pits.</b></li> <li>NPV ranges and sensitivity to variations in the significant assumptions and inputs. <b>The PFS calculated project NPV as a base and then subjected it to various key assumptions. Variables with the greatest impact include ore grade, gold recovery and gold price. A 9% change in either variable will alter the NPV by 19%. The impact of other variables like CAPEX or operating costs is far less.</b></li> </ul>
<i>Social</i>	<ul style="list-style-type: none"> <li>The status of agreements with key stakeholders and matters leading to social licence to operate. <b>Stakeholders (native title, council, pastoral leaseholders) have all been kept apprised of project activity and plans. There are no agreements in place for operations. These will be progressed as regulatory approvals are sought and gained.</b></li> </ul>
<i>Other</i>	<ul style="list-style-type: none"> <li>To the extent relevant, the impact of the following on the project and/or on the estimation and classification of the Ore Reserve:</li> </ul>

	<ul style="list-style-type: none"> <li>Any identified material naturally occurring risk: <b>The main natural risk to project economics is the rock variability itself – its strength, embedded structures, weathering characteristics, etc. These generally determine the slope of pit walls and therefore the amount of waste rock to be removed to extract the ore. Testing, modelling and monitoring are key elements of mine planning.</b></li> <li>The status of material legal agreements and marketing arrangements: <b>The project sites are all on approved exploration or prospecting licences. Mining leases will be sought with submission of a Mining Proposal; approval of the Mining Proposal will also specify any operating conditions. No marketing arrangement is in place – a contract with Perth Mint will be concluded close to time.</b></li> <li>The status of governmental agreements and approvals critical to the viability of the project, such as mineral tenement status, and government and statutory approvals. There must be reasonable grounds to expect that all necessary Government approvals will be received within the timeframes anticipated in the Pre-Feasibility or Feasibility study: <b>There are reasonable grounds to expect that all necessary government approvals will be received. A Mining Proposal is being prepared for submission now.</b></li> <li>Highlight and discuss the materiality of any unresolved matter that is dependent on a third party on which extraction of the mining inventory is contingent: <b>The grant of a mining lease (and approval of Mining Proposal) is subject to signing of a Native Title Agreement, negotiations for which are currently in progress.</b></li> </ul>
<i>Classification</i>	<ul style="list-style-type: none"> <li>The basis for the classification of the Open Pit Mining Inventory into varying confidence categories: <b>The Open Pit Mining Inventory contains a mix of Indicated and Inferred Mineral Resources so are not classified as Proven or Probable Reserves. The current focus is expanding the resource base rather than in-fill drilling to improve confidence in the resource already defined. As discussed above, the resource to be mined in the first 4 years is largely Indicated so would fit the Probable Reserve category. This will be progressively improved to Proven category with grade control drilling ahead of mining.</b></li> <li>Whether the result appropriately reflects the Competent Person’s view of the deposit: <b>The results reflect the nature, style and scale of project proposed as engineered by the competent person, Mr Andrew Cullum.</b></li> <li>The proportion of Probable Ore Reserves that have been derived from Measured Mineral Resources (if any). <b>Nil.</b></li> </ul>
<i>Audits or reviews</i>	<ul style="list-style-type: none"> <li>The results of any audits or reviews of Open Pit Mining Inventory estimates: <b>Corporate consultants Jefferies reviewed the financial basis of the PFS and the results derived.</b></li> </ul>
<i>Classification</i>	<ul style="list-style-type: none"> <li>The basis for the classification of the Open Pit Mining Inventory into varying confidence categories: <b>The Open Pit Mining Inventory contains a mix of Indicated and Inferred Mineral Resources so are not classified as Proven or Probable Reserves. The current focus is expanding the resource base rather than in-fill drilling to improve confidence in the resource already defined. As discussed above, the resource to be mined in the first 4 years is largely Indicated so would fit the Probable Reserve category. This will be progressively improved to Proven category with grade control drilling ahead of mining.</b></li> <li>Whether the result appropriately reflects the Competent Person’s view of the deposit: <b>The results reflect the nature, style and scale of project proposed as engineered by the competent person, Mr Andrew Cullum.</b></li> <li>The proportion of Probable Ore Reserves that have been derived from Measured Mineral Resources (if any). <b>No Probable Reserve has been declared.</b></li> </ul>
<i>Audits or reviews</i>	<ul style="list-style-type: none"> <li>The results of any audits or reviews of Open Pit Mining Inventory estimates: <b>Corporate consultants Jefferies reviewed the financial basis of the PFS and the results derived.</b></li> </ul>
<i>Discussion of relative accuracy/ confidence</i>	<ul style="list-style-type: none"> <li>Where appropriate a statement of the relative accuracy and confidence level in the mining inventory estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the reserve within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors which could affect the relative accuracy and confidence of the estimate: <b>The factors applied in both optimization and then zero-based costing are generally conservative or reflect recent industry experience. Assumptions have been made as regards productivity in differing material types, impact of groundwater, impact of rock structures yet to be identified, the ability to mine the mineralization cleanly,</b></li> </ul>

	<p>availability of skilled personnel, etc. While the underlying basis for estimating the resource is sound (and the resource is not projected beyond drilling), the unknown factors can and will influence results. In terms of accuracy while these factors remain, a band of plus or minus 20% should be considered. The project financial estimate is sufficiently strong to withstand major input variances.</p>
	<ul style="list-style-type: none"> <li>The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used: <b>The estimates are all locally based. The tonnages are detailed in the PFS.</b></li> </ul>
	<ul style="list-style-type: none"> <li>Accuracy and confidence discussions should extend to specific discussions of any applied Modifying Factors that may have a material impact on Ore Reserve viability, or for which there are remaining areas of uncertainty at the current study stage: <b>Geomechanical and metallurgical factors have relied on testwork, the resource estimate on extensive drilling. The key areas of uncertainly remaining include:</b> <ul style="list-style-type: none"> <li>Detailed capital cost of the process plant,</li> <li>More detailed testing on processing the ore with local water,</li> <li>Identifying the source of sufficient water for processing,</li> <li>Verifying power supply and costing,</li> <li>Verifying the ability to construct a camp in Laverton.</li> </ul> </li> </ul>
	<ul style="list-style-type: none"> <li>It is recognised that this may not be possible or appropriate in all circumstances. These statements of relative accuracy and confidence of the estimate should be compared with production data, where available: <b>N/A – this is a greenfield site. The unit rates derived for both mining and processing are within industry norms.</b></li> </ul>





magnetic resources<sup>NL</sup>

**MAGNETIC RESOURCES NL  
LADY JULIE GOLD PROJECT**

**PRE-FEASIBILITY STUDY  
March 2024**

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## Glossary

\$	All currency in AUD and is exclusive of GST
ANGOLD	Australian National Committee on Large Dams
AISC	All-In Sustaining Cost
bcm	Bank cubic metres
BCM	Blue Cap Mining
CAPEX	Capital Expenditure
DA	Depreciation and Amortisation
dmt	dry metric tonne
EBITDA	Earnings before Interest, Tax, Depreciation and Amortisation
FEED	Front end engineering design
FIFO	Fly in Fly out
g/t	grams per tonne
IBC	intermediate bulk containers
ILR	intense leach reactor
IRR	Internal rate of return
IPTSF	in pit tailings storage facility
IWLTSF	Integrated waste landform tailings storage facility
L, l	litre
Lcm	loose cubic metres
LJGP	Lady Julie Gold Project
LOM	Life of Mine
M	Million
MAU	Magnetic Resources NL
MCP	Mine Closure Plan
mg	milligrams
NAF	Non-Acid Forming
NPV	Net Present Value
OPEX	Operating expenditure
Ore	Resources which can be mined and processed economically after being subjected to modifying factors
Oz	Troy ounces
P&ID	Piping and Instrument Drawing
PFS	Pre Feasibility Study

Qtr	Quarter (3 months)
ROM	Run of Mine
SG	Specific Gravity
SMU	Service Meter Unit
t	metric tonne
TDS	Total dissolved solids
TRS	Tailings Retention System
wmtkm	wet metric tonne km
WRD	Waste Rock Dump

## 1.0 Summary

It is rare that a mining project starts with humble aspirations, and during the course of evaluation, turns rapidly into a large and compelling development opportunity – MAU’s Lady Julie Gold Project is one such example. This transformation occurred in the second half of 2023 when deep drilling indicated that the Lady Julie ore zone extended deeper, and with higher grade than previously considered, and with drilling continuing to expand the resource.

This immediately had implications for the type of project to be planned. Financial analysis has indicated that an optimal return can be expected from a 9 year mining and on-site processing operation.

Table 1 provides a snapshot of the key physical and financial parameters.

**Table 1 Key Project Metrics**

<b>Project metric</b>	<b>Unit</b>	<b>LOM PFS @ \$2800/oz</b>
Project life	Yr	9
Gold price	AUD/oz	2,800
Process plant feed	Mt	13.95
Grade	g/t Au	1.74
Recovery	%	93
Gold recovered	Oz	720,800
Annual average gold recovered	Oz/yr	87,000
Operating cost	\$M	1,033
Sustaining capital	\$M	8.0
Preproduction capital	\$M	93.4
Undiscounted cashflow (pre-tax)	\$M	881
EBITDA	\$M	982 (48%)
EBIT	\$M	881 (44%)
C1 cost	\$/oz	1,434
AISC	\$/oz	1,445
Project NPV (pre-tax 8%)	\$M	547
Project IRR (pre-tax)	%	85
Project Payback period (after Project start)	Qtr	5
Maximum Project drawdown	\$M & qtr	\$93.4M in Qtr 2

<b>Project Physicals</b>	<b>Unit</b>	<b>LOM PFS @ \$2800/oz</b>

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Total material movement	Mbcm	77.3
Ore mined	Mt	13.55
	g/t Au	1.77
Gold contained	Oz	773,000
Strip Ratio		13.5:1
Process plant feed	Mt	13.95
	g/t	1.74

### 1.1 Partners

The following organisations have provided valuable input in formulating this report. Their support is acknowledged and appreciated.

- Heritage Survey – Heritage WA
- Flora – Botanica
- Fauna – vertebrate – Terrestrial Ecosystem
- Fauna – invertebrate - Bennelongia
- Soils – Mine Earth
- Waste Characterisation – Independent Metallurgic Operations
- Metallurgical Testing – Independent Metallurgical Operations
- DTM creation - Minecomp
- Geomechanics – Bastion Geotechnical
- Surface Hydrology - Hydrologia
- Groundwater - GRM
- Survey, Optimisation and Mine Design - Minecomp
- Process plant design and costing – Ammjohn
- Native Title Agreement – Agreement Hub
- TSF Design - REC
- Study management, resource assessment, economic analysis and report preparation – Blue Cap Mining.

## 2.0 Introduction

Magnetic Resources NL have conducted exploration in the area west of Laverton since 2017, and have identified a number of significant gold resources. Blue Cap Mining was engaged in late 2022 to commission baseline environmental studies, resource assessment and economic analysis while Magnetic continued with drilling. The aim was to shorten the lead time to approvals and eventual development.

As a result of that work, Magnetic now propose to develop a gold mining operation incorporating the Lady Julie North 4 (LJN4), Lady Julie Central 9 (LJC) and Hawks Nest 9 (HN9) deposits.

This document was compiled to consolidate the results of all investigative studies and financial evaluations to arrive at a compelling technical and commercial solution. The Project as planned has a 9-year life and will produce in excess of 720,000oz gold. The area has yet to be fully tested and is prospective for more resource discovery and definition.

The site is essentially a greenfield opportunity in a remote region. Mining for gold and nickel has been conducted in the area in the past, and is continuing at a number of nearby locations, so there is strong local support for the industry.

The concept for the development was initially a limited mining operation with ore being hauled for toll processing at third-party processing plants. Resource definition drilling of LJN4 during mid-2023 hinted at a far larger resource than anticipated, and the potential to reconsider the limited development plan to achieve better returns. This latter plan incorporated a processing plant on site.

As a result, while the underpinning of the plan from an environmental and mining perspective are sound, there has not been the time to achieve the same level of understanding as regards processing. The Project as now envisaged incorporates:

- an open pit operation involving 3 main pits with a maximum depth of 300m (LJN4).
- a staging area containing support infrastructure including admin offices and medical centre, warehouses, workshop, fuel storage and distribution.
- a processing plant and tailings storage facilities.
- Support infrastructure including power station and bore field.
- Employees would be FIFO with a camp in Laverton and bussing to and from site.
- A 24/7 operation.

The Project would be typical of many others in the Goldfields where temporary facilities and personnel are assembled to undertake the Project. The infrastructure would be removed from site at completion, and the site rehabilitated.



### 3.0 Site Location/History

The Hawks Nest/Lady Julie deposits are located 17km southwest of Laverton in WA.

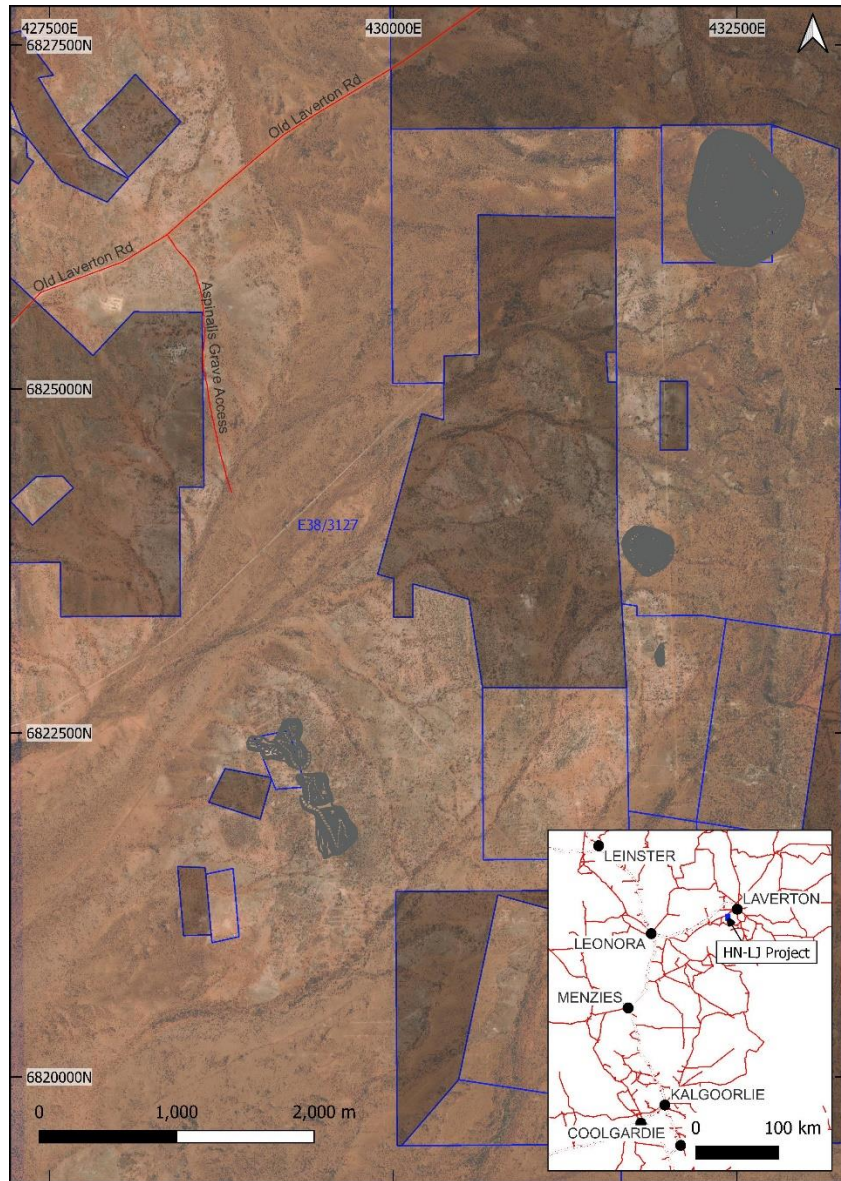


Figure 1 Location Plan

The area first came to the attention of prospectors in 1916 but the remoteness of the location and lack of water meant that only cursory exploration was undertaken. Major gold and nickel deposits were identified in the immediate vicinity from the late 1960s. Surface prospectors continue to be active in the area.

The Chatterbox Shear, on the eastern side of the tenements, has been the source of significant gold deposits to the north and south of the Magnetic properties, however the complex geology of the area meant it remained underexplored until 2017.

## 4.0 Environmental Impact

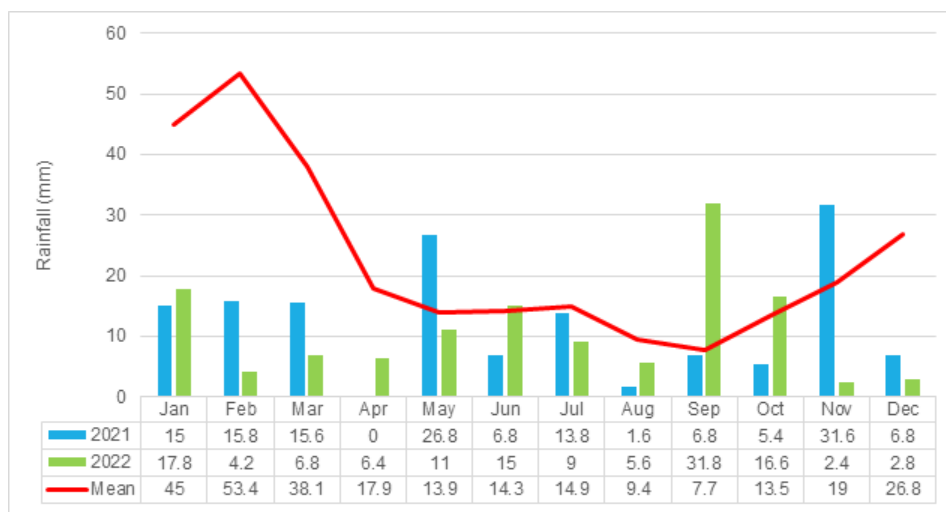
### 4.1 Climate

The climate of the Eastern Murchison subregion is characterised as an arid climate with mainly winter rainfall and annual rainfall of approximately 200 millimetres (mm) (Beard, 1990; Cowan, 2001).

#### 4.1.1 Rain

Rainfall data for the Laverton Aero weather station (#12305) located approximately 25 km northeast of the survey area is shown in Figure 2 (BoM, 2023a).

Rainfall received prior to the survey (September–October 2022) was above average.



**Figure 2 Monthly rainfall at the Laverton Aero Weather Station #12305 (BoM, 2023)**

#### 4.1.2 Wind

Annual wind roses (Figure 3) from the same station show a consistent eastern airflow for much of the year. Slight daily variations are also apparent.

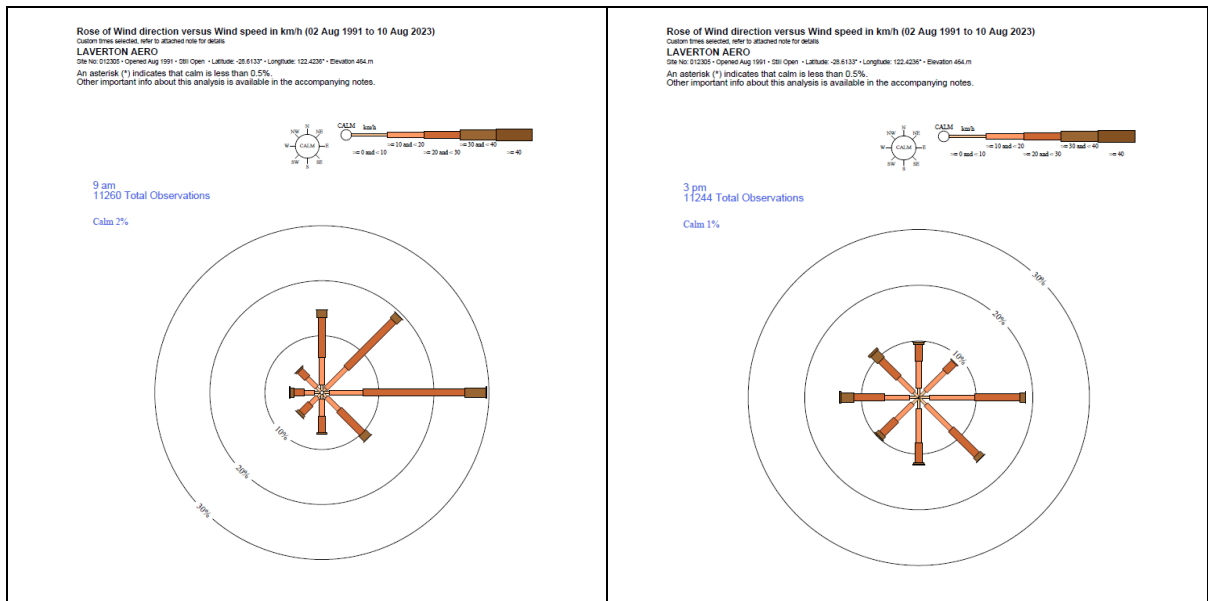


Figure 3 Average annual wind data at the Laverton Aero Weather Station (BoM, 2023)

## 4.2 Flora

A detailed flora and vegetation study focusing on the Lady Julie North 4 resource and transport corridor was completed in October 2022 (Botanica 2022).

The survey area lies within the Eastern Murchison (MUR1) subregion of the Murchison Bioregion, as defined by the Interim Biogeographic Regionalisation of Australia (IBRA).

Three vegetation types were identified within the survey area. These vegetation types were identified within three landform types and comprised of two major vegetation groups, which were represented by a total of 26 families and 63 taxa, including nine annual taxa.

Based on the vegetation condition rating scale specified in the Environmental Protection Authority (EPA) Technical Guidance - Flora and Vegetation Surveys for Environmental Impact Assessment – December 2016 (EPA, 2016a), vegetation ranged from 'very good' to 'excellent' with the majority of vegetation rated as 'very good'. Disturbance in the area was a result of exploration and pastoral land use. No introduced flora were identified within the survey area.

Figure 4 below shows a typical view of flora over a large part of the study area.



**Figure 4 Low open acacia in clay loam plain (covering 62% of area surveyed)**

### **4.3 Fauna**

#### **4.3.1 Fauna - vertebrate**

Terrestrial Ecosystems completed a vertebrate fauna survey and risk assessment for the MAU Lady Julie Gold Project in early 2023 (Terrestrial Ecosystems 2023). The Project area is an irregular shape and includes tenements P38/4170, E38/3209, P38/4379, P38/4380, P38/4381, P38/4382, P38/4383, P38/4384, E38/3100, M38/1041 and E38/3127.

The following three broad fauna habitats are in the Project area:

- mulga and mixed shrubland,
- chenopod shrublands, and
- rocky ridges and breakaways.

In addition, there are multiple areas that have been disturbed by exploration and mining activity.

There was evidence of rabbits, feral cats and wild dogs in the Project area. These feral and pest fauna are likely to be doing more environmental damage than the combined impacts of proposed development.

Clearing native vegetation in the Project area is likely to result in the loss of small vertebrate fauna on-site that are unable to move away during the vegetation clearing process, however, this loss is not likely to be significant when viewed in a bioregional context. The few larger animals, such as kangaroos, large goannas and snakes, and most of the birds will move into adjacent areas once vegetation clearing commences, so potential impacts will be low. There may be an on-going loss of small native fauna to vehicle strikes on access tracks, but overall, this impact will be very low. Forced fauna migrants because of vegetation clearing increase competition for resources, which may result in the subsequent loss of migrants or local individuals. Individuals shifted out of their established activity areas are also vulnerable to predation until they have become established in their new areas.

The proposed Project is unlikely to significantly impact on an *EPBC Act* listed conservation significant

species, so a referral under the *EPBC Act* is not required.

#### 4.3.2 Fauna – subsurface

An initial desktop review (Bennelongia 2023-1) was followed by field assessment (Bennelongia 2023-2). The underlying bedrock at the Project Area is predominantly composed of the Eastern Goldfields Superterrane greenstones unit, consisting of fine to very fine grained, undivided and metamorphosed mafic rock with minor ultramafic rock, with lesser amounts of dominant, metamorphosed ultramafic volcanic rock. The northern area of the Project Area also traverses a granite unit, composed of undivided, metamorphosed granitic rock. When considering the proposed mine pits, scrutiny of the regolith and surface geology layers shows the LNJ4 mine pit to lie mostly on laterite-derived alluvium and colluvium, underlain by ultramafic rocks and sedimentary carbonates and cherts intruded by felsic porphyries. The northern pit of LJC sits on porphyry-infused amphibolite as well as laterite-derived alluvium and colluvium, whereas its southern pits lie on metamorphosed intrusive felsic porphyry and peridotite (an ultramafic rock), all overlain by colluvial and residual deposits. HN9 mostly lies on porphyry-infused amphibolite, with the southern point lying on dolerite with varying amounts of basalt and gabbro, overlain by an exposed sandplain.

In general, rock types that are known to harbour abundant troglofauna communities in the Yilgarn, namely calcretes that lie above the water table, are not present at the Project Area. Of the proposed pit sites, LNJ4 and LJC traverse alluvial and colluvial layers, whereas habitat appears less prospective at HN9. Detailed lithology records (e.g. core drill photographs) at various sites within the boundaries of the proposed pits would help confirm prospectivity, nonetheless, it is expected only relatively depauperate troglofauna communities may exist at LNJ4 and LJC. It is unlikely that mining operations would significantly impact troglofauna conservation values.

#### 4.4 Soil

A detailed baseline soil assessment has been completed over the project area (Figure 5). The physical and chemical characteristics of topsoil and subsoil materials were assessed from 18 representative locations within the study area, which were sampled to a maximum depth of approximately 0.5 m. The characteristics of the surface soils, as identified by the field investigation, sampling and analysis program, have been grouped into the following soil-landform association: 'Low rise', 'Gently sloping stony plain' and 'Drainage'.

The majority of the physical and chemical characteristics of the surface soils were generally consistent across the study area, with little apparent correlation between soil-landform association or sample depth. The soils typically have a loamy texture with variable clay content, salinity ranging from 'non-saline' to 'slightly saline', are typically classified as 'non-sodic' and are low in organic carbon and plant-available nutrients. Dispersion of the clay fraction, particularly following severe disturbance, was observed for the majority of the samples, however the soils are relatively free draining ('moderately slow' to 'rapid' hydraulic conductivity) and have a low potential for hard-setting. There was little consistent trend.

The characteristics of soils present within the three soil-landform associations are shown in Figure 6 and summarised as follows:

Low rise:

- Gentle to moderate relief areas of relatively high elevation.
- Weak to moderately structured red-brown soils, to 0.1 - 0.2 m depth over hardpan.
- Surface lag of ironstone and / or quartz pebbles to boulders.
- Soils are consistently non-saline and are typically classified as 'non-sodic', but displayed partial dispersion of the clay fraction upon severe disturbance.
- Soils have low nutrient status, low soil strength and a 'moderate' to 'rapid' drainage class.



- Concentrations of As, Cr and Se above the average crustal abundance, with concentrations of all other metals generally below the average crustal abundance.

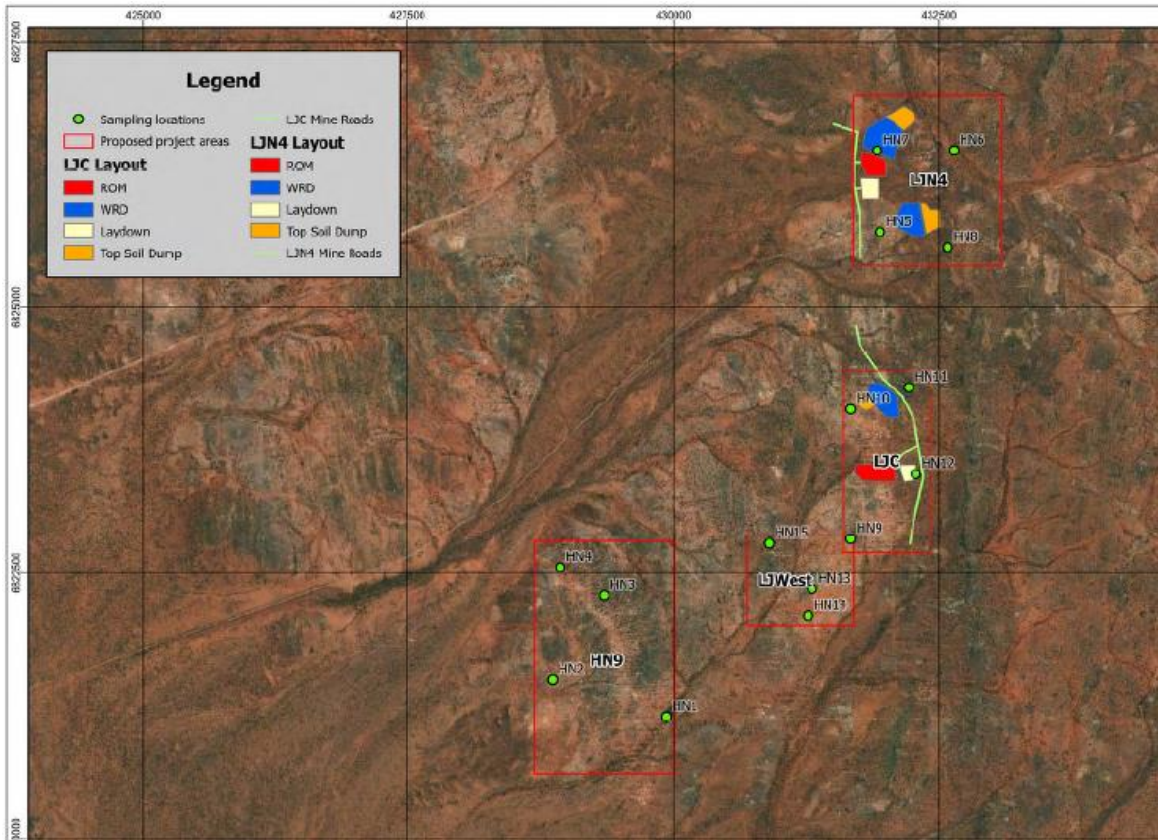


Figure 5 Baseline soil sampling areas

Gently sloping stony plain:

- Slight relief generally sloping towards the north-east.
- Weak to moderately structured red-brown soils, approximately 0.2 m depth over hardpan.
- Surface lag of ironstone and / or quartz stones.
- Soils are generally non-saline to slightly saline in some places, are typically classified as ‘non-sodic’, but displayed partial dispersion of the clay fraction upon severe disturbance.
- Soils have low nutrient status, low soil strength and a ‘moderately slow’ to ‘very rapid’ drainage class.
- Concentrations of As, Cr and Se above the average crustal abundance, with concentrations of all other metals generally below the average crustal abundance.

Drainage:

- Ephemeral drainage depressions and drainage lines.
- Generally greater vegetation coverage than the other soil-landform associations.
- Weakly to moderately structured red-brown soils to 0.4 m depth.
- Soils are generally non-saline and consistently ‘non-sodic’ but displayed partial dispersion of the clay fraction upon severe disturbance.
- Soils have a low nutrient status, low soil strength and a ‘moderate’ to ‘moderately rapid’ drainage class.
- Concentrations of As, Cr and Se above the average crustal abundance, with concentrations of all other metals generally below the average crustal abundance.

other metals generally below the average crustal abundance.

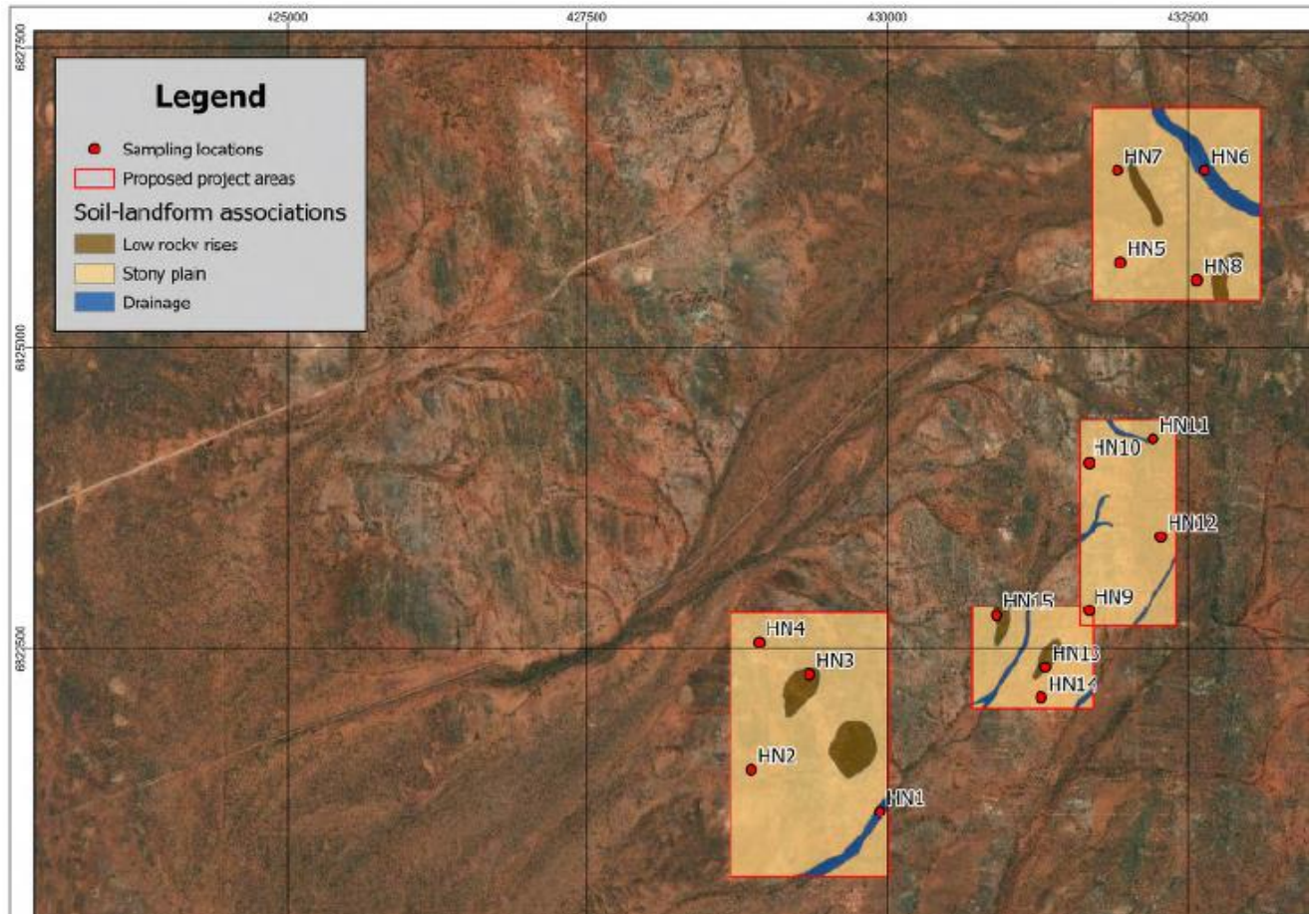


Figure 6 Soil Types in the Study Area

#### Soil Management Recommendations

It is recommended that the topsoil portion of the soil profiles above the hardpan (ranging from 10 to 50 cm depth) within the proposed disturbance areas is stripped (where possible) and placed in stockpiles for use as a surface rehabilitation medium. Given the relative similarity of the surface soils from across the study area, segregation / stockpiling of soil resources from different soil-landform associations is not considered necessary.

#### 4.5 Waste Rock Geochemistry

Composite samples of each of oxide, trans and fresh waste rock from LJN4 and LJC were tested for acid-forming characterisation (IMU, 2023). The results indicate that all rock types likely to be encountered in the open pits are non-acid forming (NAF). This means there is no need for segregation in waste dumps and no potential for metal to leach to the environment.

#### 4.6 Surface Water

A surface hydrology study has been completed by Hydrologia in Nov 2022.

The report of the study concluded that the Project area lies in an arid region with low variable rainfall, high year-round evaporation, hot summers and cold winters. The site is not in a proclaimed



surface water management area. The only surface waters in the area are intermittent flowlines.

LJC and HN9 lie close to catchment boundaries with only shallow or concealed flowlines. LNJ4 also has shallow flow paths – see Figure 7. These small flow paths do not present a significant flooding risk for infrastructure.

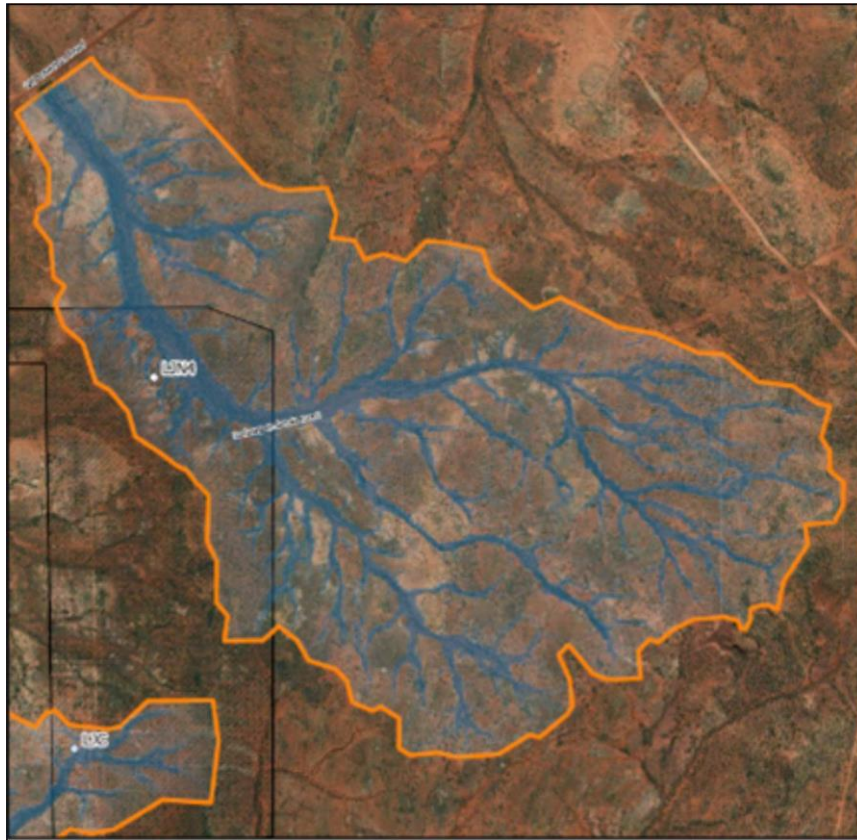


Figure 7 Potential flow extent in LNJ4 area

#### 4.7 Groundwater

Preliminary studies (GRM, 2023 and 2024) have reviewed the potential impact of the Project on regional groundwater.

The region is characterised by low relief and a southerly draining paleo-drainage system underlain by Archean sequences. Groundwater typically occurs in the following:

- Fresh or weathered Archean basement fractured rock aquifers,
- Tertiary paleo channel sands
- Surficial deposits including colluvium and calcrete

There are a number of historic bores in the general area as shown in Figure 8. The closest bore to the Project area is installed in the Carey paleochannel some 5km southwest of HN9. The bore reported a yield of 9.6 l/s, with water quality hypersaline (213,000 ml/L TDS).

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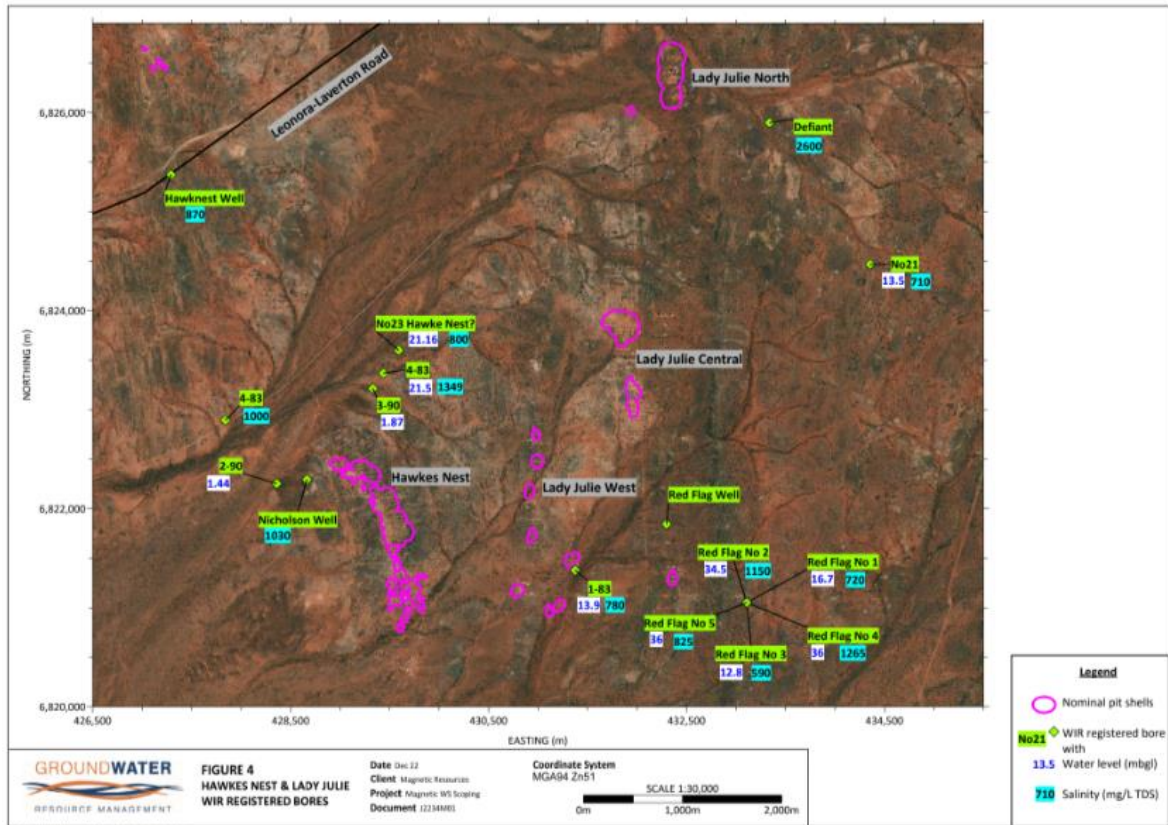
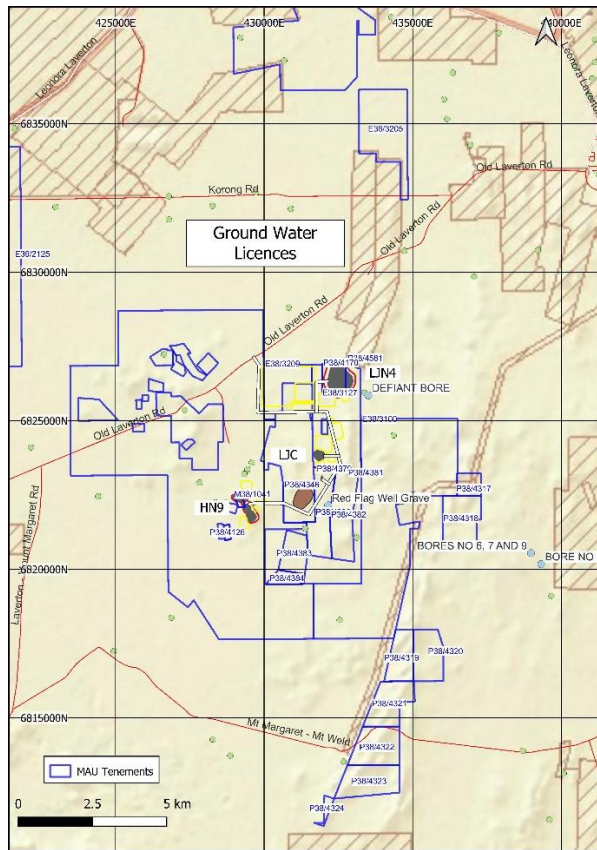


Figure 8 Project Area showing identified bores

Figure 9 showing active Groundwater Extraction Licences (GWL) demonstrates that the Project area is clear of any significant water drawdown history.



**Figure 9 Current GWLs in the Project area**

The 2024 PFS hydrogeological studies comprised:

- groundwater investigation drilling, monitoring bore construction and hydraulic testing, as well as
- water quality sampling, which were undertaken in mid-2023,
- numerical groundwater flow modelling to estimate the likely mine dewatering rates, and
- water balance modelling to estimate the long-term post closure pit lake water levels and quality.

The LJGP lies within the Eastern Goldfields Province of the Archean Yilgarn Craton. Lithologies in the area are dominated by low to medium grade metamorphic and medium to coarse grained mafic and ultramafic igneous rocks with significant felsic porphyry intrusives in places. LJC is situated 2.5km north of LN4 deposit, which in turn is 2.5km northeast of HN9.

The hydrogeological drilling results found that a thick, low permeability clay saprolite sequence overlies the LN4 deposit to depths of around 46 to 68 m in the northern deposit area around bores LWE03 to LWE06. The clay depths increase to over 100 m on the southern end of the deposit around LWE01 and LWE02. Below the clay sequence, drilling intersected variably fractured and jointed fresh basalt and porphyry with intermittent quartz veining. Bore LWE03 encountered minor fracturing to around 174 m, with a maximum airlift yield of 4 L/s. Fracturing extended to 160 m depth in LWE04 which measured the highest airlift yield (6 L/s). These bore possibly align with a fracture zone of the

regionally extensive Chatterbox shear. Outside of the main fracture zone, hydraulic testing found that permeabilities were low both at LJN4 and elsewhere at LJC and HN9.

Groundwater quality in the LJGP area is brackish to saline, neutral to slightly alkaline and of the sodium chloride type. The groundwater is hard to very hard with elevated levels of sulphate, and generally around the upper limit for stock water use in respect of salinity.

A groundwater flow model was developed for the LJGP using the *MODFLOW* finite difference model engine.

Results of the groundwater modelling has found that:

- No groundwater inflows are predicted for around the first six months of development until the regional water table is intersected.
- Mine dewatering rates are estimated to rise significantly from the end of Year-1, from around 15 L/s possibly peaking for short duration at around 40 to 45 L/s in the early part of Year-2.
- Across the Life -of-Mine, groundwater inflows are predicted to stabilise in the 20 to 30 L/s range and possibly be around 25 L/s at the end of the Project.
- It should be noted that these dewatering rates assume no ex-pit bores are installed and operated to assist with the mine dewatering. The modelling result also found that:
- the 1m drawdown contour is modelled to extend to around 3 km to the east and west of the LJN4 pit, and potentially to around 4 km to the south and 7 km to the north of LJN4.

However, it should also be noted that high-rate recharge events, such as those from remnant tropical cyclones could reduce the drawdown extents significantly from those predicted.

A pit lake closure water balance model was also developed for the LJGP using the generic systems modelling package *GoldSim*. This model was constructed around the results of hydrogeological investigations, conceptual and numerical groundwater models, and the LJN4 pit design provided by Magnetic.

The results found that:

- The LJN 4pit will form a long-term local groundwater sink.
- Under average rainfall conditions, a maximum pit lake level of about 368 mRL will develop in the longer term. Under wetter rainfall conditions, a long-term pit lake level of 372.7 mRL is predicted, which equates to a drawdown below the ambient groundwater level of 48.3 m.
- The LJN4 pit lake salinity is predicted to rise from an assumed 12,800 mg/L TDS at the end of dewatering to be between 106,000 and 121,000 mg/L TDS at 500 years post closure.

## 5.0 Legislative Regime

Exploitation of mineral resources in WA falls under the jurisdiction of the Department of Energy, Mines, Industry Regulation and Safety (DEMIRS). Further coordination is maintained with Department of Water and Environmental Regulation (DWER) for land clearing and groundwater extraction and utilisation.

Licences are required from each prior to the commencement of mining.

Other interested parties are detailed below.

### 5.1 Key Stakeholders

Key stakeholders involved with the approvals process for the Project include the following:

- Department of Energy, Mines, Industry Regulation and Safety (DEMIRS)
- Department of Water and Environmental Regulation (DWER)
- Department of Biodiversity, Conservation and Attractions (DBCA)
- Department of Health (DoH)
- Department of Planning Lands and Heritage (DPLH)
- Nyalpa Pirniku People (Traditional Owners)
- Mt Weld Station – held by Goldfields Ltd (Pastoral Lease)
- Shire of Laverton.

## 6.0 Tenement/Land Tenure

Magnetic Resources maintain an extensive tenement holding in both the Laverton and Leonora areas. All are held in good order. The subset pertaining to this Project are reported in Table 2.

**Table 2 Magnetic's Project area tenements**

Resource Group	Tenement	Area
Hawks Nest	E 38/3205	2 Blocks (approx. 411 Ha)
Hawks Nest	E 38/3127	37 Blocks (approx. 8,091 Ha)
Hawks Nest	P 38/4126	10 Ha
Lady Julie	E 38/3100	7 Blocks (approx. 1,833 Ha)
Lady Julie	P38/4170	80 Ha
Lady Julie	P 38/4346	132 Ha
Lady Julie	P 38/4379	91 Ha
Lady Julie	P 38/4380	109 Ha
Lady Julie	P 38/4381	115 Ha
Lady Julie	P 38/4382	112 Ha
Lady Julie	P 38/4343	111 Ha
Lady Julie	P 38/4384	45.4 Ha
Lady Julie	P38/4205*	100Ha

Note: P38/4205 was being transferred to MAU at time of report.

Mining lease application M38/1315 was lodged in October 2023, covering P38/4170 and a portion of E38/3127, and specifically all of L/N4. It remains under application at time of writing.

With the submission of a Mining Proposal, it is planned to apply for

- separate Mining Leases covering the Lady Julie ore and facilities zone, and HN9 ore zones,
- a Miscellaneous Licence providing access between the mining leases.

The mining leases will overprint many of the smaller Exploration and Prospecting Licences (see Figure 36).



## 7.0 Heritage and Native Title

### 7.1 Heritage Survey

A Heritage Survey was conducted in February 2023 by members of the then Nyalpa Pirniku Native Title Claimant Group. The study area incorporated both the areas of potential economic interest, and two potential ore haulage corridors to Shire roads – see Figure 10.

The report of the inspection (Czerwinski, P; Feb 2023) confirmed only one cultural heritage item located some distance from the areas of mineralised influence.

Promulgated changes to the Native Title Act (following the rescinding of the 2023 Regulations) are yet to be implemented so it is not clear if the recent Heritage Survey will comply with requirements.

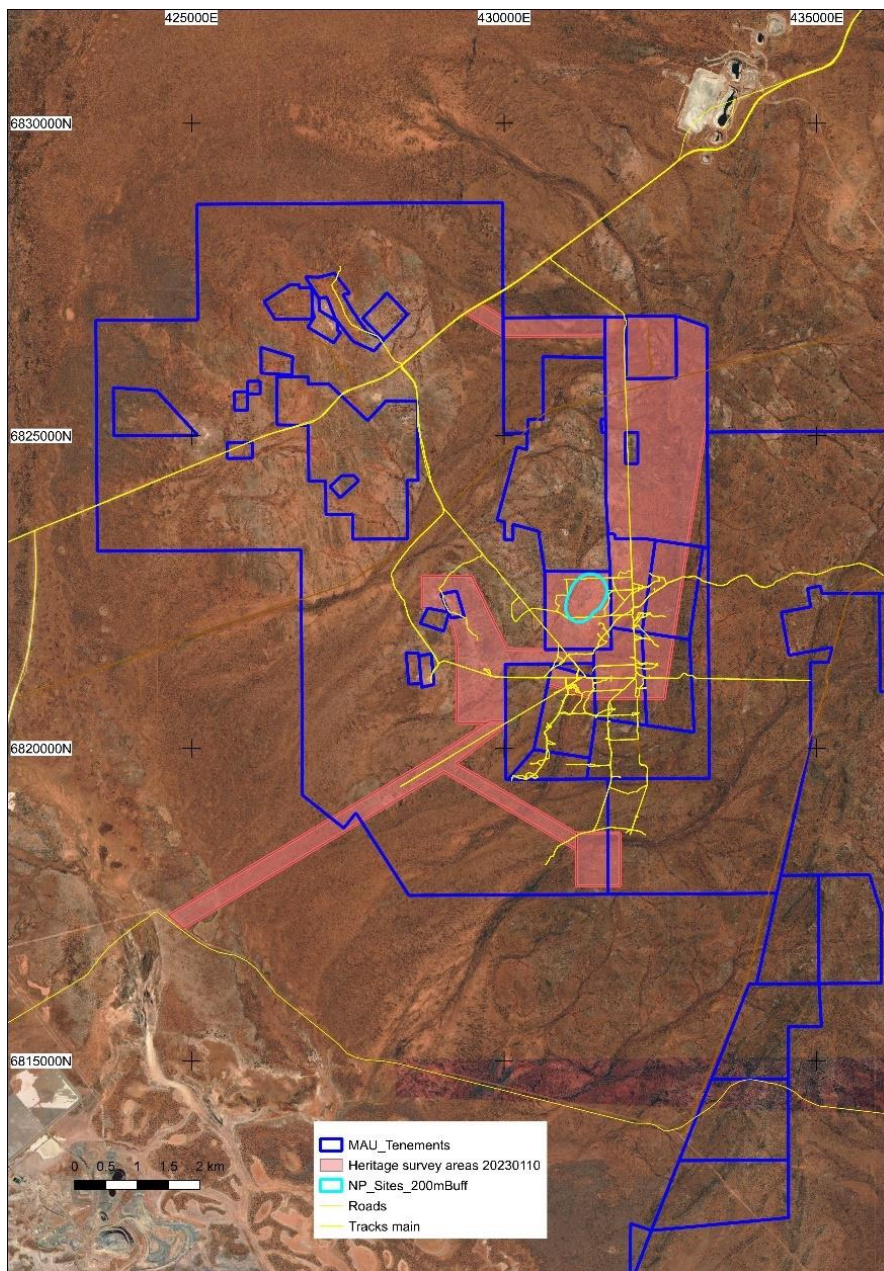


Figure 10 Heritage Survey area



## **7.2 Native Title Agreement**

The Nyalpa Pirniku claim to the desert region around Laverton was recognized by the Federal Court in late October 2023. It is anticipated that the submission of the above mining lease application will trigger the commencement of a timeframe for negotiation of an agreement covering mining activity.

## **7.3 Other Heritage Matters**

nil

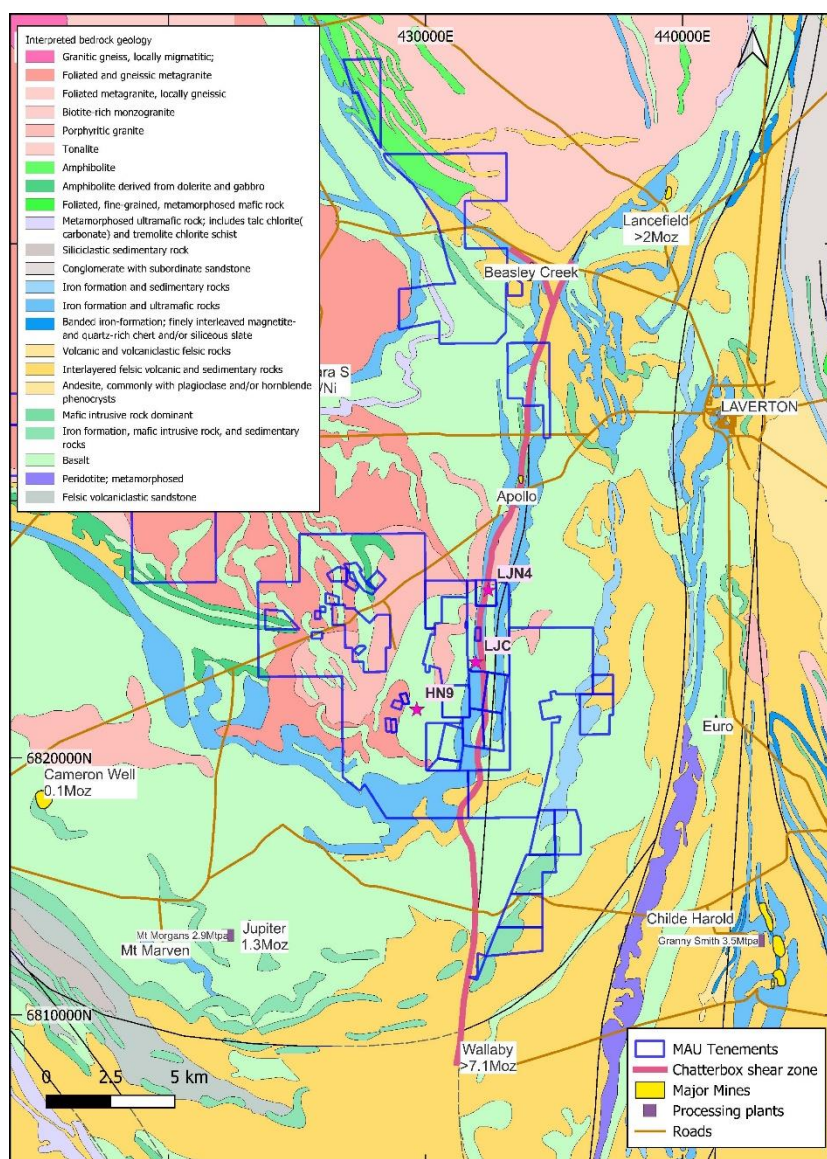
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## 8.0 Geology

### 8.1 Regional Geology

An initial assessment of several of the resources delineated in the Project area was undertaken in 2022 (Widenbar, 2022).

The HN9, LJC and LJC4 deposits are situated in the Laverton Terrane of the Archean Yilgarn Craton, in the hinge area and on the eastern limb of the regional-scale Mount Margaret anticline (Figure 11). The anticline is upright and moderately southeast plunging. Magnetic Resources discovered the Hawks Nest 9 anomaly in October 2018 followed by drilling at LJC and LJC4, following up historical drilling by Western Mining Corp and Metex respectively.



**Figure 11 Regional Geology Laverton Area**

The regional geology comprises an extensive sequence of mafic volcanics containing a folded sequence of ultramafics, chert, shale and sedimentary carbonate overlain by banded iron-formation,

which is also folded around the nose of the anticline, as shown in Figure 12. These rocks are heavily intruded by felsic porphyry dykes and sills, particularly in the vicinity of HN9, LJC and LJN4. The sequence on the eastern limb of the anticline dips consistently to the east.

Ultramafics along the overall north-northeast-trending mafic-ultramafic contacts are variably sheared, and the ultramafic package intersects parts of the Chatterbox Shear Zone – a major structure associated with several moderate- to high-grade Au deposits. The shear zone is interpreted to have a history of both dextral and dip-slip shearing. The Chatterbox Shear Zone (Figure 11), cuts the eastern limb of the anticline and is evident in both aeromagnetic and gravity imagery.

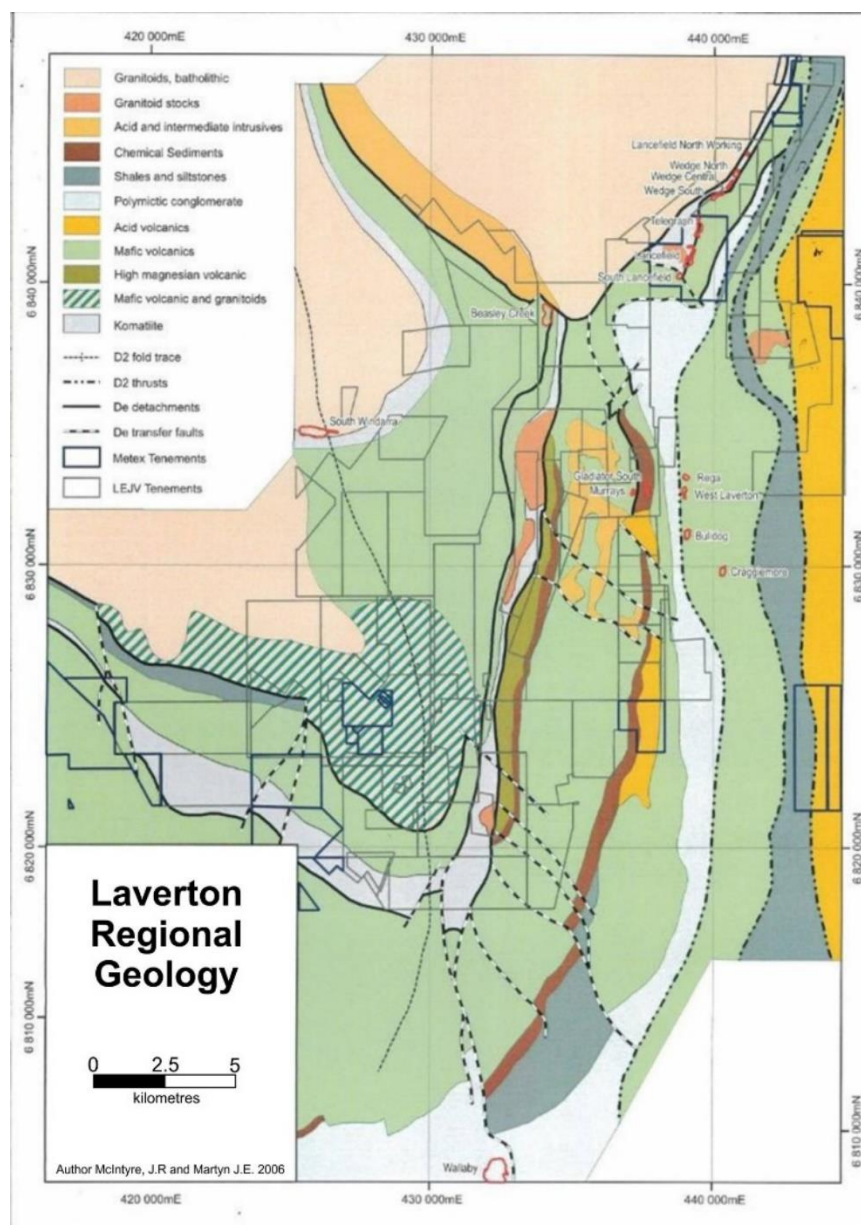


Figure 12 Hawks Nest area Geology

## 8.2 Local Geology

### HN9

Mineralisation at HN9 is interpreted to extend approximately 3km along strike and to be hosted within a north-northwest-trending shear with an inflection to south-southwest-trending to the

South. Mineralisation is intermittently exposed along a series of old diggings some 2km in extent. The inferred shear zone transects a series of north–south to NNE–SSW-striking mafic-hosted porphyry dykes that dip at 20-25 degrees to the east-north east. Gold mineralisation frequently, but not exclusively, is along or proximal to the mafic–porphyry contacts.

#### LJC

Mineralisation at LJC, situated to the east of HN9, is also hosted along the contact between mafic volcanics and ultramafics. The deposit has a moderately southeast-plunging shoot-like geometry, generated via the intersection between multiple orientations of felsic–dacitic porphyries and shear zones.

Modelling of the lithologies across the Lady Julie area shows that porphyries intruding the mafic–ultramafic sequence are broadly north–south trending, with deviations to north-northwest trending. RC drilling data focused around LJC constrains the porphyries there as more diversely oriented. Here, some of the more planar porphyry bodies are locally northeast–southwest striking and dipping 60 degrees east.

#### LJN4

The LJN4 deposit is situated in an area of deep weathering and extensive transported cover with no outcrop. Modelling of the lithologies intersected in drilling shows a footwall sequence of serpentinised ultramafics, in places sheared to talc–tremolite and chlorite–tremolite schists. This footwall sequence is overlain by sedimentary rocks comprising mostly carbonate and chert with minor carbonaceous and non-carbonaceous shale. Irregular lenses of ultramafic occur within the sediments. This whole sequence, which dips moderately (45-50°) to the east, is intruded by a series of felsic porphyry dykes, which also dip at various angles to the east.

### 8.2.1 Mineralisation

Gold mineralisation at HN9 and LJC is broadly similar comprising structurally controlled quartz veining and shearing with minor pyrite along or adjacent to mafic–porphyry contacts but also including quartz stockworks within porphyry in places.

Mineralisation at LJN4 is quite different and comprises two main styles: a brittle domain in the southern part of the deposit consisting of quartz veining and breccias (Figure 13), strongly pyritic in places, within the chert, carbonate and porphyry. The breccias are mainly matrix-supported and range from polymictic to porphyry-only with a pyrite content ranging from disseminated to semi-massive.





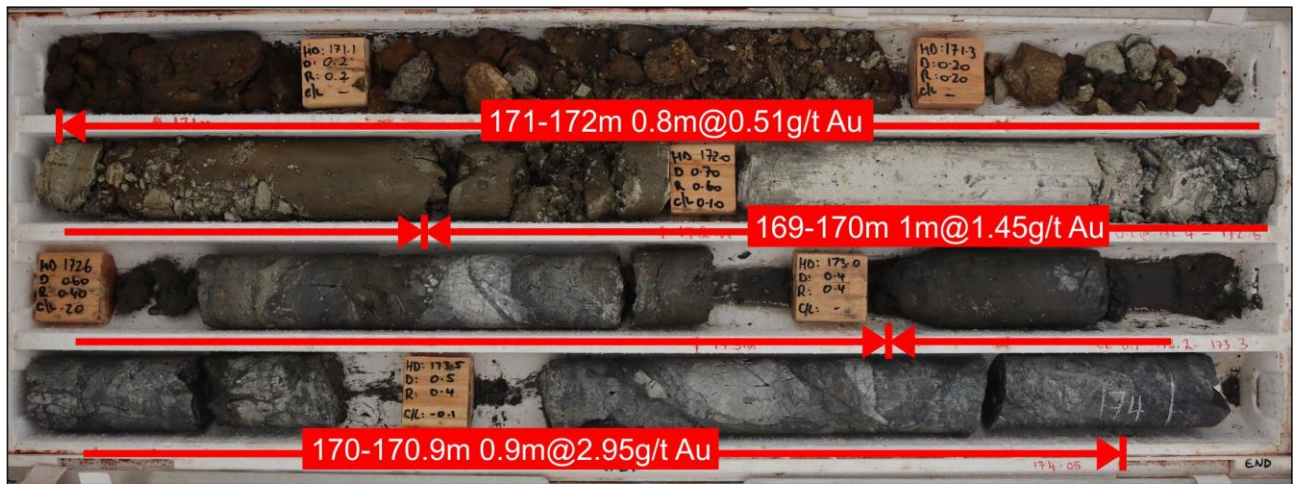
Figure 13 MJLLDD016 Polymict breccia in the brittle zone

The second style (Figure 14) is more ductile in nature and is mainly confined to the ultramafic rocks in the northern part of the deposit, consisting of strongly silicified and bleached ultramafic with an irregular texture indicative of strong deformation and with only minor disseminated pyrite.



Figure 14 MJLDD019 Silicified quartz veined ultramafic in ductile zone

The breccias in the brittle domain (Figure 15) form thicker, higher grade zones dipping moderately east and possibly plunging moderately north-northeast. They appear to crosscut all lithologies. The mineralisation in the ductile domain on the other hand forms a relatively consistent tabular moderately east-dipping structure. An additional mineralisation style consists of irregular pyritic stringer zones within massive carbonate rock. Further drilling is required to determine the extent and continuity of the carbonate-hosted mineralisation.



MLJDD015 Breccia Alteration

Figure 15 Breccia in the brittle domain

### 8.3 Resource Definition

#### 8.3.1 Drilling

Various drilling methods have been used to model the deposits, as summarised below. In general, all holes are used to assist in geological interpretation, while DDH (Diamond) and RC (Reverse Circulation) only are used for grade estimation.

The drilling information in Table 3 below relates only to the Lady Julie and Hawks Nest 9 deposits, and was current at September 2023. Drilling information on other Magnetic Resources deposits in the area is included in the June 2022 Resource Report.

Table 3 Drillhole Types by Deposit and Sub Domain

Deposit	Total m	No. of holes
Hawks Nest 9	43,251	748
Lady Julie	84,096	1,378
<b>Total</b>	<b>174,034</b>	<b>3,130</b>

Deposit	Hole Type	Metres	Holes
Hawks Nest 9	Diamond	431	4
Hawks Nest 9	Reverse Circulation	42,820	744
<b>Total HN9</b>		<b>43,251</b>	<b>748</b>
Lady Julie	Air Core	10,011	196
Lady Julie	Diamond	549	4
Lady Julie	Rotary Air Blast	17,426	506
Lady Julie	Reverse Circulation	55,801	653
Lady Julie	Unk	294	10
Lady Julie	VAC	15	9
<b>Sub Total</b>		<b>84,096</b>	<b>1,378</b>

Historically, Rotary Air Blast (RAB) and Air Core (AC) drilling were used for initial exploration with most follow up and infill work being carried out using RC. Magnetic has used RC for its recent drilling

programs at HN9 and Lady Julie.

### 8.3.2 Interpretation

Lithology and mineralisation wireframes were computed on drill sections then correlated between sections. Whilst irregular in shape, the mineralisation in all deposits is relatively consistent and can be tracked with moderately spaced drilling. The individual wireframed domains were then matched with corresponding drill assays. Block grades were computed using Inverse Distance squared with dynamic anisotropy using like data in a search ellipsoid.

Swath plots were used to compare estimated grade vs drill assay in 3 directions – good correlation was noted throughout.

### 8.3.3 Specific Gravity

Tests were undertaken (MAU, 2023) to ascertain the SG of differing lithologies at different states of oxidation based on a selection of drillhole samples. Table 4 summarises the key results.

Wireframes were constructed to model the base of complete oxidation (BOCO) and top of partial weathering (BOPW) using downhole intercepts recorded during drilling. The wireframes were subsequently superimposed over the block model and SG values assigned to each block according to oxidation status.

**Table 4 Specific Gravity for the key Deposits**

Oxidation State	LJC	LJN4	HN9
Transported	1.6	1.6	1.6
Fully oxidised [saprolite]	1.9	1.9	1.9
[saprock/transition]	2.32	2.32	2.32
Fresh	2.78	2.78	2.78

## 8.4 Mineral Resource

The Mineral Resource for LJN4, LJC and HN9 was last updated after further resource drilling in late 2023 (internal report, Edwards, 2023). The information was released to the ASX on 23 November 2023.

Table 5 is not a complete inventory of resources in the Lady Julie Gold Project – the resources used in this study only are detailed here.

The mineral resource has been estimated to JORC 12 standard.



**Table 5 LJP Mineral Inventory selected for Evaluation**

Deposit	Classification	t	g/t Au	Cont Oz
LJN4	Indicated	6,807,400	1.95	426,783
LJC	Indicated	792,000	1.97	50,200
HN9	Indicated	1,995,000	1.29	82,800
<b>Total</b>	<b>Indicated</b>	<b>9,594,400</b>	<b>1.81</b>	<b>559,783</b>
LJN4	Inferred	6,329,700	2.10	427,359
LJC	Inferred	541,600	1.26	22,000
HN9	Inferred	1,182,000	1.25	47,600
<b>Total</b>	<b>Inferred</b>	<b>8,053,300</b>	<b>1.92</b>	<b>496,959</b>
LJN4	Total	13,137,100	2.02	854,142
LJC	Total	1,333,600	1.68	72,200
HN9	Total	3,177,000	1.28	130,400
<b>Total</b>	<b>Total</b>	<b>17,647,700</b>	<b>1.86</b>	<b>1,056,742</b>

The following points are noted:

- LJC has been tested down dip and there is no potential for resource expansion in that direction.
- LJN4 has been the focus of recent drilling and has rewarded that effort with a large boost to resource via thick intersections down dip. Drilling is continuing at depth in an attempt to define the extent of resource. An updated resource estimate for LJN4 was released as this study was being finalized (ASX release March 2024). The only portion of that update used in this study was the resource classification of ore within the designed pit shells.
- For HN9, there is little change overall reflecting no new drilling.

The resource classifications, Measured, Indicated and Inferred, are assigned on the density of data used in making the assessment, and on the geologist's confidence in the ore zone continuity. For LJP, Table 6 outlines the desired drilling density required to meet a classification.

**Table 6 Drilling density**

	Measured	Indicated	Inferred
Drilling density	25 x 25m	35 x 35m	50 x 50m

Figures 16 to 18 show cross and long sections across LJN4 and LJC.

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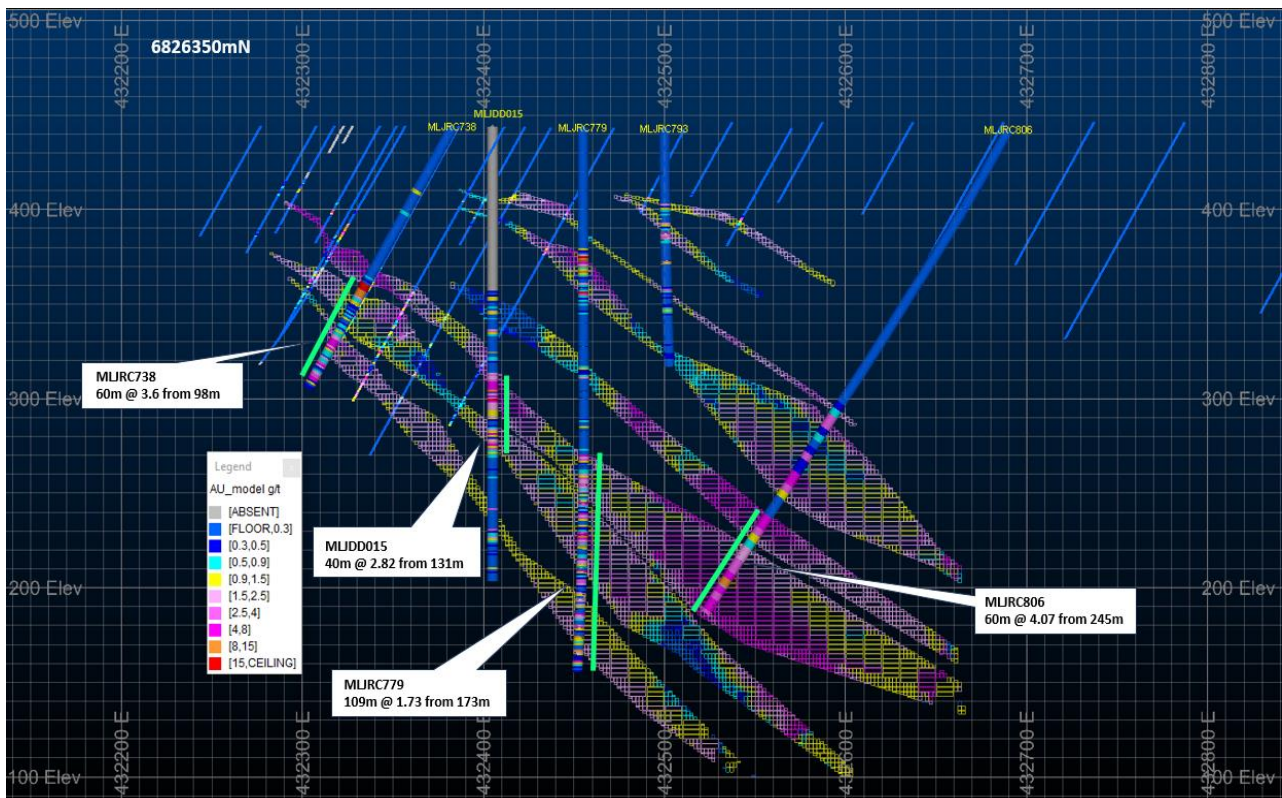


Figure 16 LNJ4 Cross section showing drill intercepts and block grades

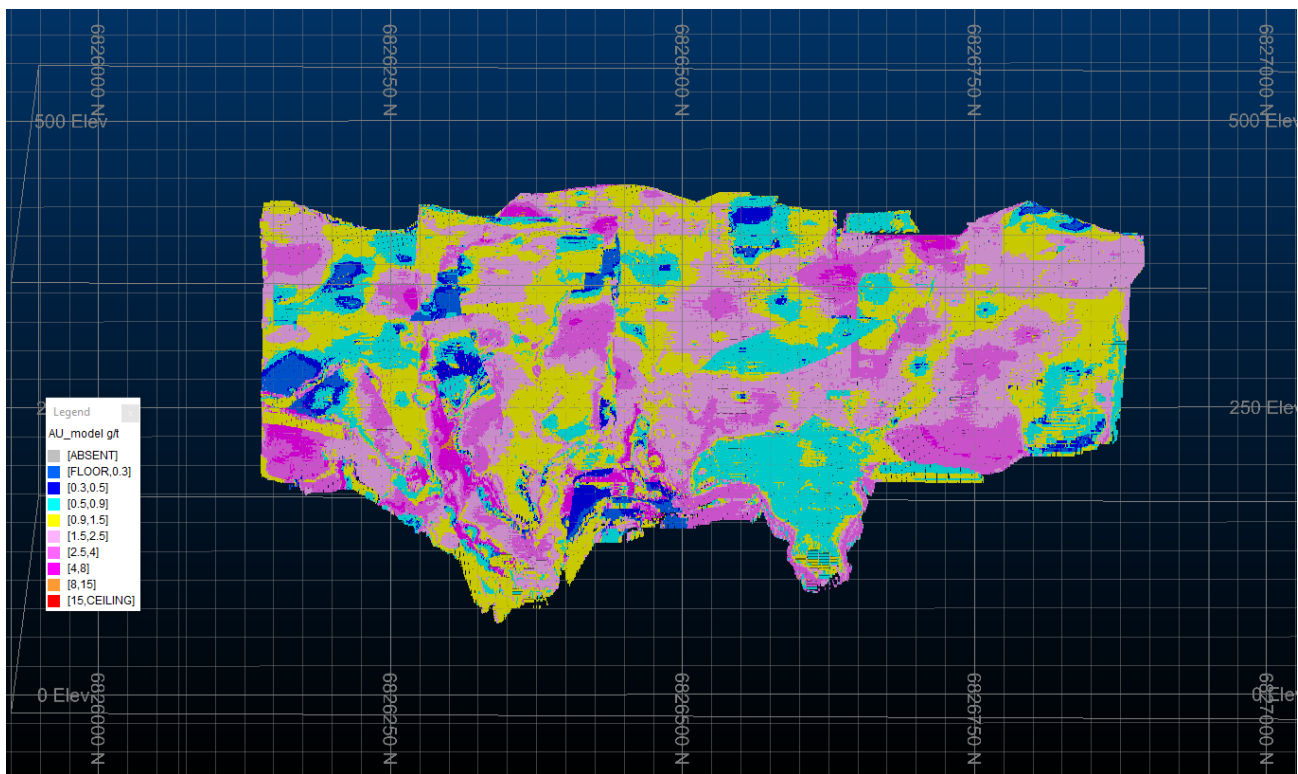


Figure 17 LNJ4 long section looking E showing gold grades

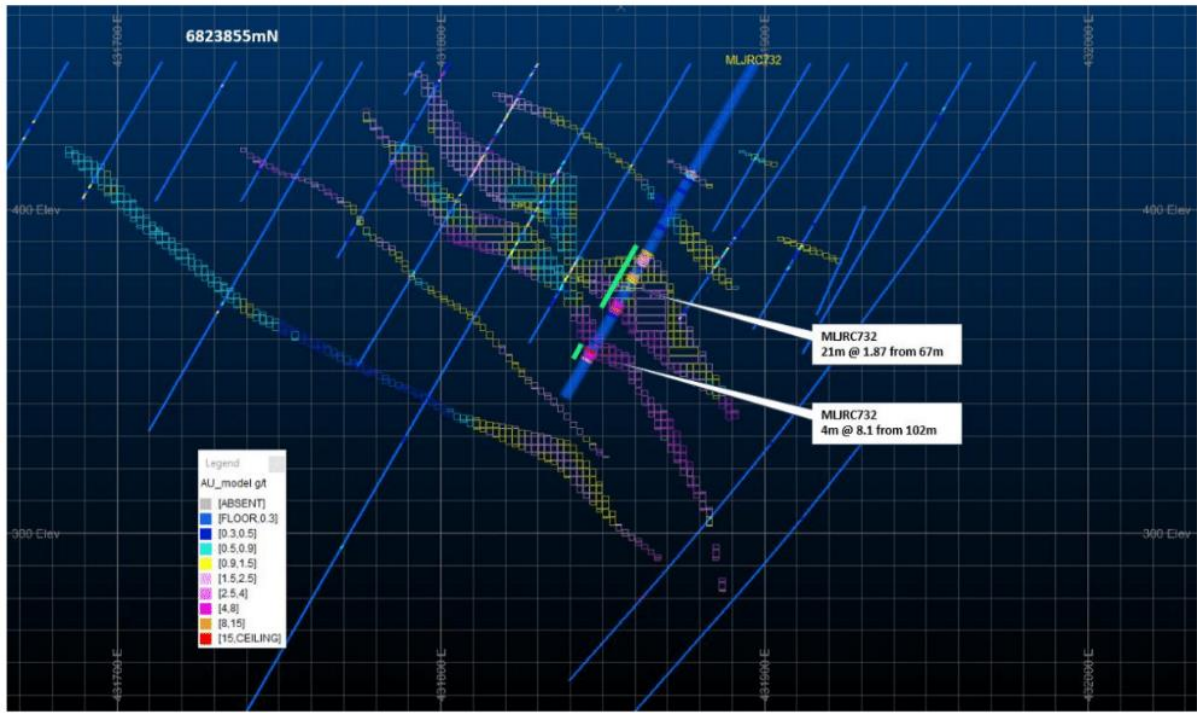


Figure 18 LIC cross section showing drill intercepts and block grades

## 9.0 Mining

### 9.1 Overview

The near-surface resources of the LJGP lend themselves to open pit mining with equipment that is widely proven on the Eastern Goldfields, namely hydraulic excavators and rear dump trucks (Figure 19). Blasting is used sparingly to condition the rock for extraction with powder factors varying according to oxidation status.



Figure 19 Typical excavator/truck combination

The scale of operations is tailored to match the plant processing rate. The scheduling of each pit has been further moulded to ensure early ore deliveries and minimising cash outflow during a pre-strip operation — the order of extraction chosen based on these considerations is LJC, LJN4 and finally HN9.

### 9.2 Mining Method

The mining method is intimately linked to geology/grade control, and planned drilling and blasting practices as for any hard rock open pit. The selected method is usually a compromise between selective mining of ore and waste, the expected mining equipment, and mining costs:

- The mining of the ore zone is planned at a nominal 5m bench height using a back-hoe excavator mining on two nominal 2.5m flitches. This will allow mining selectivity between ROM grade ore, low grade ore and waste boundaries, as long as mining of gently dipping ore zones is always from hangingwall (HW) to footwall (FW). This will allow mid-sized mining equipment to be used efficiently.
- Waste will be mined in 5m benches.
- A key part of the mining method is to use angled RC grade control to identify the economic (as opposed to purely geological) HW and FW contacts. The RC holes will also identify internal bands/shapes of waste and lower grade ore that can be selectively mined. Grade control drilling (see also section 9.10.3) will be done in stages to provide forward cover for the next 30–50 vertical m as each pit descends.

- All ore will be excavated from HW to FW across the bench face in “slices” so that it should be possible to separate some internal blocks of waste and low grade without excessive dilution of ore or loss of ore to waste.
- Waste is hauled to adjacent dumps while ore is hauled to a ROM pad for onward processing.

### 9.3 Geotechnical

Geotechnical design specifications were prepared for the HN9, LJC and LJN4 prospects following the drilling of targeted diamond drillholes around the perimeter of planned pits (Bastion, 2023).

Four (4) models were developed including Geological, Structural, Rock Mass and Hydrogeological models as a basis for the overarching Geotechnical Model to support further evaluation and analysis of applicable slope design parameters. The methodology for specification of design is focused on overall slope stability initially followed by consideration of batter scale stability.

Results from slope stability analyses were matched to industry standard Design Acceptance Criteria. This matching is required to understand the potential impact level of inherent uncertainties and gaps identified in the Data Reliability assessment, on the design recommendations.

The sensitivity analysis method has been adopted for this design specification, in the review of alternative elevated groundwater level and alternative shear strength model.

The current understanding of the geological and structural models is such that the level of uncertainty remaining within the model is anticipated to significantly adversely affect the geotechnical model. The current understanding of the hydrogeological model is limited to temporally and spatially sparse RC borehole data and is anticipated to significantly affect the geotechnical model for the LJN4 proposed mining area, particularly with the interaction of the relatively lower shear strength Cenozoic and Permian cover lithologies.

The decision to adopt shear strength parameters has been undertaken considering:

- For HN9: The dominant mean strength for Fresh Basalt is relatively high. The relatively lower but still good quality Slightly Weathered Basalt is adopted as both design and sensitivity case.
- For LJC: The slope stability analyses indicated that the rock mass shear strength models and laboratory test-derived strength models produced comparable and similar outputs and so both models are accepted equally.
- For LJN4: The laboratory testing for Highly Weathered Schist and Highly Weathered Basalt were used in preference to the rock mass shear strengths as the latter showed significant negative impact on slope stability due to the poor quality of rock mass as inputs into the rock mass shear strength model.
- The Highly Weathered Schist defect shear strength was adopted from the LJC area in preference to the higher shear strengths interpreted for the Breccia and Schist defects specifically tested for the LJN4 area. The geotechnical model for all three (3) mining areas can be represented as the interaction or coupling of the four (4) models.

It is anticipated that the failure mechanism for the Western slope of HN9 will predominantly be planar sliding and/or buckling along foliation planes of the Slightly Weathered Basalt RMU. This mechanism is expected to occur at the batter, inter-ramp and overall scales.

It is anticipated that the failure mechanism for the Eastern slope of HN9 will be rock mass failure through Fresh to Slightly Weathered Basalt. This mechanism applies to the batter, inter-ramp and overall slope scales.

The failure mechanism for all slopes of LJC will be rock mass failure through Highly Weathered



Schist. This mechanism applies to the batter, inter-ramp and overall slope scales.

For the Western slopes of LJN4, the failure mechanism will be rock mass failure through Cenozoic Sediments, Permian Sediments, and Highly Weathered Schist. This mechanism applies to the batter, inter-ramp and overall slope scales. Slope stability will be negatively impacted by groundwater, where the thickness of sediments intersects the water table. Probability of Undercutting (PoU) analyses were undertaken on all three (3) areas; however, the analyses were impacted by limited structural fabric datasets and drillhole orientation bias.

Limit Equilibrium slope stability analyses were analysed for 14 scenarios and were prepared as a set of multiple models testing design cases, sensitivities and alternative strength models.

Waste dump stability classification and Limit Equilibrium slope stability analyses were analysed for anticipated waste dumps for the three (3) mining areas. In summary, all analyses computed using design parameters recommended in Section 15 – Geotechnical Slope Design Parameters meet the adopted Design Acceptance Criteria for HN9, LJC and Western open pit slope of LJN4.

For the LJN4 Eastern open pit slope, two (2) scenarios did not meet the adopted Design Acceptance Criteria and the implementation of recommendations presented in Section 16 – Conclusion and Further Works are outlined to increase the confidence in the geotechnical model for this wall. The inherent uncertainties and variabilities in the geotechnical model are such that there would be no known adverse effect of these elements on the operational viability of the overall slope design, with the recommendations provided intent on increasing confidence in the component models of the Geotechnical Model.

Bastion was satisfied that the constituent models prepared for this design specification encompass these uncertainties and variabilities and the designs are suitable for Design and Construction Level, provided that the recommendations are adopted as outlined in Section 14 – Conclusion and Further Works.

Since that report, two additional diamond drillholes have been drilled in the expected position of the east wall of LJN4, and a report update issued. Key findings included:

- No major faults that could lead to wall failure have been detected,
- The E wall batter angle can be steepened slightly,
- A fresh rock zone (>200m deep) has now had a preliminary classification but requires further analysis.

Recommendations for pit slopes are shown in Table 7, and for waste dumps, in Table 8.

**Table 7 Pit Slope Recommendations (Bastion 2024)**

<b>Location</b>	<b>Batter Angle (deg)</b>	<b>Bench Width (m)</b>	<b>Bench Ht (m)</b>	<b>IRA (deg)</b>
HN9 E wall	80	6	10	52
HN9 W wall	<30	3	30	<30
LJC	70	4.8	10	50
LJN4 W wall (<70m depth)	70	6	10	46
LJN4 E wall (<70m depth)	45	6	10	32

LJN4 E wall >70m<200m depth	60	5.3	10	42
LJN4E wall >200m deep	70	4.8	10	50

**Table 8 Waste Dump Recommendations**

Location	Oper face angle (deg)	Oper bench width (m)	Oper bench ht (m)	Closure face angle (deg)	Closure slope ht (m)
HN9	37	13.9	10	20	30
LJC	37	13.9	10	20	30
LJN4	37	17.5	10	18	30

## 9.4 Optimisation

Whittle software is used widely in the mining industry to generate optimum pit shells on the basis of a known set of parameters. Simplistically, the block model of the resource is assessed block by block from the surface to compare mining/processing cost vs the realisable value of metal in the block. The process continues down through the full model until no more incremental gains to revenue can be made. It is a 3D process.

The result consists of a nest of pit shells each at a discrete gold price. Within each shell, there is a bench inventory which can be used for scheduling/costing.

Magnetic has adopted a methodology whereby it only imposes true variable costs in the models so the financial output is a guide rather an end result. Other costs like administration are generally fixed for a period of time so the impact of these on the economics of a shell is very dependent on the mining schedule. The end result is an iterative process where shells are selected on the basis of a desirable set of criteria, before being fully tested financially.

The optimization process is also a valuable tool to identify a starter pit (based on a higher gold price) and a final cutback.

It is important to remember that the optimized shell is NOT the final pit design. This will only be defined when irregularities on pit walls are smoothed, and a ramp factored into the shape.

Optimization and pit design was completed in early 2024 (Minecomp, 2024).

### 9.4.1 Cases Modelled

A number of cases were run for each resource to determine the significance of key variables – this is a relative measure, not an absolute one. Through this exercise, most input parameters remained consistent as can be seen in Tables 9 and 10.

The case descriptions are as follows:

- LJC Case A – model constrained to 30m from W tenement boundary; ore processed at an owned and adjacent plant.
- LJC Case B – model constrained to 30m from W tenement boundary; ore toll processed at a nearby third-party plant.
- HN9 Case A – ore processed at an owned and adjacent plant.
- HN9 Case B – ore toll processed at a nearby third-party plant.
- LJN4 Case A – model unconstrained; ore processed at an owned and adjacent plant; pit E wall

steepened by 5 degrees from base case.

- LJN4 Case B – model constrained to 30m from W tenement boundary; ore processed at an owned and adjacent plant; pit E wall steepened by 5 degrees from base case.
- LJN4 Case C – model constrained to 30m from W tenement boundary; ore processed at an owned and adjacent plant; pit E wall IRA at base case.
- LJN4 Case D – model constrained to 30m from W tenement boundary; ore toll processed at a nearby third party; pit E wall IRA at base case.

#### 9.4.2 Optimisation Input Parameters

A summary of the consistent optimisation input parameters used in each case is listed in Tables 9 and 10.

Table 9 Common Optimisation Input Parameters

Category	Unit	Value	Value	Value	Comment
		LJC	LJN4	HN9	
Mining – ore L&H	\$/bcm	4.20	4.20	4.20	Value at surface. Incremented \$0.15/10m vertical
Mining – waste L&H	\$/bcm	4.20	4.20	4.20	Value at surface. Incremented \$0.15/10m vertical
Mining – ancillary	\$	0	0	0	Incl above
D&B – oxide	\$/bcm blasted	1.88	1.88	1.88	
D&B – trans	\$/bcm blasted	2.52	2.52	2.52	
D&B – fresh	\$/bcm blasted	3.80	3.80	3.80	
Rehabilitation	\$/bcm waste	0.20	0.20	0.20	
Grade control	\$/dmt ore	0.60	0.60	0.60	
Site admin	\$/t ore	2.70	2.70	2.70	
FIFO	\$/t ore	1.95	1.95	1.95	
Mob/demob	\$	0	0	0	One-off charges
Mining recovery	%	95	95	95	
Mining dilution	%	15	15	15	Higher than normal due to ore dip angle
Pit wall slope angles	Degrees			W wall 32, E wall 52	Bastion Geotechnical 2023
	Degrees	All walls 50			Bastion Geotechnical 2023
	Degrees		<70m, W wall 46, E wall 32		Bastion Geotechnical 2023
	Degrees		>70m, W wall 46, E wall 40		Bastion Geotechnical 2023
Royalty - state		2.5% NSR	2.5% NSR	2.5% NSR	
Royalty - other		1% NSR	1% NSR	1% NSR	Assumed NT Agreement



Category	Unit	Value	Value	Value	Comment
		LJC	LJN4	HN9	
Refining charge		0.1% realized value	0.1% realized value	0.1% realized value	
Gold recovery - oxide	%	93	92	93	IMO 2020, 2023
Gold recovery - trans	%	93	93	93	IMO 2020,2023
Gold recovery - fresh	%	92	93	92	IMO 2020,2023
Gold price range	AUD/oz	1,600-3,000	1,600-3,000	1,600-3,000	

Table 10 Case dependent optimisation input parameters

Category	Unit	Value	Value	Value	Value
		LJC Case A	LJC Case B	HN9 Case A	HN9 Case B
Ore Haulage	\$/t ore	1.0	6.53	1.0	6.53
Ore Processing	\$/t ore	32	45	32	45

Category	Unit	Value	Value	Value	Value
		LJN4 Case A	LJN4 Case B	LJN4 Case C	LJN4 Case D
Model constrained		No	Yes	Yes	Yes
Pit IRA		>70m, 45	>70m, 45	>70m, 40	>70m, 40
Ore Haulage	\$/t ore	0.8	0.8	0.8	6.53
Ore Processing	\$/t ore	32	32	32	45

The basis for the key inputs was:

- Optimisations have been undertaken using Measured, Indicated and Inferred resources. Under JORC 2012 guidelines, only ore in the first 2 categories should be considered in developing Proved and Probable Reserves. The majority of resource to be mined in the first 5 years (and within the period of capital payback) falls into the Indicated category so the use of Inferred in this study is considered reasonable.
- As LJN4 and LJC lie close to tenement boundaries, artificial vertical limits have been placed on optimisations of both orebodies to ensure that both the pit and the associated abandonment bund lie within MAU tenements.
- Whilst there is no specific production rate inferred in the optimisations, a targeted rate of 1.8 Mtpa ore has been used as a guide.
- Metallurgical recovery based on test work results.
- Mining costs based on BCM costs at similar operations and linked to resource costing models. These are full costs and for plant, include an ownership charge.
- Processing costs based on previous operational data from the nearby Mt Morgans mill and expected power and consumable usage from test work results. An average direct cost of \$31/t for an owned mill and \$45/t for toll processing at a third-party establishment.
- Ore haulage rate of \$0.22/wmtkm and diesel prices at current costs – recent contractor budget price.

- FIFO costs based on quoted flight costs and budget accommodation in Laverton
- All costs are as spent and assume no escalation.
- No corporate overheads, contractor margin or tenement holding charges are included

Results are summarised for each case and resource in Table 11, all at a gold price of \$2,800/oz.

It should be noted that there is a steady gradation of material movement, gold production, and profit across the gold price range in each case – in other words, there are no natural inflection points where a major change is influenced by geology.

Table 11 Summary of Optimisation Results at \$2800/oz

Case	Ore Mt	Ore grade g/t Au	Rec gold Oz	TMM Mbcm	Cash cost \$/Oz	Op Profit \$M
LJN4 – Case A	12.6	1.80	672,000	69.8	1541	845
LJN4 – Case B	11.55	1.83	625,900	60.6	1472	831
LJN4 – Case C	11.33	1.83	614,500	65.3	1529	781
LJN4 – Case D	10.0	1.95	581,100	61.8	1803	579
LJC – Case A	0.82	1.74	42,600	4.7	1505	55.2
LJC – Case B	0.70	1.89	39,700	4.3	1772	40.8
HN9 – Case A	1.365	1.34	62,600	6.4	1773	43.6
HN9 – Case B	0.68	1.61	31,600	3.1	2012	24.9

An analysis of results indicates:

- For LJN4, the truncation of optimization at the north end (Case A to B) results in a potential \$16M loss in profit. It is realized however, that negotiations with the adjacent tenement owner are unlikely to be successful so case A will not be pursued.
- For LJN4, the elevation of the E wall by 5 degrees has a potential \$50M impact on profit. Every effort should be made to steepen that wall.
- For LJN4, the differential between an owned plant on site and toll processing is \$200M, all other things being equal. It is recognized that the owned plant cost represents operating cost only while the toll processing charge will include a capital component. This differential is more than sufficient to cover a plant on site.
- The differential is further reinforced in the LJC and HN9 cases – the combined differential between a local plant and toll processing is close to \$235M.
- Across all cases, a \$100/oz change in gold price represents a \$5M (HN9), \$4M (LJC) and \$65M (LJN4) change in operating profit.

For each of the Resources, the \$2800 shell with onsite processing was selected as the one to take to pit design stage. For LJN4, Case B with a steeper E wall was preferred.

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In recognition of the size of the LJN4 shell, a starter pit with cutback strategy was adopted both to access ore earlier and also to minimize working capital. The criteria for each of these stages was as follows:

- Stage 1 - \$1,100/oz Shell – Total resource but evaluated at \$2,800
- Stage 2 - \$2,800/oz shell – Resource truncated to 340m RL
- Stage 3 - \$2,800/oz shell – Resource truncated to 290m RL
- Stage 4 - \$2,800/oz shell – Resource truncated to 190m RL
- Stage 5 - \$2,800/oz shell – Total resource

Figure 20 illustrates the cutback strategy – it also demonstrates the near complete ore block extraction.

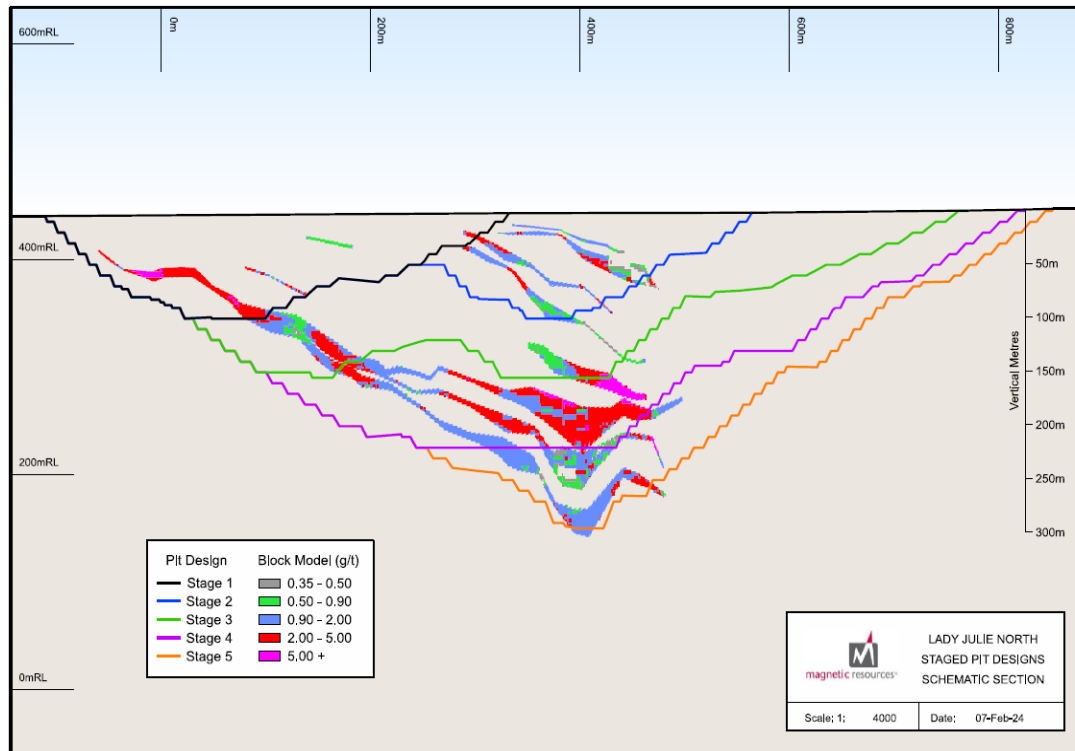


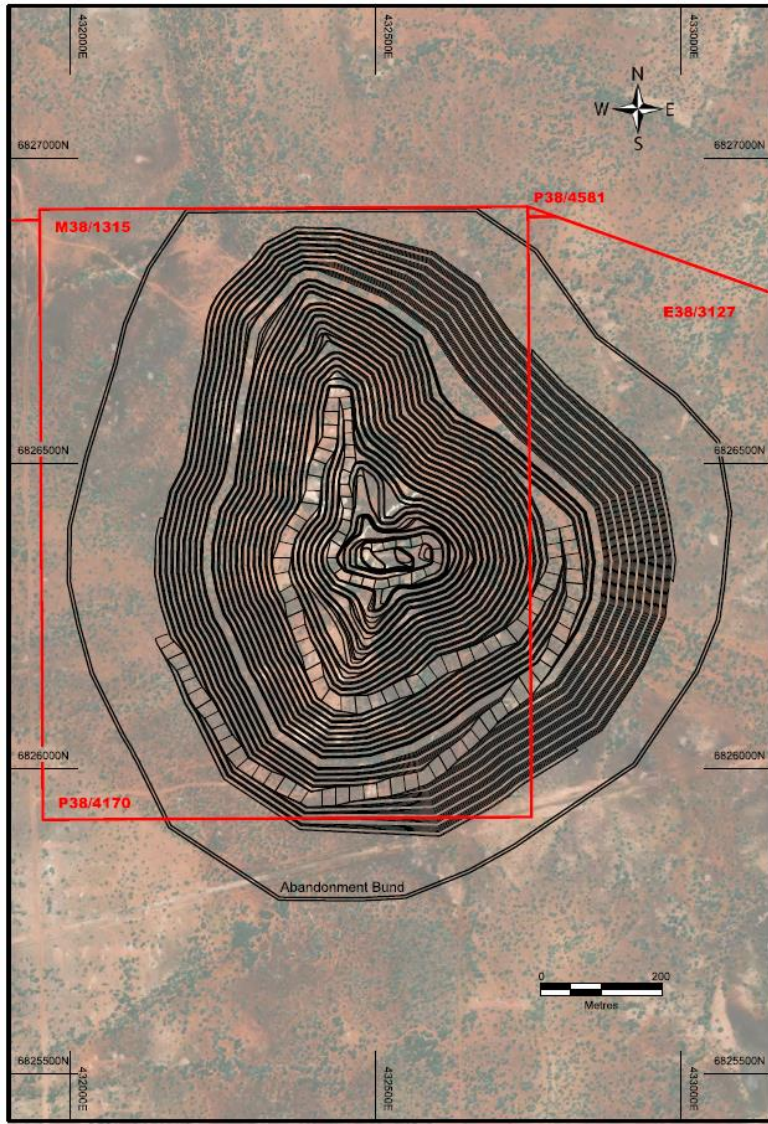
Figure 20 LJN4 Cutback sequence

## 9.5 Pit Design

As well as smoothing out irregularities in the optimised shell, the pit design in each case included:

- A 24m wide ramp to permit 2-way 150t truck traffic, a drain and a safety berm,
- Ramp gradient of 1:9,
- The ramp narrowed to 15m for one way traffic usually in the bottom 60m of the pit,
- The ramp located to minimise out of pit haul distance both to dump and ROM,
- Ramps were sited to minimize the extra waste generated from a flatter pit wall,
- Catch berms as recommended in geotechnical specifications.

Plans for each of the pits is shown in Figures 21, 23, 24.



**Pit statistics:**  
 Final volume – 65.3Mbcm  
 Length – 1,000m  
 Width – 850m  
 Depth – 300m

Figure 21 LN4 Final pit design and abandonment bund

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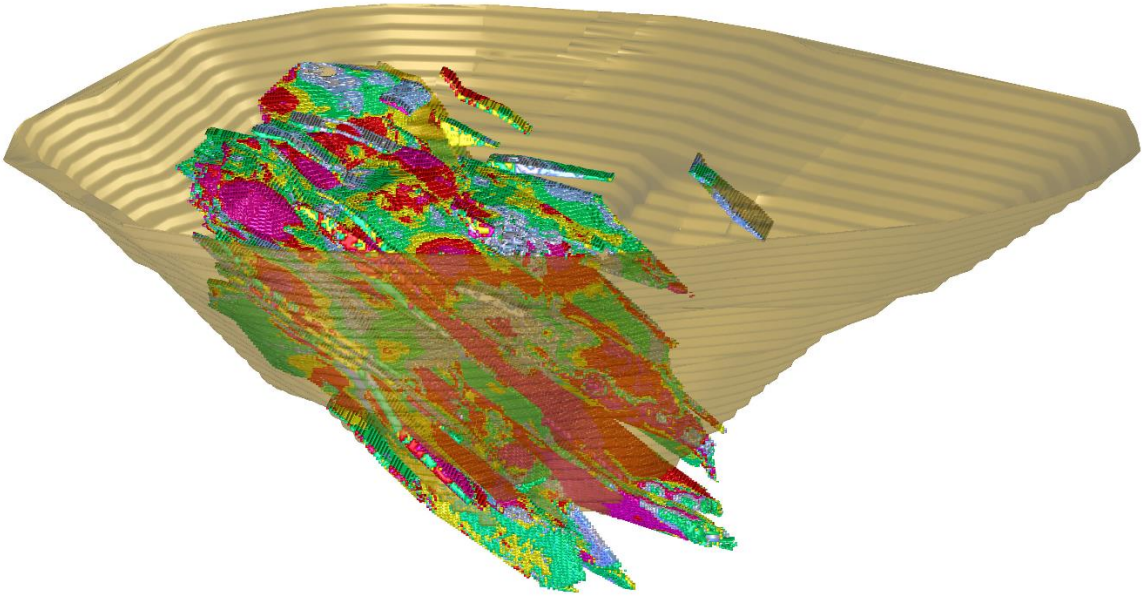
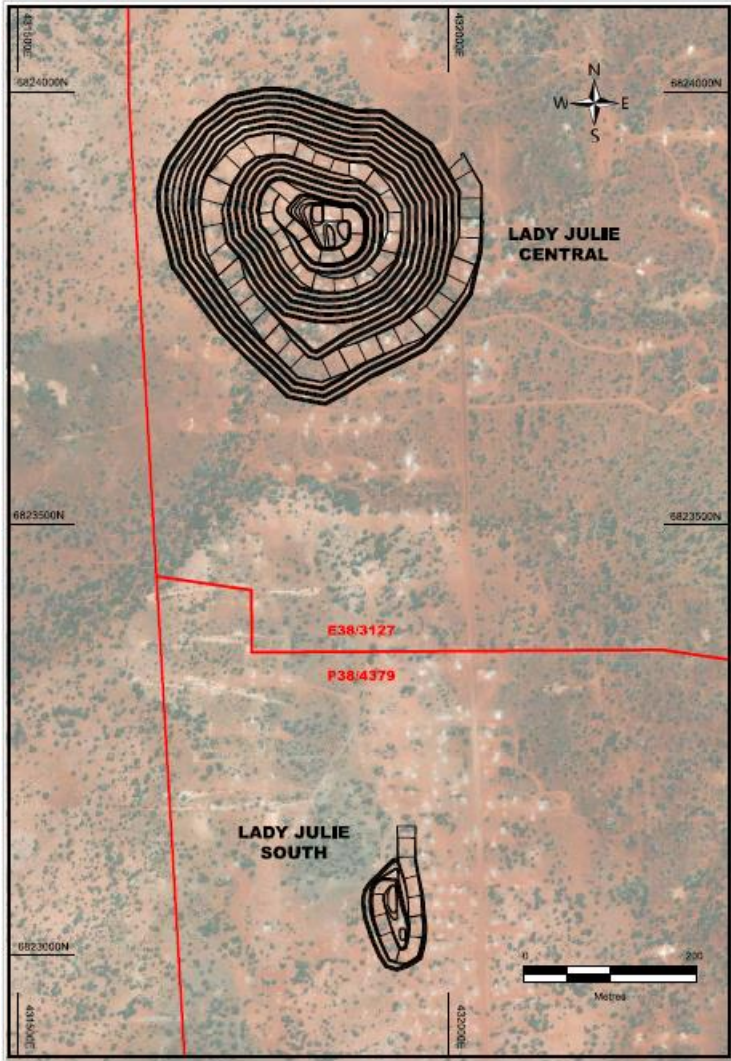


Figure 22 LN4 pit looking NE

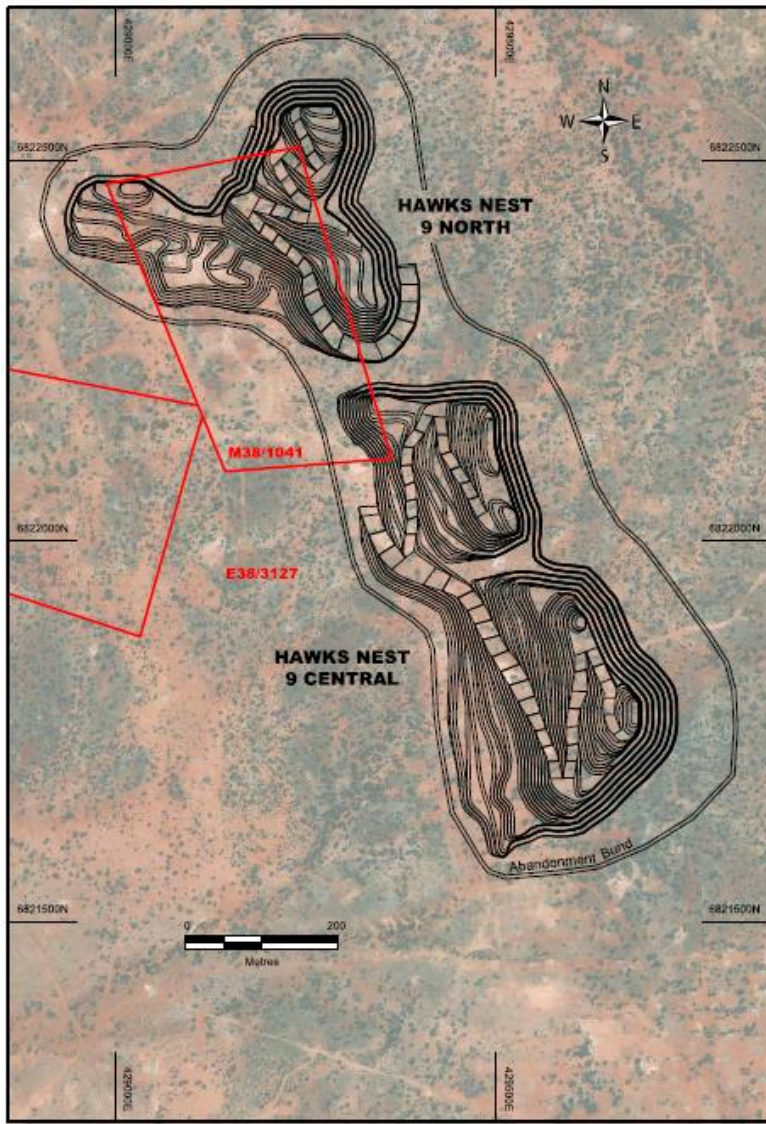




**Pit statistics:**  
Final volume - 5.4Mbcm  
Length - 330m  
Width - 330m  
Depth - 130m

Figure 23 LIC Final pit design





**Pit statistics:**  
 Final volume – 6.5Mbcm  
 Length – 800m  
 Width – 200m  
 Depth – 70m

Figure 24 HN9 Final pit design and abandonment bund

Table 12 summarises the inventory of each of the pit designs, by Resource category. With LJC and early stages of LJC representing the likely production for the first 5 years (and during any payback period), the majority of that ore falls into the Indicated category – see Figure 25. As a result, most of that ore would fall into Probable Reserve category.

Table 12 Pit Inventory by Resource Category

Pit Design	Indicated	Ore g/t	Inferred	Ore g/t	Total	Ore g/t
	Ore Mt		Ore Mt		Ore Mt	
LJN4 Stage 1	0.96	1.73	-	-	0.96	1.73
LJN4 Stage 2	1.14	1.70	0.03	1.31	1.17	1.69
LJN4 Stage 3	3.00	1.60	0.16	1.25	3.16	1.58
LJN4 Stage 4	2.90	1.88	0.67	1.98	3.57	1.89
LJN4 Stage 5	0.92	1.88	1.75	2.18	2.67	2.14
LJC	0.73	1.77	0.05	1.10	0.77	1.74

HN9	0.85	1.20	0.38	1.53	1.23	1.30
<b>Total</b>	<b>10.50</b>	<b>1.70</b>	<b>3.04</b>	<b>1.98</b>	<b>13.55</b>	<b>1.78</b>

Note: LJV Resource categories were updated on the basis of the March 2024 ASX release.

The Indicated category accounts for 77% of the mining inventory and is mostly represented in production in the first 5 years – see Figure 25.

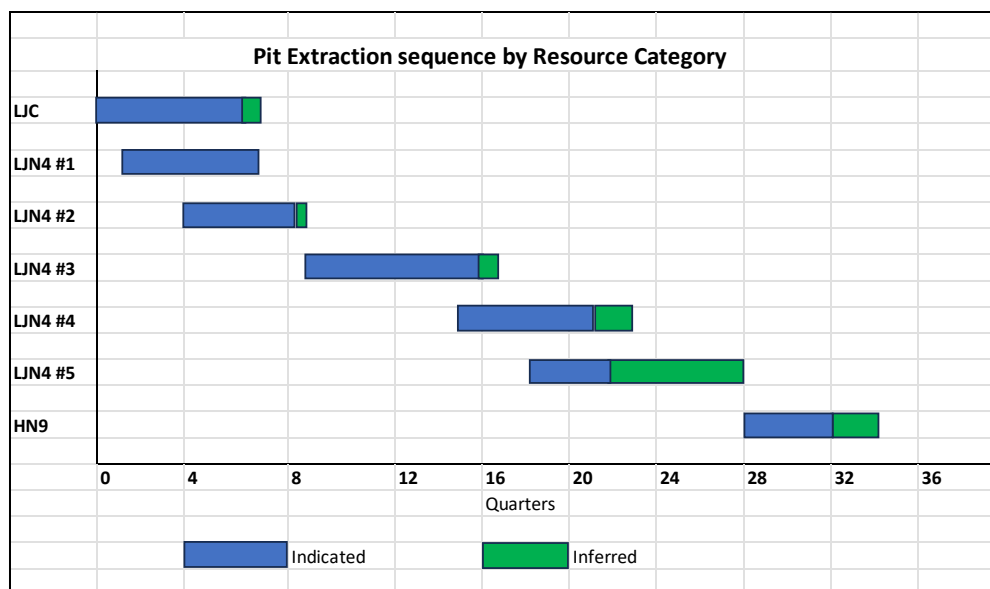


Figure 25 Mining sequence showing resource category

## 9.6 Comparison to Optimisation

A summary of material inventories in the pit designs compared to the optimised shells used for the designs is included in Table 13.

Table 13 Summary of pit design inventories vs pit optimisation results

Description	Ore M tonnes	Grade Au g/t	Waste Mbcm
LJV Pit Design (1223)	11.54	1.83	65.3
LJV 2800 optimised shell	11.55	1.83	60.6
<b>Difference</b>			
LJC Pit Design (1223) (incl LJWMC)	0.82	1.73	5.1
LJC 2800 optimised shell (incl LJWMC)	0.83	1.73	4.9
<b>Difference</b>			
HN9 Pit Design (0124)	10.23	1.30	6.1
HN9 2800 optimised shell	10.36	1.34	5.8
<b>Difference</b>			

Total Pit Designs	13.59	1.78	76.5
Total optimized shells	13.74	1.78	71.3
<b>Difference</b>	<b>-1%</b>	<b>0</b>	<b>+7.2%</b>

## 9.7 Cutoff grade

The determination of whether mineralisation is ore or waste is made on economic criteria. Simplistically, ore can be defined as the material where the net revenue from the recoverable metal is greater than the costs required to extract that metal. The cut-off grade is the inflection point where net revenue is zero.

For this Project, the revenue is based on the expected or assumed gold price.

There are two cut-off grades to be considered:

- the first is the Project average for material to be processed immediately.
- the second considers the incremental cost of processing material once it is removed from the pit.

Any material between the higher and lower cutoffs will be stockpiled separately and may be considered for processing at a later date.

In the following equation and Table 14, the costs are estimated unit costs per dmt of ore.

$$\text{Cutoff grade} = \frac{(\text{G\&A} + \text{mining} + \text{process costs})}{(\text{Payable Gold Price/gm} \times \text{Process Recovery} (\%)) \times (1 - \text{Royalty Rate} \%)}$$

The Project cutoff for processing is 0.61g/t Au, and for stockpiling 0.37g/t Au. Note, the cutoff grades refer to the mined grades, and therefore includes dilution.

The Resource block models have been visually examined for likely mining continuity above the block cut-off grade at each deposit and no concerns were raised. Mining block cut-offs and block delineation will be addressed in detail at the grade control stage of operations.

Table 14 Cutoff grade computation

Input Cost	Value
Mining	\$42.98/t ore
Processing	\$26.05/t ore
G&A	\$1.80/t ore
Gold Price	AUD2,800/oz
Process Recovery	93%
Royalty rate	3.5%
Project Cutoff grade for processing	0.61g/t
Incremental cutoff for stockpiling low grade ore	0.37g/t

## 9.8 Mining Inventory

The JORC 2012 code nominates that an 'Ore Reserve' is the economically mineable part of a Measured and/or Indicated Mineral Resource. It includes diluting materials and allowances for losses, which may occur when the material is mined or extracted and is defined by studies at Pre-Feasibility or Feasibility level as appropriate that include application of Modifying Factors. Such studies demonstrate that, at the time of reporting, extraction could reasonably be justified. For the purposes of this study, the term Mining Inventory is used for those Resources that fall within an optimised pit shell and which include Modifying Factors.

Proved Reserve is linked to Measured Resource, and Probable to Indicated.

This study has included Inferred resource category in the optimization process, where continuity appears reasonable but the drill density may not meet the specified criteria. This material is usually towards the base of the pit so would only be mined after payback. It would also be better defined with grade control drilling ahead of mining.

Project Mining Inventory is show in Table 15.

Table 15 Mining Inventory

Deposit	Ore Mt	Ore g/t Au	Contained gold oz
LJC	0.82	1.73	45,300
LJCN4	11.54	1.83	679,000
HN9	1.23	1.30	51,600
Total	13.6	1.77	775,900

N.B. Values have been rounded

The key inputs or 'Modifying Factors' included:

- Ore mining recovery for all deposits of 95%.
- Mining dilution for all deposits of 15%.
- A nominal plant throughput of 1.8 Mt/a based on a blend of ore types.
- Gold process recovery of 93%/93%/92% for o/t/f respectively determined from metallurgical test work (IMU2023).
- Geotechnical parameters based on an independent consultant's (Bastion Geotechnical Ltd) LJGP testing and reporting, including review of the lithological, weathering and hydrogeological models.
- Processing costs averaging \$26.05/t of ore based on estimated operating costs for a processing plant of this scale.
- General and administrative (G&A) expenses of \$1.80/t ore based on the current estimates by BCM's in-house technical team.
- Total mining costs averaging \$42.98/t ore.
- Grade control cost of \$0.32/t of ore as estimated by the BCM study team (as part of the total mining costs).
- Gross Royalty to WA Government of 2.5%; provision for 1% to other parties.

Since the optimisations were completed, there have been no material changes in mining and processing costs.

The scientific and technical information in this report that relates to Mineral Resource estimates for the LJC, LJN4 and HN9 deposits is based on information compiled by Mr Andrew Cullum, an executive with BCM. Mr Cullum has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify

as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Cullum consents to the inclusion in the report of the matters related to the Mineral Resource estimate in the form and context in which it appears.

## 9.9 Mineralised waste

Mineralised waste (or low-grade ore) is defined as sub-economic mineralisation that may become economic in future, due to material increases in the gold price or significant reductions in processing costs. Separate stockpiling of this marginal material will be undertaken at each of the mining operations. Quantities of mineralized waste within the pit designs between the lower cut-off grade (0.37g/t) and the processable cut-off grades (0.61g/t) are as per the following table.

Table 16 Mineralised waste

Resource	Mt	g/t Au	Cont Gold oz
LJN4	0.23	0.40	3,011
LJC	0.03	0.42	398
HN9	0.03	0.39	366
Total	0.29	0.40	3,776

## 9.10 Drill & Blast

### 9.10.1 Design Considerations

The principal drilling and blasting design considerations were as follows:

- Drill and blast will be a contracted service with explosive delivered down the hole from a depot in Leonora.
- 5m high benches to be excavated in 2.5m flitches in ore, 5m high in waste only.
- None of the rock types are particularly strong. Blast charge density will be determined by oxidation lithology and the presence of a calcrete cap. From experience in similar environments, up to 75% of oxide will be free dig.
- Mining will progress through the water table in each pit – only limited flows are anticipated. Slurry emulsion will be the explosive of choice to ensure no degradation due to moisture adsorption.
- Blast hole diameter selected based upon a combination of achievement of fragmentation targets, moderate powder factor to control ore dilution/loss.
- Charge densities will be low to minimize throw particularly where mixed ore and waste are to be encountered.

Estimated drill and blast costs were supplied by Westdrill.

### 9.10.2 Blast Designs

Table 17 provides a summary of the blast designs that were developed for LJGP.

Table 17 Blast Design Parameters

Material Type	Hole Diam mm	Drill pattern	Powder Factor (kg/bcm)
Transported			

Oxide	115	5.5 x 6.4m	0.30
Transitional	115	4.5 x 5.2m	0.41
Fresh	115	4.0 x 4.6m	0.62

A review was undertaken for each material type in each deposit to determine a likely proportion that would require blasting – the results in the following table reflect that assessment.

Table 18 Blasting inventory

Resource	Material Type	Pit volume Mbcm	% Blasted	Freedig Mbcm	To be Blasted Mbcm
LJC	Transported	0	0	0	
	Oxide	3.36	10	0.34	3.02
	Transitional	1.13	90	0.11	1.02
	Fresh	0.9	100	0	0.9
LJN4	Transported	27.45	0	27.45	0
	Oxide	7.51	10	0.75	6.76
	Transitional	15.66	90	14.09	1.57
	Fresh	14.73	90	13.26	1.47
HN9	Transported	0	0	0	0
	Oxide	3.16	80	0.63	2.53
	Transitional	0.78	100	0	0.78
	Fresh	2.61	100	0	2.61
<b>Total</b>		<b>77.3</b>		<b>43.6</b>	<b>33.7</b>

### 9.10.3 Grade Control

The density of drilling required to achieve “Indicated” resource status will be insufficient to define ore boundaries for mining purposes. The ore zones are not readily and visually distinguished from adjacent waste rock, particularly when the rock has been blasted. The aim of grade control is to achieve a high ore recovery with least dilution.

As such, it is planned to pattern drill RC holes over the likely ore zones every 30 vertical metres as the pit advances. The aim will be to reduce the pattern density from 25 x 25m to 12.5 x 12.5m which is considered a reasonable basis for extraction design.

A grade control model will be constructed and blocks remodelled on a 2.5m flitch basis – ore and waste designations will be determined here.

In practice, ore waste boundaries will be surveyed and taped as each 2.5m flitch is exposed (and after blasting) – a Pit Technician will then oversee the loading operation and ensure trucks are assigned to the correct destination.

### 9.11 Load & Haul

200t and 120 t excavators have been chosen as the principal digging tools, on the basis of operating efficiency, the ability to mine selectively, and industry familiarity. 150t capacity dump trucks are matched to these excavators. The 120t excavators will also perform pit wall management and ramp



development.

Excavator productivity has been factored on 87 operating days per quarter, 21 hours /day, 90% availability and 85% utilization. With a fully trucked excavator, productivities of 700bcm/SMU hr and 480bcm/SMU hr have been used for the 200t and 120t excavators respectively.

Operating conditions are similar for trucks.

Waste dumps are located in close proximity to the pit so haul distances are short – with up to 3 trucks serving each excavator. Truck numbers are calculated on the basis of the weighted average of bcms x distance hauled to either WRD or ROM. A factor of 292bcmkm/SMU hour, derived from operating in similar circumstances (cross checked with the haul profile envisaged), has been used in calculations. The mining schedule calls for 5 trucks from commencement, peaking at 18 as the final pit is deepened.

For excavators and trucks, the paid labour hours are 1.5 x SMU hours.

### 9.12 Ancillary Equipment

The primary fleet is supported by a range of service equipment including dozers, graders, water trucks etc.

The equipment selected is sized to match the primary fleet, with exposure hours directly linked to excavator hours viz,

- For each excavator hour, there is an equivalent ancillary hour.
- Within those hours, 37% is applied to the dozer, 15% to the grader, and 46% to the water truck.
- For ancillary equipment, paid labour hours are 1.3 x SMU hours.

### 9.13 Technical Services

Technical Services performed in support of the operation will be as per Table 19.

Table 19 Technical Services Resourcing

Designation	Activities
Senior Geologist	Grade control planning & drilling, markout and data recording
	Pit wall mapping
	ROM management, reconciliation
Pit Technician	Taping ore/waste boundaries, supervising selective mining
Surveyor/Mining Engineer	Pit markouts, redesigns and pickups
	Monitoring Geotech instrumentation
	Mine scheduling
Geotechnical Consultant (as reqd)	Review pit performance on irregular basis
	Plan any response to changing conditions
	Monitor the effect of groundwater on pit stability

### 9.14 Pit Dewatering and Dust Suppression

#### 9.14.1 Pit Dewatering

The following results from the Groundwater study (GRM 2024) are restated:

- No groundwater inflows are predicted for around the first six months of development until the
  - regional water table is intersected.
- Mine dewatering rates are estimated to rise significantly from the end of Year 1, from around
  - 15 l/s possibly peaking for short duration at around 40 to 45 l/s in the early part of Year 2.
- Across the LOM, groundwater inflows are predicted to stabilise in the 20 to 30 l/s range
  - and possibly be around 25 l/s at the end of the Project.

**While testing was undertaken at all three ore zones, both LJC and HN9 will support shallow short life pits and as a result are unlikely to see any significant inflows. The results above therefore reflect the likely scenario at LJN4.**

The study noted that the water quality was brackish to saline, it was not possible to estimate likely salinity levels over the life of the operation, except to expect increasing salinity.

A portable pumping system will be installed during the first year, with water being directed to a large evaporation pond on the southern side of the pit.

#### **9.14.2 Water Demand**

GRM (GRM 2023) estimates the likely Project water demand, based upon similar operations, will be about 7-10l/s primarily for dust suppression around and in the pits. The operation will also require a further 20-25l/s as makeup for processing operations.

The various water demands are summarised below, based on GRM's experience with similar operations:

- Mining (dust suppression in the mine area, drilling etc.) – 4l/s.
- Service water (toilets, showers washdown etc) – 3l/s
- Processing – 25l/s

Whilst the combined demand could be met from pit dewatering and other nearby sources, further work will be required to test the impact of water quality on the processing operation.

However, additional key points to note include:

- Dewatering water from the pits will not be available until the first pit gets below the water table and will then gradually build up, meaning a need to obtain mining dust suppression water from other site water sources in the first year.
- Dust suppression water demand will increase during the hottest and driest periods of the year, in daylight hours. In other words, an average water usage is not what the base demand should be calculated on but the worst case, which is likely to be at least 3 times the average.
- The mining contractor will use two 15Kl water tankers specifically suited to pit operations. They are expected to be used continuously during hot periods.
- No provision has been made for dust suppression on the shire road.

In summary, there will need to be a need for additional water sources at the mine site in addition to pit dewatering, to cover the initial mining period before reaching the water table, as well as to cover the hottest, driest period of the year and processing operations.

## 9.15 Rehabilitation/Demobilisation

On the assumption of new further resource discoveries or extension when mining has been completed, there would be a planned removal of all facilities from site, including the plant.

A skeleton crew would remain to complete rehabilitation as approved in the Mine Closure Plan. This exercise has been costed as in Table 20.

Table 20 Rehabilitation Costs

Rehabilitation Provision							
Category	Disturbed Area Ha	Bunding	Profiling	Ripping	Topsoil Spread	Seeding	Other
		\$/Ha	\$/Ha	\$/Ha	\$/Ha	\$/Ha	
		2,000	2,000	1,000	4,000	1,200	
Pits (LJN4, HN9)	85.3	120,000					
ROM (LJN4, LJC, HN9)	12.2		24,400	12,200	48,800	14,640	
Waste Landform	254.2		508,484	254,242	1,016,968	305,090	
Topsoil stockpile	6.7		13,400	6,700			
Haul Roads	15.0		30,000	15,000			
Other	10.3		20,500	10,250			
Processing plant	12.3		24,500	12,250	49,000		
TRS	16.5		33,000	16,500	66,000		
Low grade stockpile	0.0						
Management and recording							120,000
LV, fuel, accom							23,400
<b>Total</b>	<b>412.4</b>	<b>120,000</b>	<b>654,284</b>	<b>327,142</b>	<b>1,180,768</b>	<b>319,730</b>	<b>143,400</b>
							<b>2,745,324</b>

Whilst not exhaustive, these actions would include:

- Remove pumps from pits and cease dewatering,
- Bund access to pits and waste dumps.
- Install a 2m high abandonment bund around LJN4 and HN9 pits, and a low bund around the high walls of the WRDs. The abandonment bund was designed by Minecomp to meet DMIRS guidelines (DMIRS 1997).
- Clear the site of rubbish, used equipment.
- Make sure all drill holes are capped.
- Cap bores.
- Batter WRD slopes to the standard approved in MCP, spread topsoil over dumps and deep rip. Spread stockpiled vegetative material over WRD to foster reseeded.
- Rip laydown and other compacted areas.
- Cover TRS#2 with waste rock, spread topsoil and deep rip.

## 9.16 Mine Scheduling

Mine scheduling consists of several inter-related activities:

- Site works such as clearing, removal of topsoil and civil works for Project infrastructure.
- Pre-production and establishment of the pit, ROM pad, haul roads and the commissioning of mining equipment and training of personnel.
- Ex-pit scheduling of ore and waste.
- The reclaiming of stockpiled ore.
- Mill feed scheduling of a blend of varying material types.
- The scheduling of waste dump development.

The criteria used for mine scheduling included:

- Consistently develop sufficient ore to allow continuous processing operations, notionally 450,000t per quarter. This usually requires the marshalling of as many resources as available at the commencement of each cutback, and progressively reducing the resourcing as the pit deepens.
- Maintain consistent total material movement within the equipment capability. Over the 29 (mining) quarters in the Project, this averaged 2.3Mbcm per quarter.
- Source early ore for processing plant feed to minimize working capital.
- Mine-limiting due to geotechnical constraints of no more than one 5m bench per month from the ground water table, until the top of fresh rock.

**9.16.1 Development Schedule**

The sequence of exploitation is shown in the following diagram (Figure 26).

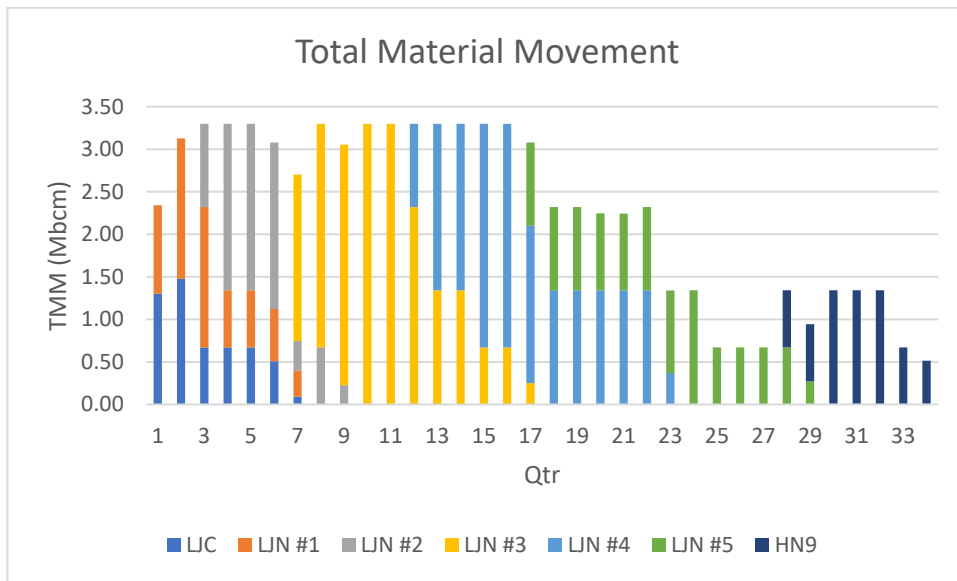


Figure 26 Total material movement by pit by quarter

**9.16.2 Schedule Output**

The detailed mining and processing schedule is included in Appendix 1, and shown graphically in Figure 27

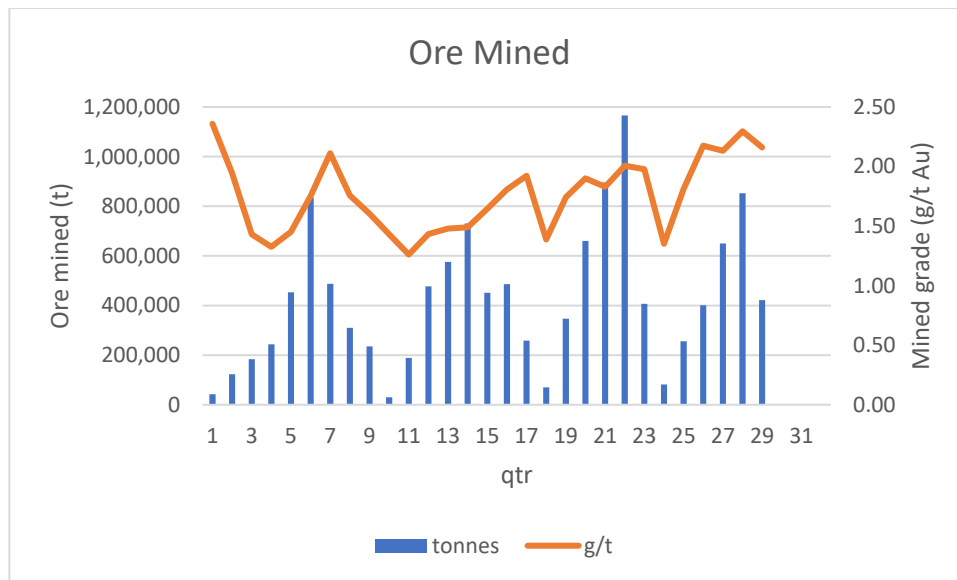


Figure 27 Ore mined by quarter

### 9.17 Mining Fleet and Maintenance

Productivity of the major plant drives the Project schedule, and requirement for ancillary services. Key productivities used in this study for the plant item when employed in its principal capacity, is as per table 21.

Table 21 Major Mining Fleet Productivity

Plant Item	Number (peak)	Productivity
200t excavator	2	700 bcm/SMU hr
120t excavator	2	480 bcm/SMU hr
150t dump truck	18	292bcmkm/SMU hr (one way)
DP1500 drill rig	5	500/400/300 bcm/SMU hr (o/t/f) (115mm dia holes)

Front line and low hour maintenance only will be conducted on site. Any components requiring overhaul will be transported offsite for repair. The workshop will be equipped to undertake all potential tasks safety and efficiently – most work will be performed on day shift with a skeleton crew for breakdown service on back shift.

The fuel storage and distribution facility will be accessible to rubber tyred equipment. Slow moving or tracked vehicles will be fuelled/serviced via the service vehicle.

Vehicle unit cost rates incorporate an ownership charge (similar to leasing). This method overcomes the need to schedule the capital cost associated with vehicle changeouts at the end of their economic lives in this analysis.

### 9.18 Mining Workforce

There is a limited labour pool in the Laverton area, most of which are presently employed in mining or mining service industries. It is expected that the workforce will be drawn from both Kalgoorlie

and Perth, and operate under a (14 on,7 off) FIFO roster. Accommodation will be provided in Laverton, with daily commutes to the worksite.

The workforce will comprise:

- Supervisory/technical staff
- Mine operators and maintenance personnel
- Drill and blast contractors
- Haulage contractors

At any one time, approximately 2/3 of total personnel will be accommodated in camp.

#### 9.18.1 Roster

It is expected that rosters will operate in the following manner:

- Admin and technical staff – 10 days on 4 off
- Operating and maintenance personnel – 2 weeks on 1 off
- Drill & blast personnel – 2 weeks on 1 off as required

#### 9.18.2 Complement

The mining workforce complement will peak be as per the following table, with approximately 66% in camp at any time.

Table 22 Indicative Mining Workforce

Department	Designation	Number	Comment
Management			
	Mine Manager/Ops GM	1	Statutory responsibility as SSE
	Mine Superintendent	1	Statutory responsibility as QM
	Site Clerk	2	
	Safety/Training Officer	3	
Mine Technical			
	Senior Geologist	2	
	Pit Technician	2	
	Surveyor/engineer	2	
Mine Operations			
	Shift Supervisor	3	
	Excavator Ops	12	
	All round ops	11	
	Truck drivers	44	
Mine Maintenance			
	Maintenance Superintendent	1	
	Maintenance planner	1	
	Tradesmen	17	

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Department	Designation	Number	Comment
	Servicemen	6	
Drill & Blast			
	Supervisor/powder monkey	1	Statutory responsibility as Blast Supervisor
	Operators	11	
<b>Mining Total</b>		<b>120</b>	

### 9.19 Ore Haulage

All ore will be crushed at the LNJ4 ROM and conveyor to fine ore stockpile at the plant:

- For ore sourced from HN9, a contract road train service will be utilised to haul from the HN9 ROM to the LNJ4 ROM, approximately 6.5km.
- Ore sourced from LJC and LNJ4 will be hauled from the pit direct to the LNJ4 ROM.

## 10.0 Establishment/Mobilisation

Establishment and mobilisation cover the tasks to be performed linking commitment to proceed with the Project and commercial operations.

Whilst mobilisation covers the planning and movement of infrastructure, equipment and personnel to site, establishment entails the earthmoving activities to be undertaken at the site to prepare for the arrival of that infrastructure, equipment and personnel.

### 10.1 Clear & Grub

Clear and grub refers to the scarifying of the surface to remove vegetation from working areas. This material is stockpiled for later distribution on rehabilitated sites. Table 23 lists the areas for clearing over the life of the Project.

Table 23 Areas to be Cleared

Category	LJC	LJN4	HN9	Total
Pit area (Ha)	11	62	24	97
Soil stockpile (Ha)	2	4	0.6	6.6
WRD area (Ha)	32	212	29	273
ROM area (Ha)	2	9	2	13
Mine Laydown area (Ha)	2	7	2	11
Processing plant (ha)	-	8	-	8
TRS (ha) (incl in WRD/pit)	-	-	-	0
Admin/plant service area (Ha)	-	3	-	3
Roads (Ha)	12	16	8	36
<b>Total (Ha)</b>	<b>61</b>	<b>321</b>	<b>65.6</b>	<b>447.6</b>

### 10.2 Soil

Topsoil dumps will be located around the perimeter of the waste dumps as dozing into these dumps will facilitate rehabilitation. Dozing some of the topsoil back up the prepared, battered slope of the bottom lift of the dump is also cost effective. Table 24 summarises the likely soil movement and stockpile capacity.

The stockpiles will be protected from surface water runoff and flooding, away from ephemeral water courses.

Site closure and rehabilitation will follow the criteria established in the Mine Closure Plan.

Table 24 Soil storage

Category	LJC	LJN4	HN9	Total
Area to be cleared (Ha)	47	54	318	419
Depth (m)	0.15	0.15	0.15	
Volume of soil (cu m)	47,000	54,000	318,000	419,000
Dump height (m)	5.0	5.0	5.0	
Dump area (Ha)	0.4	0.6	3.9	4.9

### 10.3 Haul Roads

Roads will be planned at the site to facilitate access and where possible to separate pit traffic from ore haulage traffic. Roads will be constructed with compacted roadbase or rock if available, will be drained and will be bordered by low bunds. The standard width is 24m which will allow 2-way traffic for 150t dump trucks.

### 10.4 Waste Rock Dumps

Waste dumps (WRD) will be established close to the crest of each of the pits to minimize out-of-pit waste haulage. The waste dumps have been designed by the geotechnical consultant for long term stability (Bastion, 2023) and efficient material storage. Waste rock characterization testwork (IMU, 2023) confirmed that none of the lithologies at any of the pits is acid forming, removing the need for selective encapsulation.

Sterilisation drilling has confirmed that none of the pits lie over near-surface mineralization (for LJC, holes MLJRC411, 412, 430, 431; for HN9 holes MHNRC600, 601, 602; for LJN4, holes to be drilled). Details of the waste dump designs are presented in the following table.

The dumps will be initially constructed as a skyway ramp with lateral dumping once each bench height is achieved. Each load will be paddock dumped on the top of the dump and pushed off by bulldozer as required. Volumes are as per Table 25.

Table 25 Waste Rock Storage

	LJC	LJN4	HN9
Swell Factor	25%	25%	25%
Inventory to be stored (Mbcm)	5.04	60.9	6.06
WRD height planned (m)	50m	50m	30m
WRD volume (cu m)	6.3	75.9	7.6
WRD plan area (Ha)	21	212	29

The WRD plan area incorporates a 25 degree outside final batter.

### 10.5 Siting/layout

There is no infrastructure currently at site. The mining contractor will establish and maintain temporary facilities suitable for a 24 hour operation, viz:

- Technical services
- Operations Management
- Shift change and cribbing
- Showers/toilets
- First aid facility
- Workshop
- Fuel storage and distribution (100,000l for the mine and 100,000l for the power station)
- Power generation and area lighting
- Water supply and distribution.

A facilities hub will be located close to LJN4 and LJC for mining of those pits - see Figure 28 for the site layout. Some or all of the facilities may be moved to the HN9 area to minimize travel distances

to the work site when that pit is on operation.

All facilities will be removed at the end of the operation.

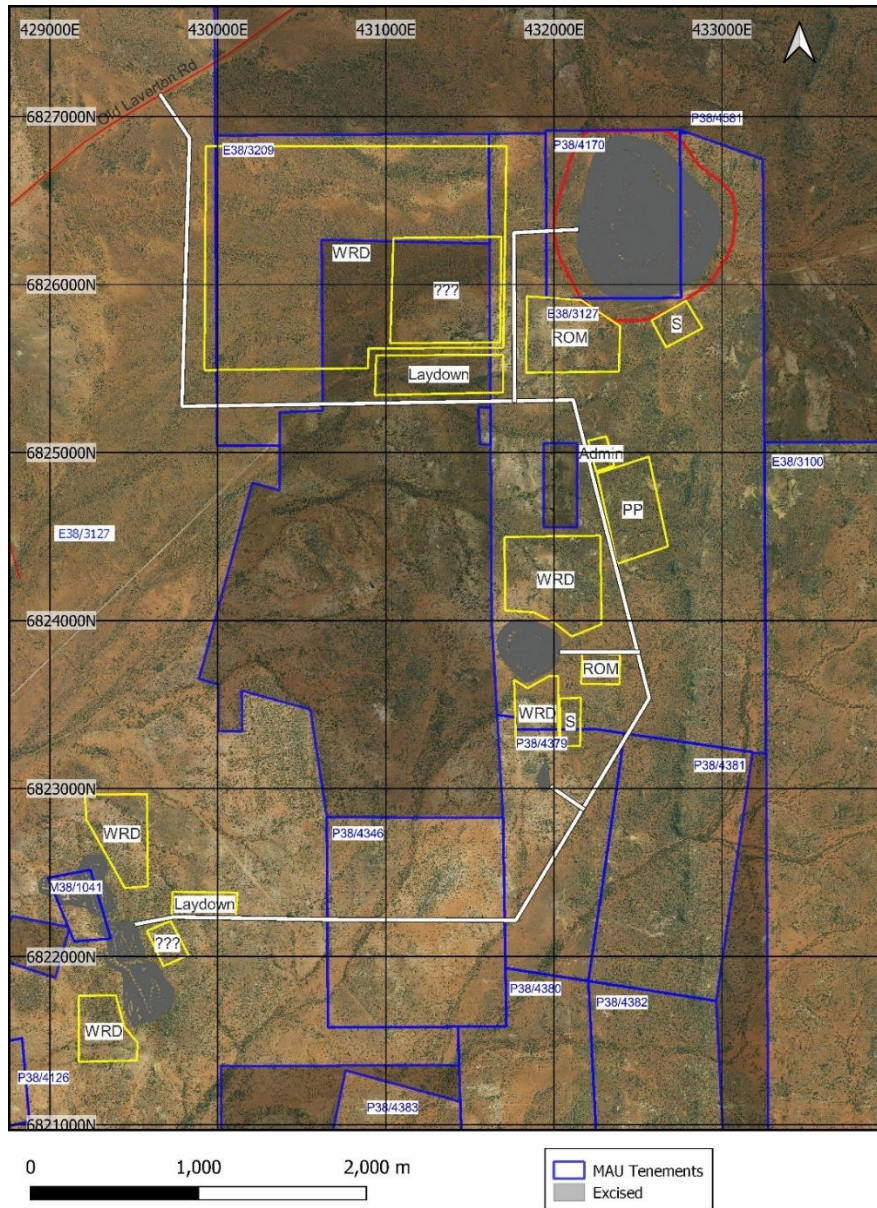


Figure 28 Planned site layout

### 10.6 ROM Pads

The mine plan assumes that ore stockpiles (ROM) will be maintained at each of the mines to minimize disruption to mining operations by introducing long hauls. The principal ROM will be located just south of LJN4 pit from where all ore will be crushed and conveyed to the processing plant.

By the end of quarter 2, mining operation will have created a stockpile of more than 160,000t with major ore flows planned from then on. This will be sufficient to commission the plant and establish commercial operations in quarter 3.

The ROM pads will be built to a survey floor level and maintained to that level to minimise dilution. The pads will be surfaced with low grade ore where possible and track rolled to create a competent

floor. Each ROM will be segregated to allow for separation by material type viz:

- Processing grade – oxide
- Processing grade – trans
- Processing grade – fresh.

Low grade ore (mineralised waste) will be stored adjacent to the WRD.

The layout and procedure for building and then reclaiming ore stockpiles at the mine needs to allow for efficient dump truck placement, efficient loading of road trains (subsidiary pits only) and tracking of oxide status to aid reconciliations.

### **10.7 Siting/layout**

See Figure 28 for the siting of the ROM pads.

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## 11.0 Ore Processing

### 11.1 Testwork

Near surface ores in the Northern Goldfields have traditionally been treated in processing plants with gravity/cyanide leach recovery circuits.

Chip samples from a number of drillholes covering differing oxidation states were composited into 30kg samples (LJC and LJA4) or 19kg samples (HN9). Average head grade information is displayed in Table 26. The Lady Julie samples were also tested for Preg Robbing Factor.

Table 26 Composite sample head grades

Element		LJC			LJA4			HN9		
		O	T	F	O	T	F	O	T	F
Au	g/t	1.37	2.02	1.33	1.45	1.58	1.63	0.99	0.84	1.09
Ag	ppm	<0.5	<0.5	0.7	0.6	<0.5	<0.5	<2	<2	<2
As	ppm	330	296	177	219	64	20	N/A	N/A	N/A
Cu	ppm	115	100	95	110	32	25	<20	<20	<20
Hg	ppb	3	4	5	104	50	48	145	77	89
S	ppm	176	518	7435	528	10577	14323	0.03	<0.01	0.15
PRF	%	6.5	54.4	34.9	21.3	27	29.8	N/A	N/A	N/A

Note: PRF = Preg robbing factor

The samples were subjected to comminution/gravity/leach testing matching the grind size/leach residence time for the nearby Mt Morgans plant (IMU 2020, 2023). The gold recovery results are listed in Table 27.

The following points are noted:

- The samples all exhibit high gravity and leach recovery response.
- While preg robbing potential was noted, the impact of preg robbing was not evident during cyanide leaching and with the introduction of C after 8 hours, negated any preg robbing effect.
- Whilst leach recovery did improve as grind size was reduced from 106 to 75 micron, the former was chosen as base case to match established practice at nearby plants.

Table 27 Recovery test results

		LJC			LJA4			HN9		
		O	T	F	O	T	F	O	T	F
Assay Head Grade Au	g/t	1.37	2.02	1.33	1.45	1.58	1.63	0.99	0.84	1.09
Gravity Rec	%	66.1	35.3	44.2	75.1	44.2	37.4	28.5	38.6	51.7
Leach Rec	%	29.5	63.3	54.5	17.1	48.9	60.4	60	52.8	41.7
<b>Total Rec</b>	<b>%</b>	<b>95.6</b>	<b>98.6</b>	<b>98.7</b>	<b>92.2</b>	<b>93.1</b>	<b>97.8</b>	<b>88.5</b>	<b>91.3</b>	<b>93.4</b>

Note: Leach recovery above after 48 hours for LJC and LJA4; 12 hours for HN9.

Whilst the results are encouraging, more needs to be done. IMO's recommendations were:

- Conduct comprehensive head assay analysis on composite samples to provide a greater indication of deleterious elements, sulphur speciation and carbon speciation throughout the ore.
- A greater understanding of carbon speciation variations will provide further detail and control over potential preg-robbing ore zones.
- Conduct gravity concentration testwork involving a larger sample size of 15 kg and gravity concentrate intensive leach stage to emulate on-site processing conditions. This will provide a higher level of accuracy in gold and mass reporting through both the gravity and leach circuits.
- Conduct comminution testwork on composites representing the oxide, transitional and fresh ore zones to assess the beneficiation process requirements.

This work is planned in early 2024.

## 11.2 Processing

### 11.2.1 Summary

A standalone process plant has been costed and designed for the study. Ammjohn Pty Ltd have undertaken the works to prepare the plant design and its capital and operating cost estimates. Whilst the estimates are based on preliminary designs, key components have been market tested to confirm validity. See Figure 29 for the proposed plant layout.



Figure 29 Proposed plant layout

The LJGP processing facility has been designed to process 1.8 Mtpa of ore from the deposits and is of standard design, equivalent to similar existing CIL/gravity processing plants in the WA Goldfields for free milling gold ores.

The crushing circuit is designed to operate 12 hours per day, seven days per week at a nominal treatment rate of 632 t/h (dry basis) at a circuit utilisation of 65%. The grinding, gravity and carbon-in-pulp (CIP) plant was designed to operate 24 hours per day, seven days per week at a nominal treatment rate of 232 t/h (dry basis) on fresh ore at a circuit utilisation of 90%.

The process plant flowsheet was designed for the specific ore characteristics, as identified by metallurgical testwork undertaken at IMU. The process flow diagram (PFD) (Figure 30) was developed from the process design criteria (PDC) prepared by Ammjohn and comprises of the

following unit processes:

- Two stage crushing using a mobile primary jaw crusher with a secondary cone crusher to yield a nominal final product of -17 mm
- Product is conveyed to a crushed product stockpile with underground feeder and loadout to the mill feed conveyor, or to an emergency stockpile.
- A single ball mill closed with hydrocyclones to achieve a product size of 80% passing 106  $\mu\text{m}$
- Treatment of approximately 72% of the mill discharge stream by centrifugal gravity concentration to maximise the gravity gold recovery, followed by batch intensive leaching of the gravity concentrate and electrowinning of the resulting pregnant solution
- Thickening of the cyclone overflow stream to approximately 50% solids w/w prior to leaching
- Leaching and counter current adsorption in a CIP circuit comprising six leach tanks
- Acid washing and elution of the loaded carbon using a split AARL elution circuit, with thermal regeneration of the barren carbon prior to its return to the CIP circuit
- Smelting of cathode sludge from electrowinning to produce gold doré
- Treatment of the final tailings for cyanide detoxification using hydrogen peroxide (as required) and pumping the tailings to the tailings storage facility (TSF) with supernatant water will be recovered from the surface of the TSF for recycling back to the process plant.

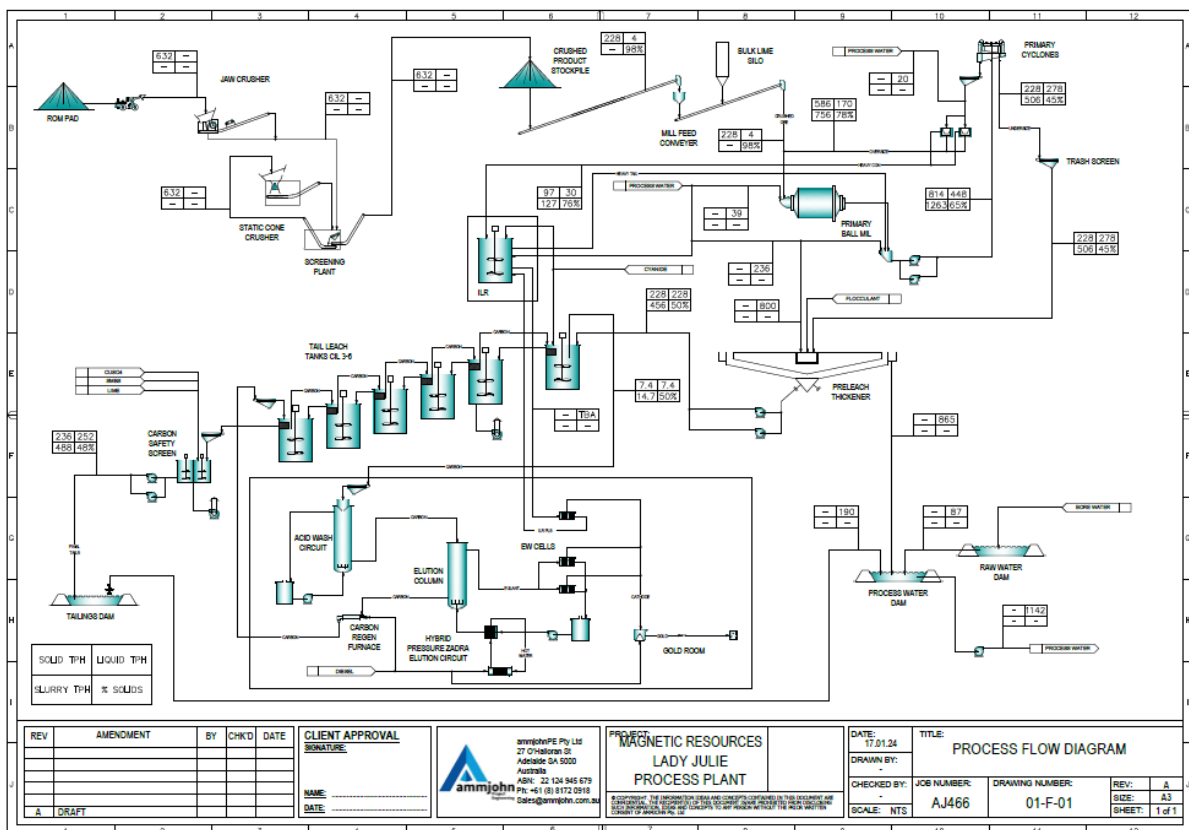


Figure 30 Proposed plant flow chart

## 11.2.2 Process Design Criteria

Table 28 Process Design Criteria

Criteria	Unit	Quantity	Source
Annual throughput (nameplate capacity)	tpa	1,800,000	Magnetic
Crushing availability	%	65%	Calculated
Crushing circuit op hours	Hr/an	2,700	Calculated
Crushing circuit throughput	Dry t/hr	632	Calculated
Milling circuit avail	%	90%	Calculated
Milling circuit oper hours	Hr/an	7,500	Calculated
Milling circuit throughput	Dry t/hr	232	Calculated
Milling circuit transfer P80	micron	106	Magnetic
Leach residence time	Hr	12	Magnetic

The plant will be designed to be as modular as possible to simplify transport and erection. The ability to relocate the plant at the end of the Project will also be a key consideration.

Table 29 details the plant's expected consumption of chemicals and grinding media.

Table 29 Plant major chemical consumption

Consumable	Unit	Oxide	Trans	Fresh
Cyanide	Kg/t	0.40	0.5	0.55
Quicklime	Kg/t	0.9	0.9	0.4
Grinding media	Kg/t	0.9	1.1	1.3

### 11.2.2.1 Design Philosophy

The plant must be operable and constructable. This feasibility study has assumed the following philosophies are implemented to support these requirements.

- Equipment will be designed into prefabricated into complete skids where possible. For example, a pump relocatable unit which can be relatively, the pump will be integrated onto the skid, together with instrumentation, electrical equipment and piping to create effectively self-contained skids. This will both reduce construction time on site and simplify relocation.
- For areas of the plant where it will not be possible to fabricate a complete self-contained unit, equipment will be fabricated into multiple relocatable units that are assembled on site. For example, the top of the leach tanks will be constructed as relocatable units, with the goal of minimising site fabrication works. The relocatable units will require some onsite fabrication (agitator installation, electrical connections).
- Large equipment such as Leach tanks and pre-leach thickeners will be fabricated into bolt up sections, for quick erection on site. This will provide a balance between allowing the equipment to be transported to site from metropolitan workshops, and also allow simplified onsite construction. The design of these equipment pieces will also envision

transport as complete equipment between remote sites to simplify construction.

- Concrete foundations will have a conventional layout, but with optimisations for large foundations around the mill and leach tanks will be made. Emphasis will also be placed on pre-cast concrete to reduce civil works duration. This includes pre-cast foundation pedestals, concrete sleep blocks, and bund walls.

### 11.2.3 Processing Circuit

#### 11.2.3.1 *Crushing Circuit*

Ore will be fed by front end loader to the crusher on the LJN4 ROM pad. This will permit blending of the various ore types to smooth ore properties and grades.

The crushing plant consists of a primary crusher, a secondary crush and screen in closed loop.

Crushed ore will be conveyed to either the Crushed Product Stockpile or an emergency stockpile. An under-feeder and loadout from the CPS will transfer ore direct to Mill Feed belt.

Lime will be added to the ore feed on the belt via a silo trickle feed system.

#### 11.2.3.2 *Grinding Circuit*

The 5.0m diameter x 6.90m Ball Mill is driven by a 3,600 kW motor through a gearbox which is direct coupled to the mill pinion. The mill rotates at a speed of 15.0 RPM (75 % of critical speed). The mill is charged with grinding balls of a maximum size of 90 mm and ball charge of 35% v/v.

The predicted ball consumption rate is 1.5 kg/t. Grinding balls are added onto the Mill Feed conveyor via the dedicated ball feed chute using a front-end loader.

A lime silo (HP-20.02) with a variable speed screw feeder arrangement discharges lime onto the mill feed conveyor. The speed of the lime feeder is controlled by the tonnage rate record by weightometer. Lime addition is entered as kg/t dose rate and is varied manually in response to the pH of the slurry measured in Leach Tank 1.

Process water is added to the mill feed chute, to the mill discharge hopper and as fluidisation water to the Knelson concentrator. Ground ore and water (slurry) overflow at the discharge of the ball mill and are screened through the mill trommel. Undersized pulp (minus 15 mm) flows through the mill trommel to the mill discharge hopper whilst oversize material (mill scats) is accelerated through the mill trommel by a forward helix and discharges to a hopper at ground level. The mill scats are periodically collected by FEL and stockpiled for recycling through the plant or disposal.

#### 11.2.3.3 *Classification*

The cyclone circuit consisting of two 6x4 cyclone feed pumps (duty/standby) fitted with a changeover switch and variable speed drive and a cluster of eight Weir 250CVX10 250 mm diameter cyclones. The number of cyclones in operation is varied according to milling conditions. Typically, six cyclones will be required for the design throughput. The cyclones are used to separate ore particles which have been ground sufficiently from ore particles which require further grinding. The cyclone underflow stream containing the coarse particles gravitates to a splitter box where part of the stream is diverted to the gravity circuit and the remainder returns to the Ball Mill feed chute for regrinding. The cyclone overflow containing the fine particles gravitates to the Pre-Leach Thickener. The target particle size in the cyclone overflow is 80 % or more by weight finer than 75 microns. The cyclone overflow slurry represents the optimal milling densities to achieve the target grind size.

Removal of trash from the leach feed stream is accomplished by passing the slurry over a 925mm x 2900mm vibrating screen fitted with a polyurethane screen cloth with a slotted aperture of 0.8 mm x 25 mm. Screened slurry flows from the screen into either the Pre-Leach Thickener feed well or directed to the leach tank 1. Oversize trash falls from the screen to a trash hopper and is collected and disposed of.

The proportion of cyclone underflow reporting to the gravity circuit discharges onto a 1830m x 4200m vibrating screen. The screen oversize is returned to the mill for regrinding. The screen undersize is fed to the gravity concentrator where the gravity concentrate is collected. The tails from the gravity concentrator returns to the ball mill feed for regrinding. The gravity concentrate is periodically discharged from the bowl of the concentrator and gravitates to the feed cone of the In-Line Leach Reactor (ILR). The ILR is controlled by a control panel PLC system supplied by the vendor.

#### 11.2.3.4 Pre-leach Thickening

The trash-screen underflow reports to the Pre-Leach Thickener feed well. The thickener removes excess water from the cyclone overflow to accomplish the desired leach density. The target leach density of 50% solids maximises the retention time throughout the leaching process. Thickener underflow will be pumped via centrifugal pumps to leach tank 1. Overflow from the thickener will be recycled back to the feed well as dilutions water. Overflow water from the thickener will be pumped back to the thickener feed well by a dedicated pump as dilution water. Excess water from the thickener is allowed to gravity drain to the process water dam.

Flocculant solution is dosed to the dilution water, prior to it being discharged into the thickener feed well.

#### 11.2.3.5 Leaching and Adsorption Circuit

Ground slurry is pumped from the thickener the CIL circuit which consists of six 8.55 m Ø x 11.8 m high tanks with live volumes of 650 m<sup>3</sup> each and fitted with dual open impeller type agitator mechanism and mechanically wiped cylindrical interbank screens. This will provide 24hrs of leach time at the design rates, which meets the desired 12 hour leach time. The bank of tanks are all set at the same level to minimise construction costs.

The main reagents used in the leaching section are powdered quicklime and sodium cyanide solution. Powdered quicklime is added to the ore stream on the ball mill feed conveyor as discussed earlier.

Sodium cyanide solution is added to the first leach tank and tank 3 via a header tank on a ring main supplied by a centrifugal pump on the cyanide mixing skid. The cyanide flowrate is controlled by adjusting valves located on the discharge lines into each tank.

Air can be injected into the slurry from the top of in each tank via a dedicated sparge running down the side of the tank. Pressurised air is sourced from a low-pressure screw compressor installed to the top of the tanks due to the height of the tanks.

Each tank contains 8.7 tonnes of activated carbon and mechanically wiped up-pumping cylindrical screens. The purpose of the interstage screens is to allow passage of the pulp to the next tank while retaining the carbon. The interstage screens are fitted with 0.8 mm aperture wedge-wire mesh and equipped with a mechanical wiper mechanism to clear the carbon granules from the face of the screens thus stopping carbon from blocking the apertures in the screens.

The up-pumping function of the intertank screen is used to remove the height drop across the intertank screens caused by the screens and potential viscosity of the slurry. They also allow the complete volume of each tank to be used, maximising leach time.



The carbon is moved by pump from adsorption tanks No 6 to No 1 tank on a batch basis and the pulp moves continuously from No 1 tank to No 6 tank - ie. the carbon and pulp are moved counter currently.

Loaded carbon is removed from tank 1 by recessed impeller sump and discharged onto a 715mm m x 2000 mm vibrating carbon recovery screen which is fitted with a 0.8 mm aperture screen. The carbon screen will be fitted to the tank structure. Water sprays on the screen to clean the carbon; it discharges from the screen and is directed to the feed chute on the carbon acid washing column. Slurry is returned to tank 1.

Barren regenerated carbon is returned to tank 6 via a 715mm m x 2000 mm vibrating screen. Screen undersize reports to the carbon safety screens via the CIL tank 6 discharge launder. It is critical that the carbon inventory is kept in balance as any delays in carbon out of circuit will affect the solution losses and carbon adsorption kinetics.

The carbon granules over time gradually break up and pass through the screens and are lost to the tailings so new carbon must be added periodically. New carbon is added to Tank 6 in 0.5 tonne bags via overhead crane.

The pulp discharges from the No 6 adsorption tank to the carbon safety screen. The carbon safety screen is a 3,200mm x 2,200mm vibrating screen fitted with polyurethane screen panels with slotted aperture of 0.80 mm x 25 mm. The screen is used to collect any carbon which has exited tank 6 due to holes in the interstage screens etc. The carbon collected off the screen is captured in a bulk bag and periodically returned to tank 6 or stored for later treatment.

The plant has been designed for a carbon concentration of 15 g/l per tank. Carbon advance is conducted each day to provide adequate levels of carbon in tank 1 to enable stripping at the rate of 2 tonnes of loaded carbon 6 times per week (approximately 1,700 kg per day). The back mixing associated with the carbon advance increases intertank slurry flow, and the interstage screens are sized accordingly.

The underflow from the tail's screens pass to the tails hopper and is pumped to the Cyanide Destruction circuit. The cyanide destruction circuit incorporates an agitated tank, reagent addition and compressed air. A weak acid dissociable target discharge value of 50ppm will be achieved via the cyanide destruction process. Lime, Copper Sulphate, SMBS and air addition will be added to the detoxification tank the reduce the WAD cyanide to the target levels.

#### 11.2.3.6 Elution Circuit and Gold Room Operations

The elution circuit is a 2-tonne hybrid pressure Zadra circuit comprising of acid and elution columns, electrowinning cells, gold room and carbon regeneration kiln.

Slurry from tank 1 is transferred to the loaded carbon screen by a recessed impeller sump pump. The vibrating loaded carbon screen, removes the loaded carbon from slurry. The slurry underflow from the screen gravitates back to Adsorption Tank 1 while the screen oversize, loaded carbon, gravitates to the Acid Wash column. Once the Acid Wash is full, the drain valve is shut and a mixture of raw water and hydrochloric acid (to a concentration of 3% HCl) is pumped up through the column before discharging to the tailings downcomer until the desired solution PH is reached. Instrument air is bubbled through the column to agitate the solution.

Once the appropriate volume of diluted acid is pumped through the column (normally one bed volume (BV)), the carbon bed is then flushed with water until the PH increases to the desired pH (typically 3 BV's). The rinse solution is also sent to the tailing's downcomer.

Having completed the acid washing and rinsing, the column is then pressurised and the carbon moved to the elution column. The elution column is then drained of excess water. Finally, the

elution column is pressurised, put in a closed loop with the eluate tank, heater, a heat exchanger and electrowinning cells.

A caustic/cyanide solution is pumped from the eluate tank, heated up to around 90°C by the reclaim heat exchanger (recovering heat from the solution exiting the elution column by a plate and frame heat exchanger) and then the solution is heated to 120°C in the main solution heater.

The hot, pressurised solution is pumped through the elution column via screens at the base. The eluate causes the gold to re-enter solution as a cyanide complex. This is an equilibrium reaction, at low temperatures and cyanide concentrations, gold will migrate from solution onto the carbon, while at elevated temperatures and cyanide concentration the process is reversed. The solution then exits the column at the top, through external basket screens, flows through the other side of the reclaim heat exchanger in order to reduce the fluid temperature below boiling, and then into a flash pot to drop the pressure to atmospheric levels. The flash pot provides the secondary function of safely venting steam out of the gold room, should above boiling eluant be delivered to the elution column.

The gold bearing solution then flows to the electrowinning cells where the precious metals are plated onto steel wool cathodes. The solution discharging the electrowinning cells and gravitates back to the eluate tank, thus completing the circuit. Additional eluate is made up by filling the tank with potable water, cyanide and caustic.

After stripping and electrowinning is completed, the column is then rinsed with water to cool the carbon and remove excess caustic. The elution column is then re-pressurised with raw water and the now eluted, barren carbon, is transferred to the regeneration kiln feed hopper.

#### 11.2.3.7 Tailings Disposal

Tailings from the leach circuit will be subject to cyanide destruction before being pumped using a set of duty/standby tailings to the operating TSF at a 48% slurry density.

### 11.3 Plant Capex

In April 2023 Brightstar Resource undertook a high-level analysis of the capital cost of gold processing plant completed in WA in the last 2 years – see Figure 31. Without knowing the complexities of each plant, the numbers serve as a broad guide to recent developments and place the Ammjohn estimate in context.

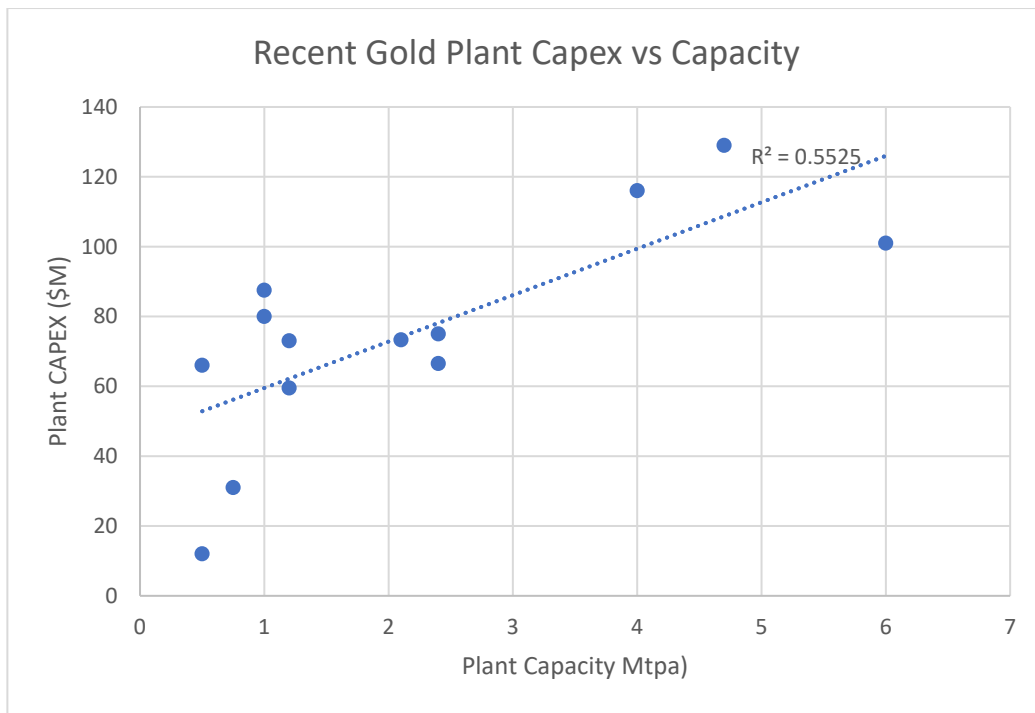


Figure 31 Recent Plant completions in WA (Brightstar, 2023)

### 11.3.1 Plant Capital Cost Estimate

Ammjohn’s estimates were based upon preliminary engineering, quantity take-offs from scoping drawings, budget price quotes for major equipment, and current cost data (for the balance of plant and material).

Unit rates were based on previous rates achieved by previous projects and validated selectively through budget quotation for specific items.

Engineering, procurement, construction, commissioning, and management costs were estimated on based on the design philosophy discussed in section **Error! Reference source not found..** This was done through a combination of a percentage basis from previous projects, validated from company knowledge, and direct manning for site works.

A summary of the cost estimate is presented in Table 30 below.

Table 30 Capital Cost Estimate by Sub Area

Area	Total Costs (\$'000)
<i>Direct Costs</i>	
1 – Crushing	8,775
2 – Grinding & Classification	11,114
3 – Thickening	1,879
4 – Leaching	4,721
5 – Tailings Disposal & Cyanide Treatment	1,506
6 – Elution & Gold Room	5,324
7 – Plant Services	2,375
8 – Services	5,320
9 – Electrical Services	6,983
10 – Plant Buildings & Roads	610

<b>Total Direct Costs</b>	<b>48,881</b>
<i>Indirect Costs</i>	
EPCM	1,936
Commissioning	442
Preliminaries and General	2,692
<b>Total Indirect Cost</b>	<b>5,071</b>
<b>Total (no contingency)</b>	<b>53,952</b>

### 11.3.2 Estimate Accuracy

The estimate accuracy has been judged as being a high accuracy level 4 estimate, with an estimate accuracy range of -20% to +30% of the total cost.

This accuracy range is based on the line-item based estimate methodology, and combination of written budget cost for major line items, and quantities based on take-offs from a preliminary in the plant.

The methodology for assessing this accuracy range is based on the AACE 18R-97 methodology.

### 11.3.3 Contingency

A nominal contingency of 15% on top of the plant estimate, based on the current estimate range accuracy has been applied to the Project summary.

### 11.3.4 Project Schedule

A schedule was developed for the capital works required to complete engineering, procurement, and construction of the plant. The program is of 18 month's duration, from commitment to proceed to start of commissioning and is inclusive of long lead items.

## 11.4 Process services

### 11.4.1 Electrical Reticulation

The power station will feed a common switchboard located adjacent to the processing plant. Power would be reticulated within the plant at 415 V AC via step-down substation transformers.

### 11.4.2 Plant Control Systems

The instrumentation and control system design for the plant will provide a high level of safety, reliability, operability, and availability of the operating plant whilst minimising maintenance requirements and allowing simple system fault-finding.

The system will be based on a combination of the following control systems

- Distributed PLC processors for plant control,
- Remote IO for simple systems, reporting back to the main PLC's,
- Vendor PLCs for packaged equipment.

Equipment will be installed in EER's or local panels as required. An operator interface network providing supervisory control and data acquisition (SCADA) functions will be contained in the Control Room and will be used by operators to control the plant. No allowance has been made for installation of expert systems.

An industrial wireless network will be installed within the plant, for use with telemetry only sensors. Telemetry only sensors will be battery powered to minimise electrical install costs and will require replacement every few years depending on polling rate.

#### **11.4.3 Process Water**

Process water is delivered to the 6,000 cum process water pond from local sources:

- Pre-leach thickener overflow,
- Raw water tank overflow,
- TSF decant return water.

Where the raw water tank is filled beyond its capacity, the excess water is fed into the process water tank, but not vice versa. Process water is delivered by duty and stand-by pumps to the plant.

#### **11.4.4 Raw Water**

Raw water will be drawn from a number of sources, primarily from the mine evaporation pond and local bores. Salinity levels will be monitored for blending purposes.

#### **11.4.5 Potable Water**

A small RO plant will be established to create potable water for both plant and personnel consumption.

#### **11.4.6 Reagents**

Several reagents are used in the plant, these include cyanide as the principle, gold lixiviant. Quicklime for bulk PH control through the plant, sodium metabisulphite (SMBS) for destruction of excess cyanide, hydrated lime for PH control in the cyanide.

Quicklime will be delivered to site in a tanker and pneumatically transferred into the silo located adjacent the mill feed conveyor. The lime silo has a filter on top (baghouse) to relieve air introduced into the silo during filling. Lime is withdrawn by a rotary valve from the base of the silo and drops into a screw conveyor. The screw conveyor discharges onto the mill feed conveyor. A plough installed in front of and behind the screw conveyor discharge is used to cover the lime on the belt with ore to minimise quicklime dust emission to the environment. The rotary valve and screw conveyor will be controlled via a variable speed drive.

Flocculant will be delivered in 20kg bags and kept undercover in the reagents shed. A turnkey flocculant mixing, and dosing system will be used to mix and dose flocculant to the pre-leach thickener and the in-line leach reactor.

Cyanide will be delivered as one tonne boxes in locked 20ft shipping containers, totalling at most 20T. Only one shipping container will be kept on site at any one time to avoid Major Hazard Facility requirements. Cyanide supplied will have sufficient caustic to allow mixing of solutions without caustic addition for PH control.

Cyanide will be mixed in a dedicated mix tank and transferred to a holding tank. Cyanide is pumped from the holding pump to a 1000L header tank installed above CIL tank 1. Overflow from the header tank is returned by gravity to the holding tank. Separate permanent small-bore lines provide batch dosing to the eluent tank and ILR system.

Caustic will be delivered in both solid and liquid forms. 1000L IBC's of 50% solution are used for pH control of eluent and intensive leaching solutions, and stored in the reagents shed until required for the elution strips. Caustic pearl solid may be kept on site in 20 kg bags and used as required in the reagents and elution areas.

Hydrochloric acid is delivered to site and stored in 1000l IBC's. HCL is pumped to the acid wash column as required as part of washing process.

Peroxide is delivered to site and stored in 1000L IBC's for use in the ILR circuit. Peroxide is batch pumped to the ILR using a centrifugal magdrive pump to the ILR circuit.

Gold Room Reagents are delivered to site in 20kg bags, and stored in the gold room so that they can be accessed without employee's needing to leave the gold room.

## 11.5 Schedule

The processing schedule is shown graphically in Figure 32 and is detailed in Appendix 1. The production dips are associated with specific pit cutbacks in the current schedule. Mill feed in these dips has been partially filled with stockpiled low grade ore. Subsequent pit designs will aim to smooth these items.

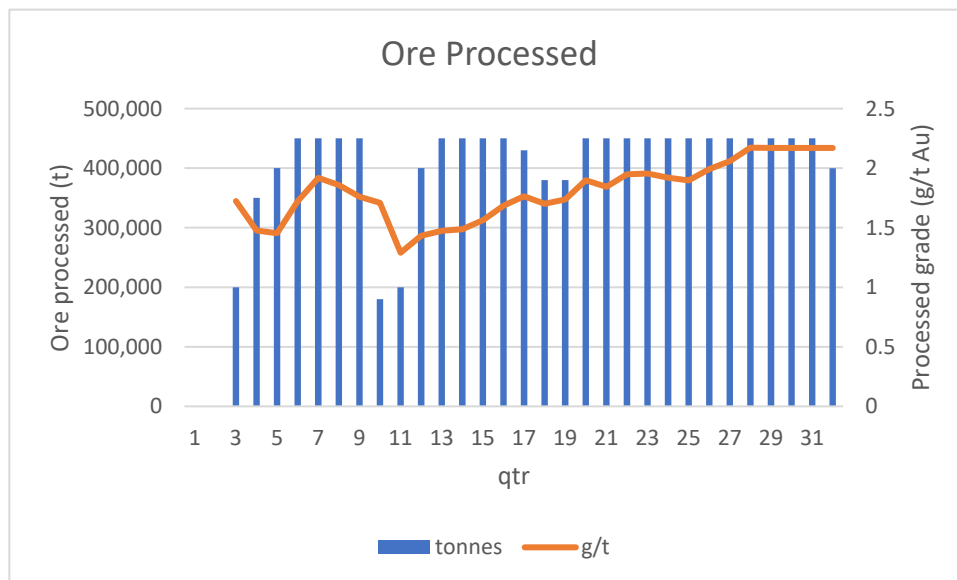


Figure 32 Ore processed by quarter

## 11.6 Process Workforce

As for mining, it is expected that the workforce will be drawn from both Kalgoorlie and Perth, and operate under a (14 on, 14 off) FIFO roster. Accommodation will be provided in Laverton, with daily commutes to the worksite.

The workforce will comprise:

- Supervisory/technical staff
- Plant operators and maintenance personnel
- Lab technicians

At any one time, 50% of total personnel will be accommodated in camp.

### 11.6.1 Roster



It is expected that rosters will operate in the following manner:

- Admin and technical staff – 10 days on 4 off
- Operating and maintenance personnel – 2 weeks on 2 off

### 11.6.2 Complement

The processing workforce complement will peak as per the following table.

Table 31 Processing Workforce

Department	Designation	Number	Comment
Administration			
	Plant Manager	1	
	Plant Superintendent	1	
	Plant Clerk	1	
	Safety/Training Offr	2	
Mine Technical			
	Senior Metallurgist	2	
	Lab Technician	2	
Plant Operations			
	Shift Supervisor	4	
	Operators	6	
	Crusher operator	4	
	Gold room operator	2	
Plant Maintenance			
	Maintenance Superintendent	1	
	Maintenance supervisor	4	
	Maint planner	1	
	Elec Tradesmen	6	
	Mech Tradesmen	12	
<b>Project Total</b>		<b>47</b>	

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## 12.0 Tailings Storage

### 12.1 Summary

In undertaking the early works program, it was always assumed that ore would be hauled to a third-party plant for toll processing, and the tailings retained in that party's TRS.

The change in project focus to consider a local plant and associated facilities has only recently become a consideration.

This study has adopted a simple solution to tailings storage, and it relies on the fact that the ore and waste are NAF, and that cyanide destruction will be an integral part of tailings treatment.

During the life of the Project, there will be 2 TSFs:

TSF #1 will be constructed using mine waste during the first 6 months. It will be located within the final footprint of the LNJ4 WRD, and will be designed to contain 5.8Mt of tailings – sufficient for the first 3 years processing and residual amounts after the IPTSF has been filled.

TSF #2 will be constructed to contain the remaining ore from processing – approx. 8.3Mt. It will utilise the depleted pit shell for LJC once mining is complete after some 18 months from project start. Waste rock generated during mining of LJC will be used to build walls around the pit perimeter to a height of 10m.

In both cases, an internal ramp will allow access to the rising impoundment to relocate decant water pumps.

Tailings will be deposited from the perimeter embankment in a sub-aerial manner in thin lifts with a beach at one end and decant at the other. The TSFs will have capacity for 1:100 year annual exceedance probability 72-hour storm event.

A water recovery rate of at least 65% of the slurry water volume entering the TSFs is expected during the operating life. The decant (and return water) pumping system has been designed to accommodate a return rate of 70% of tailings slurry water to the plant, a distance of less than 1km.

REC was engaged by BCM to prepare the scoping level design for the TSF's for the LJGP. The scoping design comprises the development of an IWLTsf (Stage 1 and Stage 2) for the above ground storage of tailings, accommodating tailings storage between years 0 and years 3 of tailings production. An open pit mine development is currently planned at the Lady Julie Central (LJC) open pit between year 1 and year 2 of operations at LNJ4. It is proposed that following mining activities at LJC, that the exhausted pit is utilised as an IPTSF. The IPTSF is intended to be operated up until the end of quarter 1 of year 8 in the LoM schedule. The remaining storage capacity in IWLTsf Stage 2 will be used to accommodate the remainder of tailings production activities beyond this period.

The IWLTsf embankments are proposed to be constructed using downstream construction methodologies. Mine waste rock from the Lady Julie North open pit will form the bulk of the downstream zone with a roller compacted low permeability upstream face comprising either oxide mine waste or material won from within the IWLTsf basin. The downstream waste embankments will be constructed progressively as waste is hauled to the IWLTsf for traffic compaction. Each subsequent lift will consist of the placement of mine waste over the downstream waste zone, with a low permeability upstream zone corresponding to the respective lift height. Additional mine waste hauled from the LNJ4 open pit, beyond the embankment extent will be progressively paddock dumped to form the encompassing waste rock dump. The IWLTsf concept is presented in plan in 33 and section in **Error! Reference source not found.**4, with the plan of the IPTSF in Figure 35.

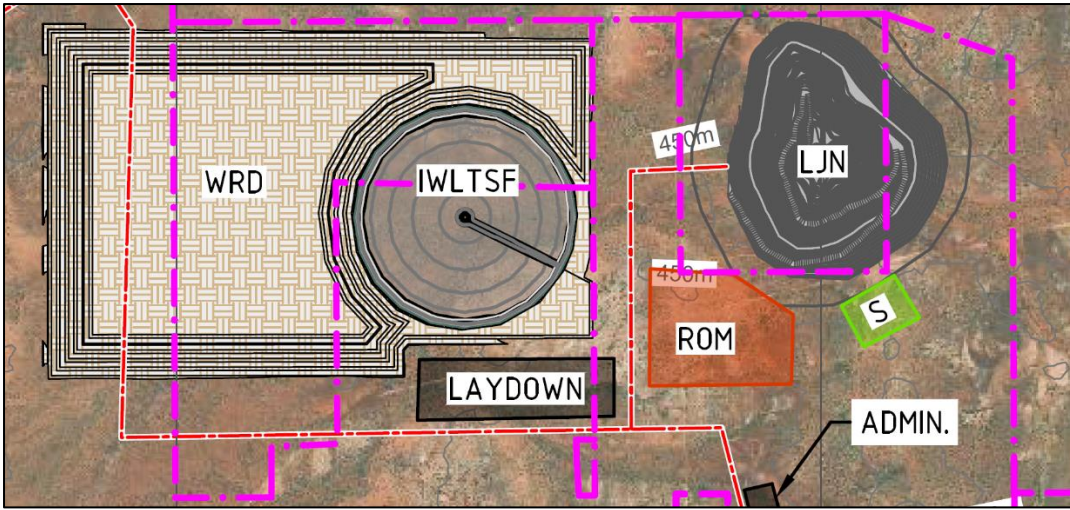


Figure 33 Location of Integrated Waste Landform TSF adjacent LNJ4

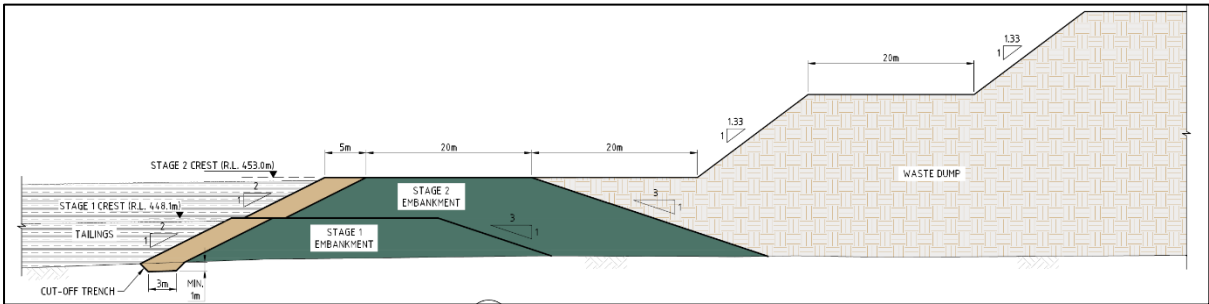


Figure 34 Section through IWLTSF

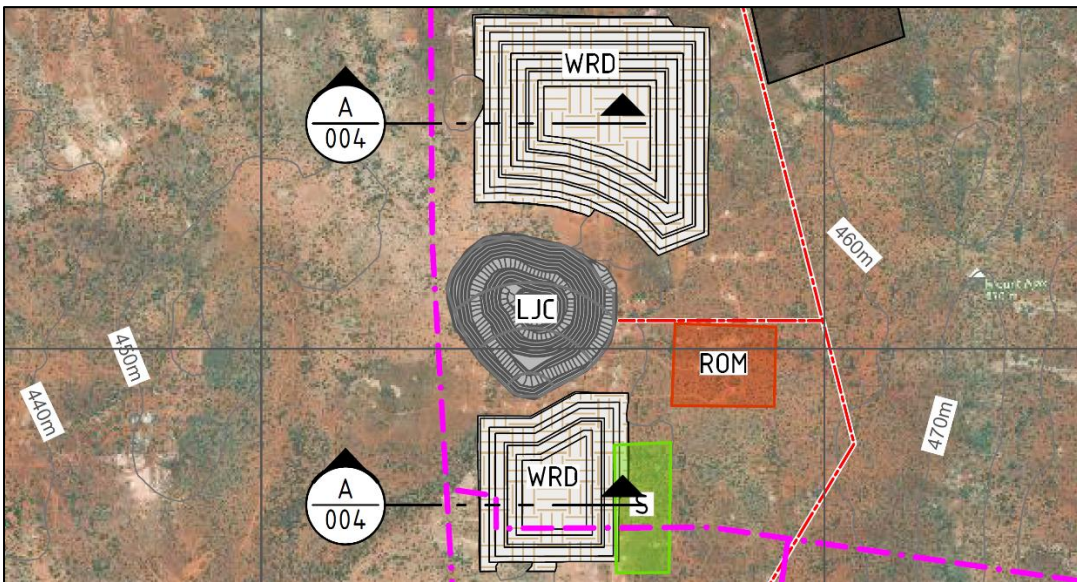


Figure 35 Details of In Pit TSF

## 12.2 Storage Capacity

At an assumed dry density of 1.45 t/m<sup>3</sup> for IWLTSF Stage 1 and Stage 2, the facility provides

approximately 4.09 Mm<sup>3</sup> of storage capacity for 5.93 Mt of tailings across two operational stages. At an assumed average dry density of 1.60 t/m<sup>3</sup> for the IPTSF, the facility provides approximately 5.19 Mm<sup>3</sup> of storage capacity for 8.31 Mt of tailings. The IWLTSF and IPTSF design stage capabilities are presented in Table 32.

Table 32 TSF Storage Capacities

Parameter	IWLTSF Stage 1	IWLTSF Stage 2	IPTSF	Total
Embankment RL (m)	448.1	453.0	445.9	-
Maximum Crest Height (m)	8.1	13.0	NA	13.00
Assumed Dry Density (t/m <sup>3</sup> )	1.45	1.45	1.60	-
Storage Capacity (Mt)	2.37	3.55	8.31	14.23
Cumulative Storage Capacity (Mt)	2.37	5.93	14.23	-
Storage Capacity (Mm <sup>3</sup> )	1.64	2.45	5.19	9.28
Cumulative Storage Capacity (Mm <sup>3</sup> )	1.64	4.09	9.28	-
Stage Life (years)	1.50	2.86	4.57	8.93
Life (years)	1.50	4.36	8.93	-

### 12.3 ANCOLD Design Criteria

The recommended design criteria for the IWLTSF has been adopted based on criteria detailed in ANCOLD (2019), for 'High C' consequence category facilities. Design criteria adopted for the IWLTSF is presented in Table 33.

Table 33 ANCOLD Design Criteria

Parameter	IWLTSF (Stage 1 – Stage 2)
Design Storm Event	1:100-year AEP, 72-hour event
Additional Freeboard	0.5 m
Operating Basis Earthquake (OBE)	1:475-year
Safety Evaluation Earthquake (SEE)	1:2,000-year AEP

### 12.4 Balance

Under average rainfall and evaporation, the preliminary water balance indicates:

- An average daily water returns of 1,385 m<sup>3</sup>/day or 63 m<sup>3</sup>/hr, equivalent to 76% of the total slurry water (based on the operating hours of 8,000 per annum) for IWLTSF.
- An average daily water returns of 1,076 m<sup>3</sup>/day or 49 m<sup>3</sup>/hr, equivalent to 57% of the total slurry water (based on the operating hours of 8,000 per annum) for IPTSF.

It is a requirement that the water recovery system (decant pumps and piping) must have a minimum capacity of not less than 65 m<sup>3</sup>/hr for the IWLTSF and 50 m<sup>3</sup>/hr for the IPTSF, to ensure adequate water removal, particularly during high rainfall periods.

### 12.5 Testwork

TSF testwork has yet to commence. Initially, it will incorporate drilling of foundation and construction material to obtain samples for testing, and tailings settlement and decant capability.

### **12.6 Closure Planning**

TSF #1 will be covered by up to 10m of waste rock as part of the advancing LJV4 waste dump.

TSF #2 will be capped with waste rock from the adjacent waste dumps.

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## 13.0 Infrastructure

### 13.1 Summary

The overall site layout is shown in Figure 28. The site is a greenfield location with no existing infrastructure.

Supporting infrastructure required for the various components of the Project have been designed and located in optimal positions for the current mine plan. With a planned project life of 9 years, the facilities will be built for ease of transportation but with an expectation they will be removed at project completion.

Buildings, sensitive infrastructure and the processing plant have been located away from open pit blast envelopes (400m), and with prevailing wind directions in mind. Placements of mining yards and stockpiles have been designed in order to facilitate safe and productive traffic management controls. Appropriate exclusion zones have been incorporated into the layout for infrastructure in order to adhere to regulatory requirements.

### 13.2 Power Station

Indicative only prices were sought for a diesel-powered station of 7MW supplied and serviced by third party. This would involve 7x 1MW units, located close to the processing plant. With indicative power demand from the processing plant, and with fuel at \$2.00/l before rebate, this produced an indicative cost of \$0.60/kWh.

It is noted that a gas supply line runs 3km to the east of the proposed plant site. As a result, in the next phase of investigation, it is proposed to investigate a variety of power supply systems including gas hybrid with PV, battery energy storage system (BESS), and diesel renewable (PV). The aim will be to achieve an energy cost of \$0.50/kWh used in this study.

Whilst the power station would also service administration and crushing facilities, there are no plans to extend beyond the limited range. Mine and water costings have included smaller remote power supplies.

The Australian Government's Renewable Energy Target (RET) was introduced to encourage additional generation of electricity from renewable energy sources to meet the Government's commitment to achieving a 20 per cent share of renewables in Australia's electricity supply by 2020. The RET creates a financial incentive for investment in renewable sources through the creation and sale of certificates. The RET is split into two parts: the Large-scale Renewable Energy Target (LRET) and the Small-scale Renewable Energy Scheme (SRES). Under the LRET, large-scale generation certificates (LGCs) are created in the online Renewable Energy Certificate (REC) Registry by renewable energy power stations. One LGC is equivalent to one megawatt hour of eligible renewable electricity generated above the power station's baseline. On 24/01/24, 1 LGC had a value of \$46.25 (<https://www.demandmanager.com.au>).

### 13.3 Access road and Intersection

Access to the site is via the old Laverton Road – a well maintained, shire gravel road. The planned intersection has good visibility in all directions. Signage etc will be coordinated with Shire Council.

Whilst there will be regular light vehicle traffic using the intersection, the absence of haul traffic will simplify the interchange.

Internal roads will be elevated gravel surfaces that will be regularly graded and watered. The aim will be to maintain dual roadways where necessary to separate light and open pit traffic.



### **13.4 Administration**

The administrative and technical support services departments will be located at facilities adjacent to the planned process plant. The facilities will accommodate general and administration (G&A), management and support personnel, as well as all Magnetic technical and management personnel associated with open pit.

Warehouse facilities (servicing Magnetic technical services and processing plant) will also be located adjacent to the processing plant, having access to critical reticulation services and IT.

### **13.5 Medical/Emergency Services**

The closest medical facilities to the Project are in Laverton (19km), where a limited base hospital exists. To augment site capability and minimise response time in the case of an emergency, the following provisions are made:

- There will be fully equipped ambulance on site at all times during operations,
- There will be a fully equipped first aid/response room on site,
- There will be a fully trained safety person on each shift during operations,
- All supervisory staff will be required to maintain a current St John first aid certificate,
- A Mutual Aid agreement has been reached with Granny Smith operations whereby either site may call on the other for assistance in an emergency.

### **13.6 Mine and Plant Offices**

Under the layout planned in this study, the mining hub will be located to the west of the ROM pad, on the north side of the main access road. This position will ensure heavy vehicles and light vehicle interactions are minimised whilst also allowing for service reticulation from the adjacent processing plant. The mine area will be serviced with its own power, and raw and potable water. The mining department will establish fixed facilities in this area which are likely to include: change room, workshops, warehouse, offices, washdown bay, and fuel and waste oil management services.

### **13.7 Communication**

Initial enquires with communication providers have commenced, with a communication study confirming a viable option for a 600 Mbps to 1 Gbps site bandwidth link back to a regional Remote Terminal (RT). The RT microwave radio will link to an onsite 28 m high tower located on the regionally topographical ridge feature. This tower will also be used for the site two-way, SCADA and other radio-based requirements, as required.

### **13.8 Water Supply/Borefield**

The principal water supply for the Project will be dewatering of LNJ4. The groundwater study demonstrated the supply from the pit will meet most needs throughout project life. There are other bores in the Project area currently servicing the needs of driller which will augment overall supply.

### **13.9 Sewage**

Local sewage treatment systems will be installed to service the administrative complex, the process plant and mining centre. Sewage from the admin and process plant areas will be treated before being pumped to the TSF. Sewage from the mining centre will be treated separately and pumped directly to the TSF.

## 14.0 Permitting and Approvals

### 14.1 Completed

There are no mining approvals currently in place. Mining lease M38/1315 application is in process.

### 14.2 Future

Further key approvals and permits that will be applied for include the following:

- Granted Mining Leases over the key resources and main mine and plant developments. This will involve 2 mining leases – one covering the LJ area not included in M38/1315, the other the HN9 area. (see Figure 36)
- Granted miscellaneous licences for infrastructure corridors only.
- Native Vegetation Clearing Permit (NVCP) from DMIRS Native Vegetation Assessment Branch under the *Environmental Protection Act 1986* (EP Act) Part V; required together with Mining Proposal and Mine Closure Plan approval to commence ground disturbance/clearing activities relating to mining operations.
- Mining Proposal (MP) and associated Mine Closure Plan (MCP) from DMIRS Resource and Environmental Compliance Division under the *Mining Act 1978* (Mining Act) and EP Act Part IV; required for compliance with tenement conditions, including approval to commence ground disturbance and development activities relating to mining operations.
- Works Approvals and Licensing for prescribed premises from DWER Environmental Division under EP Act Part V; required for the construction and operation of certain facilities/activities with potential to cause notable pollution of air, land and/or water (e.g. tailings disposal and water discharge).
- Groundwater Well Licence (GWL) from DWER Water Division under the *Rights in Water and Irrigation Act 1914* (RIWI Act); required for groundwater abstraction activities for mine dewatering and water supply purposes.
- Dangerous Goods Licence from DMIRS Dangerous Goods Licensing Branch under the *Dangerous Goods Safety Act 2004* (DGS Act); required for the storage of classed consumables such as diesel, cyanide and explosives.
- Poisons Permit from the Department of Health (DoH) under the *Medicines and Poisons Act 2014*; required for the storage and use of cyanide in the processing plant.
- Project Management Plan (PMP) from DMIRS Resources Safety Division under the *Mines Safety and Inspection Act 1994*; required for the commencement of mining and processing activities.
- Sewage Treatment Licence through Shire of Laverton.
- Radioactive Licence to cover any density measuring gauges in the plant.
- Cultural Heritage Management Plan and Relationship Agreement with NP.

In addition to the above, an agreement to cover disturbance and groundwater use will be struck with the leaseholder.

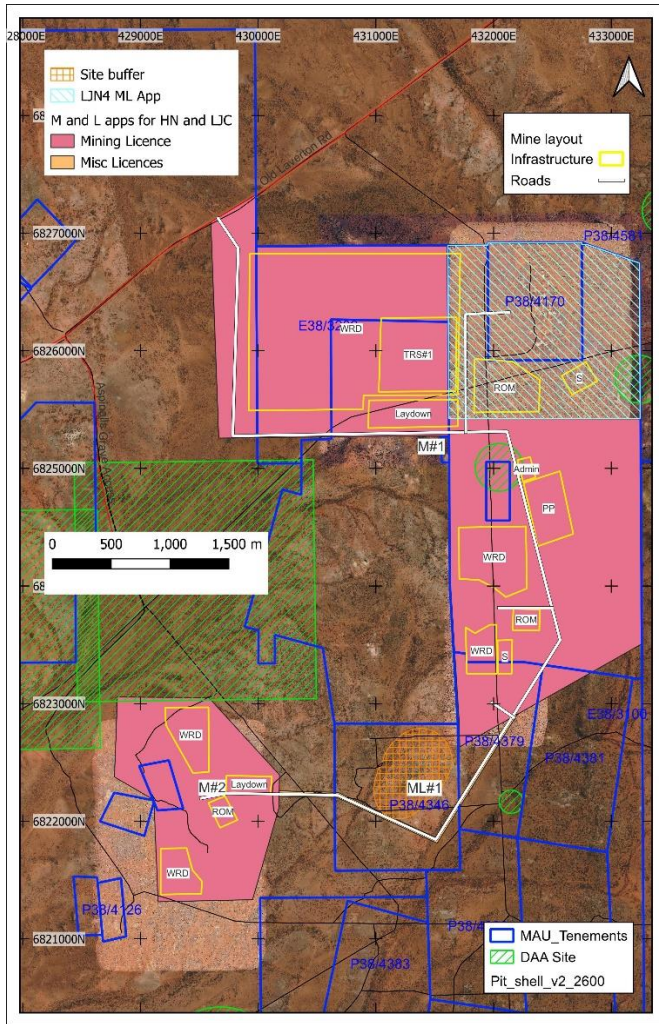


Figure 36 Proposed tenement applications

## 15.0 Combined Workforce

### 15.1 Complement

Table 34 Combined Workforce

Department	Peak Workforce
Mining	117
Processing	47
Administration	8
<b>Total</b>	<b>168</b>

### 15.2 FIFO

LGP personnel will be flown into the existing Laverton airstrip, currently used by at least one charter service, flying direct from Perth. Flight costs and associated landing tax requirements have been included within the costing of this study.

The Laverton airstrip is currently equipped for day/night operations and will be upgraded in 2024 to accommodate 110 person capacity planes.

Further discussions with individual flight providers will occur as the studies progress.

### 15.3 Camp

LGP will engage with a camp owner/operator to build a 140-bed accommodation village, with a layout capable of expansion, within the township of Laverton. At this stage, indicative costs only have been supplied based on current third-party camp costs in the region. The Laverton Shire Chief Executive has indicated his preference for camps to be located in town rather than in nearby but remote locations, where feasible.

The facility will include two dedicated management style blocks (four beds), 34 four-bed units (136 beds), wet and dry mess facilities, gymnasium, laundry, administration blocks and recreational facilities.

The accommodation camp will be used to house most of the construction workforce prior to mobilisation of the operations personnel late in the construction period. This will minimise the cost of the camp facilities while providing accommodation during the overlapping period between construction and operation.

Laverton has an existing camp facility which should be able to provide overflow services during the plant commissioning period.

Transport to and from site will be via 20 seat bus.

## 16.0 Sustainability - ESG

Magnetic Resources recognises the need to incorporate sustainability into all aspects of its business. The Company mission is to safely and responsibly deliver exploration success and advance development opportunities to build a profitable gold mining business, for the benefit of Magnetic's staff, contractors, shareholders and the communities within which the Company operates. This commitment extends to integrating environmental, social and governance considerations into the decision making. Environmental, social and governance (ESG) was a strong consideration in the PFS and will be a focus in all future development studies.

### 16.1 Sustainability

Magnetic is committed to integrating a sustainability strategy into the Lady Julie Gold Project to benefit from the resulting operational efficiencies, reduction in costs, social benefits and preservation of the environment.

#### 16.1.1 Water Resource

Preserving and sustainably utilising the available water resources in the district is a key consideration for Magnetic. The DWER online register was interrogated to identify the presence of existing licensed groundwater users in the vicinity of the Project, to ensure the operation is cognitive of existing requirements within the region. Within a 10 km radius of LJGP there are four registered GWLs (see Figure 9) – only those to the north of LJN4 lie within the influence from dewatering activities. The processing plant (excluding the gravity circuit) has been designed on predominantly saline to super saline water, where there are no competing stakeholders.

The site's water balance has been designed to, where possible, conserve water, with maximise re-use of the resource as well as storage options. Based on tailings testwork and TSF designs, the water balance forecasts water recovery of 65% and above from the facilities. Additionally, the implementation of a pre-leach thickener into the processing plant design will enable the operation to reduce water consumption as well as manage water disposal and loss from the circuit.

From initial hydrological studies, a series of production bores will be required for the LJGP. Several of the bores will target high flow saline water courses, which have been mapped since commencement of drilling in the region. Given the shallow water table and nearby Lake Carey, these bores will not impact upon neighbouring water users. A smaller bore (or series of) will be drilled in discrete areas for targeting brackish water to utilise in the processing plant gravity circuit, as well as feeding the site potable water treatment plant.

#### 16.1.2 Land Clearance

Magnetic is committed to reducing land clearance, to the extent practicable, as a result of the Project development, which leads to CO<sub>2</sub> emissions. Several locations within the proposed disturbance envelope have incurred historical mining and/or surface clearance, and in such cases, these will be preferentially used for any surface infrastructure or fixed buildings.

Some 420Ha will be cleared over the life of the Project. It is noted that the emission source is not a defined emission source in the *National Greenhouse and Energy Reporting Act 2007* (NGER Act); however, it can be voluntarily reported.

### 16.2 Climate Planning

With an expected operating life of 9 years, climate change will not materially impact the conduct of the operation. Hot desert conditions will remain for much of the year, with infrequent frontal rain bands during summer.

### 16.3 Emission Statement

The LJGP will be a remote site with no grid access possible, a limited life, and 24/7 operation. It will also have a large mobile equipment fleet. As a result, diesel fuel will be the fuel and power source. Indirectly, there are other emissions associated with the operation including:

- Mobilisation/demobilisation
- FIFO flights
- Ore processing.

Emission estimates have been based on engine fuel burn characteristics and likely daily duration of operation. Table 35 identifies the source of direct airborne emissions from the mining and ore haulage operation and evaluates the likely quantum of CO<sub>2</sub> produced over the Project life.

Table 35 LJGP Direct Emissions

Department	Number	Source	Unit	Burn rate	Project Endurance hr/mths	Project total l	Project total - CO <sub>2</sub> - t 2.68kg/l	
Mining	2	200t excavator	l/hr	420	54,012	22,685,145	60,796	
	2	120t excavator	l/hr	79	83,459	6,593,242	17,670	
	15	150t dump truck	l/hr	70	206,207	14,434,456	38,684	
	2	dozer	l/hr	67	50,864	3,407,906	9,133	
	2	grader	l/hr	29	20,621	597,999	1,603	
	1	w truck	l/m	1,000	34	34,000	91	
	1	service vehicle	l/m	1,000	34	34,000	91	
	5	light vehicles	l/m	2,000	34	68,000	182	
	3	Power generator	l/m	9,860	34	335,240	898	
	1	Remote pumps	l/m	2,260	34	76,840	206	
	1	IT loader	l/m	740	34	25,160	67	
	4	Drill rig	l/hr	36	97,059	3,494,114	9,364	
	4	Lighting plants	l/m	490	34	16,660	45	
	2	Bus	l/m	1,200	34	40,800	109	
			Blasting explosive	1t CO <sub>2</sub> /5t explosives	17,082			3,416
			Blasting - transport to site	0.1t CO <sub>2</sub> /1t explosive	17,082			1,708
	Processing	3	Light vehicles	l/m	900	34	30,600	82
1		IT	l/m	740	34	25,160	67	
1		Telehandler	l/m	740	34	25,160	67	
1		Bus	l/m	1,200	34	40,800	109	
2		Crusher loader	l/hr	47	54,502	2,561,600	6,865	
			Power station	l/kWh	0.261	345,131,820	90,079,405	241,413
Administration	4	Light vehicles	l/m	900	34	30,600	82	
		<b>Total</b>				<b>144,636,887</b>	<b>392,752</b>	

Other potential emissions or pollutants are discussed in Table 36.

Table 36 Other potential sources of Pollution from the Project

Item	Comment
Groundwater	Groundwater pumped from the pits will largely be used for dust suppression – any excess will be retained in evaporation ponds. Pumping will cease after mining has been completed – the water will rise to the original ground water level in the pits over time. Evaporation ponds will on completion, be emptied, walls levelled and the surface scarified.
Dust from roads	Vehicle traffic over the clayey surface rock will generate nuisance dust. Water from the pit will be the principal control mechanism in conjunction to regular grading and rolling. Salt contained in the water will act as a binding agent for the clay particles.



	Road and pit broken rock watering will be a continuous activity.
Waste water	A discrete septic system will be constructed, fenced and licenced.
Blasting	Apart from CO <sub>2</sub> , some oxides of nitrogen will be created during blasting, as will dust. Whilst the former can be classed as greenhouse gases, the quantity will be limited and will be quickly dispersed.
Tyres	Used tyres will be removed from site for reprocessing
Oils, grease, filters	Oils etc will be removed from site for reprocessing
Used metal components	All replaced components will be removed from site for reprocessing.
Food waste, wrapping, plastic, paper	Arrangements will be made with the Laverton Shire Council to transport such waste to the town dump. It will not be buried on site.
Use of cyanide for processing	A cyanide destruct circuit will form an integral part of plant design to eliminate the potential release to the environment via the TRS.

#### 16.4 Community Consultation

Discussions have continued with relevant community representatives through the early works period, with a register being maintained of all such contacts.

The local community has been supported by mining in the district for many years and it is seen as a positive influence on the prosperity of the town of Laverton. Whilst there have been a number of long-standing gold and nickel operations in the district for many years, it is understood that these rely for their existence on a FIFO workforce. A new entrant is seen no differently.

## 17.0 Financial

### 17.1 Summary

A summary of the Project financial results is presented in Table 37. Appendix 2 provides a breakdown of costs and revenue by quarter.

Table 37 Project Financial Summary

Project metric	Unit	LOM PFS @ \$2800/oz
Project life	Yr	9
Gold price	AUD/oz	2,800
Process plant feed	Mt	13.95
Grade	g/t Au	1.74
Recovery	%	93
Gold recovered	Oz	720,800
Annual average gold recovered	Oz/yr	87,000
Operating cost	\$M	1,033
Sustaining capital	\$M	8.0
Preproduction capital	\$M	93.4
Undiscounted cashflow (pre-tax)	\$M	881
EBITDA	\$M	982 (48%)
EBIT	\$M	881 (44%)
C1 cost	\$/oz	1,434
AISC	\$/oz	1,445
Project NPV (pretax 8%)	\$M	547
Project IRR (Pre-tax)	%	85
Project Payback period (after Project start)	Qtr	5
Maximum Project drawdown	\$M & qtr	\$93.4M in Qtr 2

Project Physicals	Unit	LOM PFS @ \$2800/oz
Total material movement	Mbcm	77.3
Ore mined	Mt	13.55
Gold contained	Oz	773,000
Strip Ratio		13.5:1
Process plant feed	Mt	13.95
	g/t	1.74

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## 17.2 CAPEX

Total capital expenditure for this study has been estimated at \$101.4M, which is a combination of \$93.4 million for pre-production development activities (including 3 quarters of pre-production mining activities) and an ongoing sustaining capital requirement of \$8.0M to maintain conventional operations. Pre-production and sustaining capital over the life of the Project are shown in Table 38.

Note: This study has focused on a standalone development scenario. Further refinements to the study are anticipated during H1 2024. During this time, Magnetic will continue to assess alternative development options including toll processing, ore sales, plant lease and different site processing solutions which may have potential to further enhance value.

Table 38 Capital – Pre-Production and Sustaining

Description	\$M	Comment	Source
<b>Pre-Production</b>			
- Mining	25.5	All mining cost prior to first production. Subsequently, all waste stripping for each cutback is expensed.	BCM Costing
- Processing	0.99	System development, training, tec	BCM Estimate
- G&A	1.61	Costs prior to first production.	BCM Costing
- Mobilisation	1.4	Equipment, facilities and personnel	BCM Costing
- Site Earthworks	1.09		BCM Costing
- Establishment	0.66	Facilities	BCM Costing
- Process plant EPC	54.0	EPC	Ammjohn
- TRS Development	0.5	Earthworks covered under mining cost	BCM Estimate
- First fill	1.0	Chemicals, fuel and spares	Ammjohn
- Mobile equipment	0	Small items only – major plant under lease purchase	BCM Estimate
- Camp	0	Established by third party with user charges applying	
- Contingency	6.7	15% on process plant	
<b>Total</b>	<b>93.4</b>		
<b>Sustaining</b>			
- Site earthworks	1.52	Each new cutback of LJN4	
- Process Plant	2	Major component changeout	Ammjohn
- Demobilisation	2.3		
- Critical spares	1.25	Purchase planned after commissioning – 2.5% of initial capex	Ammjohn
-			
- Other	1.0	Exploration & Resource Def	
<b>Total</b>	<b>8.0</b>		

**Note: Rehabilitation is treated as an operating expense.**

### **17.2.1 Startup (Pre-Production) Capital**

Startup capital includes all direct capital projects and infrastructure (plant, tailings, roadworks, site setup) as well as 100% allocation of conventional operating costs (such as G&A and initial open pit mining) during the startup period prior to first gold production. The estimates include all costs associated with management, design and engineering, supply, transportation and delivery, site construction, site accommodation and flights, as well as first fills and critical spares. The cost profiles are based on second quarter calendar year 2023 (Q2CY23) estimates and are therefore representative of the current operating and inflationary environment.

Total startup capital is \$93.4M and is inclusive of \$6.7M in contingencies.

### **17.2.2 Sustaining Capital**

Sustaining capital has been reported as all capital expenditure post-production commencement. Deferred waste capitalised has not been considered in this estimate – waste mining is expensed at time incurred.

Sustaining capital includes:

- For the mines, ongoing clearing costs associated with new pits,
- For the processing plant, allocation of capital replacements and throughput optimisation as well as the infrastructure associated with commissioning the second TSF.
- Critical spares for the plant.
- Provision for ongoing exploration and resource definition.

It is anticipated that based on a 12.5% recoverable value on the plant and infrastructure at the end of the 9-year term (\$7M), this would offset costs associated with plant removal.

### **17.3 OPEX**

Operating costs are derived from resource level actuals, or estimates based on recent enquiries. The category-by-category derivation is as follows:

For Mining:

- Mobilisation/demobilisation
- Establishment
- Major plant – costs are presented on a SMU hour basis, with each piece of equipment having a specific economic life. The gross cost includes all ownership and major overhaul cost provisions. Plant productivity determines the SMU exposure. Major plant also has a specific SMU hourly charge for low hour services.
- Auxiliary plant – whole of life costs are presented on a monthly basis – the basis is common for both owned and leases plant with the gross cost including ownership and major overhaul provisions. This method is chosen where plant usage is irregular.
- Mobile Plant servicing and low hour maintenance – costs are based at resource level with coverage of labour, oils/lube, servicing equipment and minor parts.
- Facilities/workshop – a monthly rental charge based on recent experience
- Grade control and safety – a monthly charge based on recent experience
- Fuel – fuel cost is based on expected equipment usage (hours) and recent delivered charge. Rebate is applied according to type of consumption.

- Water supply is an estimate only.
- Accommodation – costed on a person-day exposure and scaled on the basis of recent experience. (comms with Villages28)
- Flights – cost based on return flight Perth to Laverton with 2 return trips per month for senior staff
- Personnel – staff - costs are calculated on an annualized basis and recorded monthly. The annualized cost includes all on-costs including state charges (all up approx.. 35%). The basis is common for direct or contracted employees.
- Personnel – wages – costs are hourly based and are accumulated on an exposure basis, eg while employees are engaged on 12 hour shifts, actual work hours may be closer to 10. Personnel are paid for the 12, not the 10. Costs are grossed up to include on-costs. They are based on recent labour hire experience.
- Drill & Blast – unit costs are based on most recent sub-contract experience at Bungarra. The costs are based on specific drill patterns and powder factors expected to be used for each oxidation status, assuming emulsion use throughout. The costs are the fully loaded down-the-hole contract charges that would be levied by a contractor.

For Processing:

- Personnel, accom and flights as above.
- Chemical usage – based on testwork results
- Power charge – based on consumption to process similar ore types
- Plant and equipment – as above
- Processing plant maintenance – based on experience at similar plants, incorporates mill relines and bowl changeouts.

For Administration:

- Personnel, accom and flights as above.
- Other items – estimated monthly charges.

OPEX is presented by category in Figure 37 and on a unit cost basis, in table 39.

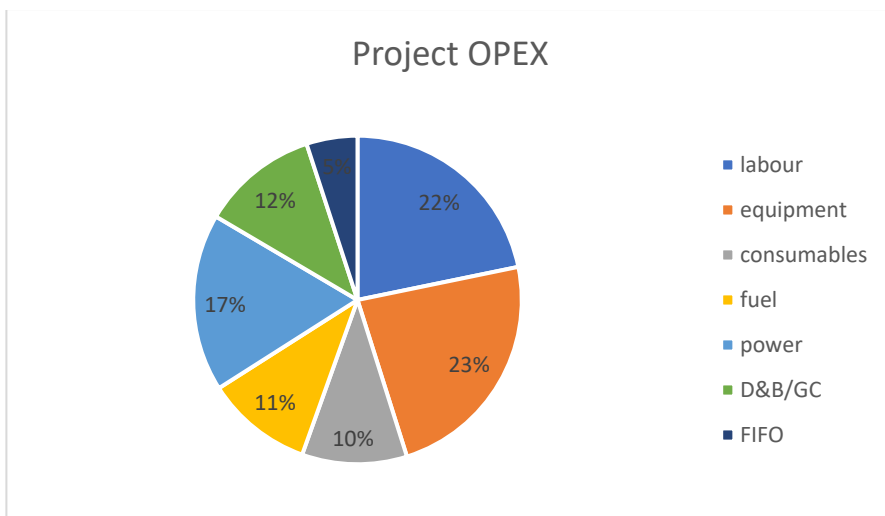


Figure 37 Project OPEX by category

Table 39 Project Unit cost by Department

Department	Project OPEX \$M	Unit cost
Mining	574.1	\$7.76/bcm
Processing	362.5	\$26.05/t ore processed

The above costs are inclusive of all associated costs like FIFO, camp allocation, etc.

#### 17.4 Revenue

The study assumes that gold is recovered via carbon strip from the leaching process, and as a gravity gold concentrate. Both would be smelted on site, and dore bars sent to Perth Mint for refining and sale on a weekly basis. Sale proceeds are available generally within 2 weeks of delivery of dore, and are based on LME Spot Price on day of sale.

Project gold production is estimated at 720,800 oz, and a gold price of A\$2,800/oz, gross revenue is \$2,016M. The gold price used in the study is at a 9.5% discount to closing price on 31/1/24, representing a conservative approach to revenue estimation.

The study assumes that gold dore is produced within the same period as processing, with the amount based on:

- The feed tonnage and grade
- The likely processing recovery by ore oxidation status

Gold recovered is depicted in the following chart, on both a quarterly and a cumulative basis.

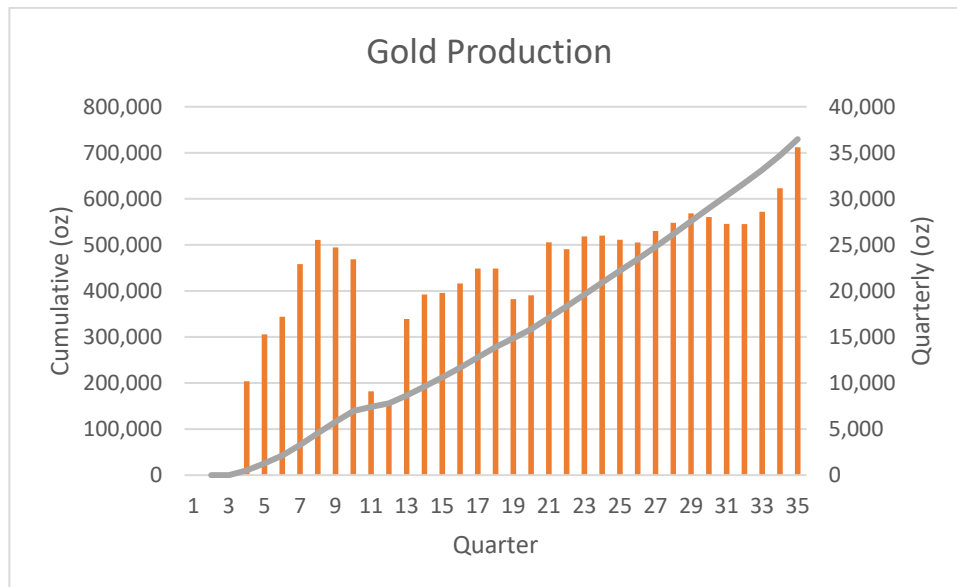


Figure 38 Gold production by quarter

#### 17.5 Royalties

The Government royalty is applied to net refinery revenue at the rate of 2.5% and is incurred in arrears on a quarterly basis. The costing assumes the first 2,500oz recovered is free of the Government royalty.



The estimate for Native Title royalty (yet to be negotiated) is applied to net refinery revenue at the rate of 1% and is incurred in arrears on a quarterly basis.

Total royalty payments over the Project life are estimated at \$70.3m.

## 17.6 Benchmark Costing

Table 40 depicts the LOM and unit cost by Department.

Table 40 Benchmark Costing by Activity

Activity	LOM Cost \$M	LOM Unit Cost \$/oz
Open Pit Mining	574.1	796.5
Ore Processing	362.5	503.0
Site G&A	23.4	32.5
Rehabilitation	3.4	4.7
Royalties	70.3	97.6
<b>Total</b>	<b>1,033.8</b>	<b>1,434.0</b>

## 17.7 Inflation

The study makes no provision for cost or revenue escalation, on the basis that there should be commensurate rises in both over the life of the Project.

Labour represents 27% of input costs and is expected to be the factor with the greatest potential for rises. A 15% rise in labour cost reduces Project NPV by \$28.8M, or 4.7%

See also section 17.9 for other sensitivities.

## 17.8 Cashflow

Project cashflow is depicted in Figure 39.

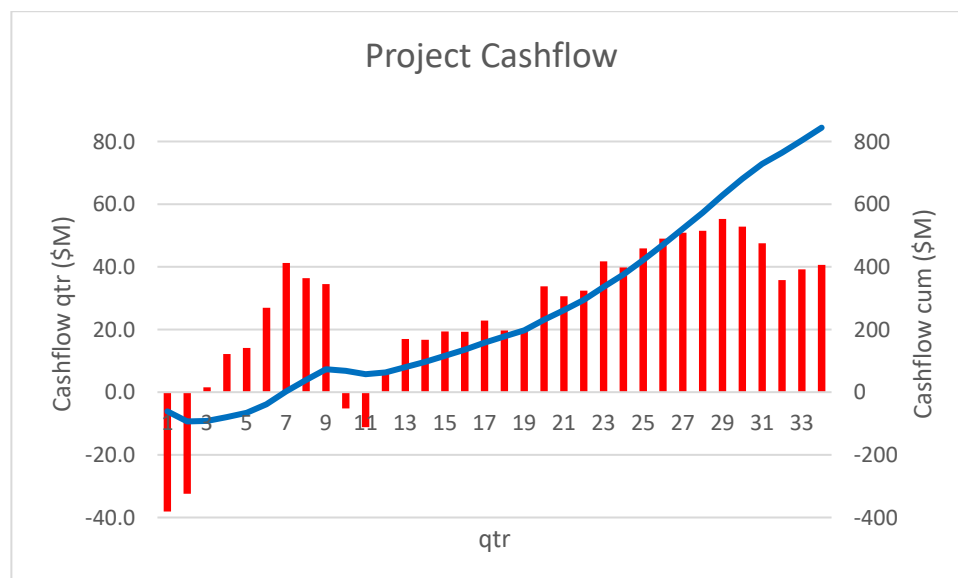


Figure 39 Project cashflow by quarter

Project revenue and therefore cashflow is directly linked to ore grade, with the better grades more apparent at depth. The peak cash demand (initial capex and working capital) occurs in quarter 2 at \$93.4M. Cumulative cashflow turns positive in quarter 7.

## 17.9 Sensitivity

Figure 40 illustrates the Undiscounted Net Present Value variations due to altering key physical metrics or cost profiles for the Project. Six variations were investigated on the following basis:

- Gold price variation by A\$250/oz either side of the base A\$2,800/oz input. The gold price in 2023 (in Australian dollars at closing trade) has varied A\$513/oz from a low of A\$2,654 to a high of A\$3,167. Magnetic believes it prudent to therefore assess the Project over a variation of +/- A\$250/oz.
- Operating costs varied by +/-15% to accommodate any future inflationary environments or potential deflationary conditions. The sensitivity analysis altered all operating costs excluding royalties (private and state), as these are fixed contractual or regulatory profiles.
- Initial capital costs varied by +/-15% to accommodate any future inflationary environments or potential deflationary conditions. This cost was associated with process plant and site infrastructure, and did not include initial pit work.
- Sustaining capital costs varied by +/-15% to accommodate any future inflationary environments or potential deflationary conditions.
- Contained metal varied by +/-10% to illustrate the effects of resource estimation and/or mining execution. The analysis was undertaken on metal prior to the processing plant recoveries. This analysis is also analogous to feed grade variation.
- Processing recovery varied by +4% and -5%. With the base case having a recovery of 92%, any increase greater than 4% (on top of the base case) would be unrealistic, whilst the low case of -5% is the lower end of a possible outcome.

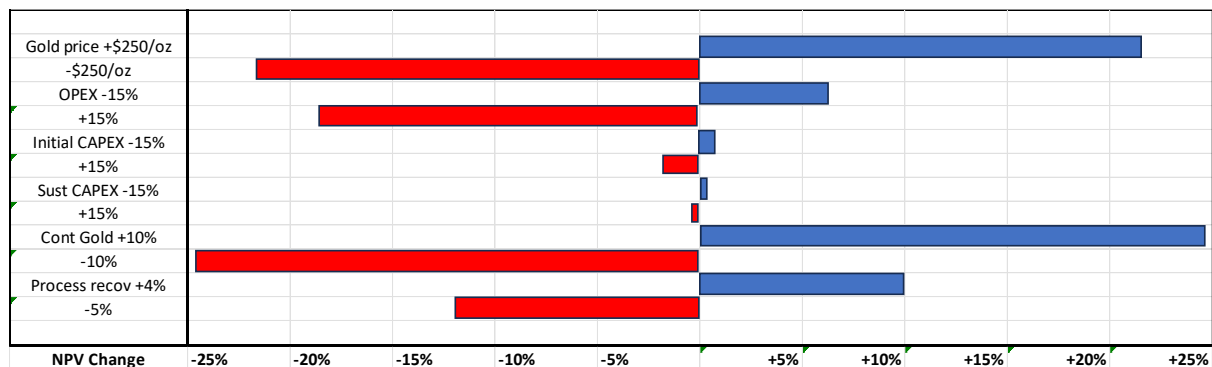


Figure 40 Project sensitivity analysis

The sensitivity analysis shows the LJGP to be resilient to operating and capital cost variations. As is usual in most mining projects, NPV is most sensitive to gold price, process recovery and contained metal.

The Project illustrates significant leverage to improved contained metal and current spot gold price and demonstrates overall the robust economic case for development of the Project.

The exceptional nature of the LJGP economics provide a solid foundation to move forward to a PFS. The PFS will focus on:

- further discovery, resource growth and conversion of Inferred to Indicated Mineral Resources to add additional mine life to the Project, which will continue to add value and further enhance the Project economics.
- Expand testwork to maximise process plant recovery.

## 18.0 Opportunities

### 18.1 Existing Resources

This study has primarily focussed on the enlarged resource available at LJN4. The resource is open at depth and is currently being expanded with additional drilling.

The study indicated that while the LJN4 resource did not project into neighbouring tenements, an unconstrained pit would. The opportunity exists therefore to discuss a mutually agreeable settlement to permit the full development of the pit.

### 18.2 Exploration Potential

Drilling and more detailed interpretation of the current deposits and mineralised trends adjacent to the Chatterbox Shear may lead to further discoveries. This work is significantly advanced and is continuing throughout 2024.

### 18.3 Improved cost environment

Magnetic will continue to monitor the industry's inflationary environment, both for pre-production capital and for operating cost profiles and consumables. In the case where recent cost pressures ease, including energy prices, wages and input supplies, a revision of the overall cost profile may trigger a re-assessment of the resource economics, mining cut-off grades and therefore overall Project economics.

Capital cost reduction may be possible if macro conditions are altered and a tighter tendering process is commissioned for progressive development studies and/or execution of the pre-production activities.

Gold price volatility provides for an opportunity in the Project's economics by providing increased financial returns as a result of a higher gold price environment. Whilst a lower gold price environment is a risk, the low-cost profile of this study's ounces provide assurance of continuity of operations should a lower gold price occur.

### 18.4 Options for pit geometry

A key ingredient in the economics of the Project are the pit wall angles required to maintain safe operations. This is particularly the case in the east wall of the LJN4 pit, where weak rock mass has led to a lower slope angle. The study has already factored in a steepening of this wall following the results of recent diamond drilling. Further steepening may be possible through an active monitoring program.

### 18.5 Process Recovery

Preliminary testwork has been based on a 106 micron liberation mesh. The testwork has also demonstrated that a lower liberation mesh may lead to improved recovery. It is not yet clear if finer grind size will lead to shorter leach times. It is also known that the ore is generally soft.

The potential exists to boost recovery and reduce leach residence (and therefore fewer tanks) time by finer grinding.

## 19.0 Risks

### 19.1 Economic Factors, Inflation and Supply Chain Risks

Magnetic's performance and the value of its shares may be affected by fluctuations in commodity prices and exchange rates, such as the USD and AUD denominated gold prices and the AUD/USD exchange rates. Financial performance will be highly dependent on the prevailing commodity prices, capital costs, operating costs and exchange rates.

These prices along with other inputs to capital and operating costs can fluctuate rapidly and widely and are affected by numerous factors beyond the control of Magnetic including, among others, expectations regarding inflation, the financial impact of movements in interest rates, global economic trends and confidence and conditions, each of which are currently experiencing material changes.

The above factors may have an adverse effect on Magnetic's exploration activities and the potential for future development and production activities, as well as the ability to source adequate staff and fund those activities. In particular, if activities cannot be funded, there is a risk that tenements may have to be surrendered or not renewed.

Magnetic's ability to progress its business depends upon robust global supply chains and the ability to source adequate staff. The tightening market and growing inflation may affect the general economic conditions, both domestic and global, and may affect the performance of Magnetic and its shares.

While Magnetic's directors and management are closely monitoring domestic and global events, it is difficult to state with certainty what the impacts will be on the demand for gold, and Magnetic's ability to develop its projects and generate revenue from them in the short to medium term.

Magnetic's future revenues (if any), the economic viability of its projects, the market price for its listed securities, and its ability to raise future capital and source adequate staff may be affected by these factors, which are beyond Magnetic's control.

Risks/opportunities have been assessed on a project level basis ranking from 1 (high) to 3 (low) in the following tables.

There are no showstoppers. Gold price variability remains the most obvious project risk.

Table 41 Risk and Opportunity

Risk	Ranking	Method to derisk/ameliorate
Grade of ore mined reconciles with reserve grade	1	Careful wireframing of ore zones, care with top cuts, careful control of ore mining. Grade control drilling is essential in minimising risk.
Resource – grade reconciliation.	1	With blending on the ROM pad, reconciliation will be on a continuing basis.
Gold price	1	Use hedging to lock in a portion of profit if a concern
Plant gold recovery as planned for differing ores	1	Adequate testing of different ores. Adequate leach time. No deleterious elements detected to date.

Recruiting sufficient skilled labour	2	Careful selection of supervisory staff who will bring their teams with them.
Cost blowout – particularly labour	2	Evidence of limited increase now – skill shortage will make this worse
Funding for working capital	2	Ensure project is robust with adequate contingency
Pit wall instability	3	Follow Geotech guidelines and monitor if a concern
Excess groundwater	3	High water flows noted at LJN4. Ensure sufficient dewatering ponds at pit rim.
Delays with regulatory approvals	3	DMIRS is currently understaffed so may incur delays in processing due to workload. Ensure submissions are complete first time to avoid restart.  The need to establish a NTA at the same time as Mining Lease approval could extend overall approval time.
Theft of gold from gold room or in transit	3	Maintain rigorous processes and undertake audits.

Opportunity	Ranking	Capture method
Boost energy efficiency	1	Crushing on D/S and multi factor power generation.
Improve process recovery	1	Testwork
Steepen pit walls to boost project economics	1	Geotechnical review. Pit wall monitoring.
Free dig as much of ore as possible	1	Only blast when necessary
Minimise working capital	1	Stage pit development to maximise early ore recovery. Also permits final design adjustments after mining has started as inputs change.

## 20.0 Forward Work Plans

Magnetic's forward work plan for the LJGP in early 2024 will comprise:

- Advance all elements of the study to FS standard, specifically TRS design, water supply and power supply.
- Undertake infill drilling to convert Inferred resource that would be mined in the first 5 years to Indicated category.
- Continuing exploration to make new discoveries and expand the resource base.
- Finalisation and subsequent submission of critical mining approvals and permitting in 2024 including:
  - Progress Mining lease M38/1315 and apply for leases over other key resources
  - Mining Proposal and Mine Closure Plan
  - Native Vegetation Clearing Permit
  - Discussion with Laverton Shire Council on camp development.
  - Prescribed Premise Licenses for dewatering discharge and processing plant tailings
  - Ground Water License to accommodate mining and processing requirements
- Ongoing optimisation of the mine plan with updated cost profiles and capital requirements.
- Further optimisation of the processing plants mechanics and flow sheet.
- Continue discussions with Nyalpa Pirniku on an integrated Cultural Heritage Management Plan and Agreement.
- Financing discussions.

It is expected this work will be completed in Q3 2024.



## 21.0 Disclosures

### 21.1 Forward Looking Statements and Forecasts

Any forward-looking statements and forward-looking information included in this report involve subjective judgment and analysis and are subject to uncertainties, risks and contingencies, many of which are outside the control of, and may be unknown to, Magnetic. In particular, they speak only as of the date of this document, they assume the success of Magnetic's strategies, and they are subject to significant regulatory, business, competitive and economic uncertainties and risks. Actual future events may vary materially from the forward-looking statements and forward-looking information and the assumptions on which they are based. Recipients of this report are cautioned to not place undue reliance on such forward-looking statements and forward-looking information.

The information in this report is strictly confidential. It may not be disclosed, reproduced, disseminated, quoted or referred to, in whole or in part, without the express consent of Magnetic.

This report contains certain 'forward-looking statements' and comments about future matters. Forward-looking statements can generally be identified by the use of forward-looking words such as, 'expect', 'anticipate', 'likely', 'intend', 'should', 'could', 'may', 'predict', 'plan', 'propose', 'will', 'believe', 'forecast', 'estimate', 'target', 'outlook', 'guidance' and other similar expressions within the meaning of securities laws of applicable jurisdictions and include, but are not limited to, the outcome and effects of the Offer and the use of proceeds.

Indications of, and guidance or outlook on, future earnings or financial position or performance are also forward-looking statements. You are cautioned not to place undue reliance on forward-looking statements. Any such statements, opinions and estimates in this report speak only as of the date hereof, are preliminary views and are based on assumptions and contingencies subject to change without notice, as are statements about market and industry trends, projections, guidance and estimates. Forward-looking statements are provided as a general guide only.

The forward-looking statements contained in this report are not indications, guarantees or predictions of future performance and involve known and unknown risks and uncertainties and other factors, many of which are beyond the control of Magnetic, and may involve significant elements of subjective judgement and assumptions as to future events which may or may not be correct.

There can be no assurance that actual outcomes will not differ materially from these forward-looking statements. Any such forward looking statement also inherently involves known and unknown risks, uncertainties and other factors that may cause actual results, performance and achievements to be materially greater or less than estimated. These factors may include, but are not limited to, changes in commodity prices, foreign exchange fluctuations and general economic factors, increased capital costs and operating costs, the speculative nature of exploration and project development (including the risks of obtaining necessary licenses and permits, diminishing quantities or grades of Mineral Resources and the ability to exploit successful discoveries), general mining and development operation risks, closure and rehabilitation risks, changes to the regulatory framework within which Magnetic operates or may in the future operate, environmental conditions including extreme weather conditions, geological and geotechnical events, and environmental issues, and the recruitment and retention of key personnel, industrial relations issues and litigation.

Any such forward looking statements are also based on assumptions and contingencies which are subject to change and which may ultimately prove to be materially incorrect, as are statements about market and industry trends, which are based on interpretations of current market conditions. Investors should consider the forward-looking statements contained in this report and not place undue reliance on such statements (particularly in light of the current economic climate and

significant market volatility). The forward-looking statements in this report are not guarantees or predictions of future performance and may involve significant elements of subjective judgment, assumptions as to future events that may not be correct, known and unknown risks, uncertainties and other factors, many of which are outside the control of Magnetic.

Except as required by law or regulation Magnetic undertakes no obligation to finalise, check, supplement, revise or update forward-looking statements or to publish prospective financial information in the future, regardless of whether new information, future events or results or other factors affect the information contained in this report.

## **21.2 Exploration Results**

The information in this report that relates to Magnetic's Exploration Results has been extracted from Magnetic's previous ASX announcements. Copies of these announcements are available at [www.asx.com.au](http://www.asx.com.au) or <https://magres.com.au/asx-announcements/>.

Magnetic confirms that it is not aware of any new information or data that materially affects the information included in those announcements. The Competent Person for these announcements was Mr George Sakalidis, a Competent Person who is a Member of the Australasian Institute of Mining and Metallurgy (AusIMM) and a Member of the Australian Institute of Geoscientists (AIG). Mr Sakalidis is Managing Director and a full-time employee of Magnetic Resources NL. Mr Sakalidis has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Sakalidis consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

Magnetic confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from those announcements.

## **21.3 JORC Code and Mineral Resources**

It is a requirement of the ASX Listing Rules that the reporting of ore reserves and mineral resources in Australia comply with the Joint Ore Reserves Committee's (JORC) Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (the JORC Code). Investors outside Australia should note that while mineral resource estimates of Magnetic in this report comply with the JORC Code, they may not comply with the relevant guidelines in other countries and, in particular, do not comply with (i) National Instrument 43-101 (Standards of Disclosure for Mineral Projects) of the Canadian Securities Administrators (the Canadian NI 43-101 Standards); or (ii) Item 1300 of Regulation S-K, which governs disclosures of mineral reserves in registration statements filed with the United States Securities and Exchange Commission (SEC). Information contained in this report describing mineral deposits may not be comparable to similar information made public by companies subject to the reporting and disclosure requirements of Canadian or USA securities laws.

This report contains estimates of Magnetic's Mineral Resources. The information in this report that relates to Magnetic's Mineral Resources has been extracted from Magnetic's previous ASX announcements including: ASX Announcement dated 23 November 2023.

A copy of this announcement is available at <https://magres.com.au/asx-announcements/>

Magnetic confirms that it is not aware of any new information or data that materially affects the information included in that announcement and, in relation to the estimates of Magnetic's Mineral Resources, that all material assumptions and technical parameters underpinning the estimates in the announcement continue to apply and have not materially changed. Magnetic confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from that announcement. Competent Person's Statements can be found in Section 2 of

this report. For the purposes of ASX Listing Rule 5.16.2, the Company confirms that the Mineral Resource estimates underpinning the production targets referred to in this report were prepared by a competent person in accordance with the requirements of the JORC Code.

#### **21.4 No Liability**

The information contained in this report has been prepared in good faith by Magnetic. None of Magnetic's advisors, nor any of its advisors or any of their respective affiliates, related bodies corporate, directors, officers, partners, advisers, employees and agents have authorised, permitted or caused the issue, lodgement, submission, dispatch or provision of this report in a final form and none of them makes or purport to make any binding statement in this report and there is no statement in this report which is based on any statement by them.

To the maximum extent permitted by law, Magnetic and its advisers, affiliates, related bodies corporate, directors, officers, partners, employees and agents:

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Statements made in this report are made only as at the date of this report. The information in this report remains subject to change without notice.

## 22.0 References

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Production & Development Sum		18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35
Ore	LJC																		
	Stage 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Stage 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Stage 3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Stage 4	12,865	113,700	93,598	136,436	147,065	163,819	190,266	198,180	240,135	16,736								
	Stage 5	0	0	0	359	247	697	30,768	97,845	148,914	234,743	306,687	151,687	0	0	0	0	0	0
	HN9																		
	Total	12,865	113,700	93,598	136,795	147,313	164,516	221,034	296,025	389,049	251,479	330,691	175,691	59,416	83,119	120,272	81,608	96,762	96,762
Waste	LJC																		
	Stage 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Stage 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Stage 3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Stage 4	1,314,616	1,211,608	1,094,115	1,009,260	918,433	222,970	0	0	0	0	0	0	0	0	0	0	0	0
	Stage 5	978,359	978,359	905,256	900,046	978,112	970,177	1,310,980	573,029	521,960	436,131	364,187	120,191	646,870	1,282,333	1,221,477	589,266	418,191	418,191
	HN9																		
	Total	2,292,975	2,189,967	1,999,371	1,909,306	1,896,545	1,193,147	1,310,980	573,029	521,960	436,131	1,011,057	767,061	1,282,333	1,258,630	1,221,477	589,266	418,191	418,191
Ore	LJC																		
	Stage 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Stage 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Stage 3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Stage 4	70,360	346,636	660,123	894,749	1,165,662	404,858	0	0	0	0	0	0	0	0	0	0	0	0
	Stage 5	0	0	0	832	574	1,934	81,953	256,081	401,102	650,230	852,358	421,691	149,730	209,461	303,086	205,652	243,836	243,836
	HN9																		
	Total	70,360	346,636	660,123	895,581	1,166,236	406,792	81,953	256,081	401,102	650,230	912,850	482,182	149,730	209,461	303,086	205,652	243,836	243,836
Ore	LJC																		
	Stage 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Stage 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Stage 3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Stage 4	1.39	1.74	1.90	1.83	2.01	1.99												0.00
	Stage 5				0.67	0.69		1.35	1.81	2.17	2.13	2.30	2.16						
	HN9																		
	Total	1.39	1.74	1.90	1.83	2.01	1.98	1.35	1.81	2.17	2.13	2.30	2.16						
	open	3,138.26	19,412.68	40,334.68	52,694.40	75,251.95	25,870.47	3,559.59	14,927.14	28,043.44	44,574.08	64,960.10	31,335.63	5,094.67	7,211.82	11,808.63	9,698.16	13,692.89	13,692.89
ROM	open	420,656	111,016	77,652	287,775	733,356	1,449,592	1,406,384	1,038,337	844,418	795,520	995,750	1,458,599	1,490,781	1,190,511	949,972	803,058	558,710	352,545
	process	380,000	380,000	450,000	450,000	450,000	450,000	450,000	450,000	450,000	450,000	450,000	450,000	450,000	450,000	450,000	450,000	450,000	352,545
	close	1.70	1.73	1.88	1.84	1.94	1.95	1.92	1.90	1.99	2.05	2.13	2.10	2.01	1.87	1.71	1.66	1.69	1.69
	g/t	111,016	77,652	287,775	733,356	1,449,592	1,406,384	1,038,337	844,418	795,520	995,750	1,458,599	1,490,781	1,190,511	949,972	803,058	558,710	352,545	0
	g/t	1.70	1.73	1.88	1.84	1.94	1.95	1.92	1.90	1.99	2.05	2.13	2.10	2.01	1.87	1.71	1.66	1.69	1.69
	oz	20,726	21,147	27,238	26,662	28,120	28,229	27,751	27,450	28,742	29,689	30,805	30,418	29,039	27,012	24,719	24,006	24,390	19,108



Production & Development Summary		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	
Ore	LIC	22,192	63,036	52,318	58,338	62,091	56,294	24,430	0	0	0	0	0	0	0	0	0	0	
	Stage 1	0	1,880	41,494	52,675	68,768	114,920	112,750	0	0	0	0	0	0	0	0	0	0	
	Stage 2	0	0	0	1,122	78,629	186,712	47,139	134,177	96,894	0	0	0	0	0	0	0	0	
	Stage 3	0	0	0	0	0	0	0	0	1,054	15,303	82,860	192,863	225,670	282,139	170,104	181,837	91,248	
	Stage 4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4,014	
	Stage 5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	HN9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	22,192	64,916	93,812	112,136	209,489	357,926	184,319	134,177	97,948	15,303	82,860	192,863	225,670	282,139	170,104	185,843	95,261	0
	LIC	5,048,974	1,277,808	1,415,323	618,554	608,783	449,872	66,101	0	0	0	0	0	0	0	0	0	0	0
Stage 1	6,208,207	1,040,000	1,647,353	618,199	602,106	500,092	192,718	0	0	0	0	0	0	0	0	0	0	0	
Stage 2	7,551,470	0	0	978,359	1,955,595	1,770,005	302,861	536,697	129,865	0	0	0	0	0	0	0	0	0	
Stage 3	19,361,514	0	0	0	0	0	0	1,956,717	2,627,591	3,283,162	3,215,605	2,127,244	1,116,078	1,059,609	500,770	489,037	159,163		
Stage 4	17,752,741	0	0	0	0	0	0	0	0	0	0	978,359	1,956,717	1,956,717	2,625,196	2,623,251	1,841,498		
Stage 5	10,015,146	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	978,359	
HN9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Total	72,001,686	2,317,808	3,062,676	3,204,652	3,186,327	3,088,976	2,719,969	2,518,397	3,164,288	2,956,402	3,283,162	3,215,605	3,072,795	3,016,326	3,125,966	3,112,288	2,979,020	0	
Ore	LIC	42,165	120,008	103,611	129,596	157,459	156,477	67,915	0	0	0	0	0	0	0	0	0	0	0
	Stage 1	0	3,129	79,962	112,445	157,898	294,046	313,394	0	0	0	0	0	0	0	0	0	0	0
	Stage 2	0	0	0	1,795	138,089	383,554	106,215	309,866	233,235	0	0	0	0	0	0	0	0	0
	Stage 3	0	0	0	0	0	0	0	0	1,886	30,319	188,617	477,137	575,671	730,467	445,536	476,559	240,314	
	Stage 4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Stage 5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	HN9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Total	42,165	123,137	183,573	243,837	453,446	834,077	487,524	309,866	235,122	30,319	188,617	477,137	575,671	730,467	451,092	486,072	258,536	0
	LIC	2.36	1.96	1.63	1.50	1.50	1.70	2.23	0	0	0.00	0	0	0	0	0	0	0	0
Stage 1	0.00	1.51	1.18	1.15	1.27	1.84	2.21	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Stage 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Stage 3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Stage 4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Stage 5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
HN9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Total	2.36	1.94	1.43	1.33	1.45	1.75	2.11	1.76	1.60	1.43	1.26	1.43	1.48	1.49	1.65	1.81	1.92	0	
ROM	open	3,197.94	7,695.97	8,440.84	10,394.11	21,161.58	47,000.35	33,098.76	17,503.15	12,122.75	1,395.54	7,647.53	21,979.39	27,383.13	34,999.61	23,858.25	28,227.97	15,984.08	
	process	42,165	42,165	165,302	148,874	42,711	96,157	480,233	517,758	377,623	162,745	83,065	71,681	148,818	274,489	554,956	556,048	592,120	
	close	2.36	2.36	2.05	1.72	1.48	1.45	1.72	1.92	1.86	1.76	1.01	0.87	1.36	1.45	1.55	1.67	1.75	
Processing	open	13,952,545	1,74	200,000	350,000	400,000	450,000	450,000	450,000	450,000	330,000	380,000	400,000	450,000	450,000	450,000	450,000	430,000	
	process	42,165	165,302	148,874	42,711	96,157	480,233	517,758	377,623	162,745	83,065	71,681	148,818	274,489	554,956	556,048	592,120	420,656	
	close	2.36	2.05	1.72	1.48	1.45	1.72	1.92	1.86	1.76	1.01	0.87	1.36	1.45	1.48	1.55	1.67	1.75	
Total	778,844	0	11,084	16,617	18,695	24,910	27,752	26,878	25,468	10,734	10,654	17,484	21,049	21,421	22,488	24,188	24,168	0	

## Appendix 2 Revenue and Cost Summary

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	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	Totals	
<b>Operating Costs</b>																				
<b>Mining</b>																				
Sub total	20,298,316	21,364,646	21,966,613	23,668,888	25,499,183	16,772,740	17,021,708	10,267,785	10,543,552	10,579,784	12,916,170	8,238,764	7,319,732	8,747,247	12,328,299	7,520,645	6,923,446		599,666,796	
<b>Processing</b>																				
Sub total	10,855,345	10,850,073	11,245,855	11,246,546	11,254,407	11,273,552	11,281,346	11,245,800	11,230,819	11,252,295	11,278,461	11,254,611	11,231,069	10,938,143	11,027,772	11,281,409	11,281,409	9,390,276	783,54	363,512,841
<b>G&amp;A</b>																				
Sub total	727,991	728,229	728,306	728,523	728,944	726,152	726,346	724,072	724,108	724,127	725,161	723,723	723,153	615,339	615,453	614,386	614,342	610,975	25,050,287	
<b>Royalty</b>																				
Sub total	1,873,101	1,911,896	2,499,158	2,407,095	2,557,538	2,543,934	2,499,532	2,478,369	2,597,633	2,678,819	2,775,189	2,741,714	2,619,087	2,459,431	2,248,525	2,162,228	2,196,822	1,721,066	70,394,667	
<b>Site Rehabilitation</b>																				
Sub total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1,000,000	1,000,000	700,000	700,000	3,400,000	
<b>Total site expenses</b>																				
Total	33,754,754	34,854,844	36,400,232	38,051,053	40,019,893	30,816,377	31,528,931	24,716,026	25,096,112	25,238,025	27,704,811	22,978,811	21,893,041	22,760,159	27,220,049	22,578,668	21,716,020	12,422,317	1,062,024,591	
Unit Cost \$/oz	1,785.43	1,793.00	1,468.31	1,578.84	1,572.13	1,216.79	1,268.35	1,005.76	989.51	948.38	1,005.42	846.53	829.53	769.19	698.07	700.85	616.13	429.55	1,396	
<b>Revenue</b>																				
Gold Receive oz	19,132	19,529	25,119	24,587	25,917	25,984	25,311	25,315	26,533	27,302	28,347	28,005	26,752	25,121	22,967	22,086	22,439	17,579	720,812	
Gold price	2,800	2,800	2,800	2,800	2,800	2,800	2,800	2,800	2,800	2,800	2,800	2,800	2,800	2,800	2,800	2,800	2,800	2,800	2,800	
Gross revenue \$	53,570,750	54,680,290	70,331,996	68,842,977	72,568,507	72,756,592	71,486,681	70,881,428	74,292,384	76,614,309	79,370,695	78,413,089	74,905,974	70,339,796	64,307,887	61,839,792	62,829,483	49,222,543	2,018,273,648	
Refining cha %	-53.571	-54.680	-70.332	-68.843	-72.569	-72.757	-71.487	-70.881	-74.292	-76.614	-79.370	-78.413	-74.906	-70.340	-64.308	-61.840	-62.829	-49.223	-2,018,274	
Revenue \$	53,517,179	54,625,610	70,261,664	68,774,134	72,495,939	72,683,836	71,415,195	70,810,547	74,218,091	76,537,695	79,291,125	78,334,676	74,831,068	70,269,457	64,249,579	61,777,952	62,766,353	49,173,321	2,016,255,375	
<b>CAPEX</b>																				
Initial	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	65,302,270	
Sustaining	100,000	200,000	100,000	100,000	100,000	100,000	100,000	200,000	100,000	425,200	100,000	100,000	100,000	100,000	1,246,000	0	438,000	0	8,019,800	
<b>Project Margin</b>																				
Month \$	19,662,425	19,570,765	33,761,432	30,623,082	32,376,046	41,767,458	39,786,263	45,894,520	49,021,979	50,874,470	51,486,144	55,255,866	52,838,027	47,509,297	35,777,530	39,199,284	40,612,334	36,751,004	880,908,714	
Cumulative \$	177,803,244	197,373,979	231,135,411	261,758,492	294,134,538	335,901,996	375,688,260	421,582,780	470,604,759	521,479,229	572,965,371	628,221,238	681,059,851	728,568,562	764,346,092	803,945,376	844,157,710	880,908,714		

	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
<b>Operating Costs</b>																		
<b>Mining</b>																		
Sub total	912,942	10,766,635	13,854,929	16,461,013	18,700,185	21,095,559	23,122,182	16,572,502	19,106,144	17,477,696	20,687,548	26,049,971	26,277,317	23,519,926	24,682,594	24,650,426	28,786,200	25,433,210
<b>Processing</b>																		
Sub total	0	0	987,712	9,304,710	10,466,894	10,804,038	11,075,026	11,116,226	11,233,696	11,117,221	10,532,818	10,637,538	10,853,988	11,180,446	11,207,947	11,221,297	11,230,104	11,121,884
<b>G&amp;A</b>																		
Sub total	161,438	721,949	723,297	727,708	728,131	728,478	728,399	727,018	728,610	728,210	729,164	729,670	729,605	729,374	729,736	729,976	730,535	729,658
<b>Royalty</b>																		
Sub total	0	0	0	845,773	1,529,226	1,720,469	2,287,616	2,544,246	2,453,925	2,317,341	974,686	970,065	1,589,780	1,906,048	1,938,423	2,033,537	2,186,165	2,184,408
<b>Site Rehabilitation</b>																		
Sub total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Total site expenses</b>																		
Total	1,074,379	11,480,584	15,565,937	27,339,204	31,424,436	34,348,544	37,213,224	30,959,891	33,522,376	31,640,468	32,924,215	38,387,244	39,449,800	37,337,793	38,558,701	38,635,235	42,933,004	39,469,159
<b>Unit Cost \$/oz</b>				2,414.01	1,963.08	1,558.42	1,614.82	1,212.66	1,379.82	1,350.26	3,313.97	4,606.62	2,310.09	1,921.76	1,973.43	1,884.25	1,942.16	1,779.15
<b>Revenue</b>																		
Gold Recove			0	10,419	15,620	17,573	23,366	25,988	25,065	23,670	9,956	9,909	16,238	19,489	19,800	20,771	22,330	22,312
Gold price		2,800	2,800	2,800	2,800	2,800	2,800	2,800	2,800	2,800	2,800	2,800	2,800	2,800	2,800	2,800	2,800	2,800
Gross revenue		56,800	56,800	43,173,267	43,735,899	49,205,469	65,425,886	72,765,498	70,182,334	66,276,029	27,876,042	27,743,899	45,467,764	54,570,221	55,488,956	58,159,219	62,524,368	62,474,122
Refining Cha		0	0	-29,173	-43,736	-49,205	-65,426	-72,765	-70,182	-66,276	-27,876	-27,744	-45,468	-54,570	-55,489	-58,159	-62,524	-62,474
<b>Revenue</b>				29,144,094	43,692,163	49,156,264	65,360,460	72,692,733	70,112,151	66,209,753	27,848,166	27,716,155	45,422,296	54,515,651	55,383,517	58,101,059	62,461,844	62,411,648
<b>CAPEX</b>																		
Initial	21,815,970	26,626,300	16,860,000	0	0	0	1,223,800	500,000	220,000	100,000	100,000	491,800	100,000	200,000	100,000	100,000	255,000	100,000
Sustaining	0	0	0	240,000	100,000	680,000	1,223,800	1,223,800	220,000	100,000	100,000	491,800	100,000	200,000	100,000	100,000	255,000	100,000
<b>Project Margin</b>																		
Month	\$ -22,890,349	\$ -38,116,884	\$ -32,425,937	\$ 1,564,889	\$ 12,167,727	\$ 14,127,719	\$ 26,923,437	\$ 41,232,742	\$ 36,369,776	\$ 34,469,284	\$ -5,176,050	\$ -11,162,889	\$ 5,872,896	\$ 16,977,857	\$ 16,724,816	\$ 19,365,824	\$ 19,273,840	\$ 22,842,489
Cumulative	\$ -22,890,349	\$ -61,007,233	\$ -93,433,171	\$ -91,868,281	\$ -79,700,554	\$ -65,572,835	\$ -38,649,398	\$ 2,583,344	\$ 38,953,120	\$ 73,422,404	\$ 68,246,354	\$ 57,083,465	\$ 62,955,962	\$ 79,933,819	\$ 96,658,656	\$ 116,024,460	\$ 135,298,300	\$ 158,140,788