COMPETENT PERSON'S REPORT

ON THE
KINGSTON-KEITH PROJECT
IN
WESTERN AUSTRALIA

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Prepared by Geonomik on behalf of:

Lithium 1 Pty Ltd

Author(s): Arnel Mendoza Principal Geologist BSc, Grad Dip (Geology), MAIG

Date: 29 September 2022

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Arnel Mendoza
For and on behalf of:
Geonomik Pty Ltd

This report has been commissioned to and prepared by Geonomik for the exclusive use of Lithium 1 Pty Ltd (the Company). Each statement or opinion in this report is provided in response to a specific request by the Company to provide that statement or opinion. Each such statement or opinion is made by Geonomik in good faith and in the belief that it is not false or misleading. Each statement or opinion contained within this report is based on information and data supplied by the Company to Geonomik, or otherwise obtained from public searches conducted by Geonomik for the purposes of this report.

EXECUTIVE SUMMARY

Geonomik Pty Ltd (Geonomik) has been commissioned by Lithium 1 Pty Ltd (the Company) to provide a Competent Person's Report on the Kingston-Keith Project (the Project) for use in a prospectus to support a public offering of shares to raise funds. The funds raised will be used for the purpose of exploration and evaluation of the Project. The Kingston-Keith Project in Western Australia comprises the mineral assets of the Company which are the subject of this report.

This report has been prepared in accordance with the JORC Code and the VALMIN Code. The author of this report and Geonomik are independent of the Company.

The Kingston-Keith Project is located in the Goldfields region of Western Australia, 450km north of Kalgoorlie. The Project area has good access, occurring immediately east of a major road, with excellent infrastructure in the local district including a gas pipeline, mining towns and airfields. Gold mineral processing plants are situated nearby at Wiluna, Jundee, Agnew and Darlot. A nickel mineral processing plant is situated at Mount Keith.

The Project consists of one granted exploration licence E53/1953 comprising 60 sub-blocks and covering an area of 152 km^2.

The Project is at the exploration stage of development with no Mineral Resources defined.

The Kingston-Keith Project is located in the Archaean Yilgarn Craton of Western Australia, a highly mineralised granite-greenstone terrane. The Company's tenement covers a 30km length of Agnew-Wiluna Greenstone Belt a particularly fertile sequence of rocks where mineralising processes, which occurred billions of years ago, have created many substantial deposits of gold and nickel sulphide. It is host to the Wiluna, Agnew, Matilda, Williamson, Kathleen Valley and Bellevue gold deposits. Rock types are mainly volcanics (felsics, mafics, ultramafics), gabbro, granite and sedimentary rocks. The Agnew-Wiluna Greenstone Belt contains two major NNW trending regional structures; the Perseverance Fault and the northern extension of the Keith-Kilkenny Fault. It is a deep mantle-tapping crustal-scale structure which is considered by geologists to be crucial to the formation of major nickel and gold deposits along its length.

Within E53/1953 several prospects have been defined including the Kingston and Enterprise gold workings. Total production of these is recorded as 5,222 ounces of gold. Underground geological mapping and sampling of old gold workings by previous exploration companies determined that the historical mining followed north plunging high grade ore shoots within a north trending steeply dipping siliceous and ferruginous shear zone within a mafic volcanic, intrusive and sedimentary sequence where gold is hosted within quartz veins and splays off the main veins. Gold is structurally controlled, occupying northerly-trending, steeply west dipping shear zones. Gold is present in both quartz lenses and in sheared sedimentary rocks, with multiple ore shoots.

In addition to its gold endowment the Agnew-Wiluna Greenstone Belt is also host to world class nickel deposits; including the Mount Keith, Honeymoon Well, Jericho, Cliffs, Yakabindie, Cosmos, Rockys Reward, Harmony and Perseverance nickel sulphide deposits. These are all located in a narrow band of ultramafic rocks which occurs immediately west the Project's western boundary. Both open cut and underground nickel mines have exploited these deposits since the 1970's with nickel processing plants located at Mount Keith and Leinster. For much of the last 50 years nickel companies have held most of the ground in the area, so gold explorers have been generally unable to peg tenements within the belt. Nickel miners have focused on nickel exploration, generally ignoring gold. This has resulted in less gold exploration work being undertaken on the Project tenement than most areas of greenstone belt in the Yilgarn region. Geonomik consider the Project is underexplored for gold.

Since acquiring the Project in 2020, the Company has undertaken compilation of past exploration data which is summarised in the Report. Exploration has previously been conducted by Western Mining Corporation, Metals Exploration, AMAX Exploration, Seltrust Mining Corporation, Asarco, Adasam, Kismet Gold Mining, MKACM, Outokumpu, CRA Exploration, Cazaly Resources, and MPI Nickel (Norilsk).

Past exploration on the Project has seen drill holes return interesting gold grades at several locations, however much more exploratory drilling is required to determine the continuity of mineralisation and

to define mineral resources. Most of the drilling to date within the Kingston-Keith Project has not tested the down-dip and down-plunge potential of the defined anomalies. Most of the tenement has not been drill tested to depth.

Geonomik undertook a site visit to the Kingston Keith project area from 15 to 24 November 2021. The purpose was to appraise the tenement and physically inspect those areas which were highlighted as most interesting by the earlier desktop study.

Positive attributes of the Kingston-Keith Project are:

- Excellent infrastructure for exploration and mining
- Low sovereign risk for development and mining in Western Australia
- Located within a greenstone belt hosting numerous and large gold deposits
- Located within a fertile corridor of rocks within the greenstone belt – the Agnew-Bellevue-Kathleen-Mt Keith-Kingston-Matilda-Wiluna gold corridor
- Covers a deep mantle-tapping crustal-scale structure
- Under explored for gold – due to nickel miners holding the ground
- Historical gold workings at Kingston and located close-by at Enterprise and Mt Keith mining centres
- Previous drilling has intersected significantly anomalous gold grades but not followed up adequately
- Geophysical anomalies apparent in magnetic images require further assessment.
- Geochemical anomalies have not been followed up adequately.

The Company has indicated to Geonomik that they will undertake a systematic approach with respect to their exploration program focusing on gold. A four phased approach is planned. Stage 1 would involve compilation of previous exploration data, regional synthesis using public domain data, aeromagnetic and structural interpretation, geological target generation followed by geological mapping of targeted locations. Stage 2 would involve geochemical assessment of the whole property involving the regolith mapping, broad geochemical sampling, multielement geochemistry, geophysical surveys of specific target areas and auger geochemistry of specific target areas. Stage 2 would also involve an initial testing of generated targets using aircore drilling. Stage 3 would involve RC drilling of the high priority prospects, aircore drilling of new targets. Stage 4 would involve close spaced RC and diamond drilling to define mineral resources where appropriate, and RC drilling of new target areas.

Geonomik considers that the exploration strategy proposed by the Company is consistent with the mineral potential and status of the Kingston-Keith Project.

An exploration budget of A$5.0M is estimated for implementing the proposed exploration strategy which includes A$4.7M on the Kingston-Keith Project and A$0.3M for the development of additional mineral projects in the region. Significant funds are directed to geochemical and geophysical exploration programs in Year 1, with the focus changing to drilling in Years 2 and 3. A total of A$2.75M is directed to drilling programs representing 55% of the total budget.

Geonomik considers that the proposed exploration budget is consistent with the mineral potential and status of the Project. The proposed expenditure is sufficient to meet the costs of the exploration programs proposed and to meet statutory tenement expenditure requirements.

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1. INTRODUCTION

1.1 Terms of Reference

Geonomik Pty Ltd (Geonomik) has been commissioned by Lithium 1 Pty Ltd ('Lithium 1' or 'the Company') to provide a Competent Person's Report (CPR) on the Kingston-Keith Project for use in a prospectus to support a public offering of shares to raise funds. The funds raised will be used for the purpose of exploration and evaluation of the Project. The Kingston-Keith Project in Western Australia comprises a mineral asset of the Company which is the subject of this report.

This report has been prepared in accordance with the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code) and the Australasian Code for Public Reporting of Technical Assessments and Valuations of Mineral Assets for Independent Expert Reports (VALMIN Code).

1.2 Tenement Status Verification

Geonomik has not reviewed the legal status of the tenements that are referred to in this report (as set out in the Tenement Schedule) underlying the mineral assets. Geonomik has not reviewed the material contracts relating to the mineral assets of the Company. Geonomik is not qualified to make legal representations in this regard. Specific details regarding the tenements and any material agreements pertaining to them are detailed elsewhere in the prospectus.

1.3 Independence

The author of this report and Geonomik are independent of the Company, its directors, senior management and advisors and have no economic or beneficial interest (present or contingent) in any of the mineral assets being reported on. Geonomik is remunerated for this report by way of a professional fee determined in accordance with a standard schedule of commercial rates, which is calculated based on time charges for review work carried out, and is not contingent on the outcome of this report. Fees arising from the preparation of this report are listed elsewhere in the Prospectus.

The relationship with the Company is solely one of professional association between client and independent consultant. None of the individuals employed or contracted by Geonomik are officers, employees or proposed officers of the Company or any group, holding or associated companies of the Company.

1.4 Qualifications, Experience and Independence

Geonomik has been consulting to the mining industry since 2008 with its services that include the following:

- Expertise and thorough understanding of JORC compliance/requirements reporting for resource definition and resource development projects; Seamless capture of field Data, QA/QC of assay samples, and drilling data. Creating robust geological models controlling mineralisation; Geostatistical analysis of data; Ore geometry analysis; generation of exploration conceptual geological models.
- Worked on projects with different geological terrains in Australia, Africa, Asia - Indonesia and Myanmar, South America - Brazil, and Guyana. Worked across a range of Australian geological provinces: Archaean – Pilbara and Yilgarn Cratons Lachlan Fold Belt. Epithermal deposits in Kalimantan, Indonesia, Archean greenstone belt in Tanzania, Archean Greenstone belt in Guyana South America and shear related deposits in both Arabian – Nubian Shield, Eritrea, East Africa. Created numerous simple and complex resource and geological models from 1996 to present for gold, copper-gold/silver, iron ore and lithium.
- Review of external resource work for due diligence and possible acquisitions; Sound knowledge using modern techniques to better understand the mineralisation and geological and structural controls starting from grassroots to defining an orebody. Generate JORC compliant resource estimates, recommend industry's best practice in the use of resource techniques and interpretation procedures. Twenty-five years in the minerals industry including exploration, resource definition and resource development.

A summary of the Geonomik personnel, their qualifications, professional memberships and responsibilities pertaining to this report follow.

Author: Arnel Mendoza, Principal Geologist BSc, Grad Dip (Geology), MAIG.

Arnel Mendoza has over 25 years experience in minerals geology including Senior Management, Consulting, Exploration, Resource Estimation and Development. He has previously worked with Robe River Iron Ore (now Rio Tinto owned); Mt Edon Gold Mines, and Various ASX and TSX junior companies Subsahara Resources, Azimuth Resources , Vector Resources, Traka Resources Six Sigma, Resources, Currie Rose (TSX) , contracting under Terra Search Geological Services and Hawker Geological Services. He has extensive exposure to geological, geophysical and geochemical techniques and industry's best practices. He is a member of the

Australian Institute of Geoscientists (AIG Member No 4037) and thus holds the relevant qualifications and professional associations and membership required by the ASX, JORC and Valmin to qualify as a Competent Person as defined in the JORC Code.

1.5 Specialist Declarations and Consent

The information in this report that relates to Technical Assessment of Mineral Assets reflects information compiled and conclusions derived by Mr Arnel Mendoza, who is a Member of the Australian Institute of Geoscientists. Mr Mendoza has sufficient experience relevant to the Technical Assessment of the Mineral Assets under consideration and to the activity which he is undertaking to qualify as to qualify as a Practitioner as defined in the 2015 Edition of the "Australasian Code for the public reporting of technical assessments and Valuations of Mineral Assets", and 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 Mendoza consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

1.6 Competent Person Statement

The information in this Report that relates to Exploration Results is based on information compiled by Mr Arnel Mendoza, a Competent Person who is a Member of the Australian Institute of Geoscientists and has sufficient experience relevant to the style of mineralisation, the types of deposits under consideration, and to the activity that was 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 Mendoza is an independent consultant employed by Geonomik Pty Ltd and consents to the inclusion in this Report of the matters based on this information in the form and context in which it appears.

1.7 Principal Sources of Information

The principal sources of information used to compile this report comprise technical reports and data variously compiled by the Company and their partners or consultants, publicly available information such as Australian Securities Exchange releases, government reports and discussions with the Company technical and corporate management personnel. A listing of the principal sources of information are included in the references attached to this report.

Geonomik has endeavoured, by making reasonable enquiries, to confirm the authenticity, accuracy and completeness of the technical data upon which this report is based. A final draft of this report was also provided to the Company, prior to finalisation by Geonomik, requesting that the Company identify any material errors or omissions prior to its final submission. Geonomik does not accept responsibility for any errors or omissions in the data and information upon which the opinions and conclusions in this report are based, and does not accept any consequential liability arising from commercial decisions or actions resulting from errors or omissions in that data or information.

Consent has been sought from the Company's representatives to include technical information and opinions expressed by them. No other entities referred to in this report have consented to the inclusion of any information or opinions and have only been referred to in the context of reporting any relevant activities.

Geonomik did not carry out a site visit to the Project areas. Geonomik is satisfied that there is sufficient current information available to allow an informed appraisal to be made. Geonomik is of the opinion that no significant additional benefit would have been gained through a site visit to the Project given their stage of development.

Figures used in this report have been prepared by Geonomik using open file and publicly available GIS data primarily sourced from websites administered by the Department of Mines, Industry Regulation and Safety (DMIRS) of the WA government.

1.7.1 Background Information

The project discussed in this report is located in Western Australia. A locality map of the project is presented in Figure 1. A summary of the tenement details are listed in Table 2. References, a glossary of terms and a list of abbreviations are included at the end of this report. Tables of information and commentary required by the JORC Code are included as Appendix 1 and 2 of this report.

General information on the mineral exploration industry is provided in Section 2.1. General information on the State in which the project is located is provided in Section 2.2, 2.3, and 2.3.1 of this report, including regulation, mining infrastructure, gold mining, nickel mining and the operation of mineral exploration.

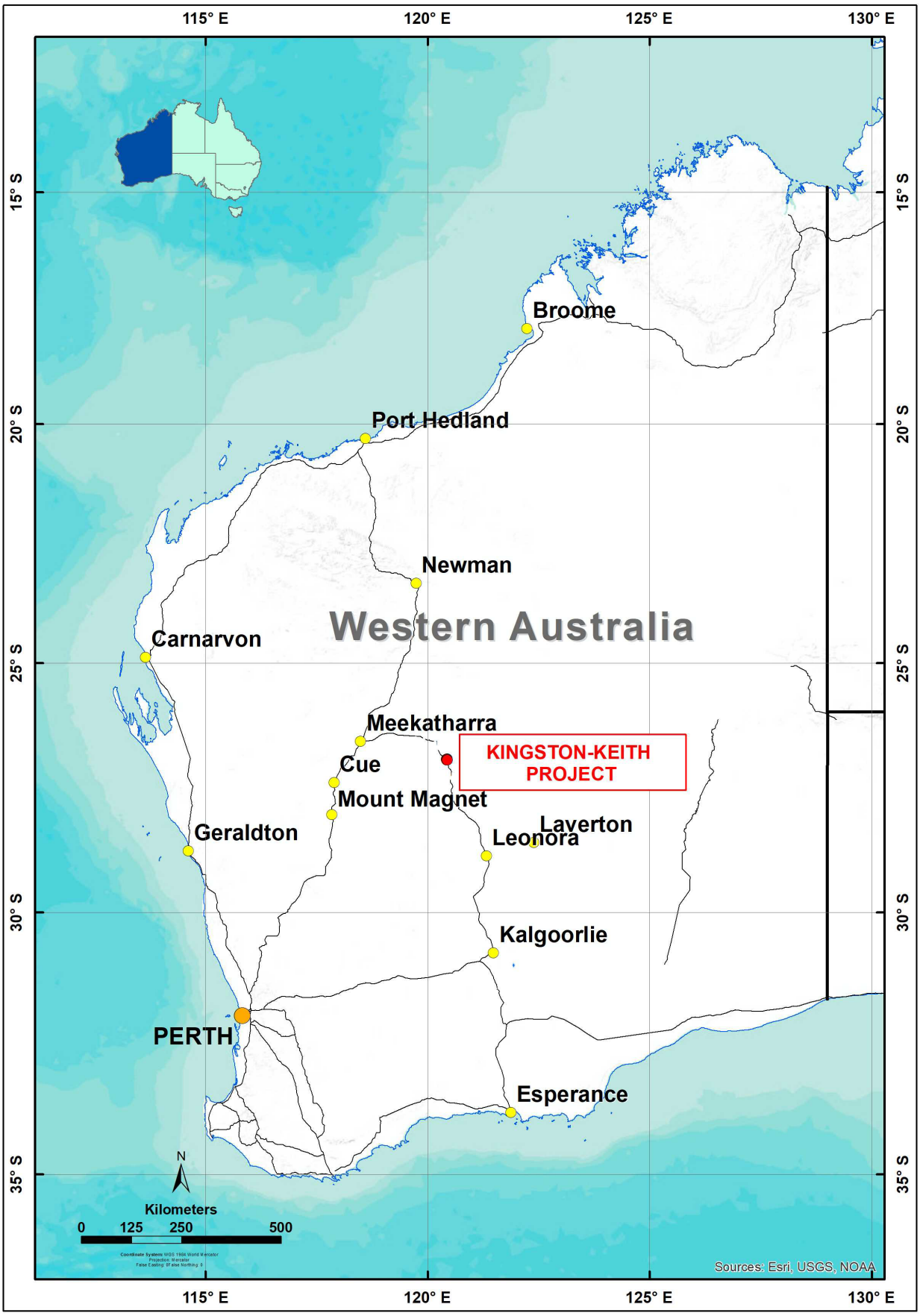

Figure 1 Locality Map of the Kingston-Keith Project

2. WESTERN AUSTRALIAN GOLD AND NICKEL INDUSTRY

2.1 Exploration to Mine Development Pathway

The starting point for all mining operations is the discovery of a mineral deposit buried within the earth's crust. Once a mineral deposit is completely extracted the mine closes and rehabilitation is undertaken. New deposits must be located to maintain mineral production, and this is the driver for the mineral exploration industry – to discover new orebodies. Not all mineral deposits are rich enough or large enough to support economic mining operations. Technical studies on the feasibility of undertaking mining are undertaken to ensure investment in establishing mines would be rewarded with future profits. The pathway from exploration to mine development is illustrated in the diagram below, with the value of a project increasing as it moves from discovery through the stages of exploration to resource definition to project evaluation to development/construction leading ultimately to mine production (Figure 2). The key milestones during this development pathway are discovery, scoping study, pre-feasibility study, feasibility study and project commissioning (green stars in Figure 2).

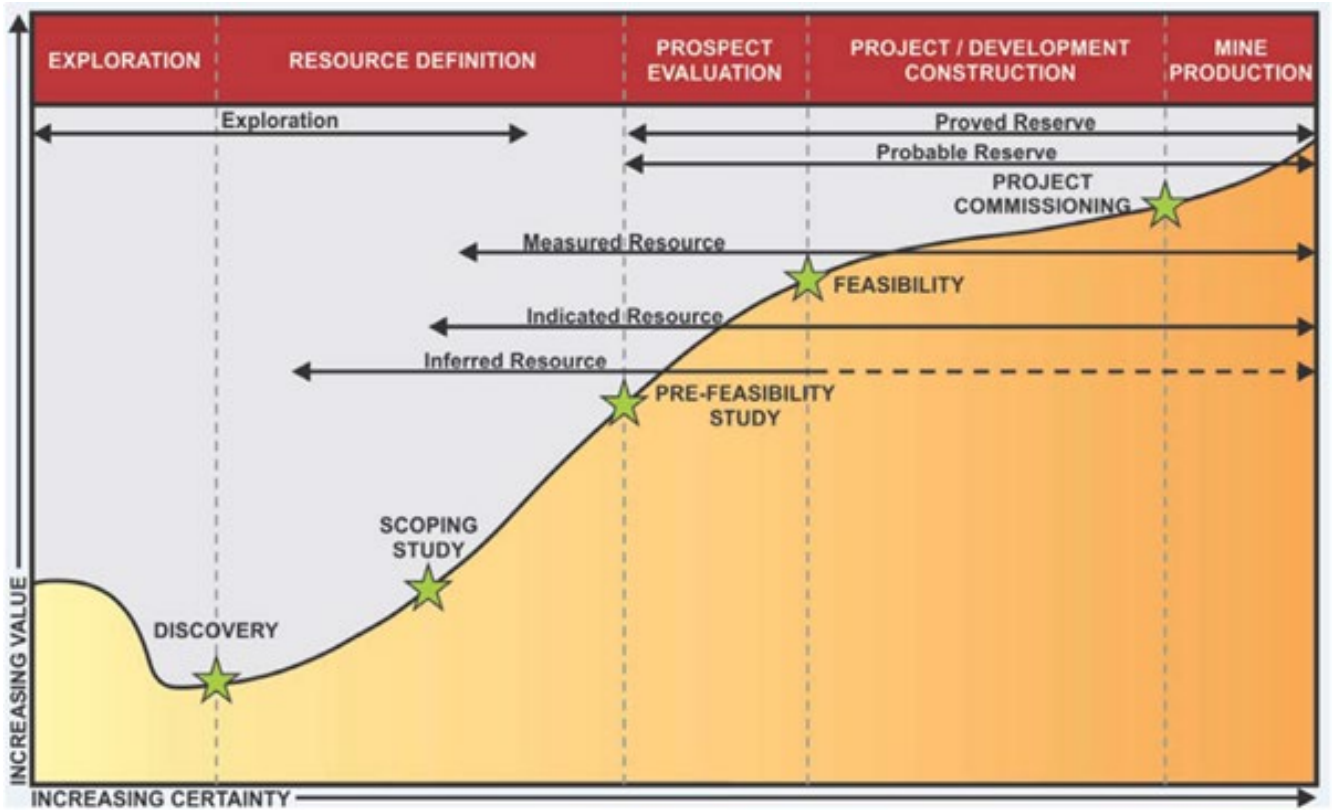

Figure 2 Diagram illustrating project value versus certainty for mineral projects at various stages.

Studies on the feasibility of mining operations are underpinned by detailed understanding of the mineral deposit, which is quantified by the work of scientific and engineering specialists to estimate the mineral resource and subsequently ore reserves. Mineral resources are typically divided into 3 categories of increasing confidence in the accuracy of their measurement: Inferred Resource, Indicated Resource and Measured Resource. Ore Reserves represent a subset of the Mineral Resources determined by applying economic and technical factors such as metallurgical, engineering, commodity price, marketing, financial, environmental and social factors. The timeline for establishment of resources and reserves is illustrated in Figure 2 through the various stages of the pathway to mining.

At the exploration stage activities are driven by the science of geology with an hypothesis on the possible location of a deposit being tested by exploration technologies, with hypotheses continually refined as new data is added to the knowledge base. As project development continues after discovery, other disciplines are required such as metallurgy, mine engineering and environmental science.

Drilling is the most important of the exploration technologies employed in mineral exploration, and particularly in gold and nickel exploration. However, drilling is only effective once targets have been identified by scientific study of the available data of the region being explored. Each drillhole will partially test targets.

2.1.1 Risk Profile

It is important to understand that at each stage the majority of mineral prospects are filtered out during the pathway. Only exploration projects where mineral deposits are discovered will continue to the resource definition stage; only mineral deposits with good prospects for eventual economic extraction proceed to the prospect evaluation stage; only projects for which ore reserves can be declared proceed to feasibility study and only those projects which are determined to be economically feasible proceed to construction and mining. The majority of prospects and projects do not eventuate in mines. However, the mining industry continues to attract very significant investment in mineral exploration and development because the returns on profitable mines are so very high.

2.1.2 Value Proposition for Exploration-Only Companies

The high value placed on successful exploration companies by investors is borne out by the high share price on securities markets of companies which have discovered mineral deposits through announcement of exploration results. This rapid value increase is illustrated in Figure 2 by the steep rise in the project value curve during the resource definition phase.

2.2 Regulation of the West Australian Mining Industry

The West Australian is arguably the most favourable location in the world for undertaking mineral exploration and mining. The mining industry is the premier industry of the West Australian economy generating annual revenues of A$174 billion (EUR 112 billion). The Western Australian Government received royalty revenue from the State's minerals and petroleum producers totalling A$9.1 billion (EUR 5.85 billion) in 2020 (DMIRS, 2021a).

Internationally, Australia is rated as one of the most stable countries in the world and a safe place for foreign investment, with democratically elected governments, a British based legal system, high-quality infrastructure, excellent health systems and a highly educated population. Unlike many mining districts on other continents, there are virtually no corruption issues in Australia.

The Australian mining industry is efficiently regulated which has resulted in high levels of confidence for companies and financial institutions making investments in Australian exploration and mining projects. In terms of mineral resources and ore reserves, the industry established a system of self-regulation through the 1970s to the 1990s manifest as 2 codes of practice which have been adopted by both the financial industry and government as mandatory for public reporting by mining companies: the JORC Code and the VALMIN Code.

2.2.1 The JORC Code

The following diagram is an extract from the JORC Code which illustrates the relationship between the 6 different categories of exploration results which can be publicly reported.

The Code has been adopted by The Australasian Institute of Mining and Metallurgy (The AusIMM) and the Australian Institute of Geoscientists (AIG) and is binding on members of those organisations. The Code is endorsed by the Minerals Council of Australia and the Financial Services Institute of Australasia as a contribution to good practice. The Code has also been adopted by and included in the listing rules of the Australian Securities Exchange (ASX) and the New Zealand Stock Exchange (NZX). For Public Reports of initial or materially changed Exploration Results, Mineral Resources or Ore Reserves the JORC Code requires the Competent Person, on whose documentation the Public Report is based, to be named in the Public Report.

The principles governing the operation and application of the JORC Code are Transparency, Materiality and Competence.

Transparency requires that the reader of a Public Report is provided with sufficient information, the presentation of which is clear and unambiguous, to understand the report and not be misled by this information or by omission of material information that is known to the Competent Person.

Materiality requires that a Public Report contains all the relevant information that investors and their professional advisers would reasonably require, and reasonably expect to find in the report, for the purpose of making a reasoned and balanced judgement regarding the Exploration Results, Mineral Resources or Ore Reserves being reported. Where relevant information is not supplied an explanation must be provided to justify its exclusion.

Competence requires that the Public Report be based on work that is the responsibility of suitably qualified and experienced persons who are subject to an enforceable professional code of ethics (the Competent Person).

Transparency and Materiality are guiding principles of the Code, and the Competent Person must provide explanatory commentary on the material assumptions underlying the declaration of Exploration Results, Mineral Resources or Ore Reserves.

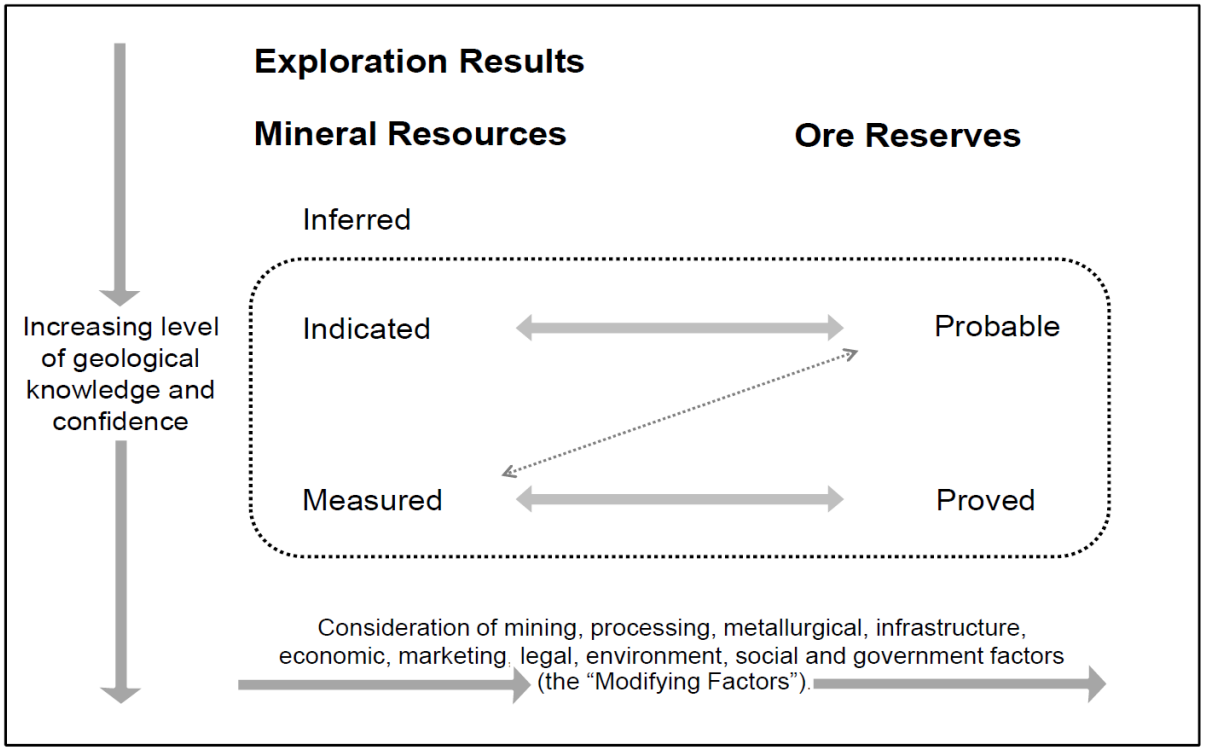

Figure 3 Relationship between Exploration Results, Mineral Resources and Ore Reserves

Source: JORC (2012).

2.2.2 Mining Law

The key pieces of legislation regulating mining in Western Australia are The Mining Act 1978 and The Mining Regulations 1981. The Department of Mines, Industry Regulation and Safety (DMIRS) ensures the responsible development of Western Australia's mineral and petroleum resources. This includes regulating industry to ensure:

- environmental compliance and implementation of best practice environmental management
- mineral titles compliance
- payment of royalties
- safety compliance and implementation of best practice safety systems.

Environmental Regulation of Mining

The Resource and Environmental Compliance Division of the DMIRS assesses mineral exploration and development applications. The division also conducts environmental compliance audits and inspections to ensure approved activities comply with legislation, regulations, policies, and approval commitments and conditions. Unconditional Performance Bonds (UPB) may be imposed as mining securities for compliance with environmental conditions imposed under the Mining Act 1978 (DMIRS, 2021e).

The Resource and Environmental Compliance Division has an ISO 9001 certified quality management system and an 'Environmental Regulatory Strategy' to ensure that resource industry activities are designed, operated, closed, decommissioned and rehabilitated in an ecologically sustainable manner, consistent with agreed environmental outcomes and end land uses without unacceptable liability to the State (DMIRS, 2021f).

Environmental approvals for mining activities are granted in accordance with the Mining Act 1978 and include:

- Program of work – submitted when a company or prospector wants to disturb the ground with mechanised equipment to explore or prospect for minerals.
- Mining proposals – submitted by a company for a proposed mining operation, or for a change to a mining operation. All mining proposals must include a mine closure plan.
- Mine closure plans – reviewed and re-submitted by a company with a mining proposal and covering all aspects of mine decommissioning and rehabilitation.
- In conjunction with the above approvals, a native vegetation clearing permit may be required. These may be granted by DMIRS under delegation from the Department of Water and Environmental Regulation in

accordance with the provisions of the Environmental Protection Act 1986 and the Environmental Protection (Clearing of Native Vegetation) Regulations 2004 (DMIRS, 2021g).

At the exploration stage, the Program of Work (POW) is the primary environmental compliance item. A POW must be lodged and approved by the DMIRS before any ground disturbance using mechanised equipment from exploration, mining and prospecting activities are conducted. The DMIRS has developed a streamlined online system for applying for and processing POW permits, enabling exploration activities to proceed smoothly without undue bureaucratic delays, while still maintaining high levels of environmental monitoring and effective rehabilitation. In most locations within the Goldfields region, undertaking environmental surveys prior to being granted POWs is not required. Specific environmental conditions are added to tenements upon granting dependent on their location. For sites in specific Reserved lands, obtaining permissions from vested regulatory bodies for those Reserves. POW best practices include:

- submitting photographs of sites before they are disturbed by exploration activities (e.g. drilling)
- submitting photographs of sites once they have been rehabilitated after the exploration activities
- completing rehabilitation within 6 months of ground disturbance.

Annual Environmental Reporting requirements for mining projects are prescribed under the Mining Act 1978. An Annual Environmental Report (AER) is required for all mining projects that have an AER condition on the relevant tenement. A condition requiring the submission of an AER is imposed on the tenement following the approval of a mining proposal. The objectives of the AER are to:

- Document mining activities for the reporting year and proposed activities for the following year.
- Document environmental management and rehabilitation activities for the reporting year, and proposed activities and developments in the following year.
- Report on the progress and status of achieving environmental outcomes and closure objectives for the site, including the provision of relevant monitoring reports or data.
- Provide an assessment of compliance with conditions (DMIRS, 2021h).

For Exploration Licences conditions are subject strictly to adhere the ground disturbance as set out in Section 63 of Mining Act – page 92 & 93:

"Every exploration licence shall be deemed to be granted subject to the condition that the holder thereof will explore for minerals and will promptly report in writing to the Minister all minerals of economic interest discovered in, on or under the land the subject of the exploration licence; and will not use ground disturbing equipment when exploring for minerals on the land the subject of the exploration licence unless:

- *The holder has lodged in the prescribed manner a programme of work in respect of that use and the programme of work has been approved in writing by the Minister or a prescribed official.*
- *will fill in or otherwise make safe to the satisfaction of a prescribed official all holes, pits, trenches and other disturbances to the surface of the land the subject of the exploration licence which are made while exploring for minerals; and in the opinion of the prescribed official, likely to endanger the safety of any person or animal;*
- *will take all necessary steps to prevent fire, damage to trees or other property and to prevent damage to any property or damage to livestock by the presence of dogs, the discharge of firearms, the use of vehicles or otherwise."*

Mineral Titles Regulation

There are 7 different types of mining tenements prescribed under the Mining Act 1978 (DMIRS, 2021i):

- Prospecting Licences (Sections 40 to 56)
- Special Prospecting Licences for Gold (Sections 56A, 70 and 85B)
- Exploration Licences (Sections 57 to 69E)
- Retention Licences (Sections 70A to 70M)
- Mining Leases (Sections 70O to 85A)
- General Purpose Leases (Sections 86 to 90)
- Miscellaneous Licences (Sections 91 to 94)

Only exploration licences and miscellaneous licences are currently relevant to the Kingston-Keith Project.

A Miscellaneous Licence is for purposes such as a roads and pipelines, or other purposes as prescribed in Regulation 42B. The term of a miscellaneous licence is 21 years, and may be renewed for further terms. A miscellaneous licence can be applied for over (and can 'co-exist' with) other mining tenements.

Exploration Licences have an initial period of five years and can then be extended for one period of five years and further periods of two years. The holder has to provide detailed information in support of the application. A graticular boundary (or block) system is used in applying for Exploration Licences. The holder of an exploration licence may, in accordance with the licence conditions, extract or disturb up to 1000 tonnes of material from the ground which includes overburden. The Minister may approve extraction of larger tonnages. Prescribed minimum annual expenditure commitments and reporting requirements apply.

Compliance with licence requirements is relatively straight forward and the licences provide strong security of tenure to the rights to all minerals. Upon the successful delineation of a mineral deposit the holder of an exploration licence can apply for the stronger titles of Mining Lease or Retention Licence, which have longer life and provisions for mining operations to be undertaken.

2.3 Mining in WA

Western Australia is one of the most diverse resource regions in the world, with more than 50 mineral and petroleum products being produced in commercial quantities. The State is a significant operating base for the world's largest diversified mining companies. Western Australia is the world's number one producer of iron ore and lithium, and a top 10 global leader for aluminum, diamonds, LNG, zircon, gold, cobalt, nickel, salt, rare earth oxides, rutile, ilmenite and manganese (Table 1).

Table 1 Western Australia Global Production Share And Global Ranking

Commodity	Western Australia Share of Global Production %	Global Ranking
Alumina	11.39	2
Cobalt	4.17	3
Copper	0.74	>11
Crude Oil	0.08	45
Diamonds	24.88	2
Garnet	28.30	2
Gold	6.45	3
Ilmenite	4.13	8
Iron ore	35.96	1
Lead	0.03	>11
Lithium	48.50	1
Liquified Natural Gas (LNG)	12.60	2
Manganese	2.94	9
Nickel	6.70	5
Rare Earth Oxides	9.22	4
Rutile	6.19	6
Salt	4.27	5
Zinc	0.55	>11
Zircon	12.42	2

Source: DMIRS (2021a)

In 2020, the value of sales from Western Australia's mineral and petroleum industry was A$174 billion (EUR 112 billion). Annual gold sales reaching an all-time high of more than A$17 billion (EUR 10.9 billion), with nickel sales increasing to more than A$3.3 billion (EUR 2.1 billion). This was achieved in a climate of a global pandemic, international boarder closures, weak global economic growth, as well as trade and geopolitical tensions. Continued export growth is predicted for Western Australia's resources industry, and medium- and long-term prospects appear positive (DMIRS, 2021a).

Western Australia has remained Australia's leading mining investment destination, attracting 57% of the nation's capital spending on mining of A$35 billion in 2020 (DMIRS, 2021a).

Many hundreds of mines are currently operating in all corners of the State, including the famous Super Pit in Kalgoorlie, with high levels of safety, environmental compliance and community support. There is also significant downstream processing with 13 major mineral processing operations to transform bauxite into alumina; gold dore into gold bars; nickel ore into nickel concentrate and nickel concentrate into nickel matte, nickel powder and nickel briquettes; rutile into titanium dioxide pigment; zircon into fused zirconia; and silica sand into silicon metal.

2.3.1 Mineral Exploration in WA

Mineral exploration expenditure in Western Australia in 2020 was A$1.7 billion (EUR 1.1 billion), an increase of 5 per cent from 2019. The main targets of mineral exploration in Western Australia were gold (52 per cent),

iron ore (22 per cent), and nickel/cobalt (9 per cent). Growth in mineral exploration expenditure was mainly due to increased spending on gold up A$181 million (EUR 121 million), nickel/cobalt up A$7.4 million (EUR 4.75 million) and iron ore (DMIRS, 2021b).

Since 2009, the Western Australian Government has provided over A$110 million (EUR 71 million) to support greenfields exploration through its Exploration Investment Scheme. The government has committed a further A$10 million (EUR 6.4 million) per year to the Scheme. Under the Scheme's competitive Co-funded Exploration Drilling Program, successful companies can claim refunds up to 50% of direct drilling costs.

Western Australian universities and research facilities are also at the forefront of research, technology advancements and education of mining professionals to support the evolving needs of the resources sector.

2.3.2 WAMEX

In many jurisdictions exploration data is lost over time due to poor statutory recordkeeping, resulting in later explorers repeating surveys and drillholes already undertaken in previous eras. Under Western Australian legislation, mineral explorers are required to report annually on their exploration projects. After a period of confidentiality, the exploration reports and data are made available to the public. These are referred to as open-file reports. Mineral exploration open-file (public) reports are stored in the Western Australian Mineral WAMEX database. Access is free of charge, and copies of the reports are available for download.

WAMEX reports provide subsequent explorers with a wealth of information. Thorough assessment of the exploration data available in WAMEX reports has resulted in scores of successful exploration programs leading to discoveries and subsequent development of new mining operations. The data in WAMEX reports is generally considered to have a high degree of reliability and can be utilised in public reporting under the JORC Code after appropriate scrutiny by the Competent Person.

2.3.3 Gold Mining in WA

The royalty rate for gold is 2.5% in Western Australia. The corporate tax rate in Australia is 30%.

Western Australia's gold production for 2019–20 was 7.5 million ounces, bringing the cumulative gold production for the State to 296 million ounces. This production comes from hundreds of gold mines across the state ranging from small prospecting claims, deep underground mines to huge open cut operations. The 20 largest currently operating gold mines are (in order of current mineral resources): Golden Mile, Granny Smith, Tropicana, Central Murchison, Gruyere, Matilda, Boddington, Duketon, Gwalia, Telfer, Jundee, Marvel Loch, Tarmoola, Plutonic, Carosue Dam, Kambalda – St Ives, Sunrise Dam, Paddington, Mt Monger, and Thunderbox. Figure 4 shows the locations of the gold deposits of southern Western Australia over the published geology map of the State. The Kingston-Keith Project is situated just south of Wiluna.

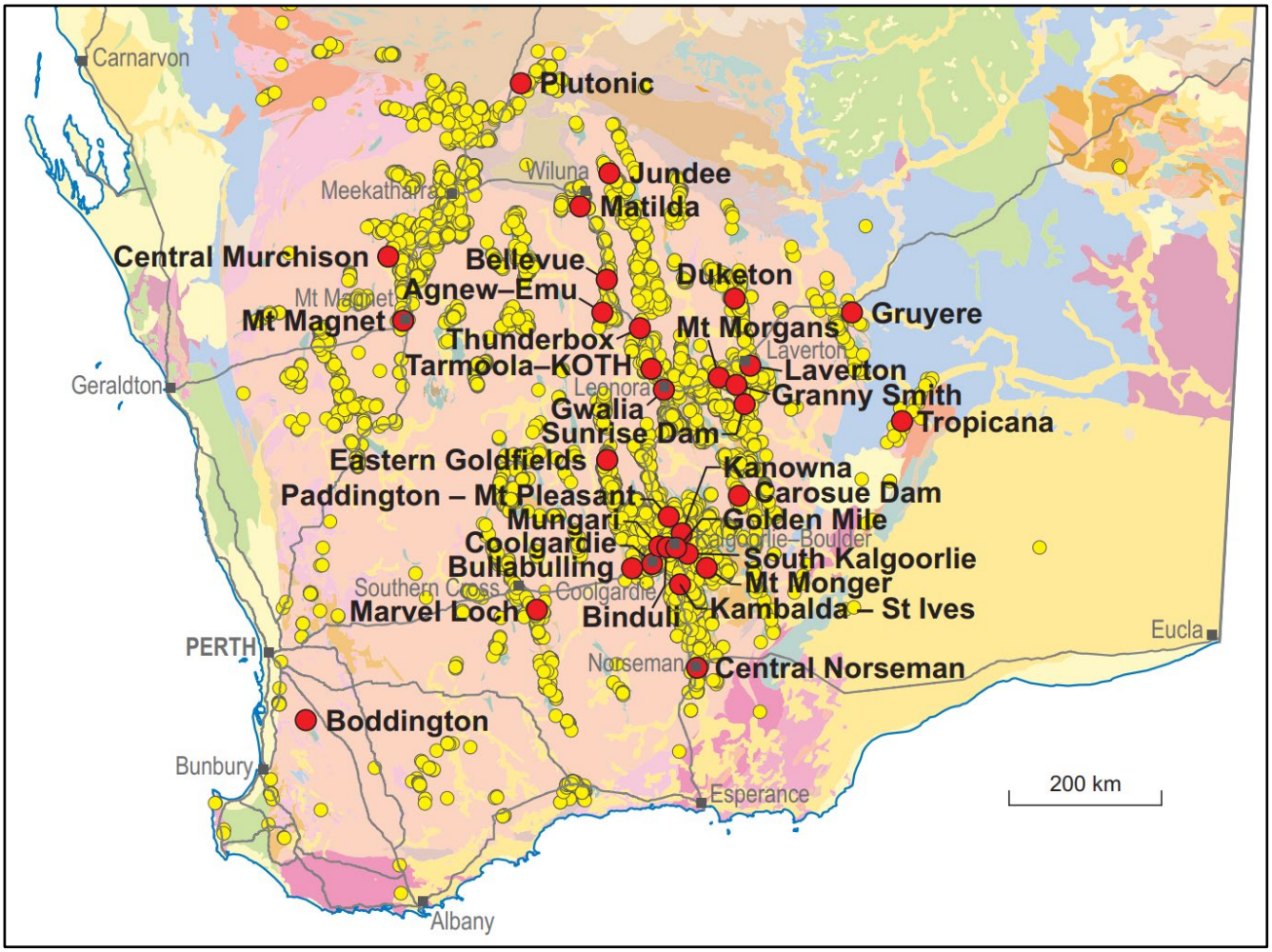

Figure 4 Gold Deposits of the Yilgarn Craton

Yellow circles: mine, deposit or prospect; Red circles: >2 million ounces of contained gold; Source: DMIRS (2021c).

2.3.4 Nickel Mining in WA

The standard royalty rate for nickel is 2.5% of the contained mineral value. State Agreements do exist for major mineral projects that produce nickel for which different royalty rates have been negotiated.

Western Australia's production for 2019–20 was 153,516 tonnes of nickel (metal and concentrate) from 49 operating mines. The Yilgarn Craton is Australia's premier nickel-producing region containing some of the world's largest nickel resources which are equivalent to almost 34 Mt of contained nickel. Figure 5 shows the locations of the nickel-cobalt deposits of southern Western Australia over the published geology map of the State. The Kingston-Keith Project is situated just south of Wiluna.

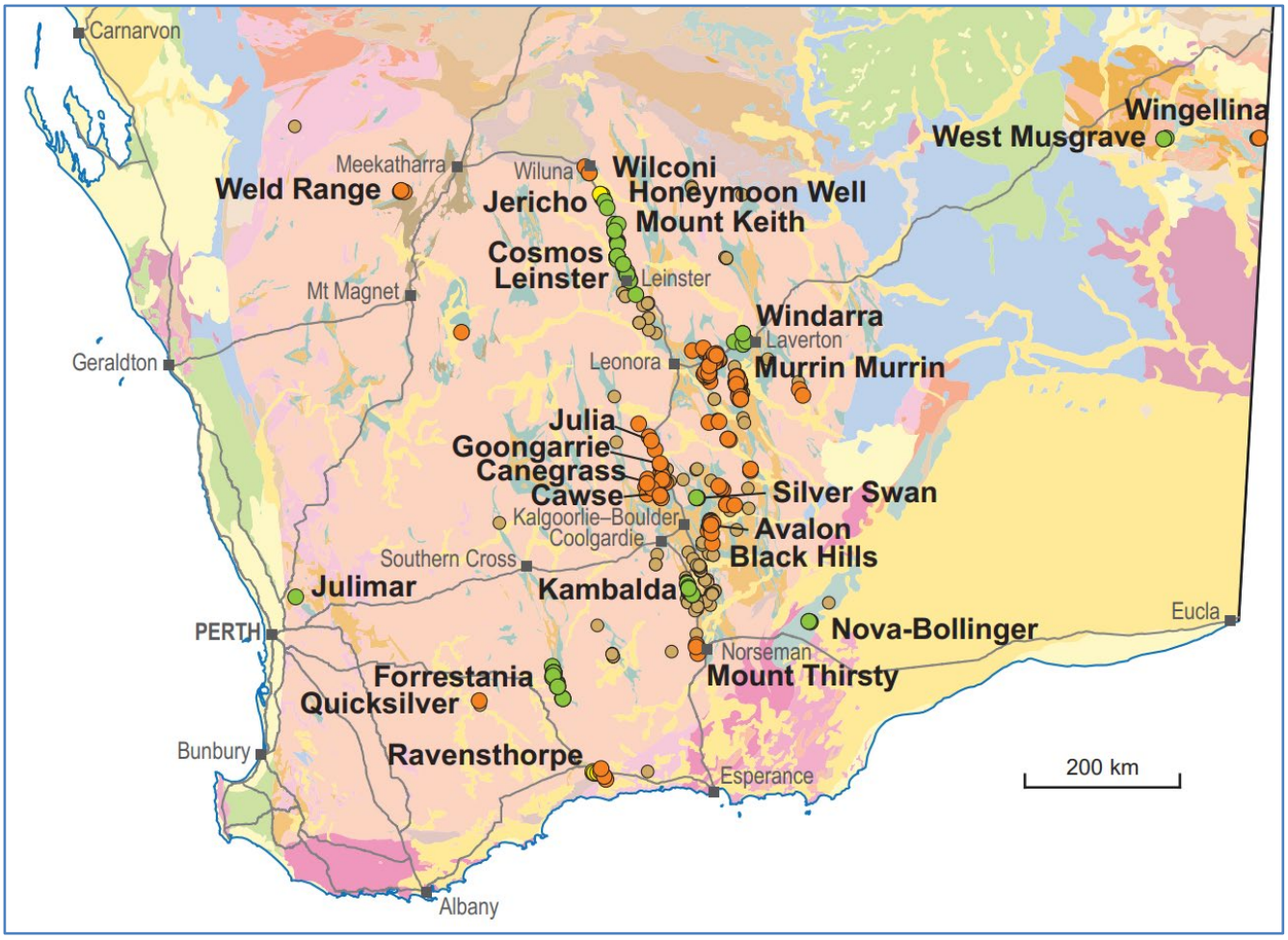

Figure 5 Nickel-Cobalt Deposits of the Yilgarn Craton

Green circles: sulphide ore; Orange: laterite ore; Larger circles: >100Kt contained Ni-Co. Source: DMIRS (2021d).

2.3.5 Regional Infrastructure

The project is located in the Goldfields region of Western Australia where the main industry is mining. Excellent infrastructure is present in the region sufficient to cover all aspects of project development from exploration through development and mining to closure. Kalgoorlie is the nearest regional city to the property, while Wiluna and Leinster are the nearest towns to the property (Figure 5). The region has a major well established highway network connecting nearby towns and the major regional centres and Kalgoorlie and to the state's capital city of Perth and ports at Geraldton, Perth and Esperance (Figure 5).

The goldfields region has continuously attracted mining investment for over 125 years. As the regional centre, Kalgoorlie is a thriving industrial city of over 30,000 people providing a full range of services and infrastructure requirements primarily targeted at the mining industry. It continues to attract further construction of mineral processing facilities with land close to major infrastructure, a skilled productive workforce and a supportive and affordable business environment. A significant number of service companies have operational bases in Kalgoorlie providing geological, exploration drilling, mining equipment, technology, construction and equipment maintenance services to support mining and mineral processing operations across the Goldfields.

Many mining companies have completely outsourced their mining operations to mining service providers who own and operate entire mining fleets for both open pit and underground operations. Some aspects of mineral processing such as crushing and grinding are similarly outsourced. Labour hire companies based in Perth and Kalgoorlie can provide the entire workforce for a mining operation. Another mechanism commonly used for reducing the capital cost of a new mining operation in Western Australia is toll treatment of ore at a mineral processing facility owned by a third party.

A gas pipeline brings LNG from the north-west shelf gas fields to the Goldfields region providing inexpensive and reliable energy to Kalgoorlie and many mineral processing facilities via spur pipelines. The main gas pipeline runs immediately to the west of the Kingston-Keith Project area.

Kalgoorlie has a major airport with multi-day one hour flights to Perth and three hour flights to Melbourne, with numerous commercial flights to regional centres. There is also a large charter aviation industry servicing

mine sites across the Goldfields region with FIFO (fly in fly out) workforces to Perth, Bunbury, Busselton and Kalgoorlie.

2.4 Commodity Outlook

2.4.1 Gold

The Australian government is predicting that higher prices are expected to push the value of Australia's gold exports up to a record A$29 billion for the financial year 2020-2021. Earnings are then projected to decline to A$22 billion in 2025–26, as gold prices ease back. However, over this period export volumes are projected to increase from 344 tons to 418 tons, as demand recovers. An effective COVID-19 vaccine rollout and consequent global economic rebound is projected to see the gold price slide from US$1700 in 2021 to US$1210 an ounce in 2026 in real terms (OCE, 2021).

A more detailed assessment of the commodity outlook for gold undertaken by the Australian government's Office of the Chief Economist is provided in Appendix 3.

2.4.2 Nickel

The Australian government is predicting that prices of nickel to rise from an average of US$19,000 a tonne in 2021 to US$21,000 a tonne in 2026, fuelled by returning levels of activity and consumption in stainless steel production. These factors, as well as increased nickel use in electric vehicle batteries is expected to push the market into deficit by 2023. Australia's export volumes are forecast to rise from 201,000 tons in 2020-21 to 246,000 tons in 2025–26. Export volumes are forecast a peak during 2021-22 at 259,000 tons. Australia's export earnings are forecast to increase from A$3.8 billion in 2019–20 up to A$6.5 billion in 2025-26, driven by increased demand for Australia's higher quality nickel (OCE, 2021).

A more detailed assessment of the commodity outlook for nickel undertaken by the Australian government's Office of the Chief Economist is provided in Appendix 3.

3. KINGSTON-KEITH PROJECT

3.1 Location and Infrastructure

The Kingston-Keith Project is located in the Goldfields region of Western Australia, 450km north of Kalgoorlie (Figure 1). The nearest towns to the property are Wiluna, 60km to the northwest, and Leinster, 80 km to the south (Figure 5). The property is centred at Latitude 27°3' S and Longitude: 120°30' E. It lies within the Wiluna and Sir Samuel 1:250,000 Map sheets, and the Wiluna, Yeelirrie and Mount Keith 1:100,000 map sheets.

The main land uses are cattle grazing and mining. The Project covers portions of the Albion Downs and Lake Way Pastoral Stations in the Wiluna Shire and lies within the East Murchison Mineral Field. The Mt Keith nickel mine lies 3km south of the southern boundary of the Project.

Topography is generally undulating to flat with drainage towards Lake Way 6km to the north, away from north-northwest trending ridges rising to Mount Way (553m AMSL) in the north and to Mt Keith (620m AMSL) in the south. Vegetation comprises Mulga low woodlands and saltbush shrublands. Wiluna experiences a desert climate with average maximum temperate of 29.2°C, average minimum temperature of 14.3°C and average annual rainfall of 257.4mm.

The Project area occurs immediately east of the Goldfields Highway, a major sealed road which tracks north from Kalgoorlie to Meekatharra. Easy access is obtained from the highway to the Project via several mining and bore field access roads. Access within the project area is through relatively flat terrain and open vegetation using station tracks, exploration tracks and the old Wiluna-Leinster road.

The region has a major well-established highway network connecting nearby towns and the major regional centres and Kalgoorlie and to the state's capital city of Perth and ports at Geraldton, Perth and Esperance (Figure 5). The many mineral deposits of the Yilgarn Craton support a major mining industry serviced from the city of Kalgoorlie, numerous provincial towns and Perth, via fly-in-fly-out operations.

Infrastructure in the local district surrounding the project is very good and includes a national highway, gas pipeline, mining towns, and airfields.

Perhaps the most significant infrastructure in the local area is that a number of gold mineral processing plants are situated relatively close to the project tenements at the Wiluna, Jundee, Agnew, Bronzewing (closed) and Darlot gold mines. In addition, a nickel mineral processing plant is located at Mount Keith nickel mine immediately south of the project area.

The towns of Wiluna and Leinster are in sufficient proximity to the Kingston-Keith property to provide an operational base for the project at all stages of development from exploration to mining.

Leinster was established in 1976 by Agnew Mining, initially as a dormitory town for miners working in the nearby Perseverance and Rockys Reward nickel mines and Agnew gold mine. There is a modern airport in Leinster that services the town and nearby mines. The airport has regular commercial flights to and from Perth and other towns in the Goldfields region. The town consists of 283 houses, a caravan park, some 800 single persons quarters and motel services supporting a population of 700 residents and 700 'fly-in-fly-out' personnel. Shopping facilities at Leinster include a comprehensive supermarket, tavern, mess hall, beautician, post office, service station, newsagency, coffee shop, hairdressing salon, nursery, Olympic-size swimming pool, health and fitness centre, air-conditioned squash courts, basketball, netball and tennis courts, grassed oval, air-conditioned indoor sporting stadium, 18-hole golf course and racecourse. The Leinster Primary School has 130 children up to year 8 with older children having the Distance Education Centre Programme available, there is also a pre-primary centre, day-care centre and a significant mining equipment, technology and servicing sector to support mining and mineral processing operations. Medical facilities include a resident doctor, nursing post, and a St John's Ambulance centre (Shire of Leonora, 2021).

Wiluna is about half the size of Leinster and offers reasonable facilities.

3.2 Tenure

The Project consists of one granted exploration licence E53/1953 comprising 60 sub-blocks and covering an area of 152 km^2. It was granted in March 2020 for a period of 5 years to Duketon Consolidated Pty Ltd with ownership transferred to Lithium 1 in early 2020. SunMirror AG has subsequently acquired the rights to the Project from Lithium 1 as described in the Prospectus.

Annual expenditure commitment is currently A$60,000. The licence details are listed in Table 2 and their location is shown in Figure 8.

Table 2 Tenement Schedule

Tenement ID	Registered Holder	Area blocks	Area km2	Status	Expiry Date	Minimum Annual Expenditure
E53/1953	Lithium 1 Pty Ltd	60	152	Granted	9/3/2025	$60,000

Notes: Specific details regarding the tenements and any material agreements pertaining to them are available in a dedicated section within the Prospectus.

The blocks which define the exploration licence overlap a number of pre-existing tenements owned by others which are excluded from the tenure granted to the Company (M53/56, M53/165, M53/238-243, M53/371, M53/411, M53/463, M53/483-485, M53/487-491, M53/908, and P53/1673). This has resulted in a somewhat irregular shape for the boundary of E53/1953 (Figure 6). This is a quite standard tenements situation in the goldfields of Western Australia, and effectively administered by the government with legal disputes over tenement boundaries a relatively rare occurrence.

The rights of ingress to and egress from pre-existing Miscellaneous Licences owned by others which overlap E53/1953 are preserved to the licensees and interference with the purpose or installations connected to the licences is protected (L53/63, L53/66, L53/90, L53/105, L53/109 and L53/119). These Miscellaneous Licences are associated with haul roads and water pipelines to nearby mining operations. The Company still retains all rights to minerals under these overlapping Miscellaneous Licences. This is a standard tenement situation in an active mining region and does not impact the worth of the Project.

The project site lies within the traditional lands of the Tjiwarl Aboriginal Corporation RNTBC the registered native title body corporate in respect of the Tjiwarl and Tjiwarl #2 determination area. Native Title agreements with claimant group are in place and all conditions accepted and executed. In Western Australia, companies operating with respect and integrity will have success in gaining a social licence to operate with respect to local communities and indigenous communities, with clear systems of arbitration set out in legislation for any dispute resolution.

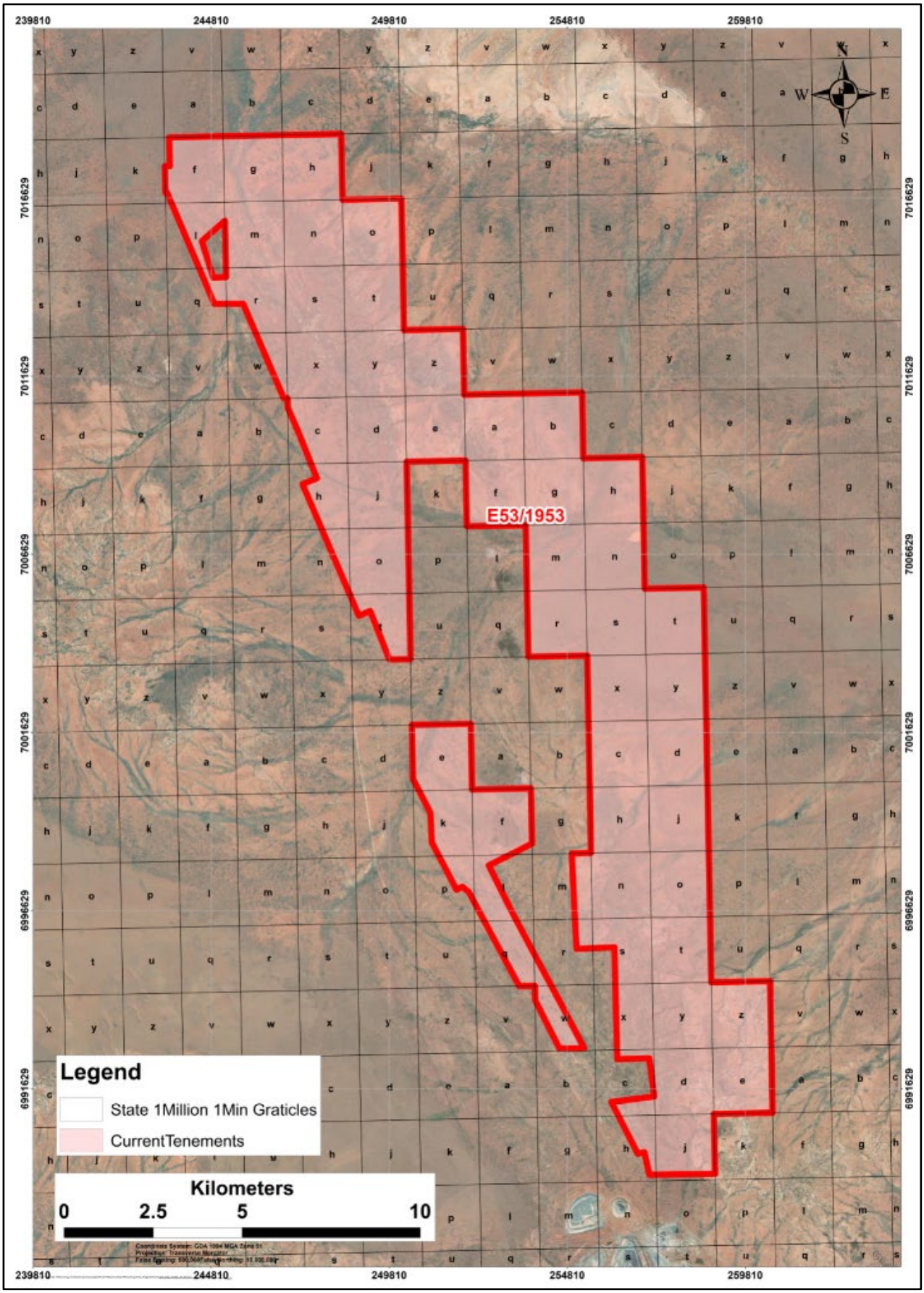

Figure 6 Tenement Map of the Kingston-Keith Project

Graticular sub-blocks are shown along with their ID letters in black and granted boundary of E53/1953 in red.

3.3 Regional Geology

The Project is located in the Archaean Yilgarn Craton of Western Australia, a highly mineralised granite-greenstone terrane. The Yilgarn Craton is subdivided into terranes based on sedimentary and magmatic associations, geochemistry and ages of volcanism (Figure 7).

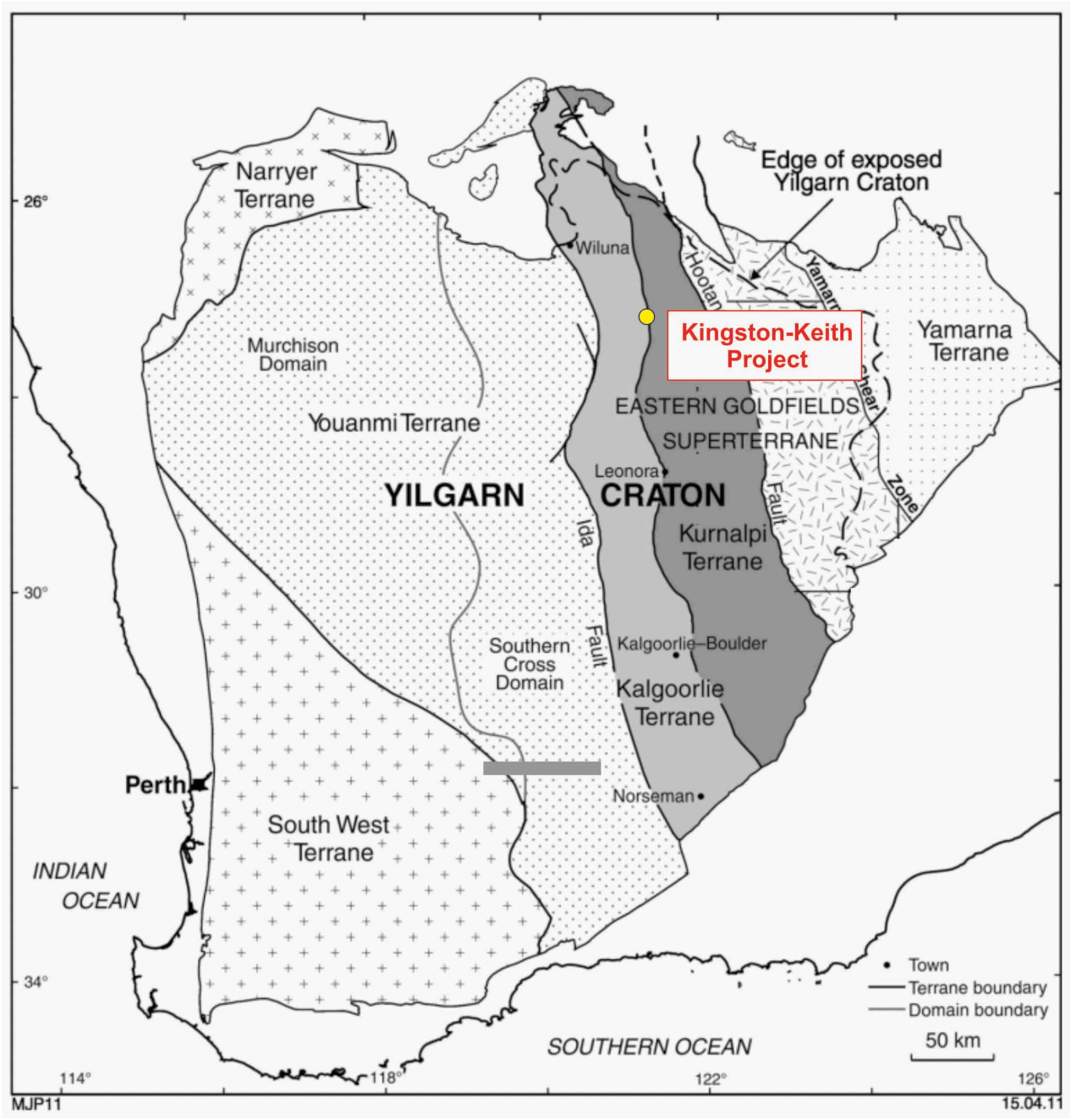

Figure 7 Geology of the Yilgarn Craton
(after Pawley, 2012)

The Kalgoorlie, Kurnalpi, Burtville, Youanmi and Yamarna terranes are particularly fertile hosting numerous deposits of gold, nickel and many other metals. These terranes are characterised by substantial greenstone belts separated by granite and granitic gneiss. The South West and Narryer terranes in the west of the Craton are dominated by granite and granitic gneiss with minor supracrustal greenstone inliers. The Ida Fault is a major structure that extends to the base of the crust, which bounds the Youanmi terrane in the west with the Kalgoorlie terrain (Figure 8). The mafic dominated successions (greenstones) in the Youanmi terrane date back to around 3.0 billion years old (Ga), whereas the mafic and felsic successions of the Kalgoorlie, Kurnalpi, Burtville and Yamarna terranes were largely deposited after 2.8 Ga.

A less formal, but commonly used, subdivision of the rocks of the region is into 'greenstone belts' defined by volcanic and sedimentary rocks separated by broad areas of granitic intrusive rocks.

3.3.1 Regional Geology – Kingston-Keith Area

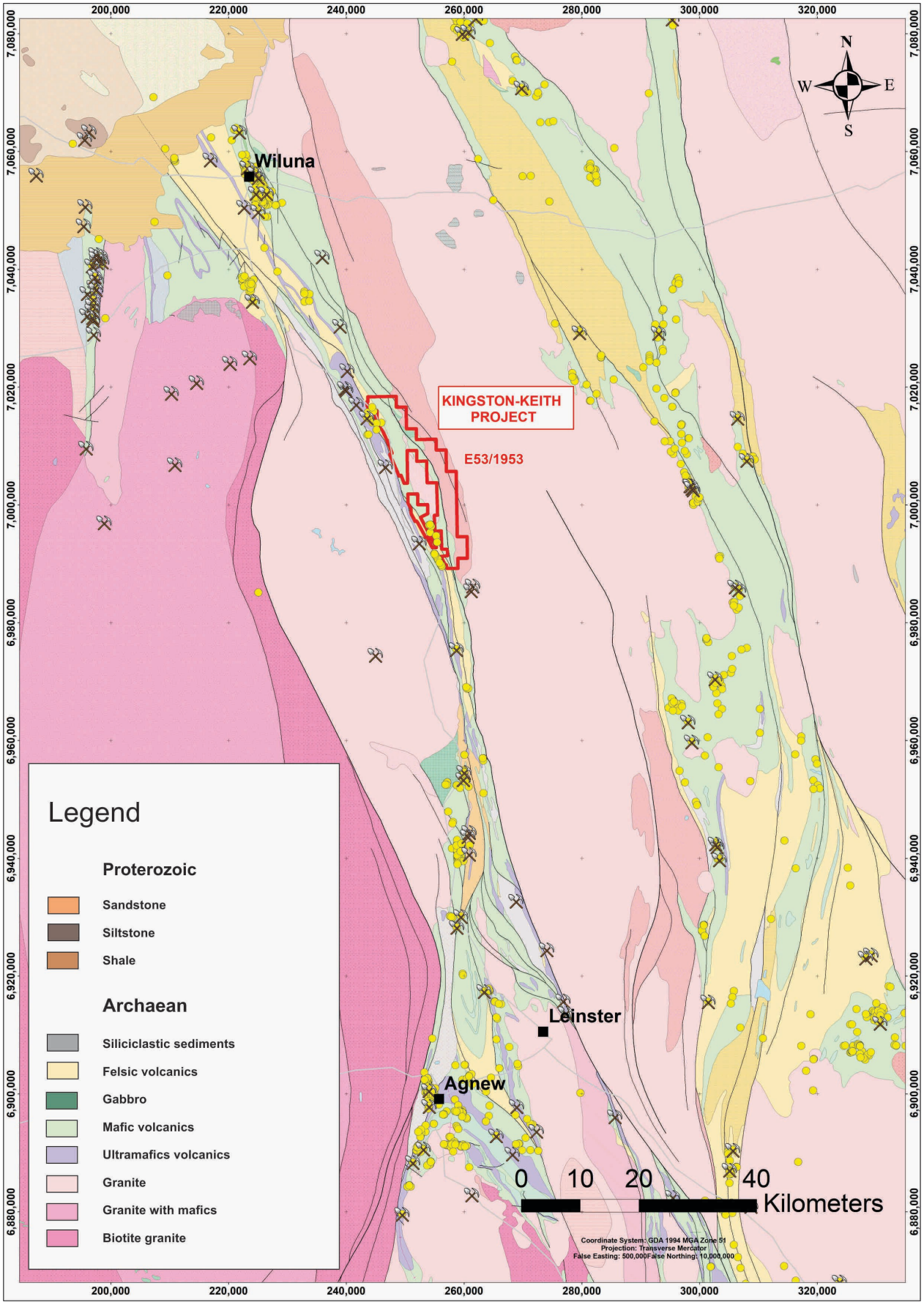

Figure 8 Regional Geology of the Kingston-Keith Project
Showing mines and mineral deposits (mine symbol) and gold occurrences (yellow circles)

The Kingston-Keith Project is located within the Kurnalpi terrane of the Yilgarn Craton (Figure 8). It is more specifically located in the Agnew-Wiluna Greenstone Belt a particularly fertile sequence of rocks where mineralising processes, which occurred billions of years ago, have created many substantial deposits of gold and nickel sulphide. Rock types are mainly volcanics (felsics, mafics, ultramafics), gabbro, granite and sedimentary rocks. These rocks are Archean-aged (around 2.7 Ga) and have been metamorphosed and deformed by deep crustal processes. It is these deep crustal deformation processes have caused the formation of the many gold deposits in the greenstone belts of the Yilgarn Craton. They are classified as orogenic deposits due to formation during orogenic geological process - involving tectonic collisions of crustal plates with consequent volcanism, intrusion, sedimentation and metamorphism in distinctive cycles. Faults, shears and other structures are very important in localising deposition of gold deposits from hydrothermal fluids moving through the crust during orogenesis.

Serpentinised ultramafic rocks within the greenstone sequence form part of the 200km long Mt. Keith intrusion which was emplaced along faults associated with the Keith-Kilkenny Tectonic Zone. The intrusion nickel-sulphide bearing, hosts the Honeymoon Well and Mt. Keith nickel-sulphide deposits which lie immediately west of the Project area (Figure 8).

The Agnew-Wiluna Greenstone Belt is host to excellent gold deposits; including the Wiluna and the Agnew gold deposits, which have produced 8.0 million ounces of gold (Moz) and 3.8 Moz respectively. Other deposits in the area include the Matilda gold mine (0.89 Moz), Williamson Mining Centre (0.4 Moz), Kathleen Valley (0.3 Moz) and Bellevue (0.7 Moz).

Geologically the Project lies in the Wiluna mine sequence, also known as the Agnew-Bellevue-Kathleen-Mt Keith-Kingston-Matilda-Wiluna gold corridor. This is a particularly fertile corridor of rocks within the overall greenstone belt, where mineralising processes have created numerous gold deposits.

Figure 8 shows the regional geology, highlighting the location of the major mines, deposits and prospects in relation to the project tenements.

3.4 Local Geology and Mineralisation

Outcrop in the project area is poor with basement rock types concealed under young cover sediments of Cenozoic to Tertiary age. Where exposed, the bedrock is deeply weathered to about 100m complicating the interpretation of basement geology. Much of the geological understanding of the belt is derived from exploration drilling. The cover comprises colluvial deposits of lake sediments, paleochannel clays and transported clays and gravels. Cover is up to 60m thick in the northeast, slowly decreasing toward the southeast with outcrop mainly in the western parts of the project area.

The Company's Kingston-Keith tenements encompass a 30km length of the north-northwest trending Agnew-Wiluna Greenstone Belt consisting of mafic and ultramafic volcanics, minor felsic volcanics and metasediments. The greenstone belt is approximately 10km wide around the project area and contains two major north-northwest trending regional structures; the Perseverance Fault and the northern extension of the Keith-Kilkenny Fault. It is a deep mantle-tapping crustal-scale structure which is considered by geologists to be crucial to the formation of major nickel and gold deposits along its length.

An interpretive geology plan of the Kingston-Keith Project is presented in Figure 9.

An elongated, highly sheared granite intrusive containing minor felsic units underlies the central part of the Project area. The trace of a north-northwest trending fault zone is thought to pass through a 1-2km wide mafic-gabbro-dolerite sequence on the eastern side of the granite boudin. Further east, the Project area overlies resistant strike ridges of banded iron formation (BIF), cherts and granitic rocks which have intruded a more felsic metasedimentary sequence. Significant magnetic anomalies have been noted in this area by previous explorers.

Mineralised zones are evident at surface by numerous historical shafts and artisanal workings at several locations within the Project including the Kingston and Enterprise workings. Gold ore is hosted within narrow shear parallel quartz veins, splays and stockworks in mafic, metasediment, and volcaniclastic rocks. Kingston-Enterprise area was initially prospected in 1902, with three periods of mining activity in 1911-1921, 1934-1937 and 1951-1985. Mining was small scale but gold grades were commonly above 15 g/t, up to a maximum of 80g/t. Total production of the field is recorded as 5,222 ounces.

Exploration by companies who have previously held the ground has included detailed underground geological mapping and sampling of old gold workings. This work determined that the historical mining followed north plunging high grade ore shoots within a north trending steeply dipping siliceous and ferruginous shear zone within a mafic volcanic, intrusive and sedimentary sequence where gold is hosted within quartz veins and splays off the main veins. Gold is structurally controlled, occupying northerly-trending, steeply west dipping shear zones. Gold is present in both quartz lenses and in sheared sedimentary rocks, with multiple ore shoots.

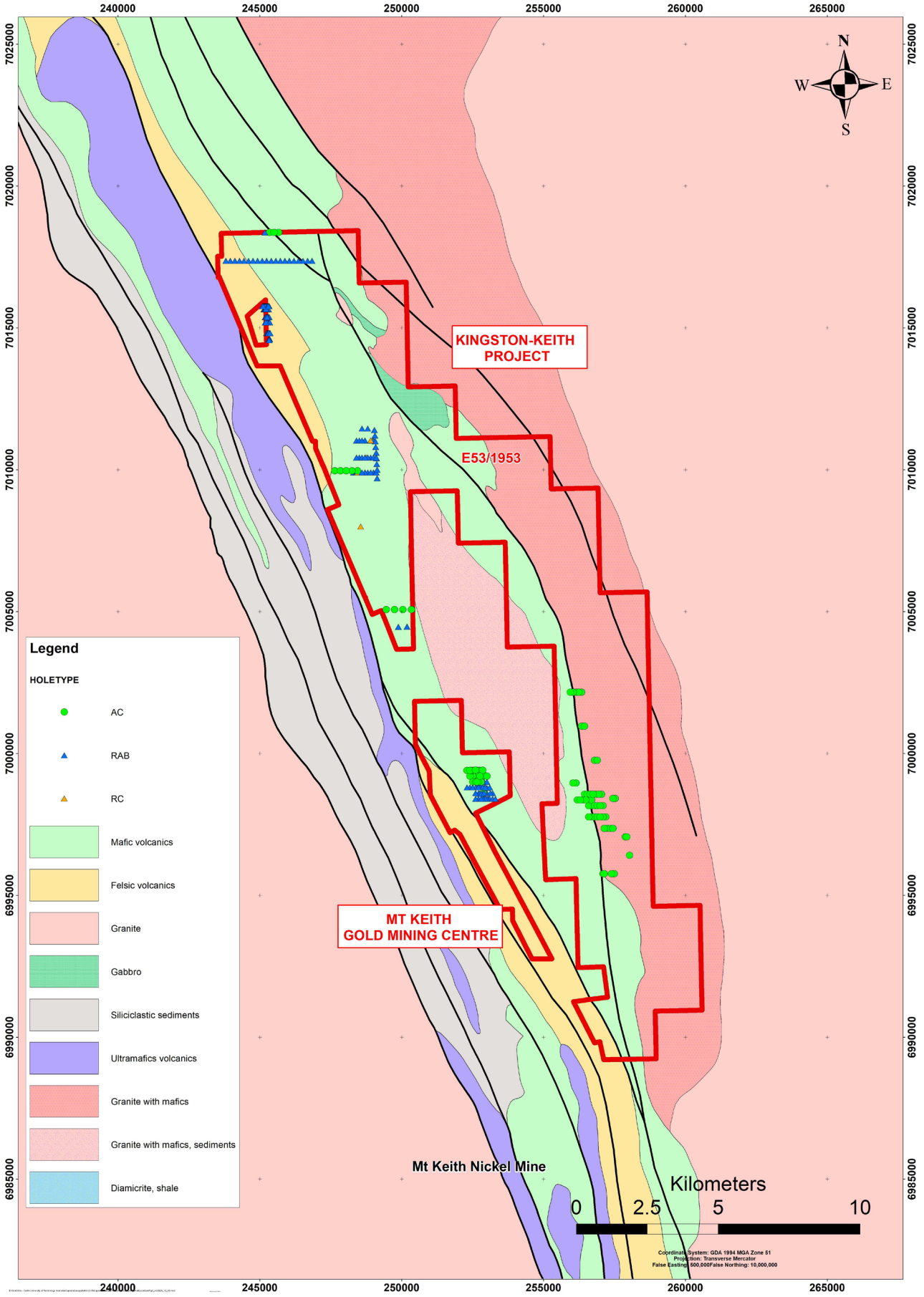

Figure 9 Interpretive Geology Plan of the Kingston-Keith Project

Location of drillholes of previous explorers (AC=aircore, RAB=rotary air blast, RC=reverse circulation)

3.4.1 Mt Keith Historical Goldfield

The historical Mt Keith mining centre is a goldfield which onlaps the western boundary of the Project (Figure 9 and Figure 11). Here multiple historical mines have produced 18,400 ounces of gold from approximately 17,000 tonnes of ore. Mineralisation is hosted in multiple geological environments including shear zones along lithological contacts, shears within ultramafic rocks and tension fractures within porphyry and in granite.

3.5 Exploration History

The region has a long history of exploration and mining going back over 100 years. The area covered by tenement E53/1953 has certainly been the subject of mineral exploration in the past, as would be expected by ground close to major discoveries and mines.

3.5.1 Previous exploration focused on nickel not gold

In addition to its gold endowment the Agnew-Wiluna Greenstone Belt is also host to world class nickel deposits; including the Mount Keith, Honeymoon Well, Jericho, Cliffs, Yakabindie, Cosmos, Rockys Reward, Harmony and Perseverance nickel sulphide deposits (Figure 10). These are all located in a narrow band of ultramafic rocks which occurs immediately west the Project's western boundary. Both open cut and underground nickel mines have exploited these deposits since the 1970's with nickel processing plants located at Mount Keith and Leinster. BHP own all the mines currently operating and the two processing plants. For much of the last 50 years nickel mining companies and nickel exploration companies have held most of the ground of the Agnew-Wiluna Greenstone Belt. The gold explorers have been generally unable to peg tenements within the belt and the nickel miners have focused on nickel exploration, generally ignoring gold. This has resulted in less gold exploration work being undertaken on the Project tenement than most areas of greenstone belt in the Yilgarn region. Geonomik consider the Project is underexplored for gold.

3.5.2 Summary of the Activity of Previous Explorers

In 1968 Western Mining Corporation (WMC) held the area and carried out a program of geological mapping, soil geochemistry and IP surveying. A variety of targets was drill tested but they were over ultramafic rock-types to the west of the Company's tenure (referenced in A-94260).

In 1968, Metals Exploration Ltd (MEL) acquired an extensive tenement holding over a 50-km strike length of the Agnew – Wiluna Greenstone Belt. Over the period 1969-1972 MEL mounted a systematic exploration program of griding, aerial photography, geological mapping and prospecting (gossan/ironstone sampling), shallow rotary air blast (RAB) drilling, rotary percussion drilling, diamond drilling, ground magnetic and IP surveys. Drill targets mostly comprised Ni/Cu geochemical anomalies from shallow RAB holes in association with magnetic highs centrally located in ultramafic belts (referenced in A-94260).

AMAX Exploration Australia acquired the Project from MEL in 1972 and explored the area for nickel mineralisation. Amax undertook a regional approach to exploration utilising airborne magnetics, RAB drilling (MKR series) on 400m sections, rotary percussion drilling (KP 68-88) and Sirotem geophysical surveys. This focused on the ultramafics to the west. Geological mapping over the area of the Company's tenure identified BIF, amphibolites and chlorite sericite schists within a granitic gneiss. Ground magnetic traverses indicated that an airborne magnetic anomaly was associated with a BIF unit and not due to the presence of serpentinised ultramafic rocks (referenced in A-89279 and A-94260).

Seltrust Mining Corporation explored several Mineral Claims for gold mineralisation following the discovery in 1981 of a 43-ounce gold nugget on MC 53/4977 (A 10901). Geological mapping and sampling were undertaken.

Chevron Exploration Corporation (Chevron) explored E53/130 in the late 1980s which covered parts of the northern portion of the project area. Chevron undertook geochemical rock chip and stream sediment sampling and concluded that elevated gold values encountered corresponded to known gold occurrences associated with quartz veining and no new occurrences were recognised.

Kismet Gold Mining explored the area for gold and base metals in 1989. Exploration activities included geological mapping, a stereographic synthesis of all mapping data and geochemical soil sampling. No anomalous results were encountered in the sampling (A-30933).

From 1988 to 1991 MKACM and Outokumpu explored the ultramafics to the east but did not conduct any useful work over the project area. In 1991 WMC acquired the project and discovered major nickel sulphide deposits at the Mt Keith and Jericho prospects (referenced in A-94260). WMC did not conduct any useful work over the project area.

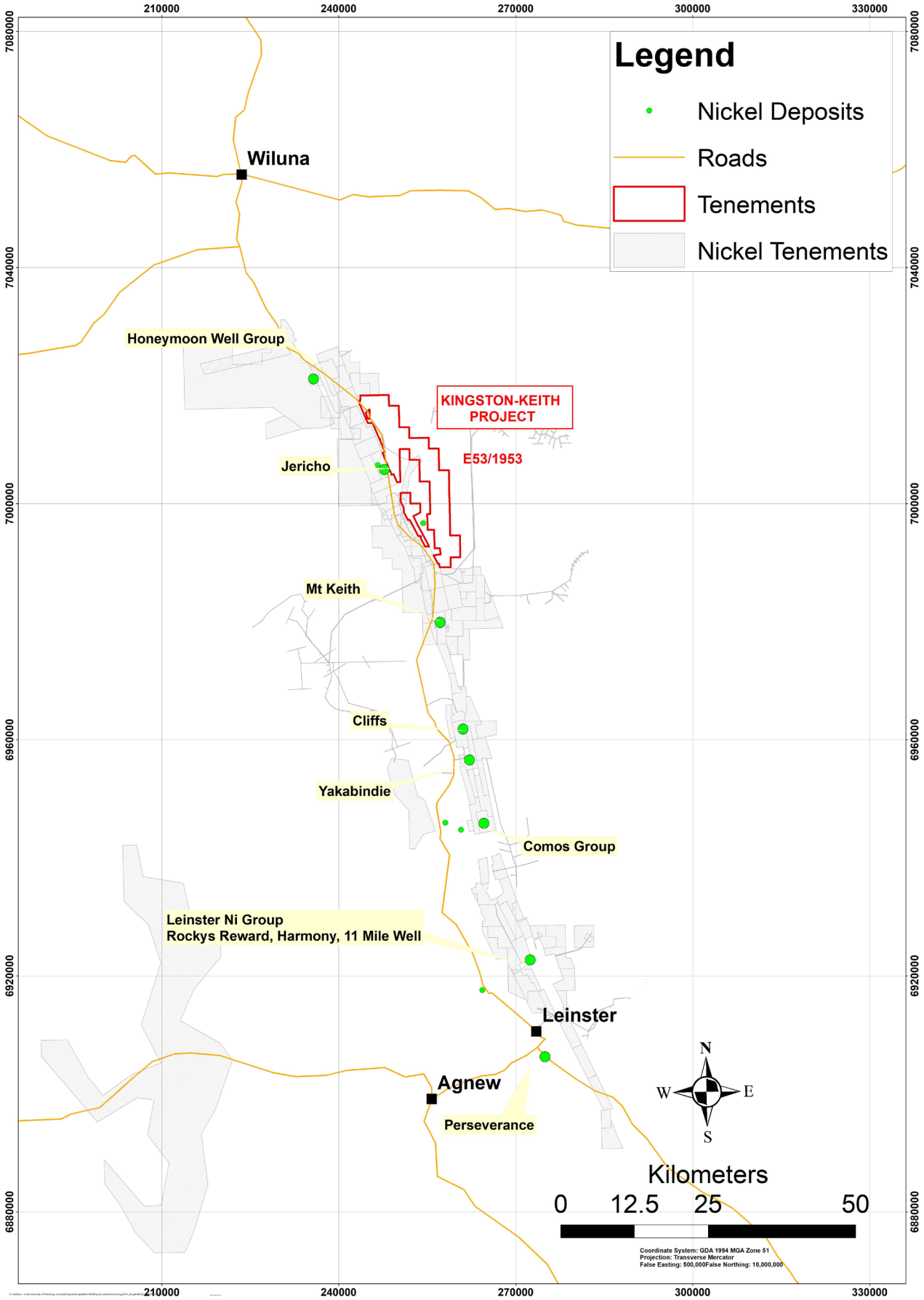

Figure 10 Map of the Leinster-Wiluna Region Showing Nickel Deposits

Nickel deposits (green circles), tenements currently held by nickel miners (grey shading)

Asarco Gold Pty Ltd (Asarco) explored M 53/116 and P 53/113 – 119 between 1985 and 1990, over the eastern portion of the Kingston workings. Asarco reported several sets of small gold workings which had been developed on quartz reefs of variable thickness and continuity. Work completed included aerial photography, rock chip sampling, lag sampling, gridding, shallow RAB drilling (207 holes for 2268m) and RC drilling (9 holes for 419m). Drilling samples were assayed for gold by fire assay and for arsenic, copper, lead, zinc, nickel and cobalt. Several significant intersections were recorded by Asarco and these are described in Section 3.8.1 later in this report (A-31029).

Adasam Pty Ltd (Adasam) explored an area around the Enterprise workings in the northern part of the project area, under E53/338, P53/691, 692 in 1992, and carried out underground mapping and sampling of old workings. A soil geochemical survey was carried out over 4km strike length of the greenstone belt. The samples were taken from a shallow depth of 10cm and sieved to a -2.8mm fraction; they were assayed to a 1 ppb lower level of detection (A-38602). Results of the mapping and geochemistry are discussed in Section 3.8.1.

Julia Mines NL (Julia) in JV with Coolawin Resources Ltd explored the northern part of the project area from 1993 to 1995. Their tenements (E53/338, P53/691, 692, 831) covered the Enterprise and Kingston workings and extended (A-45416). Julia established a 200 x 50 m grid and analysed a total of 802 lag samples for low level gold, another 60 BLEG soil samples were taken along farm tracks and fence lines in the northern part of the tenements which was largely soil covered, this produced several +5 ppb gold results, but most of these did not form continuous anomalies (Cornelius 1994). Julia undertook 41 km of gridding and line clearing and undertook a RAB drilling program of 160 holes for 5412m. The holes were vertical and shallow (~30m) and did not penetrate through the upper heavily weathered layer of regolith. This RAB program tested lag anomalies, shears and extensions of old mining areas for gold mineralisation. Target selection was largely based on geochemistry and field observations of quartz veins and shears. Lag anomalies were drilled at 100 250 m centres on 200 m spaced lines. Shafts, old workings in structural targets were tested at 50 m centres. Only one hole returned significant intercepts - LWP16 (2m @ 0.72, 6m @ 0.79, 2m @ 1.25g/t Au), but follow up drilling to the east and west failed to intersect further gold mineralisation.

CRA Exploration explored the region for nickel and gold mineralisation in 1997. A regional airborne magnetic survey highlighted a magnetic anomaly along a structural break between the granite and greenstone terranes. A magnetic target was identified at the Charlie Prospect (within the central section of E 53/1953). Follow-up ground magnetic data and subsequent RAB drilling (94HWR069 – 94HWR071) of the target identified the anomaly to be associated with an ultramafic unit at the lithological boundary with the granite. No significant gold, nickel or other mineralisation was intersected in the drill holes (A-51203).

Cazaly Resources Limited (Cazaly) explored E53/1134 in the central part of the Company's tenure from 2006 to 2010. Soil sampling successfully identified a significant soil anomaly within E53/1134 with at least 1km of strike, in an area is dominated by colluvium in a broad flood plain draining gently northwards towards Lake Way. The core of the anomaly was greater than 3 ppb Au (equivalent to 6 times the background of 0.50 ppb) with a peak of 8.64 ppb Au. Aircore and RAB drilling was conducted at the southeastern portion of the tenement over the gold in soil anomaly which produced some anomalous bedrock gold results. 37 RAB and 28 Aircore holes for a combined 4,662m. Low levels of anomalism were found, with a significant intercept of 1m @ 37.1 g/t from bottom of hole in ALRB0017. An up-dip hole (ALAC0065) was drilled to repeat the result from ALRB0017 and although the hole intersected a distinct quartz vein structure, no significant results were returned. Cazaly interpreted the soil anomaly to have identified bedrock interface anomalism, possibly indicating an extensive depletion zone in the weathered profile, but the origin of primary gold mineralisation remained undetermined. Cazaly reported that the tenement was surrendered due to other corporate objectives and budget restraints (A-89279).

From 2006 to 2012 E53/1242 was held by MPI Nickel Pty Ltd (MPI), a wholly owned subsidiary of LionOre, and subsequently Norilsk Nickel Australia Pty Ltd ('Norilsk') from 2007. MPI's E53/1242 was a small EL, located directly east of the Jericho nickel deposit. It which was part of a large exploration project and combined reporting group. MPI were targeting both nickel and gold mineralisation. A ground magnetic survey was completed over the western portion of the tenement on a 50m line-spaced grid (A-94260). The resultant magnetic data was of significantly better quality than the earlier dataset and consequently enabled generation of a detailed magnetic image, including greater resolution of the known magnetic anomalies (Figure 15).

3.6 Mineral Resources

No Mineral Resources or Ore Reserves exist within the Kingston-Keith property.

The Kingston-Keith Project is at the exploration stage of development.

There are currently no mineral prospects on the property, which have a sufficient number of significant intersections of mineralisation to enable the planning of the establishment of mineral resources. It is the view of the Competent Person that the project is highly prospective for orogenic style gold mineralisation and that

there are reasonable grounds for optimism that sufficient gold mineralisation will be discovered and subsequently that mineral resources could be defined by appropriate drilling and associated studies.

3.7 Current Exploration

Since acquiring the Kingston-Keith Project in 2020, the Company has undertaken extensive compilation of past exploration data and initial interpretation and target generation studies based on the existing data, as covered in this report. The Company commissioned independent geological consultancy Geonomik Pty Ltd to undertake this compilation, who are the authors of this report. Geonomik's work of behalf of Lithium 1 includes:

- assembling copies, in digital scan format, of all previous exploration (WAMEX) reports, analytical certificates, maps and diagrams
- assembling digital files of all WAMEX and government datasets which cover the project area
- development of a unified digital database of this exploration data
- digitisation analogue and hardcopy exploration data and incorporation into the digital database
- purchase of aeromagnetic data
- commissioning the reprocessing of aeromagnetic data
- commissioning technical interpretation of the reprocessed aeromagnetic data by a consultant geophysicist
- technical research into nearby gold and nickel deposits
- preparing maps of the project area
- preparing assessment reports analysing of the unified dataset and discussing prospectivity
- reviewing current geological research and making recommendations for exploration programs
- organising permissions to undertake field work with regulators and landholders
- preparing an independent report (this volume).

3.7.1 Geophysical Interpretation

Existing open-file aeromagnetic data for the area is of modest quality (Figure 11). Geonomik recommended to Lithium 1 that additional data be sought and purchased and that reprocessing of the compiled geophysical data be undertaken.

Southern Geoscience Corporation (SGC) were engaged to undertake reprocessing exercise on available aeromagnetic and radiometric geophysical data covering the southern half of the Project area and its immediate surrounds. SGC advised that several parcels of aeromagnetic data were available for purchase, and Lithium 1 undertook acquisition of this higher quality data. Reprocessing was undertaken using specialist geophysical software and output provided in digital format and as a set of pseudo-colour images and grey-scale images (Figure 12). SGS were subsequently engaged to undertake a geophysical and geological analysis of the reprocessing of aeromagnetic data (SGS, 2021). The following comments are an extract from the SGS report.

The very broad scale structural interpretation of the regional magnetic data (Figure 12) highlights how highly prospective the area is for orogenic gold mineralisation. While the lines on the interpretation are shown as a single line, it is likely these are probably indicative of a broader shear zone, rather than a discreet fault. The tenement package contains many prospective features such as bends in major greenstone lithologies, fault and shear zones and the central granite intrusive, which could be a source of increased fracturing and mineralising fluids. The Perseverance Fault runs along most of the western edge of the tenement package, and is also known to be associated with gold mineralisation, most notably at Wiluna (SGS, 2021).

An area in the south of the project area where more detailed magnetic data was available shows far more information and therefore significant major and secondary structures have been interpreted (Figure 13). The more detailed interpretation has highlighted prospective areas of interest for ground based follow up. This area could be fully interpreted for lithology as well as structure and integrated with other geological information, such as mapping, drilling and geochemistry in order to provide more detailed targeting (SGC, 2021).

SGC noted how the area of detailed magnetics highlights how significantly this high-quality magnetic data can add to the litho-structural knowledge and targeting of the entire tenement. New acquisition of detailed magnetics is highly recommended over the whole tenement.

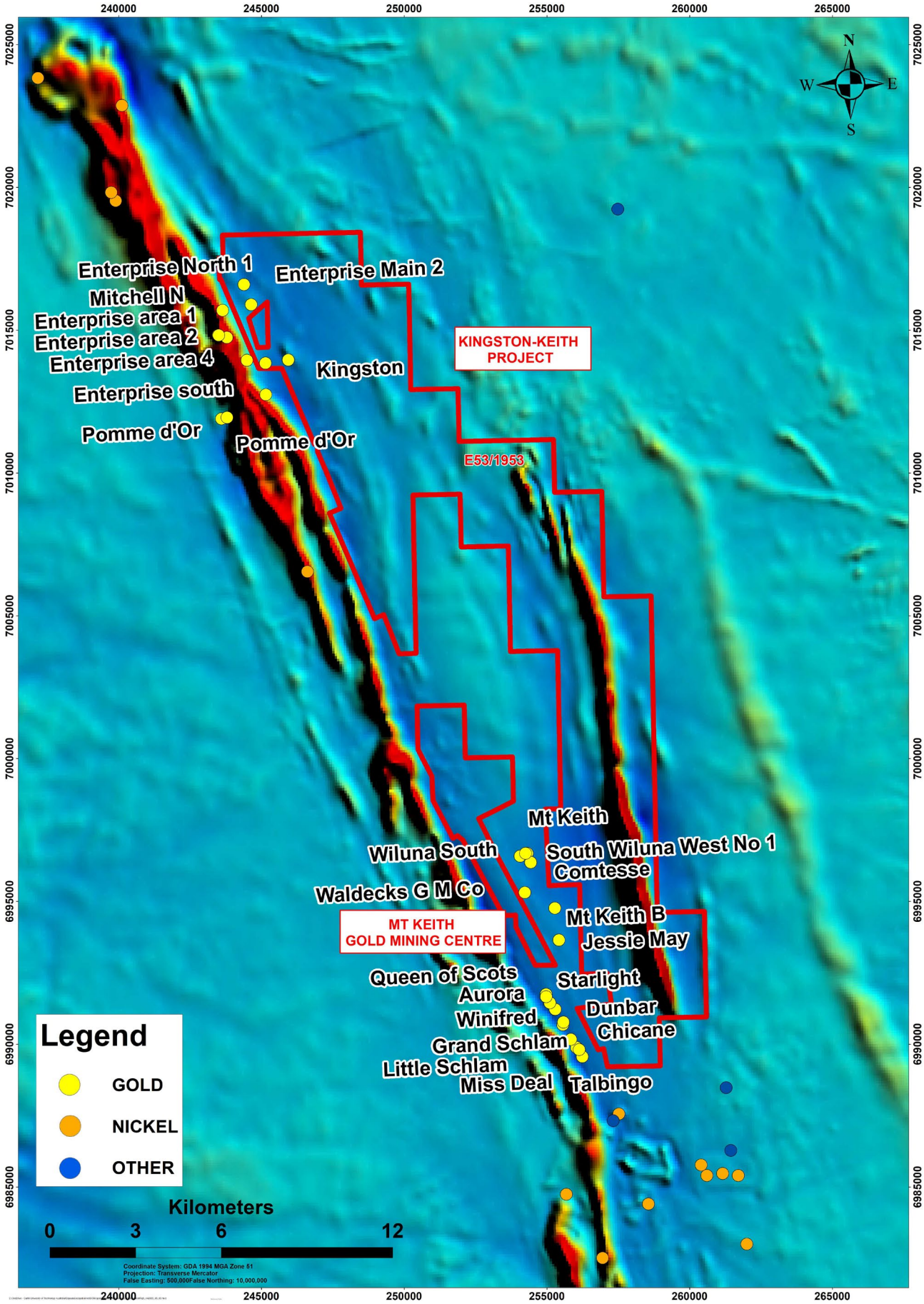

Figure 11 Geophysical Image of Open-file Aeromagnetic Data Covering the Project Area

Showing location of historical mines and gold workings. Source: (DMIRS open file data)

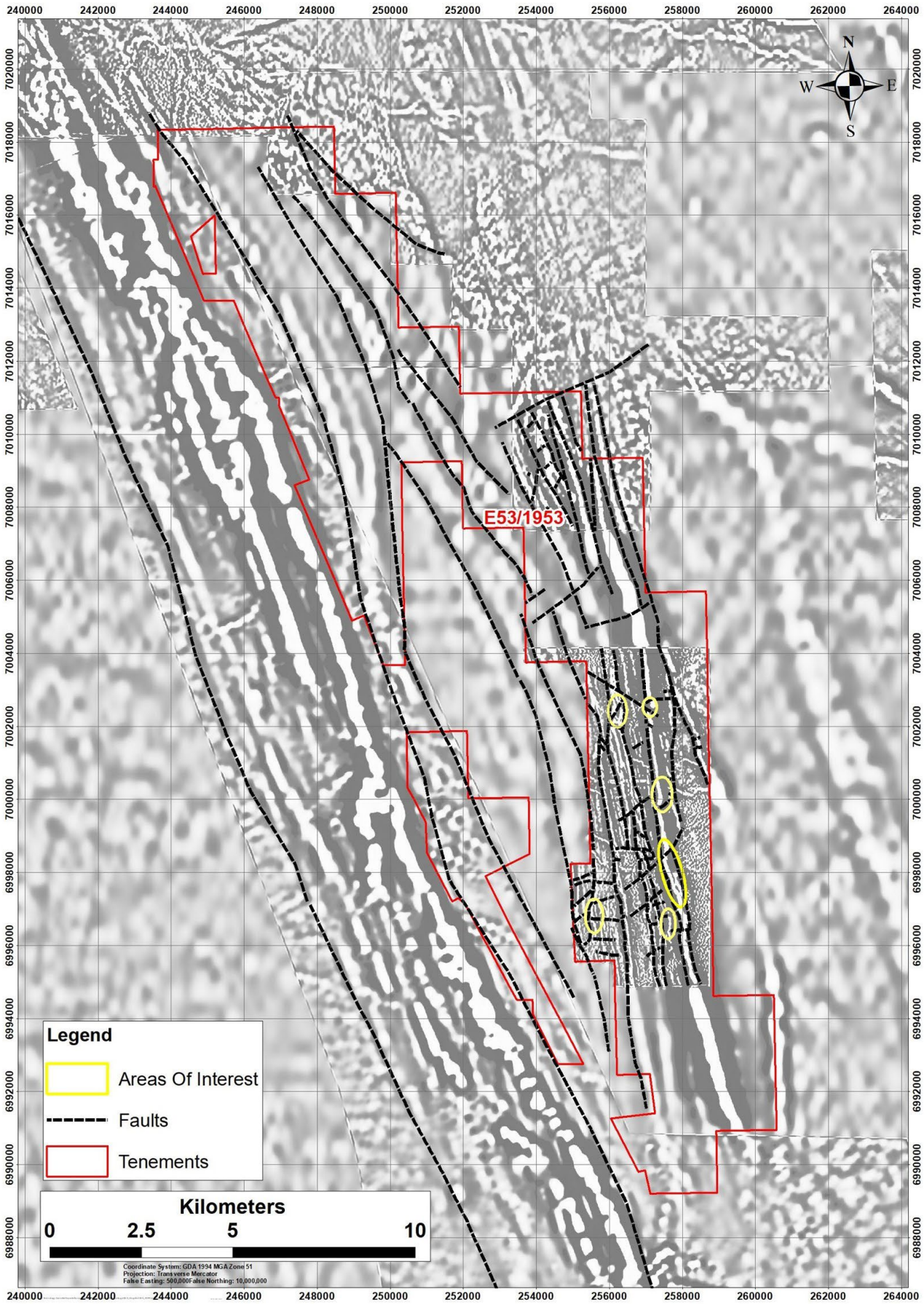

Figure 12 Interpretation of Reprocessed Grey-scale Aeromagnetic Image

Showing interpreted faults and areas of interest for gold prospectivity. Source: SGC (2021)

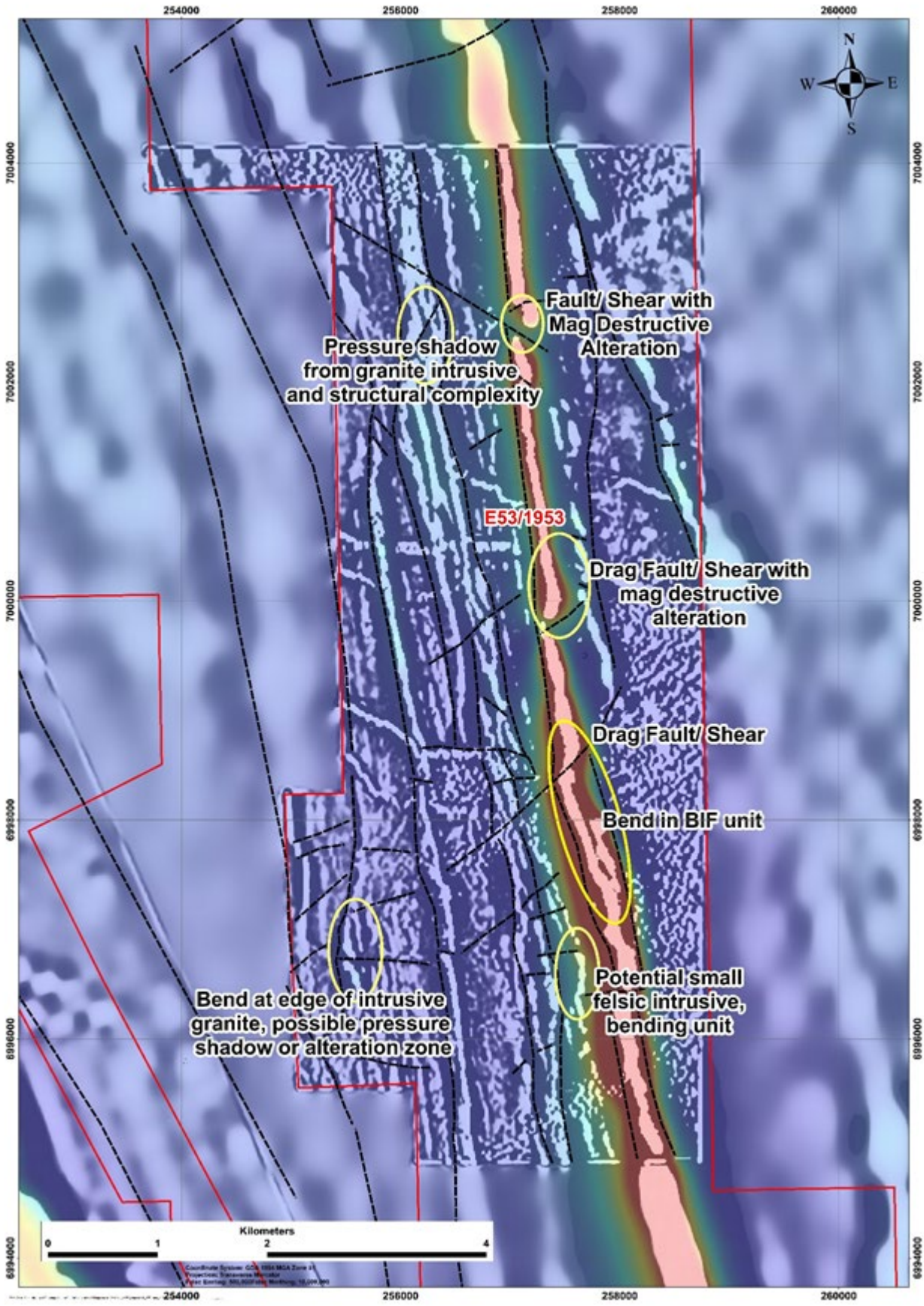

Figure 13 Detailed Area of Figure 12 showing Structural Interpretation of Aeromagnetics
With commentary on areas of interest for gold prospectivity. Source: SGC (2021)

3.8 Exploration Potential and Targets

The Kingston-Keith Project is at the exploration stage of development with no Mineral Resources defined.

Kingston Keith Project is positioned in a prospective location in terms of a regional geological and mineralisation setting, occurring within the Agnew-Wiluna Greenstone Belt which hosts numerous significant gold deposits (refer Section 3.3 and Figure 14) have supported highly profitable open cut and underground mining operations over many years. These include the Wiluna and the Agnew gold deposits, which have produced 8.0 million ounces of gold (Moz) and 3.8 Moz respectively. Other deposits in the area include the Matilda gold mine (0.89 Moz), Williamson Mining Centre (0.4 Moz), Kathleen Valley (0.3 Moz) and Bellevue (0.7 Moz).

A number of existing gold mining operations along the Agnew-Wiluna Greenstone Belt are of significant size with mine life of over 15 years. The fact that there are large gold deposits in the same belt indicates that the potential for any gold discoveries made at Kingston-Keith to be large deposits, are increased.

The Kingston-Keith Project is an under-explored, highly prospective area with significant potential for the discovery of economic gold deposits. Past exploration on the Project has seen drill holes return interesting gold grades over significant widths, however much more exploratory drilling is required to determine the continuity of mineralisation and to define mineral resources. Most of the drilling to date within the Kingston-Keith Project has not tested the down-dip and down-plunge potential of the defined anomalies. Most of the tenement has not been drill tested to depth.

Ultramafic rocks have been noted as occurring within the tenement and these are considered prospective for nickel, copper and platinum; however, fieldwork is required to confirm the presence of ultramafics and to assess their potential.

Positive attributes of the Kingston-Keith Project are:

- Excellent infrastructure for exploration and mining (Section 3.1)
- Low sovereign risk for development and mining in Western Australia
- Located within a greenstone belt hosting numerous and large gold deposits (Figure 14)
- Located within a fertile corridor of rocks within the greenstone belt – the Agnew-Bellevue-Kathleen-Mt Keith-Kingston-Matilda-Wiluna gold corridor (Figure 14)
- Covers a deep mantle-tapping crustal-scale structure (Figure 7)
- Under explored for gold – due to nickel miners holding the ground (Section 3.5.1, Figure 10)
- Historical gold workings at Kingston and located close-by at Enterprise and Mt Keith mining centres (Figure 11)
- Previous drilling has intersected significantly anomalous gold grades but not followed up adequately (Section 3.5.2)
- Geophysical anomalies apparent in magnetic images (Figure 15) require further assessment.

Geochemical anomalies have not been followed up adequately (Section 3.5.2).

3.8.1 Kingston Prospect

The Kingston Prospect is defined by an extensive set of historical shallow mine workings which date back to the late 19th to early 20th century when the Yilgarn region was subject to extensive prospecting and artisanal mining. The prospect is located in the north of E53/1953 (Figure 11) and covers the Kingston and Enterprise workings which are recorded in the MINEDEX database of the DMIRS of WA. The workings continue to the west off the Project into P53/1673 which is held by others. The gold mineralisation within the workings is structurally controlled occupying northerly trending steeply west dipping shear zones.

Drilling by Asarco in the 1980s (refer Section 3.5.2) around historical workings and mines has highlighted the impressive grade and tenor of the mineralised system, with grades up to 5.56g/t Au from a 2m intercept in RC drilling. Significant gold intercepts in historical RAB and RC drilling undertaken by Asarco in 1987-88 are provided in Table 3 with further details in Appendix 2. These exploration drillholes were angled at 60° to test under historical mine workings and designed intersect the mineralised lodes exploited by the near-surface workings at depth. Geological mapping by Asarco (A-31029) defined a north-northwest trending contact between metamorphosed sedimentary and tuffaceous rocks to the west, and metamorphosed mafic volcanic rocks to the east.

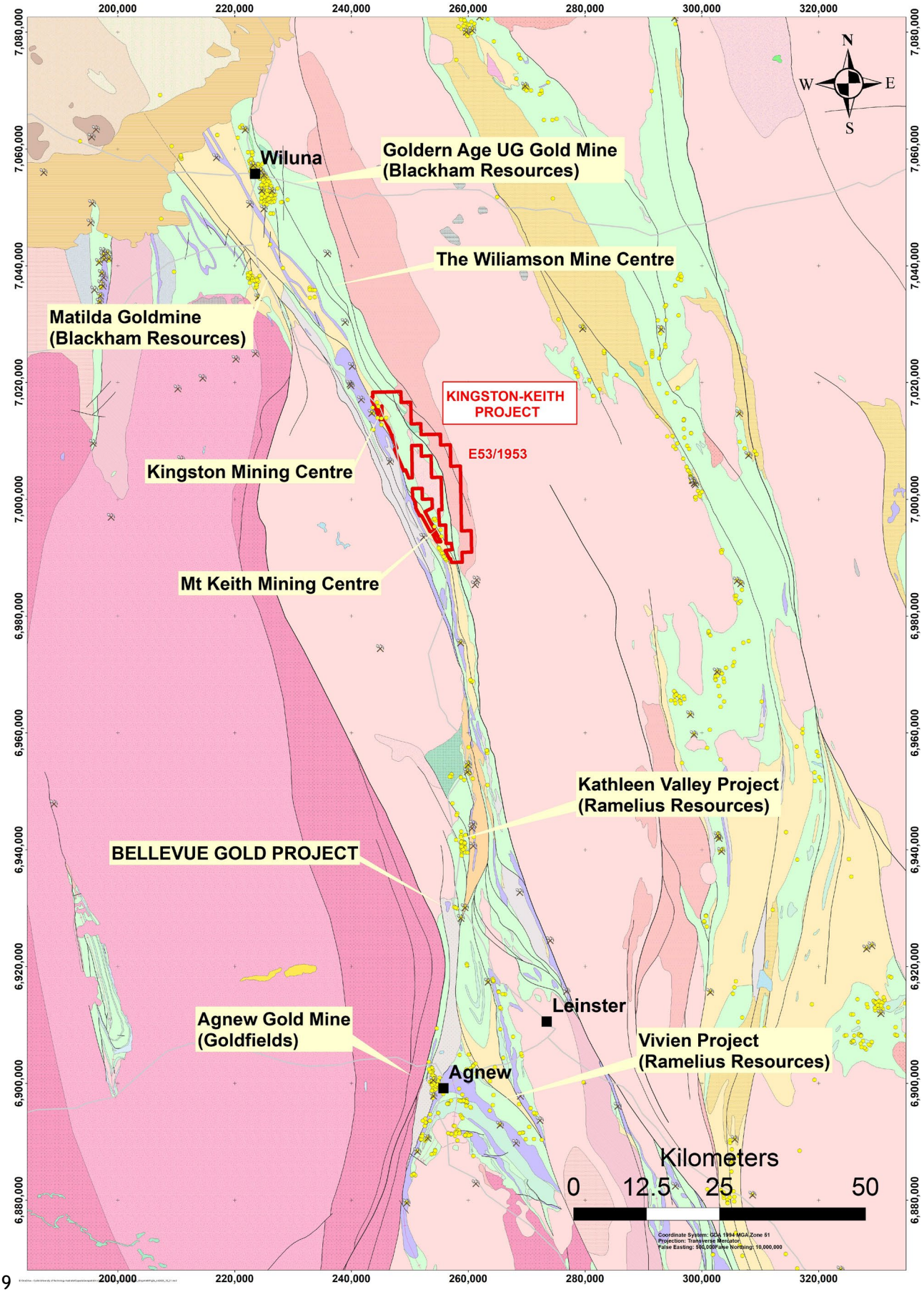

Figure 14 Regional Geology of the Kingston-Keith Project Highlighting Major Gold Deposits

Active gold projects owned by others (yellow labels), mines and mineral deposits (mine symbol) and gold occurrences (yellow circles)

Table 3 Significant Intersections from the Asarco drilling at their Kingston Prospect

HOLE ID	HOLE TYPE	GOLD g/t	INTERSECTION g/t Au	FROM m	TO m	INT. m	MAX. DEPTH
WAR52	RAB	0.5	4m @ 0.50	26	30	4	50
WAR54	RAB	0.39	4m @ 0.39	20	24	4	35
WAR55	RAB	2.44	4m @ 2.44	42	46	4	46
WAR56	RAB	1.01	20m @ 1.01	30	50	20	50
WAR60	RAB	0.25	10m @ 0.25	34	44	10	44
WAR61	RAB	0.15	6m @ 0.15	14	20	6	26
WAR62	RAB	0.11	4m @ 0.11	18	22	4	47
WAR65	RAB	0.52	2m @ 0.52	32	34	2	47
WR539	RC	5.56	2m @ 5.56	56	58	2	60
WR544	RC	2.37	2m @ 2.37	18	20	2	40

Soil geochemistry by Adasam in 1992-93 (refer Section 3.5.2) detected a coherent gold anomaly around the Enterprise workings with a peak of 28ppb Au and a threshold of 5 ppb Au (A-38602). From surface and underground mapping and sampling they concluded that gold occurs in mafic volcanic/intrusive and sedimentary sequence; and that gold mineralisation within the workings is structurally controlled occupying northerly trending steeply west dipping shear zones. Ten gold occurrences were worked by artisanal miners within a zone 4 km long and 1 km wide. The miners selectively mind high grade, northerly plunging ore shoots associated with lens oil quartz reefs. The strike length of these ore shoots ranged up to 120 m. Gold was also noted occurring within shear zones associated with silicification and iron-rich alteration, quartz splays branching off the shear zones into the footwall. The maximum width exposed and sampled in the old workings across shear zones was 1.5 m at 4.96 g per tonne gold.

Adasam concluded that the prior drilling by Asarco had not tested the down plunge potential of the high-grade shoots within the wider portions of the shear zones (A-38602).

Adasam provided a detailed account of the results of their mapping and sampling program. This is provided below as transcribed from the original report (A-38602).

Underground Survey

Five areas with underground workings were mapped, sampled in detail and plotted on map drafted at a scale of 1:10,000 provided in the Adasam annual tenement report to the Department of mines which also provided 5 hand drawn maps at a scale of 1:100 for the 5 areas : Main Enterprise workings, Area I workings, Area II workings, Area III workings, and Area IV working. In addition to the above, dump and chip-channel samples were taken from four locations.

Main Enterprise Workings

The Enterprise workings were sunk on a 350' N trending, steeply west dipping siliceous and ferruginous shear zone affecting a medium-grained mafic volcanic sequence.

The shear zone contains lensoidal quartz veins and quartz splays branching off into its footwall.

Judged by the shape and distribution of the workings, the "old timers" were following north plunging high-grade ore shoots within the general shear zone.

This is confirmed by the shear zone-splay intersection trace which generally plunges in a northerly direction. The total production recorded for the Enterprise area is 2,709.07 ounces from 2,880.00 tons of ore (1902-1904).

Nineteen samples were taken in the exposed portions of the workings which extend for some 90m along the strike of the shear zone. The samples are 3-5kg chip-channel samples taken structurally and lithologically controlled across the shear zone. The samples are plotted on Dwg No 1 which also contains a type section and a table listing the samples with sample description and assay results.

The result of this sampling demonstrates that:-

1. Grades vary rapidly within the shear zone.

2. Gold values were returned from both sheared mafics and from quartz lenses within the shear zone, the latter ranging up to 33.30 g/t Au.

3. Grades in quartz splays also vary and range up to 25.65 g/t Au.

4. The maximum width (exposed) sampled across the combined shear zone and footwall splays is 1.75m (see Type Section A-B, sample points 1-7E). This width returned a weighted average grade of 4.96 g/t Au.

The collar positions of six old drill holes were mapped and plotted on Dwg No 1 (two RAB and four RC holes). The old sample piles along two of the RC holes were re-sampled and re-assayed:-

Level 1, at a shallow depth of 2-4m below the surface, confirmed the structural control to the mineralization as mapped in the Enterprise and Area I workings.

Gold values were returned from both siliceous/ferruginous sheared country rock and from quartz splays branching into the shear's footwall with assays of up to 2.89 g/t Au and 13.47 g/t Au respectively. Full details of the sampling and mapping have been plotted on Dwg No 4.

Two RAB holes and 1 RC hole were drilled under the workings as plotted on Dwg No 4. The old sample piles of the RC hole were re-sampled and assayed to return 5.74 g/t Au between 28-29m, ie approximately 25m vertically below the main workings.

Area IV Workings (Dwg No 5):- This area covers a 120m long line of shallow, less than 5.0m deep, shafts and diggings, striking 350· N with a near-vertical west dip. There are probably three separate ore shoots, the central one of which has a parallel line of loamings in its footwall.

Two sample lines were cut across the shear zone as plotted on Dwg No 5.

The results demonstrate that gold is present in both quartz lenses and in sheared sedimentary rocks. The highest assay returned was 0.62m (Hor.) @ 1.58 g/t Au.

Locations 1-4:- Scattered single shallow shafts and diggings occur in the area as plotted on Dwg No 6. These diggings have been systematically sampled as follows:-

Loc. 1 - Two grab samples of ferruginous and white quartz off mullock dumps.

- *26-26E:- 1.45 g/t Au*
- *27-27E:- 1.40 g/t Au*

Loc. 2 - Two grab mullock samples of ferruginous quartz off southern diggings.

- *51-51E:- 0.09 g/t Au*
- *52-52E:- 0.03 g/t Au*

A sample line across 75° west dipping shear zone in northern shallow shaft/underlay.

- *53-54:- Sheared hanging wall - 0.62m (Hor.) @ 1.43 g/t Au*
- *54-55:- Main quartz reef - 0.13m (Hor.) @ 6.50 g/t Au*
- *55-55E:- Sheared footwall - 0.85m (Hor.) @ 0.86 g/t Au*

Loc. 3 - Grab sample ferruginous quartz off mullock dump.

- 35-35E:- Less than 0.02 g/t Au

Loc 4 - Grab sample ferruginous quartz off mullock dump.

- 50-50E:- 4.97 g/t Au

Note that the Company has indicated to Geonomik that it will complete digitising and database input of this data and undertake field confirmations in Phase 1 of its proposed field program (refer Section 3.9). Geonomik have assessed the Adasam work, consider it is material to the Project, and appropriate for inclusion in this Report, but note its historical nature and this data is subject to the weaknesses discussed in Appendix 1 – JORC Code Table 1.

3.8.2 Geochemical Exploration

Modern exploration has included geochemical and geophysical techniques. Several geochemical anomalies remain untested. A gold-copper-silver soil anomaly with a peak value of 2.44 g/t Au, with follow up rock chips returning 10g/t Au, 0.7g/t Ag and 0.52-1.6 % Cu, warrants drill testing. In the eastern part of the tenement, elevated gold in soil assays define coherent trends up to several kilometres in strike length. These zones of anomalous gold at surface provide targets for drilling to depth.

Significant geochemical data has been acquired over the property by previous explorers but the quality is variable. Geonomik consider that geochemistry may not be a particularly effective exploration tool for the Kingston-Keith project given significant areas and depth of cover combined with the significant depth of weathering and regolith development over fresh Archaean rock. Deep aircore drilling combined with multi-element low-detection limit analysis may be required to enact an effective geochemical test for gold

mineralisation. Geonomik considers opportunities exist to undertake a detailed regolith mapping study and to reinterpret the existing data by sub-setting by regolith type.

3.8.3 Geophysical Exploration

Geophysical exploration over the project tenements has been limited to the flying of aeromagnetic surveys and the implementation of ground magnetic surveys. A total magnetic intensity image of the project area based on publicly available government data has been prepared (Figure 11). The architecture of the Archaean Agnew-Wiluna Greenstone Belt is clearly rendered in the image highlighting important aspects of the structural geology of the belt. However, there is a significant exploration advantage when higher quality and close-spaced aeromagnetic data is available. This is clearly illustrated by the work undertaken by SGC for the Company (Section 3.7.1 and Figure 13).

Interpretation of the magnetic data has proved a very successful gold exploration method on the greenstone belts of the Yilgarn Craton, as good quality magnetic data can be used to map the structures which control and localise gold mineralising processes. Geonomik consider the currently available magnetic data is not of sufficient quality to support determination of potential structural targets for orogenic gold mineralisation. Geonomik consider their exists an opportunity to improve target generation by the acquisition of high quality magnetic data using both airborne and ground surveys.

Other geophysical methods which have been successfully applied to gold exploration in the Yilgarn include gravity, induced polarisation and electromagnetic techniques. No record of the application of these was observed in the reports or data examined, thus an opportunity exists to apply such methods.

3.8.4 Magnetic Anomaly defined by MPI

A 50m line-spaced ground magnetic survey was completed by MPI over the western portion of expired tenement E53/1242 (A-94260). The resultant magnetic data was of significantly better quality than the earlier dataset enabling generation of a detailed magnetic image, providing greater resolution of the prominent magnetic anomalies (Figure 15). The anomaly located several kilometres east of the Jericho nickel deposit. MPI reported that "Had an extension of term been granted, RC drilling of a magnetic anomaly would have commenced in 2012." (A-94260). Previous drill intersections (shallow aircore and RAB drilling) have indicated that this magnetic anomaly is due to the presence of mafic volcanics. The northern-most hole (RWA00017) contains a long interval with anomalously high copper (486ppm Cu over the interval 20 to 56m down hole, with individual 4m composites up to 619ppm Cu). There are no gold assay data available for any of the holes in the dataset, and the possibility exists that the high copper zone may be associated with gold mineralisation. A contact zone between mafic and felsic host rocks is considered prospective for gold mineralisation.

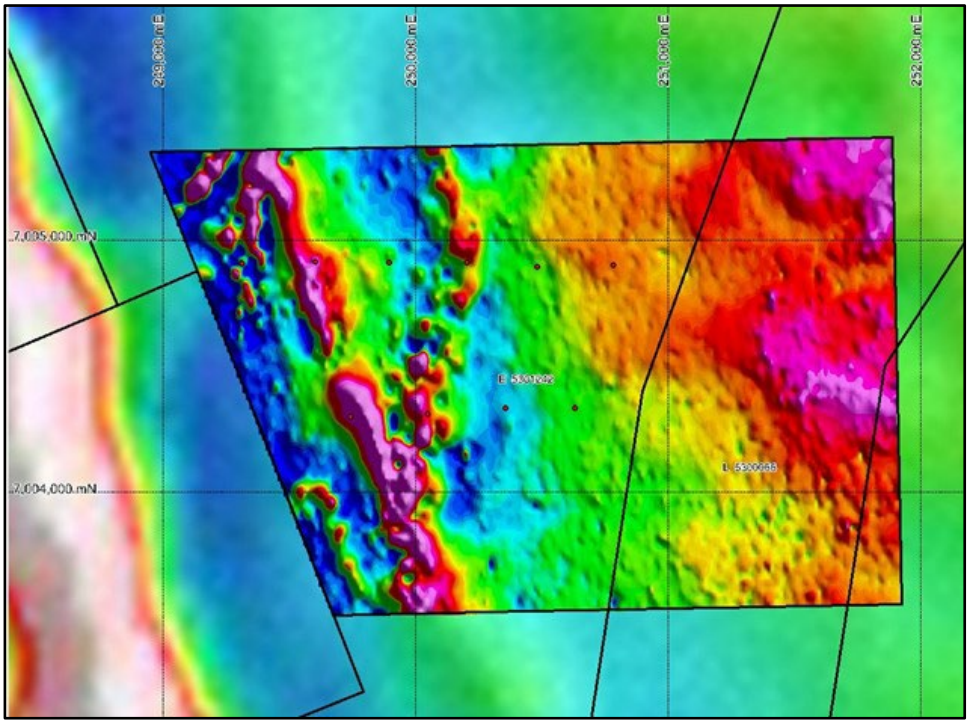

Figure 15 Magnetic Image showing the MPI Magnetic Anomaly

Source: MPI (A-94260) Black lines are boundaries of historical tenements

3.8.5 Regional Exploration

Geonomik have assessed the prospectivity of the broader tenement area in light of the underlying geology and the results of exploration undertaken by previous explorers. The whole tenement is underlain by the Achaean Agnew-Wiluna Greenstone Belt and can be broadly considered prospective for orogenic gold mineralisation. The Keith-Kilkenny Tectonic Zone passes through the area which is a major crustal scale structure which separates the Kalgoorlie domain from the Kurnalpi domain of the Yilgarn Craton.

Figure 9 in Section 3.4 plots the collars of the historical drillholes drilled by previous explorers within E53/1953, which are recorded in the WAMEX database of the DMIRS of WA. The collar symbols are coded to the type of drillhole – aircore, RAB and RC. This highlights the location of the main prospects area drilled by past exploration companies. The map shows the scarcity of drilling over much of the project area. Existing RC drilling is clustered around a few prospects, while large areas of prospective rock types are not tested by the RAB and aircore drilling.

Figure 16 plots the collars of all the historical drillholes drilled by previous explorers in the area immediately surrounding E53/1953, which are recorded in the WAMEX database of the DMIRS of WA. Similarly, the collar symbols are coded to the type of drillhole – aircore, RAB and RC, also auger and diamond.

This map shows the higher intensity of drilling which has been undertaken over other areas of the greenstone belt. It is significant to note that the WAMEX database contains no data for mining leases. The most prospective ground in the area has long been held under mining lease tenure and therefore shows limited or no drilling. These areas have, in actuality, received large amounts of drilling, but none of the data is publicly available.

3.9 Exploration and Development Strategy

3.9.1 Exploration Strategy

The Company has indicated to Geonomik that they will undertake a systematic approach with respect to their exploration program focusing on gold. Significant previous exploration has been undertaken across the project area and the Company will maximise the usefulness of this asset by undertaking thorough research in compiling and analysing the available data, developing an exploration database, field checking anomalous localities, and assessing the potential of the known anomalies.

A four phased approach is envisaged for future exploration on the Kingston-Keith Project. Stage 1 would involve compilation of previous exploration data, regional synthesis using public domain data, aeromagnetic and structural interpretation, geological target generation followed by geological mapping of targeted locations and confirmation of historical work. Stage 2 would involve geochemical assessment of the whole property involving the regolith mapping, broad geochemical sampling, multielement geochemistry, geophysical surveys of specific target areas and auger geochemistry of specific target areas. Stage 2 would also involve an initial testing of generated targets using aircore drilling. Stage 3 would involve RC drilling of the high priority prospects, aircore drilling of new targets. Stage 4 would involve close spaced RC and diamond drilling to define mineral resources where appropriate, and RC drilling of new target areas.

Geonomik considers that the exploration strategy proposed by the Company is consistent with the mineral potential and status of the Kingston-Keith Project.

3.9.2 Development Strategy

The Company proposes to undertake a professionally managed development strategy in line with the industry standard process as illustrated in Figure 2 of Section 2.1 of this report.

This report has been prepared in conformance with the JORC Code and the VALMIN Code, therefore it is not appropriate for the Competent Person to propose a detailed strategy for development of a mineral project which is not supported by Mineral Resources. To outline a development schedule for a mineral deposit which has been assumed to exist would be contrary to acceptable practice as defined in the Codes.

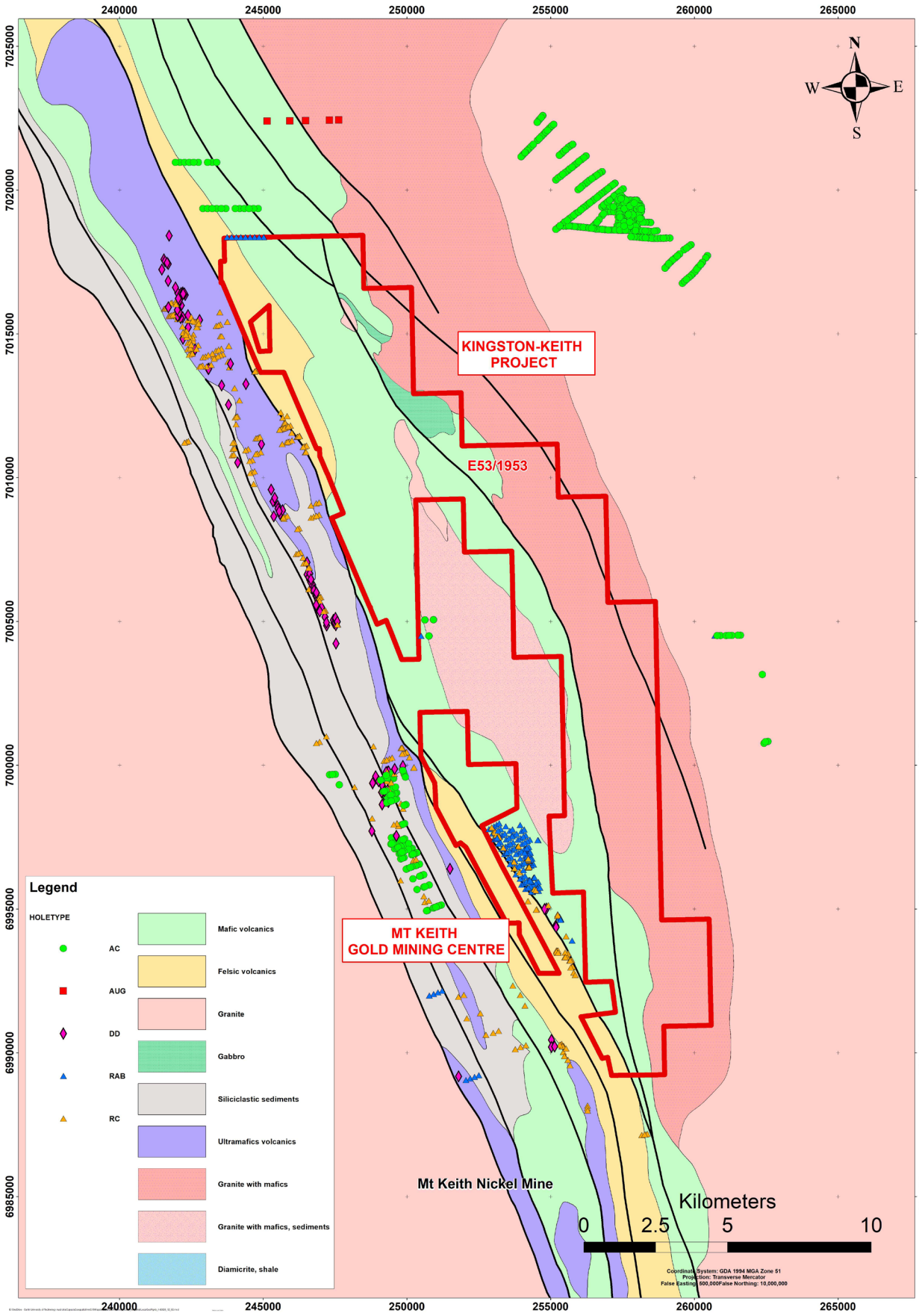

Figure 16 Exploration Drilling in the Area Surrounding the Kingston-Keith Project

Location of drillholes of previous explorers in the WAMEX database (AC=aircore, AUG=auger, DD=diamond, RAB=rotary air blast, RC=reverse circulation). Refer Figure 9 for drillholes withing E53/1953.

3.9.3 Recent Development of Nearby Gold Discoveries

The development of a mineral discovery on the Kingstone-Keith Project area would likely proceed with as rapid a development timeline as in any location in the world. This is evidenced by the efficient development of a number of recently discovered gold deposits in the immediate district.

The Bellevue Gold Project is an excellent example of an exploration success story in this region. The historical Bellevue mine, located 65km south of Kingston-Keith (Figure 14) in the same Greenstone Belt, produced about 800,000 ounces of gold from 1887 before finally closing in 1997.

Draig Resource Limited, a small public company listed on the ASX, acquired tenements surrounding the abandoned mine in 2016 when its share price was around 3 cents. After a year of geological analysis of existing data, Draig raised $3.3 million to fund an exploration program. In November 2017 they announced a discovery of a new gold lode similar in style and nature to the previously mined Bellevue Lode with a drill intersection of 5m @ 37.5g/t gold within a broader zone of 7m @ 27.4g/t gold from only 92 metres down hole (Draig Resources, 2017).

Draig changed its name to Bellevue Gold Ltd (Bellevue). Rewarded with a rapidly increasing share price, Bellevue were able to fund exploration drilling with further capital raisings on the ASX. Development drilling and feasibility study work was undertaken the project progressed. The new discoveries were all from surface drilling and have significantly extended the footprint of the mineralised system both along strike and at depth. The gold discovery has led to defining a Mineral Resource of 7.46Mt at 10.0g/t gold for 2.41M oz gold, including a Probable Ore Reserve of 2.7 Mt at 8.0g/t Au for 690,000 ounces (Bellevue Gold, 2021).

Current planning is for construction to commence in 2022 and gold mining and production in 2023. Bellevue have publicly reported that the project is on track to become a top 25 Australian gold mine with a production profile of 160koz per year in the first 5 years; All in Sustaining Cost of $1,079 per oz (inclusive of all LOM sustaining capital); Stage 1 Initial Mine Life of 7.4 years (Bellevue Gold, 2021).

The share price of the Bellevue Gold in May 2021 was $0.88 (BGL:ASX) representing a 2900% rise over the 5 years since project acquisition, and achieved before commencement of the constuction phase of project development.

The author stresses that this is an example of a successful exploration project and that most exploration projects do not result in discovery. It has been presented to illustrate that securities markets recognise the value of successful gold exploration, and also to illustrate that a mining project can develop rapidly from exploration to development in the Goldfields region of Western Australia.

4. SITE VISIT

4.1 Site Visit Scope

The author undertook a 9 day site visit to the Kingston Keith project area from 15 to 24 November 2021. The purpose was to appraise the tenement and physically inspect those areas which were highlighted as most interesting by the earlier desktop study. Figure 17 shows the priority areas on which the site visit was focused which are named Enterprise N, Enterprise Main, Mt Keith N, Mt Keith Corridor, and Comtesse W.

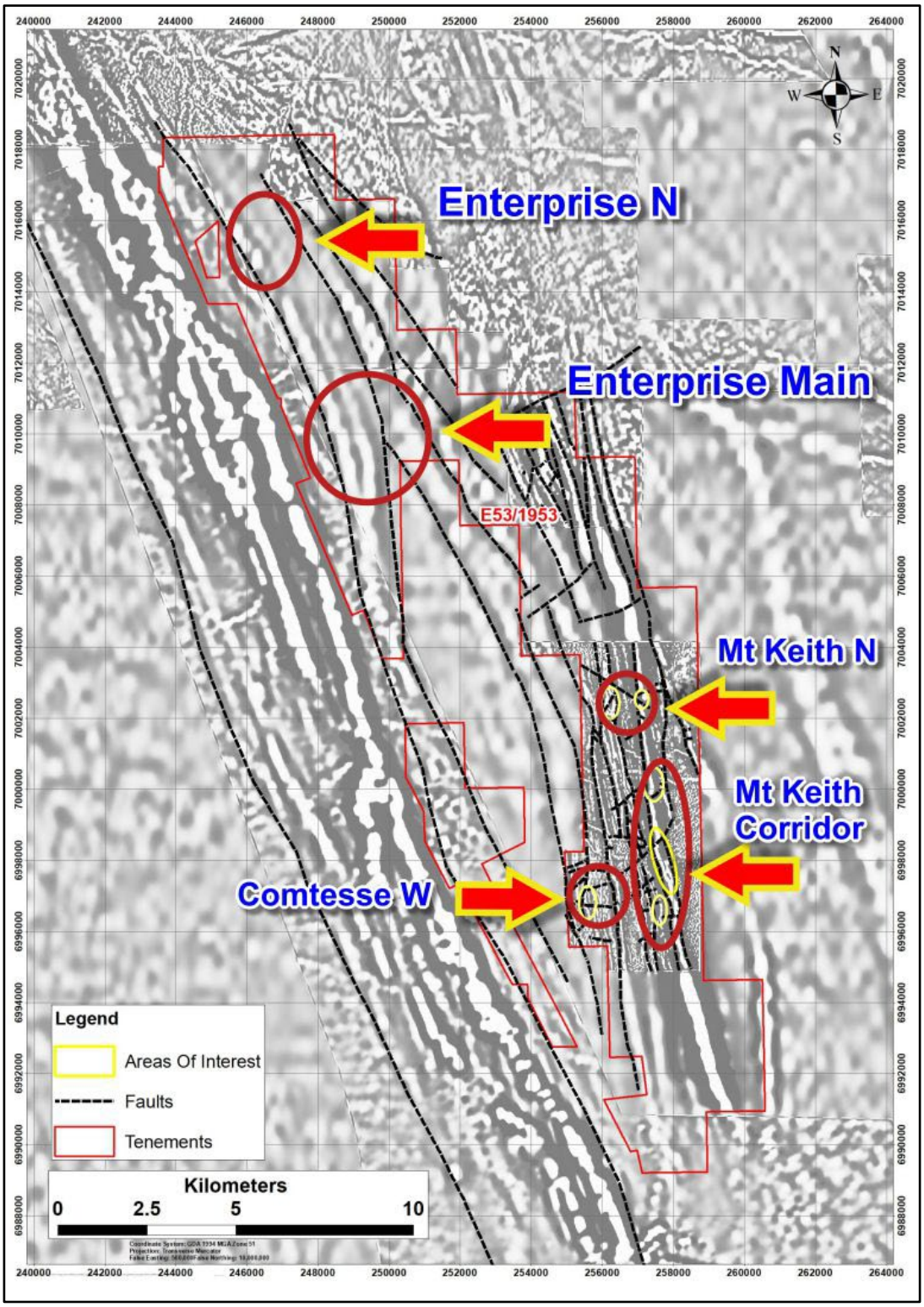

Figure 17 Magnetic Image showing the Priority Areas for the Site Visit

Notes: Red circles highlight areas of focus for the site visit. Image of aeromagnetic 1VD. Black lines are Southern Geoscience Interpretation.

The following criteria were used to assess the tenement:

- Presence of remnants of historical mining
- Concentration of surface quartz veining and gossans
- Shallow old workings
- Historical drilling and sampling
- Presence of prospective host rocks in outcrop
- Aeromagnetic geophysical anomalies.

The results of the site visit are documented in a detailed report (Geonomik, 2022). The following section provides a high level summary.

4.2 Enterprise Area

4.2.1 Enterprise Area Geology

The greenstone sequence has undergone variably intense ductile/brittle deformation associated with regional splay structures. Indications of splay structures are observed across the entire length of the tenement, and deformation is observed in many of the lithologies which has been affected by syn or diagenetic hydrothermal alteration.

The shear zones are thought to represent dilatational shears activated by regional dextral shearing within the tectonic zone. Particularly high grade, steeply plunging shoots have developed within the shear, the geometry of which is yet to be ascertained.

The primary lithologies and associated syn- or diagenetic hydrothermal halos have been metamorphosed, the hydrothermal assemblage is made of quartz carbonates, strong silica replacement, hematisation and minor sericite representing a proximal alteration style. In many places the veins and shear zones are devoid of sulphides. In float and in most surface exposures the sulfides have been largely removed by weathering, leaving only limonite-stained vugs or limonite pseudomorphs.

Gold anomalism appears to be structurally controlled, occupying northerly-trending, steeply west dipping shear zones. Anomalous grades of gold are associated with both quartz veining and in sheared wall rocks, with multiple ore shoots. Observed gold mineralisation occurs within:

- shear zones associated with silicification and ferruginisation
- quartz splays branching off the main shear zones into the shear's wall rocks.

Investigation and mapping by (Geonomik / previous explorers) at Enterprise main workings documented swarms of closely spaced (metre scale), thin (centimetre scale), steeply dipping quartz veins associated with mineralised orebody, the vein swarms are locally interconnected and form a stockwork array in some shallow workings, these stockwork vein swarms have not been previously described from a structural point of view.

Multiple steep dipping splays along strike that possibly controls the location (clusters) of mineralised zones. Pervasive quartz vein development appears to be concentrated along this splay structure, it is believed that along the main Kingston regional corridor, potential clusters of parallel shear planes are distributed along a northerly trend.

4.2.2 Enterprise Area Mineralisation

Mineralisation in the Enterprise workings is confined to quartz reef/veins and highly altered and sheared wall rocks. Four sets of auriferous veining have been previously identified from underground mapping and sampling of the historical workings:

1- North trending steeply west dipping quartz reef, the quartz appears milky and massive (0.5 – 0.7 m).

2- Parallel quartz veins are interpreted as tension fractures (splays) running from the footwall of the main quarts reef.

3- Sub-parallel quartz veining plunging 30-40 degrees to the north.

4- Minor brecciated/ lensoidal and stockwork quartz observed within parts of shear zone. The thickness of the mined ore zones along the shear zones between 1 to 5 meters at the main underground workings and can be traced in excess of 120m along strike to the south.

Different style of highly ferruginous/ quarts carbonate veining associated with BIF and sheared metamorphosed mafics located 900m south of Enterprise and along strike.

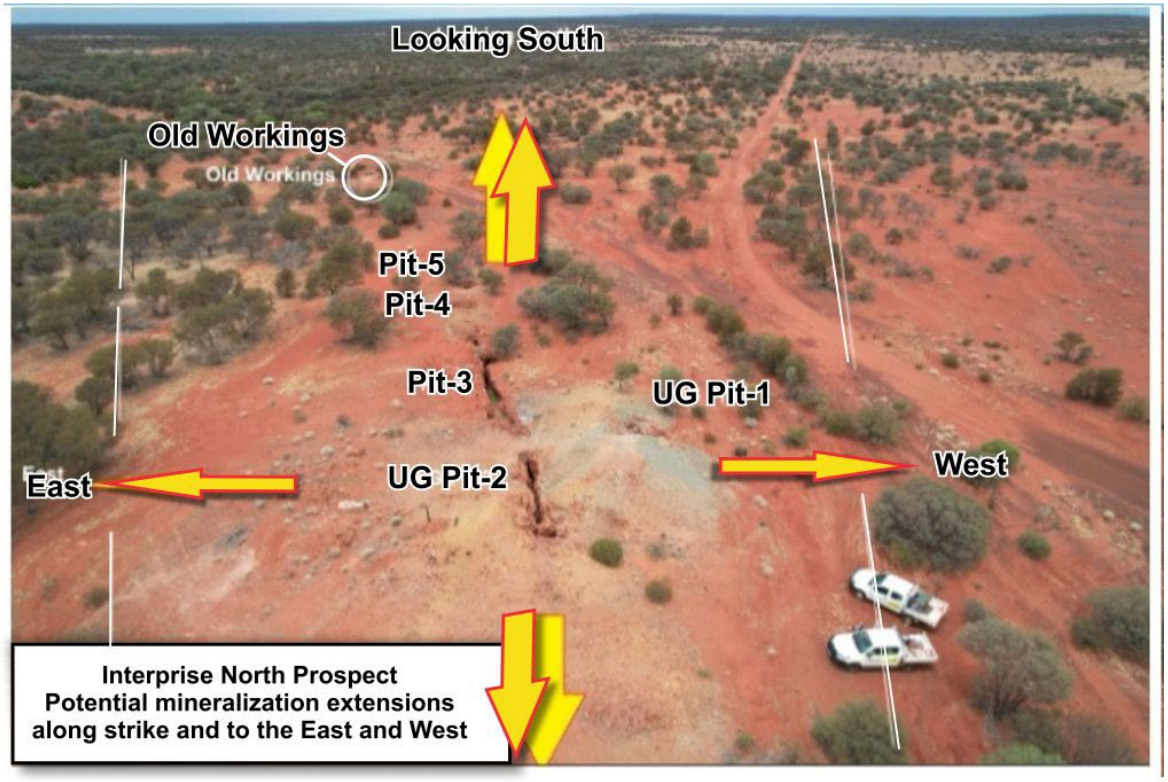

Figure 18 Photograph taken by Drone of one of the Historical Workings at Enterprise
Location: GPS Location 103 on Map Figure 21

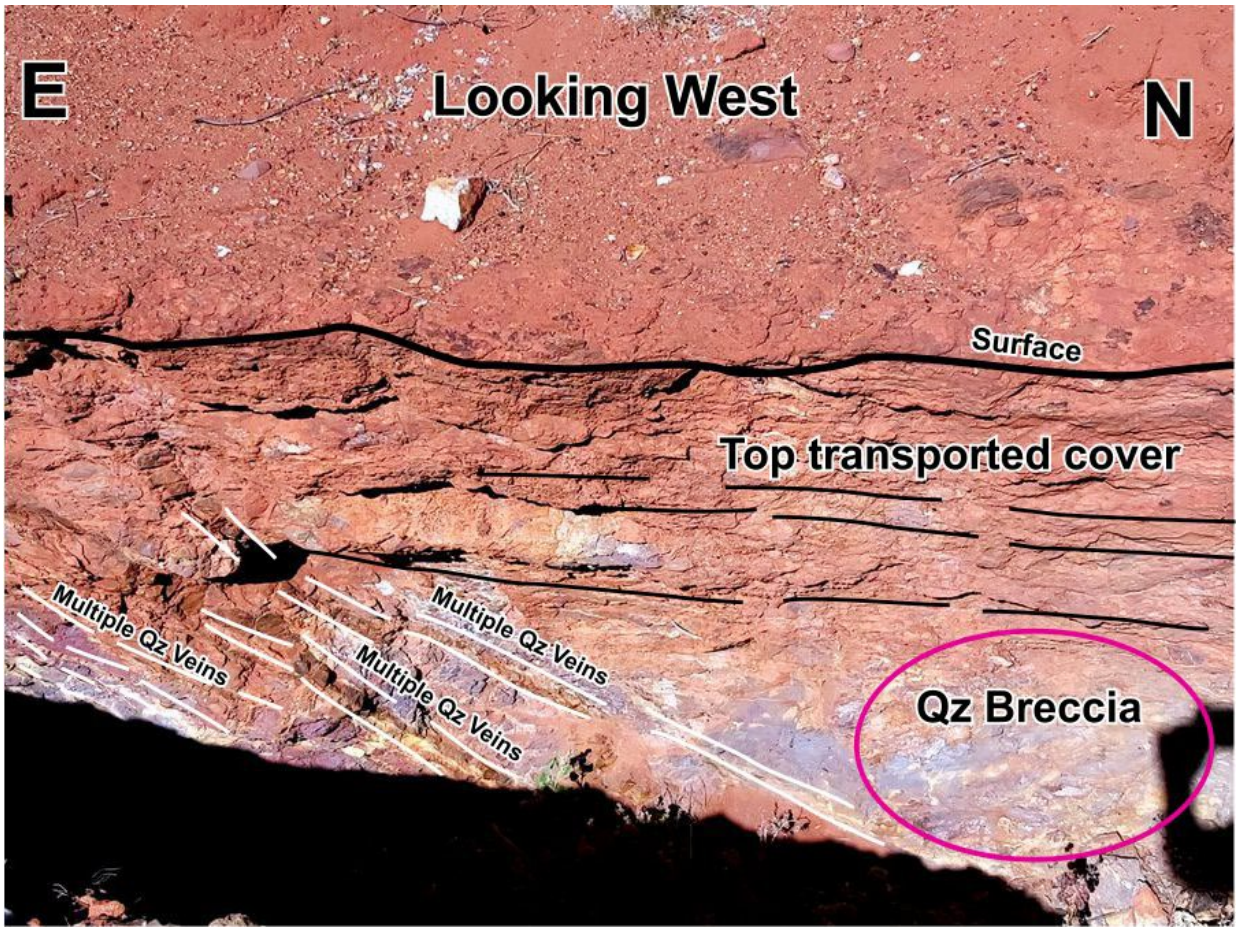

Figure 19 Photograph of Exposure of Mineralisation in Workings at Enterprise
Location: GPS Location 103 on Map Figure 21

4.3 Site Visit Findings

SGC were engaged to undertake reprocessing exercise on available aeromagnetic and radiometric geophysical data covering the southern half of the Project area.This updated geology interpretation for the project suggests significantly more lithologic and structural complexity within the project area, which are highly favourable attributes for large scale mineralizing systems. Further follow-up field activity is planned to confirm the interpreted results and rank the multiple targets generated.

Small historic workings and multiple surface outcrops of quartz veining/ stockwork were identified along 4 km of the Kingston corridor forming both linear trends and cluster-like distributions in map view, associated with regional-scale shear zone systems.

Parallel shear planes are clustered within the main regional shear corridor along a broad northerly direction.

Limited testing of strike extensive controlling gold-bearing structures was observed with historical drilling being shallow and ineffective – 97% less than 100m depth, the majority of gold mineralisation remains open in all directions with depth, down plunge and along strike potential.

The Enterprise prospect yet have received little systematic exploration down-dip and along strike, It is planned to construct new geological, structural and alteration models to improve the understanding of the mineralisation controls at Kingston's regional corridor to help in identifying potential high grade mineralisation domains and enable better targeting for future drilling. This proposed drilling would aim to identify areas where lode density and gold grades are adequate to support estimation of mineral resources.

The Enterprise prospect is currently the highest priority target at Kingston project as its geology, structure and scale are similar to adjacent neighbouring quality deposits. The footprint extending and open along strike for at least 1,000m.

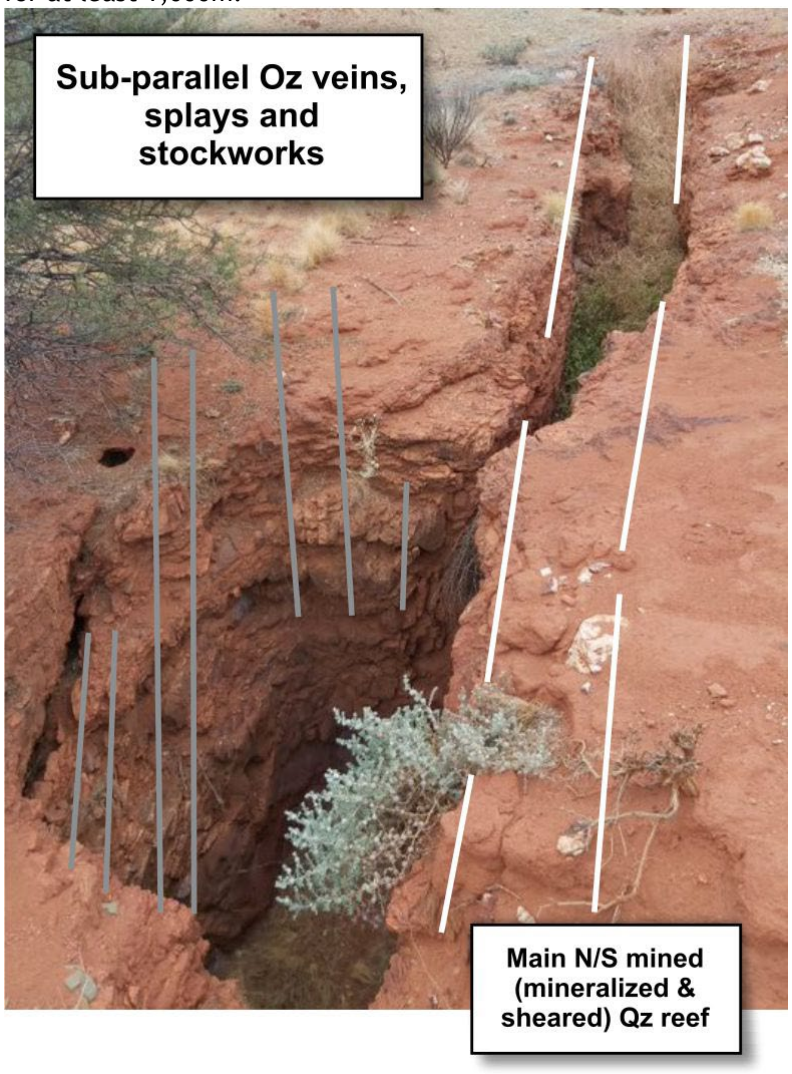

Figure 20 Photograph of Historical Workings at Enterprise

Location: GPS Location 103 on Map Figure 21. Oz/Qz = quartz

A significant proportion of the southern area of the project tenement was found to be devoid of outcrop and with a thick and/or transported regolith. It is concluded that this southern area will require RAB drilling to provide an adequate test for the presence of gold mineralisation in the bedrock. Surface techniques such as mapping, soil sampling, rock sampling and auger sampling are likely to be ineffective due to the nature of the regolith cover. Future exploration will be targeting interpreted structures from geophysical data

4.3.1 Rock Chip Sampling

A significant number of rock chip samples were collected during the site visit. These were submitted to a Perth mineral analytical laboratory for gold and multielement analysis, however the results of the analyses had not yet been received at the time of the preparation of this report.

The following photograps provide a summary illustration the the nature of the surface exposure of mineralisation.

The following figure shows the locations where photographs of historical workings were taken and where rock chip sample were collected.

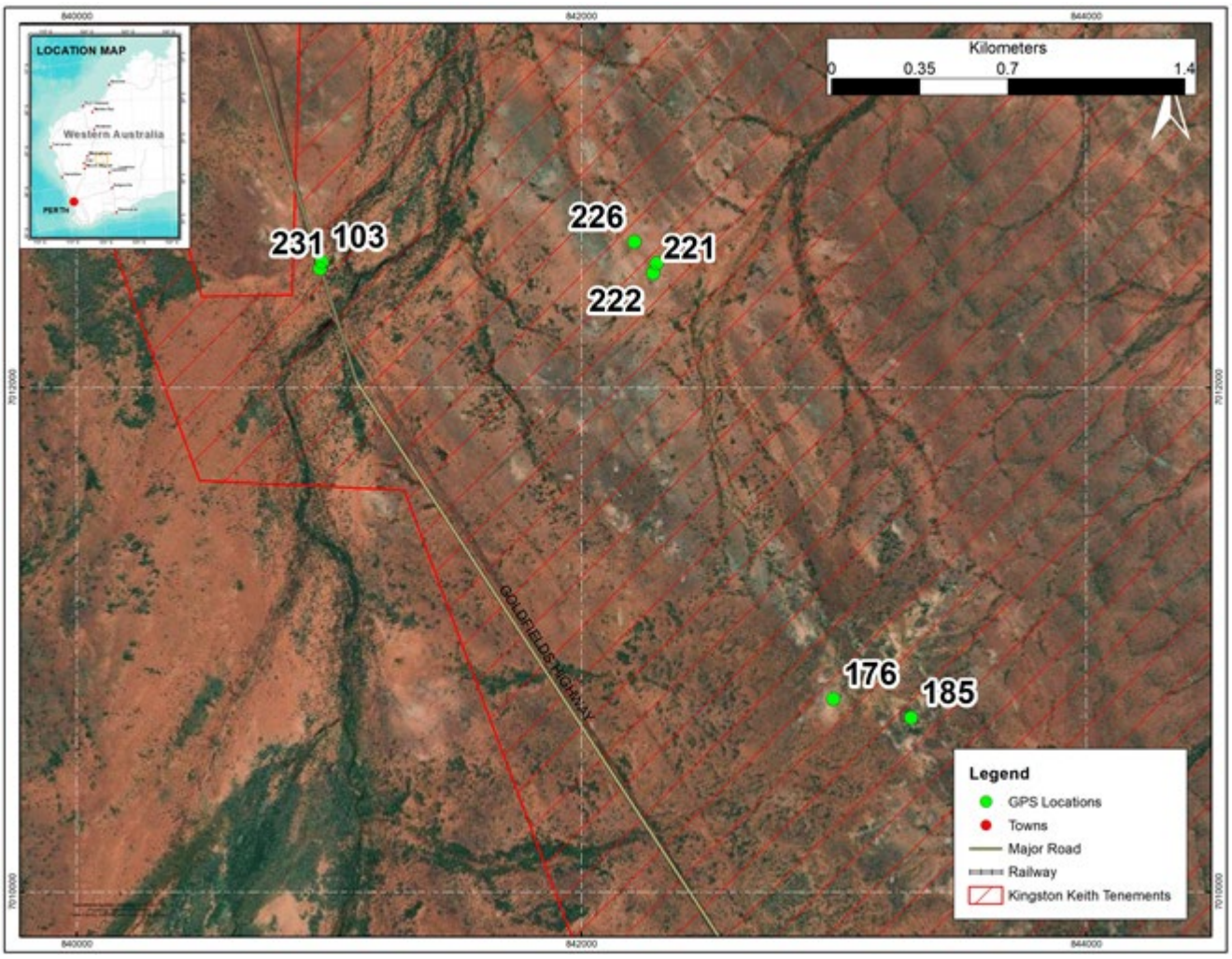

Figure 21 Map showing Locations of Site Visit Photographs

Figure 22 Photographs of Rock Chip Samples Collected during Site Visit

Descripions annotated on photos. Locations shown on Figure 21 (GPS176, GPS185, GPS221, GPS231, GPS226).

5. PLANNED EXPLORATION EXPENDITURE

The Company has provided to Geonomik their proposed exploration expenditure for the three-year period following the capital raising, which is summarised in Table 4. Corporate costs are not included.

Table 4 Exploration Budget for Kingston-Keith Project

Project	Category	Total Budget A$M	Year 1 A$M	Year 2 A$M	Year 3 A$M
Kingston-Keith	Geology	0.75	0.25	0.25	0.25
	Geochemistry	0.4	0.3	0.1	0
	Geophysics	0.5	0.4	0.1	0
	Drilling	2.75	0.25	1.1	1.4
	Overheads	0.3	0.1	0.1	0.1
	Total	4.7	1.3	1.65	1.75
Project Generation	Geology	0.3	0.1	0.1	0.1
Grand Total		5.0	1.4	1.75	1.85

The cost of sample analysis are included these figures.

An exploration budget of A$5.0M is estimated for implementing the proposed exploration strategy which includes A$4.7M on the Kingston-Keith Project and A$0.3M for the development of additional mineral projects in the region. Significant funds are directed to geochemical and geophysical exploration programs in Year 1, with the focus changing to drilling in Years 2 and 3. A total of A$2.75M is directed to drilling programs representing 55% of the total budget.

Geonomik considers that the proposed exploration budget is consistent with the mineral potential and status of the Project. The proposed expenditure is sufficient to meet the costs of the exploration programs proposed and to meet statutory tenement expenditure requirements.

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7. LIST OF ABBREVIATIONS

A$	Australian dollar
Ag	Silver
AMSL	Above mean sea level
Au	Gold
BIF	Banded iron formation
Co	Cobalt
Cu	Copper
DMIRS	Department of Mines, Industry Regulation and Safety (WA)
EUR	Euro
Ga	Giga annum - 1 billion years ago
g/t	Grams per tonne
CPR	Competent Person's Report
IP	Induced polarisation
JORC	Joint Ore Reserves Committee
JORC Code	2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves
JV	Joint Venture
K	Thousand(s)
km	Kilometre(s)
km^2	Square kilometre(s)
m	Metre(s)
M	Million(s)
Ma	Mega annum - 1 million years ago
MAIG	Member of the Australian Institute of Geoscientists
Mt	Million tonnes
Mtpa	Million tonnes per annum
Ni	Nickel
oz	Ounce (Troy ounce - measure of weight)
ppb	Parts per billion; a measure of concentration
ppm	Parts per million; a measure of concentration
RAB	Rotary air blast (drill hole)
RC	Reverse circulation (drill hole)
t	Tonne(s)
TMI	Total magnetic intensity
US$	United States dollar
VALMIN	Code for the Technical Assessment and Valuation of Mineral and Petroleum Assets and Securities for Independent Expert Reports
WA	Western Australian
WAMEX	Western Australian Mineral Exploration Reports database
Zn	Zinc

8. GLOSSARY

aeromagnetic	A survey undertaken by helicopter or fixed-wing aircraft for the purpose of recording magnetic characteristics of rocks by measuring deviations of the Earth's magnetic field.
aircore drilling	A relatively inexpensive drilling technique similar to RC drilling, in which the drill cuttings are returned to surface inside the rods.
amphibolite	A mafic metamorphic rock consisting mainly of amphibole minerals, especially hornblende and actinolite.
anomaly	An area where exploration has revealed results higher than the local background level.
Archaean	The oldest geologic time period, pertaining to rocks older than about 2,500 million years.
assay	The testing and quantification metals of interest within a sample.
auger	Geochemical sampling technique involving the use of either a hand auger or a small drilling rig with an auger bit.
Cenozoic	The youngest geologic time period, pertaining to rocks younger than about 66 million years.
carbonate	Rock or mineral dominated by the carbonate ion (CO^{2-}_3), of sedimentary or hydrothermal origin, composed primarily of calcium, magnesium or iron and carbon and oxygen. Essential component of limestones and marbles.
chlorite	A green coloured hydrated aluminium-iron-magnesium silicate mineral common in metamorphic rocks.
complex	An intricate assemblage of geological units, typically in metamorphic or igneous terranes.
Craton	An old and stable part of the continental lithosphere.
diamond drilling	Drilling method employing a (industrial) diamond encrusted drill bit for retrieving a cylindrical core of rock.
diorite	A coarse-grained intrusive igneous rock that contains a mixture of feldspar pyroxene hornblende and sometimes quartz.
Domain	Geological zone of rock with similar geostatistical properties; typically a zone of mineralisation
dykes	A tabular body of intrusive igneous rock, crosscutting the host strata at a high angle.
fault	A wide zone of structural dislocation and faulting.
felsic	Igneous rocks with a large percentage of light-coloured minerals such as quartz, feldspar, and muscovite. It is contrasted with mafic rocks, which are relatively richer in magnesium and iron.
gabbro	A black coarse-grained intrusive igneous rock that is the compositional equivalent of basalt.
geochemical	Pertains to the concentration of an element.
geophysical	Pertains to the physical properties of a rock mass.
gneiss	A common metamorphic rock formed at high temperatures and pressures from igneous or sedimentary rocks, having characteristic foliations (gneissic banding) of alternating dark/light coloured bands.
granite	A coarse-grained igneous rock containing mainly quartz and feldspar minerals and subordinate micas.

granitoid	A broad category of coarse-grained acid igneous rock including granite, quartz monzonite, quartz diorite, syenite and granodiorite.
gravity survey	Measurements of gravitational acceleration and gravitational potential at the Earth's surface searching for mineral deposits.
greenstone	A metamorphosed basic igneous rock which owes its colour and schistosity to abundant chlorite.
greenstone belt	A broad term used to describe an elongate belt of rocks that have undergone regional metamorphism to greenschist facies.
ground magnetic	Geophysical survey method using a hand-held magnetometer to record the strength of the earth's magnetic field usually along a grid.
induced polarisation	Geophysical survey technique used to identify the electrical chargeability of subsurface materials.
intrusive	Any igneous rock formed by intrusion and cooling of hot liquid rock below the earth's surface.
lithology	The description of a rock unit's physical characteristics visible in hand or core samples, such as colour texture grain-size and composition.
lode	A deposit of metalliferous ore formed in a fissure or vein.
mafic	Igneous rock composed dominantly of dark coloured minerals such as amphibole pyroxene and olivine, generally rich in magnesium and iron.
magmatic	Derived from or associated with magma. Magma is a complex high-temperature fluid substance present within the earth, which on cooling forms igneous rocks.
magnetite	A mineral comprising iron and oxygen which commonly exhibits magnetic properties.
metamorphic	A rock that has been altered by metamorphism from a pre-existing igneous or sedimentary rock type.
metamorphism	Alteration of the minerals, textures and composition of a rock caused by exposure to severe heat, pressure and chemical actions.
metavolcanic	Volcanic rock which has been altered by metamorphism.
Mineral Resource	Concentration of mineralisation in the earth for which there are reasonable prospects for eventual economic extraction.
outcrop	A visible exposure of bedrock or ancient superficial deposits on the surface of the Earth.
pluton	Body of intrusive igneous rock, typically several kilometres in dimension
porphyritic	Textural term for igneous rocks in which large crystals (phenocrysts) are set in finer groundmass, which may be crystalline or glass.
quartz	Common mineral composed of crystalline silica, with chemical formula SiO_2.
RAB drilling	Rotary Air Blast. A relatively inexpensive but less accurate percussion drilling technique involving the collection of sample returned by compressed air from outside the drill rods.
RC drilling	Reverse Circulation. A percussion drilling method in which the fragmented sample is brought to the surface inside the drill rods, thereby reducing contamination.
resource	In situ mineral occurrence from which valuable or useful minerals may be recovered.

schist	A metamorphic rock dominated by fibrous or platey minerals, with a strongly foliated fabric (schistose cleavage).
sedimentary	A term describing a rock formed from sediment.
shear	A deformation resulting from stresses that cause rock bodies to slide relatively to each other in a direction parallel to their plane of contact.
shoot	Part of an orebody of elongated shape where higher grades are concentrated.
soil sampling	The collection of soil specimens for mineral analysis.
strata	Sedimentary rock layers.
stratigraphic	Pertaining to the composition, sequence and correlation of stratified rocks.
strike	Horizontal direction or trend of a geological strata or structure.
structural	Pertaining to rock deformation or to features that result from it.
succession	Group of rock strata that succeed one another in chronological order.
superterrane	Composite terranes that comprise groups of individual terranes and other assemblages that share a distinctive tectonic history.
terrane	Any rock formation or series of formations or the area in which a particular formation or group of rocks is predominant.
ultramafic	Igneous and meta-igneous rocks composed of greater than 90% mafic minerals with very high magnesium and iron content, very low silica and potassium content.
volcanics	Rocks formed or derived from volcanic activity.

APPENDIX 1

JORC Code Table 1 for Exploration Results

the Company has yet to commence exploration on the tenement and has not yet acquired any new samples or data. All data and exploration results reported in this Report are based on compilation of past exploration work over the area of tenement which has been sourced from open file historical data in WAMEX reports, as well as publicly available government data and scientific research papers. Past reports on work completed have been collated and available digital data has been consolidated. In the opinion of the Competent Person, the Company's compilation is a sufficiently comprehensive and accurate capture of the available data to support the conclusions drawn in this report.

For much of the work in the historical reports there is only limited information to address specific JORC Code Table 1 criteria. Most of the exploration was conducted prior to 2012 when the completion of Table 1 commentary for public reporting was initially prescribed in the 2012 edition of the JORC Code. The WA Government does not, and has not, required the completion of Table 1 commentary or reporting to JORC Code standards for exploration reported in WAMEX Annual Reports.

Where information to address specific JORC Code Table 1 criteria is absent, the results reported are assumed to have been generated from work programs representing standard practice of the WA mining industry for the era during which they were collected. It is assumed that samples were analysed at commercial laboratories which serviced the mineral exploration industry of WA and the methods used represent standard practice of the laboratory industry at the time. In the opinion of the Competent Person the historical data reported is suitable for the purposes for which it has been used.

Given the large number of individual reports used, the following Table 1 sections provide overview comments only. It is considered impractical and unnecessary to attempt detailed Table 1 disclosure for every past exploration result presented in the Report, given that the objective of the Report is to provide a high level summary of the key features of the project and to comment on the use of funds being proposed. The discussion and illustrations provided in the report address Clause 19 of the JORC Code, while the following Table 1 provides sufficient high level commentary to cover all of the exploration results discussed in this report.

Section 1: Sampling Techniques and Data

Criteria	JORC Code explanation	Commentary
Sampling techniques	*Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as downhole gamma sondes, or handheld XRF instruments, etc.). These examples should not be taken as limiting the broad meaning of sampling.*	All data presented are from previous/historical exploration activity and the Company Limited (the Company) has compiled and reviewed the data. A full validation of the nature and quality of the sampling undertaken has not been possible. Sampling types reported include rock, channel, soil and auger geochemistry, RAB, percussion, aircore and RC drilling. Quality is assumed to be equal to standard practices of the WA mining industry for the era during which they were collected. The Competent Person has based this assumption on the knowledge that the previous explorers were established mining companies employing experienced exploration professionals to conduct the works reported, including WMC, Metals Exploration, Seltrust, Outokumpu, CRA, Cazaly, LionOre and Norilsk.
	Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.	All data presented herein are from previous/historical exploration activity. the Company has compiled and reviewed the data. A full validation of the nature and quality of the sampling undertaken has not been possible.
	Aspects of the determination of mineralisation that are Material to the Public Report.	All references to mineralisation are taken from reports and documents prepared by previous explorers and submitted to the WA Government. They have been reviewed by the Company and considered to be fit the purpose of guiding future exploration activities.
	In cases where "industry standard" work has been done this would be relatively simple (e.g. "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 (e.g.	In general it can be confidently assumed that "industry standard" work has been undertaken by previous explorers. Results from exploration conducted in the 21st century will generally be more reliable than work from the 1990s and that more reliable than from previous decades. The time of exploration has been reported with the various results in this Report and considered in assessments made using data.

Criteria	JORC Code explanation	Commentary
	submarine nodules) may warrant disclosure of detailed information.	
Drilling techniques	*Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc.) and details (e.g. 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.).*	Various drill types have been used previously including auger, percussion, aircore, RAB, and RC. At this time, hole diameters and detailed information regarding drilling has not been compiled.
Drill sample recovery	*Method of recording and assessing core and chip sample recoveries and results assessed.*	the Company's review to date has indicated no material issues are apparent with drill sample recovery and the Competent Person is satisfied that the data it is fit for purpose.
	Measures taken to maximise sample recovery and ensure representative nature of the samples.	
	Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.	
Logging	*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.*	Drill holes have been geologically logged. the Company is undertaking verification of the quality and level of detail of the geological logging data. In the Competent Person's opinion it is likely that the logging was performed to adequate industry standards and is fit for the purpose of planning further exploration programs and generating targets for investigation.
	Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.	
	The total length and percentage of the relevant intersections logged.	
Subsampling techniques and sample preparation	*If core, whether cut or sawn and whether quarter, half or all core taken.*	No core sampling reported.
	If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.	Various sampling methods have been employed previously for non-core drilling, the Company is undertaking to verify the exact nature of this sampling.
	For all sample types, the nature, quality and appropriateness of the sample preparation technique.	Competent Person's opinion that the historical sampling was performed to adequate industry standards and is fit for the purpose of planning exploration programs and generating targets for investigation.
	Quality control procedures adopted for all subsampling stages to maximise representivity of samples.	
	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.	
	Whether sample sizes are appropriate to the grain size of the material being sampled.	
Quality of assay data and laboratory tests	*The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.*	Samples were analysed at commercial laboratories which serviced the mineral exploration industry of WA and the methods used represent standard practice of the laboratory industry at the time. In the opinion of the Competent Person the historical analytical data reported is suitable for the purposes of planning further exploration programs and generating targets for investigation.
	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.	It is believed that geophysical surveys have been undertaken according to industry standard however this is yet to be validated. None of the previous reports that have been reviewed by the Company to date specified the use of any spectrometers or handheld XRF tools.
	Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.	Details of quality control procedures are, in general, not described in the reports by previous explorers.
Verification of sampling and assaying	*The verification of significant intersections by either independent or alternative company personnel.*	No verification of significant intersections has been identified in the historical reports.
	The use of twinned holes.	the Company is yet to twin any holes from the previous work.
	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	It is assumed that data handling procedures were performed to adequate industry standards by previous explorers and the files in WAMEX are reliable. Procedures are generally not described in the historical reports.

Criteria	JORC Code explanation	Commentary
	Discuss any adjustment to assay data.	No adjustments have been made to any of the assay data.
Location of data points	*Accuracy and quality of surveys used to locate drill holes (collar and downhole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.*	The location of results reported are assumed to have been generated from surveying techniques representing standard practice of the WA mining industry for the era during which they were collected. A Mineral Resource is not determined.
	Specification of the grid system used.	Several grid systems have been used previously, including AGD 1966 AMG Zone 51, AGD 1984 AMG Zone 51 and GDA 1994 MGA Zone 51. the Company uses the grid system GDA 1994 MGA Zone 51. Previous data in grid systems AGD 1966 AMG Zone 51 and AGD 1984 AMG Zone 51 have been converted to MGA 94 Zone 51.
	Quality and adequacy of topographic control.	The local topography in the area is generally flat to undulating and RLs taken from handheld GPS are assumed to have been used since 1990 with maps used for topographic control during earlier work.
Data spacing and distribution	*Data spacing for reporting of Exploration Results.*	Various data spacing has been used at various prospects by previous explorers. Comments on data spacing are provided in the Report.
	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.	Not applicable as a Mineral Resource is not determined.
	Whether sample compositing has been applied.	Not applicable as a Mineral Resource is not determined.
Orientation of data in relation to geological structure	*Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.*	The orientation of controlling structures has not been fully determined and a variety of drill orientations have been used previously. the Company's review so far has indicated no material issues exist to date.
	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.	Not applicable.
Sample security	*The measures taken to ensure sample security.*	Due to the historical nature of the data, this has not and may not be determinable. the Company believes that none of the historical samples have been preserved.
Audits or reviews	*The results of any audits or reviews of sampling techniques and data.*	the Company has not performed any audits at this time.

Section 2: Reporting of Exploration Results

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	*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.*	The report covers WA exploration licence E53/1953 comprising 60 sub-blocks and covering an area of 152 km^2. It was granted in March 2020 for a period of 5 years to Duketon Consolidated Pty Ltd with ownership since transferred to Lithium 1 Pty Ltd.
	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.	the Company's granted tenement E53/1953 is 100% owned by the Company and is in good standing. the Company is unaware of any significant impediments for exploration on this licence.
Exploration done by other parties	*Acknowledgment and appraisal of exploration by other parties.*	Previous exploration has been completed on the Company's projects by a variety of companies including WMC, Metals Exploration, Seltrust, MKACM, Outokumpu, Kismet Gold Mining, CRA, Cazaly, LionOre and Norilsk.. Please refer to the Report for details and references to the previous work.

Criteria	JORC Code explanation	Commentary
Geology	*Deposit type, geological setting and style of mineralisation.*	the Company's projects are located over Archaean aged rocks of the Kalgoorlie Yilgarn Craton. Please refer to the Report for detailed description of the regional and local geology.
Drill hole information	*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: easting and northing of the drill hole collar; elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar; dip and azimuth of the hole; downhole length and intersection depth; and hole length.*	Summaries of significant previous drill intersections at the Company's Prospects are provided in the appendices to the Report.
	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.	Not applicable, as no information has been excluded.
Data aggregation methods	*In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.*	No weighting averaging techniques, grade truncations or cut-off grades applied.
	Where aggregate intersections 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.	Average reporting intervals are based on reported results derived from applying a cut-off grade.
	The assumptions used for any reporting of metal equivalent values should be clearly stated.	Not applicable, as no metal equivalent values have been reported.
Relationship between mineralisation widths and intersection lengths	*These relationships are particularly important in the reporting of Exploration Results.*	Previous drilling has been undertaken on various drill orientations, and does not represent true width intersections. Future work by the Company will involve validation and reinterpretation of previous results and the drilling of additional holes to determine the orientation of mineralisation and thus true widths.
	If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.	Not applicable, as the geometry of the mineralisation with respect to the drill angles has yet to be verified.
	If it is not known and only the downhole lengths are reported, there should be a clear statement to this effect (e.g. "downhole length, true width not known").	The statement "downhole length, true width not known" has been added to captions and footnotes of relevant tables and figures presented in the Report.
Diagrams	*Appropriate maps and sections (with scales) and tabulations of intersections 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.*	Appropriate maps and sections are included in the Report.
Balanced reporting	*Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.*	Comprehensive reporting of all historical exploration results over the Property was not practicable. Representative reporting has been practiced to avoid misleading reporting of historical exploration results.
Other substantive exploration data	*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.*	Other exploration data have been reported where they are meaningful and material. These comprise geological observations, geophysical survey results, and geochemical survey results in addition to drilling.
Further work	*The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).*	the Company will undertake validation and field confirmation of previous drill and sampling data. Once the previous data review is completed, it is planned that the Company will undertake exploration programs to define targets and test priority targets.
	Diagrams clearly highlighting the areas of possible extensions, including the main geological	Future exploration has yet to be planned to a level of detail where diagrams would be relevant.

Criteria	JORC Code explanation	Commentary
	interpretations and future drilling areas, provided this information is not commercially sensitive.	

APPENDIX 2

Table of Drillholes and Significant Intersections

Table of Significant Intersections within E53/1953

Holes listed were drilled by Asarco in 1987-1988 (A-31029), Julia Mines NL in 1994-5 (A45416)

HOLE ID	HOLE TYPE	MAX. DEPTH	NORTH m	EAST m	RL	DIP	AZI	FROM m	TO m	INT. m	GOLD g/t	INTERSECTION g/t Au
Asarco												
WAR52	RAB	50	7014502	245411	nr	-60	115	26	30	4	0.5	4m @ 0.50
WAR54	RAB	35	7015594	245217	nr	-60	80	20	24	4	0.39	4m @ 0.39
WAR55	RAB	46	7015594	245217	nr	-60	80	42	46	4	2.44	4m @ 2.44
WAR56	RAB	50	7013964	246325	nr	-60	253	30	50	20	1.01	20m @ 1.01
WAR60	RAB	44	7014610	246000	nr	-60	87	34	44	10	0.25	10m @ 0.25
WAR61	RAB	26	7014749	245981	nr	-60	95	14	20	6	0.15	6m @ 0.15
WAR62	RAB	47	7013882	245956	nr	-60	80	18	22	4	0.11	4m @ 0.11
WAR65	RAB	47	7016015	246176	nr	-60	250	32	34	2	0.52	2m @ 0.52
WR539	RC	60	7013931	246353	nr	-60	243	56	58	2	5.56	2m @ 5.56
WR544	RC	40	7013925	246176	nr	-60	90	18	20	2	2.37	2m @ 2.37
Julia Mines												
LWP16	RAB	42	67000	109000	nr	-90	0	14	16	2	0.72	2m @ 0.72
LWP16	RAB	42	67000	109000	nr	-90	0	18	24	6	0.79	6m @ 0.79
LWP16	RAB	42	67000	109000	nr	-90	0	40	42	2	1.25	2m @ 1.25

Coordinates are in MGA1994 grid (Asarco), local grid (Julia Mines)

nr = not recorded

Table of Drillholes on E53/1953 recorded in DMIRS drillhole database

Coordinates are in MGA1994 grid

This table provides details for drillhole collars plotted on Figure 9

Note: drillholes dating from before 2000 are generally not included in the DMIRS database, hence their details were not provided in digital format.

HOLEID	East	North	DEPTH	OPERATOR	HOLETYPE	PROJECT	A-NUMBER
RWA00017	249740	7005074	70	Agincourt	AC	Wiluna	70415
RWA00018	249448	7005068	101	Agincourt	AC	Wiluna	70415
RWA00020	250339	7005069	79	Agincourt	AC	Wiluna	70415
RWA00023	247637	7009960	140	Agincourt	AC	Wiluna	70415
RWA00024	247837	7009960	102	Agincourt	AC	Wiluna	70415
RWA00025	248037	7009960	81	Agincourt	AC	Wiluna	70415
RWA00027	248437	7009960	42	Agincourt	AC	Wiluna	70415
RWA00017	249740	7005074	70	Agincourt	AC	Wiluna	73388
RWA00018	249448	7005068	101	Agincourt	AC	Wiluna	73388
RWA00019	250031	7005072	54	Agincourt	AC	Wiluna	73388
RWA00023	247637	7009960	140	Agincourt	AC	Wiluna	73388
RWA00024	247837	7009960	102	Agincourt	AC	Wiluna	73388
RWA00025	248037	7009960	81	Agincourt	AC	Wiluna	73388
RWA00026	248237	7009960	58	Agincourt	AC	Wiluna	73388
MKA001	257037	6998559	60	Alkane	AC	Mount Keith	72221
MKA002	256937	6998559	31	Alkane	AC	Mount Keith	72221
MKA003	256837	6998559	40	Alkane	AC	Mount Keith	72221
MKA004	256737	6998559	30	Alkane	AC	Mount Keith	72221
MKA005	256637	6998559	32	Alkane	AC	Mount Keith	72221
MKA006	256537	6998559	11	Alkane	AC	Mount Keith	72221
MKA008	256687	6998359	40	Alkane	AC	Mount Keith	72221
MKA009	256587	6998359	34	Alkane	AC	Mount Keith	72221
MKA010	256487	6998359	32	Alkane	AC	Mount Keith	72221

MKA011	256387	6998359	14	Alkane	AC	Mount Keith	72221
MKA012	256287	6998359	22	Alkane	AC	Mount Keith	72221
MKA013	256187	6998359	30	Alkane	AC	Mount Keith	72221
MKA015	256987	6998159	43	Alkane	AC	Mount Keith	72221
MKA017	256787	6998159	38	Alkane	AC	Mount Keith	72221
MKA019	256587	6998159	37	Alkane	AC	Mount Keith	72221
MKA020	257187	6997759	48	Alkane	AC	Mount Keith	72221
MKA021	257087	6997759	53	Alkane	AC	Mount Keith	72221
MKA022	256987	6997759	41	Alkane	AC	Mount Keith	72221
MKA023	256887	6997759	51	Alkane	AC	Mount Keith	72221
MKA024	256787	6997759	52	Alkane	AC	Mount Keith	72221
MKA026	256587	6997759	32	Alkane	AC	Mount Keith	72221
MKA027	257437	6997359	44	Alkane	AC	Mount Keith	72221
MKA028	257337	6997359	30	Alkane	AC	Mount Keith	72221
MKA029	257237	6997359	47	Alkane	AC	Mount Keith	72221
MKA030	257137	6997359	47	Alkane	AC	Mount Keith	72221
MKA031	257488	6995759	47	Alkane	AC	Mount Keith	72221
MKA033	257138	6995759	33	Alkane	AC	Mount Keith	72221
MKA034	257088	6995759	45	Alkane	AC	Mount Keith	72221
MKA035	258027	6996409	57	Alkane	AC	Mount Keith	72221
MKA037	257877	6997059	21	Alkane	AC	Mount Keith	72221
MKA038	257437	6998409	24	Alkane	AC	Mount Keith	72221
MKA039	257517	6998409	10	Alkane	AC	Mount Keith	72221
MKA040	256137	6998959	3	Alkane	AC	Mount Keith	72221
MKA041	256037	6998959	8	Alkane	AC	Mount Keith	72221
MKA042	256887	6999759	18	Alkane	AC	Mount Keith	72221
MKA044	256437	7000959	14	Alkane	AC	Mount Keith	72221
MKA045	256337	7000959	1	Alkane	AC	Mount Keith	72221
MKA046	256337	7002159	7	Alkane	AC	Mount Keith	72221
MKA047	256237	7002159	59	Alkane	AC	Mount Keith	72221
MKA048	256137	7002159	57	Alkane	AC	Mount Keith	72221
MKA049	256037	7002159	20	Alkane	AC	Mount Keith	72221
ALAC0038	252800	6998995	76	Cazaly	AC	Albion Downs	78363
ALAC0039	252750	6999000	73	Cazaly	AC	Albion Downs	78363
ALAC0040	252700	6999000	86	Cazaly	AC	Albion Downs	78363
ALAC0041	252650	6999000	94	Cazaly	AC	Albion Downs	78363
ALAC0043	252500	6999000	84	Cazaly	AC	Albion Downs	78363
ALAC0044	253000	6999200	60	Cazaly	AC	Albion Downs	78363
ALAC0045	252904	6999224	71	Cazaly	AC	Albion Downs	78363
ALAC0046	252850	6999200	57	Cazaly	AC	Albion Downs	78363
ALAC0047	252800	6999200	65	Cazaly	AC	Albion Downs	78363
ALAC0048	252750	6999200	55	Cazaly	AC	Albion Downs	78363
ALAC0050	252650	6999200	77	Cazaly	AC	Albion Downs	78363
ALAC0052	252550	6999200	68	Cazaly	AC	Albion Downs	78363
ALAC0053	252500	6999200	61	Cazaly	AC	Albion Downs	78363
ALAC0055	252850	6999409	72	Cazaly	AC	Albion Downs	78363
ALAC0057	252700	6999400	76	Cazaly	AC	Albion Downs	78363
ALAC0059	252598	6999412	66	Cazaly	AC	Albion Downs	78363
ALAC0060	252550	6999400	66	Cazaly	AC	Albion Downs	78363
ALAC0061	252500	6999400	71	Cazaly	AC	Albion Downs	78363
ALAC0062	252450	6999400	78	Cazaly	AC	Albion Downs	78363
ALAC0063	252400	6999400	78	Cazaly	AC	Albion Downs	78363
ALAC0064	252300	6999400	96	Cazaly	AC	Albion Downs	78363
ALAC0038	252800	6998995	76	Cazaly	AC	Albion Downs	89279
ALAC0039	252750	6999000	73	Cazaly	AC	Albion Downs	89279
ALAC0040	252700	6999000	86	Cazaly	AC	Albion Downs	89279
ALAC0041	252650	6999000	94	Cazaly	AC	Albion Downs	89279
ALAC0042	252600	6999000	93	Cazaly	AC	Albion Downs	89279
ALAC0044	253000	6999200	60	Cazaly	AC	Albion Downs	89279
ALAC0045	252904	6999224	71	Cazaly	AC	Albion Downs	89279
ALAC0046	252850	6999200	57	Cazaly	AC	Albion Downs	89279
ALAC0047	252800	6999200	65	Cazaly	AC	Albion Downs	89279
ALAC0048	252750	6999200	55	Cazaly	AC	Albion Downs	89279
ALAC0049	252700	6999200	61	Cazaly	AC	Albion Downs	89279
ALAC0051	252600	6999200	68	Cazaly	AC	Albion Downs	89279
ALAC0053	252500	6999200	61	Cazaly	AC	Albion Downs	89279
ALAC0054	252400	6999200	86	Cazaly	AC	Albion Downs	89279
ALAC0055	252850	6999409	72	Cazaly	AC	Albion Downs	89279
ALAC0056	252750	6999400	69	Cazaly	AC	Albion Downs	89279

ALAC0058	252650	6999400	73	Cazaly	AC	Albion Downs	89279
ALAC0059	252598	6999412	66	Cazaly	AC	Albion Downs	89279
ALAC0060	252550	6999400	66	Cazaly	AC	Albion Downs	89279
ALAC0061	252500	6999400	71	Cazaly	AC	Albion Downs	89279
ALAC0062	252450	6999400	78	Cazaly	AC	Albion Downs	89279
ALAC0063	252400	6999400	78	Cazaly	AC	Albion Downs	89279
ALAC0064	252300	6999400	96	Cazaly	AC	Albion Downs	89279
ALAC0065	252865	6998600	70	Cazaly	AC	Albion Downs	89279
MKA001	257037	6998559	60	Jubilee	AC	Mount Keith	67511
MKA002	256937	6998559	31	Jubilee	AC	Mount Keith	67511
MKA003	256837	6998559	40	Jubilee	AC	Mount Keith	67511
MKA004	256737	6998559	30	Jubilee	AC	Mount Keith	67511
MKA005	256637	6998559	32	Jubilee	AC	Mount Keith	67511
MKA007	256437	6998559	16	Jubilee	AC	Mount Keith	67511
MKA008	256687	6998359	40	Jubilee	AC	Mount Keith	67511
MKA009	256587	6998359	34	Jubilee	AC	Mount Keith	67511
MKA010	256487	6998359	32	Jubilee	AC	Mount Keith	67511
MKA011	256387	6998359	14	Jubilee	AC	Mount Keith	67511
MKA012	256287	6998359	22	Jubilee	AC	Mount Keith	67511
MKA014	257087	6998159	46	Jubilee	AC	Mount Keith	67511
MKA015	256987	6998159	43	Jubilee	AC	Mount Keith	67511
MKA016	256887	6998159	22	Jubilee	AC	Mount Keith	67511
MKA017	256787	6998159	38	Jubilee	AC	Mount Keith	67511
MKA018	256687	6998159	37	Jubilee	AC	Mount Keith	67511
MKA019	256587	6998159	37	Jubilee	AC	Mount Keith	67511
MKA021	257087	6997759	53	Jubilee	AC	Mount Keith	67511
MKA022	256987	6997759	41	Jubilee	AC	Mount Keith	67511
MKA023	256887	6997759	51	Jubilee	AC	Mount Keith	67511
MKA024	256787	6997759	52	Jubilee	AC	Mount Keith	67511
MKA025	256687	6997759	60	Jubilee	AC	Mount Keith	67511
MKA026	256587	6997759	32	Jubilee	AC	Mount Keith	67511
MKA027	257437	6997359	44	Jubilee	AC	Mount Keith	67511
MKA029	257237	6997359	47	Jubilee	AC	Mount Keith	67511
MKA030	257137	6997359	47	Jubilee	AC	Mount Keith	67511
MKA031	257488	6995759	47	Jubilee	AC	Mount Keith	67511
MKA032	257388	6995759	52	Jubilee	AC	Mount Keith	67511
MKA033	257138	6995759	33	Jubilee	AC	Mount Keith	67511
MKA034	257088	6995759	45	Jubilee	AC	Mount Keith	67511
MKA036	257928	6997059	48	Jubilee	AC	Mount Keith	67511
MKA037	257877	6997059	21	Jubilee	AC	Mount Keith	67511
MKA038	257437	6998409	24	Jubilee	AC	Mount Keith	67511
MKA039	257517	6998409	10	Jubilee	AC	Mount Keith	67511
MKA040	256137	6998959	3	Jubilee	AC	Mount Keith	67511
MKA041	256037	6998959	8	Jubilee	AC	Mount Keith	67511
MKA043	256787	6999759	1	Jubilee	AC	Mount Keith	67511
MKA045	256337	7000959	1	Jubilee	AC	Mount Keith	67511
MKA046	256337	7002159	7	Jubilee	AC	Mount Keith	67511
MKA047	256237	7002159	59	Jubilee	AC	Mount Keith	67511
MKA048	256137	7002159	57	Jubilee	AC	Mount Keith	67511
MKA049	256037	7002159	20	Jubilee	AC	Mount Keith	67511
MKA050	255937	7002159	38	Jubilee	AC	Mount Keith	67511
NEWHMWA033	245657	7018360	28	MPI Nickel	AC	Honeymoon Well East	68248
NEWHMWA034	245497	7018360	28	MPI Nickel	AC	Honeymoon Well East	68248
NEWHMWA035	245337	7018360	20	MPI Nickel	AC	Honeymoon Well East	68248
RWA00017	249740	7005074	70	MPI Nickel	AC	Albion Downs South	94260
RWA00018	249448	7005068	102	MPI Nickel	AC	Albion Downs South	94260
RWA00019	250031	7005072	54	MPI Nickel	AC	Albion Downs South	94260
RWA00020	250339	7005069	79	MPI Nickel	AC	Albion Downs South	94260
RWA00018	249448	7005068	101	MPI Nickel	AC	Honeymoon Well	94261
RWA00020	250339	7005069	79	MPI Nickel	AC	Honeymoon Well	94261
RWA00023	247637	7009960	140	MPI Nickel	AC	Honeymoon Well	94261
RWA00024	247837	7009960	102	MPI Nickel	AC	Honeymoon Well	94261
RWA00025	248037	7009960	81	MPI Nickel	AC	Honeymoon Well	94261
RWA00026	248237	7009960	58	MPI Nickel	AC	Honeymoon Well	94261
RWA00027	248437	7009960	42	MPI Nickel	AC	Honeymoon Well	94261
NEWHMWA034	245497	7018360	28	Norilsk	AC	Honeymoon Well	78712
NEWHMWA035	245337	7018360	20	Norilsk	AC	Honeymoon Well	78712
RWB00001	249877	7004461	59	Agincourt	RAB	Wiluna	70415
RWB00002	250185	7004469	76	Agincourt	RAB	Wiluna	70415

RWB00001	249877	7004461	59	Agincourt	RAB	Wiluna	73388
RWB00002	250185	7004469	76	Agincourt	RAB	Wiluna	73388
ALRB0001	253300	6998400	68	Cazaly	RAB	Albion Downs	78363
ALRB0002	253200	6998400	78	Cazaly	RAB	Albion Downs	78363
ALRB0003	253100	6998408	69	Cazaly	RAB	Albion Downs	78363
ALRB0004	253050	6998397	71	Cazaly	RAB	Albion Downs	78363
ALRB0005	253000	6998400	71	Cazaly	RAB	Albion Downs	78363
ALRB0006	252950	6998400	65	Cazaly	RAB	Albion Downs	78363
ALRB0008	252850	6998400	61	Cazaly	RAB	Albion Downs	78363
ALRB0009	252800	6998400	63	Cazaly	RAB	Albion Downs	78363
ALRB0010	252700	6998397	94	Cazaly	RAB	Albion Downs	78363
ALRB0011	252600	6998400	68	Cazaly	RAB	Albion Downs	78363
ALRB0012	253200	6998600	72	Cazaly	RAB	Albion Downs	78363
ALRB0013	253120	6998602	67	Cazaly	RAB	Albion Downs	78363
ALRB0015	252950	6998600	66	Cazaly	RAB	Albion Downs	78363
ALRB0016	252905	6998600	59	Cazaly	RAB	Albion Downs	78363
ALRB0017	252850	6998594	72	Cazaly	RAB	Albion Downs	78363
ALRB0018	252798	6998573	82	Cazaly	RAB	Albion Downs	78363
ALRB0019	252748	6998583	88	Cazaly	RAB	Albion Downs	78363
ALRB0020	252704	6998600	83	Cazaly	RAB	Albion Downs	78363
ALRB0021	252600	6998600	80	Cazaly	RAB	Albion Downs	78363
ALRB0022	253100	6998800	65	Cazaly	RAB	Albion Downs	78363
ALRB0024	252950	6998800	63	Cazaly	RAB	Albion Downs	78363
ALRB0025	252900	6998800	69	Cazaly	RAB	Albion Downs	78363
ALRB0026	252850	6998800	57	Cazaly	RAB	Albion Downs	78363
ALRB0027	252800	6998800	70	Cazaly	RAB	Albion Downs	78363
ALRB0028	252750	6998800	89	Cazaly	RAB	Albion Downs	78363
ALRB0029	252700	6998800	98	Cazaly	RAB	Albion Downs	78363
ALRB0031	252600	6998800	91	Cazaly	RAB	Albion Downs	78363
ALRB0032	252500	6998800	80	Cazaly	RAB	Albion Downs	78363
ALRB0033	252400	6998800	46	Cazaly	RAB	Albion Downs	78363
ALRB0034	252300	6998800	47	Cazaly	RAB	Albion Downs	78363
ALRB0035	253000	6999000	51	Cazaly	RAB	Albion Downs	78363
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ALRB0032	252500	6998800	80	Cazaly	RAB	Albion Downs	89279
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ALRB0037	252850	6999000	62	Cazaly	RAB	Albion Downs	89279
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NEWHMWB040	245327	7014595	94	MPI Nickel	RAB	Honeymoon Well East	68248
NEWHMWB042	245323	7014562	26	MPI Nickel	RAB	Honeymoon Well East	68248
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RAB07176	245254	7014810	5	MPI Nickel	RAB	Honeymoon Well East	68248
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ISR30	249079	7010800	11	Windy Knob	RAB	Honeymoon Well	76167
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ISR7	249000	7011030	14	Windy Knob	RAB	Honeymoon Well	76167
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ISR 16	248300	7009900	27	Windy Knob	RAB	Honeymoon Well	78635
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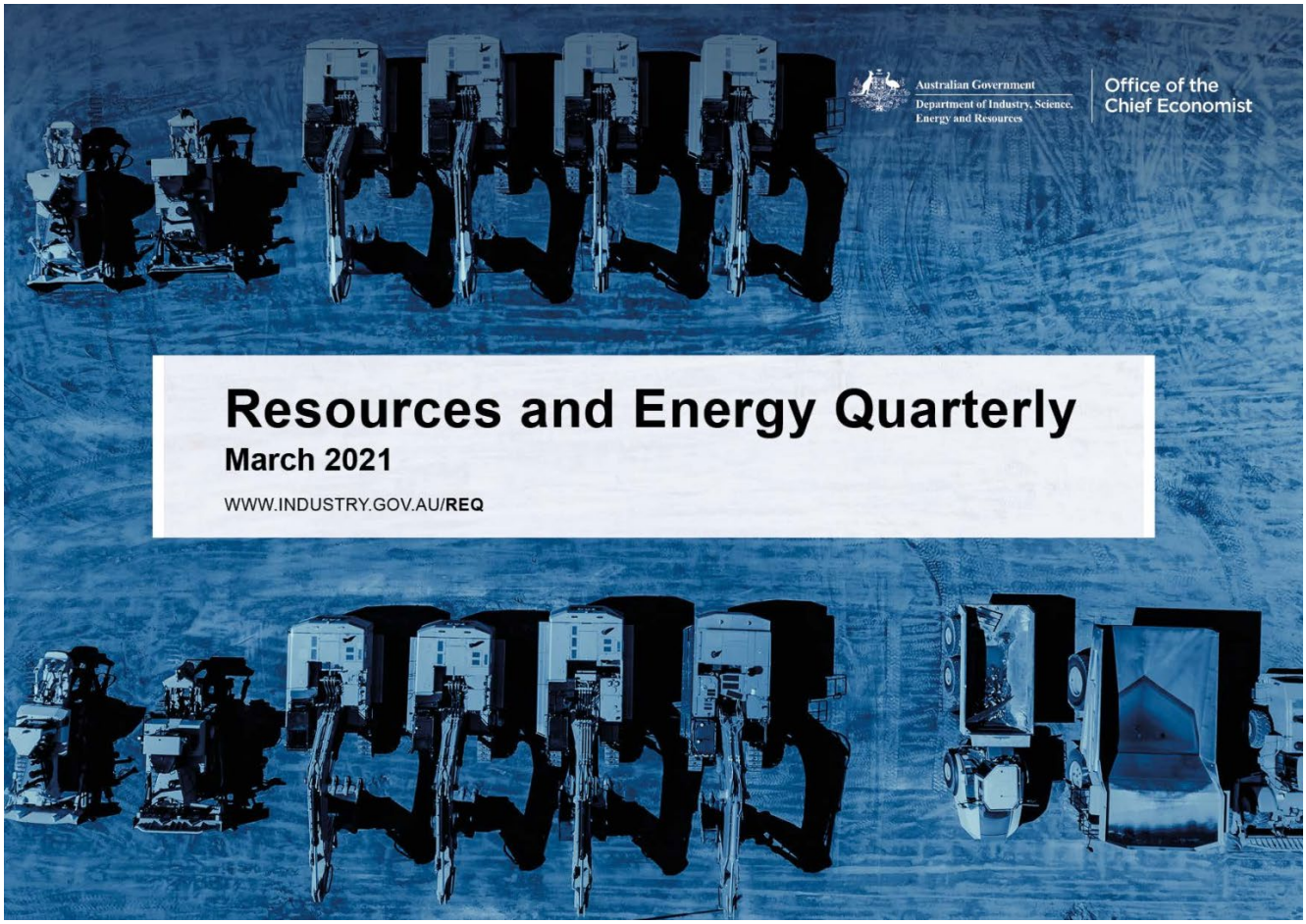
WKC003	248904	7011031	43	Windy Knob	RC	Honeymoon Well	79001
WKC004	248976	7011032	55	Windy Knob	RC	Honeymoon Well	79001
WKC001	248550	7007999	102	Windy Knob	RC	Honeymoon Well	82367
WKC005	248448	7009901	129	Windy Knob	RC	Honeymoon Well	82367

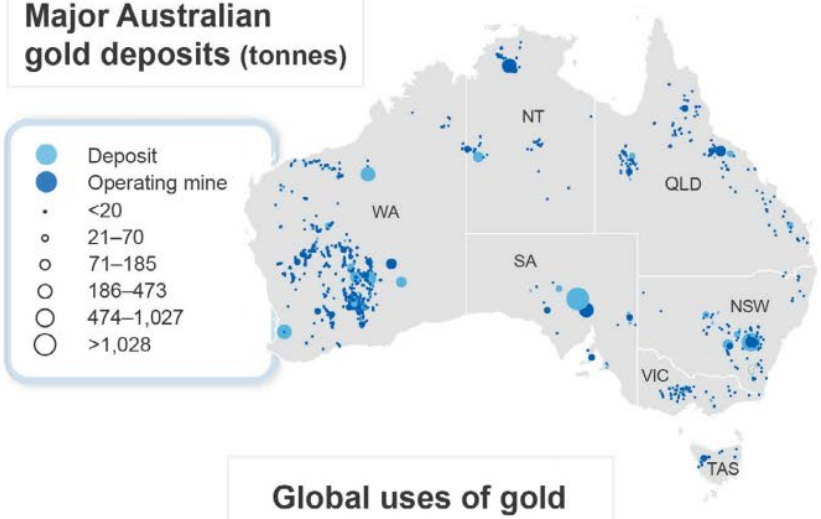
APPENDIX 3

Economic Outlook for Gold and Nickel



79 Au 196.967 Gold

Major Australian gold deposits (tonnes)



Gold

Aprox 187,200 tonnes of gold mined since the **beginning of civilisation**

The US Federal Reserve holds **6,700 tonnes of gold**

Gold makes up **3 parts per billion** of the Earth's outer layer

Global uses of gold

38%
Jewellery

24%
Coins and bars

23%
Global backed exchange traded funds

8%
Electronics, industrial, dental and medical

7%
Central bank reserves

Australia's gold

World's no. 1 producer of gold forecast **for 2021**

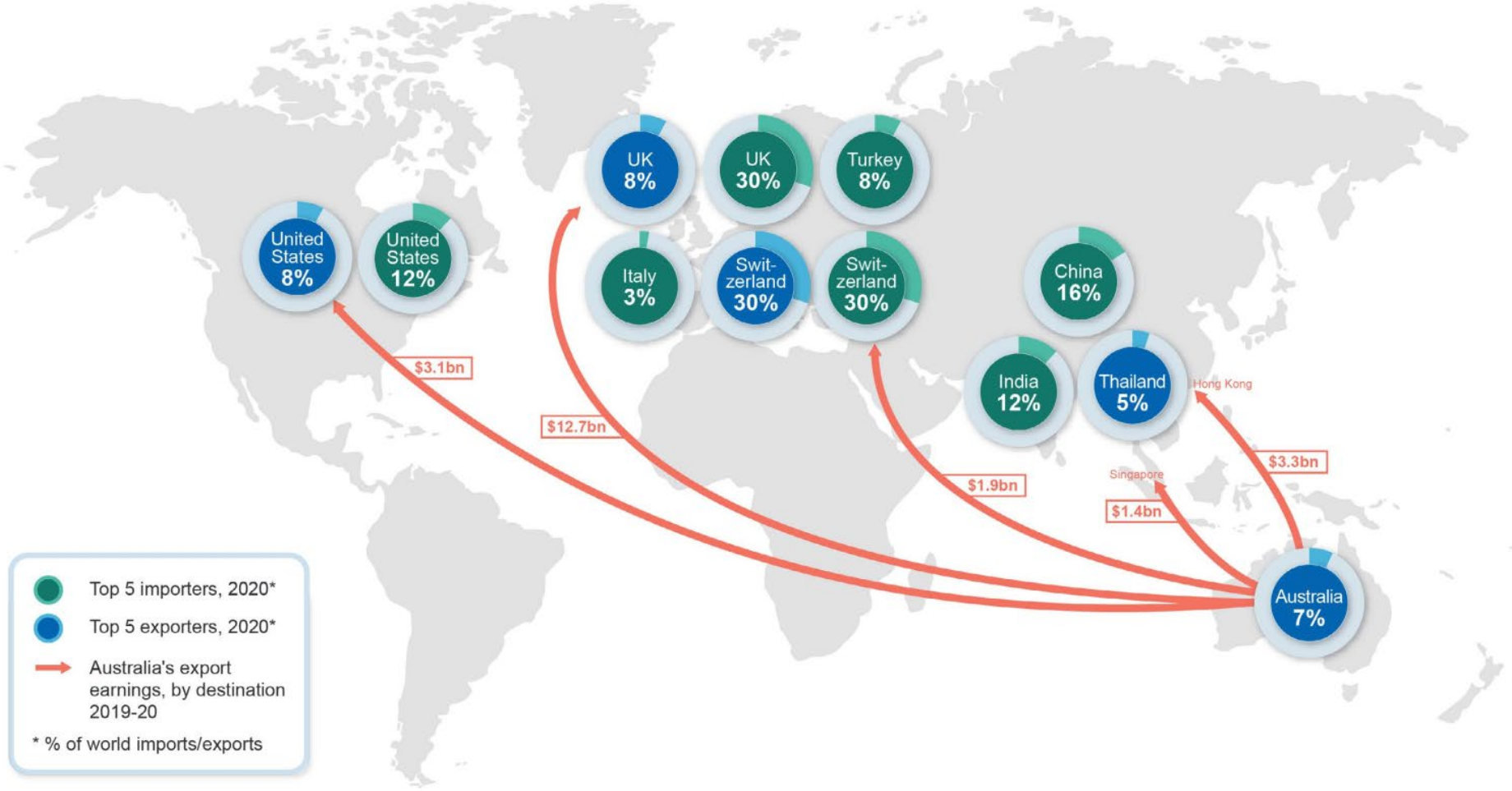
World's largest reserves of gold

World record holder for **largest gold nugget** 72kg

79 Au 196.967

Gold

Trade map | March 2021



10.1 Summary

- Higher prices are expected to push the value of Australia's gold exports up to a record of $29 billion in 2020–21. Earnings (in real terms) are then projected to decline to $22 billion in 2025–26, as gold prices ease back.
- Export volumes are forecast to fall by 1.8% to 344 tonnes in 2020–21, as high gold prices reduce gold demand. Volumes are projected to reach 418 tonnes by 2025–26, as demand recovers (see *Australia section*).
- An effective COVID-19 vaccine rollout and consequent global economic rebound is projected to see the gold price slide from US$1,700 in 2021 to US$1,210 an ounce in 2026 in real terms.

10.2 Consumption

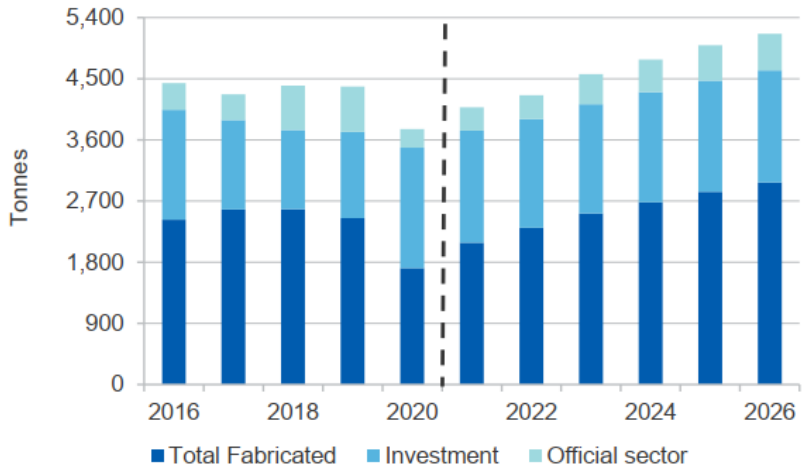
World gold consumption fell in 2020

World gold consumption declined by 14% to 3,760 tonnes in 2020 (Figure 10.1). COVID-19 containment measures and higher gold prices reduced gold jewellery consumption (which accounts for 38% of global gold demand). Jewellery consumption in China and India — the world's two largest jewellery consuming nations — declined by 35% and 42% in 2020, to 416 and 316 tonnes, respectively. In the US and Europe, jewellery demand fell by 10% and 21% in 2020, to 118 and 57 tonnes, respectively.

Net official sector (central banks and other government institutions) purchases fell by 59% to 273 tonnes in 2020. The need for more liquid assets during the COVID-19 pandemic appears to have been the main catalyst for some central banks' diminished appetite for gold. Mongolia, Sri Lanka and Tajikistan were the largest sellers of gold, while Turkey, India and the United Arab Emirates bought the most gold in 2020 (Figure 10.2).

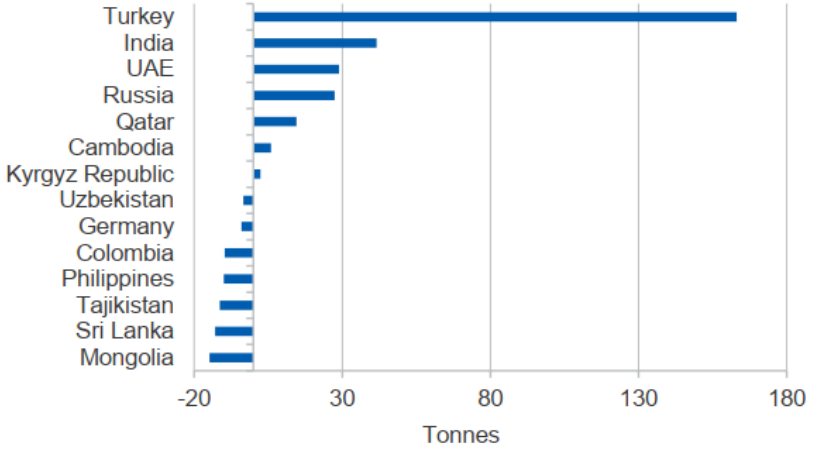
Gold used in industrial fabrication fell by 7.4% to 302 tonnes in 2020, as COVID-19 containment measures impacted on the sale of consumer electronics. Over this period, gold used in electronics declined by 5.3% to 248 tonnes. Higher gold prices also affected demand for gold in the dental sector; usage was down 14% in 2020, as consumers substituted ceramics for gold.

Figure 10.1: World gold consumption by sector



Source: World Gold Council (2021) Gold Demand Trends; Department of Industry, Science, Energy and Resources (2021)

Figure 10.2: Official sector's gold selling and buying*, selected countries, 2020



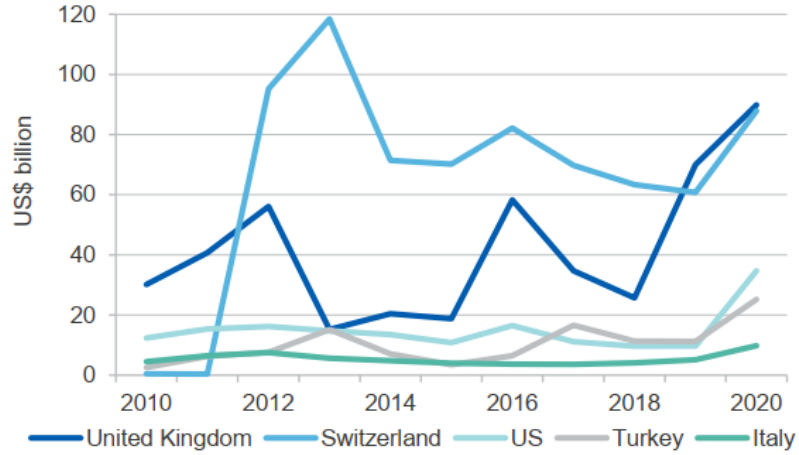
Note: *Gold bullions. Minus quantity indicates selling. Positive quantity indicates buying.
Source: World Gold Council (2021)

Offsetting falling gold consumption in the jewellery, official and industrial sectors, gold-backed exchange traded funds (ETF) holdings rose by 120% in 2020 to 877 tonnes (equivalent to US$48 billion) — the largest inflows ever. The COVID-19 pandemic, low interest rate environment, and weaker equity markets in the first half of 2020 drove the flows into the ETFs.

Global gold imports rose in 2020

Global gold imports (including jewellery, gold bars and coins and ETFs) rose by 8.3% in 2020, to nearly US$298 billion, driven by the ETFs based in the UK, Switzerland and the US. The UK was the largest gold importer in 2020, importing US$90 billion of gold and accounting for over 30% of total global gold imports, followed by Switzerland (which imported US$88 billion in 2020 and accounted for nearly 30% of total global gold imports) and the US (which imported US$35 billion in 2020 and accounted for 12% of total global gold imports) (Figure 10.3).

Figure 10.3: Top 5 global gold imports* by country



Notes: *Gold imports include jewellery, gold bars and coins, and ETFs. Quarter 4 2020 trade data is provisional.

Source: International Trade Centre (2021)

Gold consumption expected to rise over the outlook period

Global gold consumption is forecast to increase by 8.5% to 4,080 tonnes in 2021, as lower gold prices and the roll-out of COVID–19 vaccines help to support the sale of gold jewellery (Figure 10.1). On 1 February 2021, the Indian government announced a cut in the total import duty from 12.5% to 10%. There are already signs of a turnaround in jewellery demand from China and India. China and India' December 2020 quarter jewellery demand was 145 and 137 tonnes, respectively. This is the highest level since the December 2019 quarter, up by 22% and 126% from the September 2020 quarter, respectively.

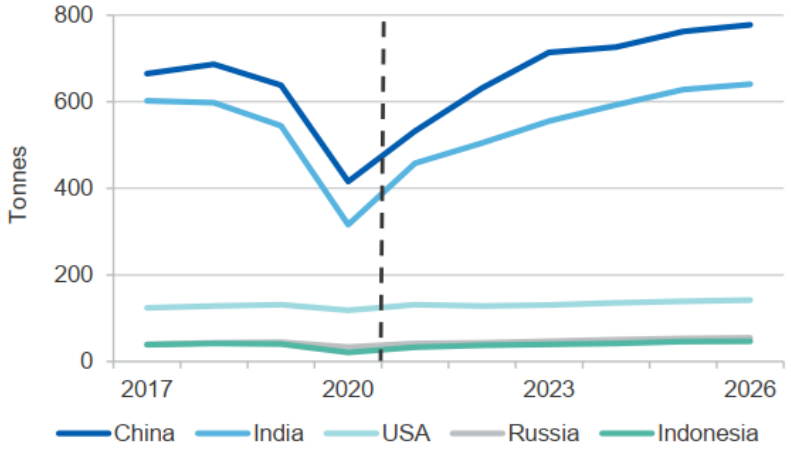
Global jewellery demand is expected to rise by 25% in 2021, to 1,764 tonnes. Central banks' gold buying is forecast to increase by 26% in 2021 to 344 tonnes, as some central banks increase gold reserves in 2021. After 2021, world gold consumption is projected to rise at an annual average rate of 4.8%, reaching 5,162 tonnes by 2026, as lower gold prices boost jewellery demand and retail investment (Figure 10.1).

Global jewellery consumption is projected to rise at an annual rate of 8.0% over the 5-year outlook. Consumption is projected to reach 2,589 tonnes by 2026, driven by an improvement in consumer sentiment, rising income and lower gold prices.

Demand from China is expected to pick up, as price-sensitive Chinese consumers react to price falls. Economic growth, ongoing urbanisation, and rising incomes are all expected to contribute to higher jewellery demand in India. In the US and Europe, an improvement in consumer confidence is also likely to support the demand for gold jewellery in those markets (Figure 10.4).

Gold retail investment is projected to grow at an annual rate of 1.8% over the outlook period, to reach 1,176 tonnes by 2026. The forecast decline in gold prices will likely attract retail and institutional investors back to the gold bar and coin markets.

Figure 10.4: Top 5 jewellery consuming countries



Source: Metals Focus (2021); Department of Industry, Science, Energy and Resources (2021)

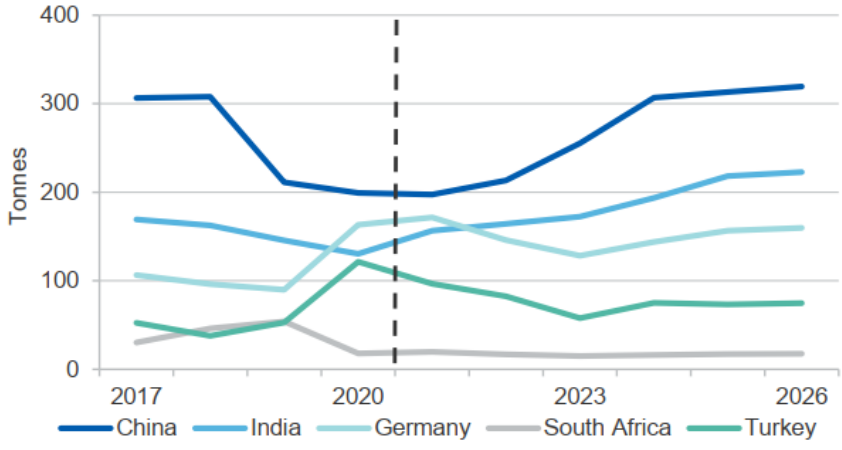
Physical gold investment in China and India is expected to grow over the outlook period, driven by bargain hunting (Figure 10.5). In the US and Europe, despite a forecast improvement in economic growth, inflationary expectations are likely to encourage investment in physical gold, with a surge in investment volumes expected from 2024 and onwards.

After reaching a ten-year low of 273 tonnes in 2020, the pace of central bank gold buying is projected to increase by an average 9.7% a year over the outlook period, reaching 540 tonnes in 2026. Many central banks are expected to shift their focus from accommodative liquidity requirements — to support economic growth during the COVID-19 pandemic — to reserves diversification — to protect their future wealth.

Risks to jewellery consumption remain in the short term

Despite growing online jewellery trading platforms, consumers still prefer a traditional face-to-face method of buying and selling jewellery. The threat of COVID-19 virus variants, partial or full COVID-19 containment measures and uncertainty around vaccine roll outs are all risks to the global economic recovery, which pose a risk to jewellery demand.

Figure 10.5: Top 5 physical gold investing countries



Source: Metals Focus (2021); Department of Industry, Science, Energy and Resources (2021)

10.3 Production

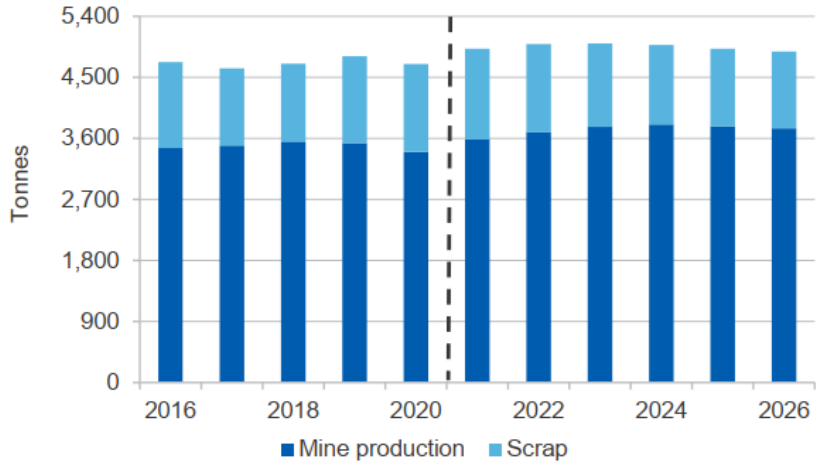
COVID-19 containment measures reduced world gold supply in 2020

World gold supply decreased by 3.9% in 2020 to 4,633 tonnes, as COVID-19 containment measures reduced gold mine output (which accounts for 73% of global gold supply) by 3.7% in 2020, to 3,401 tonnes (Figure 10.6).

Gold mine production in China — the world's largest gold producer — declined by 4.7% in 2020, to 365 tonnes, with COVID-19 containment measures and stricter environmental regulation leading to some modest production cuts (Figure 10.7). Over this period, Russia's gold mine production fell by 10%, to 295 tonnes, due to lower ore grades (Figure 10.7).

Outside of China, Papua New Guinea's gold mine production fell by around 28% in 2020, to 53 tonnes, as the country's largest gold mine (Porgera) was placed into care and maintenance from April 2020 following a dispute with the PNG government over the renewal of the mining lease.

Figure 10.6: World gold supply



Source: World Gold Council (2021) Gold Demand Trends; Department of Industry, Science, Energy and Resources (2021)

Gold mine production in Australia — the world's second largest gold producer — was largely unaffected by COVID-19 containment measures, rising by 0.6% to 328 tonnes in 2020 (Figure 10.7).

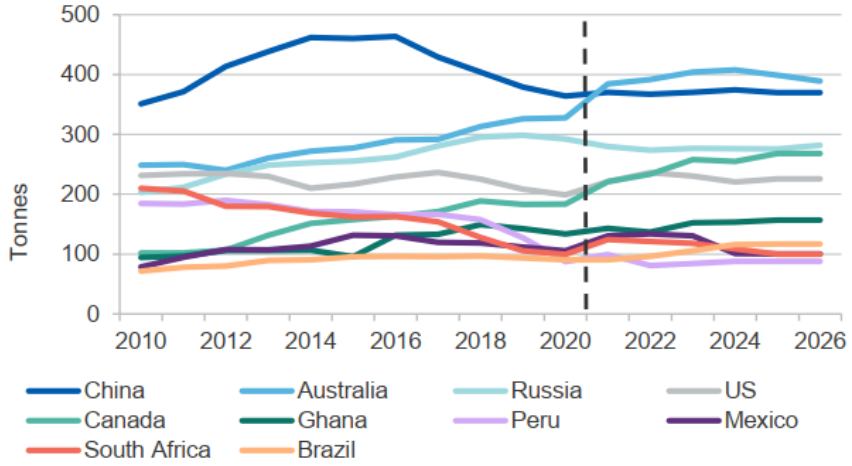
Movement restrictions during the COVID-19 pandemic discouraged gold recycling activities. Jewellery store closures reduced the physical exchange of gold for cash. In 2020, gold scrap supply grew at a slower pace (up 1.2% to 1,297 tonnes) than in 2019 (up 12%) (Figure 10.6).

World gold supply expected to peak in 2023

World gold supply is forecast to reach a peak of 5,051 tonnes in 2023, and then decline moderately to 4,893 tonnes in 2026. In the short term, increasing total gold supply will be propelled by higher mine production.

Global mine production is forecast to increase by 5.5% (to 3,588 tonnes) in 2021, by 3.0% (to 3,696 tonnes) in 2022, and by 2.0% (to 3,769 tonnes) in 2023 (Figure 10.6). The global rollout of COVID-19 vaccines is expected to minimise disruption to gold mine production after 2022.

Figure 10.7: Top 10 global gold producing countries



Source: Metals Focus (2021); S&P Market Intelligence (2021); Department of Industry, Science, Energy and Resources (2021)

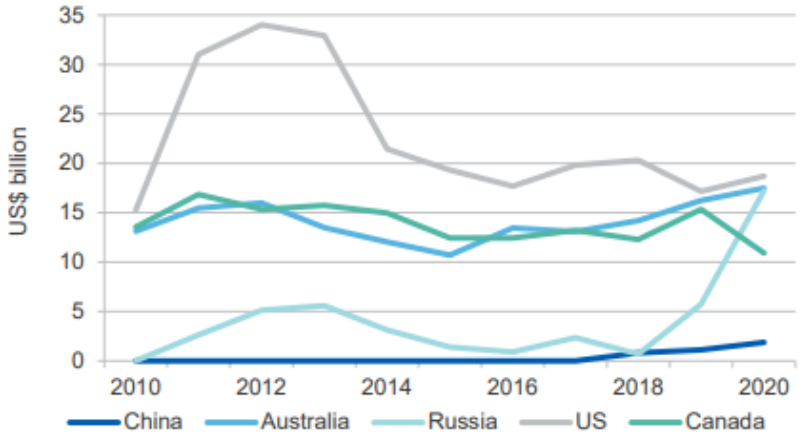
In 2021, gold mine production in Central and South America and Africa is expected to recover, following heavy losses in 2020. Production in Mexico is forecast to increase by 24% in 2021 to 128 tonnes, Peru (up 35% to 136 tonnes) and South Africa (up 24% to 124 tonnes).

A solid pipeline of projects in Australia and Canada are all likely to drive higher global gold mine output in the short term, with miners focusing on expansions and extending the life of existing mines.

Australia is expected to overtake China as the world's largest gold producer in 2021, producing 384 tonnes (Figure 10.7), as miners respond to high gold prices (see *Section 10.5 Australia's exports and production*). In China, stricter environmental regulations are likely to keep Chinese gold mine output at about 370 tonnes a year over the outlook period.

World gold mine production is projected to decline at an annual rate of 0.8% in 2025 and 2026, to 3,746 tonnes in 2026 (Figure 10.6), as ore grades decline and operational costs increase.

Figure 10.8: Gold exports, selected top 5 producing countries



Notes: Quarter 4 2020 trade data is provisional.
Source: International Trade Centre (2021)

Figure 10.9 shows the share of profitable and unprofitable gold mines in the world. A mine is considered as profitable or unprofitable if its all-in sustaining costs — a measure of all direct and recurring costs required to mine a unit of ore — are below or above the average gold prices. The number of unprofitable gold mines is expected to rise from 5% in 2021 to 10% in 2026. Reflecting this rise, more mine closures and reduced gold mine production are expected.

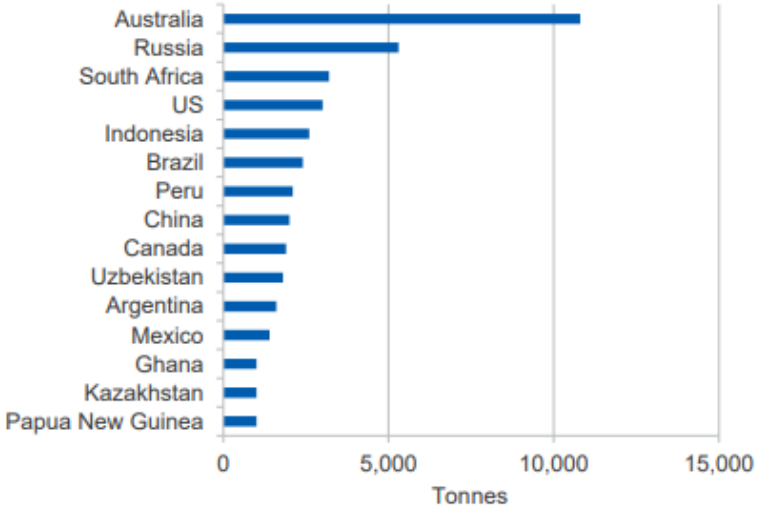
The medium to long term future and sustainability of the Australian gold industry is reflected by its gold economic resources. Figure 10.10 shows the largest gold economic resources, of which Australia has the largest: 10,795 tonnes, accounting for 21% of global gold reserves, ahead of Russia (5,300 tonnes, 10%), South Africa (3,200 tonnes, 6.3%) and US (3,000 tonnes, 5.9%).

Gold scrap supply is projected to decline at an average annual rate of 3.2% over the outlook period, to 1,135 tonnes in 2026, as lower gold prices discourage gold selling in major jewellery consuming markets such as China and India.

Figure 10.9: Profitable and unprofitable global gold mines

Source: AME (2021); Department of Industry, Science, Energy and Resources (2021)

Figure 10.10: World gold economic resources, December 2019



Source: Geoscience Australia (2021)

10.4 Prices

Gold prices rose strongly in 2020

The London Bullion Market Association (LBMA) gold price averaged US$1,805 an ounce in 2020, a rise of 26% from 2019 (Figure 10.11). An US dollar record of US$2,064 an ounce was reached on 6 August 2020 — and the Australian dollar gold price — reached A$2,861 an ounce on 7 August 2020.

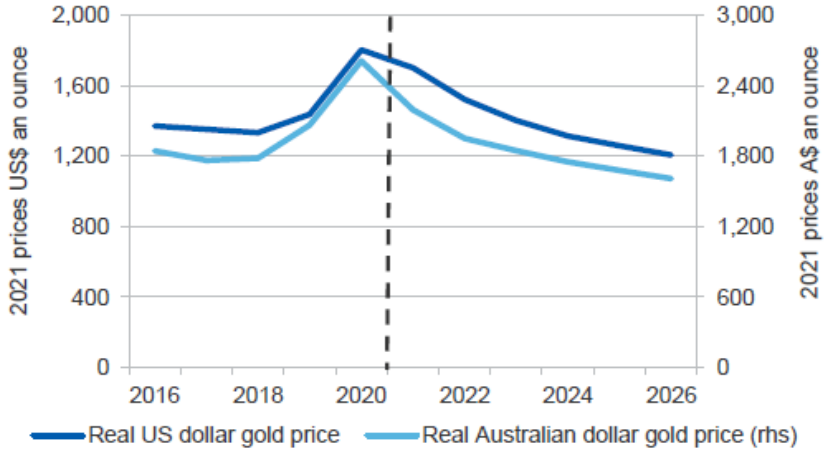
Gold has benefited from its status as a safe haven asset during the COVID-19 pandemic. The close correlation between lower real bond yields and the US dollar gold price has persisted; low (and negative) real yields caused a rush of investor money into gold in 2020, more than offsetting the impact of weaker demand from jewellery consumers and central banks (Figure 10.12).

Gold prices to fall in the short to medium term

In 2021, the rollout of COVID-19 vaccines and the global economic recovery has lifted real bond yields, and is expected to undermine some of gold's appeal to institutional and retail investors. Funds are expected to move out of safe haven assets like gold and into riskier assets such as equities and real estate. Reflecting this, the US gold price is forecast to decrease by 5.7% (in real terms) in 2021, averaging US$1,700 an ounce, with the Australian gold price forecast to fall by 16% (in real terms) in 2021, averaging A$2,200 an ounce (Figure 10.11).

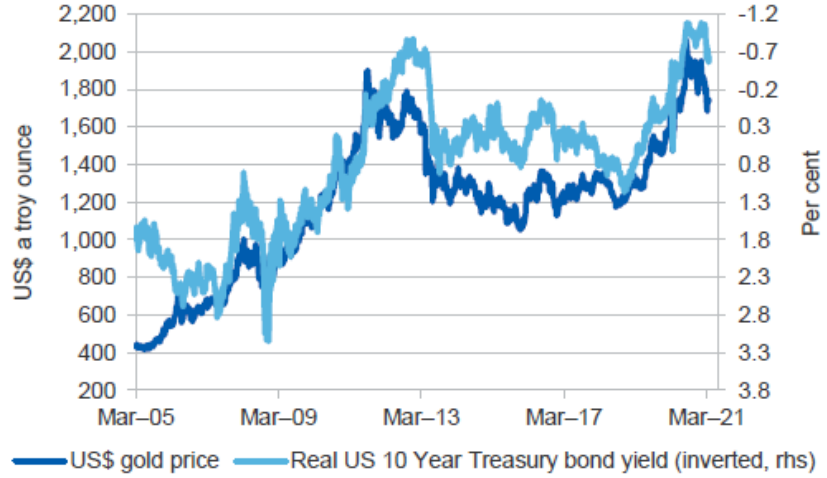
After 2021, gold prices are projected to fall by an average 6.6% a year, to US$1,208 an ounce in 2026 in real terms, due to the recovery of the global economy and a higher interest rate environment (Figure 10.11). The high interest rate environment is likely to be a major factor in curbing institutional investment demand for gold. With (real) interest rates increasing, the opportunity cost of holding gold is high, lowering its attractiveness as an investment asset. The lower US dollar gold price, in combination with a higher Australian dollar, is expected to push the Australian dollar gold price lower over the outlook period, to an average of A$1,610 an ounce (real terms) in 2026.

Figure 10.11: US and Australian dollar real gold prices



Source: LBMA (2021) Gold price PM; Department of Industry, Science, Energy and Resources (2021)

Figure 10.12: US dollar gold price and real US 10-Year Treasury yield



Source: Bloomberg (2021)

There are several risks to the gold price assessment, including the effectiveness of COVID-19 vaccines now being rolled out across the world. Some new strains of the virus are much more infectious than others.

Another risk to the price assessment includes a possible correction in the global equity markets — which are at record levels and vulnerable to a rise in bond yields. A correction in equity markets may drive institutional investors back towards gold. A rise in the US dollar would put downward pressure on the US gold price. The US dollar may rally if growth in the US economy outpaces other major nations.

Geopolitical issues are expected to remain over the outlook period. Tensions in the Middle East and parts of the Indo-Pacific are not expected to be resolved within a short timeframe. There is uncertainty around the levels of world trade protection, as countries may look to support domestic manufacturing industries to aid economic recovery from the COVID-19 pandemic.

10.5 Australia's exports and production

Australia's gold exports increased in 2020

Australia's gold exports increased by 9.1% to over $25 billion in 2020, propelled by a 26% rise in gold prices.

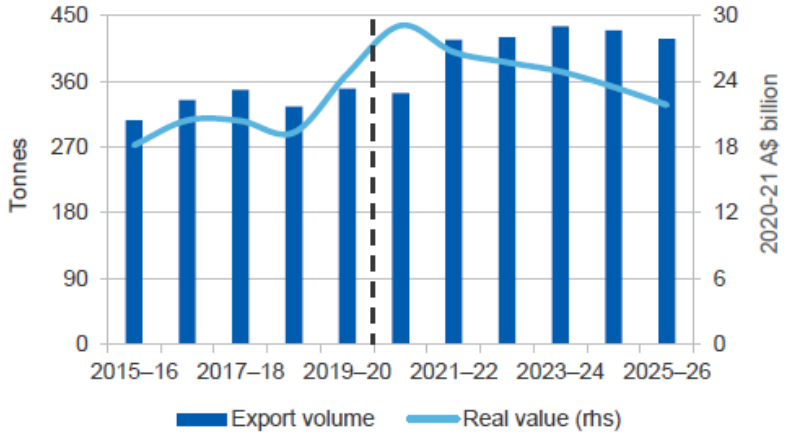
The value of Australia's gold exports is forecast to peak at a record $29 billion (in real terms) in 2020–21, driven by higher gold prices (Figure 10.13). Gold prices rose by 26% in 2020 to US$1,805 an ounce, and are expected to average US$1,700 an ounce in 2021 (in real terms).

Export values are projected to decline after 2020–21, from $29 billion in 2020–21 to $22 billion in 2025–26 (2020–21 dollars) (Figure 10.13). The decline is expected to be driven by lower US and Australian dollar gold prices (see *Section 10.4 prices*).

Australia's gold mine production rose in 2020

Australia's gold mine production was largely unaffected by COVID-19 containment measures, and rose by 0.6% to 328 tonnes in 2020.

Figure 10.13: Australia's gold exports



Source: ABS (2021) International Trade, 5464.0; Department of Industry, Science, Energy and Resources (2021)

Production at Kirkland Lake Gold's Fosterville mine in Victoria increased by 3.4% in 2020 to nearly 20 tonnes, driven by increased mill throughput. Over the same period, production at Ramelius Resources' Mt Magnet and Vivien gold mine rose by 47% to 5.7 tonnes, propelled by higher grades.

Production at Evolution Mining's Cowal gold mine in NSW fell by nearly 17% in 2020, to 7.1 tonnes, due to planned maintenance in August 2020. Northern Star's Kalgoorlie Operations output declined by 17% to 9.2 tonnes in 2020, due to planned maintenance and lower grades.

Higher gold mine production until 2023–24

Australian gold mine production is forecast to grow at an average annual rate of 5.7% between 2020–21 and 2023–24, reaching a peak of 410 tonnes in 2023–24 (Figure 10.14). Growth is expected to be driven by mine reactivation and expansions, as well as production from new mines.

Red River Resources' 1.6 tonnes per year Hillgrove gold mine in NSW commenced production in March 2021. Red 5's 6.2 tonnes a year King of the Hills gold project is expected to start production in mid-2022.

NQ Minerals' 1.4 tonnes per year Beaconsfield gold mine in Tasmania is expected to start production in 2021, after production ceased in 2012.

Several gold projects are expected to ramp up production in the coming years. These include St Barbara's 7.9 tonnes a year Gwalia Expansion in WA and the 15 tonnes a year Tropicana Expansion project — a joint-venture between AngloGold Ashanti and Independence Group.

Production at Newmont's Boddington gold mine in Western Australia and Tanami gold operation in the Northern Territory is expected to reach nearly 26 and 16 tonnes of gold in 2021.

Several gold expansion projects are expected to be completed in 2022 and 2023. These include Newcrest's $685 million and $175 million Cadia Stage 1 and Stage 2 Expansion projects in NSW, and Newmont Mining's $750 million Tanami Expansion 2 project in WA. Newmont's Tanami Expansion 2 project is expected to be commissioned in the first half of 2024, lifting the mine's average annual gold output from 15 tonnes a year in 2020 to 18 tonnes a year in 2025.

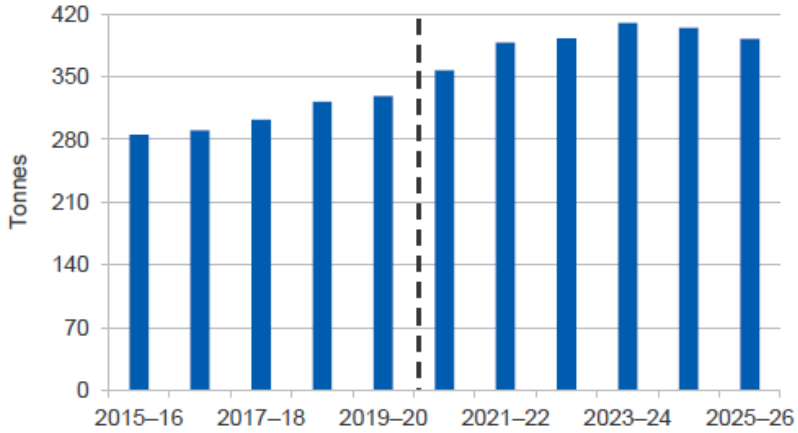
Lower production in the medium term

After reaching a peak in 2023–24, Australian mine output is projected to decline by 2.1% annually to 392 tonnes in 2025–26 (Figure 10.14). Output will be weighed down by lower grade ores, reserve exhaustion and closures, with prices also falling back. Production at Gold Fields' St Ives gold operation in WA is expected to decline from 11 tonnes in 2020 to 3.6 tonnes in 2026.

Western Australia is the centre of Australian gold production

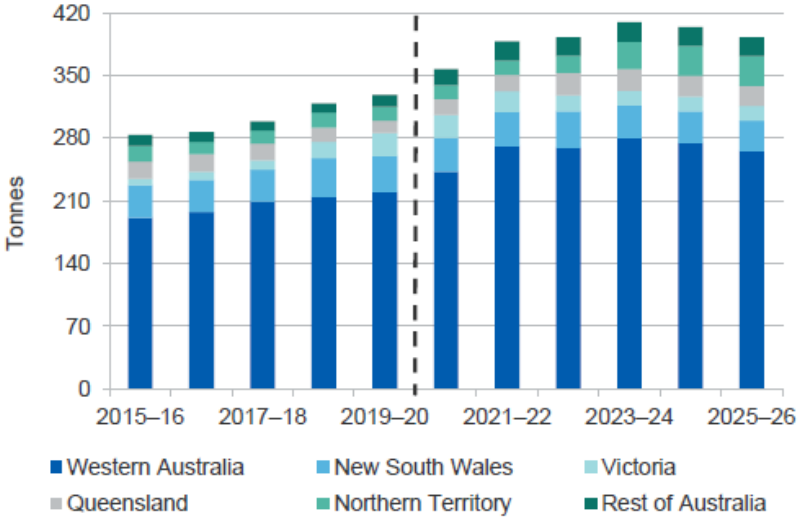
Western Australia is expected to be the largest gold mine producing state in Australia in 2020–21, accounting for 68% of Australian total gold mine output, followed by New South Wales (10%), Victoria (7.2%), Queensland (5.2%), the Northern Territory (4.3%), and the rest of Australia (4.9%). At the end of the outlook period (2025–26), Western Australia is expected to remain Australia's largest gold mine producing state. Production in New South Wales and Victoria is expected to fall, whereas production in Queensland and the Northern Territory is expected to rise (Figure 10.15).

Figure 10.14: Australia's gold production



Source: Department of Industry, Science, Energy and Resources (2021)

Figure 10.15: Production by State/Territory



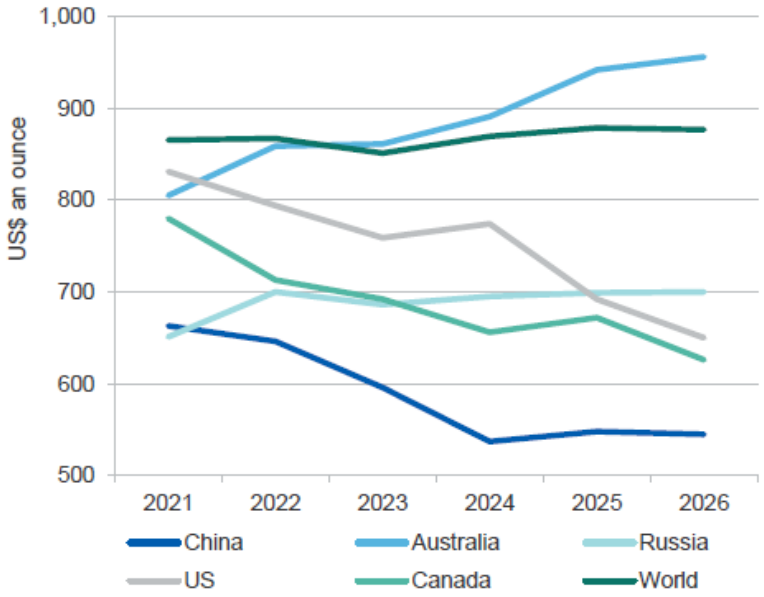
Source: Department of Industry, Science, Energy and Resources (2021)

Australia's gold mine production costs expected to rise in the medium term

Figure 10.16 shows gold production all-in sustaining costs (AISC) — a measure of all direct and recurring costs required to mine a unit of ore — of selected major gold producing nations between 2021 and 2026.

Australia's gold mine production costs are forecast to be lower than the world average costs in the short term, but are expected to be above the world average in the medium term. Australian gold miners are less competitive (have a higher AISC) than Chinese, Russian, and North American producers.

Figure 10.16: Gold mine AISC costs, by country

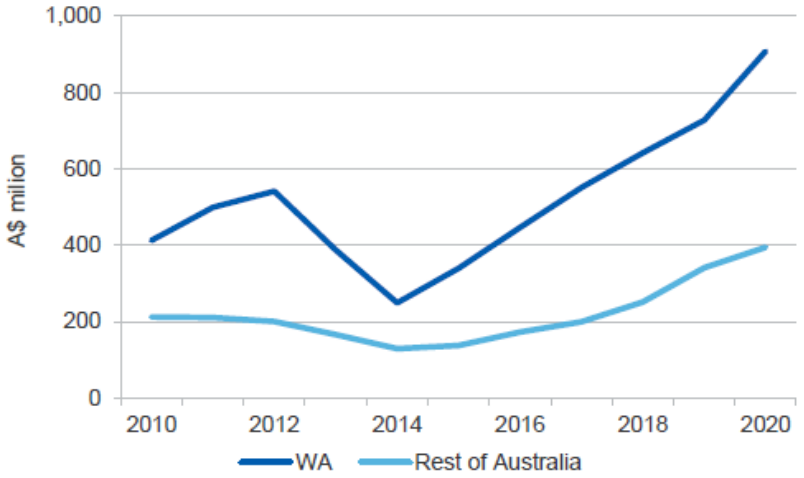


Source: AME (2021)

Exploration expenditure continued to rise in 2020

Australia's gold exploration expenditure increased by nearly 16% in 2020 to nearly $1.3 billion — accounting for 47% of Australia's total minerals exploration expenditure during the year — driven by high US dollar and Australian dollar gold prices. Western Australia remained the centre of gold exploration activity in Australia, accounting for nearly 70% (or $908 million) of total gold exploration expenditure (Figure 10.17).

Figure 10.17: Australian gold exploration expenditure



Source: ABS (2021) Mineral and Petroleum Exploration, Australia, 8412.0

Revisions to the outlook

The forecast for Australian gold export volumes in 2020–21 has been revised down by 5.5%, to 344 tonnes, from the forecast in the December 2020 *Resources and Energy Quarterly*. The downward revision reflects the lower than expected export volumes to the United States in the December quarter 2020, down 32% quarter-on-quarter. As a result of the export volume revision, the forecast for Australian gold export values in 2020–21 has been revised down to $29 billion, down around $1.0 billion from the forecast in the December 2020 *Resources and Energy Quarterly*.

Table 10.1: Gold outlook

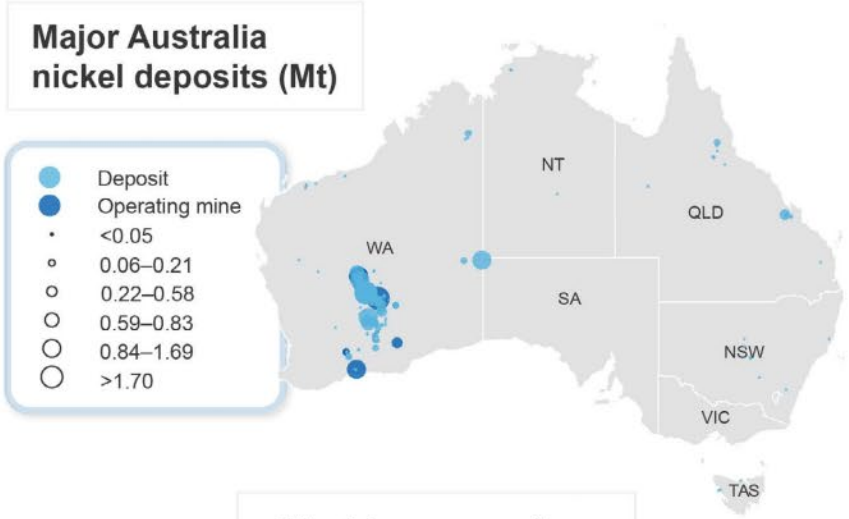
World	Unit	2020	2021[f]	2022[f]	2023[f]	2024[z]	2025[z]	2026[z]	CAGR[r]
Total demand	t	3,760	4,080	4,259	4,566	4,784	4,991	5,162	5.4
Fabrication consumption[b]	t	1,714	2,090	2,308	2,515	2,681	2,835	2,973	9.6
Mine production	t	3,401	3,588	3,696	3,769	3,807	3,777	3,746	1.6
Price[c]									
Nominal	US$/oz	1,770	1,703	1,554	1,467	1,405	1,377	1,350	-4.4
Real[d]	US$/oz	1,805	1,703	1,522	1,405	1,315	1,260	1,208	-6.5
Australia	**Unit**	**2019–20**	**2020–21[f]**	**2021–22[f]**	**2022–23[f]**	**2023–24[z]**	**2024–25[z]**	**2025–26[z]**	**CAGR[r]**
Mine production	t	329	357	388	393	410	404	392	3.0
Export volume	t	350	344	416	420	435	429	418	3.0
– nominal value	A$m	24,394	29,056	27,086	26,682	26,461	25,599	24,418	0.0
– real value[e]	A$m	24,652	29,056	26,642	25,705	24,869	23,462	21,824	-2.0
Price									
– nominal	A$/oz	2,338	2,480	2,024	1,976	1,893	1,855	1,818	-4.1
– real[e]	A$/oz	2,363	2,480	1,991	1,904	1,780	1,700	1,625	-6.0

Notes: **b** includes jewellery consumption and industrial applications; **c** London Bullion Market Association PM price; **d** In 2021 calendar year US dollars; **e** In 2020–21 financial year Australian dollars; **f** Forecast; **z** Projection; **r** Compound annual growth rate for the period from 2020 to 2026, or from 2019–20 to 2025–26.

Source: ABS (2021) International Trade, 5465.0; London Bullion Market Association (2021) Gold Price PM; World Gold Council (2021); Department of Industry, Science, Energy and Resources (2021)

28 Ni 58.693 Nickel

Major Australia nickel deposits (Mt)



Nickel facts

- Nickel is used in the **US, UK and Euro coins**
- Nickel has a growing role in **electric vehicle batteries**
- Nickel is **magnetic** at room temperature and is **fully recyclable**
- Nickel is the **second most abundant element** in the Earth's core after iron

World consumption

- **70%** Stainless steel
- **8%** Alloys
- **8%** Plating
- **8%** Casting
- **5%** Batteries
- **1%** Other

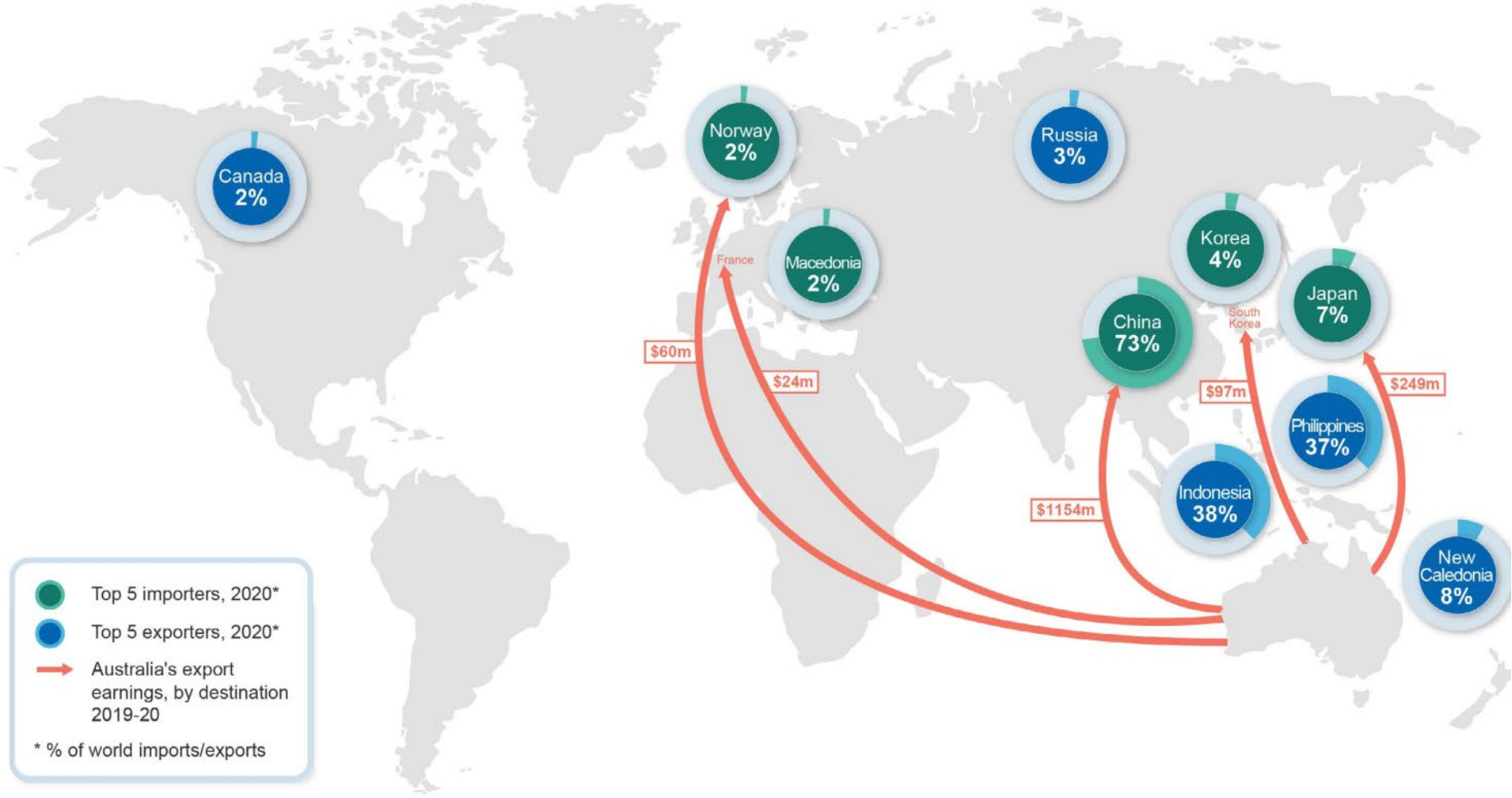
Australia's nickel

- Australia has **26%** of world **nickel resources**
- **200,000 tonnes** produced each year
- Contributes **more than $3b** to the economy

Nickel

28 Ni 58.693

Trade map | March 2021



Summary

- Prices are forecast to rise from an average of US$19,000 a tonne in 2021 to US$21,000 a tonne in 2026, fuelled by returning levels of activity and consumption in stainless steel production. These factors, as well as increased nickel used in EV batteries, is expected to push the market into deficit by 2023.
- Australia's export volumes are forecast to rise from 201,000 tonnes in 2020–21 to 246,000 tonnes in 2025–26. Export volumes are forecast to peak during 2021–22 at 259,000 tonnes; however, further expansion in nickel production will be required for Australia to capitalise on the probable consumption expansion of commodities fuelling low-emission technology production (see *Australia section*).
- Australia's export earnings are forecast to increase from $3.8 billion in 2019–20 to $6.5 billion in 2025–26, driven by increased demand for Australia's higher quality nickel.

13.1 World consumption

Disruptions weighed on nickel usage in the first half of 2020

The nickel market in 2020 was heavily impacted by the global slowdown caused by the COVID-19 pandemic. Lockdown measures were implemented across the globe to slow the spread of the virus, which resulted in a reduction of end-use demand for nickel products.

Nickel consumption finished at almost 2.4 million tonnes in 2020 (down 1.3% on 2019), after significant COVID-19 related consumption losses in the first half of 2020. Consumption of primary nickel has risen strongly over the past decade, and the decline in 2020 was the first decline since the global financial crisis. Stainless steel demand was initially impacted by the repeated lockdowns; however, performed better than expected driven by strong consumption in China.

Going forward, growth is expected to be driven by returning economic activity and growing markets for nickel used in batteries. The surplus of nickel is expected to narrow in 2021, with the market likely reaching a deficit by 2023, and by 2026 world consumption is forecast to be 3.2 million tonnes, increasing by an average 6% a year. (Figure 13.1)

China's 2020 refined nickel imports slump to 6-year low

China is the world's largest nickel consumer, accounting for over half of world primary nickel use and it is the largest producer of electric vehicle batteries.

In 2020, China's nickel consumption was 733,000 tonnes, down from 806,000 in 2019. However, despite China importing a record of surplus metal in 2020, Chinese imports of refined nickel fell by 32% year-on-year to 130,700 tonnes in 2020, the lowest level since 2014 (Figure 13.2).

China raw material imports remain strong, balancing the market

Despite total refined nickel consumption falling, China's stainless steel sector has remained strong. The country's stainless production rose by 4% in the September quarter 2020 (quarter-on-quarter), while production in the rest of the world fell by 9%. Due to this Chinese demand, and import restrictions on Indonesia's concentrates, China's imports of Indonesia's nickel pig iron (NPI) increased sharply in 2020. While China's refined metal imports declined further last year, those of ferronickel and NPI increased up to 80% from 2019, to 3.4 million tonnes (Figure 13.3).

It is the sharp recovery across the country's ferrous sector that has been lifting demand for nickel raw materials. China's stainless mills have enjoyed their share of the demand boom created by rapid COVID-19 recovery and government stimulus.

Nickel market likely driven by EV battery consumption through 2020s

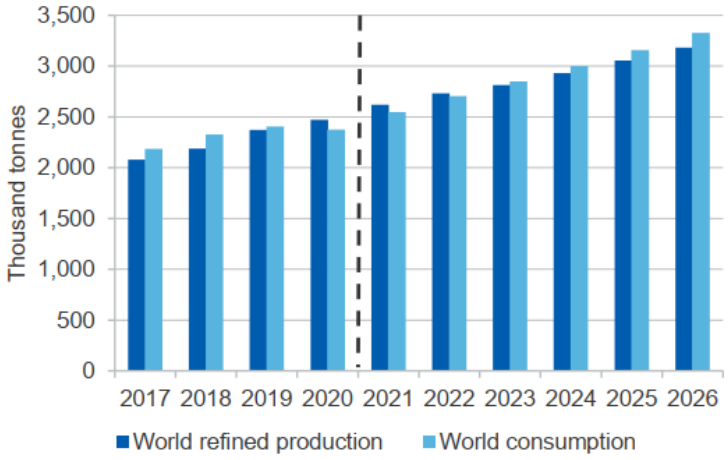
Currently around 60% to 70% of nickel consumption is used for stainless steel, with the emerging demand from the lithium-ion battery a slight addition of what the stainless steel market presently requires. Currently only about 5% of nickel is utilised in battery production.

Limiting stainless steel's share of the nickel market over the 2020s period, will be lithium-ion batteries used in electric vehicles that will see rapid uptake over the next decade. Owing to the rising demand for nickel

products suitable for processing to nickel sulphates (mostly Class I nickel), this is likely to impact stainless steel mills as they increasingly substitute higher purity nickel for Class II nickel and scrap.

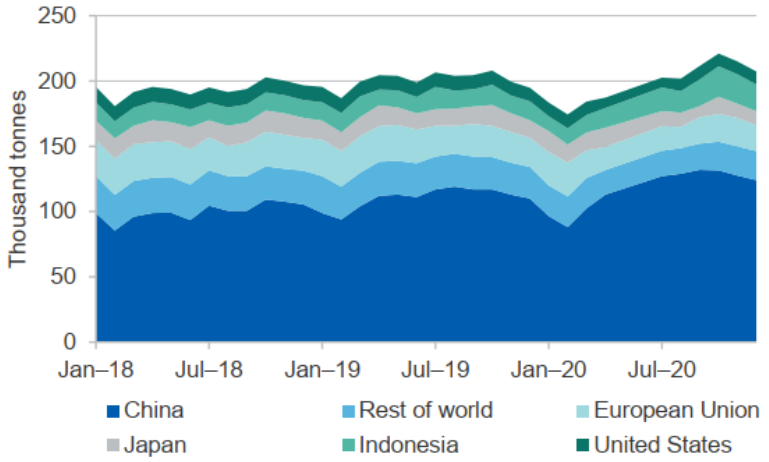
The composition of battery chemistry is likely to evolve over the next decade. With current forms of nickel content per battery cathode at about 33%, newer versions could see nickel content in EV batteries rise to over 90%. Despite the nickel market being in surplus, the type of nickel the lithium-ion battery industry requires, (higher quality, class-1 compositions of nickel sulphides to produce nickel sulphates), are in relative short supply. Producers currently rely on sulphide mines or high pressure acid leach (HPAL) refining operations to obtain class-1 nickel sulphate stocks. Past 2020, it is unclear how many new nickel projects will be able to supply the required class-1 and intermediate nickel products — currently, class-1 nickel, which must have a minimum purity of 99.8%, only accounts for less than 25% of the total finished nickel supply.

Figure 13.1: Nickel consumption to overtake production by 2023



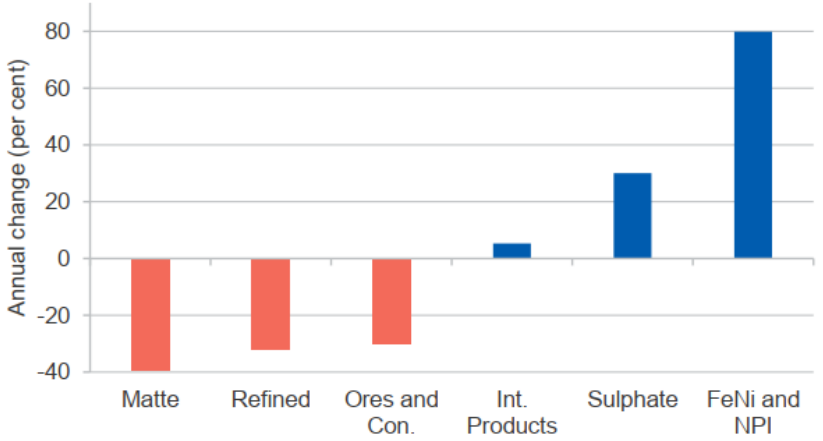
Source: International Nickel Study Group (INSG); Department of Industry, Science, Energy and Resources (2021)

Figure 13.2: Composition of world nickel consumption



Source: International Nickel Study Group; Department of Industry, Science, Energy and Resources (2021)

Figure 13.3: Change in China's nickel imports, 2019 to 2020



Source: Refinitiv (2021)

13.2 World production

Nickel production returns as consumption makes strong recovery

Total mined nickel production for 2020 suffered due to multiple mine closures and disrupted production due to the pandemic's lockdown effect. Total mined nickel production was down from 2019, falling 12% to 2.4 million tonnes in 2020.

Through 2021, nickel production is expected to recover to 2019 levels of around 2.6 million tonnes. Indonesia's ore export ban and potential halts to New Caledonia's production present downside risk for the year. The Philippines has been filling some of the gap and the rising price recovery in the first few months of 2021 has indicated an increased consumption activity.

Going forward, mine production is expected to grow as new refinery capacity in Indonesia creates a market for domestic mined output. Mine production is projected to grow an average 5% a year over the outlook period, to reach 3.2 million tonnes in 2026 (Figure 13.3).

New Caledonia's Vale mine collapses — halts refinery production

The coalition government in New Caledonia collapsed in December 2020, after pro-independence politicians resigned. This led to riots and protests related to the sale of Vale SA's nickel operation, which is opposed by pro-independence political parties.

The 35,000 tonne per year plant was forced to close resulting from the December riots, which did substantial damage to equipment, and is reported as unlikely to reopen until mid-2021. While other countries may ramp-up shipments to fill any supply gap from New Caledonia, a new deal with the New Caledonian government over Vale's exit from the nickel operation appears to have been achieved — avoiding the possibility of further protracted disruptions to operations. A key element of the new deal is that Tesla has agreed to be a technical and industrial advisor, using the operation to source raw materials for its EV batteries.

New Caledonia is the world's fourth-biggest producer of mined nickel, behind Indonesia, the Philippines and Russia. It exports ore mainly to South Korea, Japan and China, and accounts for roughly 9% of global mined nickel output, producing roughly 200,000 tonnes per year. The French territory is also the third-biggest nickel ore and concentrate supplier to top metals consumer, China.

Indonesian coal decline being replaced by value-add nickel exports

2020 saw remarkable progress in the Indonesian government's plans to increase domestic nickel processing. Government policy for over a decade has been to reduce the dependence on raw material exports and increase exports of value-add mineral products. Indonesian nickel is achieving this goal, with large Chinese investment starting after the first nickel ore ban in 2014. Investment continued during the partial ore export relaxation over 2017-2019 and has accelerated massively in the past 12 months. Indonesia's refined nickel exports, including stainless steel rose 49% year-on-year in 2020 to 667,000 tonnes (Figure 13.4).

Chinese investment has not stopped at processed nickel (ferronickel, nickel pig iron and matte) but has continued into stainless steel with two large producers now operating. From 2021, value-add will be expanded into nickel sulphates, the raw material for batteries used in electric vehicles. The value-add could continue into battery cells and electric vehicles with Tesla and several Korean and Chinese battery and automakers currently negotiating with the Indonesian government.

Responsible refining of nickel still remains a challenge for Indonesia

The Indonesian government is reportedly not willing to issue permits for deep-sea tailings placement (DSTP), a type of waste management system that disposes of mining waste in the ocean. Extracting nickel from Indonesian laterites requires high-pressure acid leaching (HPAL) that produces high volumes of waste tailings, about twice as much as comparable sulphide nickel mines in Australia. At least two Indonesian HPAL nickel projects with total capacity of 87,000 metric tons planned to use DSTP, representing 47% of planned Class 1 nickel production in the

country. Of these, QMB New Energy Materials withdrew its application back in October 2020.

Philippines' becomes largest supplier of NPI for stainless steel production

The Philippines has become the biggest supplier of nickel ores to top metals consumer, China, since Indonesia banned the export of unprocessed minerals in January 2020. Indonesia's mostly low-grade material is used in producing nickel pig iron, the main commodity used in stainless steel.

Philippine President Rodrigo Duterte has ordered a halt to all mining on an island in the southern province of Tumbagan Island in Languyan. However, the country's main ore production centres are unaffected.

China to expand investment in Indonesian nickel refining

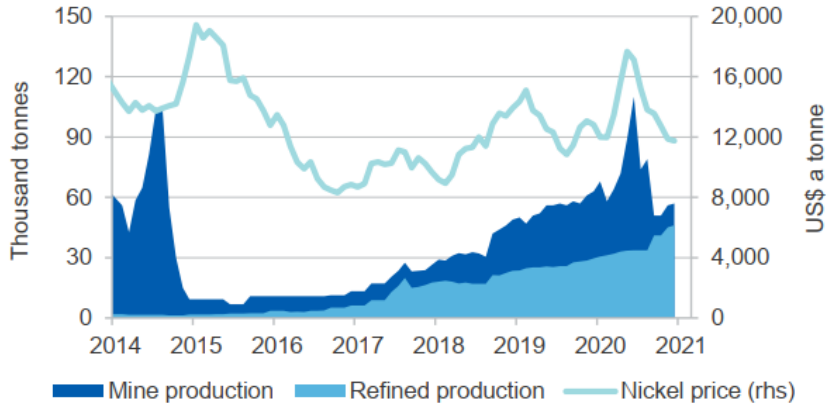
As China powers on with its major infrastructure-focused stimulus recovery from the Covid-19 induced recession, Indonesia expects to see investment in nickel processing double to US$35 billion by 2033. This is expected to be primarily led by Chinese companies, countering Indonesia's ban on unprocessed ore exports. Among the projects under development is a plan by China's Contemporary Amperex Technology Co Ltd and Ningbo Lygend Mining to create an integrated lithium battery production facility, which would be the largest such facility in the world.

Norilsk Nickel partially suspends production at two large mines

Norilsk Nickel, the world's biggest producer of palladium and refined nickel, has partially suspended two of its main Arctic mines, due to water inflows at one of the interconnected operations. It is unclear how long operations will be affected while measures are taken to stop the inflow. To date, guidance from Norlisk has indicated a 35,000 tonne cut to production. Groundwater is a common challenge at deep mines, although it's less usual for producers to report any inflows.

Due to the current rally in nickel prices, any supply disruption will quickly add strongly to price increases. Russia accounted for around 11% of total nickel production during 2020.

Figure 13.4: Indonesia's growing production of refined nickel



Source: Bloomberg; International Nickel Study Group (INSG)

13.3 Prices

Nickel price surges early 2021 — potential to rise to US$21,000 by 2026

Since suffering a Covid-19 related collapse in March 2020 — when the LME nickel spot price fell to US$10,800 a tonne — nickel use in China's stainless steel mills has surged, triggering a price recovery. Combined with supply concerns around production (from New Caledonia and the Philippines), the nickel price rose in January 2021, from US$16,800 to over US$17,800 a tonne. In February 2021, the nickel price surged to US$20,110 a tonne, the highest price since May 2014.

The major rise in nickel prices does slightly reflect speculative buying on EV demand expectations, but is predominantly driven by the current synchronised demand recovery in stainless steel production. Global stainless steel production is now significantly above pre-COVID-19 levels. However, this recent surge in stainless steel production appears unsustainable, and is expected to come to an end by mid-2021.

Expected increases to Chinese nickel consumption has driven expectations of a tightening in the nickel market, from a 100,000 tonne surplus in 2020, to around a 36,000 tonnes deficit in 2023. Forecast

average nickel prices for 2021 are around US$19,000 tonne, up nearly 38% from the previous year (Figure 13.5).

While nickel prices are currently limited by the current level of inventories surplus, expectations of future market growth and resulting market tightness are likely to push prices significantly higher over the outlook period. This consumption growth is expected to facilitate prices reaching a projected US$20,500 tonne by 2026 (in real terms), up an average almost 7% a year from 2021 (Figure 13.6). Speculative sentiment concerning the quantity and availability of nickel required for EV battery production is also perpetuating fears of a supply shortage in the nickel market. World EV sales increased by over 46% year-on-year in 2020, to 3.1 million units, and are expected to rise a further 15% to 3.6 million units for 2021. With EV sales expected to increase from 3.1 million in 2020 to 11 million in 2026, nickel consumption is expected to outpace production increases, resulting in a market deficit by 2023.

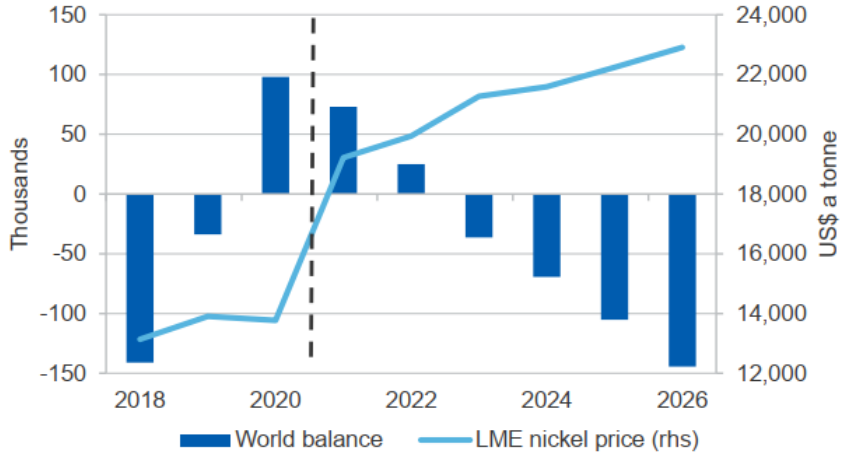
Price impacts of the EV market as nickel supply adapts to demand

A downside to nickel prices over the period could be the possible over-supply in nickel pig iron that has driven growing price discounts to LME nickel and nickel sulphate since November 2020.

The shortage of available class 1 nickel sulphites means that growth in battery demand over the decade may need to be met by growth in the processing of NPI or laterite ore supplies. The forecast battery demand growth from 2020-30 is equivalent to five new Nornickels — unlikely to happen under any nickel price scenario. However, there is debate over the actual conversation costs for NPI and laterite nickel to sulphates, with the refining process being highly energy-intensive and polluting.

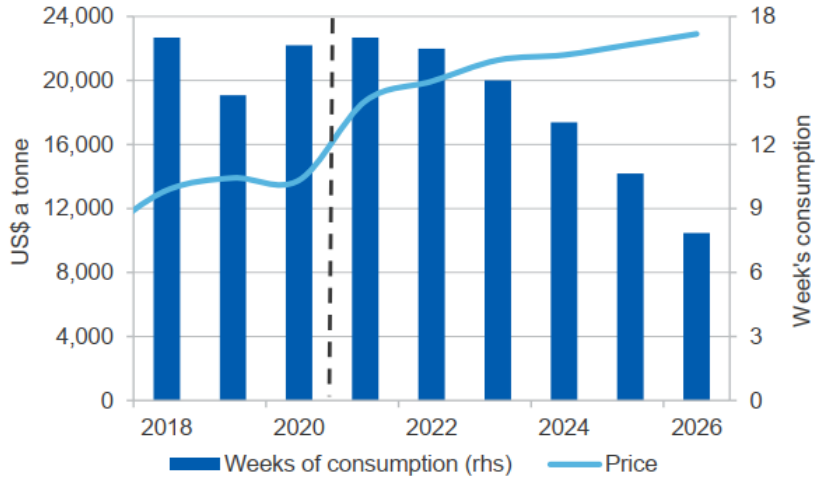
The excess of NPI currently within the market means the possibility of arbitrage between these forms of nickel grades has the potential to lower the premium to higher quality nickel prices. Tsingshan, the world's largest nickel and stainless steel producer, signed contracts to sell 75kt of nickel to Chinese battery interests derived from nickel NPI, a product previously only sold to the stainless steel industry.

Figure 13.5: Market deficit exerting upward pressure on prices



Source: Bloomberg (2021); Department of Industry, Science, Energy and Resources (2021)

Figure 13.6: Declining stocks pushing up prices



Source: Source: ABS (2021) International Trade in Goods and Services, 5368.0; Department of Industry, Science, Energy and Resources (2021)

13.4 Australia

Exports declined through 2020, but are expected to rise over outlook

After reaching $3.8 billion in 2019–20, nickel export earnings are forecast to remain steady in 2020–21, at $3.8 billion (Figure 13.8). Volumes are expected to reduce slightly, balanced by a price surge close to US$19,000 a tonne for 2021. Continued growth in export volumes will likely depend upon price increases driven by the eventuating demand for higher quality, class 1 nickel products used in batteries. Total nickel exports are projected to rise to over $6.5 billion in 2025–26 (in real terms), up an average 9% a year (Figure 13.7).

Australia's production volumes set to expand over 2021 and beyond

Australia's nickel production is expected to increase over 2020–21, driven by strong prospects for mid-term consumption growth in EV battery manufacturing and the expected tightening of the nickel market to deficit by 2023. Mine production is forecast to lift from 180,000 tonnes in 2020–21 to 210,000 tonnes in 2021–22, up by 17%.

A number of firms have upgraded outlooks for their mines under consideration. In early December 2020, the Golden Swan Drill Drive construction project commenced at Black Swan. The Company plans to have a maiden resource reported for Golden Swan during Q3 2021, and have feasibility and processing options studies completed by the end of December 2021.

Mincor Resources has completed the first blasts at the Cassini nickel project and Northern Operations in Western Australia. Mincor guidance suggests full-scale construction and development activities should finalise through 2021, allowing first production by December quarter 2021. The mine is forecast to produce 71,000 tonnes of nickel with a peak production of 16,000 tonnes a year.

These projects and other development projects stand to capture the value of a surging nickel market through 2020 as rising nickel prices make more nickel development opportunities feasible. Australia stands to capitalise as the world shifts to low-emissions production with its abundant reserves of responsibly sourced and high quality nickel for processing as battery inputs.

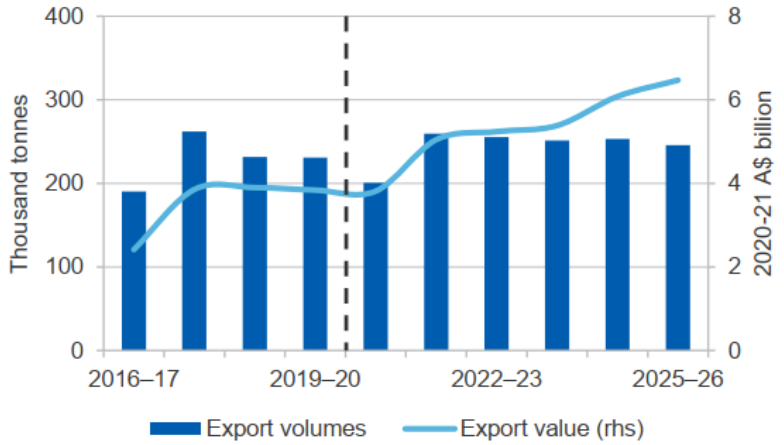
Forrestania revises down production guidance

Operational challenges at Western Areas' Forrestania operations continued to impact results during the December 2020 quarter. The company reported a 6% decrease in its nickel production target of 16,000-17,000 tonnes, as lower grade mining outpaced an increase in ore volumes.

Mined nickel production at the Forrestania operations therefore fell from the 4,147 tonnes reported in the September quarter to 3,518 tonnes in the three months to December, while nickel-in-concentrate production over the same period fell from 3,756 tonnes to 3,535 tonnes.

However, Western Areas noted that significant progress is being made with the Odysseus underground development. The mine is likely to be operational by September quarter 2022 for nickel concentrate — with an anticipated annual average production of 18,000 tonnes.

Figure 13.7: Australia's exports to approach $6.5 billion by 2026



Source: Source: ABS (2021) International Trade in Goods and Services, 5368.0; Department of Industry, Science, Energy and Resources (2021)

Nickel West has signed a renewable power purchasing agreement

BHP's Nickel West unit has agreed to buy up to 50% of its Kwinana refinery (Western Australia) electricity needs from the Merredin Solar Farm. The agreement with China-based solar developer Risen Energy is expected to displace 364,000 tonnes of CO2 equivalent over the life of the contract and will contribute to achieving BHP's medium-term target to reduce scope one and two emissions by 30% by 2030.

Outlook for Australia's refined nickel production

In 2019–20, production at Nickel West decreased by 8% to 80,000 tonnes, due to the major quadrennial maintenance shutdowns at the Kwinana refinery. However, BHP are expected to complete construction of the nickel sulphate expansion project located at the Kwinana nickel refinery in the second half of 2021. The expansion will add 100,000 tonnes of nickel sulphate annual capacity to the Kwinana refinery.

Australia's refinery production is projected to rise from 108,000 tonnes in 2019–20 to 139,000 tonnes in 2025–26, growing at an average 4.4% a year. However, stronger increases in refined nickel production are likely, should nickel prices remain strong through the mid-2020s.

Exploration expenditure

In the December quarter 2020, nickel and cobalt exploration increased to $54 million, however it was 10% lower than the same period in 2019. The increase is likely due to increased speculation of a sharp increase in demand for nickel used in batteries for electric vehicles, with miners seeking new deposits of minerals that will drive the world's low emissions transition (Figure 13.8).

Revisions to the outlook

The forecast for Australia's nickel export earnings have been revised slightly higher since the December 2020 *Resources and Energy Quarterly*, up, in nominal prices, $0.1 billion to a forecast $3.8 billion in 2020-21. This follows recent upward trends to the global nickel price as concerns around supply shortages remain in the short-term.

Figure 13.8: Nickel and cobalt exploration continues to expand

Source: Source: ABS International Trade in Goods and Services, 5368.0

Table 13.1: Nickel outlook

World	Unit	2020	2021[f]	2022[f]	2023[z]	2024[z]	2025[z]	2026[z]	CAGR[r]
Production									
–mine	kt	2,450	2,604	2,730	2,830	2,910	2,980	3,200	4.6
–refined	kt	2,472	2,620	2,730	2,812	2,930	3,053	3,182	4.3
Consumption	kt	2,374	2,547	2,705	2,849	3,000	3,159	3,326	5.8
Closing stocks	kt	758	831	856	819	750	645	501	-6.7
–weeks of consumption		16.6	17.0	16.5	15.0	13.0	10.6	7.8	-11.8
Prices LME									
–nominal	US$/t	13,769	18,715	19,941	21,272	21,591	22,239	22,906	8.9
	USc/lb	625	849	905	965	979	1 009	1 039	8.9
–real[b]	US$/t	14,044	18,715	19,532	20,366	20,210	20,351	20,494	6.5
	USc/lb	637	849	886	924	917	923	930	6.5
Australia	**Unit**	**2019–20**	**2020–21[f]**	**2021–22[f]**	**2022–23[z]**	**2023–24[z]**	**2024–25[z]**	**2025–26[z]**	**CAGR[r]**
Production									
– mine[c]	kt	161	180	235	237	236	235	220	5.4
– refined	kt	108	130	139	140	139	139	139	4.4
– intermediate	kt	15	27	33	32	30	30	33	13.1
Export volume	kt	231	201	259	255	251	253	246	1.1
– nominal value	A$m	3,798	3,813	5,128	5,437	5,727	6,633	7,238	11.3
– real value[d]	A$m	3,839	3,813	5,044	5,237	5,382	6,079	6,469	9.1

Notes: **b** In 2021 calendar year US dollars; **c** Quantities refer to gross weight of all ores and concentrates; **d** In 2020–21 financial year Australian dollars; **f** Forecast; **r** Average annual growth between 2020 and 2026 or 2019–20 and 2025–26; **z** Projection.

Source: ABS (2021) International Trade, 5465.0; LME (2021) spot price; World Bureau of Metal Statistics (2021) World Metal Statistics; Department of Industry, Science, Energy and Resources (2021)