



ASX: HAS Quarterly Activities Report

28 January 2022

DECEMBER 2021 QUARTERLY REPORT

Highlights

- Resource Definition drilling commenced in late November along the 8km long Bald Hill – Simon’s Find – Frasers mineralised trend.
 - Approximately 52% of the drilling or 68 holes have been drilled for 5,698m prior to end December 2021; and
 - First assay results are due during March 2022 quarter.
- Yangibana Project Mining Proposal and Flora and Vegetation Environmental Management Plan were approved by regulators.
- Equipment required for the Yangibana early works programme arrived on site.
- New access road centreline has been cleared to allow access to airstrip, process plant and accommodation village sites. Geotechnical assessment of infrastructure items completed.
- Early works programme designed to allow Hastings and its contractors to establish a site base at Yangibana in preparation for the main construction programme targeted for mid-2022, subject to the completion of financing and remaining minor regulatory approvals.
- Department of Agriculture, Water and the Environment (DAWE) approval to proceed with construction of Yangibana’s downstream rare earths processing plant – Onslow Rare Earths Plant at the Ashburton North Strategic Industrial Area (ANSIA).
- Project finance awaiting final credit-approved commitments from lenders’ consortium.
- Global NdPr oxide prices rose 40% during the quarter to reach US\$134.22/kg oxide EXW China. Post-quarter prices continue to climb with sellers showing no intention of lowering prices at this stage.
- Hastings released its maiden Sustainability report.
- Hastings had \$96.0 million in cash and equivalents as at 31 December 2021.

Australia’s next rare earths producer Hastings Technology Metals Ltd (**ASX: HAS**) (**Hastings or the Company**), is pleased to report on exploration and development activities for the three-month period to 31 December 2021. Most of the activity focused on the Company’s Yangibana Rare Earths Project (**Yangibana**) in the Gascoyne region of Western Australia.

The business continues to remain loss time injury free. There were no incidents resulting in injury during the December quarter, with the business now LTI free for 1,249 days.

INX, a workplace health and safety management system, has now been implemented as the safety ERP system to manage all aspects of Loss Prevention Inspections and Mobile Plant and Equipment inspections that are being developed.

Hastings has developed and regularly updates its COVID-19 Management Plan to incorporate the latest government and health authority advice and requirements to protect the well-being of its people and the communities in which it operates. The plan manages all aspects of control access to the Perth head office and the Yangibana site to provide guidance for potential risk scenarios.

Environment & Permitting

In order to improve on mining and operational efficiencies, it was considered necessary the re-optimize the Yangibana site layout, resulting in changes to the location of the accommodation village, access road, process plant and aerodrome. This change required amendments to the existing Ministerial Statement 1110 (approved under the WA Environmental Protection Act 1986), EPBC consent 2016/7845 (approved under the Commonwealth Environmental Protection and Biodiversity Conservation Act 1999) and Mining Proposal (approved under the WA Mining Act 1978). All three amendment applications were approved by the regulators during the quarter.

A key condition under Ministerial Statement 1110 to have a Flora and Vegetation Environmental Management Plan approved prior to construction was also met. The Flora and Vegetation Environmental Management Plan sets out the environmental objectives to be achieved and specifies management actions that will be implemented to achieve compliance. Hastings has prepared management targets and monitoring programmes to measure the effectiveness of the management actions.

Baseline and impact studies on the Yangibana Expansion 1 project (encompassing the expanded proposed mining envelope during operations) continued during the quarter. This has included hydrogeological investigations at SipHon borefield, subterranean fauna surveys and groundwater dependent ecosystem studies. Collation of the Environmental Review Document has commenced with intentions to submit to the regulator in mid-2022.

Three applications were submitted for the Onslow Rare Earth Plant. These include a Development Application under the WA Planning and Development Act 2005 as well as Works Approval and a Native Vegetation Clearing Permit under the WA Environmental Protection Act. These will be progressed in the first half of 2022 with grant of approval anticipated by mid-2022.

Ashburton North Strategic Industrial Area (ANSIA)

Hastings has progressed lease negotiations with DevelopmentWA during the quarter and presented a detailed project overview to the governing body of the Native Title holders, the Buurabalayji Thalanyji Aboriginal Corporation (BTAC). At this stage a final lease agreement is expected during June 2022 Quarter.

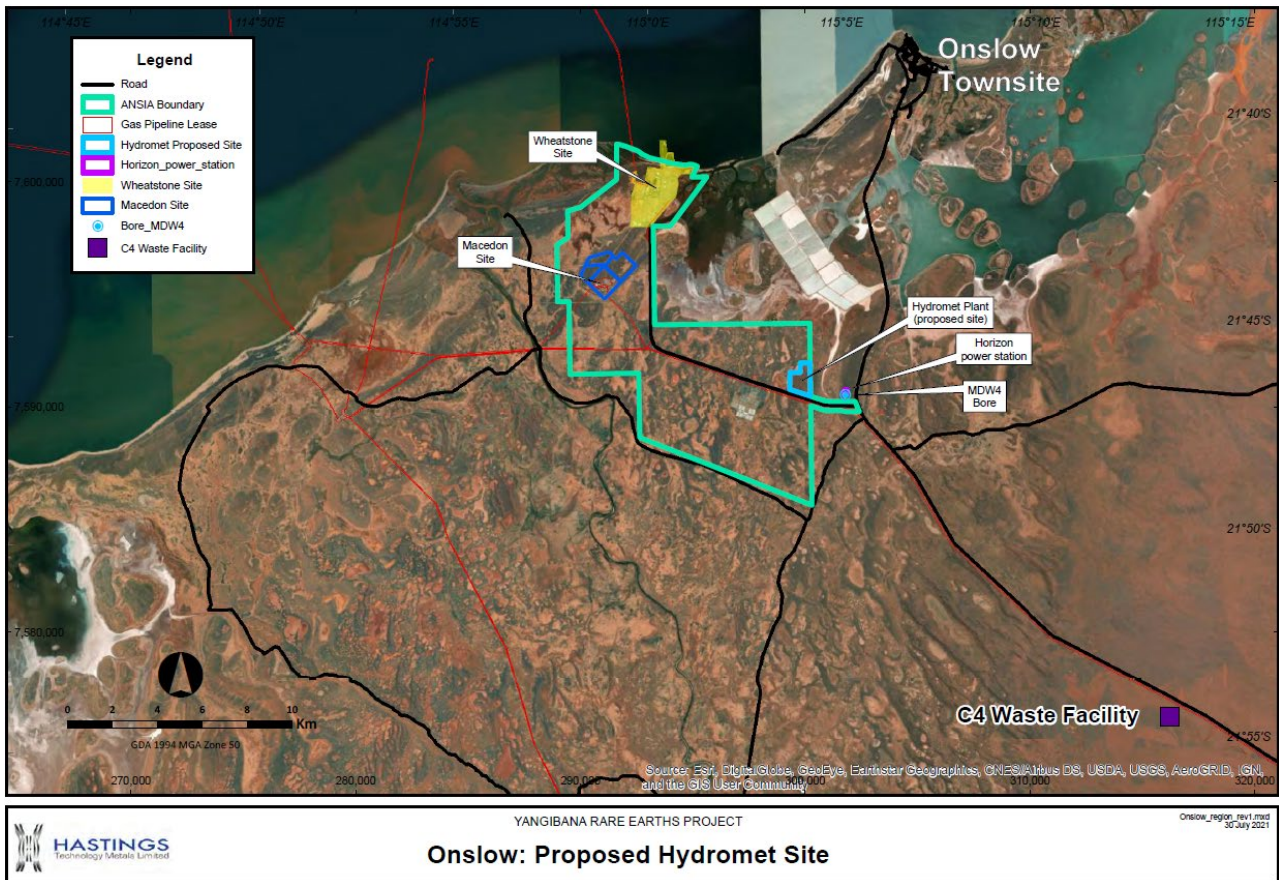


Figure 1. Location of the proposed Onslow Hydrometallurgical Plant and associated services at the ANSIA.

Yangibana Early Works

Early works as part of a \$20 million infrastructure scope of activities continue to progress at the Yangibana mine site. As planned, enabling infrastructure works will continue ahead of the plant construction activities and mine development planned for mid-2022.

The fly camp is fully operational with plans in the March 2022 quarter to further expand capacity to 80 beds in line with the ramp up in the early works programmes. Earthwork's contractors have begun to mobilise in earnest with the initial earthworks works programme including:

- Access road connecting the mine site to the public Shire roads;
- An airstrip capable of accommodating aircraft of up to 50 seat capacity;
- Temporary construction water facilities;
- SipHon bore field infrastructure works (installation of remaining bores and monitoring holes);
- 300 bed village, and
- 300km long telecommunication network.

The establishment of a regular FIFO charter to support the camp and contractor mobilisations has commenced.

The two key positions of Earthworks Manager and Earthworks Supervisor were filled, with these key appointments in place onsite to oversee the mobilisation effort and lead into earthworks proper in early in the March 2022 quarter. Additional support roles include the appointment of camp caterers and ESS personnel as on-site facilities managers and a permanent site paramedic.

Yangibana Project Development

The development of Yangibana continues to ramp up positively, with capital and operating cost reviews near completed by quarters end. Revision of detailed supporting documentation for revised capital and operating cost estimates reflecting changes to the project engineering scope as well as general industry increases around labour, consumables and transportation costs were substantially completed.

The operating cost model revision was markedly finalised to reflect changes in labour requirements and transportation alterations necessitated through the processing plant decoupling process. Hastings continues to expand the technical project team located in Perth, while contractor DRA Global has commenced a ramp up in personnel numbers as the project progresses towards the EPCM phase of construction slated for mid-2022 at both the Yangibana and Onslow sites.

Hastings is continuing to further de-risk the project development schedule and capital expenditure of the project by completing detailed cost inventories with a view to awarding several contracts for major construction/fabrication works in early 2022.

Key early works progressed during the December 2021 Quarter (see Figure 2) included:

- Progression of detailed design layouts for the Yangibana and Onslow sites with the Yangibana site layout now essentially fixed;
- Revised labour and execution planning requirements to reflect EPCM commencement in mid-2022;
- Accommodation Village – finalised review of tenders with award pending;
- Access Road – designs, construction planning and resourcing completed, with a view to expanding works in the March 2022 quarter;
- TSF design – draft preliminary design to support permitting for a 20-year expansion plan completed. Detailed design for existing 10-year facility to commence in the March 2022 quarter;
- Progression of the airstrip design with IFC drawings due in the March 2022 quarter for a scheduled construction start in the June 2022 quarter; and
- Completion of a revised and updated logistics management plan with ongoing work on opportunities around the best possible use of Onslow Ports as a hub for incoming equipment and reagents during construction and into operations.

Work towards a collaborative road user agreement with the Shires of Ashburton, Carnarvon and Upper Gascoyne continued to advance. Substantial road data was collected through ARRB and the Shires, which is now being collated with an emphasis on developing a road upgrade schedule and ongoing road maintenance plan that which will underpin a single multi-Shire road user agreement.

Hastings is engaged in ongoing negotiations around key lease agreements for access to land and infrastructure at Onslow with several Western Australian government departments and agencies. At this stage these discussions are envisaged to be largely completed in the next quarter.

Figure 2. Yangibana equipment and personnel mobilisation expansion.



Access road fleet at Yangibana



Padfoot roller



Working grader



Charter plane landing on site



Clearing of the fuel depot area on site



Entrance to the fly-camp

For personal use only

Metallurgy

As the project moves towards the construction phase, the focus is now on the test programmes for operation readiness and engineering support.

At Yangibana, flotation chemistry testing programmes to investigate physical and chemical factors affecting metallurgical performance are being completed to develop guidelines for trouble shooting during plant operation to support a smooth plant ramp-up.

At Onslow, a test work programme on the gas scrubbing system alkali regeneration system has been completed. The knowledge developed in the process will not only assist with final engineering design, but also provide information for a smooth start-up in full scale commissioning.

Drilling programmes conducted over the recent years showed a significant presence of Niobium in the Yangibana ore resources, which may be economic to mine. Accordingly, a research programme focused on the recovery of Niobium has commenced. The aim of this programme is to determine whether a variable process could be developed to produce a saleable Niobium product, as a by-product of the rare earths process flowsheet.

Mineral Resource Drilling

Resource definition reverse circulation (RC) drilling commenced during the quarter along the 8kms of defined economic mineralisation from Bald Hill – Simon’s Find – Fraser’s. By the end of December, 68 holes had been drilled for 5,698m out of a planned 140 holes for 11,000m (Figure 3). The majority of these holes were in the Simon’s Find area. Further drilling is planned for Bald Hill and Fraser’s with drilling recommencing in early January 2022.

The first batch of samples for assay were received by the laboratory in early January and first assay results are expected in February.

The majority of holes drilled to date show visual encouragement in the form of ironstone and elevated scintillometer readings, which bear a close relationship with rare earths mineralisation at Yangibana. The RC drilling is focussing on extension and infill holes where intervals of high composition (>50% of rare earths is represented as Neodymium and Praseodymium) were previously identified and where mineralisation is interpreted to remain open down dip and along strike. The drilling will also reduce drill spacing in areas currently classified as Inferred Resources so as to allow for re-classification and upgrading to Indicated or Measured categories.

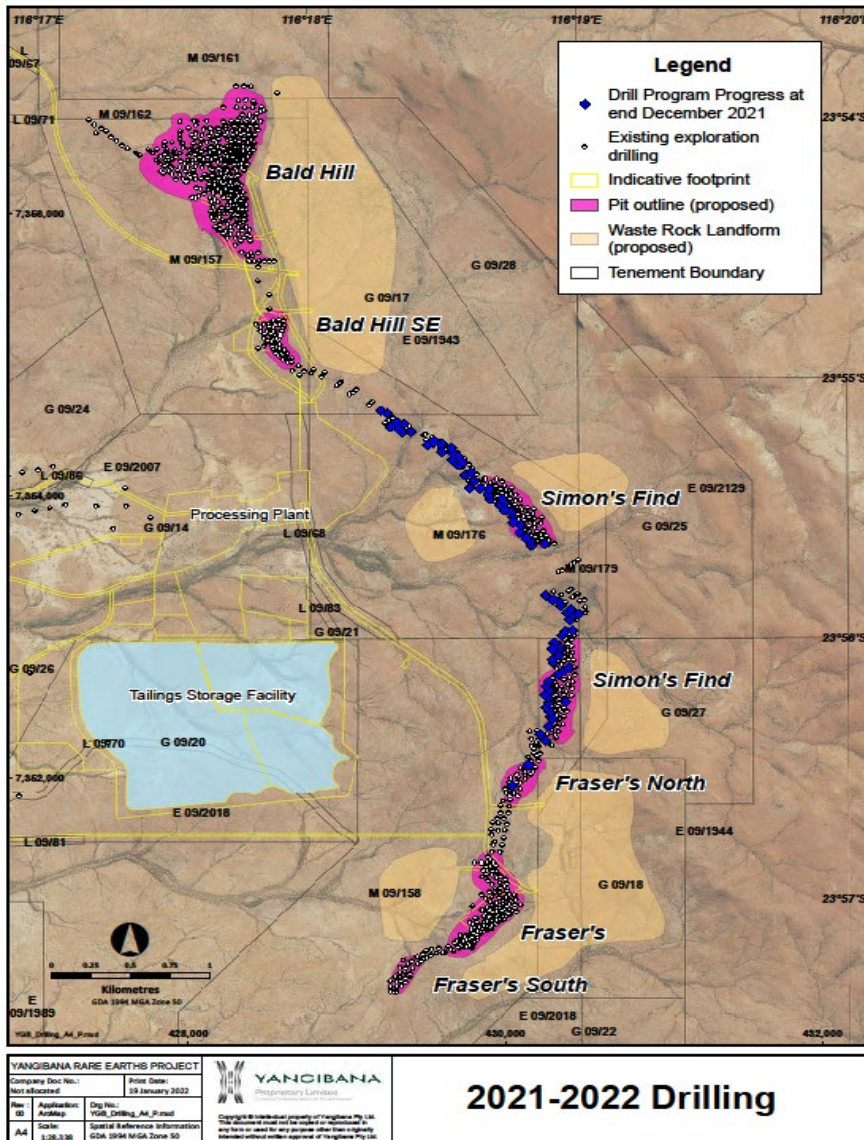


Figure. 3 Primary targets for the 2021 drilling programme.

Hydrological Drilling

In December, a large programme of hydrological drilling commenced at the SipHon well borefield. The program is designed to install four new production bores and associated monitoring bores along the palaeochannel downstream of the existing borefield. By the end of December, three shallow and two deep monitoring bores had been completed with all holes producing water flows of similar levels seen at the existing bore field.

A programme of several test bores to allow hydrological modelling of potential ground water impacts from mining of the Simon's Find, Auer and Yangibana resources has also been completed.

A further programme of shallow drilling to provide monitoring sites in areas adjacent to the SipHon well bore field and Auer mineralisation will commence later in the March 2022 quarter. The holes will measure baseline water levels in areas of existing drainage lines and calcrete landforms.

Commercial

During the quarter, global NdPr oxide prices rose 40% to reach US\$134.22/kg oxide EXW China. Post-quarter prices continued to climb with sellers showing no intention of lowering prices at this stage. Demand for rare earths required in permanent magnets remained strong, most likely because of recent changes in China on its energy efficiency standards for electrical motors. The new standard, GB18613-2020 was introduced in May 2020 and took effect in June 2021. It regulates the minimum allowable values of energy efficiency for different grades of motors. Following its energy crisis in the second half of 2021, the Chinese government accelerated the adoption of this new standard by announcing in November a nationwide plan, effective January 2022, to eliminate outdated and low efficiency motors. With this plan, China expects annual electricity savings of 49 billion kWh which is equivalent to an annual saving of 15 million tonnes of standard coal and thereby reducing carbon dioxide emissions by 28 million tonnes per year.

Permanent magnet (otherwise also known as neodymium sintered magnets such as NdFeB magnets in short) electrical motors with their superior power efficiency and weight advantage over induction motors have propelled global demand for NdPr. Current market share of NdFeB motors across the electric vehicle industry is still relatively low. However, when GB18613-2020 is fully implemented, it is estimated that NdFeB demand will increase up to 20,000 tonnes per year which will significantly drive the overall demand growth rate for magnetic rare earth materials to rise 20% year-on-year and beyond. In the first 11 months of calendar 2021, China's rare earths industry in Baotou (the centre for rare earth production) achieved an output value of 35.5 billion yuan (US\$5.5 billion), a year-on-year increase of 70% and the highest growth rate for this period in the past 10 years. A total of 42 key rare earth projects are under construction in China for a total capital investment of 12.9 billion yuan (US\$2 billion).

A recent CITIC Securities research report said NdFeB magnets accounted for 35% of the global rare earths consumption, corresponding to 91% of the consumption economic value. This pattern is unlikely to change given the rapid e-mobility adoption worldwide.

Against this expected strong demand for NdPr, possible supply constraints may emerge. A Chinese government draft consultative paper released in January 2021 titled "Rare Earth Management Regulations" states that China aims to protect its national interests and industrial security against illegal mining, destructive mining, unplanned production, illegal trade in rare earth products, and activities that would damage the environment. The draft regulations also set out the applicability of export control laws for Chinese rare earths exports, which will affect industries that depend on those exports.

Project Finance

Hastings has made significant progress towards securing the project finance required to fund Yangibana's construction, with extensive due diligence undertaken by potential lenders since late July. The Company is awaiting final credit approved commitments from the project finance consortium. As part of the financing workstream required to put in place the most advantageous debt package, the Company has actively engaged with leading project finance banks and fixed interest bond providers in Australia and Europe as well as specialist mining funds in addition to the Federal Government's Northern Australia Infrastructure Facility, Finland's export credit agency (Finnvera) and Germany's state bank (KfW-Ipex Bank).

Once firm credit-approved commitments are received, the drafting of formal loan documentation will be undertaken ahead of completion of standard conditions precedent and first drawdown in late 2022 or early 2023.

Hastings had \$96.0 million in cash and equivalents as at 31 December 2021. The Company also has 126.7 million listed options on issue (ASX: HASO), which have a strike price of 25c and an expiry date of 12 April 2022. If all HASO options are exercised, the Company's cash balance will be supplemented by a further \$31.6 million.

Maiden Sustainability Report

In October, Hastings released its inaugural annual Sustainability Report in alignment with the release of the Company's Annual Report. Hastings transparently reported its progress against material topics under each of our four sustainability pillars of Governance, Our People, Our Community and the Environment. The Sustainability Report can be found here: <https://bit.ly/3udkgnN>.

Hastings intends to build upon this report year-on-year in an effort to continually improve its sustainability performance. Each sustainability report will aim to summarise the Company's annual efforts to meet the expectations of stakeholders; build value for shareholders that extends beyond financial gain; align with international standards such as the Global Reporting Initiative (GRI) and Task Force on Climate Related Financial Disclosures (TCFD); and measure the Company's contribution in part to the United Nations (UN) Sustainable Development Goals (SDGs).

COP26 continued to highlight the urgency of transitioning to a lower-carbon economy. This reaffirmed Hastings' mission to be a key enabler of the decarbonisation revolution by bringing its high-quality rare earths elements (neodymium and praseodymium) to market in an effort to contribute towards making the planet healthier for future generations. While the Hastings team has worked tirelessly to develop Yangibana, the Company is aware that it must also play its part to transition operations to meet the objectives of the Paris Agreement. As a first step, Hastings released its Climate Change Policy (<https://bit.ly/3IBAWcs>) during quarter and accelerated its focus on the development of a climate change framework that follows the TCFD recommendations.

The Company spent ~\$1.3 million on exploration during the quarter, substantially on resource drilling.

Salaries and fees paid to Directors during the quarter amounted to \$276,000.

This announcement has been approved by the Board for release to the ASX.

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About Hastings Technology Metals Limited

Hastings Technology Metals Limited (ASX: HAS) is a well-managed Perth based rare earths company primed to become the world's next producer of neodymium and praseodymium concentrate (NdPr). NdPr are vital components used to manufacture permanent magnets used every day in advanced technology products ranging from electric vehicles to wind turbines, robotics, medical applications, digital devices, etc.

Hastings' flagship Yangibana project, in the Gascoyne region of Western Australia, contains one of the most highly valued NdPr deposits in the world with NdPr:TREO ratio of up to 52%. The site is permitted for long-life production and with offtake contracts signed and debt finance in advanced stage. Construction is scheduled to take 27 months.

Hastings also owns and operates the Brockman project, Australia's largest heavy rare earths deposit, near Halls Creek in the Kimberley.

For further information on the Company and its projects visit www.hastingstechmetals.com

APPENDIX – MINING TENEMENTS HELD AS AT 31 DECEMBER 2021

YANGIBANA PROJECT			
All tenements are in Western Australia			
Gascoyne Metals Pty Ltd (100% subsidiary)			
Tenement	Locality	Status	Holder/s
E09/1989	WA	Granted	Gascoyne Metals Pty Ltd
E09/2007	WA	Granted	Gascoyne Metals Pty Ltd
E09/2084	WA	Granted	Gascoyne Metals Pty Ltd
E09/2086	WA	Granted	Gascoyne Metals Pty Ltd
E09/2095	WA	Granted	Gascoyne Metals Pty Ltd
E09/2129	WA	Granted	Gascoyne Metals Pty Ltd
E09/2137	WA	Granted	Gascoyne Metals Pty Ltd
E09/2334	WA	Granted	Gascoyne Metals Pty Ltd
E09/2364	WA	Granted	Gascoyne Metals Pty Ltd
E09/2403	WA	Granted	Gascoyne Metals Pty Ltd
E09/2404	WA	Granted	Gascoyne Metals Pty Ltd
G09/10	WA	Granted	Gascoyne Metals Pty Ltd
G09/14	WA	Granted	Gascoyne Metals Pty Ltd
G09/23	WA	Granted	Gascoyne Metals Pty Ltd
G09/24	WA	Granted	Gascoyne Metals Pty Ltd
G09/25	WA	Granted	Gascoyne Metals Pty Ltd
L09/66	WA	Granted	Gascoyne Metals Pty Ltd
L09/67	WA	Granted	Gascoyne Metals Pty Ltd
L09/68	WA	Granted	Gascoyne Metals Pty Ltd
L09/69	WA	Granted	Gascoyne Metals Pty Ltd
L09/70	WA	Granted	Gascoyne Metals Pty Ltd
L09/71	WA	Granted	Gascoyne Metals Pty Ltd
L09/72	WA	Granted	Gascoyne Metals Pty Ltd
L09/74	WA	Granted	Gascoyne Metals Pty Ltd
L09/75	WA	Granted	Gascoyne Metals Pty Ltd
L09/80	WA	Granted	Gascoyne Metals Pty Ltd
L09/81	WA	Granted	Gascoyne Metals Pty Ltd
L09/82	WA	Granted	Gascoyne Metals Pty Ltd
L09/83	WA	Granted	Gascoyne Metals Pty Ltd
L09/85	WA	Granted	Gascoyne Metals Pty Ltd
L09/86	WA	Granted	Gascoyne Metals Pty Ltd
L09/87	WA	Granted	Gascoyne Metals Pty Ltd
L09/89	WA	Granted	Gascoyne Metals Pty Ltd
L09/91	WA	Granted	Gascoyne Metals Pty Ltd
M09/157	WA	Granted	Gascoyne Metals Pty Ltd
M09/160	WA	Granted	Gascoyne Metals Pty Ltd
M09/164	WA	Granted	Gascoyne Metals Pty Ltd
M09/165	WA	Granted	Gascoyne Metals Pty Ltd

Tenement	Locality	Status	Holder/s
M09/165	WA	Granted	Gascoyne Metals Pty Ltd
M09/177	WA	Application	Gascoyne Metals Pty Ltd
M09/179	WA	Application	Gascoyne Metals Pty Ltd
P09/489	WA	Granted	Gascoyne Metals Pty Ltd

Gascoyne Metals Pty Ltd (70%) Joint Venture			
Tenement	Locality	Status	Holder/s
E09/1703	WA	Granted	Gascoyne Metals Pty Ltd (70%) Mojito Resources Limited (30%)
E09/1704	WA	Granted	Gascoyne Metals Pty Ltd (70%) Mojito Resources Limited (30%)
E09/1705	WA	Granted	Gascoyne Metals Pty Ltd (70%) Mojito Resources Limited (30%)
E09/1706	WA	Granted	Gascoyne Metals Pty Ltd (70%) Mojito Resources Limited (30%)
E09/2296	WA	Granted	Gascoyne Metals Pty Ltd (70%) Mojito Resources Limited (30%)
E09/2298	WA	Granted	Gascoyne Metals Pty Ltd (70%) Mojito Resources Limited (30%)
E09/2333	WA	Granted	Gascoyne Metals Pty Ltd (70%) Mojito Resources Limited (30%)
G09/11	WA	Granted	Gascoyne Metals Pty Ltd (70%) Mojito Resources Limited (30%)
G09/13	WA	Granted	Gascoyne Metals Pty Ltd (70%) Mojito Resources Limited (30%)
M09/159	WA	Granted	Gascoyne Metals Pty Ltd (70%) Mojito Resources Limited (30%)
M09/161	WA	Granted	Gascoyne Metals Pty Ltd (70%) Mojito Resources Limited (30%)
M09/163	WA	Granted	Gascoyne Metals Pty Ltd (70%) Mojito Resources Limited (30%)

Yangibana Pty Ltd (100% subsidiary)			
Tenement	Locality	Status	Holder/s
G09/26	WA	Granted	Yangibana Pty Ltd
G09/27	WA	Granted	Yangibana Pty Ltd
G09/28	WA	Granted	Yangibana Pty Ltd
L09/96	WA	Granted	Yangibana Pty Ltd
L09/97	WA	Granted	Yangibana Pty Ltd
M09/176	WA	Application	Yangibana Pty Ltd
M09/178	WA	Application	Yangibana Pty Ltd
E09/1700	WA	Granted	Yangibana Pty Ltd
E09/1943	WA	Granted	Yangibana Pty Ltd
E09/1944	WA	Granted	Yangibana Pty Ltd
E09/2018	WA	Granted	Yangibana Pty Ltd
G09/17	WA	Granted	Yangibana Pty Ltd
G09/18	WA	Granted	Yangibana Pty Ltd
G09/20	WA	Granted	Yangibana Pty Ltd
G09/21	WA	Granted	Yangibana Pty Ltd
G09/22	WA	Granted	Yangibana Pty Ltd
L09/93	WA	Granted	Yangibana Pty Ltd
L09/95	WA	Granted	Yangibana Pty Ltd
M09/158	WA	Granted	Yangibana Pty Ltd
M09/162	WA	Granted	Yangibana Pty Ltd

BROCKMAN PROJECT			
All tenements are in Western Australia			
Brockman Project Holdings Pty Ltd (100% subsidiary)			
Tenement	Localit y	Status	Holder/s
E80/5248	WA	Application	Brockman Project Holdings Pty Limited
M80/636	WA	Application	Brockman Project Holdings Pty Limited
P80/1626	WA	Granted	Brockman Project Holdings Pty Limited
P80/1627	WA	Granted	Brockman Project Holdings Pty Limited
P80/1628	WA	Granted	Brockman Project Holdings Pty Limited
P80/1629	WA	Granted	Brockman Project Holdings Pty Limited
P80/1630	WA	Granted	Brockman Project Holdings Pty Limited
P80/1631	WA	Granted	Brockman Project Holdings Pty Limited
P80/1632	WA	Granted	Brockman Project Holdings Pty Limited
P80/1633	WA	Granted	Brockman Project Holdings Pty Limited
P80/1634	WA	Granted	Brockman Project Holdings Pty Limited
P80/1635	WA	Granted	Brockman Project Holdings Pty Limited

OTHER

All tenements are in Western Australia

Ark Gold Pty Ltd (100% subsidiary)

Tenement	Locality	Status	Holder/s
E09/2385	WA	Granted	Ark Gold Pty Ltd
E09/2399	WA	Granted	Ark Gold Pty Ltd

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