

AGM PRESENTATION A TRANSFORMATIONAL 2023

- Secured Location 45 nickel and gold assets
- Significantly expanded precious metal and critical mineral base
- Pipeline of activity providing options to fast track development
- Dual focussed Gold-Nickel drilling programs underway

Wade Johnson, Managing Director
5 DECEMBER 2023

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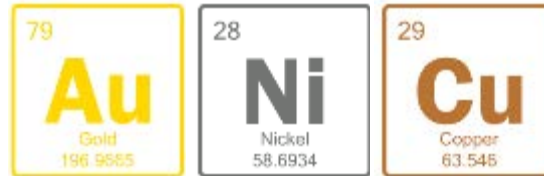
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COMPANY SNAPSHOT

- WA-based explorer with a **growing gold, nickel, copper portfolio**
- 2023 – a year of transformative growth for Lefroy
- Total Lefroy Mineral Resources¹ increased from 100koz Au² to:

- **1.1 Moz gold**
- **15kt nickel**
- **58kt Copper**



- Lefroy has multiple opportunities for exploration and development at Kalgoorlie-Kambalda focused projects
- Supported by dedicated specialist nickel team within subsidiary, Hampton Metals Ltd (HMT)
- Company **well-funded** and positioned for further growth and **pathway to development** under guidance and expertise of highly-skilled board and management



The LEX board at on the pit edge at Mt Martin.

¹Refer LEX ASX release 23 May 2023

²Refer LEX ASX release 31 July 2020

PROJECT PORTFOLIO

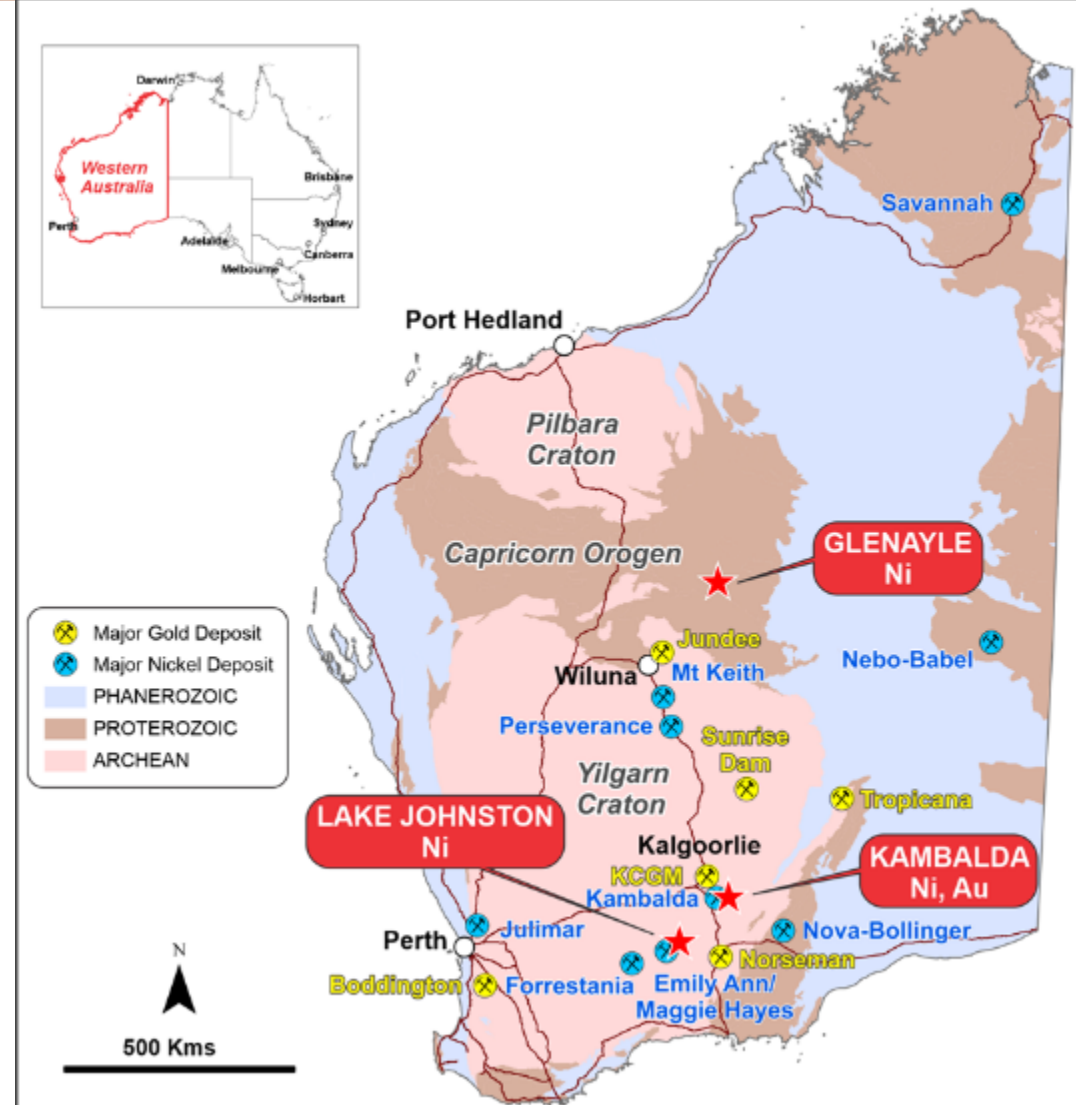
KAMBALDA GROWTH STORY

NICKEL ASSETS

- **KAMBALDA (LOCATION 45) - GOODYEAR**
 - JORC 2012 Resource **(392,000t @ 3.78% Ni for 14,780t Inferred)** ¹
- **LAKE JOHNSTON**
 - Proximal to Emily Ann and Maggie Hayes nickel mines.
- **GLENAYLE**
 - Early Mover Greenfields Nebo-Babel style prospectivity.

GOLD ASSETS

- **KAMBALDA (LOCATION 45) - MT MARTIN**
 - **8.72Mt @ 1.79g/t Au for 501,000oz²**
 - Significant near-term development opportunity.
- **KAMBALDA - BURNS (Au, Cu)**
 - **43Mt @ 0.36 g/t & 0.14% Cu for 497,000oz Au & 58,000t Cu**
- **KAMBALDA - LUCKY STRIKE / RED DALE (Au)**
 - **1.94Mt @ 1.71 g/t for 104, 830oz Au**

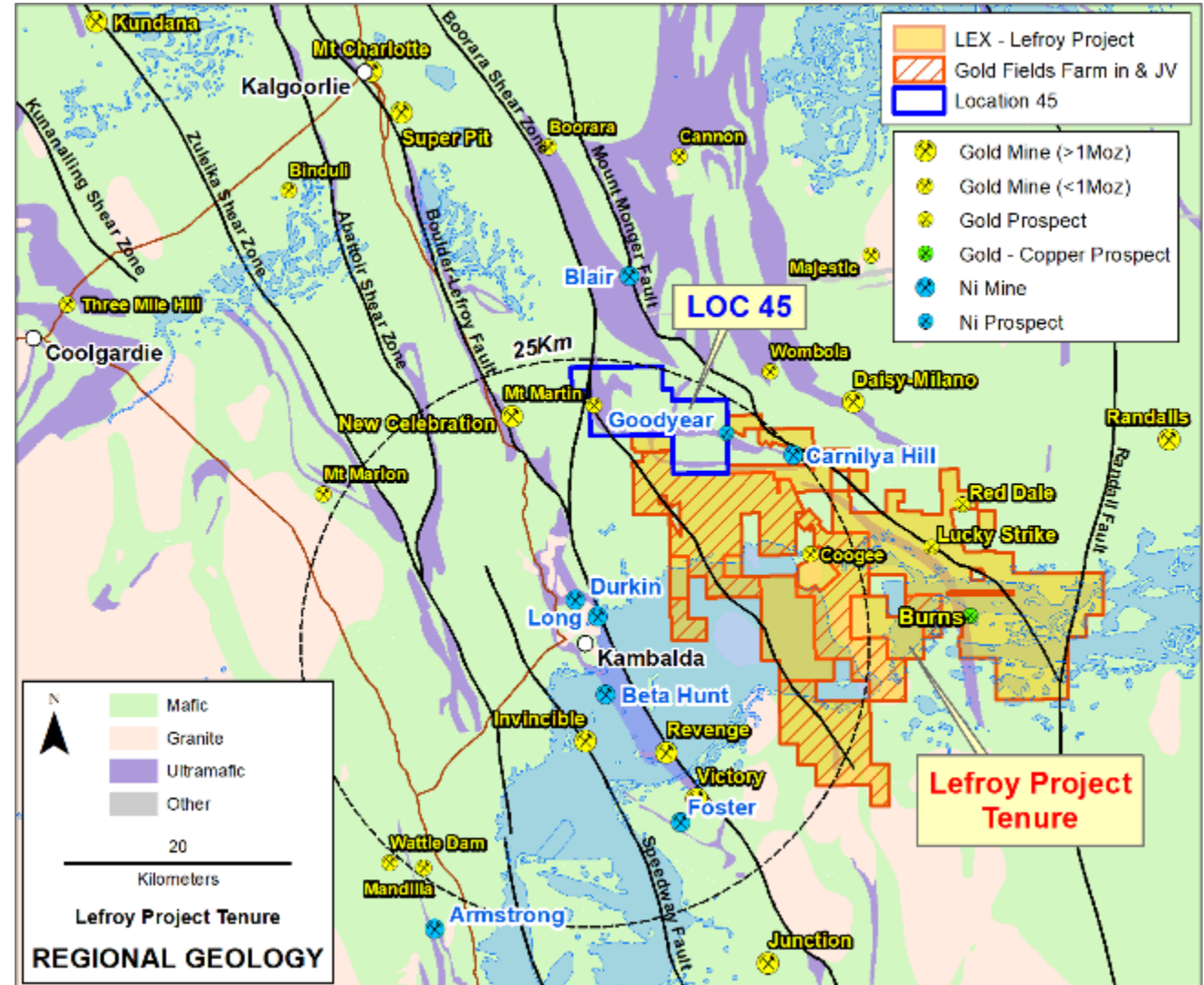


COMMANDING KAMBALDA LAND HOLDING



KALGOORLIE-KAMBALDA FOCUSED ASSETS

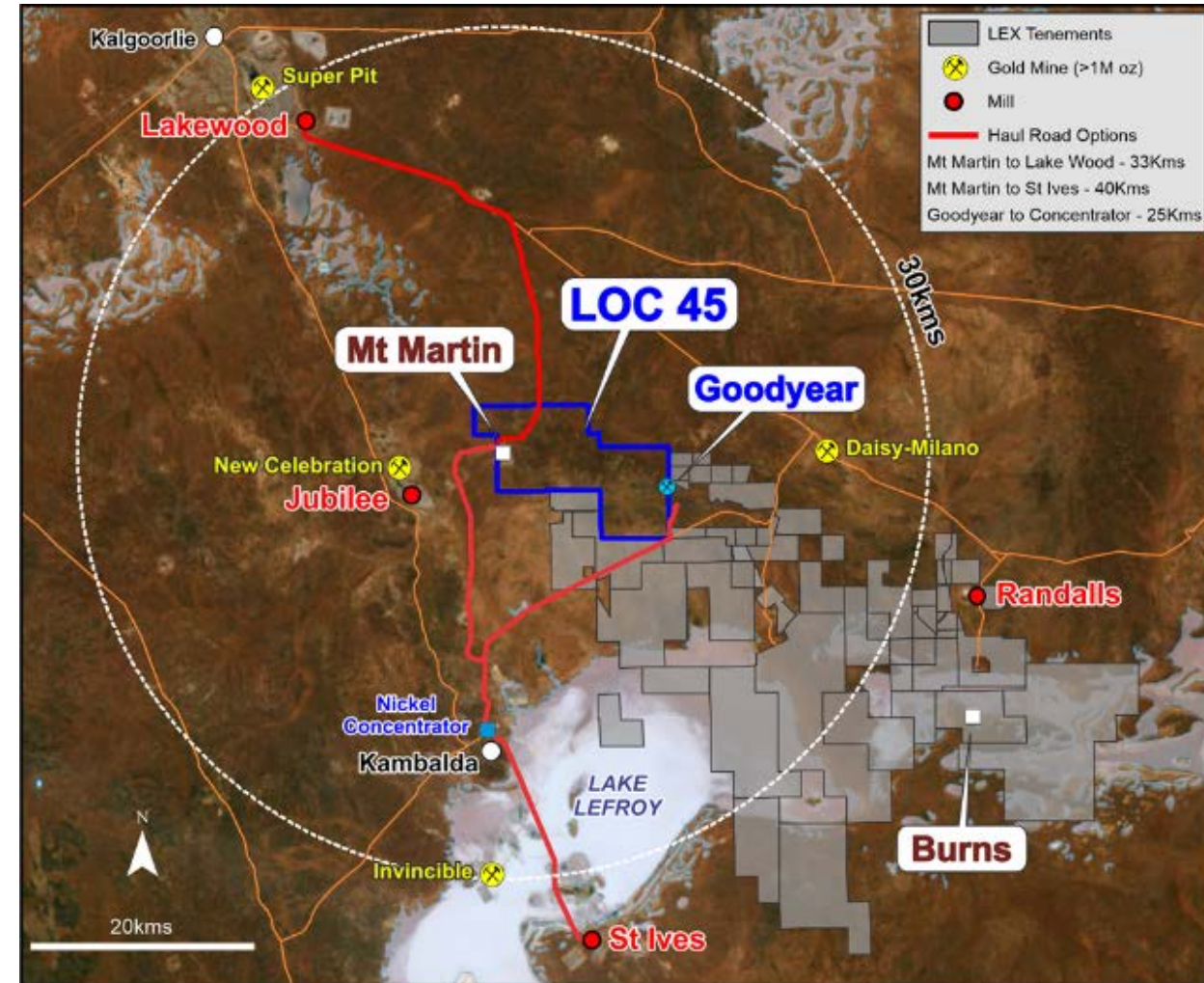
- Large **635km²** contiguous package of tenure
- 25km east of Kambalda and 35km south of Kalgoorlie
- World class exploration and mining district
- Close to existing developed infrastructure (access tracks, haul roads, power, water, towns)
- Nearby gold and nickel processing facilities provide an opportunity to fast-track development of resources with low capex requirements
- Strategic transaction rewarded **transformational acquisition** of mineral rights over Location 45 that includes:
 - Mt Martin Gold Mine
 - Goodyear Nickel deposit



PREMIER MINING AND EXPLORATION LOCATION

PREMIER MINING JURISDICTION PROVIDES NEAR-TERM, LOW CAPITAL DEVELOPMENT OPTIONALITY

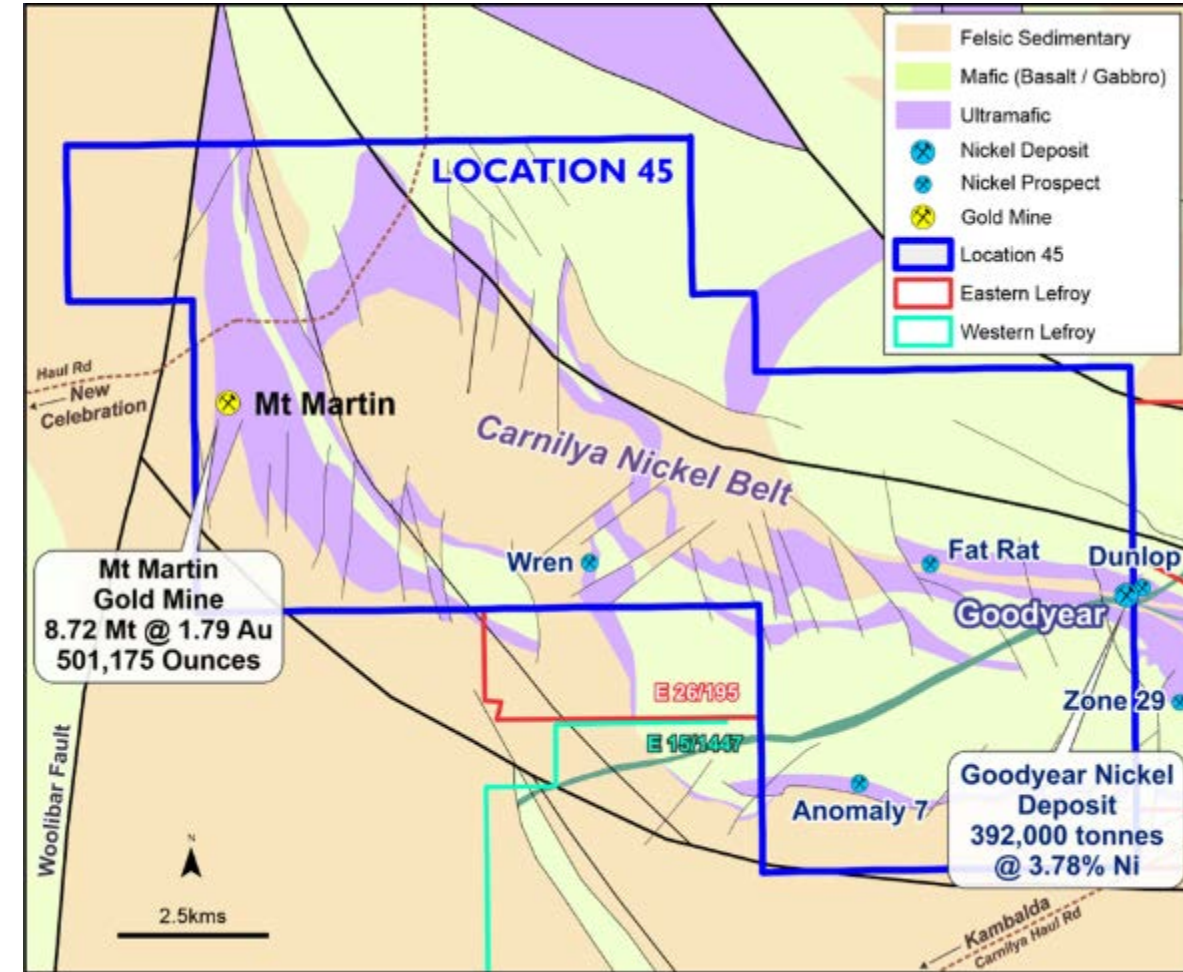
- Situated 7km from Goldfields Highway linking Kalgoorlie and Kambalda
- On freehold land with simplified regulatory requirements
- 40-year history of prior underground and open-pit mining
- Haul roads to multiple third-party gold mills and 25km's to the Kambalda Nickel Concentrator
- Opportunity for low-cost capital development
- Discussions commenced with third-party mill operators



Location of key project sites within the greater Lefroy Project and proximity to mining centres.

LOCATION 45: The transformational acquisition

- Private (freehold) Mineral Rights acquired¹ from Franco-Nevada Australia Pty Ltd* for 21-year minimum term including:
 - **14,780t Goodyear nickel resource (JORC 2012)**
 - **501,000oz Mt Martin gold resource (JORC 2012)**
- Offers near-term, low-capital development opportunities proximal to multiple gold mills and Kambalda Nickel Concentrator
- Mt Martin: **700koz gold endowment** with existing shallow resource amenable to open-cut mining on underexplored ground
- Goodyear: **high-grade nickel** in underexplored Carnilya Belt with historical production of >1.6 Mt Ni at Carnilya Hill deposit
- Considerable **resource growth and exploration upside**:
 - Mt Martin: significant depth potential in parallel shear structures
 - Goodyear: resource open along strike (west) and down-plunge
 - Very limited drilling outside current resources



Map showing Location 45 boundaries and known deposits/prospects.

* Franco Nevada Corporation, the world's leading Gold focused royalty and streaming Company

LOCATION 45: Mt Martin Gold Mine



SIGNIFICANT NEAR-TERM DEVELOPMENT OPPORTUNITY

- High-grade underground shaft mining operation in 1980's
- Last open pit mining completed in 2009 by Dioro Exploration for 743kt @ 1.5g/t gold
- Previous total production of ~200Koz gold
- Majority of ore processed at neighboring former New Celebration Mill and Jubilee Mill (NST)-7km to west
- Remaining shallow gold indicated & Inferred resource of:
501Koz Au (8.7Mt @ 1.79 g/t Au) reported to JORC 2012 below existing open pit
- 700,000oz gold endowment that presents significant resource growth upside
- Haul roads in place that provide alternate routes to nearby gold processing facilities
- ***Under-explored asset that has missed 10 years of exploration***



Mt Martin open pit looking south.

MT MARTIN: Drilling program

PHASE ONE RESOURCE DRILLING PROCEEDING ON SCHEDULE

- Initial 37-hole RC drilling program well underway¹ - 10 priority holes completed
- Looking to complete more than 7,000m drilling total during campaign
- Good drilling conditions reported
- Initial gold assay results anticipated from lab in December 2023
- New drill data to enhance existing resource and deliver additional shallow ounces to facilitate further optimisation studies and resumption of open cut mining in due course.

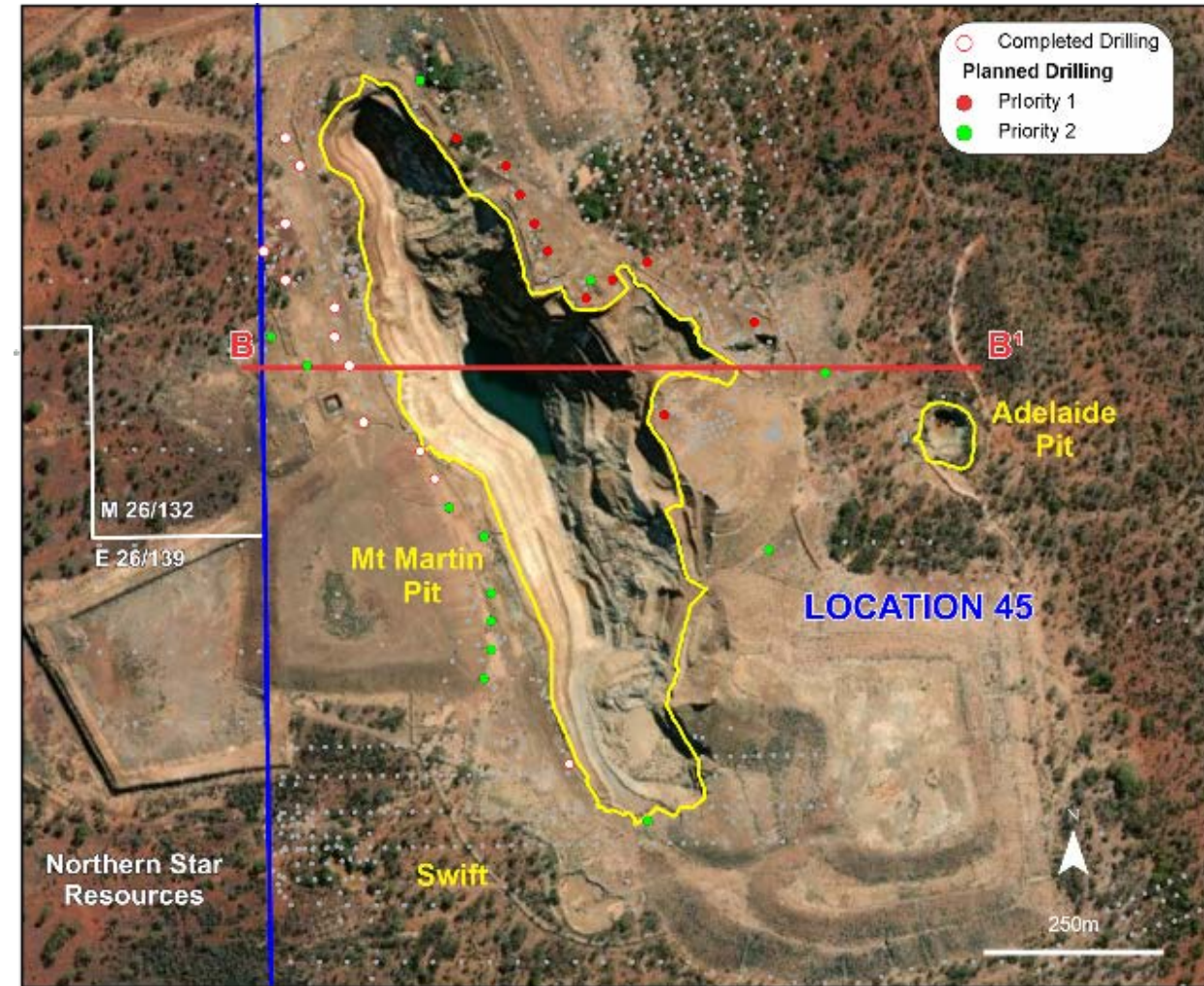


Raglan Drilling rig in action on site at Mt Martin.

MT MARTIN: A large gold system

PHASE ONE RESOURCE DRILLING PROCEEDING ON SCHEDULE

- Limited historic drilling indicates there are multiple mineralised shear structures outside the 1000m long open pit that remain largely untested, including the Adelaide Shear
- Current program designed to:
 1. extend known mineralised shear zones outside the historic open pit and underground mine workings
 2. deliver additional gold resources for open pit mine development planning.
- Initial priority 1 holes evaluating shear structures at the Northern end of the pit

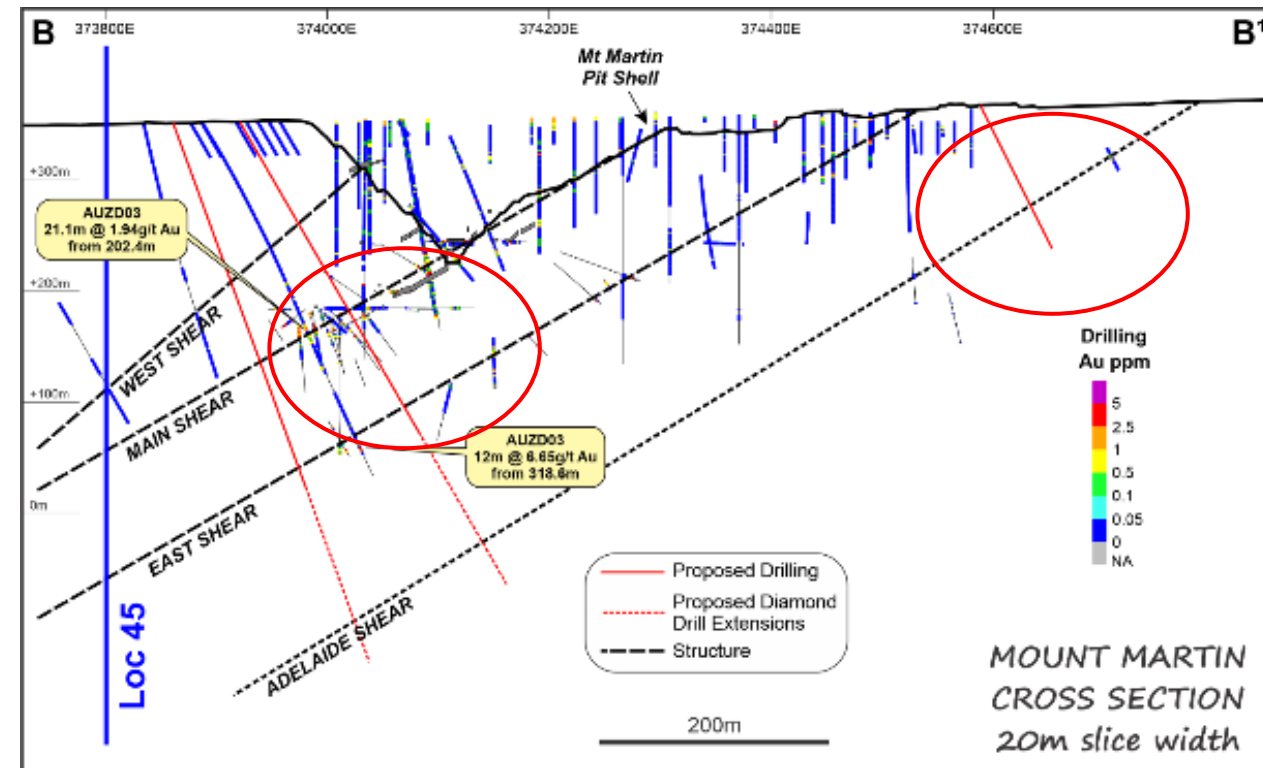


Plan view of open pits and drill hole locations.

MT MARTIN: Opportunity to expand resource

SCALE OF GOLD SYSTEM YET TO BE DETERMINED

- Gold mineralisation associated with series of stacked, west dipping sulphide and quartz-carbonate lodes hosted by ultramafic rocks.
- Little modern exploration of historic underground stope structures with strong potential for extensions to high-grade shoots.
- Gold in shallow drill results east of open pit ignored for a decade.
- East shear sits 50m below main shear with minimal underground mining in 1980s – 1990s.
- Area immediately outside the mine is virgin unexplored ground with the right rocks for additional gold discoveries.
- Opportunity to discover additional parallel mineralised structures at depth.

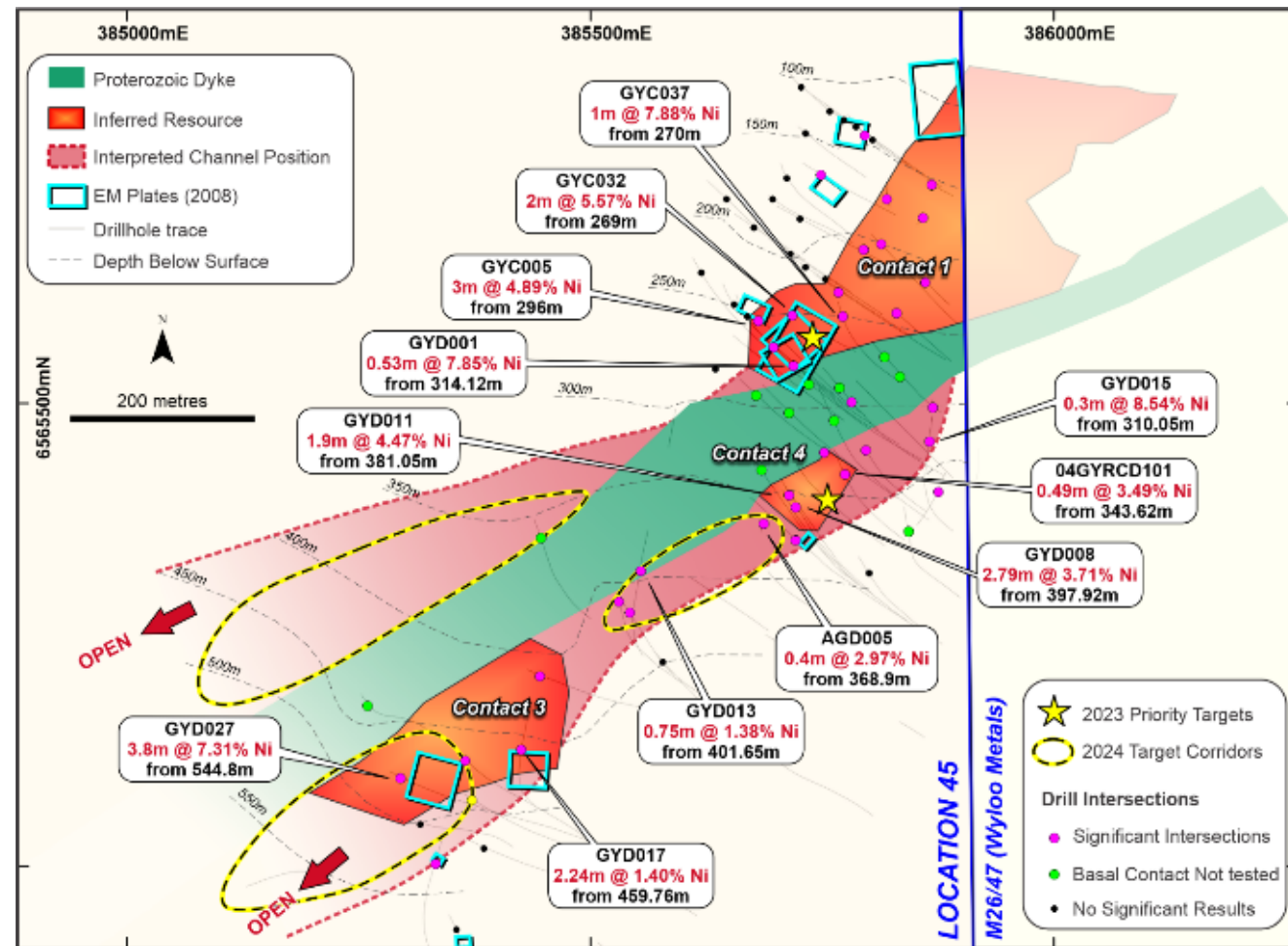


Cross section of Mt Martin through resource looking North, showing targeted mineralised structures, shallow target areas and planned drill holes1

GOODYEAR: Ni resource drilling underway

HIGH GRADE – HIGH TENOR – SYSTEM OPEN

- Drilling designed to increase confidence and expand the existing Mineral Resource of **392,000 tonnes @ 3.78% Ni for 14,780t** of contained nickel sulphide (JORC 2012)¹.
- Significant opportunities to grow the resource, with near-term Stage 1 drilling program focused on:
 - Infill diamond drilling to upgrade categories of Inferred resource to Indicated status; and
 - Explore and add to resource base via extensional drilling along strike and down-plunge outside existing resource envelopes
- Program is first diamond drilling activity for 15 years
- Deepest historical drillhole GYD027 returned 3.8m @ 7.31% Ni on the edge of the resource, completely open down-plunge



Drilling commenced at Contact 1.

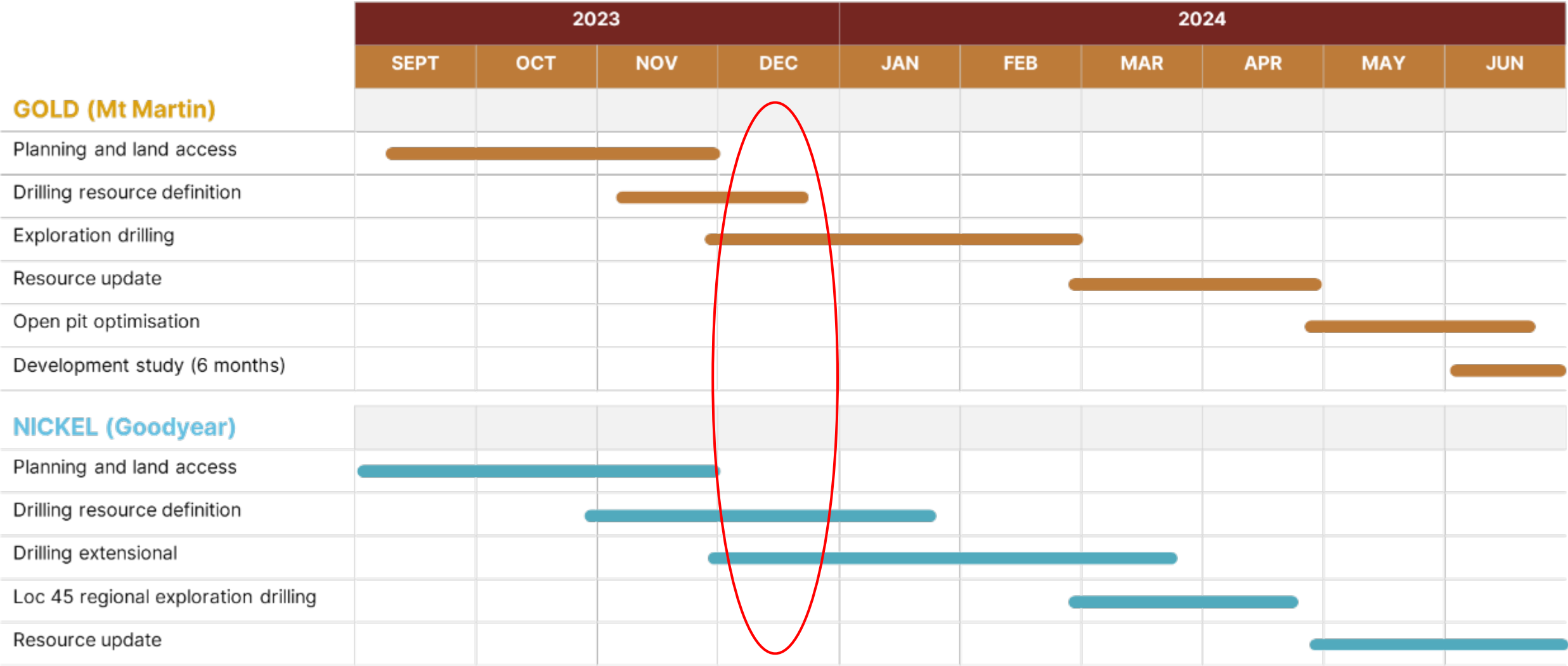


HIGH GRADE – HIGH TENOR – SYSTEM OPEN

- Advancing clearing permit and collaborating with traditional owners in support of heritage approvals, with an outcome scheduled by year's end.
- Approvals will allow a more aggressive Stage 1 drilling effort into CY24 including testing the down-plunge and along strike extensions of the Goodyear deposit proximal to Contact 3 (GYD027)
- New diamond drill holes will be considered as future platforms for downhole EM surveys, to guide ongoing exploration efforts.
- First assay results from the current program are anticipated to be returned early in the first quarter of 2024.



LOCATION 45 ACTIVITY TIMELINE: ON TRACK





BOARD & MANAGEMENT

Gordon Galt	Non-Executive Chairman
Wade Johnson	Managing Director
Michael Davies	Non-Executive Director
Tara French	Non-Executive Director
Chris Hesford	Exploration Manager



CORPORATE DETAILS

Shares on issue	196.3M
Options	5.6M
Share price ¹	A\$0.17
Market capitalisation ¹	A\$33.4M
Cash (30 September 2023)	A\$5.42M
Debt	Nil

LEX Substantial Shareholders – as of 1 Dec 2023

 Noontide Investments Ltd 17.6%	 SG Hiscock & Company Pty Ltd 5.0% ²
 LEX Board 12.0%	 LEX Share Plan 3.9%
 Gold Fields Ltd 11.0%	 Other Shareholders 50.5%

INVESTMENT SUMMARY



Transformative acquisition
of Location 45 that includes the Goodyear nickel and Mt Martin gold resources



Expanding portfolio of precious and critical minerals, including over **1.1 million oz of gold, 58kt of copper and 15kt of nickel**



Location 45 private land title provides Company with a streamlined **pathway to future development**



Kalgoorlie-Kambalda premier mining jurisdiction provides near term, low capital cost development optionality



Harnessing knowledge base of **experienced board and management** with exploration, development and production success



Well funded, **primed for growth** through active exploration, with significant upside potential identified across multi-commodity assets –**drilling underway**

Competent Person Statement

Notes Specific-ASX Announcements Investor Presentation

The following announcements were lodged with the ASX (including supporting JORC Reporting Tables) and details for each of the sections noted in this Presentation and can be found in the announcements. Note that these announcements are not the only announcements released to the ASX since the last presentation dated 25 October 2023 but specific to exploration reporting. The Company confirms that it is not aware of any new information or data that materially affects the information previously reported.

- Maiden Lucky Strike Resource Estimate: 20 May 2020
- Red Dale Resource Increases by 28% to 25,230oz: 3 June 2020
- Drilling Continues to Define Larger Scale to Burns Au Cu System: 1 September 2022
- 0.5M Ounces of Gold in Burns Central Maiden Resource: 4 May 2023
- Lefroy Increases Gold Resources to 602,000 oz: 15 May 2023
- Acquisition of Mineral Rights Transforms Lefroy: 23 May 2023
- 2023 Noosa Mining Conference Presentation : 23 May 2023
- Lefroy Confirms High-Grade 15kt Resource at Goodyear: 23 August 2023
- Growth Potential for Mt Martin Gold Mine Confirmed: 5 September 2023
- Western Lefroy Farm-In and Joint Venture Updated: 22 September 2023
- \$6.2M Raise to Advance Nickel and Gold Projects at Location 45: 22 September 2023
- Lefroy Exploration Investor Update Presentation: 6 September 2023
- 2023 Annual Report: 2 October 2023
- September 2023 Quarterly Activities Report: 17 October 2023
- South-West Connect Presentation: 18 October 2023
- Resource Extension Drilling Underway at Mt Martin: 24 November 2023
- Drilling Commences at High-Grade Goodyear Nickel Deposit: 30 November 2023

The information in this announcement that relates to exploration targets and exploration results is based on information compiled by Wade Johnson a competent person who is a member of the Australian Institute of Geoscientists (AIG). Wade Johnson is employed by Lefroy Exploration Limited. Wade Johnson has sufficient experience that is relevant to the style of mineralisation and type of deposits under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 edition of the JORC Code. Wade Johnson consents to the inclusion in this announcement of the matters based on his work in the form and context in which it appears.



Lefroy Exploration

Appendices

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TOTAL INDICATED AND INFERRED RESOURCES



Nickel

Deposit	Indicated			Inferred			Total Resource		
	tonnes	Ni (%)	Ni metal	tonnes	Ni (%)	Ni metal	tonnes	Ni (%)	Ni metal
Goodyear	-	-	-	392,000	3.78	14,780	392,000	3.78	14,780
TOTAL	-	-	-	392,000	3.78	14,780	392,000	3.78	14,780

Orogenic Gold Style

Deposit	Indicated			Inferred			Total Resource		
	Mt	Au (g/t)	Oz	Mt	Au (g/t)	Oz	Mt	Au (g/t)	Oz
Red Dale	0.64	1.21	24,660	0.03	0.60	570	0.67	1.18	25,230
Lucky Strike	0.70	1.93	43,400	0.57	1.97	36,200	1.27	1.95	79,600
Mt Martin	5.31	1.82	311,048	3.41	1.73	190,127	8.72	1.79	501,175
TOTAL	6.65	0.62	379,108	4.01	0.70	226,897	10.66	1.77	606,005

Porphyry Gold-Copper Style

Deposit	Indicated					Inferred					Total Resource			
	Mt	Au (g/t)	Cu (%)	Oz	Cu (t)	Mt	Au (g/t)	Cu (%)	Oz	Cu (t)	Mt	Au (g/t)	Oz	Cu (t)
Burns Central	32.31	0.38	0.16	394,308	50,253	10.65	0.30	0.08	103,165	8,047	42.96	0.36	497,472	58,300
TOTAL														

May 2023 Location 45 addition increases total mineral resource inventory* to:

1.1Moz **58kt**
GOLD COPPER

15kt
NICKEL