

ASX ANNOUNCEMENT

6 September 2021

Presentation at the AMEC Investor Briefing Day

Gascoyne Resources Limited ("**Gascoyne**" or "**Company**") (ASX:GCY) is pleased to advise that it presented at the investor briefing day hosted by the Association of Mining and Exploration Companies ("**AMEC**") on 4 September 2021.

Gascoyne Managing Director and Chief Executive Officer, Mr Richard Hay, delivered the presentation at the AMEC investor briefing day. A copy of the presentation is attached to this announcement.

The presentation has been authorised for release by the Board of Gascoyne Resources Limited.

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ASX:GCM

GASCOYNE
RESOURCES LIMITED 

INVESTOR PRESENTATION

4 SEPTEMBER 2021



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Merger of Gascoyne Resources and Firefly Resources

Unlocking Substantial Regional Value in the Murchison Region:

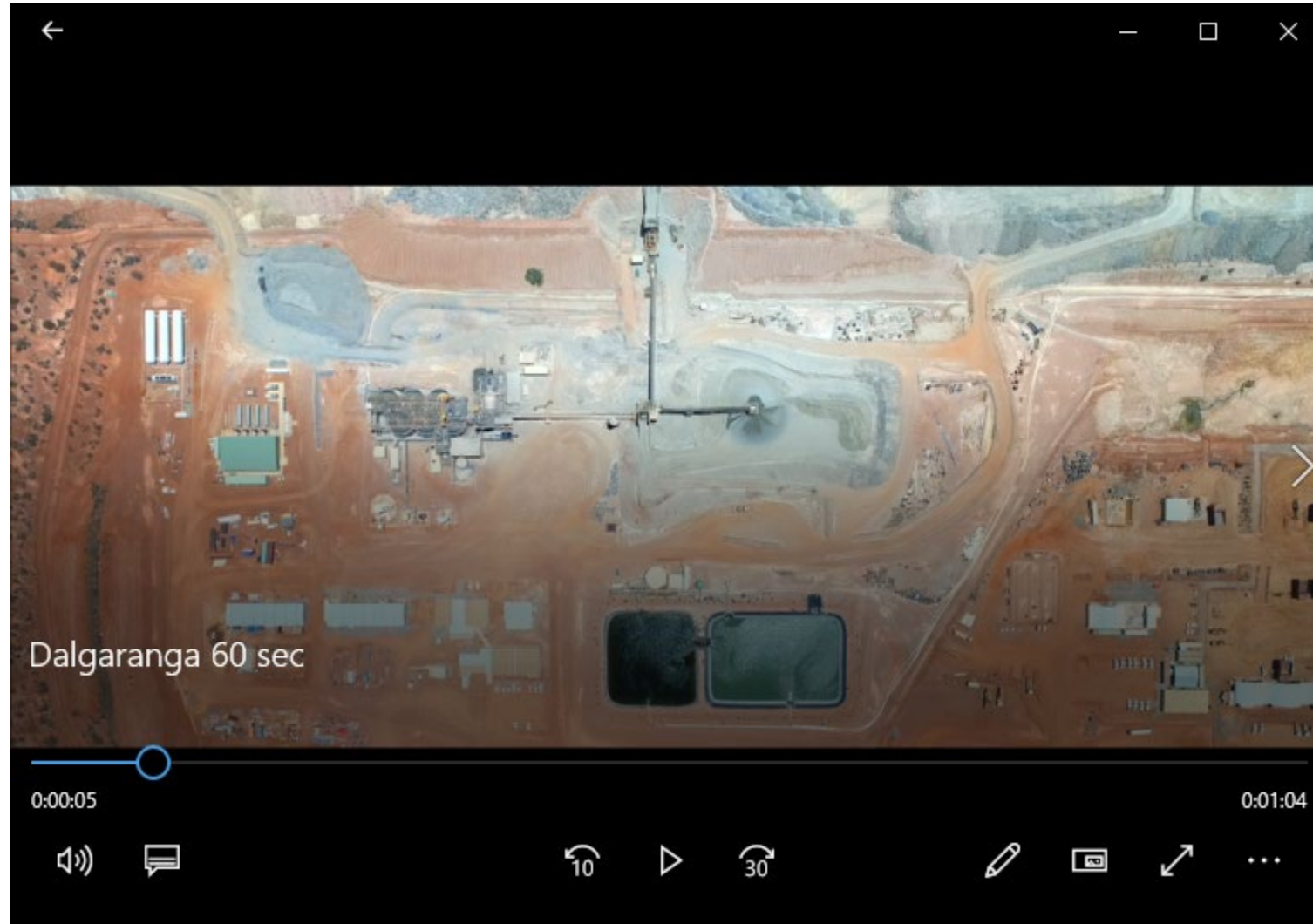
“We aim to unlock increased margins by leveraging our exceptional asset and class leading 2.5-2.8Mtpa, <\$14/t processing plant through a solid strategy of developing and mining supplementary high-grade ore sources across both Yalgoo and Dalgaranga to augment the current “base load” Gilbey’s open-pit mill feed.”

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DALGARANGA VIDEO

Processing plant is an exceptional and highly valuable regional strategic asset



1. Video is available for viewing on Gascoyne's website at <https://gascoyneresources.com.au>

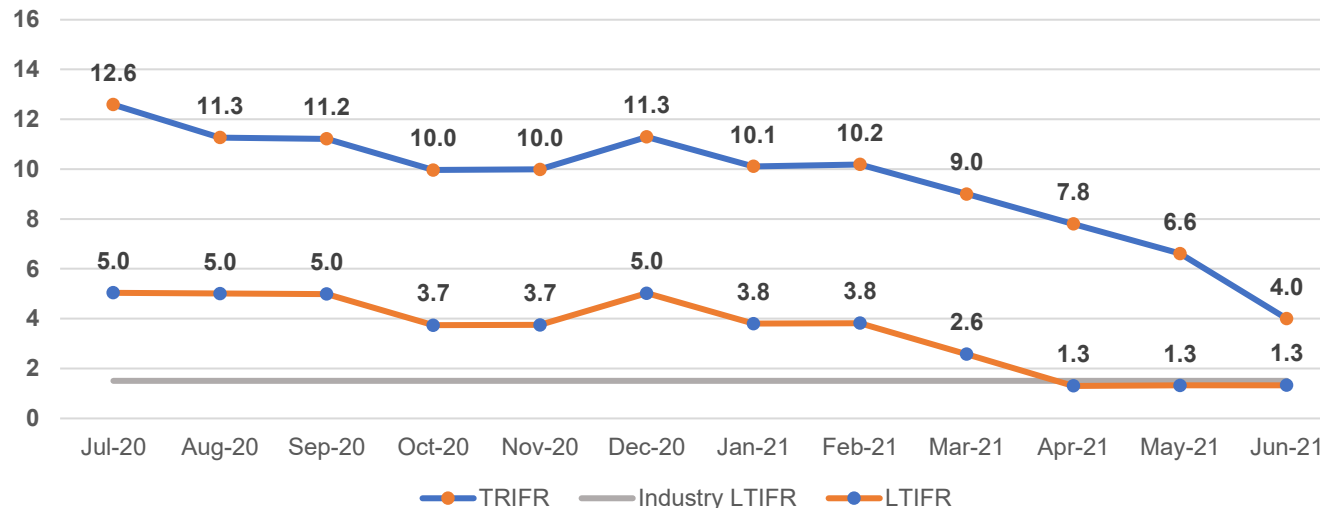
ENVIRONMENT, SOCIAL & GOVERNANCE (ESG)



Delivering safe, responsible environmental and social outcomes while creating positive shareholder value

- Sustainability reporting development program underway
 - Framing progress report will be in FY21 Annual Report
 - Baseline assessment for material aspects throughout FY22
 - First Sustainability Report for inclusion in FY22 Annual Report
- Company values formalised through a series of teamwide workshops
- Ambition fully endorsed by Board of Directors and senior management

Dalgaranga 12 Month Safety Moving Averages



“Putting HEARTS into Mining”



Ambition: “Delivering safe, responsible environmental and social outcomes while creating positive shareholder value.”

GASCOYNE AND FIREFLY PROJECTS

Logical regional consolidation of Dalgaranga and Yalgoo

Dalgaranga (100% Gascoyne)

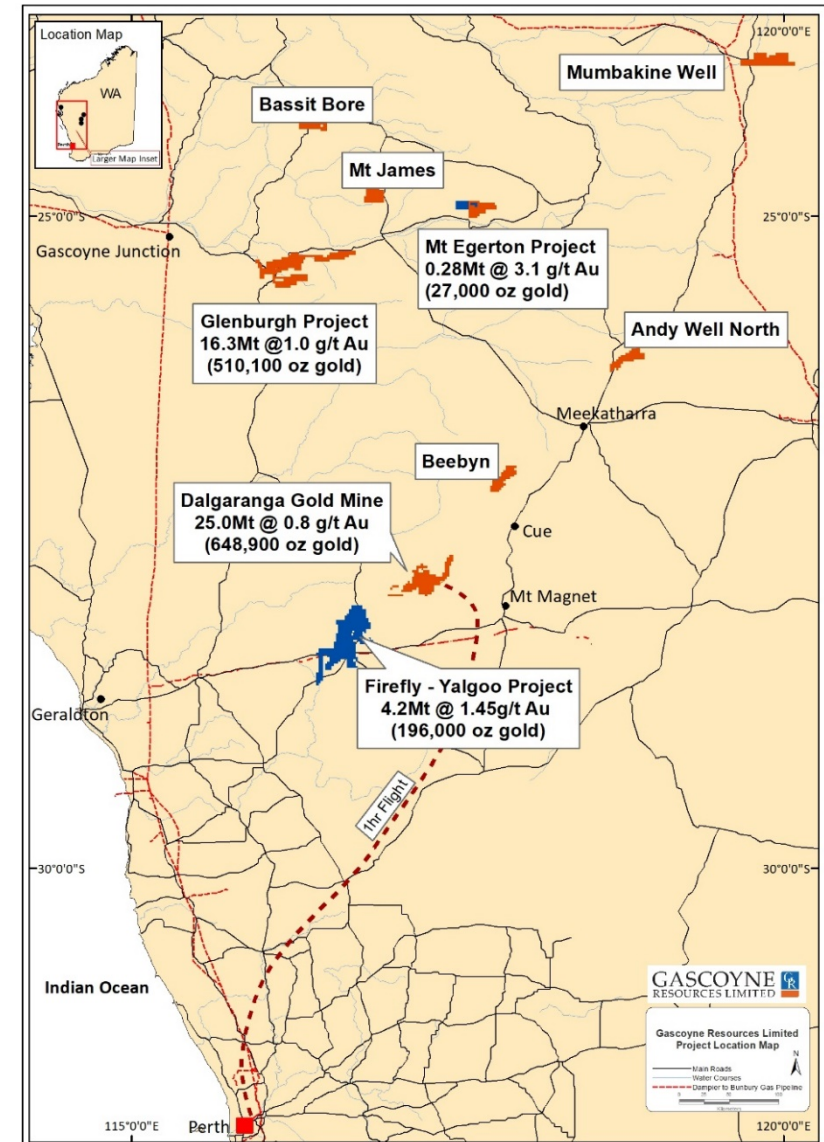
- Gold producing mine from the Gilbey's open pit
- Modern, low cost >2.5Mtpa processing plant

Yalgoo (100% Firefly)

- Short trucking distance to the Dalgaranga plant
- Development of 196koz Melville deposit within the next 12 months
- Multiple advanced exploration targets provide an exciting opportunity for new satellite operations to lift Dalgaranga's mill feed grade

Glenburgh – Mt Egerton (100% Gascoyne)

- Advanced exploration development project
 - Approximately 300km north of Dalgaranga
- Granted Mining Leases on both projects



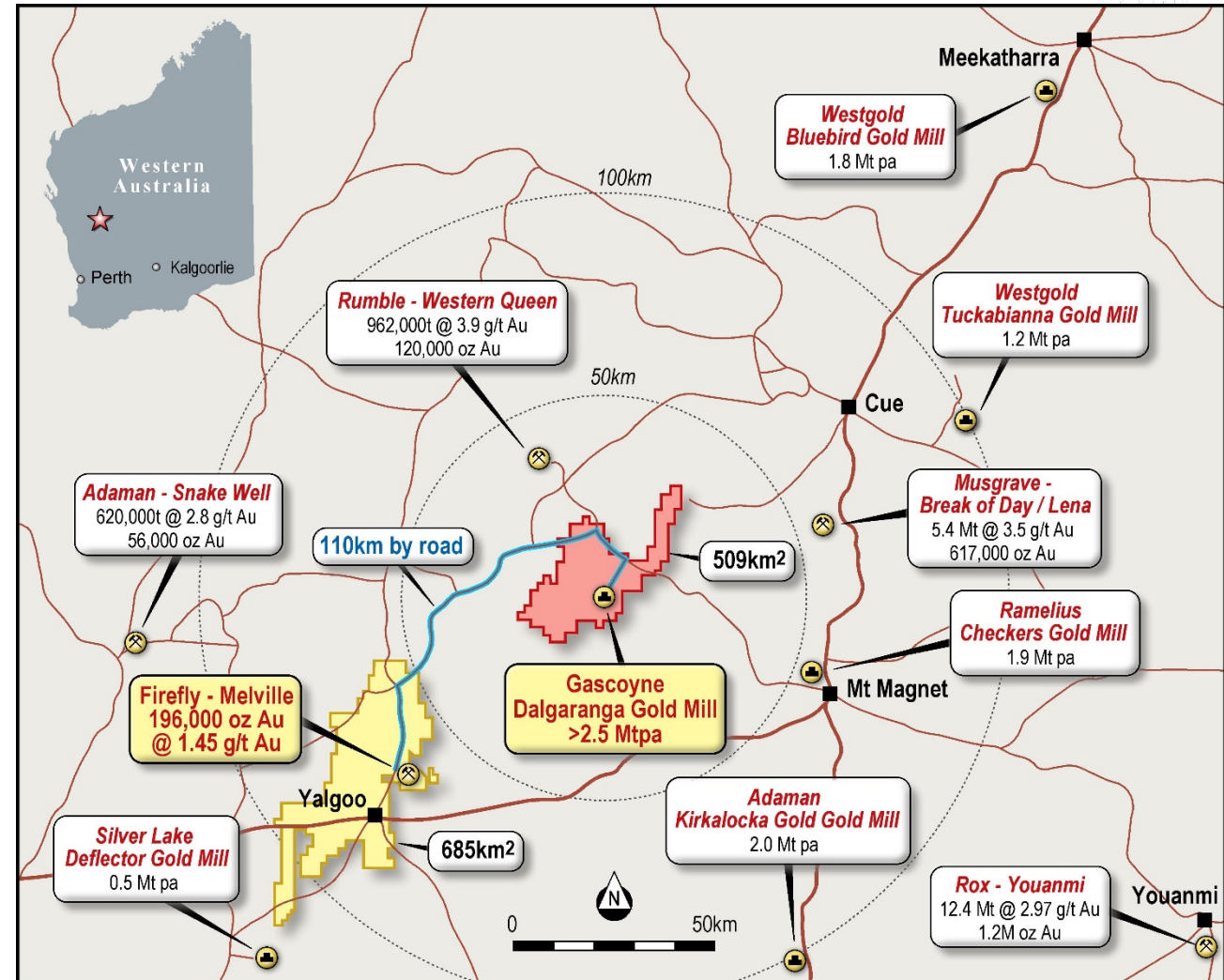
Tonnes and grades are the Mineral Resource Estimates for the Dalgaranga Gold Project the Glenburgh Gold Project and Firefly's – Yalgoo Project (see Appendix)

STRATEGY TO GROW INTO A MID-TIER GOLD PRODUCER

Merger with Firefly builds a stronger base to grow mine life, increase grade and production



- Firefly's Yalgoo - Melville deposit represents 2-3 years of high grade near term mill feed
- The most advanced asset at Yalgoo is the Melville gold deposit:
 - Mineral Resource of 196koz at 1.45g/t (0.7g/t cut-off)¹
 - Mining Lease Application submitted to WA DMIRS
 - Permitting underway for haulage via Yalgoo North road
- Seven additional advanced Yalgoo gold prospects represent a sustained pipeline of potential high-grade mill feed sources
 - Applecross, Don Bradman, Crescent, Brilliant, City of Melbourne, Prince George, Lady Lydia
- Recent resource drilling at Applecross, Don Bradman and Crescent prospects completed with 3 JORC resources to come pending assays
- Recent results at Dalgaranga point to solid potential for near term high-grade ore feed – Sly Fox/Plymouth expansion project and the nearby Hendricks shallow high grade prospect
- Base load ore feed from Dalgaranga – Gilbey's open pit

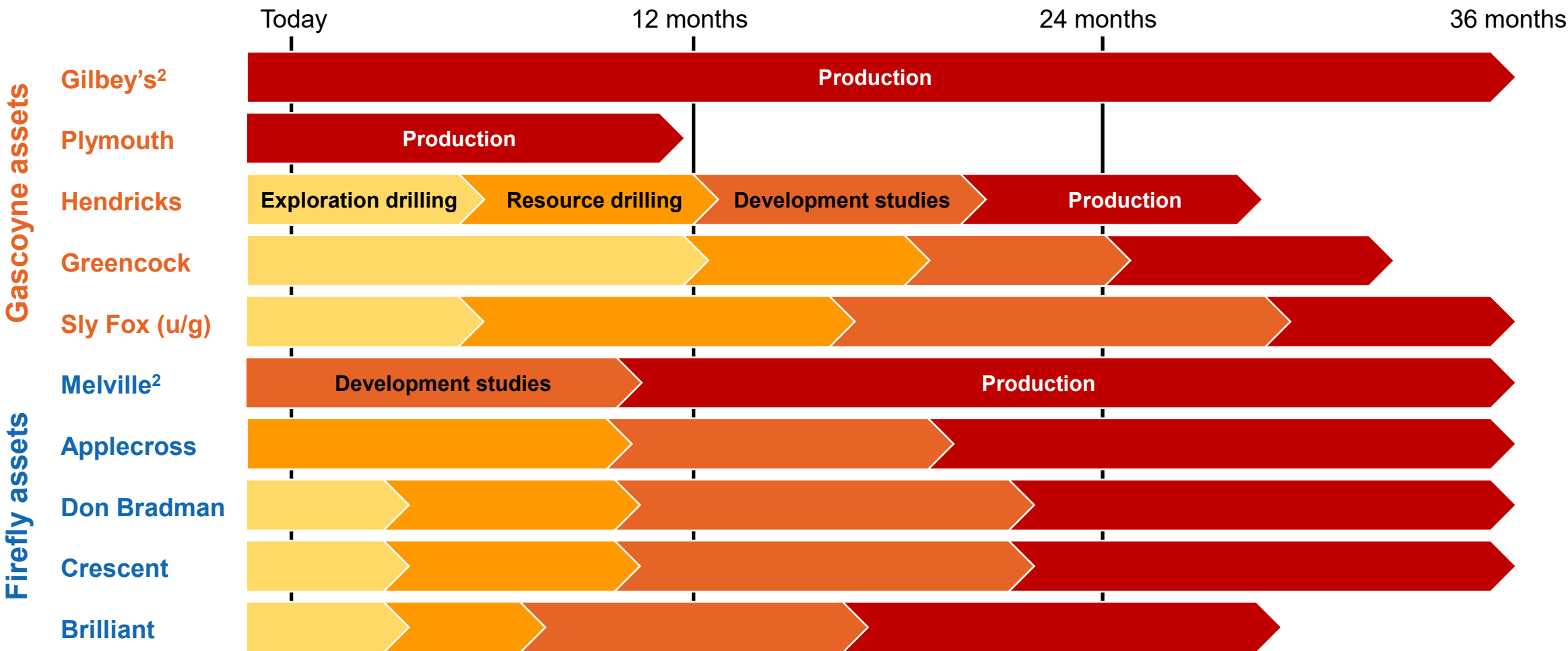


1. See Firefly (ASX: FFR) ASX release dated 17 March 2021 "Maiden 196,000oz Resource for Melville Deposit sets strong foundation for growth at Yalgoo".

GRADE INCREASE – PATHWAY TO A 100koz p.a. PRODUCER

A 0.3g/t¹ increase in mill feed grade from FY21 levels would lift Dalgaranga’s production to 100koz p.a.

Potential higher grade satellite ore sources for Dalgaranga to supplement baseload feed from Gilbey’s



1. A 0.3g/t Au increase to head grade applied to the FY2021 performance of 2.64Mt milled at 1.03g/t Au with a recovery of 88.3% for 77,000 ounces would result in 100,000 ounces produced

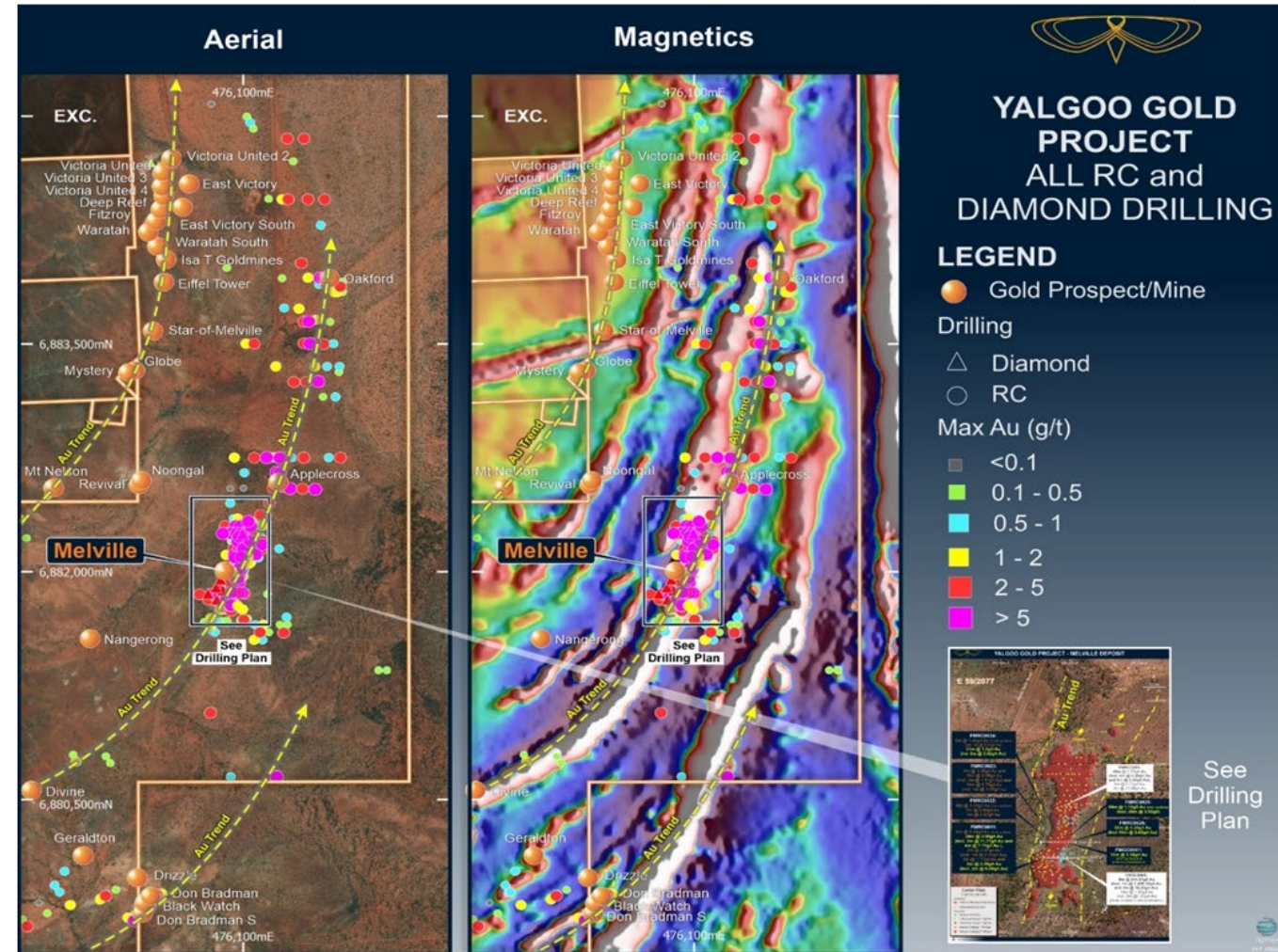
2. Note that only Gilbey's and Plymouth contain Ore Reserves and Melville a Mineral Resource Estimate in accordance with JORC 2012 see Appendix. The other deposits on this slide are prospects that even with further drilling, may not be progressed to Mineral Resource Estimates and Ore Reserves following development studies. This slide is for illustrative purposes only.

YALGOO – HIGH GRADE MILL FEED POTENTIAL



Melville deposit establishes the base and blueprint for future production growth through exploration

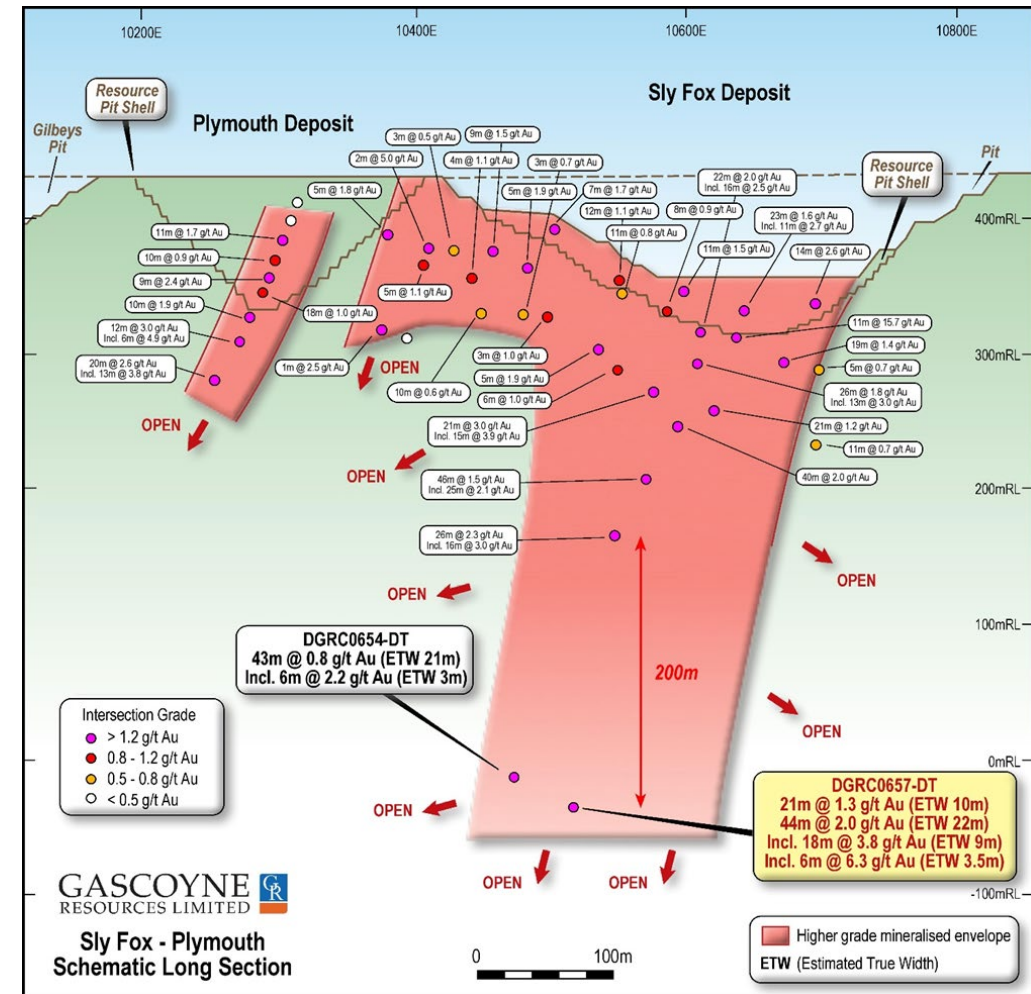
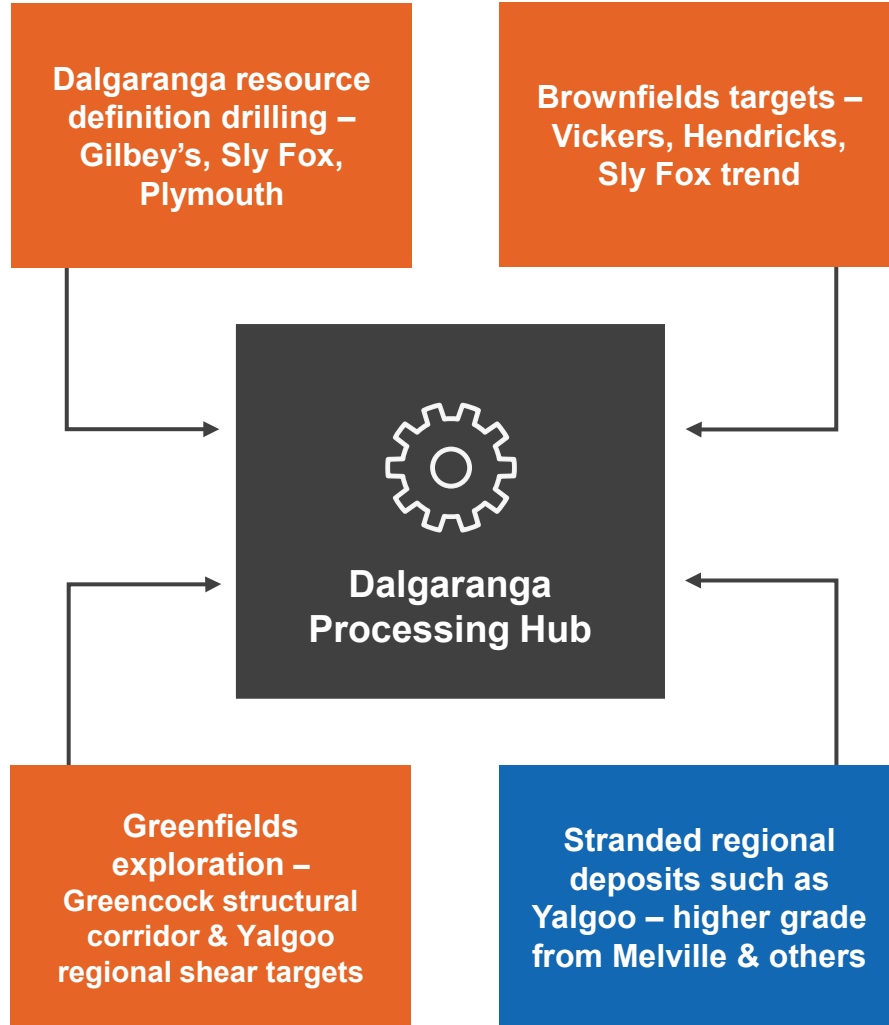
- Melville will be the first mine at Yalgoo:
 - Resource grade of 1.45g/t Au (0.7g/t cut-off)¹ materially higher than the Gilbey's deposit
 - Around 80% in the Indicated JORC category
 - Mineralisation in the top 200m from surface
- Yalgoo greenstone belt consolidated under one owner for the first time in 100 years by Firefly
- Potential for similar sized or larger deposits over the Yalgoo Gold Project²
- Systematic exploration now being undertaken with limited drilling in the past
- Progressively cracking the code for new discoveries:
 - East-west faults cross cutting BIFs
 - Porphyry intrusives
 - Structural and chemical traps for gold



1. ASX release dated March 17, 2021 "Maiden 196,000oz JORC 2021 Resource for Melville Deposit sets strong foundation for growth at Yalgoo"
 2. ASX release dated January 28, 2021 "Firefly drilling highlights scale at Yalgoo Gold Project"

DALGARANGA RESOURCE GROWTH

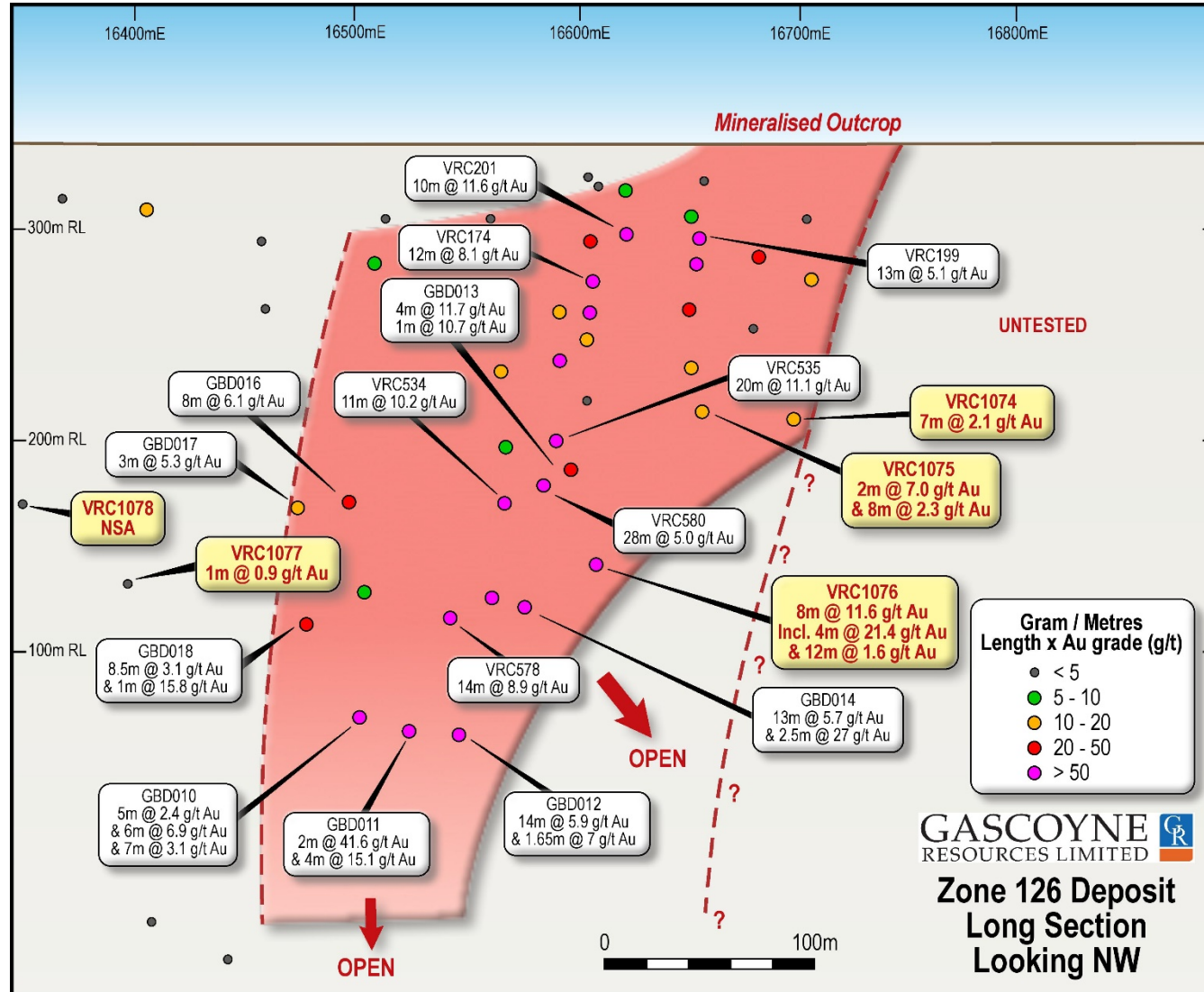
Extending mine life close to the processing plant



- Sly fox deep drilling returns **44m @ 2.0g/t including 18m @ 3.8g/t**
- Underground potential confirmed – follow up drilling required

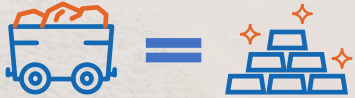
GLENBURGH – MT EGERTON GROWTH POTENTIAL

Latest drilling results highlight resource upside



- RC drill program recently completed to support growth of the current 510koz global Mineral Resource at Glenburgh – Mt Egerton
 - Seeking critical mass in support future development feasibility studies
- Results from the high-grade Zone 126 deposit show significant growth potential:
 - **8m @ 11.6g/t in VRC1076 including 4m @ 21.4g/t¹**
- Latest drilling will extend Mineral Resource at Zone 126
- Assays for first 12 of 17 holes returned
- Results from Zone 102 and Cobra to come
- Aircore rig due on site shortly to test South West exploration target

INVESTMENT HIGHLIGHTS



**Consistent production
centre at Dalgaranga**
77koz produced in FY21
70 – 80koz in FY22 – FY24



**Stable balance sheet and
cash flow positive**



**Merger agreement with
Firefly provides pathway to
increase grade and
resources – Firefly
shareholder vote in October**



**Integration of Melville into
Dalgaranga mine plan and
combined exploration
plan under development**



**RC drill programs
completed at Glenburgh
and Dalgaranga – further
results due shortly**



**Aircore drilling at
Glenburgh to commence
in current quarter**



**Aircore rig will return to
complete drill testing of
the 25km long Greencock
structure at Dalgaranga**



**Current Gascoyne market
valuation < Dalgaranga
mill replacement cost**

APPENDIX



EXPERIENCED BOARD AND MANAGEMENT TEAM

Team highly experienced in the Australian gold sector and mining industry

CORPORATE STRUCTURE¹

Shares on Issue	251M
Share price (2 September 2021)	A\$0.32
Market Cap	A\$80.0M
Cash	A\$23.4M
Bank Debt	A\$14.0M
Net Cash	A\$9.4M
Enterprise Value	A\$70.6M

MAJOR SHAREHOLDERS

Deutsche Balaton / Delphi / Sparta	22.1% (up from 19.5%)
NRW Holdings	14.7%
FirstSentier	10.0% (up from 7.3%)

1. Cash, Bank Debt and Net Cash as at 30 June 2021 (cash includes minimum of A\$5M cash balance required for debt facility). Remaining information as at 29 July 2021.

BOARD



- Richard Hay**
Managing Director/ CEO
- Confirmed as MD of Gascoyne in October 2020
 - Geologist (MSc, MAIG) - 30 years experience in the gold industry
 - Led the transformation into a consistent 17.5-20koz per quarter producer
 - Previously General Manager of Evolution Mining's Mt Carlton operation

- George Bauk**
Non-Executive Chairman
- Former Managing Director & CEO at ASX-listed rare-earths producer Northern Minerals
 - 30-year career in resource industry and 10 years with WMC Resources
 - Board positions on Lithium Australia, Blackearth Minerals and Valor Resources, and PVW Resources

- Rowan Johnston**
Non-Executive Director
- Mining Engineer and most recently Managing Director of Excelsior Gold Limited
 - Previously Acting CEO for Mutiny Gold prior to its takeover by Doray Minerals, and previously Executive Director of Integra Mining
 - Non-Executive Director of Bardoc Gold

- Hansjoerg Plaggemars**
Non-Executive Director
- A seasoned finance professional holding an MBA from University of Bamberg, with experience in structured debt finance and ECM
 - Over 14 years experience as a CFO in various industries
 - Sits on a number of ASX Company boards as a Non-Executive Director, including Wiluna Mining and Kin Mining

MANAGEMENT TEAM

David Coyne Chief Financial Officer & Company Secretary

David Baumgartel Executive GM – Operations & Development

Julian Goldsworthy Chief Geologist

Tejal Magan Head of Finance

Resources & Reserves



GASCOYNE GROUP MINERAL RESOURCES



Total of 1,186koz gold resource as at 31 March 2021

31 March 2021 Summary Mineral Resource Statement

DALGARANGA

Category	Tonnes (Mt)	Grade (g/t)	Contained Metal (koz Au)
Measured	1.38	0.7	30.6
Indicated	20.04	0.8	533.1
Indicated + Measured	21.43	0.8	563.8
Inferred	3.56	0.7	85.1
TOTAL	24.99	0.8	648.9

GLENBURGH

Category	Tonnes (Mt)	Grade (g/t)	Contained Metal (koz Au)
Indicated	13.50	1.0	430.7
Inferred	2.80	0.9	79.4
TOTAL	16.30	1.0	510.1

MT EGERTON – HIBERNIAN

Category	Tonnes (Mt)	Grade (g/t)	Contained Metal (koz Au)
Indicated	0.23	3.4	25
Inferred	0.04	1.5	2
TOTAL	0.28	3.1	27
GRAND TOTAL	41.6	0.9	1,186



- The Mineral Resource estimates have all been reported within pit optimisations using a gold price of A\$2,800 per ounce

MINERAL RESOURCES - GLENBURGH

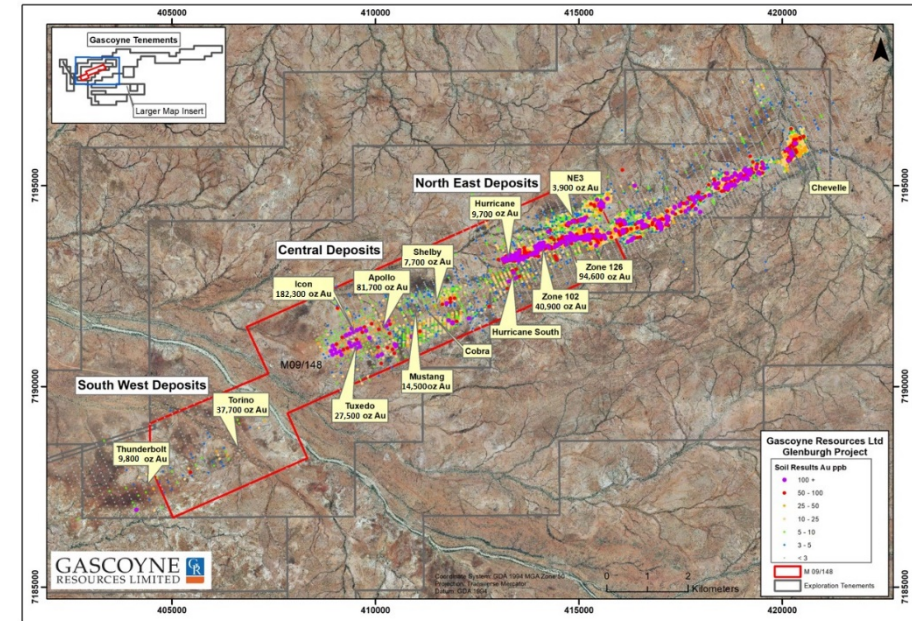


Glenburgh 510koz gold resource as at 15 December 2020

Glenburgh Project

15 December 2020 Summary Mineral Resource Statement

Classification	Mt	Au g/t	Au koz
Measured	-	-	-
Indicated	13.5	1.0	430.7
Measured + Indicated	13.5	1.0	430.7
Inferred	2.8	0.9	79.4
Total	16.3	1.0	510.1



- Indicated Mineral Resource is defined by resource definition drilling with a nominal hole spacing of 25m x 25m or closer that is located within an optimised pit shell using a \$2,800/oz Au price
- The Inferred Mineral Resource is defined by resource definition drilling data greater than 25m x 25m that is located within an optimised pit shell using a \$2,800/oz Au price
- The underground Mineral Resource for Zone 126 is contained within 3-dimensional wireframes above a 2.0g/t Au cutoff
- The open pit Mineral Resource estimates have been reported above a cut-off of 0.3g/t Au and constrained within an optimised pit utilising a gold price of A\$2,800/oz

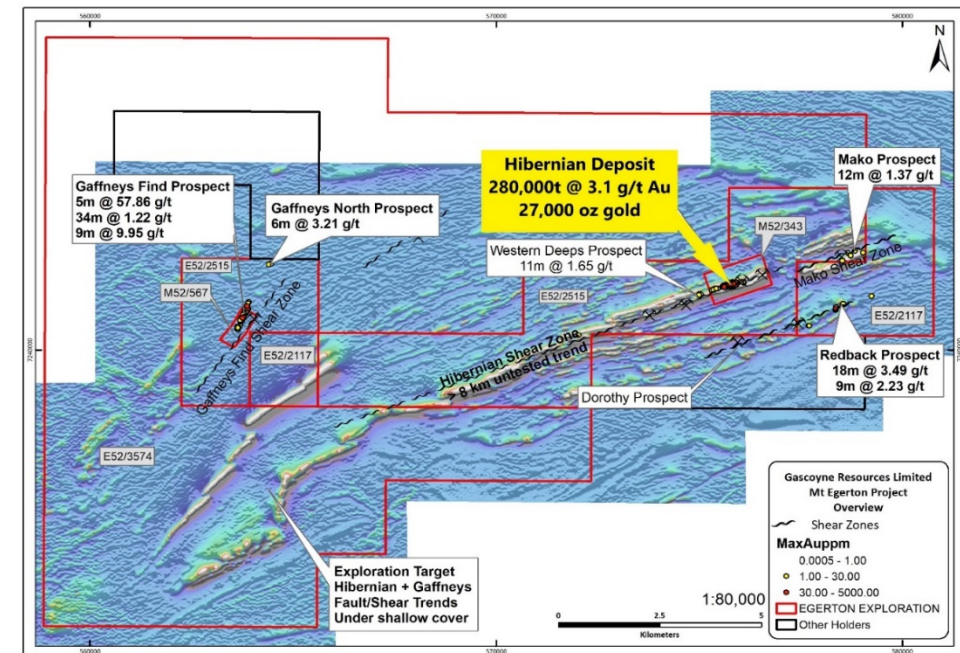
MINERAL RESOURCES – MT EGERTON (HIBERNIAN)



Hibernian Deposit

31 May 2021 Summary Mineral Resource Statement

Classification	Mt	Au g/t	Au koz
Measured	-	-	-
Indicated	0.23	3.4	25
Inferred	0.04	1.5	2
Total	0.28	3.1	27



- Indicated Mineral Resource is defined by resource definition drilling with a nominal hole spacing of 25m x 25m or closer that is located within an optimised pit shell using a \$2,800/oz Au price
- The Inferred Mineral Resource is defined by resource definition drilling data greater than 25m x 25m that is located within an optimised pit shell using a \$2,800/oz Au price
- The open pit Mineral Resource estimates have been reported above a cut-off of 0.7g/t Au and constrained within an optimised pit utilising a gold price of A\$2,800/oz

ORE RESERVES - DALGARANGA

Updated 339koz gold reserve as at 31 March 2021

Dalgaranga Gold Project

31 March 2021 Summary Ore Reserve Statement

Classification	Mt	Au g/t	Au koz
Proved	2.91	0.5	49.8
Probable	10.62	0.8	289.2
Total	13.53	0.8	339.0



- An updated Ore Reserve estimate for the project was based on updated Mineral Resource estimates completed by Cube Consultants
- Open pit Mine designs were based on optimised pit shells using a gold price of A\$2,100/oz
- Cost inputs were based on 36 months of operational data for mining, processing, general and administration plus capital requirements
- Ore Reserves above a 0.5g/t cut-off underpin the higher grade processed in the next three years – 70,000 to 80,000 per annum FY2022 to FY2024
- Only six months since reinstatement to the ASX – simply not enough time to replace and grow Ore Reserves

* ASX release dated 31 May 2021 “2021 Mineral Resource and Ore Reserve Statements”

RESOURCE / RESERVE OF COMBINED ENTITY



Combined entity well-positioned to extend mine life and extend resource base with further exploration

MINERAL RESOURCES

DALGARANGA

Category	Tonnes (Mt)	Grade (g/t)	Contained Metal (koz Au)
Measured	1.38	0.7	30.6
Indicated	20.04	0.8	533.1
Indicated + Measured	21.43	0.8	563.8
Inferred	3.56	0.7	85.1
TOTAL	24.99	0.8	648.9

GLENBURGH

Category	Tonnes (Mt)	Grade (g/t)	Contained Metal (koz Au)
Indicated	13.50	1.0	430.7
Inferred	2.80	0.9	79.4
TOTAL	16.30	1.0	510.1

MT EGERTON – HIBERNIAN

Category	Tonnes (Mt)	Grade (g/t)	Contained Metal (koz Au)
Indicated	0.23	3.4	25
Inferred	0.04	1.5	2
TOTAL	0.28	3.1	27
GRAND TOTAL	41.6	0.9	1,186

MELVILLE

Category	Tonnes (Mt)	Grade (g/t)	Contained Metal (koz Au)
Indicated	3.31	1.5	156.8
Inferred	0.89	1.4	39.6
TOTAL	4.20	1.5	196.4

PRO FORMA MERGED GROUP

Category	Tonnes (Mt)	Grade (g/t)	Contained Metal (koz Au)
Measured	1.38	0.7	30.6
Indicated	37.08	1.0	1,145.6
Inferred	7.29	0.9	206.1
TOTAL	45.75	1.0	1,382.3

ORE RESERVES

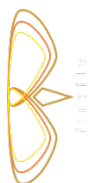
DALGARANGA

Category	Tonnes (Mt)	Grade (g/t)	Contained Metal (koz Au)
Proved	2.91	0.5	49.8
Probable	10.62	0.8	289.2
TOTAL	13.53	0.8	339.0

PRO FORMA MERGED GROUP

Category	Tonnes (Mt)	Grade (g/t)	Contained Metal (koz Au)
Proved	2.91	0.5	49.8
Probable	10.62	0.8	289.2
TOTAL	13.53	0.8	339.0

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PRO
FORMA

* See Gascoyne ASX release dated 31 May 2021 "2021 Mineral Resource and Ore Reserve Statements", as at 31 March 2021; and Firefly ASX release dated 17 March "Maiden 196,000oz JORC 2021 Resource for Melville Deposit sets strong foundation for growth at Yalgoo"

COMPETENT PERSON'S STATEMENT



Dalgaranga Project – Production Target

The production target for the Dalgaranga Gold Project referred to in this presentation is extracted from the ASX announcement dated 31 May 2021 and titled “2021 Mineral Resource and Ore Reserve Statements”. The company confirms that all the material assumptions underpinning the production target and forecast financial information derived from the production target in the ASX announcement dated 31 May 2021 and titled “2021 Mineral Resource and Ore Reserve Statements” continue to apply and have not materially changed.

The production target for the Dalgaranga Gold Project referred to in this presentation is based on 95% Ore Reserves (Proved and Probable) and 5% Mineral Resources (Inferred). It is important to note that there is a low level of geological confidence associated with Inferred Mineral Resources and there is no certainty that further exploration work will result in the determination of Indicated Mineral Resources or that the production target based on the Inferred component will be realised.

Dalgaranga Project – Ore Reserves and Mineral Resource Estimates

The information which relates to the Ore Reserve estimates for the Dalgaranga Gold Project referred to in this presentation is extracted from the ASX announcement dated 31 May 2021 and titled “2021 Mineral Resource and Ore Reserve Statements”. The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcement and that all material assumptions and technical parameters underpinning the estimate in the original market announcement continue to apply and have not materially changed. The Company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcement. The Competent Person responsible for reporting of those Ore Reserves was Mr. Neil Rauert.

The information which relates to the Mineral Resource estimates for the Gilbey's, Gilbey's South, Plymouth and Sly Fox gold deposits at the Dalgaranga Gold Project referred to in this presentation are extracted from the ASX announcement dated 31 May 2021 and titled “2021 Mineral Resource and Ore Reserve Statements”. The company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcement and that all material assumptions and technical parameters underpinning the estimate in the original market announcement continue to apply and have not materially changed. The Company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcement. The Competent Persons responsible for reporting of those Mineral Resource estimates were Mr Michael Job and Mr Michael Millad.

COMPETENT PERSON'S STATEMENT



Glenburgh Project – Mineral Resource Estimates

The information which relates to the Mineral Resource estimates for the Glenburgh Gold Project referred to in this presentation are extracted from the ASX announcement dated 18 December 2020 and titled “Group Mineral Resources Grow to Over 1.3Moz”. The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcement and that all material assumptions and technical parameters underpinning the estimate in the original market announcement continue to apply and have not materially changed. The company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcement. The Competent Person responsible for reporting of those Mineral Resource estimates was Mr Brian Fitzpatrick.

Mt Egerton (Hibernian) – Mineral Resource Estimates

The Mineral Resources estimates for the Hibernian deposit at Mt Egerton referred to in this presentation are extracted from the ASX announcement dated 31 May 2021 and titled “2021 Mineral Resource and Ore Reserve Statements”. The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcement and that all material assumptions and technical parameters underpinning the estimate in the original market announcement continue to apply and have not materially changed.

Firefly (Yalgoo – Melville) – Mineral Resource Estimates

This presentation includes information that relates to Firefly's mineral resources and exploration results. This information was prepared by and is the responsibility of Firefly only. The mineral resource information in respect of Yalgoo - Melville is extracted from Firefly's ASX announcement dated 17 March 2021 which is available to review at <https://www.fireflyresources.com.au/>, and sets out the key assumptions and methods used to prepare the estimates. The exploration results are extracted from Firefly's ASX market announcements footnoted in the body of this presentation. Firefly confirms that it is not aware of any new information or data that materially affect the information in the market releases and that all material assumptions underpinning those estimates and exploration results continue to apply and have not materially changed.