



DE GREY  
MINING LTD

# Hemi Discovery, Mallina Gold Province

It's only the beginning

Diggers and Dealers Forum  
October 2020



# Forward looking statements disclaimer



*These materials prepared by De Grey Mining Limited (or the “Company”) include forward looking statements. Often, but not always, forward looking statements can generally be identified by the use of forward looking words such as “may”, “will”, “expect”, “intend”, “plan”, “estimate”, “anticipate”, “continue”, and “guidance”, or other similar words and may include, without limitation, statements regarding plans, strategies and objectives of management, anticipated production or construction commencement dates and expected costs or production outputs.*

*Forward looking statements inherently involve known and unknown risks, uncertainties and other factors that may cause the Company’s actual results, performance and achievements to differ materially from any future results, performance or achievements. Relevant factors may include, but are not limited to, changes in commodity prices, foreign exchange fluctuations and general economic conditions, increased costs and demand for production inputs, the speculative nature of exploration and project development, including the risks of obtaining necessary licenses and permits and diminishing quantities or grades of reserves, political and social risks, changes to the regulatory framework within which the Company operates or may in the future operate, environmental conditions including extreme weather conditions, recruitment and retention of personnel, industrial relations issues and litigation.*

*Forward looking statements are based on the Company and its management’s good faith assumptions relating to the financial, market, regulatory and other relevant environments that will exist and affect the Company’s business and operations in the future. The Company does not give any assurance that the assumptions on which forward looking statements are based will prove to be correct, or that the Company’s business or operations will not be affected in any material manner by these or other factors not foreseen or foreseeable by the Company or management or beyond the Company’s control.*

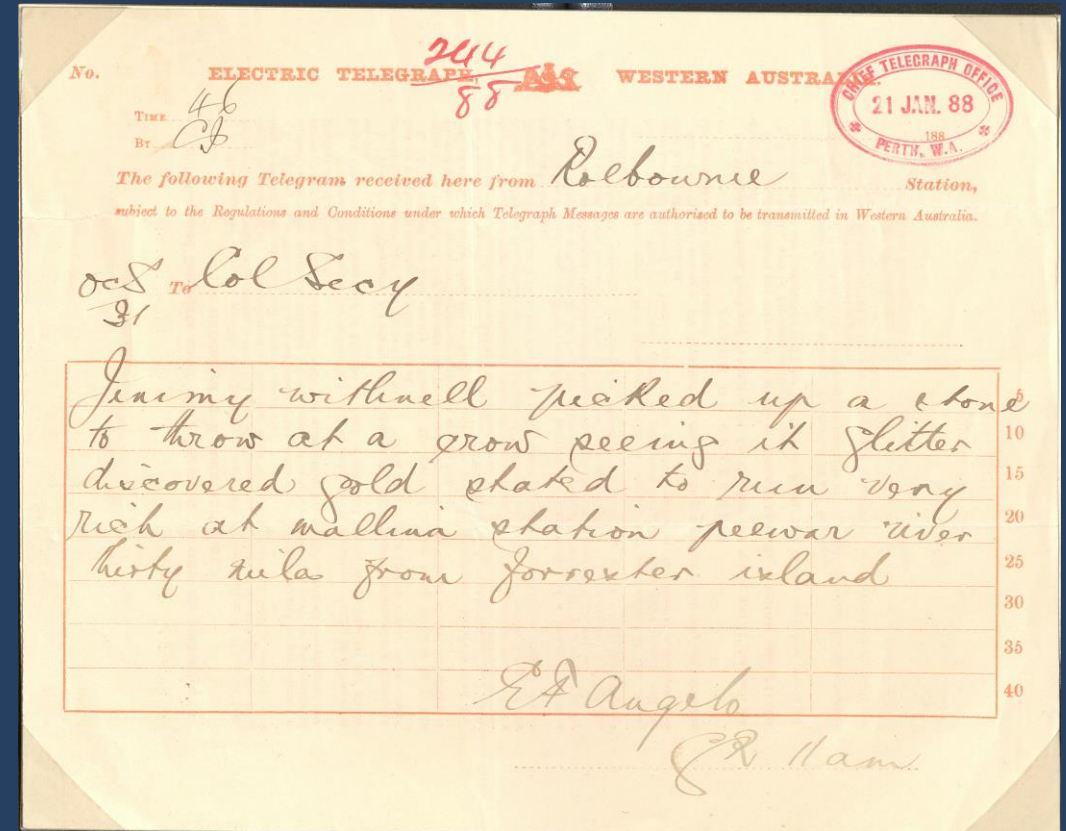
*Although the Company attempts and has attempted to identify factors that would cause actual actions, events or results to differ materially from those disclosed in forward looking statements, there may be other factors that could cause actual results, performance, achievements or events not to be as anticipated, estimated or intended, and many events are beyond the reasonable control of the Company. Accordingly, readers are cautioned not to place undue reliance on forward looking statements. Forward looking statements in these materials speak only at the date of issue. Subject to any continuing obligations under applicable law or any relevant securities exchange listing rules, in providing this information the Company does not undertake any obligation to publicly update or revise any of the forward looking statements or to advise of any change in events, conditions or circumstances on which any such statement is based.*

**Aspirational goal Cautionary Statement:** *The potential quantity and grade of the aspirational goal referred to on Slide 4 is conceptual in nature. As at the date of this report, there has been insufficient exploration to determine a Mineral Resource of this magnitude and there is no certainty that further exploration work will result in the determination of such Mineral Resources to be realised.*

# The first WA gold rush – the Pilbara



Rock with visible gold picked up by Jimmy Withnell to throw at a crow near Roebourne in 1888<sup>1</sup>



Telegram sent by Magistrate Colonel Edward Fox Angelo to Colonial Secretary Sir Malcom Fraser following Jimmy Withnell's gold discovery<sup>2</sup>

1: Source: WA Museum

2: Source: State Records Office of WA Cons527 Item 1888/0244

# Redefining the Pilbara

- The same geological setting as the Yilgarn:
  - Archaean aged rocks 2.5 – 4 billion years old
  - Granite/greenstone belts
- Potential for shear-hosted gold previously recognised
- Recent discovery of a intrusion-hosted style of gold mineralisation new for the Pilbara
- **Transformational discovery for De Grey and the Region**
- 150km of prospective strike still largely untested

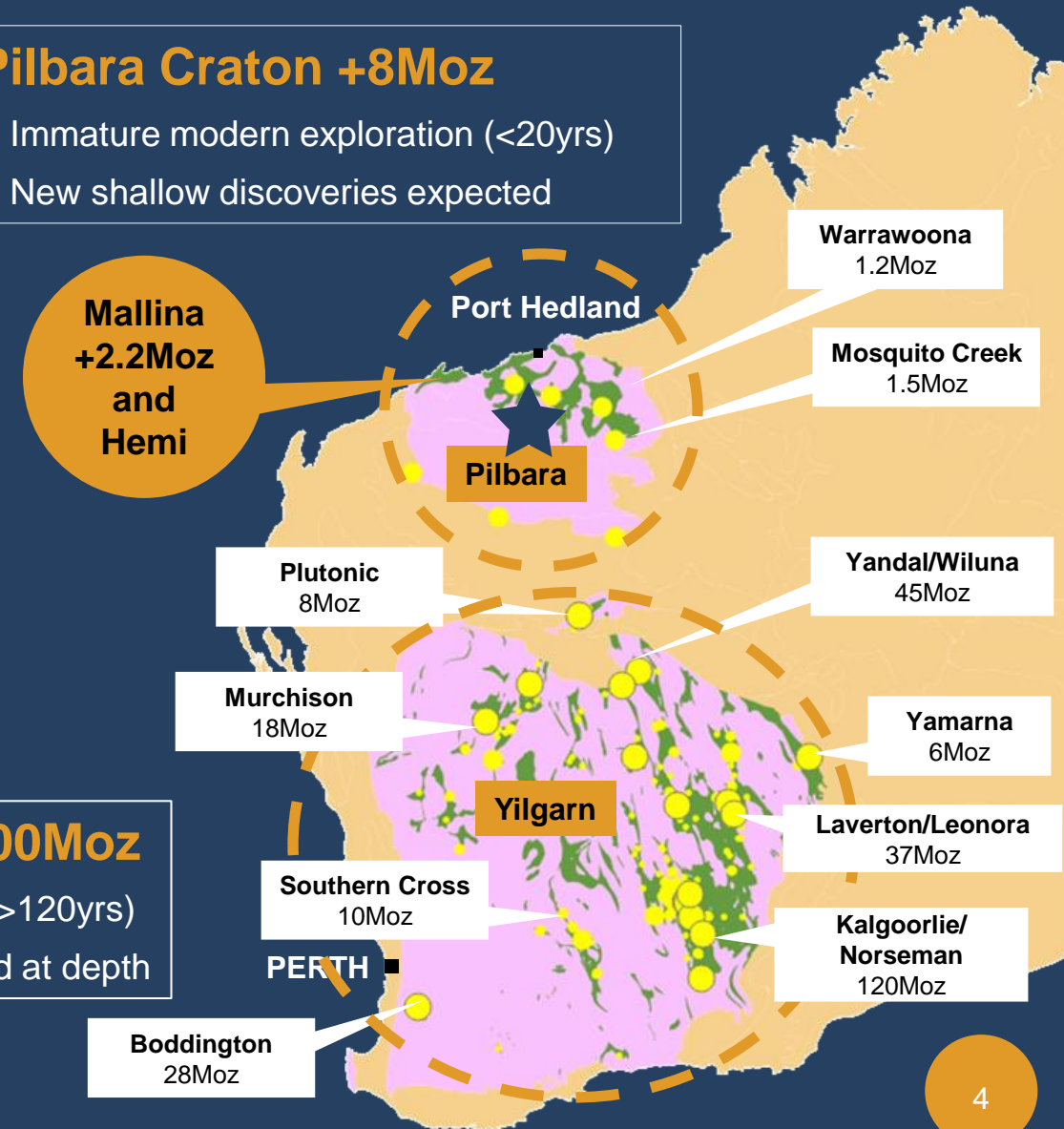
## Pilbara Craton +8Moz

- Immature modern exploration (<20yrs)
- New shallow discoveries expected

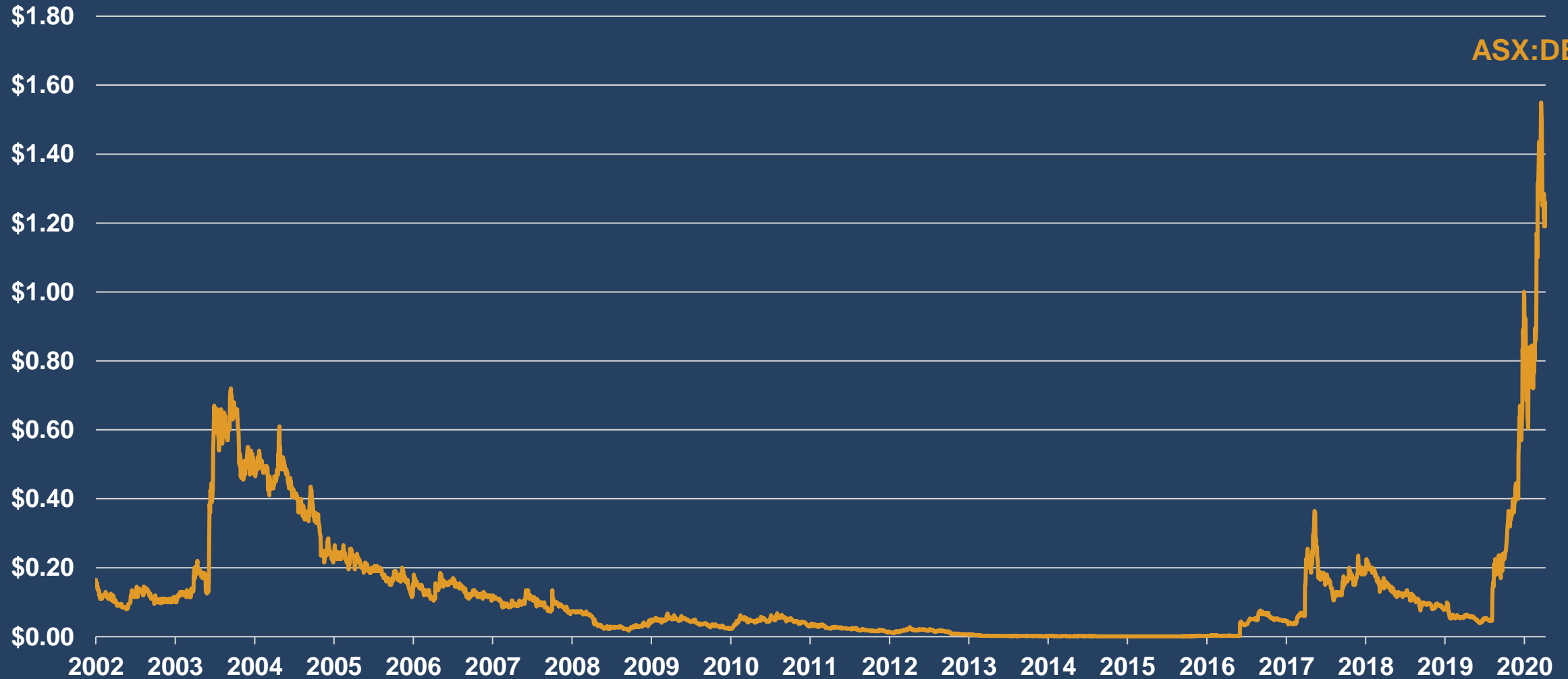
## Yilgarn Craton +200Moz

- Very mature exploration (>120yrs)
- New discoveries expected at depth

**Mallina  
+2.2Moz  
and  
Hemi**

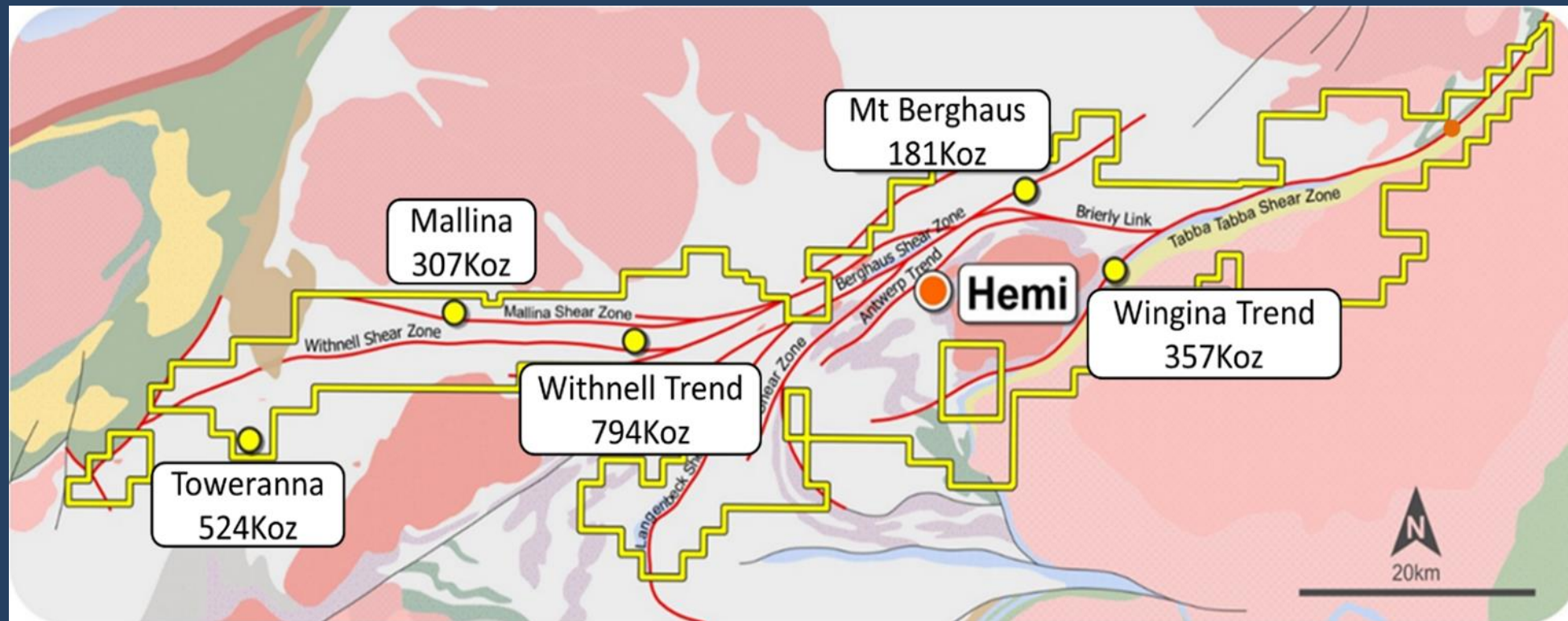


# De Grey - An 18 year journey so far



# District scale project potential

- Consolidated land position spanning 150km of strike and +200km of shear zones
- Large intrusion-hosted discovery at Hemi and other intrusion targets still to be tested
- Existing shear-hosted Mineral Resource of 2.2Moz @ 1.8g/t Au excludes Hemi



# Toweranna: the first intrusion-hosted gold

“Toweranna is a geological enigma of the project, hosted by a granite intrusion along the axis of a regional north-east trending fold structure, rather than by a regional shear zone like all the other gold deposits.

“This developing new style and host to gold mineralisation opens up a whole new dimension to additional targeting in the Pilbara Gold Project and the Pilbara region in general.”

- Andy Beckwith

*ASX announcement: Toweranna drilling expands high-grade gold footprint*

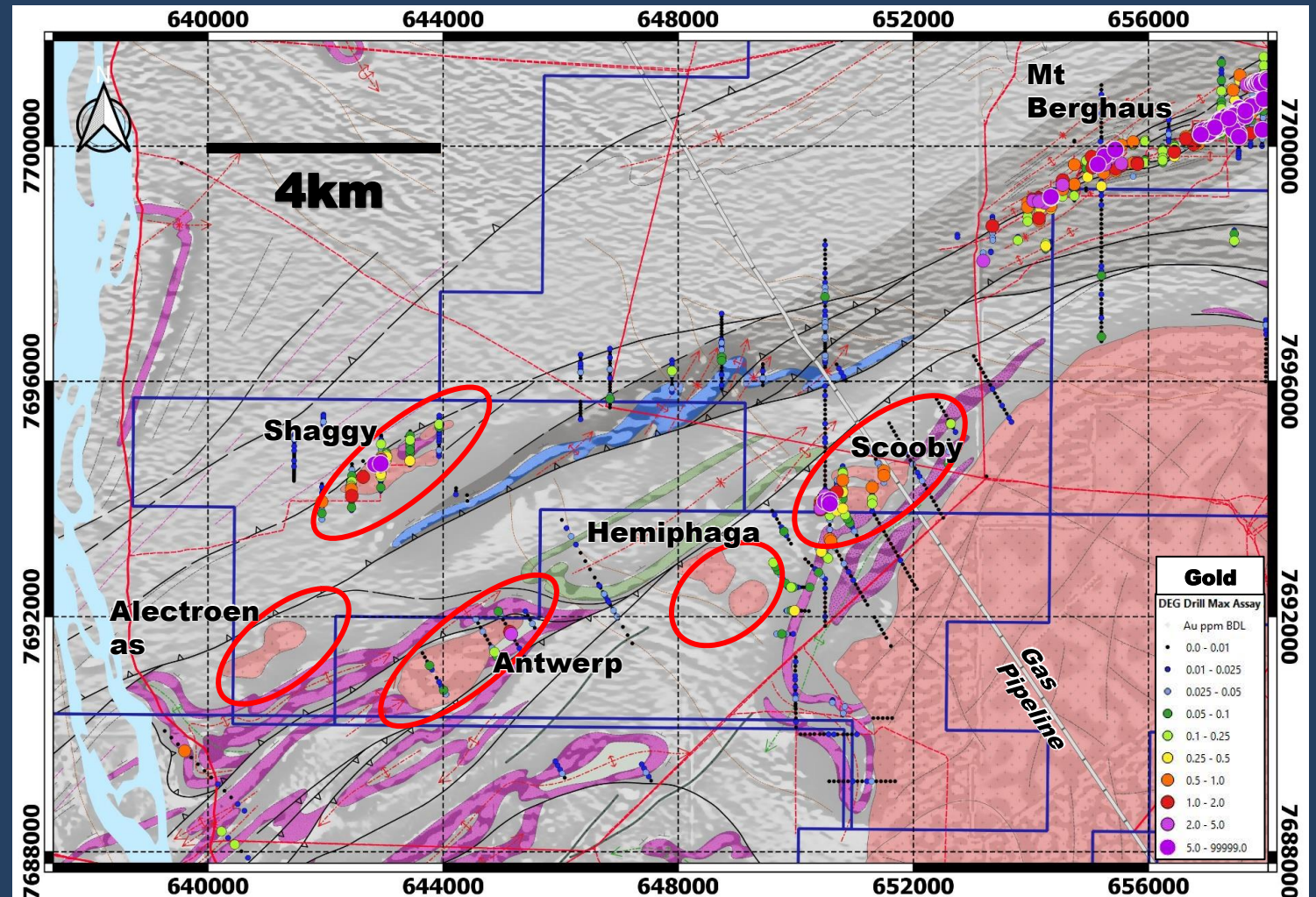
*3 July 2018*



# Targeting Intrusion Style Mineralisation

## Context:

- Regional bedrock geology interpretation completed
- Several small felsic-intermediate intrusions identified
- Interpreted to be part of the Indee Suite of high-Mg Diorite intrusions
- **High-grade Au in historic drilling**
- Limited drilling at
  - Scooby, Shaggy and Antwerp
  - All have encouraging results
- Alectroenas and Hemiphaga are newly interpreted potential intrusions and are undrilled
  - *Priority areas for fine fraction soil sampling*

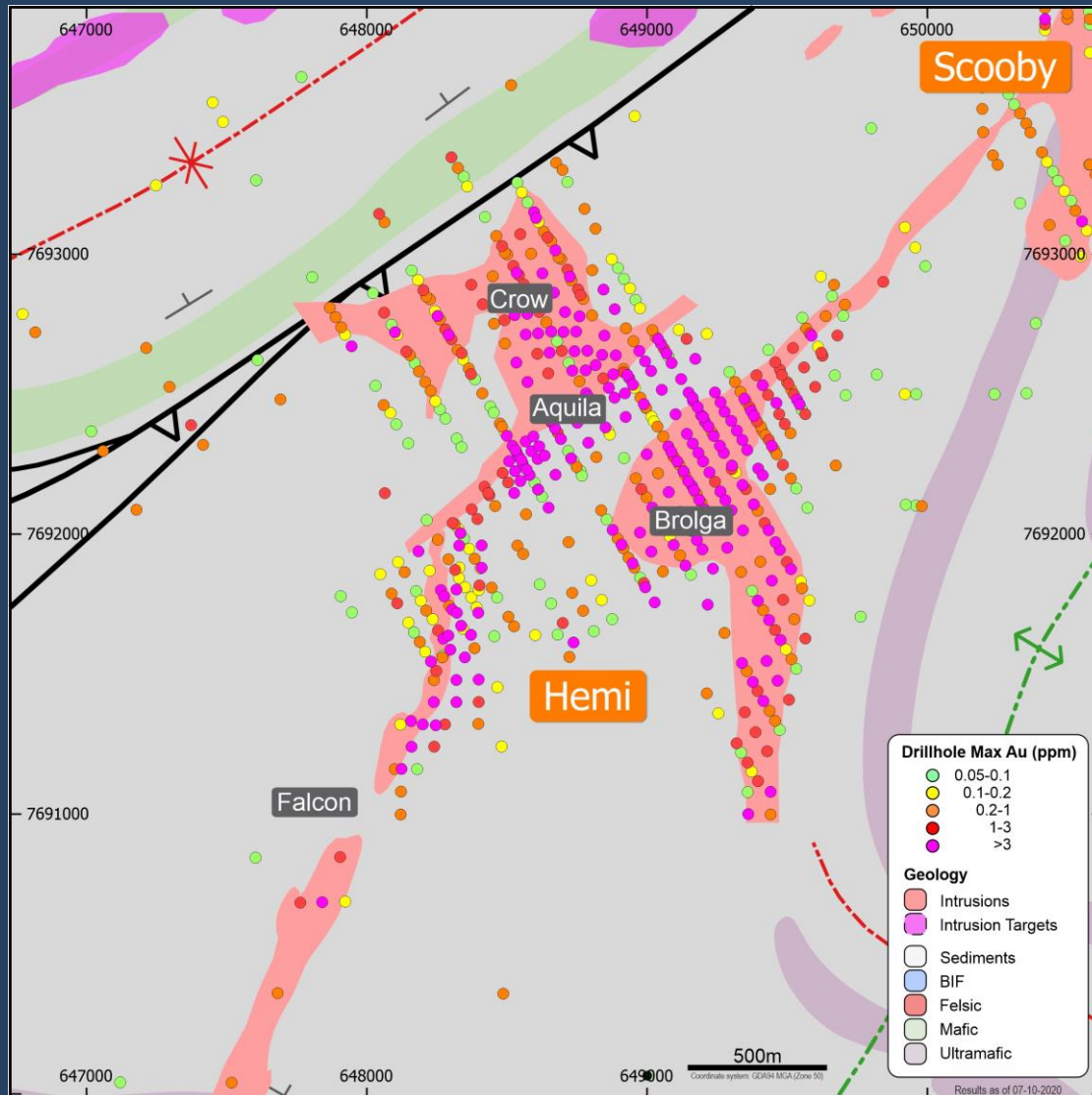




# You've got to have faith

[video]

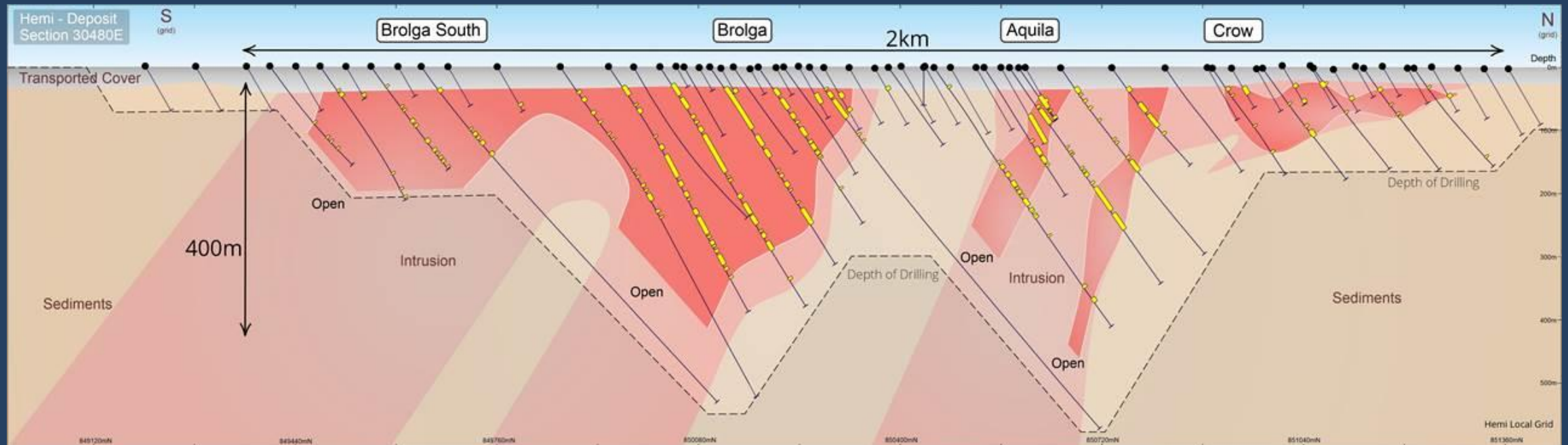
# Hemi is a major gold system



- The Hemi system is now:
  - +3,000m N-S
  - +2,000m E-W
  - +400m deep
  - Open along strike and at depth
- Four main deposit areas identified:
  - Aquila, Brolga, Crow and Falcon
- Six drill rigs on site:
  - One aircore rig drilling extensional targets
  - One aircore rig
  - Two RC rigs
  - Two diamond rigs

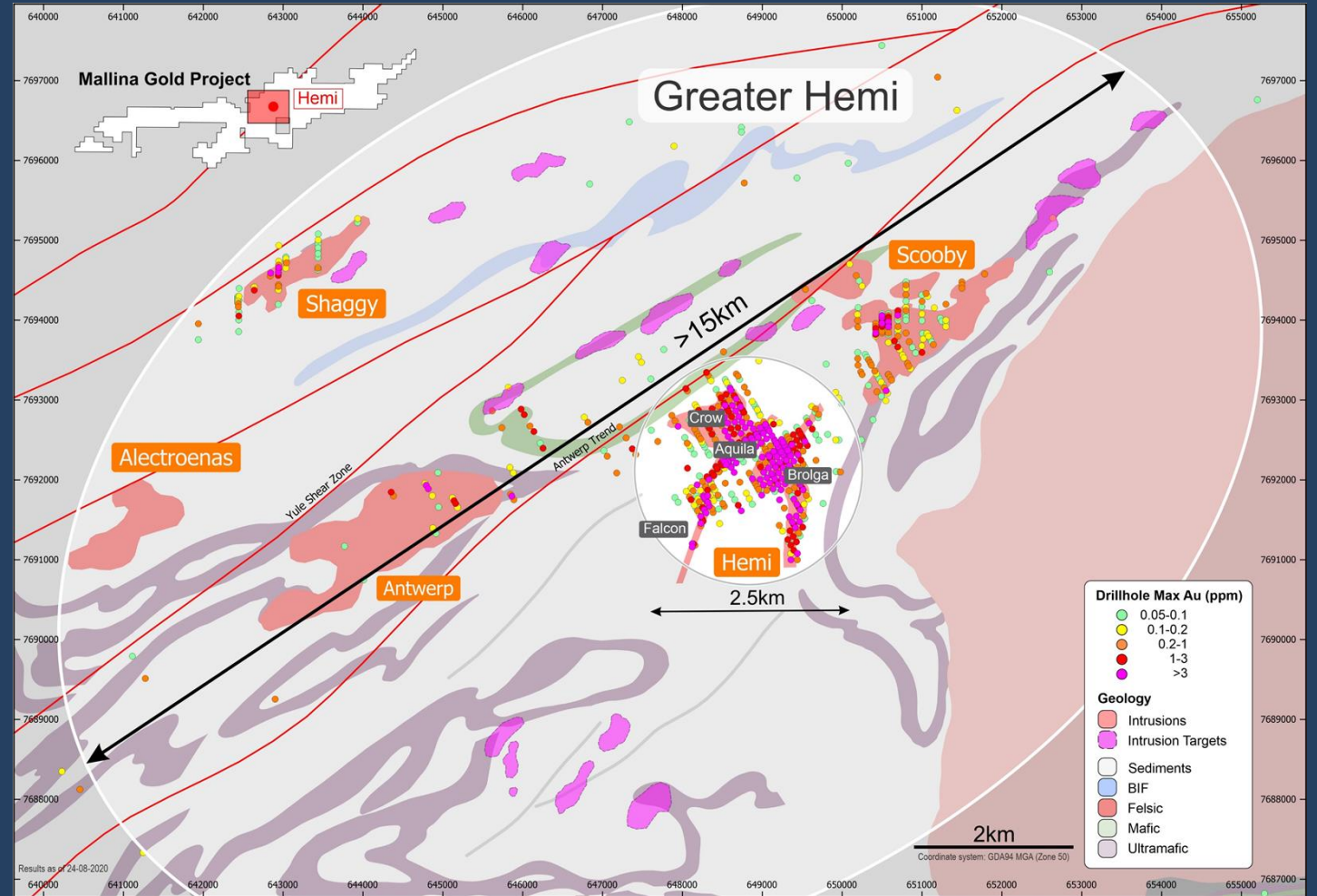
# Large, low strip ratio open pit potential

- Hemi mineralisation is characterised by its shallow nature and grade continuity
- Extensional drilling across all four zones is currently in progress
- Large area to the south of the Brolga deposit remains to be tested with RC and DD
- Potential for new lodes between Brolga and Aquila and Aquila and Crow



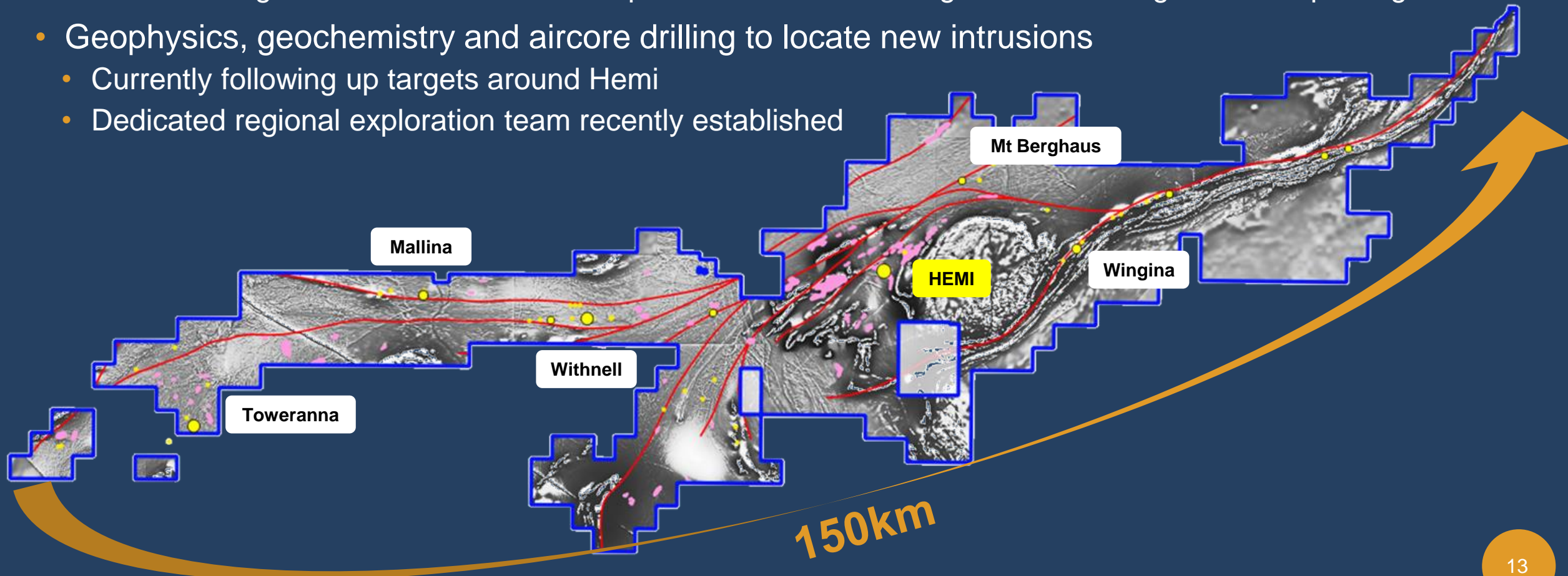
# Finding the next Hemi

- Four “lookalike” mineralised intrusions identified within 10km of Hemi:
  - Scooby, Antwerp, Shaggy, Alectroenas
- One AC rig testing extensions at Hemi
- One AC rig currently testing targets at Scooby, Antwerp and Shaggy
- Working to put meaningful blocks of RC drilling together for each target area
- Detailed aeromagnetic survey completed over prospective 30km zone
- Modelling, interpretation and targeting study well advanced



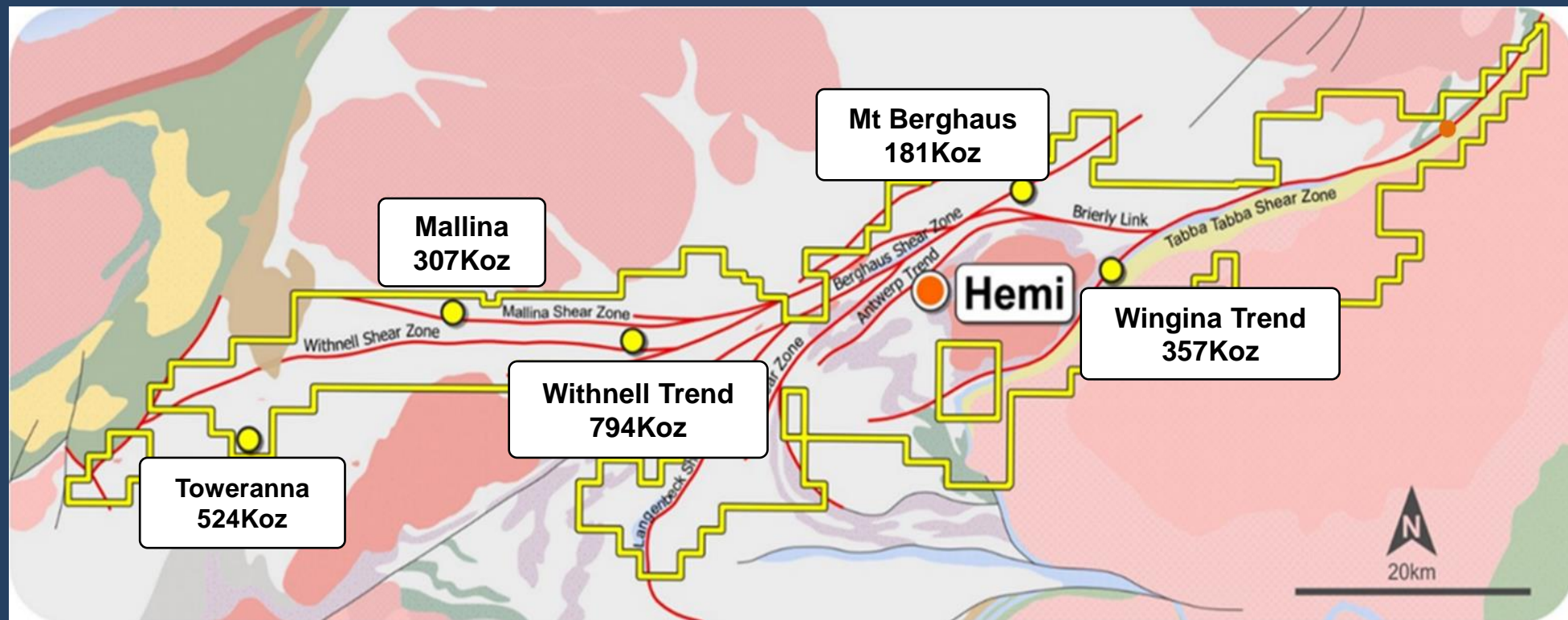
# Identifying new regional intrusions

- A total of 8 known intrusions identified throughout the project area:
  - Seven are mineralised and four are mineralised in the Greater Hemi area
  - >20 new magnetic features identified as possible intrusions along the 150km long tenement package
- Geophysics, geochemistry and aircore drilling to locate new intrusions
  - Currently following up targets around Hemi
  - Dedicated regional exploration team recently established



# Shear-hosted targets

- Existing shear-hosted resource of 37.4Mt @ 1.8g/t Au for 2.2Moz
- Increasingly valuable following the discovery at Hemi
- Shear-hosted target generation will continue to be progressed

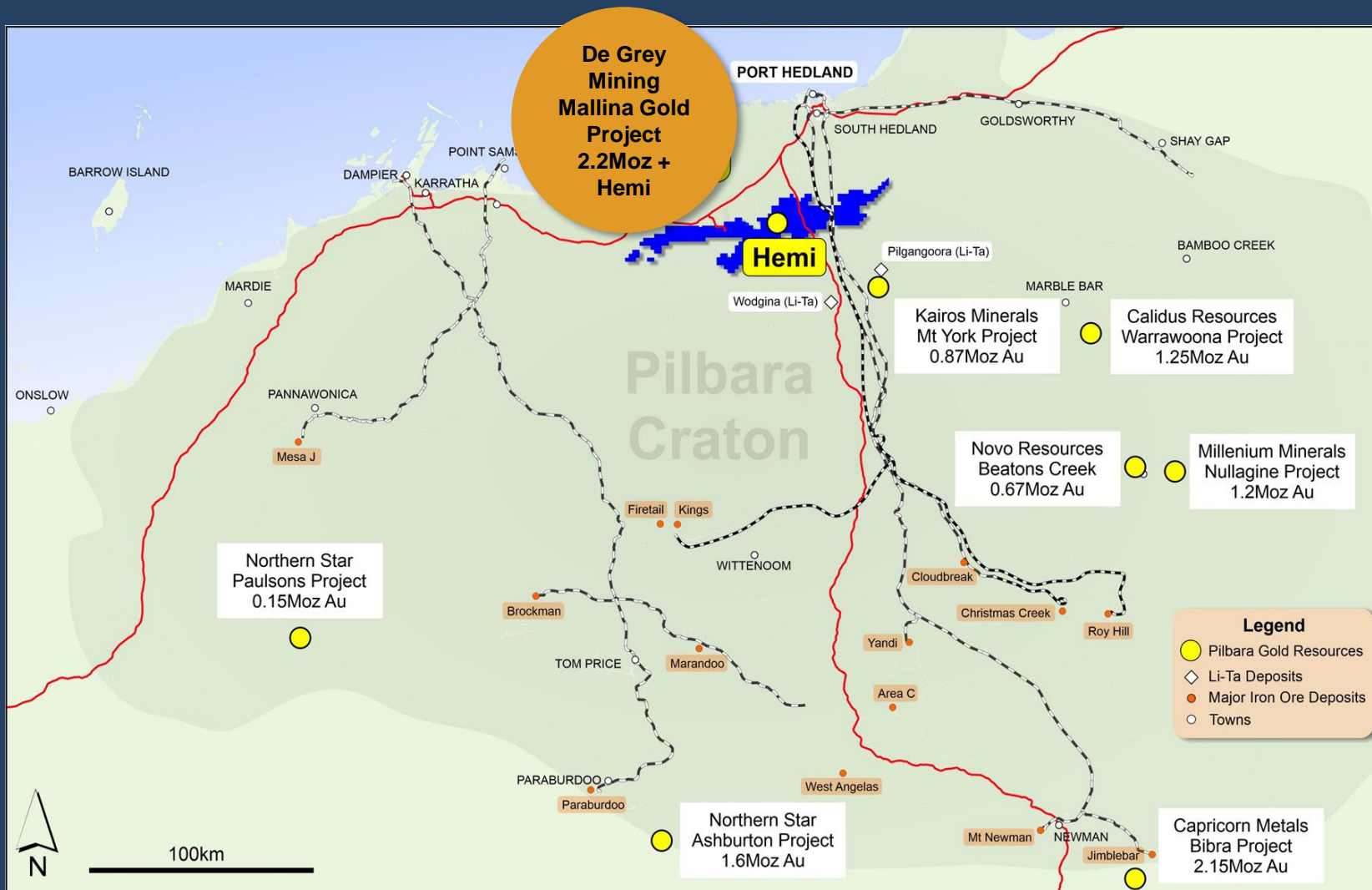


# Project studies

- Long lead time de-risking studies underway:
  - Metallurgy, Environment and Infrastructure corridors
- Initial metallurgical testwork on Brolga:
  - 93% in oxidised using carbon in leach (CIL)
  - 96% from fresh rock using flotation, oxidation and (CIL)
  - High gold recovery into concentrate at low mass pull
  - Oxidation circuit ~15 times smaller than plant front end
  - High Au:S ratio in concentrate – lowers hydrometallurgical circuit size and oxygen addition rate
  - Variability and optimisation testwork continuing
- Other hydrometallurgical processes to be assessed:
  - Albion, BIOX, etc.



# A Tier 1 mining region



- Located 45/60 minutes drive from the ports and regional centres of Port Hedland/Karratha
- Major mining and service centres for iron ore, lithium and gas
- Two major sealed highways within 10km of Hemi
- Gas pipelines located 5km and 20km from Hemi
- Major 220kV electricity transmission line within ~20km
- Flat sand plain topography ideal for mining
- Replenishable fresh groundwater seen in drilling



# Foundations for our future



# Growth strategy



Deliver a **Tier 1 scale** mineralised system at Hemi



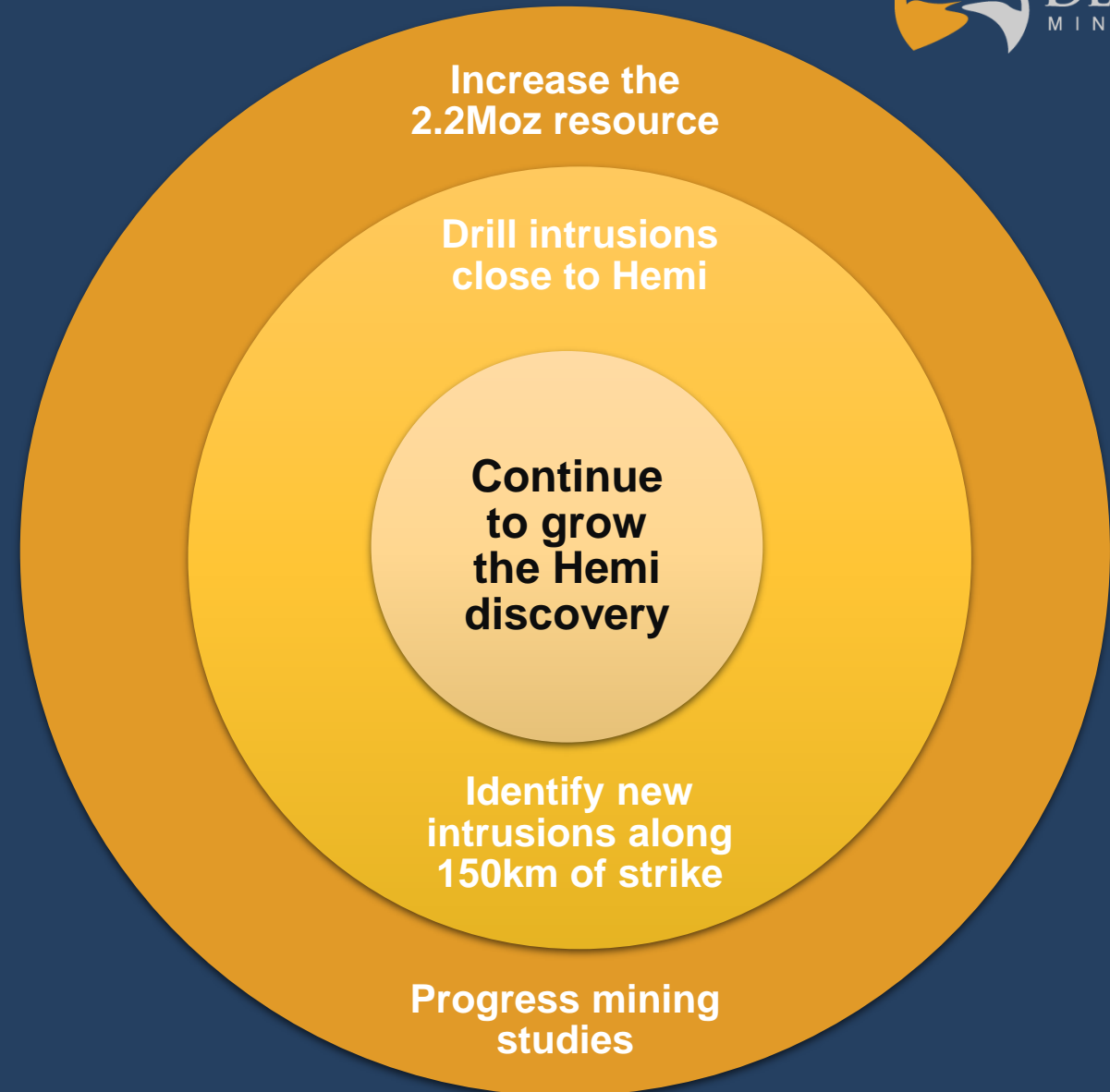
Continue to **grow resources** at a **discovery cost below industry average of A\$20/oz**



Build organisational capability and **progress development studies**



Ultimate objective to become a **Tier 1 gold producer at Hemi**



# Contact

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**ASX: DEG**

## Competent Persons Statements

*The information in this report that relates to Exploration Results for the Pilbara Gold Project is based on, and fairly represents information and supporting documentation compiled by Mr Philip Tornatora, a Competent Person who is a member of The Australasian Institute of Mining and Metallurgy. Mr Tornatora is an employee of De Grey Mining Limited. Mr Tornatora has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the “Australasian Code for Reporting of Exploration Results, Mineral Resource and Ore Reserves”. Mr Tornatora consents to the inclusion in this report of the matters based on his information in the form and context in which it appears.*

*The Information in this report that relates to Mineral Resources for Pilbara Gold Project is based on information compiled by Mr Paul Payne, a Competent Person who is a Fellow of the Australasian Institute of Mining and Metallurgy. Mr Payne is a full-time employee of Payne Geological Services. Mr Payne has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the “Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves”. Mr Payne consents to the inclusion in the report of the matters based on his information in the form and context in which it appears. De Grey advises that no material changes have occurred to the resource estimates since the date of publication of April 2020.*

*The Company has released all material information that relates to Exploration Results, Mineral Resources and Reserves, Economic Studies and Production for the Pilbara Gold Project on a continuous basis to the ASX and in compliance with JORC 2012. The Company confirms that it is not aware of any new information that materially affects the content of this ASX release.*

## Forward Looking Statements

*Statements regarding De Grey’s plans with respect to the mineral properties, resource reviews, programmes, economic studies and future development are forward-looking statements. There can be no assurance that De Grey’s plans for development of its mineral properties will proceed any time in the future. There can also be no assurance that De Grey will be able to confirm the presence of additional mineral resources/reserves, that any mineralisation will prove to be economic or that a mine will successfully be developed on any of De Grey’s mineral properties.*

# Material ASX releases



## Resources & Metallurgy:

*2020 Mallina Gold Project Resource update, 2 April 2020*

*Positive gold recoveries enhance Pilbara Gold Project potential, 12 February 2019*

*High gold recoveries with conventional CIL processing at Toweranna, 13 June 2019*

*Mallina drilling, new targets and metallurgy update, 15 July 2019*

*High gold recoveries achieved at Hemi, 9 July 2020*

## Exploration:

*Multiple new targets increase exploration potential, 2 July 2019*

*New Gold Discoveries at Hemi and Antwerp, 17 December 2019*

*Hemi confirms potential for major discovery, 6 February 2020*

*Further impressive thick and high grade gold at Hemi, 11 February 2020*

*Major extension of sulphide mineralisation at Hemi, 26 February 2020*

*RC drilling confirms large scale gold system at Hemi, 5 March 2020;*

*Continuing extensive sulphide mineralisation intersected at Hemi, 10 March 2020*

*Hemi continues to grow, 17 March 2020*

*Major Gold Extensions defined at BROLGA, 25 March 2020*

*Brolga Continues to grow, 9 April 2020*

*Aircore Drilling defines third large gold zone at Hemi, 17 April 2020*

*Brolga and Aquila drilling update, 22 April 2020*

*Large gold system defined at Crow, 1 May 2020*

*Exploration update, 20 May 2020*

*Significant extension at Hemi- Aquila, 27 May 2020*

*HEMI – Major extension, 5 June 2020*

*HEMI – Broad, high grade extensions at Aquila, 9 June 2020*

*Further high grade and expanded footprint at Hemi, 22 June 2020*

*Further extensions confirmed at Brolga, 10 July 2020*

*Hemi scale grows with Aquila new extensions, 22 July 2020*

*Strong results boost Aquila westerly extension, 5 August 2020*

*Aquila extends to 400 vertical metres, New lode at Crow, 12 August*

*Brolga extends north towards Aquila and northeast to Scooby, 21 August*

*Exceptional high grade gold intercept at Crow, 27 August 2020*

*Falcon - Major new gold discovery at Hemi, 2 September 2020*

*Falcon - Drilling Update, Drill results confirm Falcon as a growing new opportunity, 15 September*

*Strong Brolga Infill and Extensions, 25 September*

*Encouraging Extensional and Infill Drilling Results at Aquila and Crow, 7 October 2020*

*Thick High Grade near surface hits continue at Falcon, 12 October 2020*

# Mallina Gold Project Resources

(not including Hemi)

Area	Type	Measured			Indicated			Inferred			Total		
		Mt	Au g/t	Au Oz	Mt	Au g/t	Au Oz	Mt	Au g/t	Au Oz	Mt	Au g/t	Au Oz
Withnell Mining Centre	Oxide	0.98	1.8	57,500	3.49	1.5	166,800	2.35	1.4	102,300	6.82	1.5	326,600
	Fresh	0.66	1.7	34,800	8.23	1.9	496,700	9.87	2.4	766,600	18.75	2.2	1,298,200
	<b>Total</b>	<b>1.63</b>	<b>1.8</b>	<b>92,300</b>	<b>11.72</b>	<b>1.8</b>	<b>663,500</b>	<b>12.24</b>	<b>2.2</b>	<b>870,200</b>	<b>25.58</b>	<b>2.0</b>	<b>1,626,100</b>
Wingina Mining Centre	Oxide	2.68	1.8	152,100	1.84	1.5	87,600	2.21	1.1	74,900	6.74	1.5	314,500
	Fresh	0.40	1.6	20,500	0.68	1.6	34,900	4.04	1.3	168,400	5.12	1.4	223,800
	<b>Total</b>	<b>3.08</b>	<b>1.7</b>	<b>172,700</b>	<b>2.52</b>	<b>1.5</b>	<b>122,500</b>	<b>6.25</b>	<b>1.2</b>	<b>243,200</b>	<b>11.86</b>	<b>1.4</b>	<b>538,400</b>
TOTAL Pilbara Gold Project	Oxide	3.66	1.8	209,700	5.33	1.5	254,300	4.57	1.2	177,200	13.56	1.5	641,200
	Fresh	1.06	1.6	55,400	8.91	1.9	531,700	13.90	2.1	935,000	23.87	2.0	1,522,000
	<b>Total</b>	<b>4.71</b>	<b>1.7</b>	<b>265,000</b>	<b>14.24</b>	<b>1.7</b>	<b>786,000</b>	<b>18.49</b>	<b>1.9</b>	<b>1,113,500</b>	<b>37.44</b>	<b>1.8</b>	<b>2,164,500</b>

ASX: Total Gold Mineral Resource increases to 2.2Moz, 2 April 2020