



#### Cautionary statement - Reference to FS

This report refers to the Abra Base Metals Project ("Abra" or the "Project") Feasibility Study ("FS"). A summary of the FS and material assumptions was published by Galena Mining Ltd ("Galena") on 22 July 2019 (see ASX announcements platform).

Environmental approvals, mining tenements and approvals, other governmental factors and infrastructure requirements for selected mining methods and for transportation to market were not included as modifying factors for the Ore Reserve contained in this report as they were all analysed in detail and determined not to pose any practical or economic restriction to the selected mining and processing model. Furthermore, all other material assumptions (eg, with respect to financial assumptions, metallurgy, mineralogy and geotechnical etc.) that were made in the previously announced FS have not materially changed, continue to apply and continue to underpin the December 2018 Reserve. For further information, please see Galena's ASX announcement of 18 December 2018 (revised mine model, December 2018 Reserve).

Process and engineering designs for Abra's FS were developed to support capital and operating estimates to an accuracy of ±10%. Key assumptions that the FS was based on (including those defined as Material Assumptions under ASX Listing Rule 5.9.1) are outlined in the ASX announcement of 22 July 2019 and its Appendix 1. Galena believes the production target, forecast financial information derived from that target and other forward-looking statements included in that announcement and this presentation are based on reasonable grounds.

A number of key steps need to be completed in order to bring Abra into production. Many of these steps are referred to in this announcement. Investors should note that if there are delays associated with completion of those steps, outcomes may not yield the expected results (including the timing and quantum of estimated revenues and cash flows).

The economic outcomes associated with the FS are based on certain assumptions made for commodity prices, concentrate treatment and recovery charges, exchange rates and other economic variables, which are not within the Company's control and subject to change from time to time. Changes in such assumptions may have a material impact on the economic outcomes (including the timing and quantum of estimated revenues and cash flows).

To develop the Project as per the assumptions set out in the FS will require additional capital. Investors should note that any failure to precure the required additional capital may result in a delay, change in nature and scale, or even suspension of the Project.

#### Cautionary statement – FS Mine Model

The mineralised material scheduled to be mined and processed in the FS ("FS Mine Model") includes a mix of material taken from Probable Ore Reserves (67%) and Inferred Mineral Resources (33%), with no reduction factor applied to the tonnes and grades of the Inferred Mineral Resources. Inferred Mineral Resources have a lower level of geological confidence and can't be included in the calculation of Ore Reserves, and there can be no guarantee that a Mineral Resource estimate update will convert Inferred Mineral Resources to Indicated Mineral Resources or return the same grade and tonnage distribution. This may affect mining studies and outcomes (including economic) from the FS.

At the time of publication of the FS, Galena was completing the 2019 project development drilling program. A key objective of the program was specifically targeting the material that is expected to be mined in the first 3-years of production. The results provided subsequent to the FS provided confidence and validation to the Company in regard to the assumptions and geological models which underpin FS, and resulted in the completion of an upgraded Mineral Resource estimate (the "October 2019 Resource") where the total Resource grew to 41.1Mt at 7.3% lead and 18g/t silver, including 16.7Mt of Indicated material at 8.5% lead and 24g/t silver. Based on the status of geological information, Galena believes it has a strong basis for inclusion of certain Inferred Mineral Resource material in the FS Mine Model (defined below) at this time and whilst remaining within feasibility study level tolerances. To further test its basis, Galena ran the FS financial model on a check scenario assuming a zero grade for any Inferred Mineral Resource material in the FS Mine Model and that produced a substantial positive NPV outcome.



#### **Competent Person's statement**

The information in this report related to the Abra Ore Reserve is based on work completed by Mr Roger Bryant, BEng (Mining, Member AUSIMM). Mr Bryant was an employee of Galena Mining Ltd at the time the Ore Reserve was prepared. Mr Bryant has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Exploration Targets, Mineral Resources and Ore Reserves. Mr Bryant consents to the inclusion in the report of the matters based on this information in the form and context in which it appears.

The information in this report related to the October 2019 Resource is based on work completed by Mr Don Maclean MSc (Geol), MAIG and RP Geo (Exploration and Mining), MSEG, a consultant to Galena Mining and Mr Mark Drabble B.App.Sci. (Geology), MAIG, MAusIMM, Principal Consultant at Optiro Pty Ltd. Mr Maclean was responsible for data review, QAQC, and development of the geological model. Mr Drabble was responsible for resource estimation, classification and reporting. Mr Maclean and Mr Drabble have sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity which they are undertaking to qualify as a Competent Person as defined in the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Exploration Targets, Mineral Resources and Ore Reserves. Mr Maclean and Mr Drabble consent to the inclusion in the report of the matters based on this information in the form and context in which it appears.

The information in this report to which this statement is attached that relates to exploration results and drilling data is based upon information compiled by Mr Don Maclean MSc (Geol), MAIG and RP Geo (Exploration and Mining), MSEG, a consultant to Galena Mining. Mr Maclean has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity which they are undertaking to qualify as a Competent Person as defined in the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Exploration Targets, Mineral Resources and Ore Reserves. Mr Maclean consents to the inclusion in the report of the matters based on this information in the form and context in which it appears.



#### Forward looking statements

The contents of this presentation reflect various technical and economic conditions at the time of writing. Given the nature of the resources industry, these conditions can change significantly over relatively short periods of time. Consequently, actual results may vary from those in this presentation.

Some statements in this presentation regarding estimates or future events are forward-looking statements. They include indications of, and guidance on, future earnings, cash flow, costs and financial performance. Forward-looking statements include, but are not limited to, statements preceded by words such as "planned", "expected", "projected", "estimated", "may", "Scheduled", "intends", "anticipates, "believes", "potential", "predict", "foresee", "proposed", "aim", "target", "opportunity", "could", "nominal", "conceptual" and similar expressions.

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# **INVESTMENT PROPOSITION**

High-grade Abra Base Metals Project in tier one jurisdiction	"In demand" product	Outstanding feasibility study outcomes <sup>3</sup>	On-track for first production in 2021
41.1Mt Resource <sup>1</sup> 7.3% lead and 18g/t silver	Highest grade lead concentrate available globally	16-year mine life 1.2mtpa throughput for total of 16.3Mt	A\$90M equity injection from Toho for 40% JV interest
10.3Mt Reserve <sup>2</sup> 8.8% lead and 24g/t silver	Offtake ~100% committed	Average annual EBITDA A\$114M during steady-state production Years 3-15	Surface infrastructure in place / box-cut mining commenced
Granted Mining Lease and all major permits received	Significant premium achieved on 60% of offtake sold by Galena to IXM	A\$553M NPV Pre-tax at 8%	Plant EPC contract awarded
Port / infrastructure capacity confirmed  Notes: 1. See Galena ASX announcement	Lead market deficit with inventory close to record lows ant of 17 October 2019. 2. See Galena ASX	39% IRR Pre-tax  X announcement of 18 December 2018. 3.	Project financing debt process in progress Based on the July 2019 FS (see Galena

Notes: 1. See Galena ASX announcement of 17 October 2019. 2. See Galena ASX announcement of 18 December 2018. 3. Based on the July 2019 FS (see Galena ASX announcement of 22 July 2019).

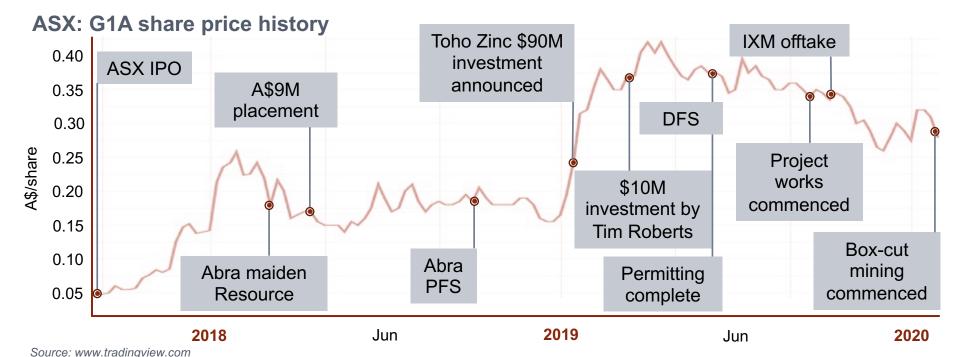


# **CAPITALISATION AND MILESTONES**

#### **Capitalisation summary**

Shares on issue (ASX: G1A)	397.2M
Options / rights on issue <sup>1,2,3</sup>	43.4M
Share price (30 April 2020)	A\$0.19/share
Market Capitalisation	~A\$75.5M
Cash balance (31 December 2019)	~A\$19.5M
Debt	Nil

Notes: 1. Options issued to employees and management with 6.05m having an exercise price of \$0.06 and expiry date of 30 June 2020, 10.75m having an exercise price of \$0.08 and expiry date of 30 June 2021, 5m having exercise price of \$0.30 and expiry date of 6 February 2021, 1.25m having an exercise price of \$0.50 and expiry date of 26 March 2023, 1.25m having an exercise price of \$0.60 and expiry date of 26 March 2023, 1.25m having an exercise price of \$0.50 and expiry date of 17 April 2023 and 1.25m having an exercise price of \$0.60 and expiry date of 17 April 2023. 2. 15.0m contingent performance rights for CEO and CFO. 3. 1.64m employee share appreciation rights.





### **BOARD AND MANAGEMENT**



Adrian Byass
Non-Executive Chairman
Geologist and Economist
Mine development and board
experience



Tony James
Non-Executive Director
Senior Mining Engineer
Midcap ASX mining company
CEO and underground mine
development experience



Stewart Howe
Non-Executive Director
Mining Engineer and Finance
Global lead industry and large
cap ASX mining company
senior executive experience



Jonathan Downes
Non-Executive Director
Geologist
Geology, mine development,
capital markets and board



Tim Morrison
Non-Executive Director
Finance
Extensive ASX capital raising and corporate finance experience



Alexander Molyneux
Managing Director / CEO
Mining Executive and Financer
Mid cap ASX mining CEO,
mine development and
corporate finance experience



**Troy Flannery** 

CEO, Abra Mining JV

Mining Engineer

Extensive underground mining and underground mine development experience



experience

Craig Barnes
CFO
Chartered Accountant
Public company CFO, project financing, with joint-venture and treasury experience



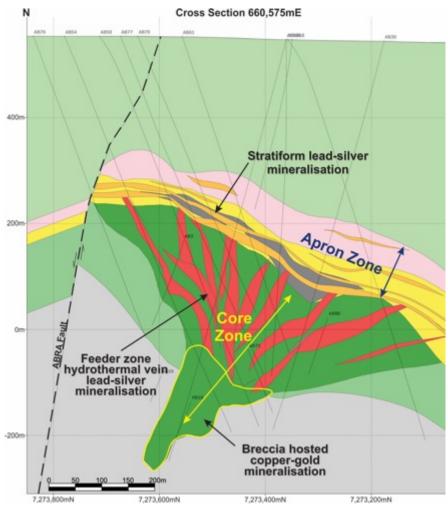
## **ABRA LOCATION AND INFRASTRUCTURE**



- Located in the Gascoyne region of Western Australia – Approximately 110km from Sandfire Resources' DeGrussa Copper Mine
- On a granted mining lease with all major permits and native title arrangements concluded
- Well serviced by existing Shire maintained roads
- Lead concentrate product to be trucked via public roads to the Port of Geraldton
- Port of Geraldton has all permits and infrastructure required to handle lead sulphide concentrates and is a current handler of third-party (Golden Grove) similar product
- Ample storage / ship loading capacity available
- Port of Geraldton Primary export port for Abra



### **ABRA MINERALISATION MODEL**



- Sediments hosting Abra were deposited in a basin setting and have been deformed with large scale folding and faulting in and around the deposit
- Hydrothermal fluids carrying lead, silver, zinc, copper and gold have risen through breccia and fault zones
- Mineralised fluids have risen to a sedimentary boundary and have 'mushroomed' sideways settling in preferential (dolomitic) units
- The Overlying, stratiform hosted mineralisation is called the "Apron Zone" and is largely galena-rich (ie, lead and silver).
   This is fed by mineralised breccia and vein zones which are called the "Core Zone".
   Core Zone grades from lead-silver dominant in the upper levels to increasingly coppergold at depth
- The Abra deposit remains open at depth



## **MASSIVE GALENA MINERALISATION**

#### **Massive mineralisation in Core Zone**



#### **Strata from Apron Zone**





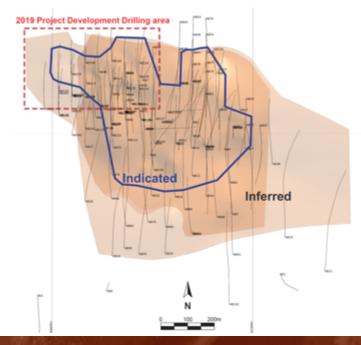
### **ABRA MINERAL RESOURCE**

JORC Mineral Resource estimate (October 2019 Resource) at a 5% lead cut-off grade <sup>1</sup>			
Resource classification	Tonnes (Mt)	<u>Lead grade (%)</u>	Silver grade (g/t)
Measured	-	-	-
Indicated	16.7	8.5	24
Inferred	24.4	6.5	14
Total	41.1	7.3	18

Notes: 1. For more detail please see Galena ASX announcement of 17 October 2018.

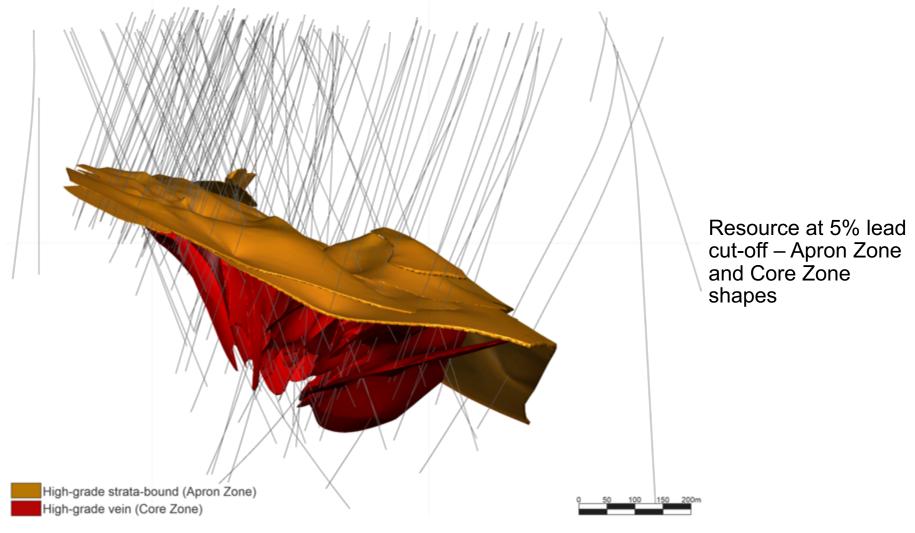
- Resource based on 132 drill-holes
- ~75.6km of cumulative linear drilling
- 55% of the database made up of new drillholes from 2017-2019
- Upgraded vs. December 2018 Resource:
  - 11% increase in Indicated category material, mainly in north western quadrant where initial mining is planned
  - Overall ~8% increase in contained lead and ~10% increase in contained silver

#### Plan view of Abra October 2019 Resource





## **ABRA MINERAL RESOURCE 3D IMAGE**





# ABRA ORE RESERVE AND FS MINE MODEL

 Reserve prepared in December 2018 on the December 2018 Resource (ie, prior to Resource upgrade of October 2019)

JORC Ore Reserve statement <sup>1</sup>			
Reserve classification	Tonnes (Mt)	<u>Lead grade (%)</u>	Silver grade (g/t)
Proved	-	-	-
Probable	10.3	8.8	24
Total	10.3	8.8	24

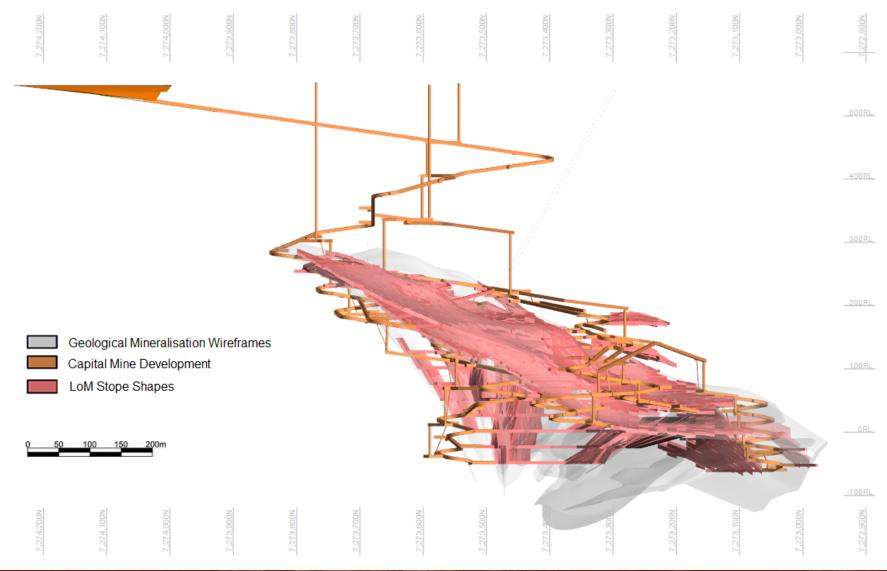
Notes: 1. For more detail please see Galena ASX announcement of 18 December 2018.

- Proposed mining model and schedule prepared for the FS (FS Mine Model)<sup>1</sup>
  - Total of 16.3Mt contained supporting a 1.2Mtpa production rate and 16-year mine life
  - 8.1% lead and 20.2g/t silver
  - 67% contained within Probable Ore Reserve and remainder in Inferred Mineral Resource<sup>1</sup>
  - Modelled using overbreak of 0.3m for Apron Zone hangingwall and 0.2m for Apron Zone footwall and for both hangingwall and footwall for Core Zone
  - Stope recoveries ranging from 92% in some room and pillar areas, up to 98% in some long-hole open stoping areas

Notes: 1. No reduction factor has been applied to the tonnes and grades of the Inferred Mineral Resources. Inferred Mineral Resources have a lower level of geological confidence and can't be included in the calculation of Ore Reserves, and there can be no guarantee that a Mineral Resource estimate update will convert Inferred Mineral Resources to Indicated Mineral Resources or return the same grade and tonnage distribution. This may affect mining studies and outcomes (including economic) from the FS.



### **ABRA FS MINE MODEL 3D IMAGE**





### **METALLURGY & "IN DEMAND" PRODUCT**

- 1.2mtpa plant throughput
- Conventional crushing, grinding, flotation and filtration
- Metallurgical testing confirms high (93-95%) recoveries into high-value, high-grade concentrate (94% used as FS recovery assumption)
- Concentrate product expected to be the highest grade primary lead concentrate available globally – 75% lead and ~200g/t silver
- 40% of offtake committed to Toho at benchmark terms under Abra joint-venture Investment Agreement
- Remaining 60% offtake sold by Galena to IXM (10-year contract) at a premium to benchmark:
  - Galena to procure material from Abra at benchmark and on-sell to IXM
  - Premium will create incremental cash flows at Galena level

#### Rendering of proposed plant



Source: GRES.

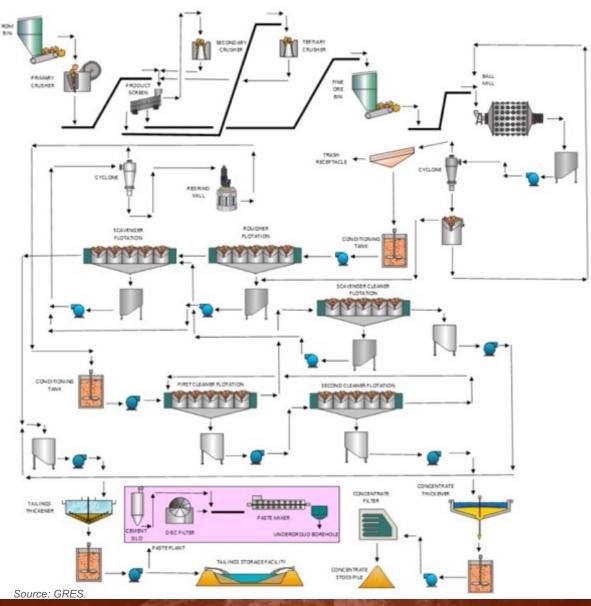
#### Rendering of proposed flotation circuit



Source: GRES.



#### ABRA FS PROPOSED PLANT FLOWSHEET



- Simple conventional sulphide base metals processing flowsheet
- Designed by GRES
- Potential for future expansion and / or use for copper or zinc bearing primary sulphide minerals



### FS METRICS & OUTSTANDING ECONOMICS

FS outcomes – Production metrics	
Mill throughput	1.2Mtpa
Initial mine life	16-years
Average LOM lead metal production	95ktpa
Average LOM silver metal production	805kozpa
Lead C1 direct cash cost	A\$0.63/lb / US\$0.44/lb

FS outcomes – Capital investment and project economics		
Pre-production capital	A\$170m	
Steady-state average EBITDA (yrs 3-15)	A\$114m	
Project payback from commercial production	2-years	
Pre-tax NPV (8% discount rate)	A\$553M	
Pre-tax IRR	39%	

- FS assumptions are 'spot' as at 18 July 2019 and include: lead price US\$0.92/lb; silver price US\$16.00/oz, exchange rate of A\$1=US\$0.70 and lead treatment charge of US\$96/t of concentrate
- Post-tax NPV (8% discount rate) of A\$381M and post-tax IRR of 32%
- World's lowest cost primary lead mine (source: Wood Mackenzie)
- FS assumes product sold at benchmark terms, ie, does not include premium enjoyed by Galena under IXM offtake arrangement



### **FS CAPITAL EXPENDITURE & COSTS**

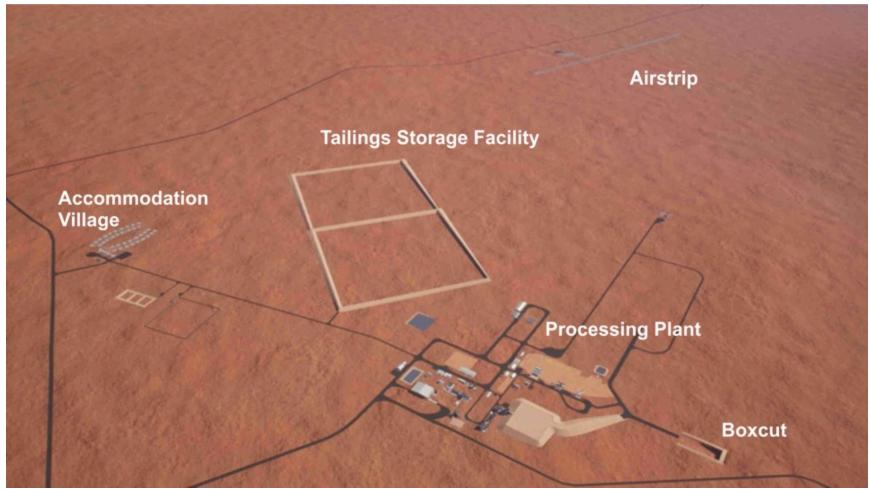
Abra FS pre-production capital expenditure	
	<u>A\$M</u>
Mine development (incl. box cut and access)	31.7
Processing plant (flotation concentrator)	54.8
Surface infrastructure	32.5
Offsite road upgrades and fencing	2.0
Tailings storage facilities	9.9
EPC	15.0
Contingency	7.7
Owner's and indirect costs	15.9
Total	169.6

Abra FS LOM operating cost estimates		
	<u>US\$ ¢/lb</u>	
Mining	22	
Processing	11	
TCRCs and outbound logistics	8	
Other	7	
By-product credit for net silver revenue	(4)	
Lead C1 direct cash cost of production <sup>1</sup>	44	
Royalties <sup>2</sup>	7	

Notes: 1. Equates to A\$0.63/lb based on an exchange rate of A\$1=US\$0.70 2. For lead, 5.0% Western Australian State royalty plus 3.5% in vendor and other royalties, and for silver, 2.5% Western Australian State royalty plus 3.5% in vendor and other royalties. Subsequent to the FS, a 1.125% historical vendor royalty was cancelled, which would be a reduction vs. the 3.5% in vendor and other royalties stated above.



# PROPOSED ABRA SITE LAYOUT



Source: GRES.



# **ABRA DEVELOPMENT PROGRESS**

- Project is 13% complete (as at 1 May 2020), including:
  - Completed box-cut
  - Stage one of permanent camp (village accommodation for 80) installed and commissioned, with another 200 units (stage two) largely fabricated
  - Production water bores, water reticulation and wastewater treatment facilities commissioned
  - Second-hand pastefill plant has been aquired
- \$74M EPC contract for plant and certain ancillary infrastructure awarded to GR Engineering Services (ASX: GNG) – Award in-line with FS capital estimates for these items
- Preferred tenderers selected for mining services, power and non-plant infrastructure

#### **Completed box-cut**



#### Stage 1 of commissioned permanent camp





Project expenditure (through completion and ramp-up)		
Pre-development capital expenditure (Feasibility Study, incl. works complete)	A\$170M	
Ramp-up working capital, cost overrun and additional contingencies	A\$20-30M	
Initial financing costs	A\$5M	
Total 'uses'	A\$195-205M	

Equity funding in place	
Pre-development capital expenditure already completed (to 1 May 2020)	A\$22M
Cash (at 31 March 2020)	A\$20M
Final tranche to be received from Toho Zinc (on confirmation of project debt financing)	A\$60M
Deep 'in the money' options expiring mid-2020 and mid-2021	A\$1M
Total equity available	A\$103M

- AMPL-level project financing debt process
  - Being led by an international mining-experienced bank
  - Discussions ongoing with short-listed group of banks but also proposals received from non-bank debt providers
  - Aim to procure ~US\$90-100M project development facilities plus ancillary post-completion facilities
- Galena-level IXM facility
  - Terms agreed with IXM when off-take was executed in late-2019 for US\$12M (~A\$18M) of facilities
    to be made available at Galena-level during late stages of Abra construction and ramp-up

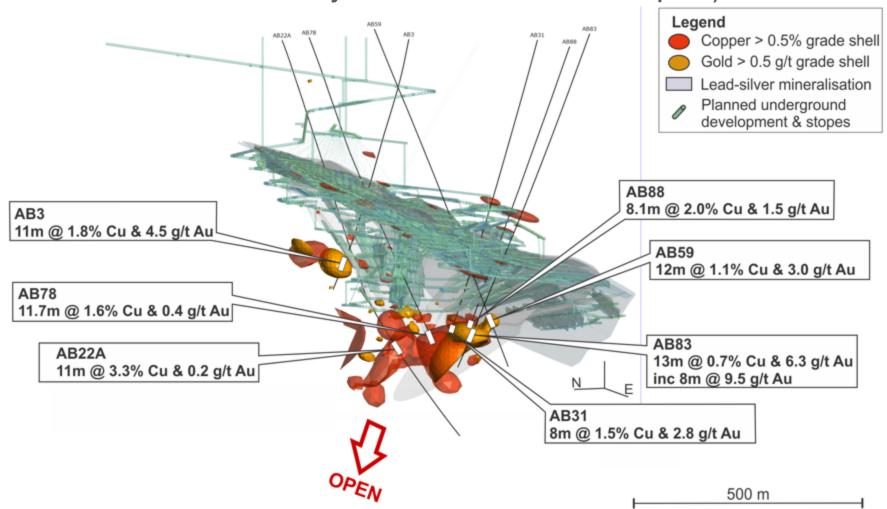
# UPCOMING MILESTONES

- Completion of discrete initial project construction tasks:
  - Fabrication of buildings second stage of permanent camp (an additional 200 rooms)
  - Installation of site communication infrastructure
- Project financing debt Completion of project financing debt process
- Items triggered by completion of project financing debt:
  - Receipt of final A\$60M investment tranche from Toho
  - Move to the procurement and construction phase of plant EPC contract
  - Final award of underground mining services contract and commencement of underground mining
- Construction and commissioning milestones
- Continued exploration and resource development



#### **ABRA UPSIDE: POTENTIAL COPPER-GOLD AT DEPTH**

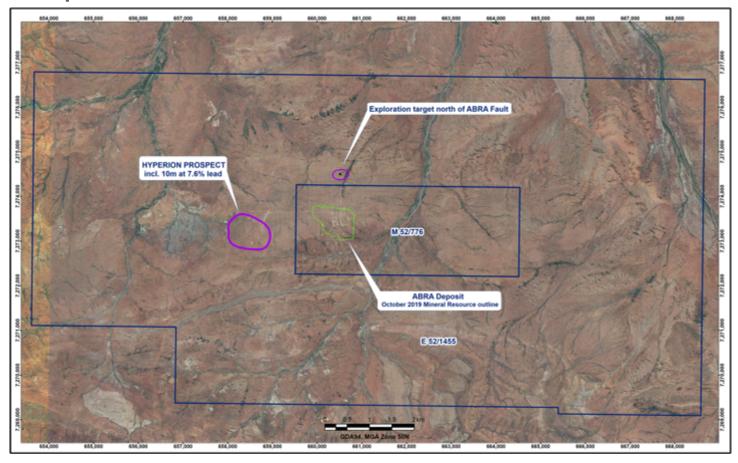
Emerging copper-gold zone (wireframes of copper (>0.5%) and gold (>0.5g/t) mineralisation not included in any resource calculations or mine plans)





### **ABRA UPSIDE: POTENTIAL NEAR-MINE RESOURCES**

New target identified through down-hole EM ~700m north of the Abra Fault (previously thought to constrain mineralization) recently showed mineralisation plus Hyperion Prospect ~1km west of Abra

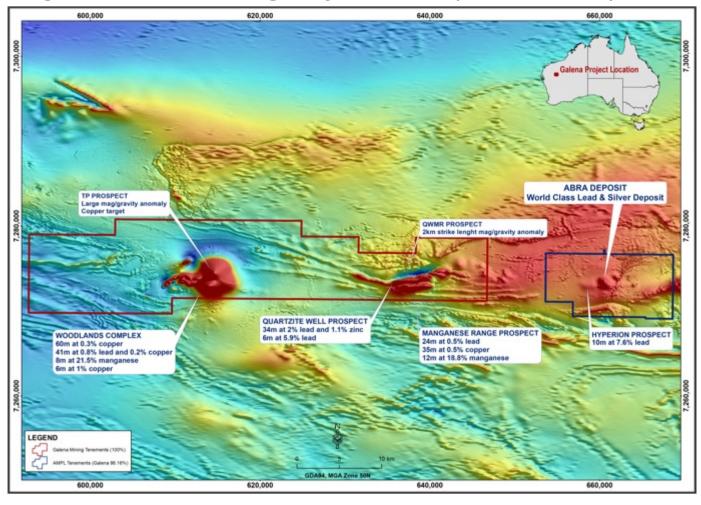


- Abra open to the west and down-dip
- North of Abra target recently drilled 4.25m at 6.1% lead to be followed up
- Hyperion previously drilled and intersected high-grade lead ~550m deep – potential for continuous link to Abra



#### **NON-ABRA UPSIDE: PROSPECTS ALONG STRIKE**

Galena 100% owns >50km of licences along strike to the west of Abra, known to contain large coincident EM and gravity anomalies (similar to Abra)



- Abra was originally discovered as a coincident EM and gravity anomaly offset to the south of the Quartzite Well Fault
- Galena owns
   >50km of strike
   along the
   Quartzite Well
   Fault to the west
- Includes two largescale coincident
   EM and gravity anomalies
- Exploration works to continue during Abra development





# **A\$90M TOHO JOINT-VENTURE INVESTMENT**



- Definitive agreements entered into with Toho Zinc (TYO: 5707) of Japan (12 April 2019) for investment of A\$90M in tranches into Abra holding company, Abra Mining Pty Limited (AMPL)
- A\$30M already received, with the remaining A\$60M to be received on confirmation of project financing debt
- Toho now owns 13.84% of AMPL (Galena retains 86.16%) but eventual ownership will be 40% (Toho) and 60% (Galena) once Toho's remaining investment tranche is paid
- Toho Zinc is a large-scale lead and zinc smelting company and experienced miner In 2010
   Toho acquired publicly-listed Australian lead and zinc mining company, CBH Resources
   Limited and continues to operate its Rasp and Endeavor mines in New South Wales
- Toho entered into an offtake to purchase 40% of Abra's product on 'arms length' benchmark terms
- Galena to retain 60% of AMPL and appoint majority of board members to joint-venture board



