

Barra Resources Limited ABN: 76 093 396 859

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19th October 2018

RE: Kambalda Geology Symposium Presentation

Dear Investors,

Please find attached presentation delivered yesterday afternoon to the Kambalda Geology Symposium by Barra Resources Limited's (Barra) Exploration Manager Gary Harvey.

The presentation highlights the quality of Barra's geological team and the knowledge base that has been built up within the company since listing in the year 2000. This knowledge has been informed by several mining campaigns giving Barra deep insight into the geology of the company's assets. This knowledge is being used to systematically and strategically design our drilling programs.

Separately, investors can look forward to updates in the very near term on three fronts:

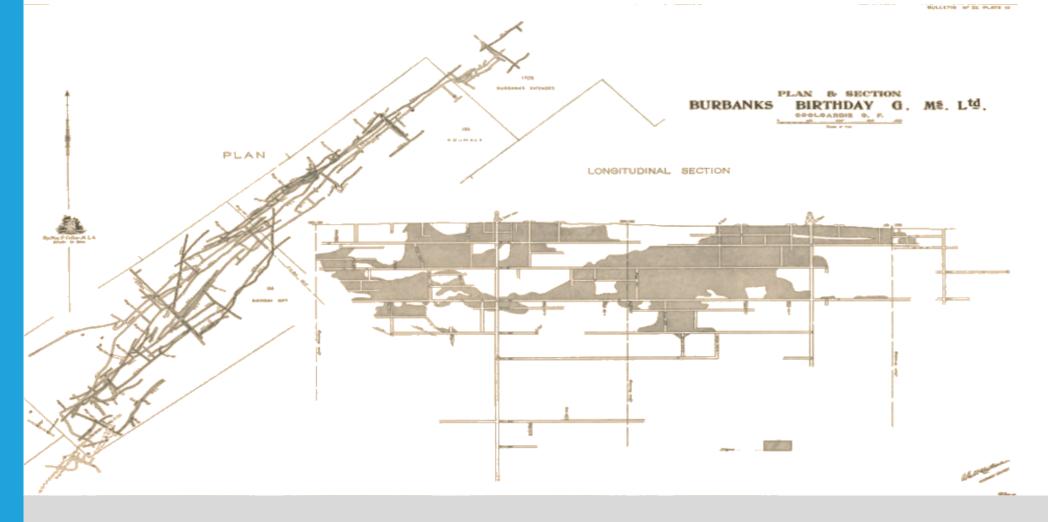
- Drilling commencing at the Phillips Find Gold Project,
- Maiden gold resource for Main Lode at Burbanks; and
- Updates on the Mt Thirsty Pre-Feasibility Study including metallurgical testwork results and selection of flowsheet elements.

Yours Sincerely,

Secz

Sean Gregory

Managing Director and CEO





BARRA RESOURCES LIMITED

BURBANKS GOLD PROJECT: **RE-AWAKENING A HIGH-GRADE GOLD SYSTEM**

Gary Harvey | Exploration Manager



DISCLAIMER & CP STATEMENTS



Competent Persons Statement

The information in this report which relates to Exploration Targets, Exploration Results and Mineral Resources for the Burbanks Projects is based on and fairly represents information compiled by Mr Gary Harvey who is a Member of the Australian Institute of Geoscientists and a full-time employee of Barra Resources Ltd. Mr Harvey has sufficient experience which is 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, Mineral Resources and Ore Reserves" (the JORC Code). Mr Harvey consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

The information in this report which relates to Exploration Targets is based on information compiled by Mr. Allan Kneeshaw who is an independent consultant and is a Fellow of the Australian Institute of Geoscientists (FAIG) and a Fellow of the Australian Institute of Mining and Metallurgy. Mr. Kneeshaw has sufficient experience which is 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, Mineral Resources and Ore Reserves". Mr. Kneeshaw consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

Birthday Gift Exploration Targets

The information in this report that relates to the Birthday Gift Exploration Target has been extracted from Kidman Resources Limited's KDR:ASX Release dated 25/08/2015 "Initial 99,000oz Resource for Burbanks gold mine in WA", available to view at www.kidmanresources.com.au. The Company is not aware of any new information or data that materially affects the information included in the previous reports and that all the previous assumptions and technical parameters underpinning the estimates in Kidman's ASX Release dated 25/08/2015, have not materially changed. For full details of the Birthday Gift Mineral Resource, refer to Kidman's 2016 Annual Report.

The potential quantity and grade of the Exploration Target is conceptual in nature as there has been insufficient exploration to estimate a Mineral Resource beyond Birthday Gift. It is uncertain if further exploration will result in an estimation of a Mineral Resource.

Refer to ASX:BAR Release dated 21 March 2018: New Gold Strategy Sets Path to Build Burbanks Resource Inventory".

Forward Looking Statements Disclaimer

This report contains forward-looking statements that involve a number of risks and uncertainties. These forward-looking statements are expressed in good faith and believed to have a reasonable basis. These statements reflect current expectations, intentions or strategies regarding the future and assumptions based on currently available information. Should one or more of the risks or uncertainties materialise, or should underlying assumptions prove incorrect, actual results may vary from the expectations, intentions and strategies described in this report. No obligation is assumed to update forward-looking statements if these beliefs, opinions and estimates should change or to reflect other future developments

BURBANKS GOLD PROJECT



- Coolgardie Geological Domain, Burbanks Formation
- "Mother of the Goldfields", has produced ~3Moz
- Stratigraphic sequence dominated by basalt-ultramafic flows, dolerite/gabbro sills and diorite sills

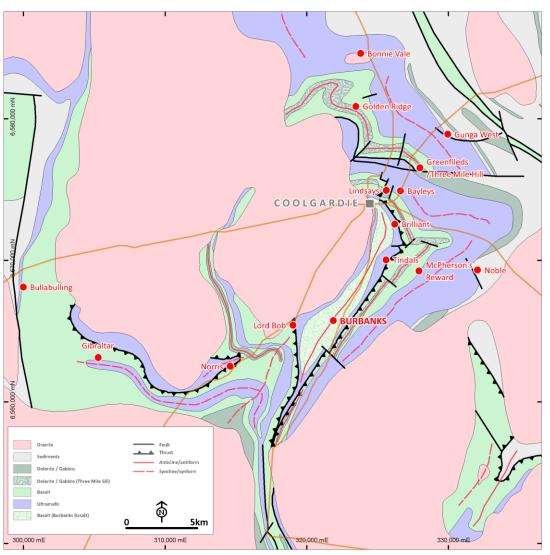
Burbanks

420_{kOz}

Historical Production (Au)

95_{kOz}

Indicated and Inferred Mineral Resource (Au)i



Regional Geology and Structure

BURBANKS GOLD PROJECT



- Coolgardie Geological Domain, Burbanks Formation
- "Mother of the Goldfields", has produced ~3Moz
- Stratigraphic sequence dominated by basalt-ultramafic flows, dolerite/gabbro sills and diorite sills



STRATIGRAPHIC SUCCESSION	CHARACTERISTIC LITHOLOGIES	ORA BANDA DOMAIN	KAMBALDA DOMAIN	COOLGARDIE DOMAIN	BOORARA DOMAIN Absent	
Polymictic conglomerate unit	Polymictic conglomerate Immature sandstone Coarse trough cross bods, graded beds	Kurrawang Formation	Meraugil Conglomerate	Absent		
~~~~~~~	······	www.www	······································	S. Salara V.		
Felsic volcanic and sedimentary unit	Felsic volcaniclastic- sedimentary rocks, ranging from coarse clastic sandstone to interbedded sand/sittstone Rhyothe to dacke, locally andesite Lava, tuff, agglomerate	Pipeline Andeste  Orinda Sill  Ora Bands Sill	Junction Deterite  Condensor Deterite  Golden Mile Doterite  Triumph Gabbre	White Flag Formation  BY B	felsic unit, volcanic and sodimentary rocks	
Uppör basalt unit	High-Mg and thetelific basalt Massive, pillowed and vesicular lavas	OBO Sent Tree Basalt  Mi Pleasant  Sil  Mi Ellis  Sil	Paringa Baselt  Deliance Dolerite  Williamstown Dolerite	Absent of thin and discontinuous	- Absent or thin and discontinuous	
Komstite unit	Thin komasile flows with minor interflow sedimentary beds, overhing thicker komasile flows and output flows		WED State  Devon Consols Basall  HOUSE Kambalda Komatille	Hampton Formation	Big Blow Cherl — Highway Utramańcs	
Lower basalt unit	Tholeille and high-Mg basali flows, subaqueous	Missouri Basak 6 Missouri Basak Wongi Basak	Lunnon Basak	Golden Bar Sill Surbanks Formston Three Mile Sill	Scotta Basalt	
Refer	ences	Witt (1987, in press)	Roberts (1988) Woodall (1965)	Hunter (in press)	Christie (1975) Witt (In press)	

Stratigraphic correlations for the Ora Banda, Kambalda, Coolgardie, and Boorara Domains of the Kalgoorlie Terrane (from Morris, 1990)

# **BURBANKS MINING CENTRE**



- High-grade, narrow vein, gold system
- Associated with the highly prospective Burbanks Shear Zone
- Historic <u>underground</u> gold production (pre-1914)

Birthday Gift 204,000t grading 27.4g/t Au (180,000oz)

Main Lode 146,000t grading <u>18.3g/t Au</u> (85,900oz)

JORC 2012 Mineral Resources (as at 12 October 2018)

• Birthday Gift 514,700t grading 5.8g/t Au (95,400oz)

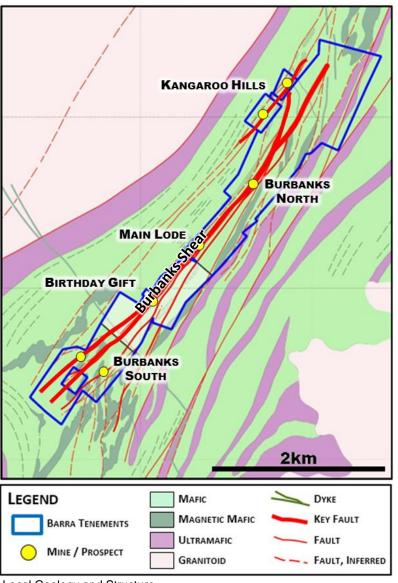
• Main Lode Resource Estimation in Progress

223-564_{koz}

**Exploration Target (Au)** 

The potential quantity and grade of the Exploration Target is conceptual in nature as there has been insufficient exploration to estimate a Mineral Resource beyond Birthday Gift. It is uncertain if further exploration will result in an estimation of a Mineral Resource.

Refer to Appendix for further details on Mineral Resource and Exploration Target.



Local Geology and Structure

## **COOLGARDIE GOLD STRATEGY**



- Strategic Review (2017) → Re-acquired Birthday Gift UG Mine → Ownership consolidation
- Aim to define critical mass of 500,000oz Au to under pin mining re-start
- Key targets: Main Lode, Burbanks North Trend, Kangaroo Hills

GEOLOGICAL FRAMEWORK

PROJECT POTENTIAL

EXPLORATION TARGETING

DISCOVERY STRATEGY

CORPORATE STRATEGY

- Five stage process → "Workflow"
- Success at each stage determined if progress to next stage was appropriate
- Ultimately successful, strategy now being implemented
- Exploration targeting allowed development of:
  - Long term drill planning and budgets
  - Discovery strategy options
  - Incorporation into Corporate Strategy



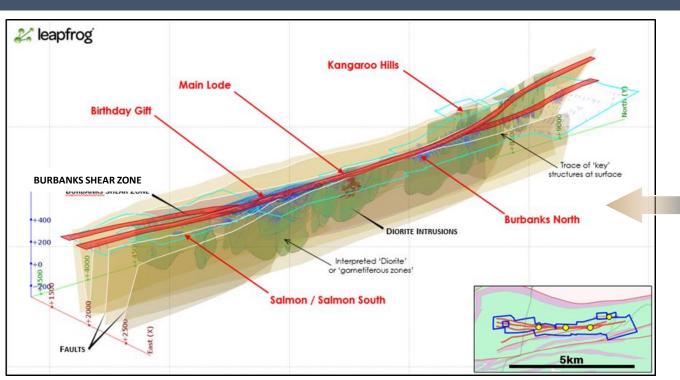
Main Lode (circa 2013)

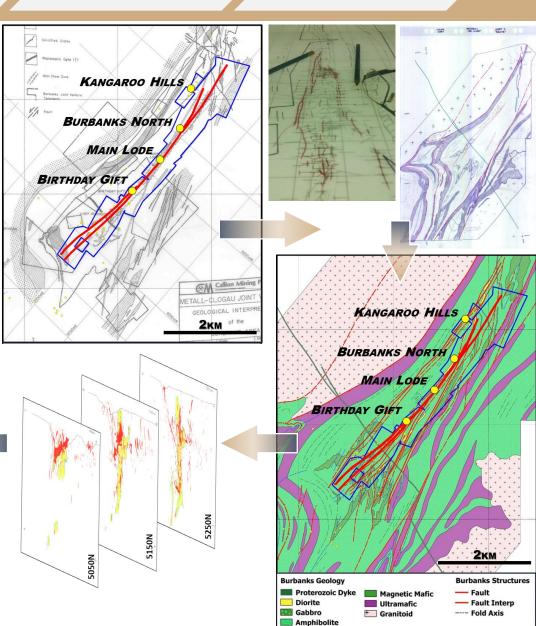
PROJECT POTENTIAL EXPLORATION TARGETING

DISCOVERY STRATEGY CORPORATE STRATEGY



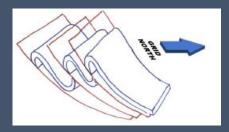
- Updated map and bedrock geology interpretation
- Review of historic data and other Barra datasets
- Incorporate new mining information and geophysical datasets
- Review and interpret mineral system to identify key controls
- New 1:10k scale bedrock geology interpretation
- 3-D modelling and interpretation of drilling, workings, structures and geology  $\rightarrow$  'Target prediction'







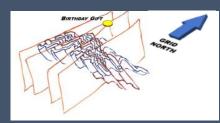
- Complex structure → Multiple interpretations
  - D1 Isoclinal folding and duplication, layer parallel shearing

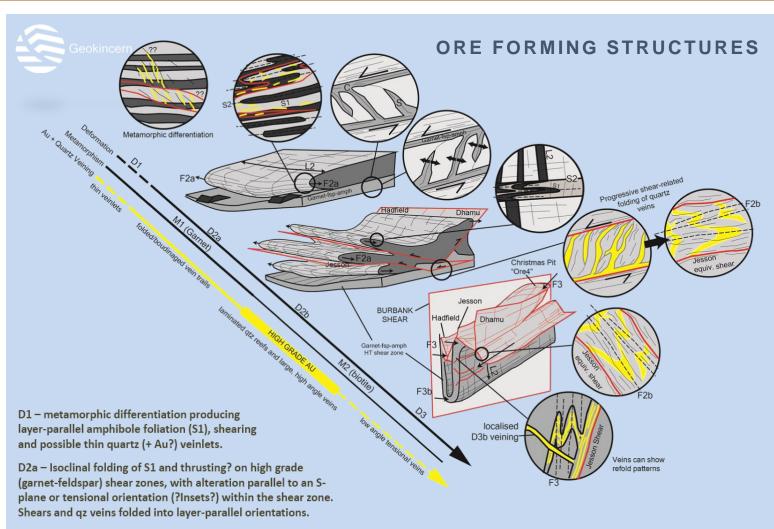


• D2 – Upright, tight folding of stratigraphy & D1 structures



 D3 – Development of axial planar faults to D2 folds (essentially an extension to D2) → 'Mineralisation'





D2b - discrete biotite-bearing retrograde ductile-brittle shears splay form D2a structure and are accompanied by significant qz veining within tensional orientations that become progressively folded into recumbent? F2b folds.

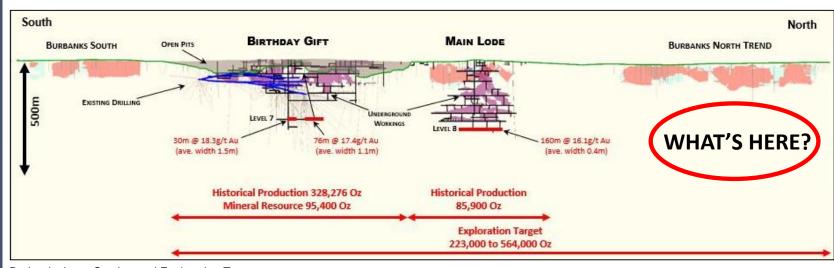
D3 – Upright, isoclinal folding of the sequence, including the shears. F2b folds preserved in F3 hinge positions; F2b folds become F3 refolds in F3 limbs. Discrete, late-syn-F3 qz veins propagate from steep D2b shears and overprint F3 folds



- Map structural linkages and make correlations between historic "centre of focus" (Birthday Gift)
- Establish size and geometry of mineral system within Burbank's leases
- Develop structural targeting criteria
- Used known lode parameters (size, grade, continuity) to develop potential gold endowment
- Development of Exploration Target:

### 223-564kOz Au

- 'What exploration success might deliver'
- Informs decision making process for prioritising.



Burbanks Long Section and Exploration Target



Visible gold from Tailor Lode

	Narrow High G	rade Lodes				Thick Shoots			
	Steep, sub-vert					Taylor type sho	oots		
	Narrow (0.2 - 1	m), high gr	ade lodes (8-22g	/t Au)				& wide shoots	
	Air-leg mining	assumed							
	Scenario 1		Scenario 2			Scenario 1		Scenario 2	
Width	3	m	1.5	m	Height	10	m	5	m
Length	200	m	100	m	Width	40	m	20	m
Depth	400	m	200	m	Length	250	m	125	m
	240,000	m3	30,000	m3		100,000	m3	12,500	m3
sg	2.8	g/cm3	2.8	g/cm3	sg	2.8	g/cm3	2.8	g/cm3
	672,000	t	84,000	t		280,000	t	35,000	t
grade	5	g/t Au	8	g/t Au	grade	5	g/t Au	8	g/t Au
	3,360,000	g Au	672,000			1,400,000	g Au	280,000	g Au
	108,026	oz Au	21.605	- A-		45,011	oz Au	9,002	oz Au
Number	of Lodes								
1	108,026	z Au	21,605	oz Au		45,011	o. Vu	9,002	oz Au
	\$178,897,3		\$35,779,477	.,_		\$74,540,577		\$14,908,115	
2	216, 63	oz <b>W</b>	HA	оz Ан	H	10 022	oz Au	18,004	oz Au
	\$357,794,7		\$71,558,954			\$149,081,153		\$29,816,231	
3	324,079	OZ As	64,816	oz Au		135	oz Au	27,007	oz Au
	\$536,692,152		229 430		-	-5,621,730		\$44,724,346	
4	432,106	oz Au	86,421	oz Au		180,044	oz Au	36,009	oz Au
	\$715,589,537		\$143,117,907			\$298,162,307		\$59,632,461	

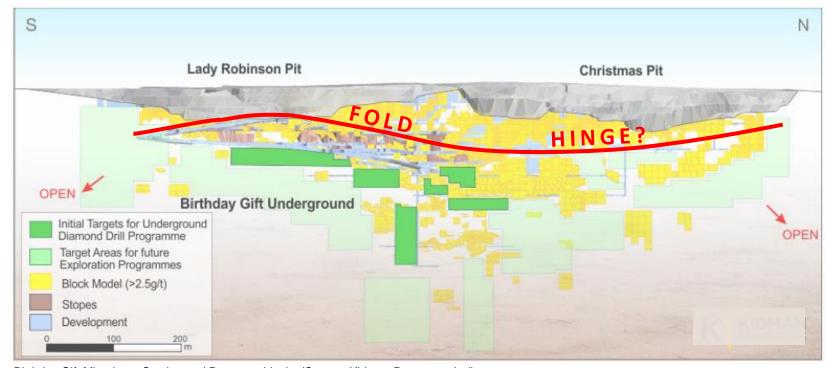
**Endowment Tables** 



- Map structural linkages and make correlations between historic "centre of focus" (Birthday Gift)
- Establish size and geometry of mineral system within Burbank's leases
- Develop structural targeting criteria
- Used known lode parameters (size, grade, continuity) to develop potential gold endowment
- Development of Exploration Target:

### 223-564kOz Au

- 'What exploration success might deliver'
- Informs decision making process for prioritising.



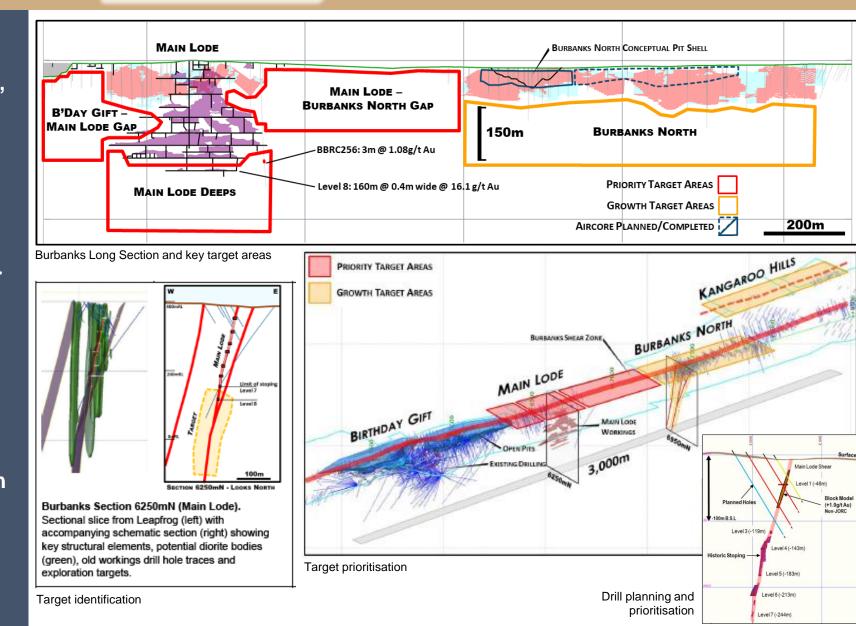
Birthday Gift Mine Long Section and Resource blocks (Source: Kidman Resources Ltd)

Exploration Target for the Burbanks Gold Project									
		Low Range		High Range					
Area	Tonnes	Au g/t	Au Oz	Tonnes	Au g/t	Au Oz			
Main Lode to Burbanks North Exploration Target	185,000	8.0	47,600	2,170,000	5.0	348,800			
Birthday Gift Exploration Target	625,000	4.0	80,000	650,000	6.0	120,000			
Birthday Gift Mineral Resource	514,700	5.8	95,400	514,700	5.8	95,400			
Total			223,000			564,000			

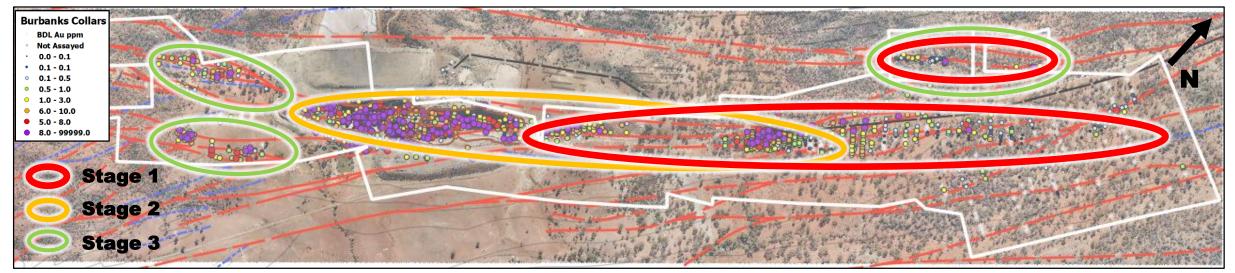
The potential quantity and grade of the Exploration Target is conceptual in nature as there has been insufficient exploration to estimate a Mineral Resource beyond Birthday Gift. It is uncertain if further exploration will result in an estimation of a Mineral Resource. Refer to ASX:BAR Announcement 21/3/18.



- Lease scale & regional targeting
- 3D modelling of structural corridors, geological units (Surpac/Leapfrog)
- Use understanding of potential shoot geometries to identify target domains, rank and prioritise
- Export knowledge from known domains into 'greenfield' / data poor areas
- Identify gaps / targets within existing areas of drilling
- Heavy focus on deeper drilling (150 to >350m b.s.l)
- Primarily underground targets & can be structurally complex → Multiple lode orientations







Plan of Burbanks showing targets areas color-coded by stage

### 4-Year Exploration Strategy

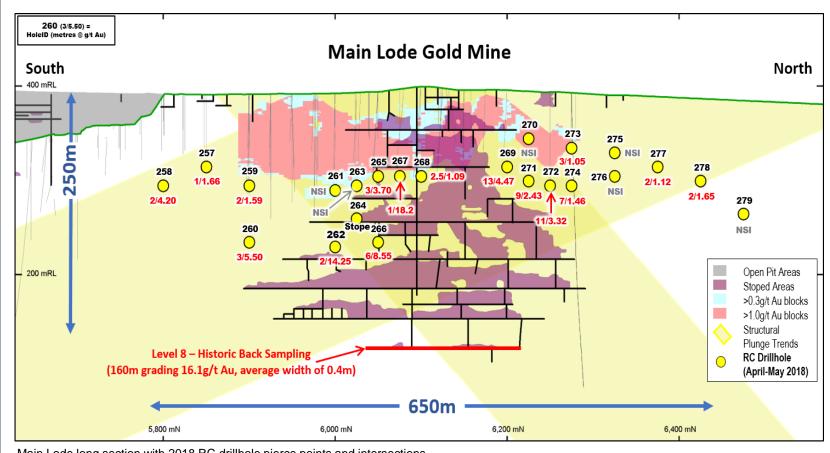
- Assumes success at all stages
- A mix of underground & open pit targets
- Early emphasis on targets with most upside along strike / down-dip from known mineralisation
- Later stages progress areas of drill success and deeper / lower ranked targets
- Long term strategy allows appreciation of full scale of funding required to deliver new discoveries
- Aim to deliver mix of Inferred and Indicated Resources in line with Exploration Target of 223kOz to 564kOz Au

## RECENT EXPLORATION SUCCESS

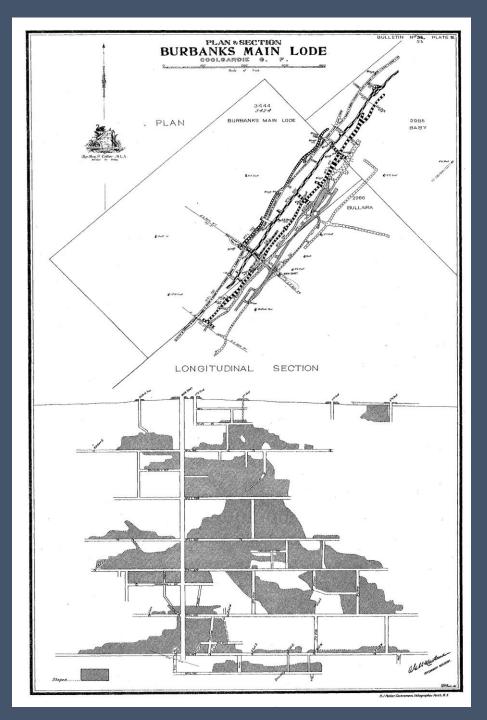


## **Execution of Strategy 2018**

- Main Lode Drilling¹
- 2017
- 11.0m @ 5.70g/t Au from 44m
- 5.0m @ 9.62g/t Au from 33m
- 5.0m @ 8.65g/t Au from 37m
- 5.0m @ 3.70g/t Au from 44m
- 4.0m @ 4.26g/t Au from 27m
- 3.0m @ 11.66g/t Au from 66m, and
- 3.0m @ 6.48g/t Au from 47m
- 2018
- 13m grading 4.47g/t Au from 84m
- 6m grading 8.55g/t Au from 208m
- 11m grading 3.32g/t Au from 115m
- 2m grading 14.25g/t Au from 244m
- 9m grading 2.43g/t Au from 106m
- 1m grading 18.20g/t Au from 107m, and
- 3m grading 5.50g/t Au from 159m



Main Lode long section with 2018 RC drillhole pierce points and intersections



## **THANK YOU**



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GROUP OF MINERS, BURBANKS MAIN LODE GOLD MIN





## **APPENDIX: JORC TABLES**

Exploration Target for the Burbanks Gold Project									
Avaa		Low Range		High Range					
Area	Tonnes	Au g/t	Au Oz	Tonnes	Au g/t	Au Oz			
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Total			223,000			564,000			

The potential quantity and grade of the Exploration Target is conceptual in nature as there has been insufficient exploration to estimate a Mineral Resource beyond Birthday Gift. It is uncertain if further exploration will result in an estimation of a Mineral Resource. Refer to ASX:BAR Announcement 21/3/18.

In Situ Mineral Resource for the Burbanks Gold Project									
Area	Cut-Off	Indicated			Inferred				
		Tonnes	Grade	Ounces	Tonnes	Grade	Ounces		
Christmas Open Pit	1.0	5,700	6.2	1,100	4,000	7.8	1,050		
Birthday Gift Underground Mine	2.5	180,000	6.0	34,750	325,000	5.6	58,500		
Total Mineral Resource	1.0/2.5	185,700	6.0	35,850	329,000	5.6	59,550		

For full details of the Birthday Gift Mineral Resource refer to Kidman Resources Limited's ASX announcement 25/11/15 and then updated for mining depletion in Kidman's 2016 Annual Report. The information has not materially changed since then.