



**BLACKHAM**  
Resources Limited

# MATILDA GOLD PROJECT



Jan 2015

ASX : BLK

# BLACKHAM – an emerging gold producer



- **4.4Moz Au** resource, 55kms of strike and **780km<sup>2</sup>** landholding
- Recent acquisition of WGP **plant & infrastructure** unlocks value in Matilda Gold Project
- Acquisition, exploration & development **cost ~ A\$3/oz Au** resource
- **Working towards a 10 year mine life** focusing on the free milling ores
- **Production within 13 months** - subject to financing
- **Market cap ~ A\$14 Million** (prior to placement)
  - = \$3/resource oz                      or                      \$29/mineral inventory oz

# CORPORATE OVERVIEW



## CAPITAL STRUCTURE (prior to placement)

Market cap. @ A\$0.098	A\$14.1M
Shares on issue	143.6M
Options @ A\$0.12 – A\$0.35	18.3M
Cash & liquids @ 31 Dec 2014	A\$1.1M
Debt	nil

## SHAREHOLDER ANALYSIS (prior to placement)

<b>Top 20</b>	<b>62%</b>
Citicorp Nominees	15.9%
Polo Resources Limited	14.4%
HSBC Nominees	6.1%
Kingsreef Pty Ltd	5.3%
Widerange Pty Ltd	1.9%

## BOARD OF DIRECTORS

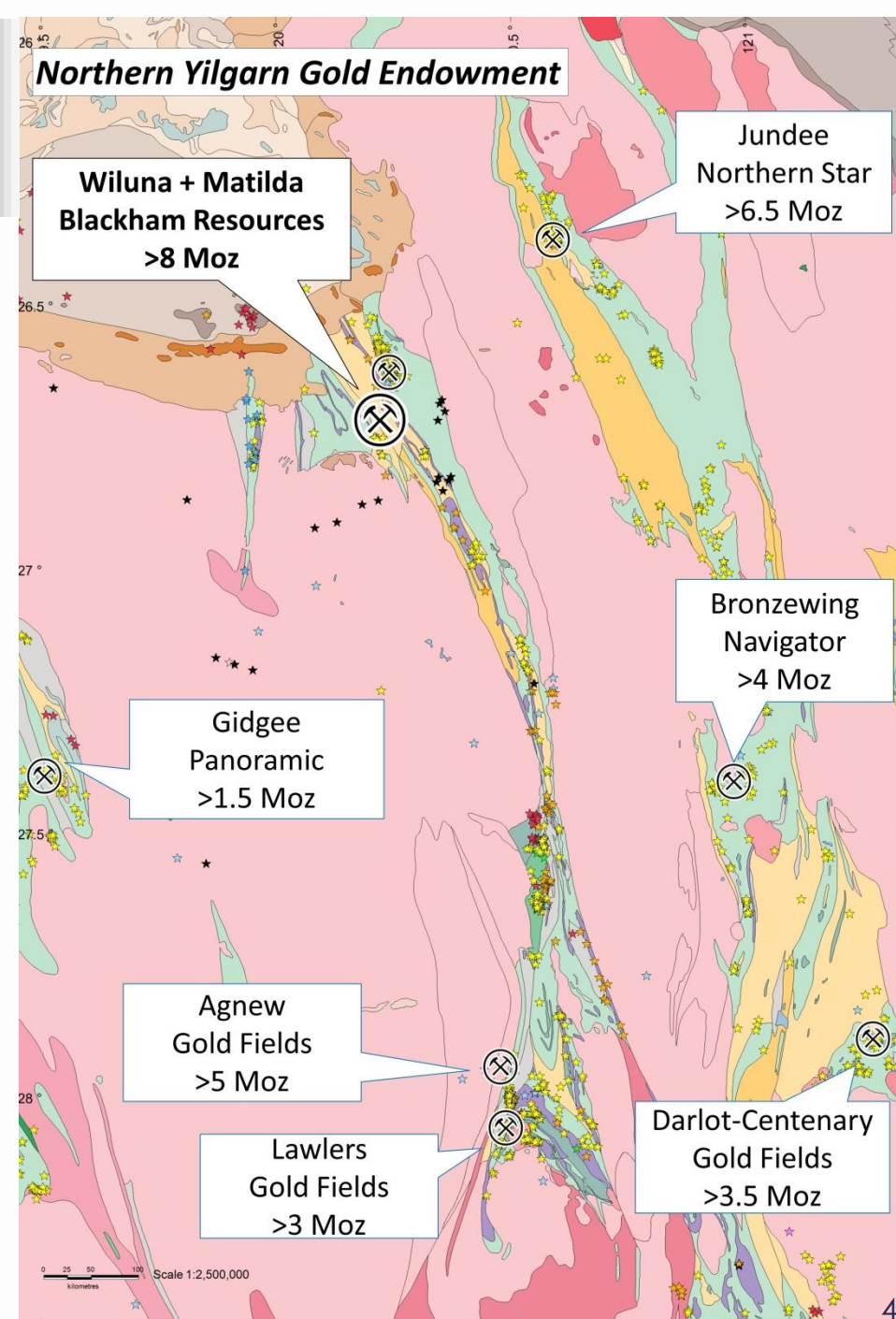
Paul Murphy	Independent Non-Exec Chairman
Bryan Dixon	Managing Director
Alan Thom	Executive Director - Development
Greg Miles	Non-Executive Director





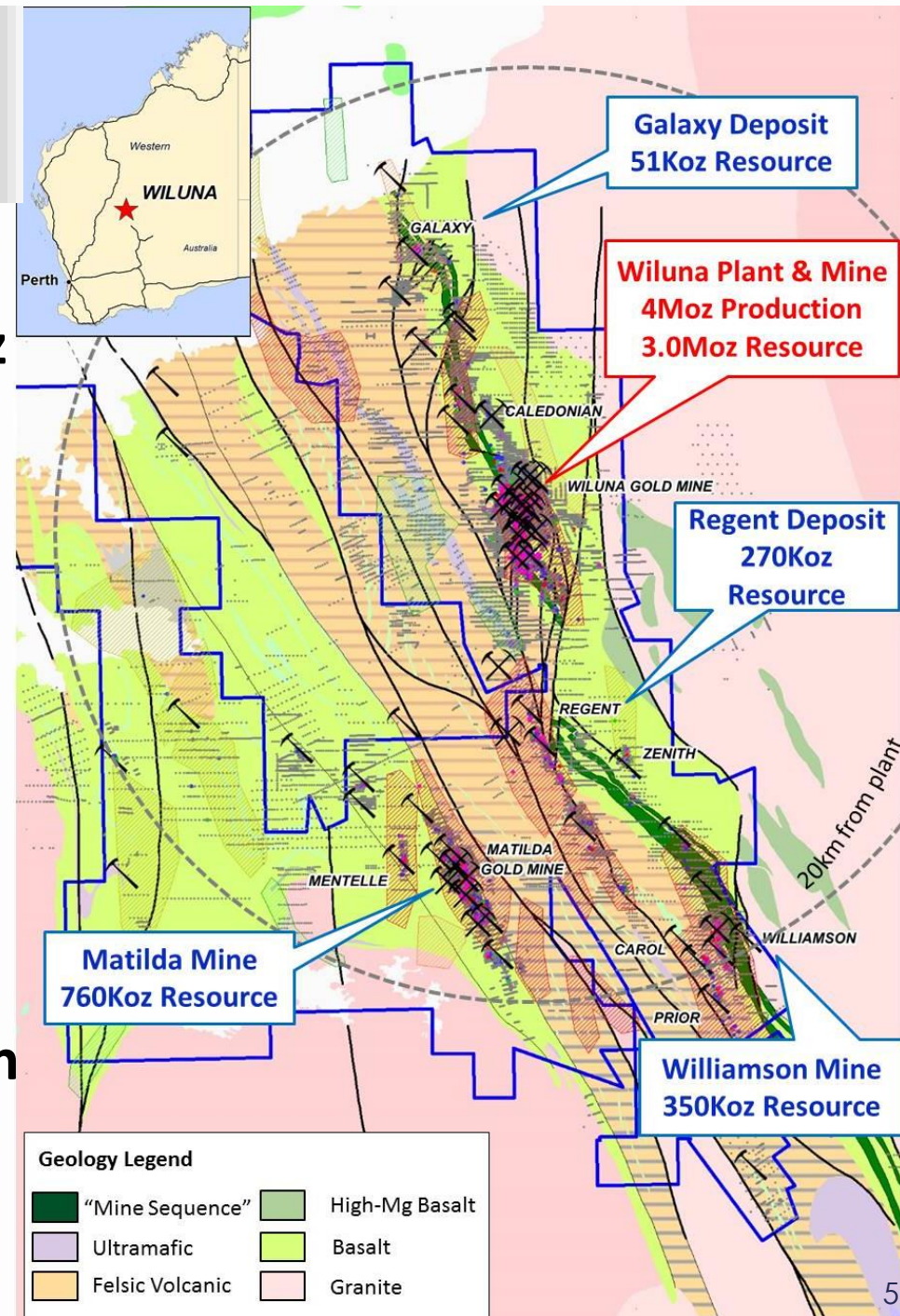
# REGIONAL ENDOWMENT

- The right address - low sovereign risk
- Large, highly prospective tenement holding in the Northern Yilgarn, Western Australia
- Regional endowment >40Moz
- 8Moz endowment in the expanded Matilda project including 4Moz production
- Positioned for new discoveries and economic development of existing resources



# MATILDA GOLD PROJECT

- Resource 42Mt @ 3.3 g/t for 4.4Moz Au – 46% at indicated resource level
- All deposits within 20km of Blackham's gold plant with existing haul roads
- 4Moz of historical production
- +780 km<sup>2</sup> of tenure & 55km of mine sequence strike
- Little systematic regional exploration in over a decade





# MATILDA'S EXTENSIVE INFRASTRUCTURE



- JORC Resources 42Mt @ 3.3g/t for 4.4Moz Au
- Mix of open pit & high grade underground ore
- Land holding 780km<sup>2</sup> – 55km of mine strike
- Plant 1.3Mtpa capable of 100kozpa<sup>1</sup>
- Biox circuit capable of treating refractory ores
- 350 person village & sealed airstrip and roads
- Gas power station & diesel backup
- Permitted borefields and infrastructure
- UG infrastructure already in place
- Operating approvals and licenses



Gas Power Station



<sup>1</sup> assumes production from the Galaxy, Matilda and Golden Age deposits. Approximately 74% of the mineral inventory is to a measured and indicated resource category. 26% of the pit areas are inferred resource. 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 itself will be realized.

# WGP PROCESSING CIRCUIT – 100% OWNED



# **MATILDA STRATEGY: *Free milling focus***



## ***Stage 1 – Free milling production 100,000ozpa***

- **Free milling resources 22Mt @ 2.0g/t for 1.4Moz Au**
  - **includes priority quartz reefs, a growing resource of 1.0Mt @ 4.9g/t for 171,000oz Au for open pit and underground mining**
- **Upgrade Mining Inventory of first 500,000oz – exploration focussed on high grade free milling ores for feasibility**
- **Low risk processing of free milling ores: crush, grind, gravity & CIL**
- **Low capital plant refurbishment in its current location – finance out of debt**



# DEVELOPMENT & ECONOMICS – Stage 1



**PFS \$4M & 4mths**

Drilling (\$1.4M)  
Geotech & Hydro  
Metallurgy  
Mining Studies  
Overheads

**DFS \$5M & 5mths**

Drilling (\$2.3M)  
Geotech & Hydro  
Metallurgy  
Mining Studies  
Overheads

**Development 4mths \$25M**

Plant refurb (\$11.6M)  
Mill 2 refurb (\$3.4M)  
Tailings Dam (\$3.7M)  
Power Supply (\$1.3M)  
Mine Development &  
working cap (\$5.0M)

**13 months & \$34M = 100,000oz Au per annum**

## **Economics**

Mineral Inventory	5.0Mt @ 2.8g/t for 454,000oz Au*
Gold price	USD\$1,250/oz ex rate 82c
Free cashflow	A\$157M
Payback	9Mth
All in Sustaining Costs	A\$1,000-1,100/oz*



\* Refer to Announcement of 19 December 2014.

# Growing the Matilda Mine Life



## *Free milling exploration & inventory targets*

	Exploration Targets*						Budget to
	Tonnes (Mt)		Grade (g/t)		Ounces (koz)		Inferred
	Low	High	Low	High	Low	High	\$'000
Bulletin	2	3	3	3.5	190	340	\$ -
Republic Reef	0.3	1	6	10	65	320	\$ 225
Brothers Reef	0.3	1	6	10	65	320	\$ 225
Caledonia Reef	0.5	2.0	6	10	100	650	\$ 300
M1 Underground	0.4	1.5	6	8	80	390	\$ 750
M4 (+M2) North	0.3	1.1	2	3	20	100	\$ 200
Williamson	1.5	4.5	1.5	2	70	290	\$ 670
Carrol-Prior	7	11	1	1.8	230	640	\$ 670
<b>Total</b>	<b>12</b>	<b>25</b>	<b>2.1</b>	<b>3.8</b>	<b>820</b>	<b>3,050</b>	<b>\$ 3,040</b>

Refer to Announcement 15 January 2015. The potential quantity and grade of these exploration targets is conceptual in nature, there has been insufficient exploration to estimate a mineral resource, and it is uncertain if further exploration will result in the estimation of a resource.  
Bulletin is a oxide and refractory exploration target.

# ***MATILDA Stage 2: High grade refractory ores to complement free milling ores***



- **Underground and open pit refractory ore will extend mine life further**
- **Refractory resources 19Mt @ 4.9g/t for 3.0Moz Au on 2g/t bottom cut**
- **East & West Lode resources 5.2Mt @ 6.1g/t for 1.0Mt on 4g/t bottom cut – substantial mine development already in place**
- **WGP operating history +6g/t underground ores are profitable**
- **Operating history gives good indication of cost and recoveries**



# DEVELOPMENT & EXPLORATION



**Advanced Resources**  
**- Development Targets**

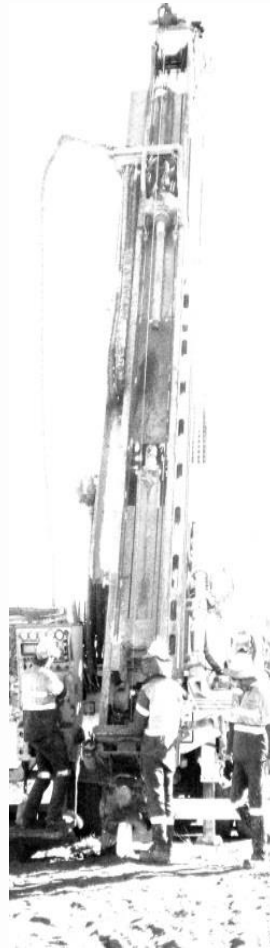
**Matilda**  
**Golden Age**  
**Galaxy**  
**Williamson, East & West Lodes**

**Brown Fields**

**Matilda Extensions**  
**Republic, Brothers, Caledonia pit**  
**Carroll – Prior, Williamson UG**  
**Regent**

**Green Fields**

**Caledonian Trend**  
**Mentelle, Trend, Galaxy North**



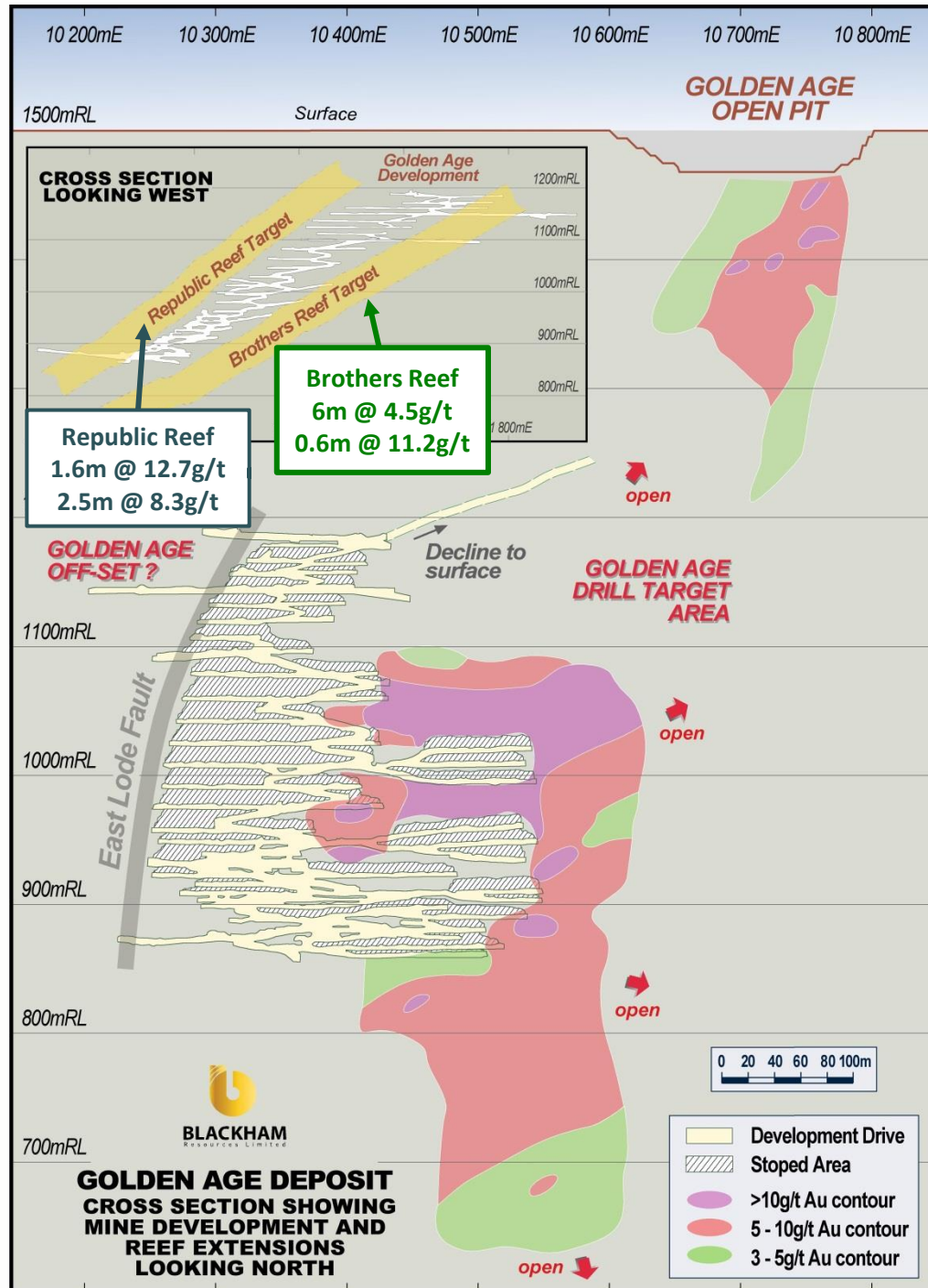
**Focus on converting resources to reserves at development targets  
and finding new deposits in brown and green fields**



# GOLDEN AGE – high grade quartz reef

- Produced 160,000oz Au @ 9g/t
- Resource 490kt@7.4g/t for 120,000oz
- Gravity leach recovery +95%
- Mine & access ready – capex cost sunk
- Republic & Brothers Reefs require further drilling

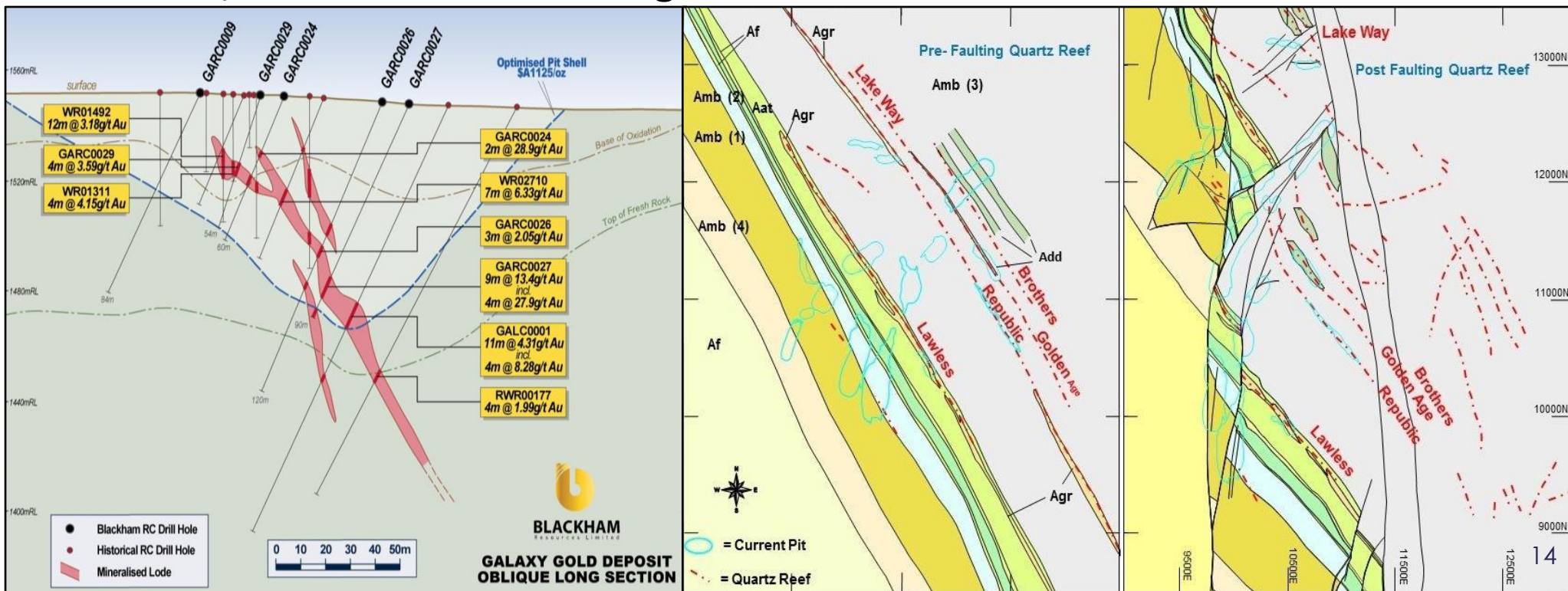
RESOURCES	Kt	g/t Au	Koz Au
Indicated	152	8.6	40
Inferred	334	6.8	80
<b>TOTAL</b>	<b>486</b>	<b>7.4</b>	<b>120</b>



# GALAXY – shallow high grade quartz reef system



- Resource 550kt @ 2.9g/t for 51,000oz Au 13kms NNW of the WGP plant
- In-pit resource 80% indicated resource level with 3.3g/t diluted head grade
- Gravity & leach recoveries 96%
- Northern extent of a 15km quartz reef system including Golden Age, Republic, Brothers, Caledonia & Golden Age North

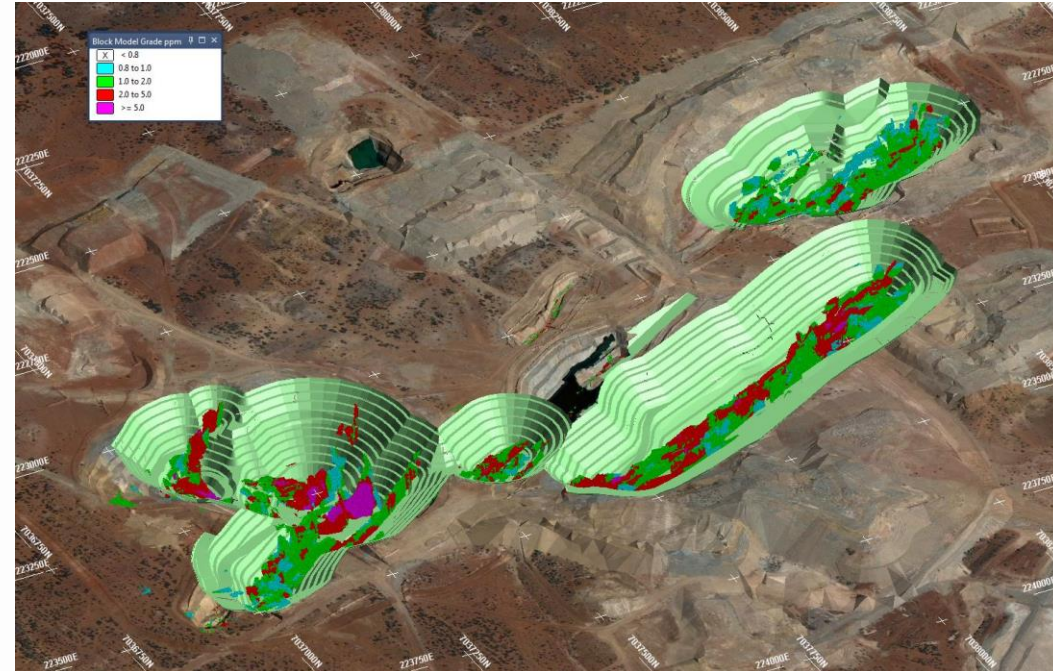




# MATILDA MINE - Near term mining opportunity



- **Production (1987-1993):**
  - 2.2 Mt@ 2.6g/t = 181,000oz au
  - mostly oxide material mined to < 50m
- **Gravity & leach recoveries 92%**
- **In-pit resource**
  - 77% indicated resource level
  - 1.9g/t diluted head grade
- **Mining ready in short term**
- **Significant opportunity to grow open pit and UG Mining Inventory**

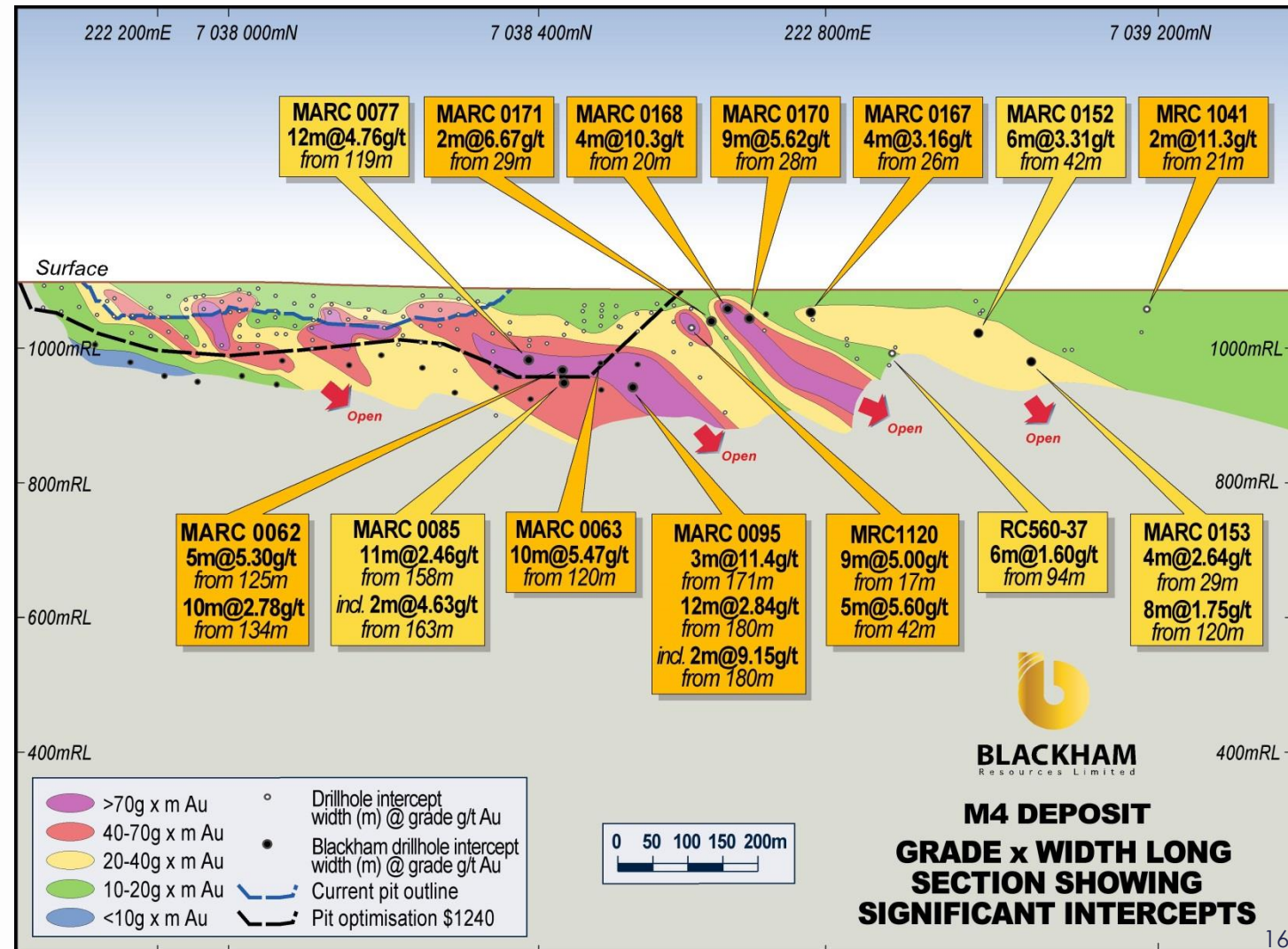


RESOURCES	Mt	g/t Au	Oz Au
Measured	0.1	2.4	9,000
Indicated	4.7	2.0	300,000
Inferred	8.2	1.7	450,000
<b>TOTAL</b>	<b>13.0</b>	<b>1.8</b>	<b>760,000</b>

# M4 DEPOSIT – Recent high grade shallow results along strike



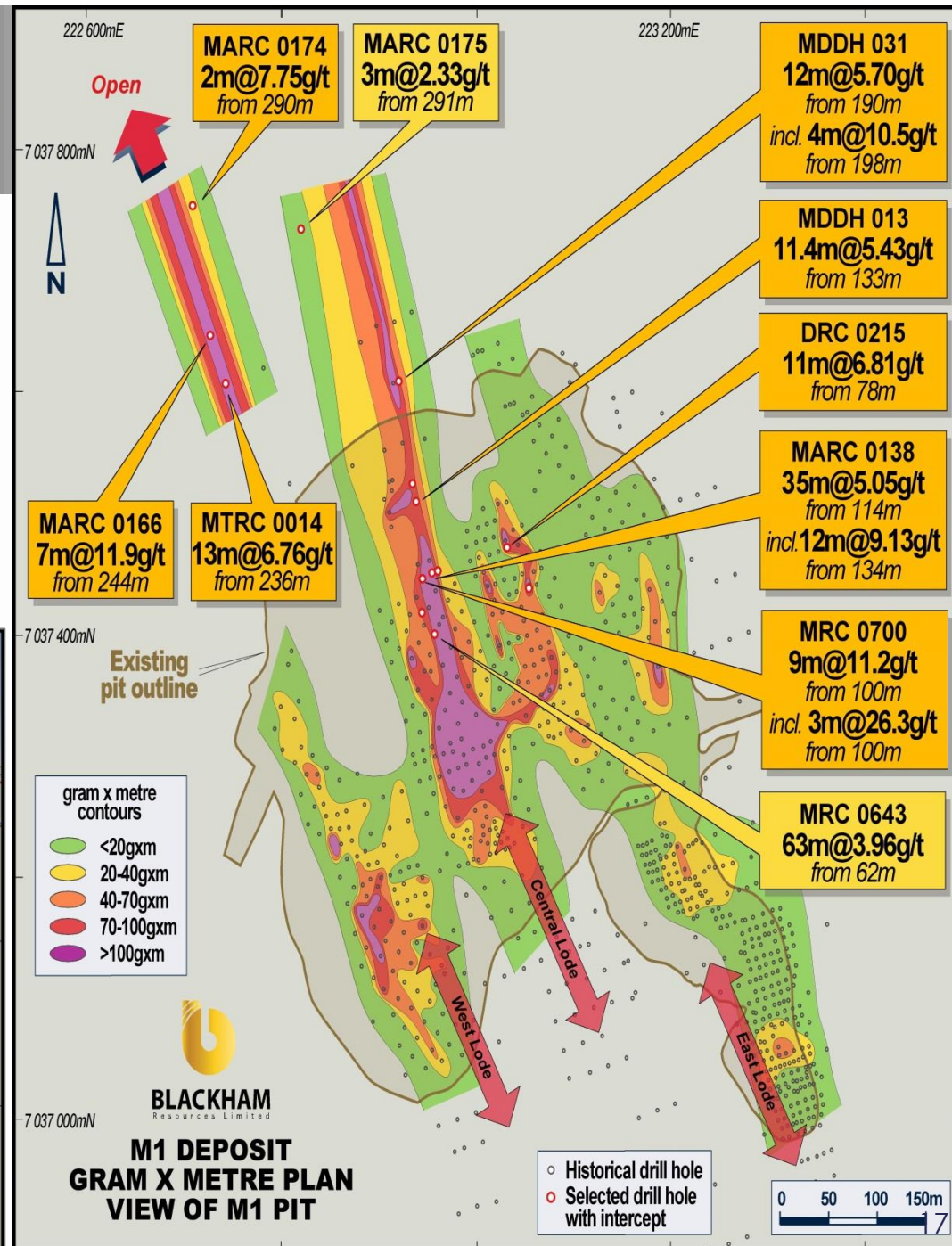
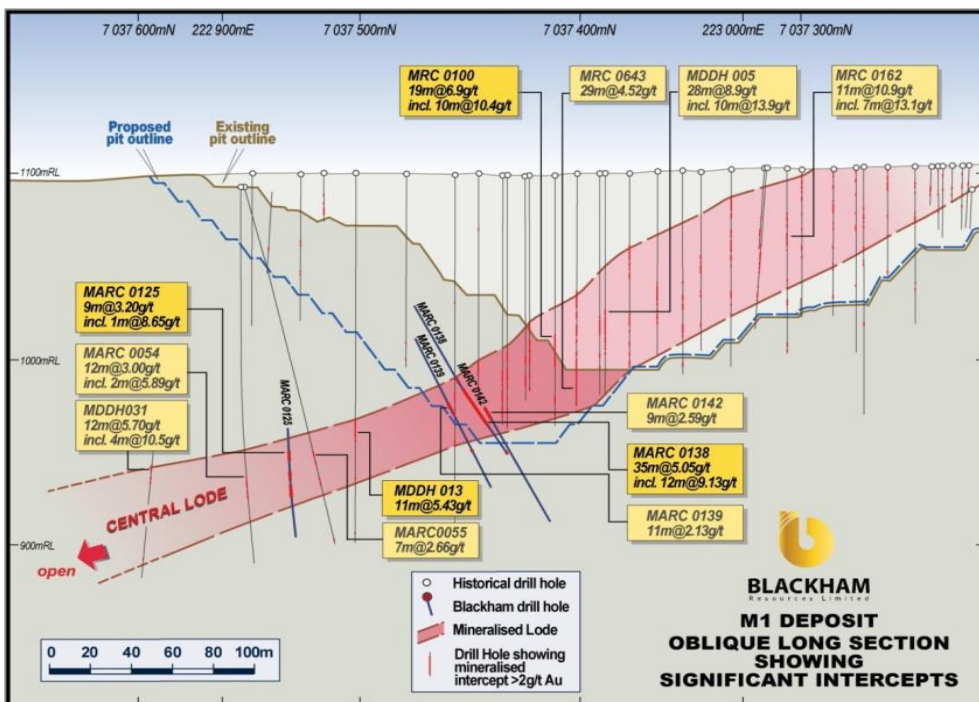
- Shallow mineralisation extends 1,000m north of the old pit & still open
- Historical mining:**  
386,000t @ 2.2g/t Au to < 50m depth
- Resource 204,000oz** with 93% < 160m from surface
- Recent high grade shallow drill results** likely to pull the open pit further north





# M1 DEPOSIT

- High-grade mineralisation in pit floor
- Outstanding drill results:
  - 35m@5.05g/t (114m) incl 12m@ 9.1g/t
  - 7m@11.9g/t (244m)
- UG extensions priority target



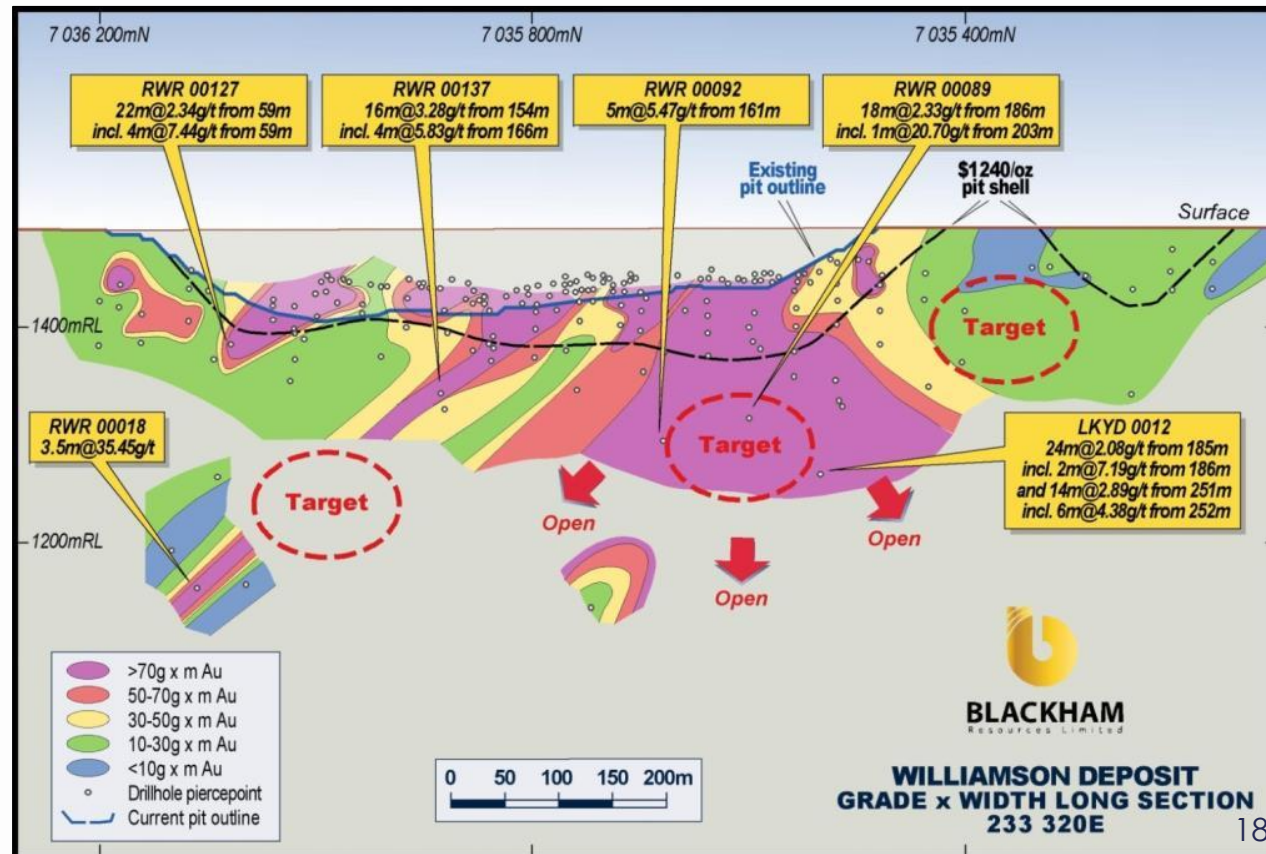


# WILLIAMSON DEPOSIT – up to 40m wide ore body



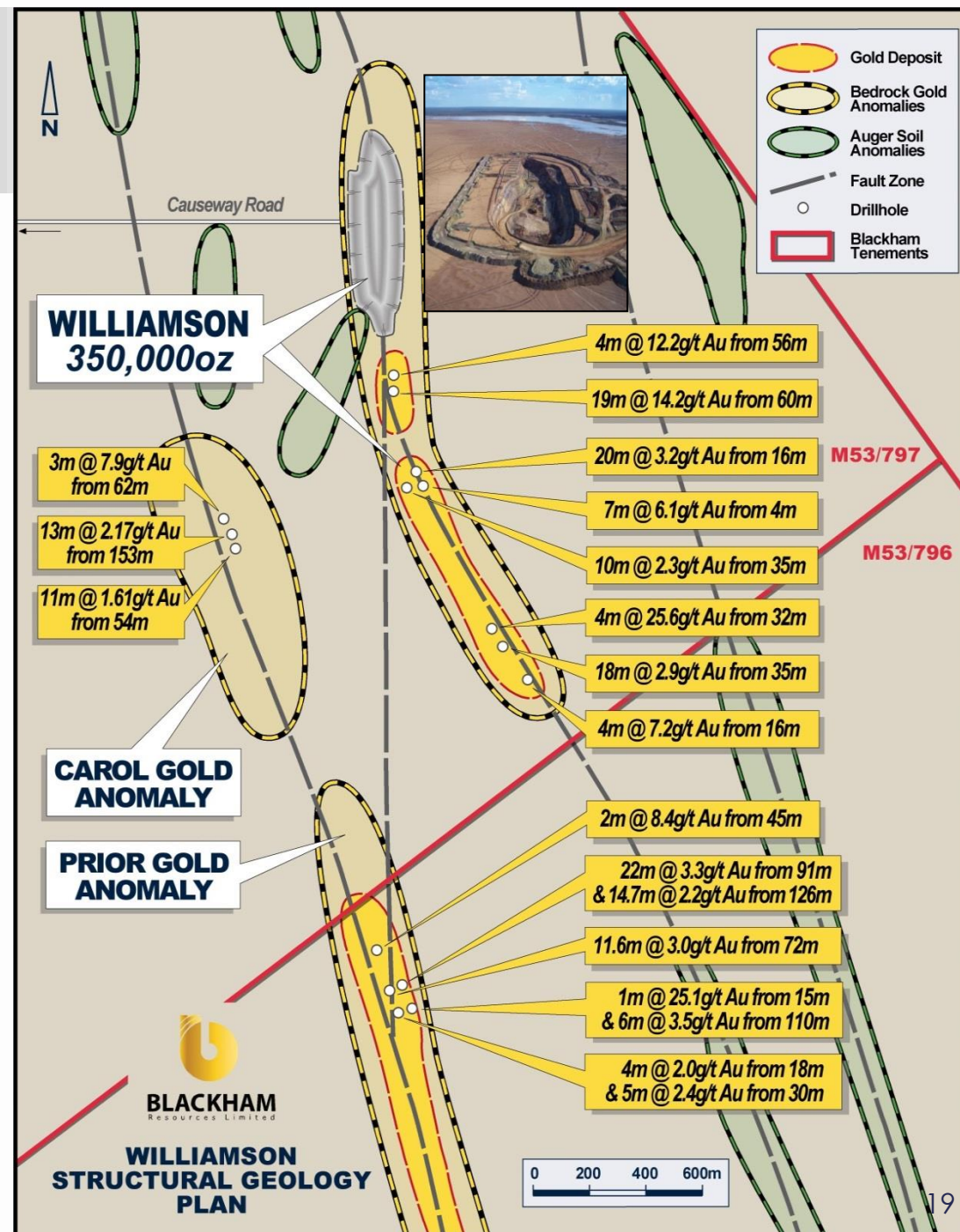
- Historically produced 660kt @ 2g/t Au
- High-grade shear zones bounding monzogranite stockwork up to 40m wide, free-milling ore
- High-grade mineralisation beneath current pit
  - 3m@40.1g/t from 117m
  - 4.3m@17.0g/t from 136m
  - 3.5m@35.5g/t from 372m

RESOURCES	Mt	g/t Au	Oz Au
Indicated	2.7	1.7	148,000
Inferred	3.6	1.8	202,000
<b>TOTAL</b>	<b>6.3</b>	<b>1.7</b>	<b>350,000</b>



# LAKE WAY – very large mineralized system

- 19km south along strike from Wiluna – large tonnage potential
- 350Koz resource - structural setting similar to Wiluna – potential cluster of deposits
- Williamson south mineralisation extends for 1.5km south of the pit
- Carroll-Prior drilling identified continuous mineralisation over 3km
- Infill drilling needed to define further resources



# DIRECTORS & MANAGEMENT



## **Paul Murphy – Independent Non Executive Chairman**

Mr Murphy is a former banker with extensive experience in finance, strong relationships within the banking, finance and broking community as well as an impeccable reputation in the industry. His banking experience extends across finance, fixed income,

## **Bryan Dixon – Managing Director**

Bryan's skills and experience include project acquisition, mine development and financing. Has been involved in feasibility and financing of 3 gold mines. Having previously worked with KPMG, Resolute Limited and Archipelago Resources Plc, he has substantial experience in the mining sector and the management of listed public companies.

## **Alan Thom – Executive Director - Mining Engineer**

Alan, a mining engineer, has extensive mining experience. He holds a Western Australian First Class Mine Managers Certificate and has held statutory mine and management positions for Newmont in both underground and open-pit operations at Jundee and Bronzewing. Alan has managed a number of definitive and bankable feasibility studies for significant resource projects.

## **Greg Miles – Non Executive Director - Geologist**

Greg graduated as a geologist and has since worked in a number of different commodities and mineral provinces across a broad portfolio of grass-roots to development projects. Professional highlights include involvement in the discovery of the 2.3Moz Centenary Deposit at the Darlot Gold Mine in the Eastern Goldfields, WA.

## **Mike Robbins - CFO / Company Secretary**

Mr Robbins has well over 20 years resource industry experience gathered at both operational and corporate levels, both within Australia and overseas.

## **Graham Lingard – Resident Mine Manager**

Graham has over 35 years of experience in the mining industry in Western Australia. Graham has worked at Wiluna since 2007 including as resident manager since Aug 2013. He has previously worked in managerial roles in numerous gold mines in the Yilgarn.

## **Craig Bartle – Plant & Metallurgical Manager**

Craig Bartle is a metallurgist with extensive experience in the resources industry. He was a senior metallurgist at Wiluna for Apex, Oxiana, and Agincourt Resources and previously worked at Beaconsfield gold mine.

## **Cain Fogarty – Exploration Manager**

Mr Fogarty has broad experience in greenfields and near-mine exploration, having worked around Australia and internationally on a variety of major ore deposit styles, particularly sediment-hosted base metals and orogenic gold. Previously, Mr Fogarty has worked with Barrick Gold Corp, Equinox Minerals and CSA Global.

## **Marcus Osiejack - Resource Geologist**

Marcus has expertise in a variety of underground and open pit gold operating roles with technical skills including resource modelling, estimation and grade control. Having previously worked at Lawlers, Darlot and numerous gold projects within Western Australia.



# BLACKHAM'S MATILDA VISION



- **4.4Moz gold resource - 46% indicated resource**
- **Acquisition of plant with capacity for 100,000ozpa<sup>1</sup> puts Blackham in a new peer group**
- **Existing plant & infrastructure minimises capex and risk**
- **Working towards a 10 year mine life focusing on the free milling ores**
- **Production 4 months after decision to mine**
- **Very low capital - high return opportunity for shareholders**



<sup>1</sup> assumes production from the Galaxy, Matilda and Golden Age deposits. Approximately 74% of the mineral inventory is to a measured and indicated resource category. 26% of the pit areas are inferred resource. 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 itself will be realized.

# DISCLAIMERS & IMPORTANT INFORMATION



This presentation includes certain statements that may be deemed 'forward-looking statements'. All statements that refer to any future production, resources or reserves, exploration results and events or production that Blackham Resources Ltd ('Blackham' or 'the Company') expects to occur are forward-looking statements. Although the Company believes that the expectations in those forward-looking statements are based upon reasonable assumptions, such statements are not a guarantee of future performance and actual results or developments may differ materially from the outcomes. This may be due to several factors, including market prices, exploration and exploitation success, and the continued availability of capital and financing, plus general economic, market or business conditions. Investors are cautioned that any such statements are not guarantees of future performance, and actual results or performance may differ materially from those projected in the forward-looking statements. The Company does not assume any obligation to update or revise its forward-looking statements, whether as a result of new information, future events or otherwise.

*The information contained in the report that relates to Exploration Targets and Exploration Results at the Matilda Gold Project is based on information compiled or reviewed by Mr Cain Fogarty, who is a full-time employee of the Company. Mr Fogarty is a Member of the Australian Institute of Geoscientists and has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which is being undertaken to qualify as a Competent Persons as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Fogarty has given 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 contained in the report that relates to Mineral Resources for the Galaxy, Golden Age and Wiluna deposits is based on information compiled or reviewed by Mr Marcus Osiejak, who is a full-time employee of the Company. Mr Osiejak, is a Member of the Australian Institute of Mining and Metallurgy and has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which is being undertaken to qualify as a Competent Persons as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Osiejak has given consent to the inclusion in the report of the matters based on this information in the form and context in which it appears.*

*With regard to the Matilda Mine, Williamson and Regent Resources, the Company is not aware of any new information or data, other than that disclosed in this report, that materially affects the information included in this report and that all material assumptions and parameters underpinning Mineral Resource Estimates as reported in the market announcement dated 23rd of January 2014 continue to apply and have not materially changed.*

# CONTACT DETAILS



## **Bryan Dixon**

Managing Director  
Blackham Resources Ltd

**E:** [admin@blackhamresources.com.au](mailto:admin@blackhamresources.com.au)

**T:** +61 8 9322 6418 | **F:** +61 8 9322 6398

**A:** Level 2, 38 Richardson Street,  
West Perth WA 6005

**P:** PO Box 1412, West Perth WA 6872

**W:** [www.blackhamresources.com.au](http://www.blackhamresources.com.au)

ASX Code: BLK

## **Project partners:**

Runge Pincock Minarco





# APPENDIX A: GOLD RESOURCES

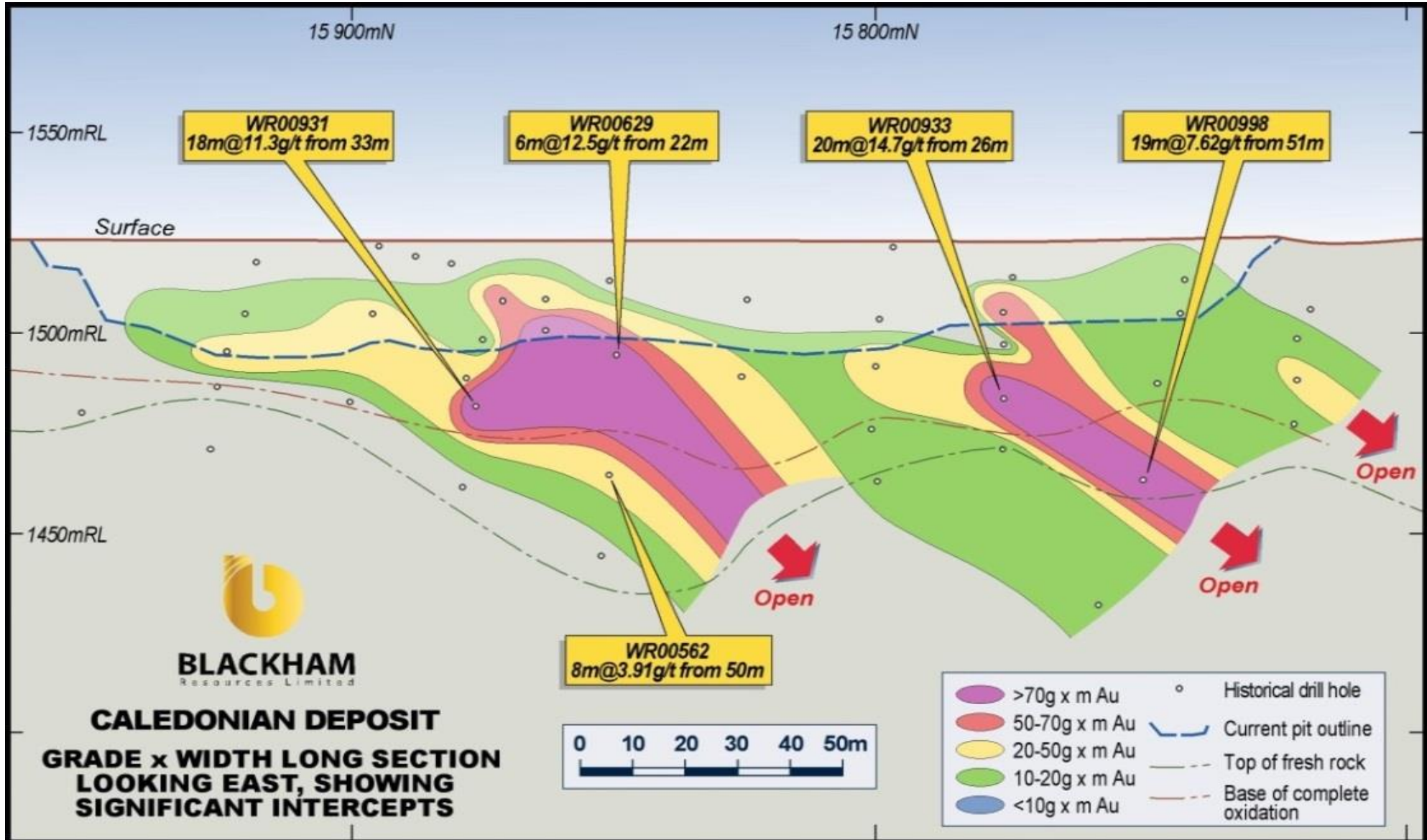


**Table 3. Matilda Gold Project Resource Summary**

Mining Centre	Measured			Indicated			Inferred			Total 100%		
	Mt	g/t Au	Koz Au	Mt	g/t Au	Koz Au	Mt	g/t Au	Koz Au	Mt	g/t Au	Koz Au
Matilda Mine	0.1	2.4	9	4.7	2.0	300	8.2	1.7	450	13	1.8	760
Williamson Mine				2.7	1.7	150	3.6	1.7	200	6.3	1.7	350
Regent				0.7	2.7	61	3.1	2.1	210	3.9	2.2	270
Galaxy				0.2	3.3	25	0.3	2.6	26	0.6	2.9	51
Golden Age				0.2	8.6	40	0.3	6.8	80	0.5	7.4	120
East Lode				1.0	5.2	170	2.3	4.7	340	3.3	4.8	510
West Lode Calvert				1.4	5.5	240	2.8	5.2	460	4.2	5.3	700
Henry 5 - Woodley - Bulletin				2.1	5.9	400	0.8	4.6	120	2.9	5.6	520
Burgundy - Calais				1.292	6.0	250	0.3	5.7	60	1.61	6.0	310
Happy Jack - Creek Shear				1.5	5.9	290	1.3	4.8	200	2.9	5.4	490
Other Wiluna Deposits				0.99	3.5	110	1.8	4.0	230	2.8	4.1	340
<b>Total</b>	<b>0.1</b>	<b>2.4</b>	<b>9</b>	<b>17</b>	<b>3.8</b>	<b>2,036</b>	<b>25</b>	<b>3.0</b>	<b>2,376</b>	<b>42</b>	<b>3.3</b>	<b>4,421</b>

Mineral Resource estimates are not precise calculations, being dependent on the interpretation of limited information on the location shape and continuity of the occurrence and on the available sampling results. The figures in the Table above are rounded to two significant figures to reflect the relative uncertainty of the estimate.

# CALEDONIA PIT – high grade in pit floor

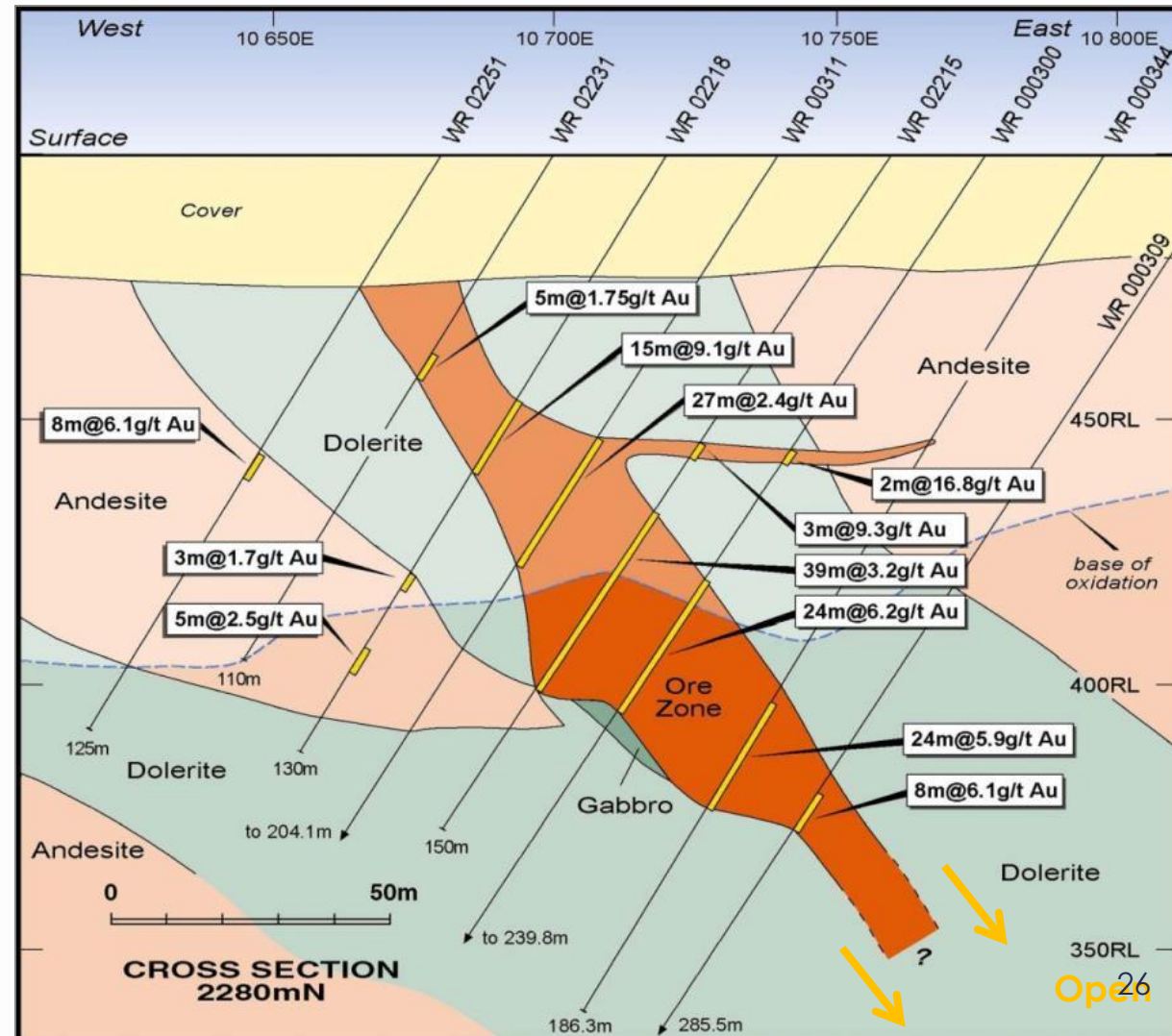


# REGENT – robust resource



## Considerable scope to increase deposit

- **700m of strike and still open**
- Excellent grades and widths – steep dilatant structures open at depth
- **Good continuity, robust deposit**
- Additional extension drilling down plunge required



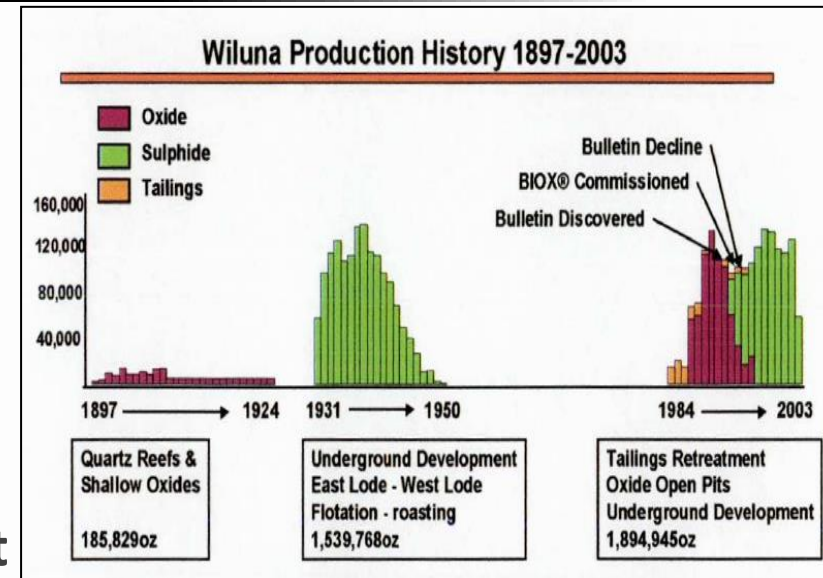
RESOURCES	Tonnes	g/t Au	Contained Oz Au
Indicated	738,000	2.5	69,000
Inferred	3,108,000	2.1	211,000
<b>TOTAL</b>	<b>3,846,000</b>	<b>2.2</b>	<b>270,000</b>



# HISTORY OF WILUNA GOLDFIELD



- ▶ Long History of Production +4Moz
- ▶ Historical Oxide, Quartz, Tailings ~1Moz
  - ▶ 1897 – 1924 Oxide & Quartz 186,000 oz
  - ▶ 1984 – 1993 Oxide & Tailings 770,000 oz
- ▶ BIOX Fitted to Existing Oxide Plant (Com May 1993)
- ▶ 2007 Oxiana (Oz Minerals) acquires Agincourt
- ▶ 2007: Project broken up - Wiluna mine assets sold to Apex for \$29.5M
  - ▶ Apex spends \$71M on exploration expenditure
- ▶ Minmetals Acquires Oz Minerals
- ▶ Nov 2011 Blackham acquires Matilda Gold Project for \$1.4M
- ▶ Mar 2014 Blackham acquires WGP \$2M upfront and \$2.6M in deferred consideration



# WILUNA NICKEL

- The Matilda Project sits on the northern end of one of the **worlds major nickel provinces**.
- Project covers over **40 km** of ultramafic sequence with **potential for massive sulphides** and disseminated nickel orebodies
- Main body of **nickel laterite resource extends over 19 km**, averages 15m in thickness and is generally 30m deep. Inferred laterite nickel resource:

**80.5 Mt @ 0.77% Ni, 0.058% Co & 8.84% MgO**

- Very limited exploration for primary nickel sulphide. Numerous targets generated and **potential confirmed:**

**1m @ 6.38% Ni, 0.5% Cu from 72m**

**1m @ 2.67% Ni, 0.4% Cu from 92m**

