



MILLENNIUM

MINERALS LIMITED ASX Code: MOY

- ▶ **A highly profitable, debt-free** Australian gold producer with immense growth potential
- ▶ **Strong free cash-flow:** 80koz-85koz at AISC of A\$1180/oz-A\$1220/oz for 2016
- ▶ **Early exploration success** demonstrates ability to replace mined ounces and grow mine life



Building our Cash Balance, Growing our Gold Inventory

Resources Rising Stars – May 24 - 25 2016

Disclaimer



This presentation contains only a brief overview of Millennium Minerals Limited (“Millennium”). The contents of this presentation, including matters relating to the geology of Millennium’s projects, may rely on various assumptions and subjective interpretations which it is not possible to detail in this presentation and which have not been subject to any independent verification.

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Millennium – Debt-Free, Robust Cash Flow, Poised for Growth



- ▶ Flagship is the Nullagine Gold Project, Western Australia
- ▶ Significant operational and financial turnaround completed over past 12 months including extensive business improvement program
- ▶ Production of 91,642oz at AISC of A\$1175/oz for 12 months to December 31, 2015 – upper end of guidance with lower costs
- ▶ \$28M of free cash-flow (before financing costs) for 12 months to December 31, 2015
- ▶ Now debt-free after repaying \$37.1M of debt in past 12 months:
 - ▶ *\$21M capital raising completed in December 2015 with proceeds used to retire \$14.1M of subordinated debt*
 - ▶ *Senior debt repaid ahead of schedule in February 2016*

Ideally positioned to benefit from strong gold market environment with no debt, strong free cash-flow and a clear vision for growth

Millennium – Debt-Free, Robust Cash Flow, Poised for Growth



- ▶ Forecast production of 80,000-85,000oz at AISC of A\$1180-A\$1220/oz for 2016
- ▶ Aggressive \$10M exploration program underway to grow mine life:
 - ▶ *110,000m of RC drilling; 3-4 rigs operating for most of 2016*
 - ▶ *Early success with outstanding initial results from several near-mine and brownfields targets*
- ▶ 27% increase in Ore Reserves to 159,000oz after just 3 months of drilling – extends mine life beyond current schedule; total resource inventory of 1.01Moz
- ▶ Growing free cash-flow and strong balance sheet provides an outstanding platform for growth via **exploration**, regional **consolidation** or **acquisition**

Millennium's vision is to build a significant mid-tier ASX-listed gold producer, leveraging off the strong free cash-flows being generated at Nullagine

Corporate Overview



Capital Structure

ASX Code	MOY
Shares on Issue	742.7M
Market Capitalisation at 15cps	~\$111.4M
Cash at 31 March 2016	\$14.6M
Debt	Nil

Board

Richard Procter	Non Executive Chairman
Michael Chye	Non Executive Director
Ross Gillon	Non Executive Director
Tim Kennedy	Non Executive Director
Greg Bittar	Executive Director

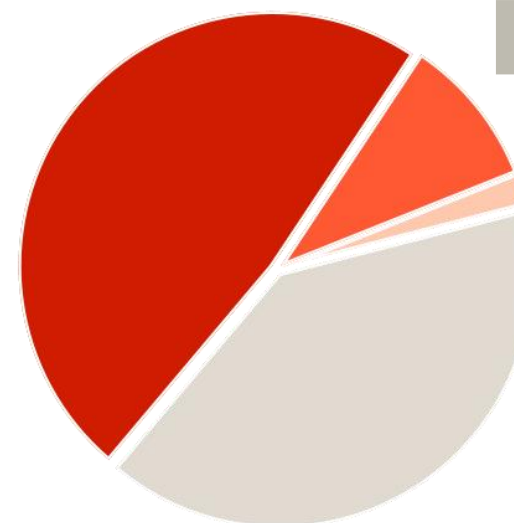
Management

Glenn Dovaston	Chief Executive Officer
Richard Hill	Chief Financial Officer
Peter Manton	General Manager Operations
Peter Cash	General Manager Corporate
Pierre Malherbe	Company Secretary

Millennium Minerals Share Price – as at 17 May 2016



Key Shareholders

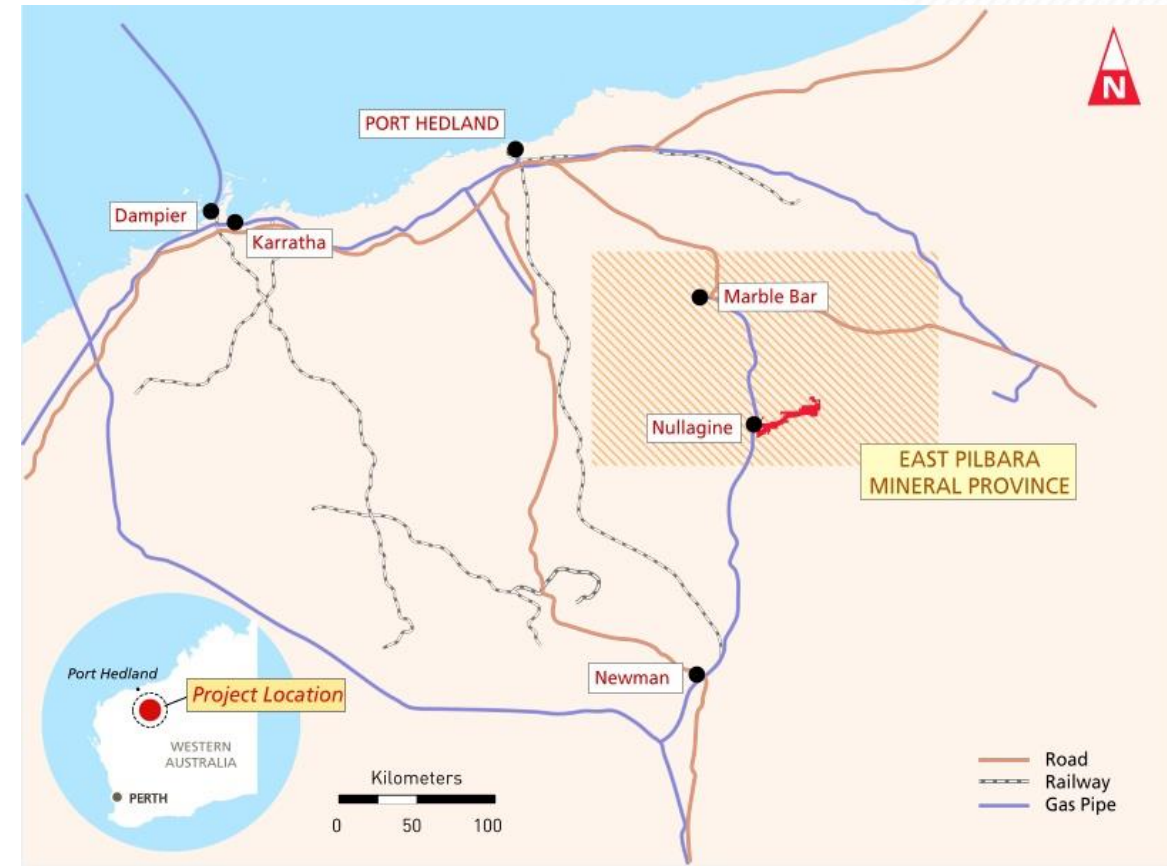


- IMC Group - 48%
- MOY Contractors - 9.6%
- Board and Management - 2.0%
- Others - 40%

Nullagine Gold Project – Overview



- ▶ Located 185km north of Newman and 10km south of town of Nullagine in WA's East Pilbara mineral province
- ▶ Nullagine was the location of one of WA's first gold discoveries in 1886 – sparking a gold rush in the 1890s in the Mosquito Creek belt
- ▶ Gold production was limited to small-scale operations over multiple ownership structures.
- ▶ The region has had minimal exploration for gold by comparison with the Eastern Goldfields – and virtually no drilling below 100m-150m
- ▶ The Nullagine Gold Project includes a near-new 1.5Mtpa CIL processing plant – the only operating gold plant in the region – and extensive infrastructure
- ▶ It is located within a strategic landholding of 264 km², offering “camp-scale” exploration upside



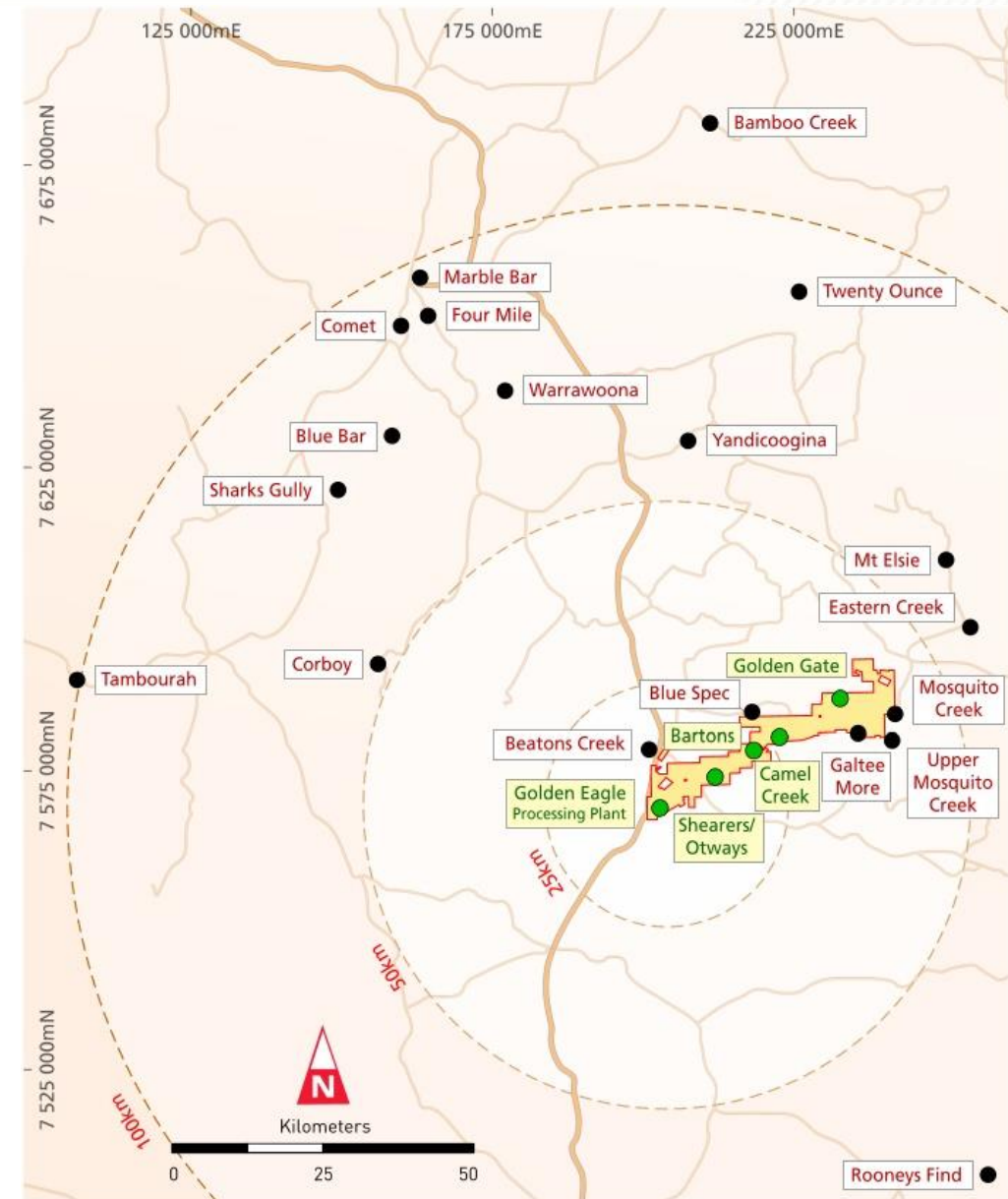
The Nullagine region is one of the oldest goldfields in Australia but has had minimal exploration compared with more mature gold camps such as Kalgoorlie-Boulder and the Northeastern goldfields

Nullagine Gold Project – Built and Paid-For



- ▶ Constructed in 2012 for initial capital cost of \$89M
- ▶ 1.5Mtpa CIL ore treatment plant located adjacent to the largest deposit in the field (Golden Eagle)
- ▶ Extensive infrastructure includes 140-person camp and multiple open pit mines
- ▶ Significant organisational restructure and extensive efficiency program completed in 2015 with key improvements including:
 - ▶ *Improved mining fleet efficiencies*
 - ▶ *Improved understanding of mineralization controls*
 - ▶ *Developed site culture of inclusion*
 - ▶ *Optimised processing flow and mining practices*
- ▶ Mill productivity significantly enhanced – now operating at just under 2Mtpa

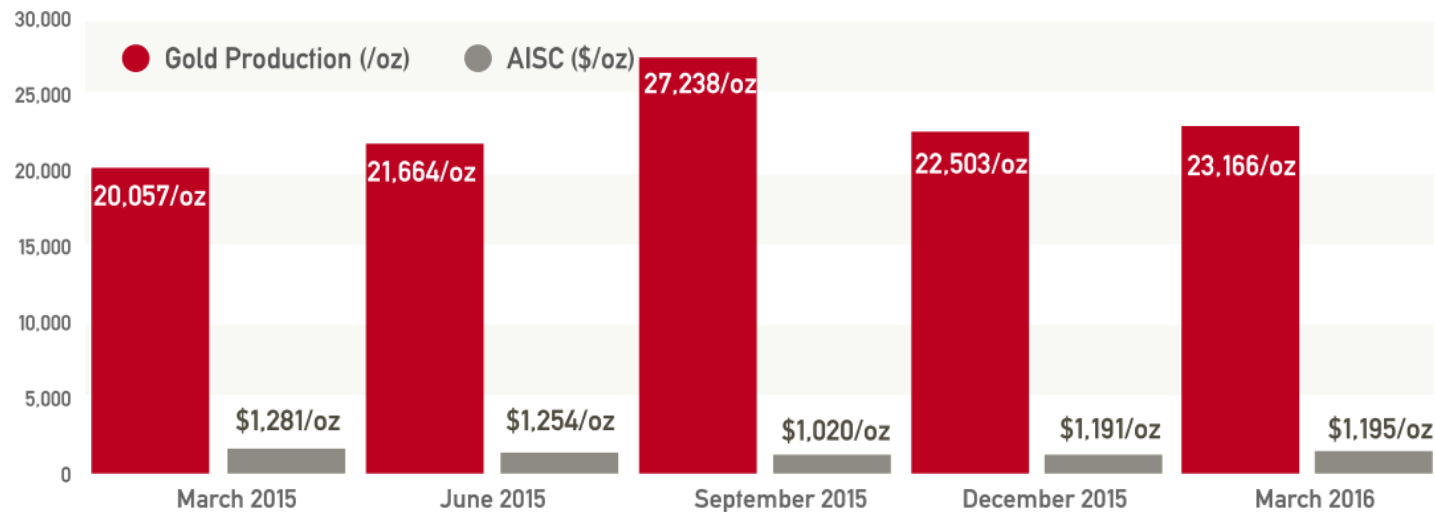
Operational turnaround complete and delivering strong results



Strong Margins and No Debt = Surging Free Cashflow



Strong and Consistent Production, Low Costs, Strong Margins



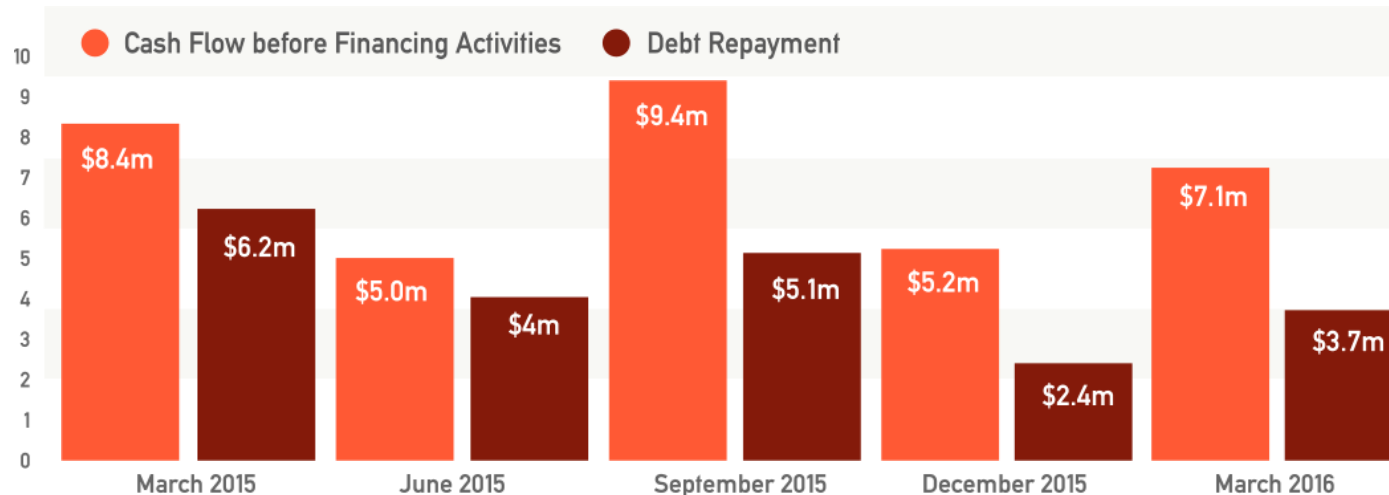
91,642oz; AISC A\$1175/oz

Gold production for CY 2015, enabling Millennium to generate strong cash-flow before financing activities of \$28M

\$37.1 million

The total amount of debt repaid since the start of 2015, including \$14.1M of subordinated debt and \$23M of senior debt – leaving Millennium 100% debt-free

Strong Cash Flows Underpinning Rapid Repayment of Debt in 2015



80,000-85,000oz at AISC of A\$1180-A\$1220/oz

The amount of gold we expect to produce in CY 2016, generating strong free cash-flow to underpin our growth strategy

Millennium – Poised for the Next Round of Growth



- ▶ Significant gold production base at Nullagine – 80,000oz-85,000oz p.a.
- ▶ Operational and financial turnaround complete
- ▶ Extensive infrastructure in place, including near-new 1.9Mtpa CIL plant – only gold processing plant in the region
- ▶ Debt-free following highly successful capital raising and corporate restructure last year
- ▶ Highly supportive major shareholder in IMC
- ▶ **Clear focus on growth through....**

Near-mine exploration

- ▶ Focus on brownfields targets
- ▶ \$10M budget
- ▶ +110,000m of drilling budgeted for 2016

Consolidation opportunities in the under-explored Pilbara region, including:

- ▶ Toll-treatment
- ▶ Exploration joint ventures
- ▶ Deposit acquisitions

Corporate opportunities Strategic M&A?



The Exploration Opportunity – Three Phase Strategy



Aggressive drilling program underway since December 2015

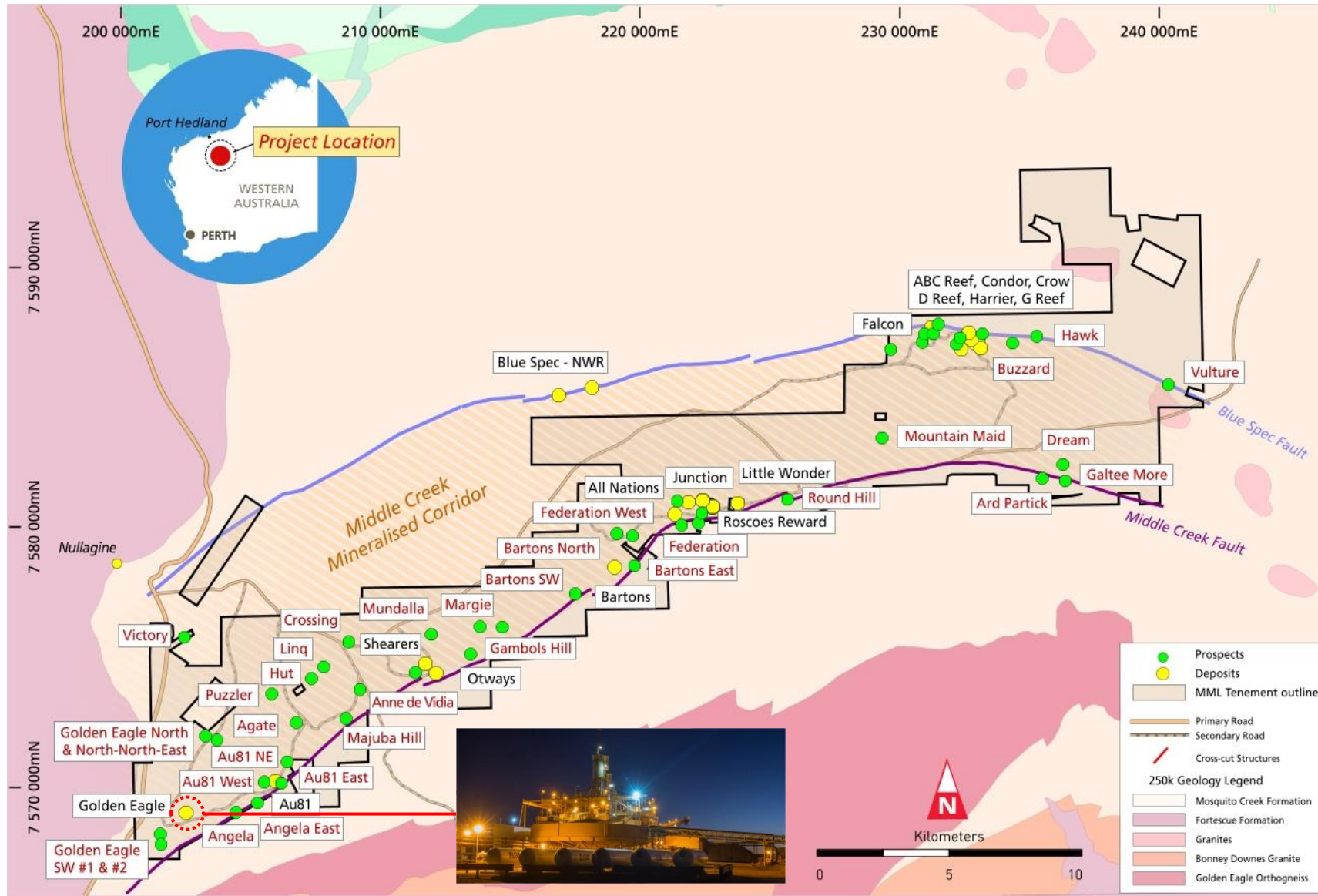
1	Targeting incremental oxide ounces	Near-mine, shallow targets Extensional and adjacent to existing pits
2	Potential new discoveries in brownfields environment	Potential to rapidly delineate and develop new oxide discoveries Historical drilling generally less than 50m below surface
3	Targeting deeper fresh ore to support future plant capex upgrade	~4Mt of fresh ore currently in Resource Currently undertaking test work for fresh ore recovery solution



110,000 metres

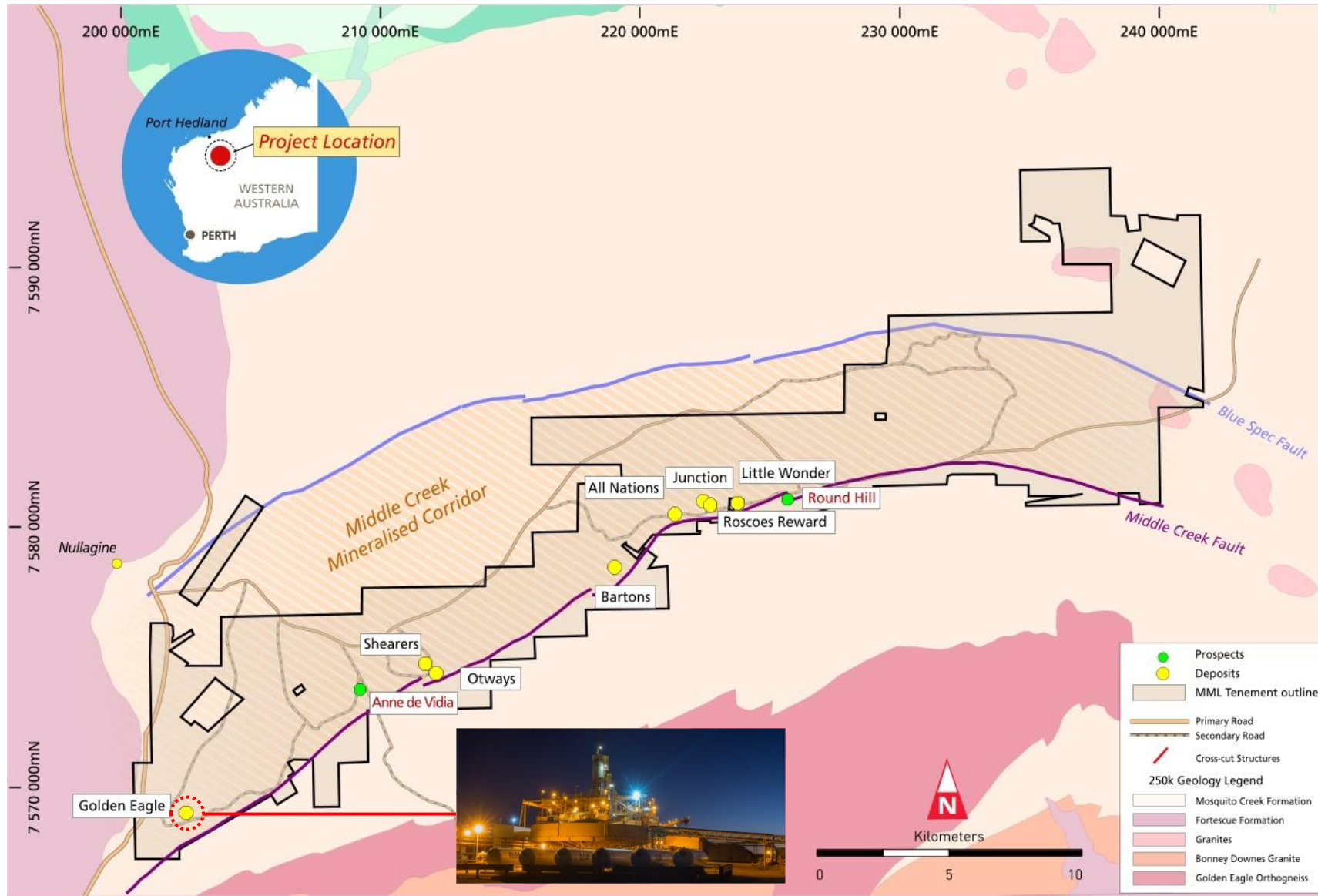
The amount of drilling budgeted for CY 2016 as part of our aggressive \$10M exploration push

The Exploration Opportunity – Next Steps



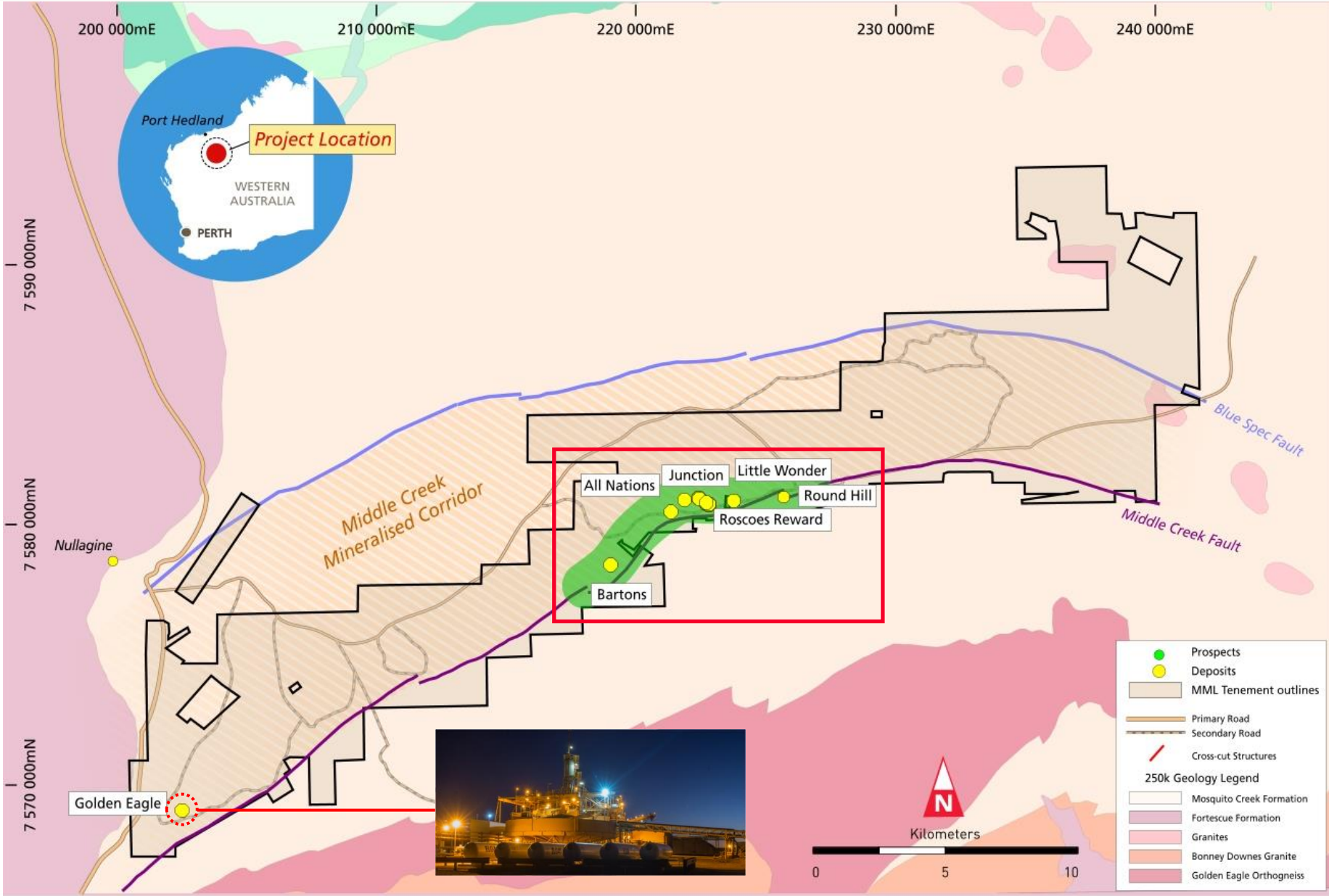
- ▶ Limited exploration drilling over the past ten years
- ▶ Over 30 targets defined – advanced near-mine opportunities through to brownfield targets
- ▶ Priority focus on the endowed Middle Creek Fault:
 - ▶ *in areas of structural complexity*
 - ▶ *close to existing infrastructure*
- ▶ Discoveries can be rapidly transformed into a mining operation
 - ▶ *Leveraging off existing plant and infrastructure*

Phase 1 Delivers Early Success - Targeting incremental oxide ounces

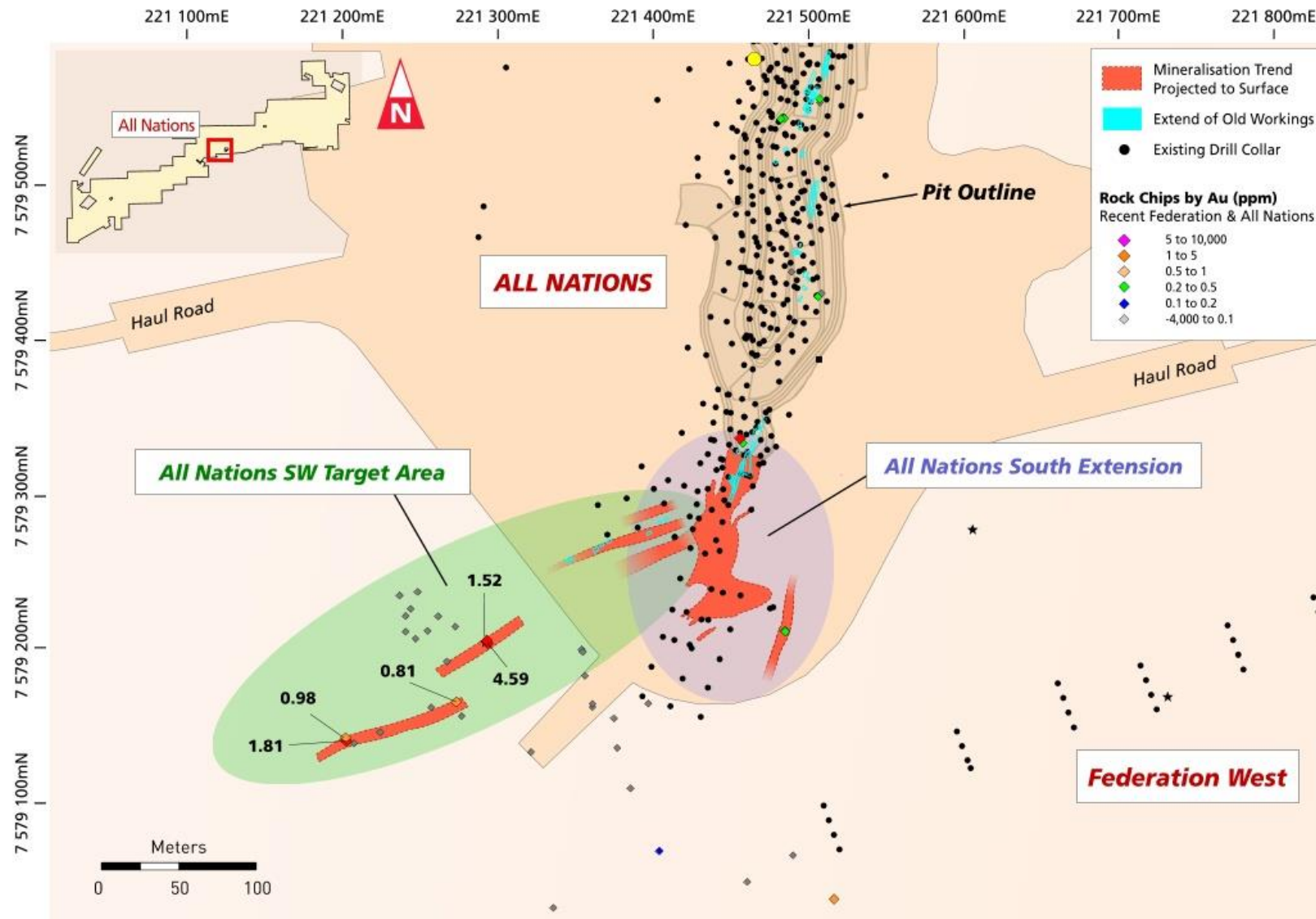


- ▶ First resource/reserve upgrade delivered on schedule in April 2016 following just 3 months of drilling
- ▶ Ore Reserves increased by 27% to 159,000oz from 125,400oz (net of mining depletion of 23,166oz)
 - ▶ *3.52Mt at 1.4g/t Au for 159,000oz*
- ▶ Mineral Resources net of depletion: 27.2Mt at 1.2g/t Au for 1.078Moz
- ▶ Numerous outstanding results received since April upgrade – to be included in the next update in the September 2016 Quarterly Report

Primary Target Area - Middle Creek Mining Centre

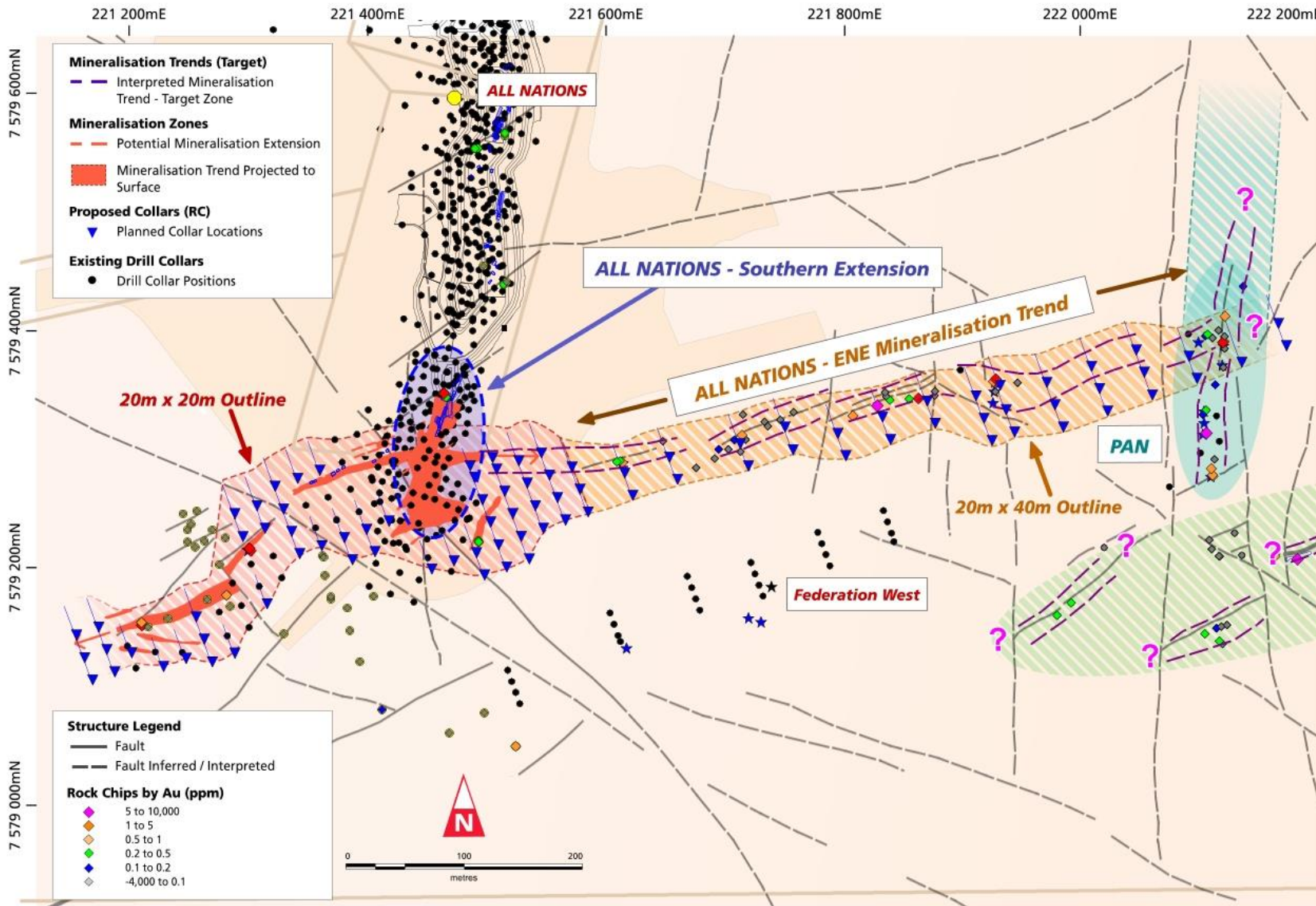


All Nations – Phase 1: Pit extensions and near mine discoveries



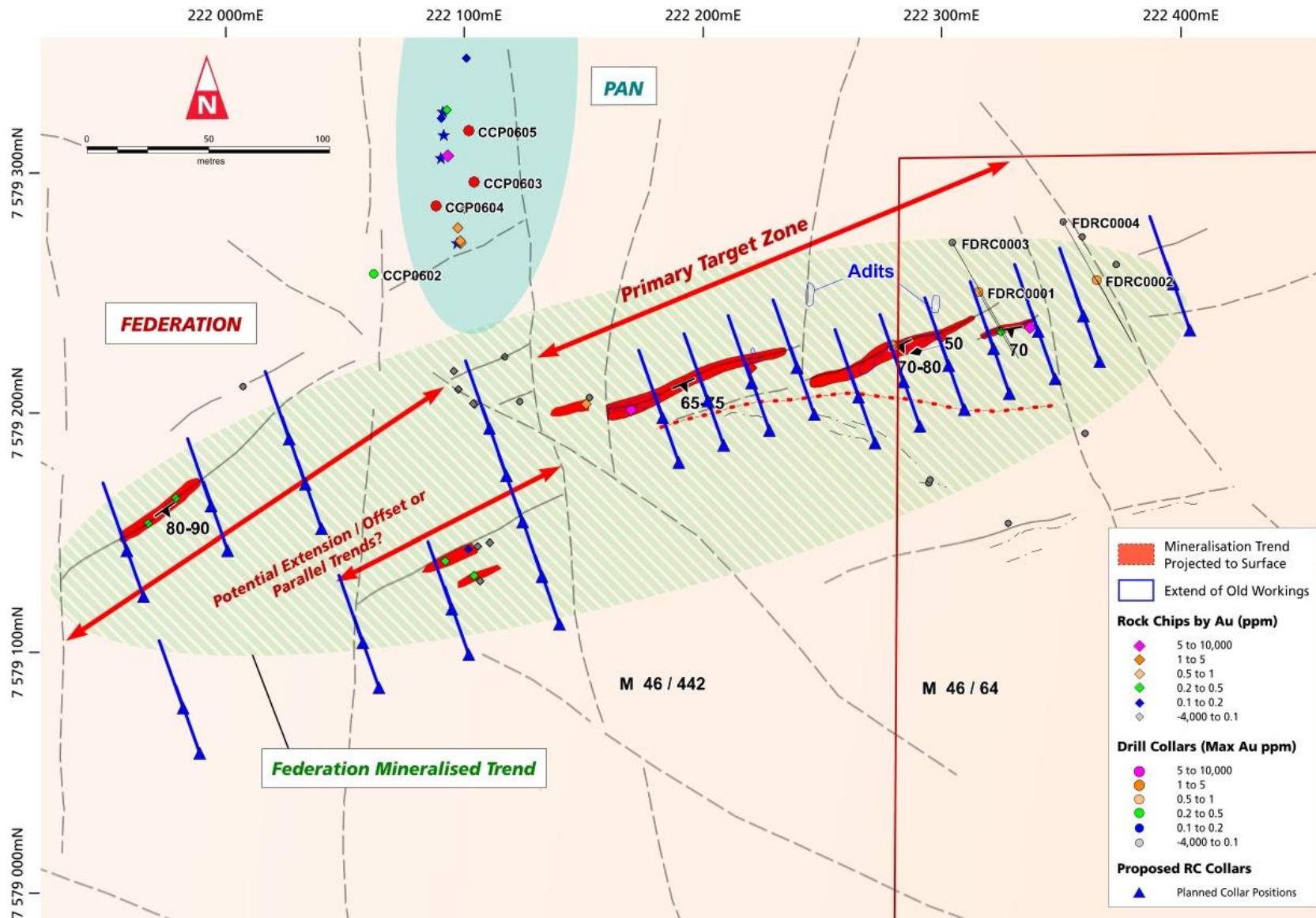
- ▶ Located 24 km from processing plant
- ▶ Additional mineralisation to the south of the current pit design defined
- ▶ Extensions to the main lode continues for at least 100m to the south with broad intercepts returned including:
 - ▶ *Including 22m @ 1.47 g/t Au and ended in mineralisation*
- ▶ A second mineralised SW trend identified, coincident with historical workings
- ▶ A detailed RC drilling program was completed last quarter to test:
 - ▶ *further extensions to the main lode*
 - ▶ *highly promising targets to the south-west*
- ▶ These results incorporated into a revised Resource estimate and Ore Reserve as part of April upgrade
- ▶ Extensions remain open with follow-up drilling underway

Phase 2 – Opportunities identified close to infrastructure



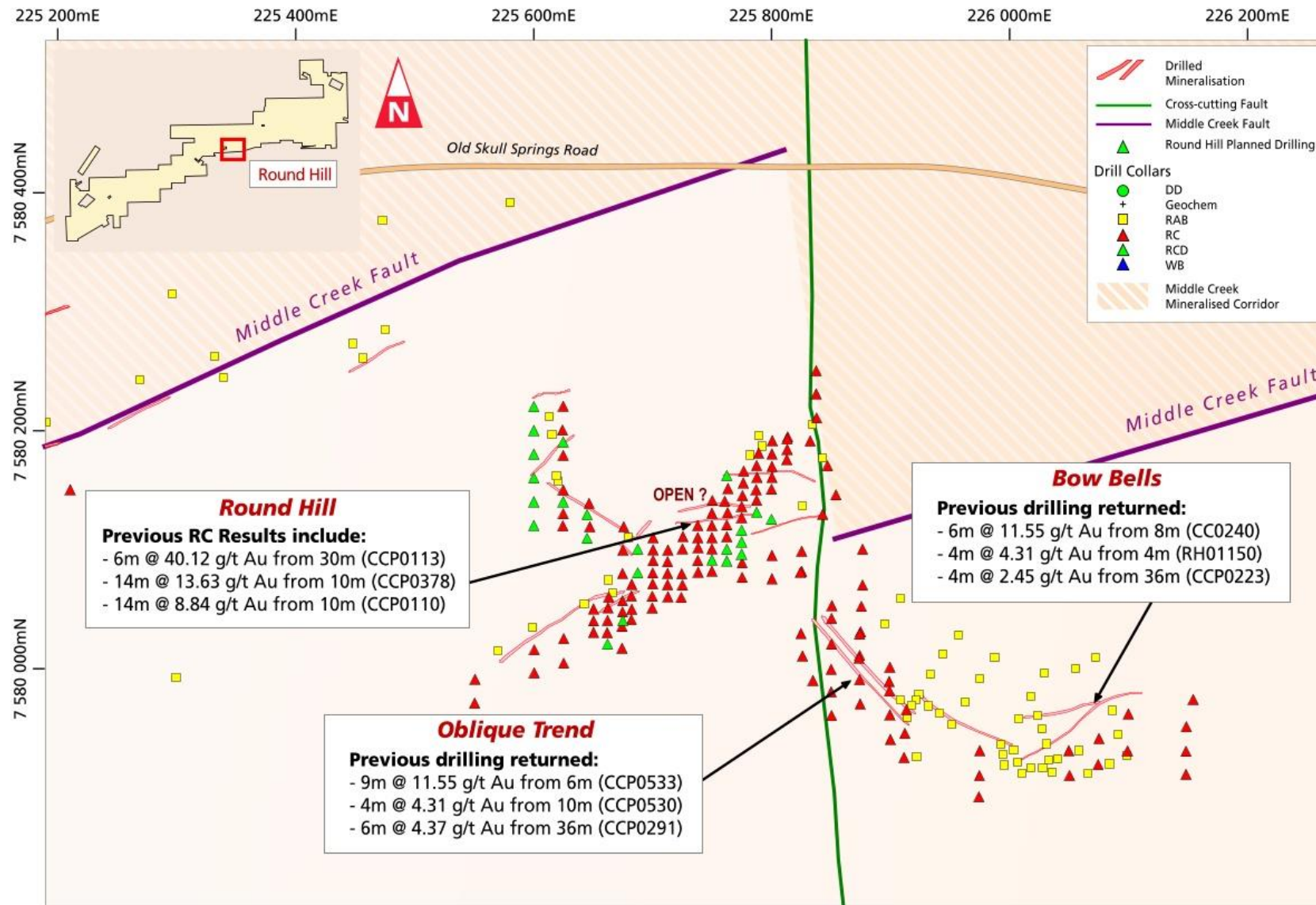
- ▶ Three new targets areas defined adjacent to All Nations
- ▶ Located within 800m of the All Nations mining area
- ▶ Primary mineralised trends characterised by a series of historical workings and high-grade rock-chip results at:
 - ▶ *ENE All Nations trend*
 - ▶ *Federation Trend*
 - ▶ *Pan*
- ▶ Rock-chip sampling returned gold assays of up to **19.9 g/t Au**
- ▶ Extensive drilling programs underway

Federation – Mineralised Trend



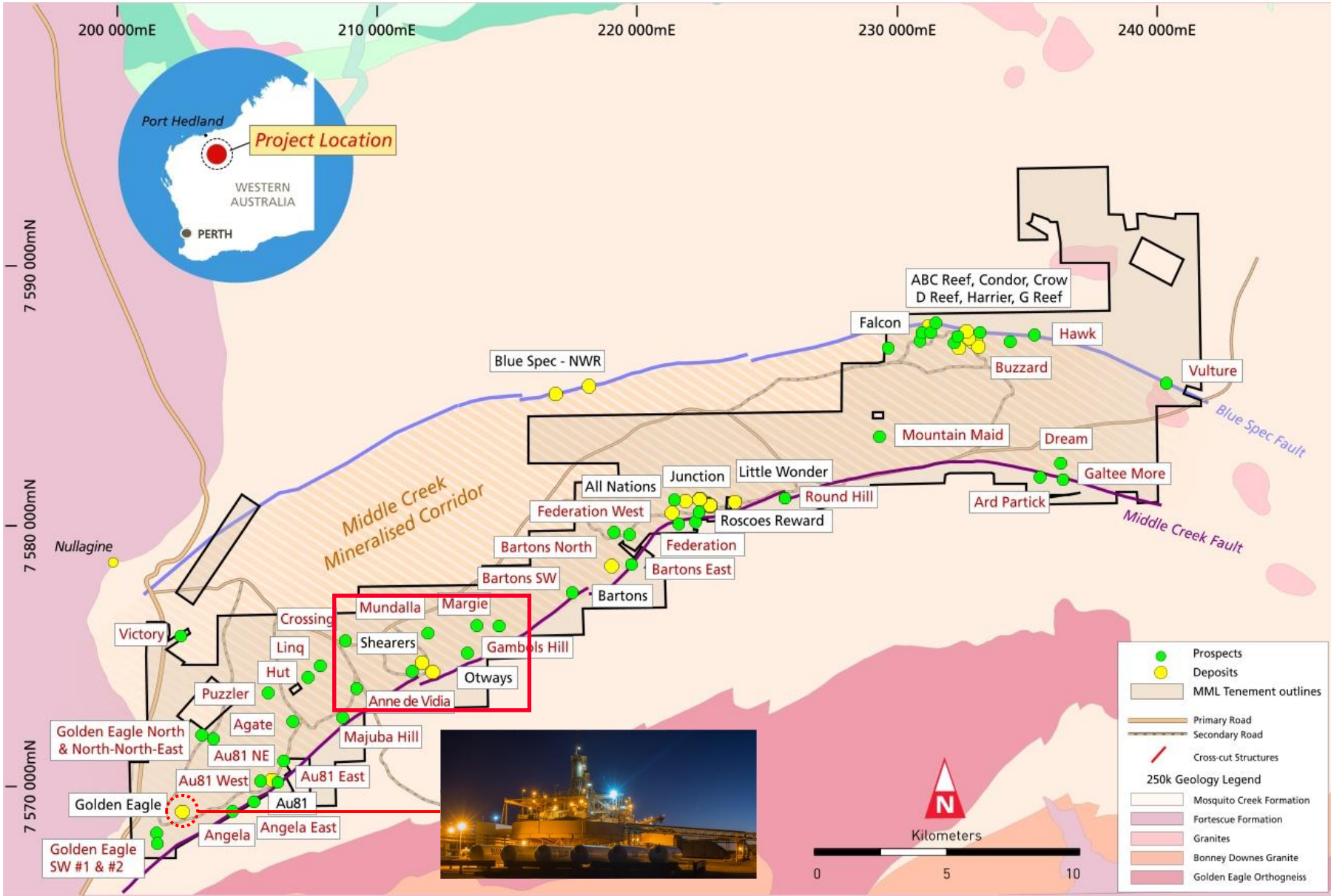
- ▶ Located ~ 800 m to the east of the All Nations mining area
- ▶ Primary mineralised trend is characterised by a series of historical workings over a strike length of ~ 200 m.
- ▶ Rock-chip sampling of the historical workings returned gold assays of up to **19.9 g/t Au**
- ▶ Planning completed last quarter to conduct a broad scale RC drilling program across the greater Federation trend
- ▶ All approvals have been received and drilling is now underway

Round Hill – Close to Infrastructure with Outstanding Potential

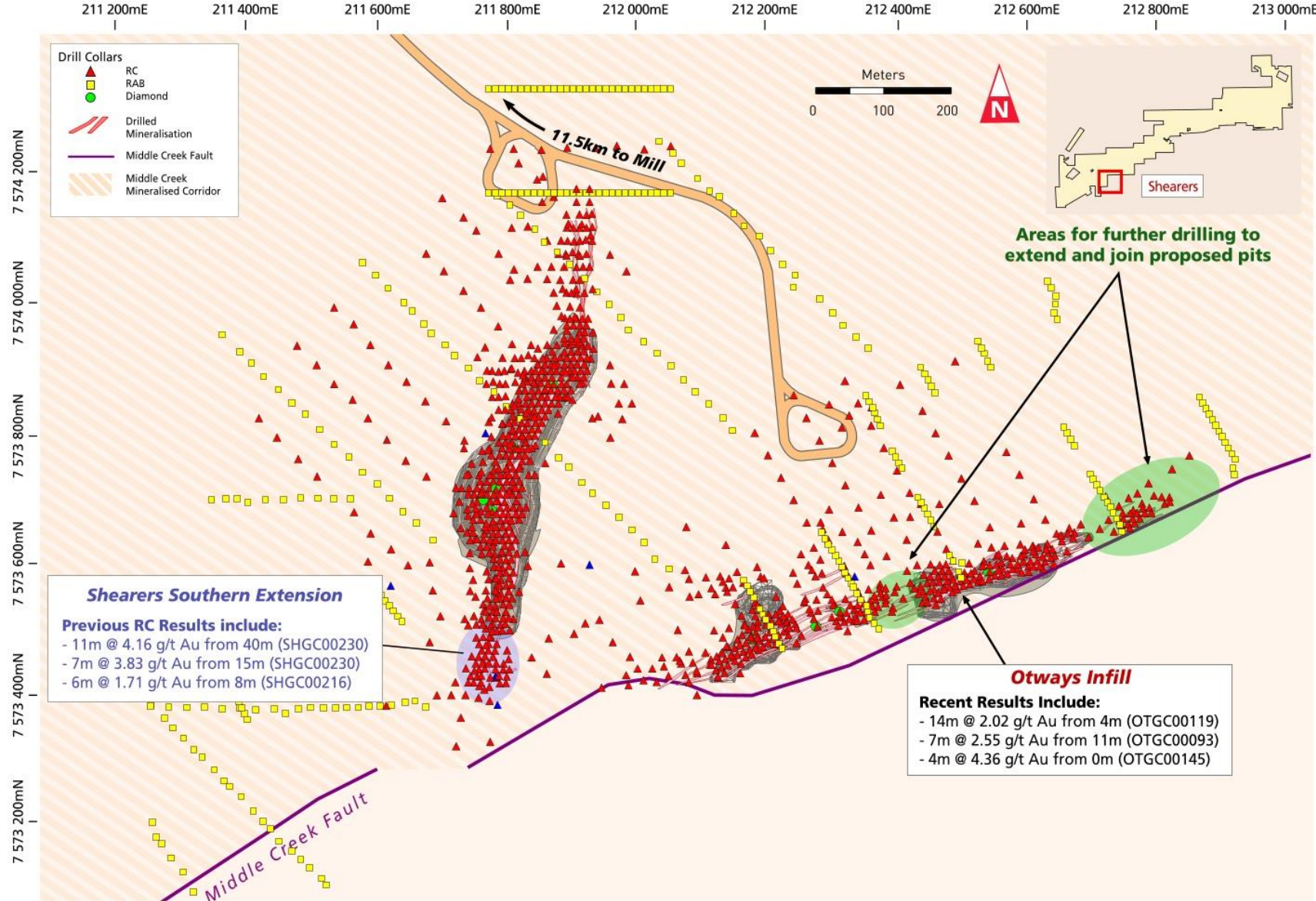


- ▶ Located 25 km from processing plant and near existing infrastructure
- ▶ Three very distinct mineralisation trends coincident with historical workings:
 - ▶ Round Hill
 - ▶ Bow Bells
 - ▶ Linking structure
- ▶ Very high grade mineralisation identified from historical drilling including:
 - ▶ 6m @ 40.12 g/t Au
 - ▶ 14m @ 13.63 g/t Au
- ▶ Outstanding potential to define significant new open pit deposit
- ▶ Planning for follow-up drilling complete, scheduled to commence this quarter

Primary Target Area - Five Mile Creek Mining Centre

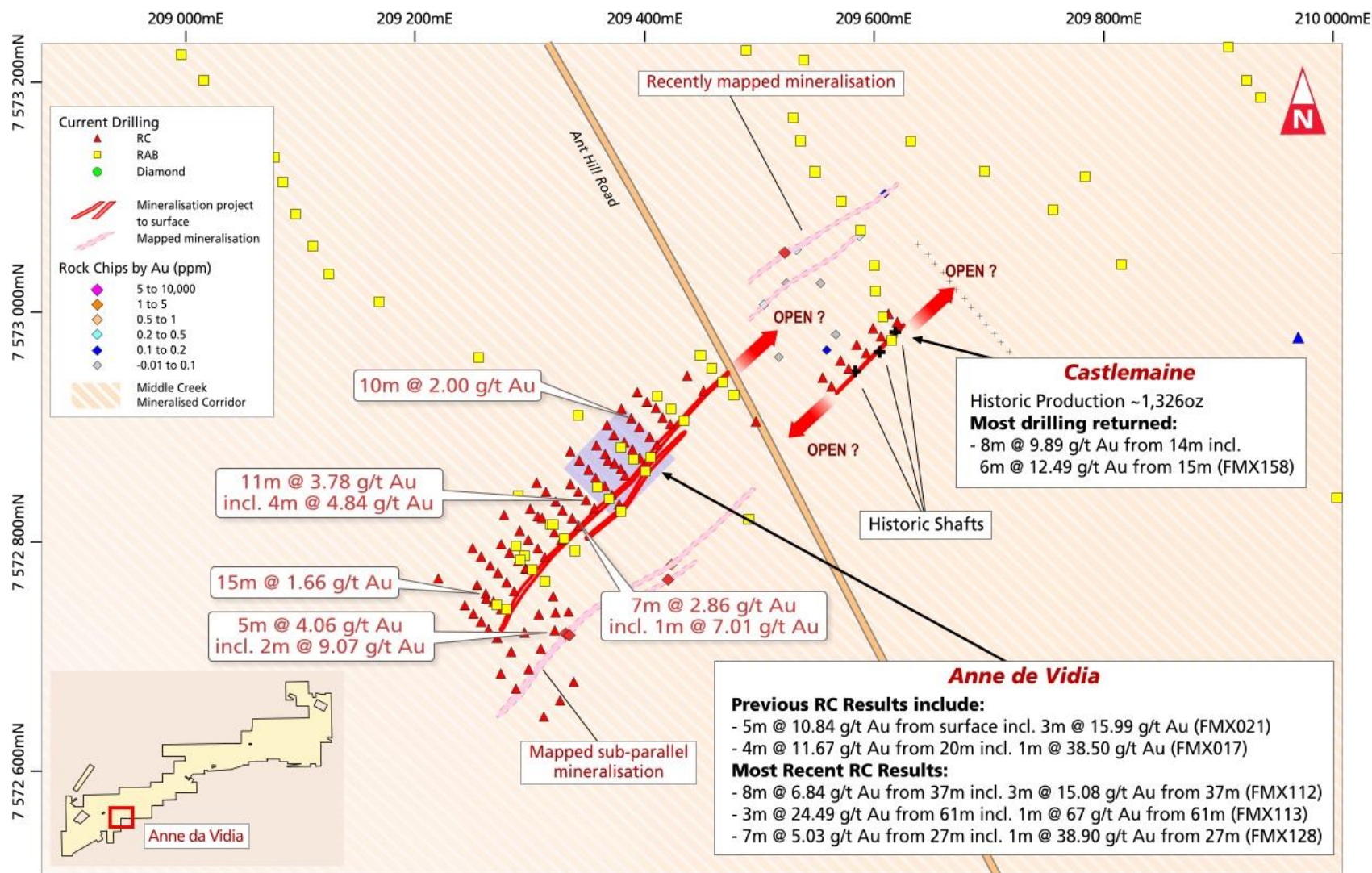


Shearers/Otways – Phase 1: Resource upgrades and shared infrastructure

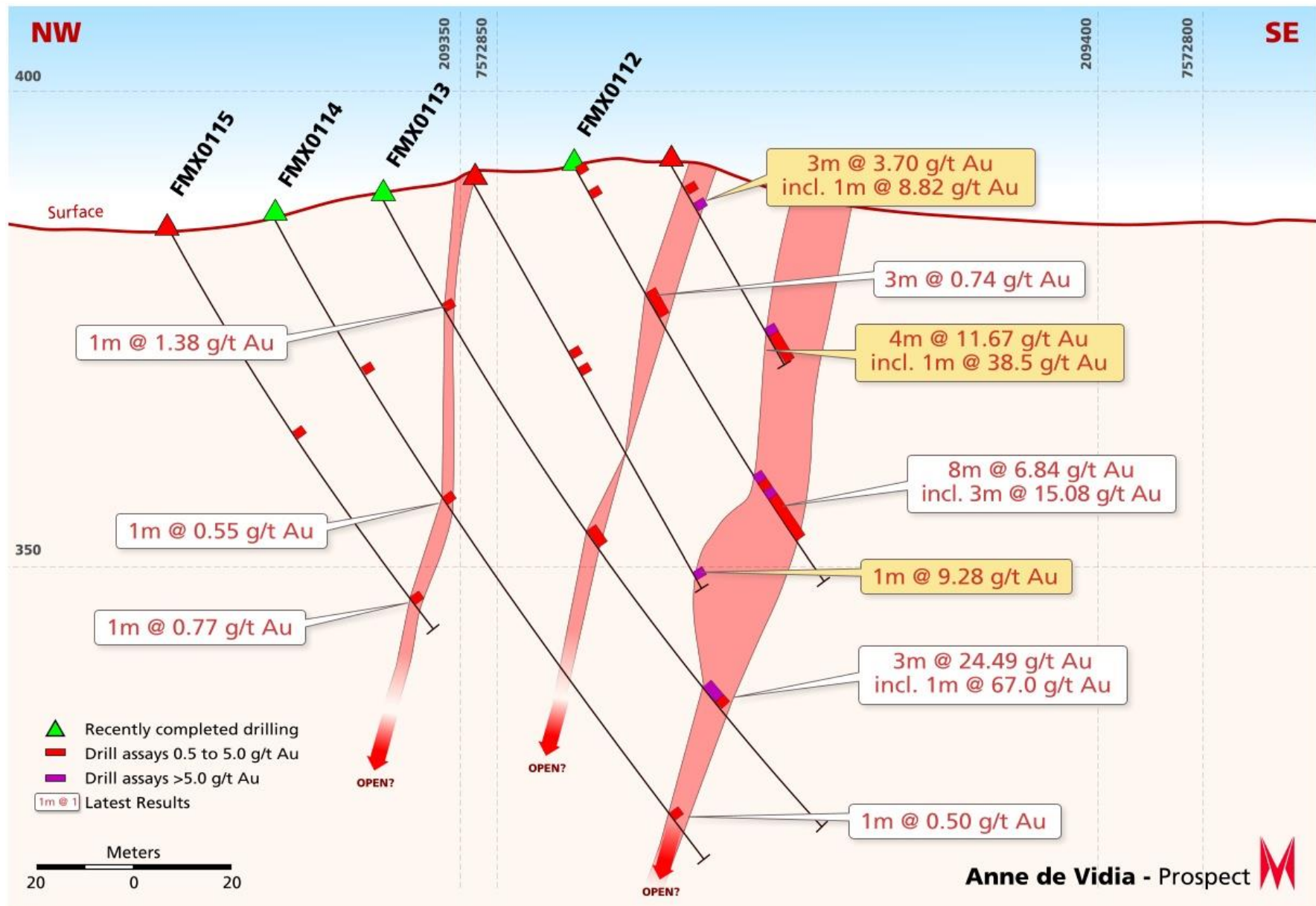


- ▶ Located only 11.5 km from processing plant - Updated resources recently completed for both deposits
- ▶ Drilling completed last quarter defined a southern extension to the south of Shearers
- ▶ Recent drilling at Otways extends known mineralisation beyond the existing pit designs:
 - ▶ 14 m @ 2.02 g/t Au
 - ▶ 11 m @ 1.19 g/t Au
 - ▶ 16 m @ 1.14 g/t Au
- ▶ Strong potential to create one large pit at Otways – additional drilling completed with assays pending
- ▶ Mining activities now commenced at Shearers with mining at Otways scheduled later this quarter

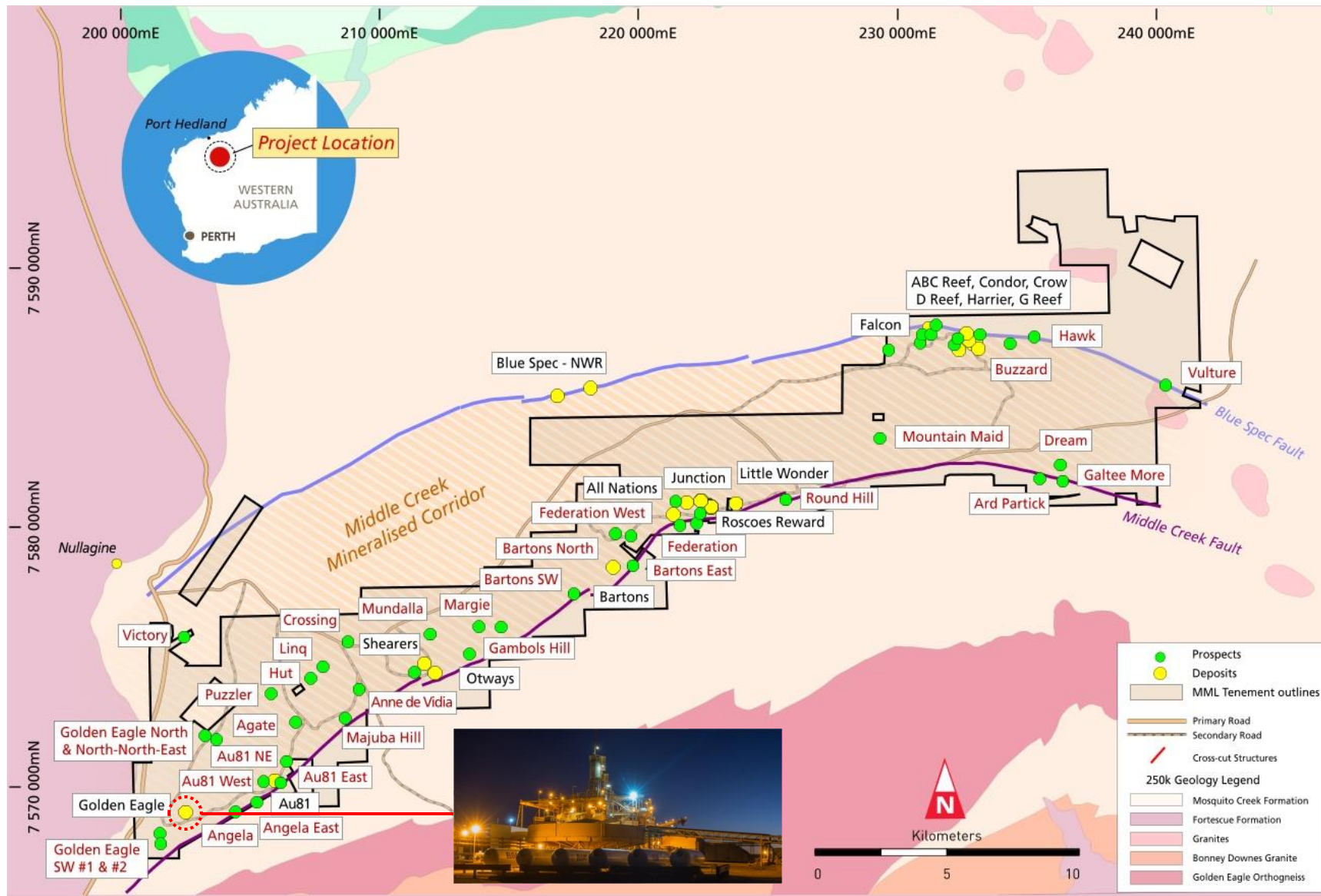
Anne de Vidia – Phase 2: New High-Grade Discovery Confirmed



- ▶ Located 9 km from processing plant
- ▶ Very high grade mineralisation identified from historical drilling
- ▶ At least two high grade parallel zones identified over a strike length of 240 m including:
 - ▶ **8m @ 6.84 g/t Au including 3m @ 15.08g/t Au (FMX112)**
 - ▶ **3m @ 24.49 g/t Au including 1m @ 67g/t Au (FMX113)**
 - ▶ **7m @ 5.03 g/t Au including 1m @ 30.9g/t Au (FMX128)**
- ▶ Importantly, mineralisation has not been closed off along strike
- ▶ Drilling at the nearby Castlemaine returned significant results including **8m @ 9.89 g/t Au**
- ▶ Maiden Mineral Resource estimate completed with further growth expected as drilling progresses

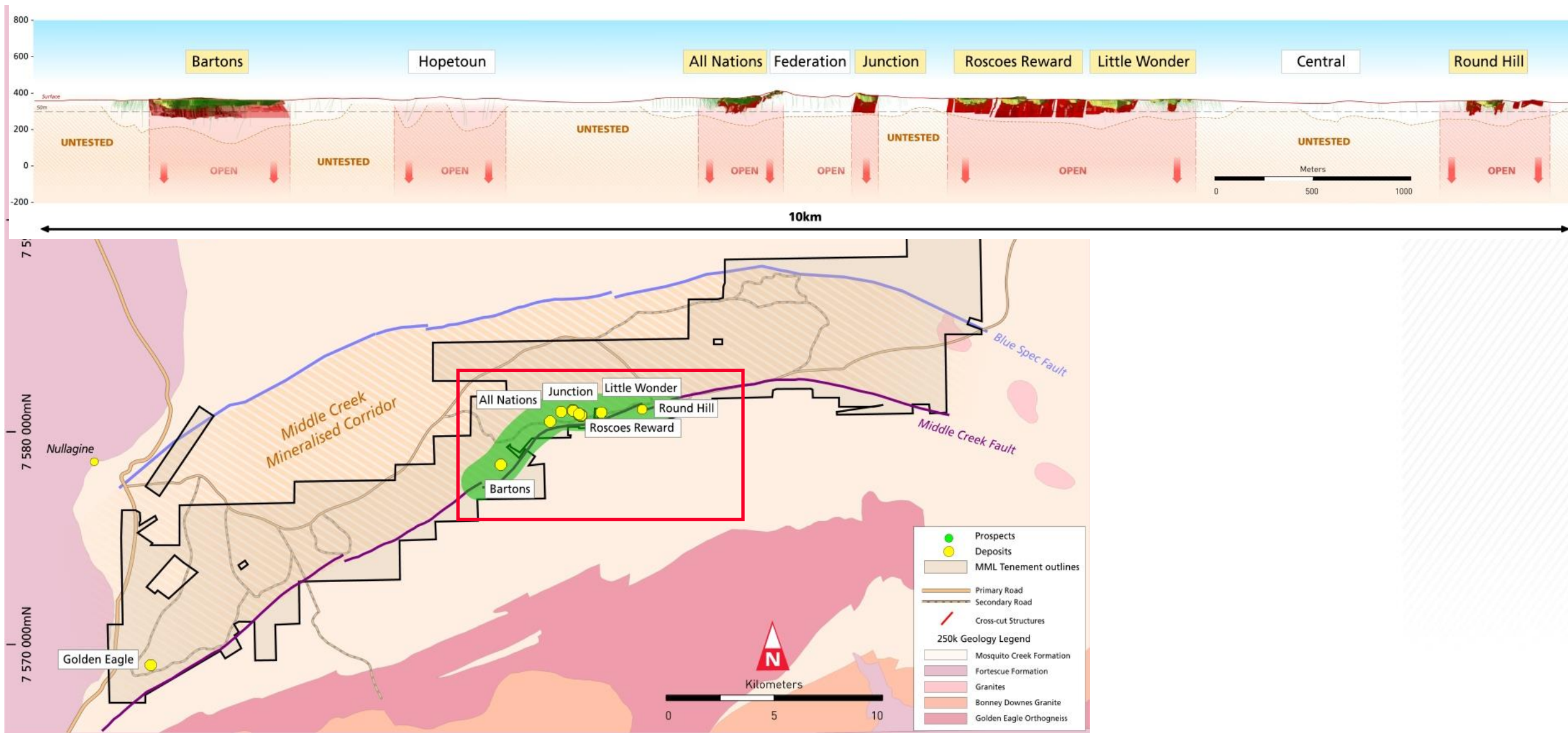


Phase 3 - Unlocking the True Potential of Nullagine

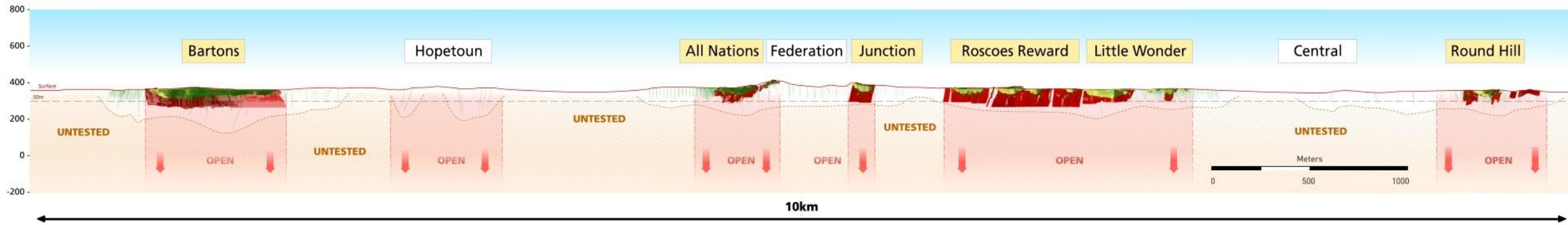


- ▶ Ongoing aggressive \$10M exploration program already delivering early success
- ▶ Currently demonstrating ability to replace mined ounces while growing mine life
- ▶ Established near-mine exploration targets – drilling underway
- ▶ However, most drilling only targeting shallow, oxide resources to a depth of ~ 60m
- ▶ Phase 3 - Targeting fresh ore depth extensions from 50m – 200m
- ▶ Supports potential future plant upgrade
- ▶ **All of Millenniums known Resources remain open at depth**

Phase 3 – Targeting fresh ore mineralisation below 50m



Phase 3 – Targeting fresh ore mineralisation below 50m



- ▶ All previous drilling focused on near surface oxide ore sources
- ▶ Very little drilling below 50m depth
- ▶ Substantial upside for lateral and depth extensions
- ▶ Drill planning underway to test priority target areas
- ▶ **Potential to significantly increase mine life**



Nullagine Gold Project performing well with strong production and low costs

Positive outlook for CY 2016: 80,000-85,000oz at AISC of A\$1180/oz-A\$1220/oz

Debt-free balance sheet provides a strong platform for growth

Outstanding exploration upside at Nullagine

Initial resource upgrade in April 2016 demonstrates ability to **replace mined ounces and grow mine life**

Aggressive drilling program continuing with multiple upcoming share price catalysts

Ideally placed to benefit from **strong gold market environment**

Clear vision to **become a low cost and margin focused mid-tier Australian gold producer**





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Resources Rising Stars – May 24 - 25 2016

Competent Person's Statements and JORC Code



Mineral Resources and Ore Reserves

On 25 January 2015, the Company announced an updated Mineral Resources and Ore Reserves statement reported in accordance with the JORC Code 2012, which included the below:

2016 Mineral Resource estimate by resource category

Mineral Resource Category	Million Tonnes	Grade (g/t Au)	Thousand Ounces
Measured	12.50	1.2	497
Indicated	7.53	1.3	321
Inferred	7.18	1.2	262
Total	27.20	1.2	1078

2016 Ore Reserve estimate by reserve category

Ore Reserve Category	Million Tonnes	Grade (g/t Au)	Thousand Ounces
Proven	2.53	1.5	121
Probable	0.38	1.8	21
Stockpiles	0.61	0.9	18
Total	3.52	1.4	159

In accordance with Listing Rule 5.23, the Company confirms it is not aware of any new information or data that materially affects the information included in its announcement of 25 January 2016, and that all material assumptions and technical parameters underpinning the estimates in that announcement continue to apply and have not materially changed.

Competent Persons Statement – Exploration Results

Mr Andrew Dunn (MAIG), a geologist employed full-time by Millennium Minerals Limited, compiled the technical aspects of this Report. Mr Dunn is a member of the Australian Institute of Geoscientists and has sufficient experience that is relevant to this style of mineralization and type of deposit under consideration and to the activity that is being reported on 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 Dunn consents to the inclusion in the report of the matters in the form and context in which it appears.