

## EXCITING NEW GOLD DISCOVERY ADDING TO NICKEL INVENTORY

### Investment highlights

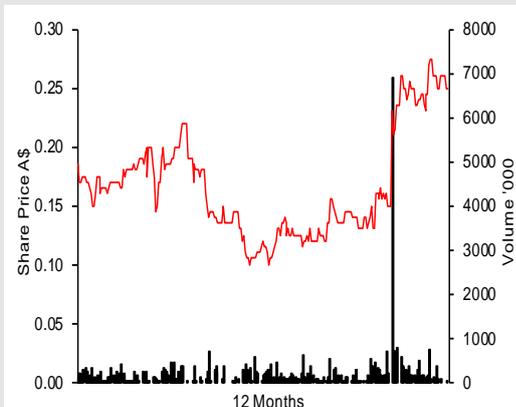
- We are initiating coverage of Duketon Mining Limited (DKM) with a Speculative Buy rating.** The Company recently announced assays results from its 100% owned Golden Star project confirming thick continuous zones of mineralisation at the project. The latest drilling campaign has returned intervals such as 50m at 1.6g/t Au, 26m at 1.6 g/t Au and 20m at 0.9 g/t Au (ASX Release 19 December 2017). DKM owns a very large portion of the Duketon greenstone belt which it shares with Regis Resources (RRL). The belt is located 100km North of Laverton in Western Australia and hosts Regis' Garden Well (3Moz), Moolart Well (2.7Moz) and Rosemont (1.7Moz) as well as several other smaller deposits. Greenstone belts of the Yilgarn Craton are prospective for gold and nickel. DKM started successfully exploring its extensive 1,700km<sup>2</sup> of tenure for nickel in 2014 identifying and defining two Nickel deposits in the process. In 2016, DKM's exploration focus shifted to gold with its efforts paying off with the discovery of Lancefield North (maiden resource pending) and the now confirmed discovery of Golden Star. Thompson Bore and Henrys Bore add promising projects to the portfolio with thick zones of mineralisation identified at Thompson Bore.
- Significant Results at Golden Star:** Thick intervals and consistent grades have been achieved over a 500m long strike length. Golden Star is located 25km from the Garden Well 5Mtpa plant.
- Gold resource estimate pending:** drill results from the programs conducted in 2016-17 at the Lancefield North prospect are being compiled to produce a maiden resource, due for release Q2 2018.
- Strategic landholding:** DKM 100% controls 1,700km<sup>2</sup> of leases over the Duketon belt. Previously, RRL and DKM had an earn-in JV agreement until October 2017 where RRL could earn 75% of the gold rights over an area of 373km<sup>2</sup>. The earn in agreement was conditional to a decision to mine from RRL. This condition was not met and the leases ownership was reverted to DKM together with a considerable amount of exploration data from the work conducted by RRL.
- Strong prospectivity supported by a promising geological model:** The Duketon belt is made of a western greenstone belt separated from an eastern greenstone belt by a zone dominated by felsic intrusives. The western belt is a stratigraphic analogue for the Southern Laverton belt host to the Wallaby and Sunrise dam deposits. The eastern belt is well endowed hosting RRL's 5.8Moz of reported gold resources. The felsic domain is also host to several gold occurrences.
- Experienced Board and Management:** DKM is headed by Stuart Fogarty, a geologist with over 19 years' of experience in exploration with Western Mining Corporation and BHP Billiton, DKM can also count on Heath Hellewell, a geologist too, with over 20 years' of successful exploration experience with Resolute Resources, Independence Group and more recently Capricorn Metals.
- Defined nickel resource inventory:** DKM has an existing nickel resource base of c.71kt contained nickel. The C2 deposit has an inferred resource of 5.7Mt at 0.7% Ni (at 0.5% Ni cut-off) and Rosie an inferred and indicated resource of 1.9Mt at 1.7% Ni and 1.9g/t Pt+Pd (at 1%Ni cut-off). Both those deposits, remain open at depth and along strike, and give DKM exposure to the nickel and PGE markets.
- Catalysts:** 1) New discovery close to existing plants, 2) Thick mineralised intervals, 3) Drilling restarts, 4) Existing nickel resources at Rosie and C2 and gold resource at Lancefield North (Pending)

19 February 2018

12mth Rating	SPECULATIVE BUY	
Price	A\$	0.26
Target Price	A\$	na
12mth Total Return	%	na
<b>RIC: DKM.AU</b>		<b>BBG: DKM AU</b>
Shares o/s	m	103.3
Free Float	%	85
Market Cap.	A\$m	26.9
Net Debt (Cash)	A\$m	-2.6
Net Debt/Equity	%	na
3mth Av. D. T'over	A\$	60,638
52wk High/Low	A\$	0.275/0.10
2yr adj. beta		
<b>Valuation:</b>		
Methodology		na
Value per share	A\$	na

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### 12 Month Share Price Performance



Performance %	1mth	3mth	12mth
Absolute	4	79	35
Rel. S&P/ASX 300	12	76	24

## PRIME LOCATION

Duketon mining Limited (DKM) is focussed on extracting the best value for shareholders from the Duketon belt in the Eastern Goldfields of Western Australia.

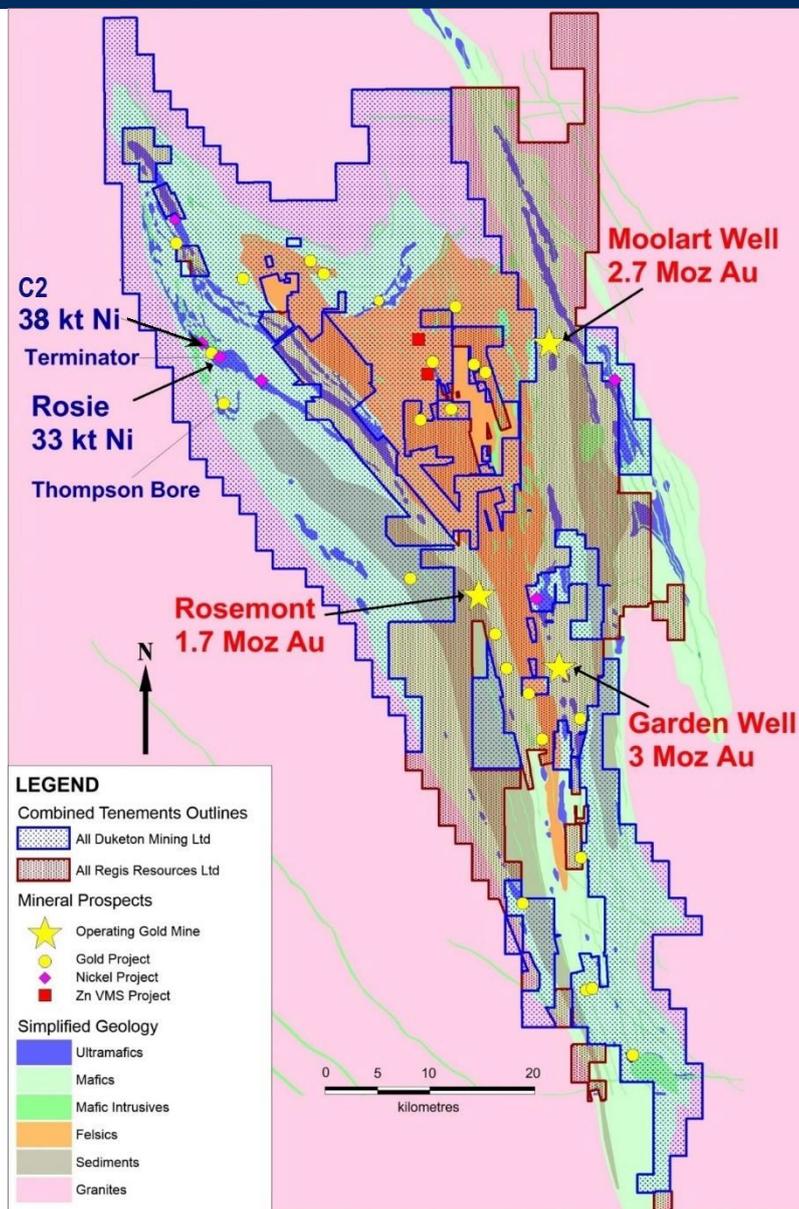
The Duketon greenstone belt is an extension of the North Laverton belt and sits approximately 100km north of the town of Laverton in the Eastern Goldfields.

The belt is dominated by two major greenstone units, a western branch orientated NW-SE and an Eastern Branch orientated N-S. The two branches join in the southern part of DKM Tenure where the Golden Star discovery lies.

The eastern belt, is host to several gold deposits currently being profitably mined by Regis Resources (RRL) with reserves and resources of 7.98Moz (Source: RRL 2017 annual report, reserves and resources at 31/03/2017)

DKM currently holds 1700km<sup>2</sup> of leases covering half of the Duketon belt (Figure 1)

Figure 1: DKM Tenure over simplified geology



Source: Duketon Mining Limited

## GOLDEN STAR, NEW GOLD DISCOVERY

In early 2017, the first Reverse Circulation (RC) drilling campaign field season under historical shallow holes and prospector’s workings returned grades showing the existence of a mineralised system extending the surface anomalies at depth (ASX Release 15 June 2017).

A second round of RC drilling confirmed mineralisation at Golden Star over approximately 500m of strike length. This confirmed the presence of continuous grade over wide intervals with 50m at 1.6g/t Au in hole DKRC0120, 26m at 1.6g/t Au in hole DKRC0121 or 20m at 0.9g/t Au in hole DKRC 0107.

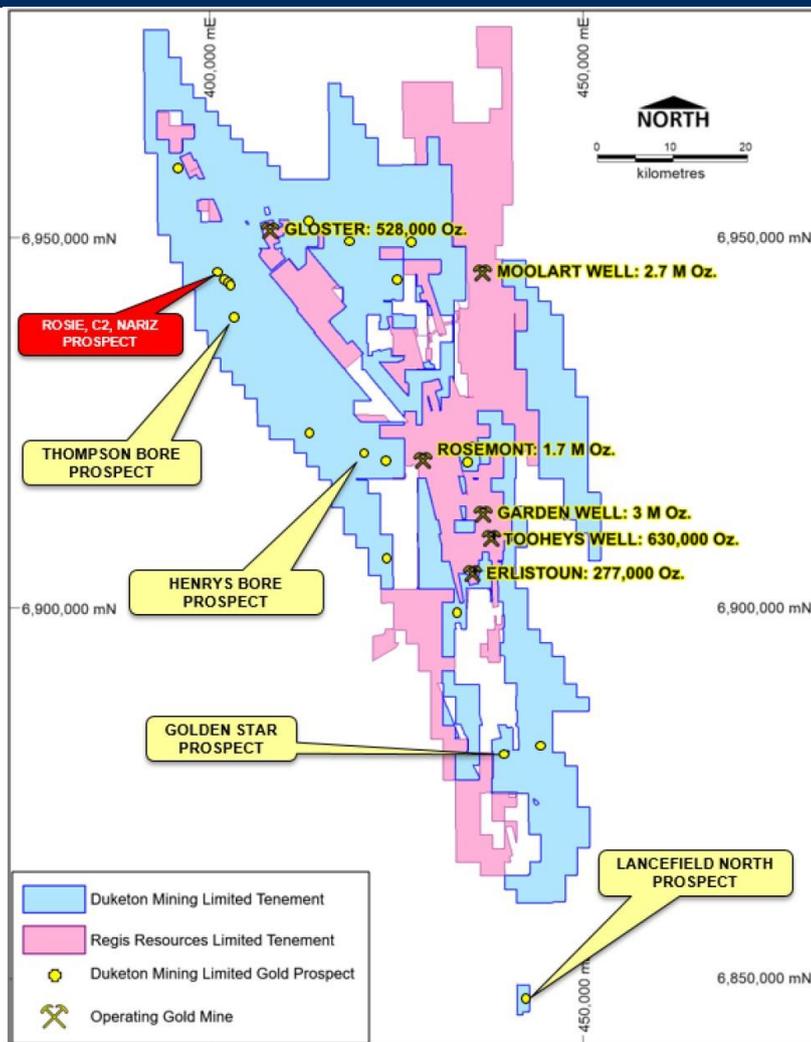
Both rounds of drilling showed that mineralisation is hosted in a doleritic unit, the principal host for Gold mineralisation in the Eastern goldfields.

The last results (ASX Announcement 19 December 2017) combined with the earlier drilling program confirm strong potential for Golden Star. The mineralised system is open to the North, South and at depth, leaving ample room for expansion.

DKM is planning follow up drilling at Golden Star in the new field season due to start this week.

Golden Star is located a short 25km from RRL’s Garden Well 5Mtpa plant. (Current reserve grade 0.9g/t Au)

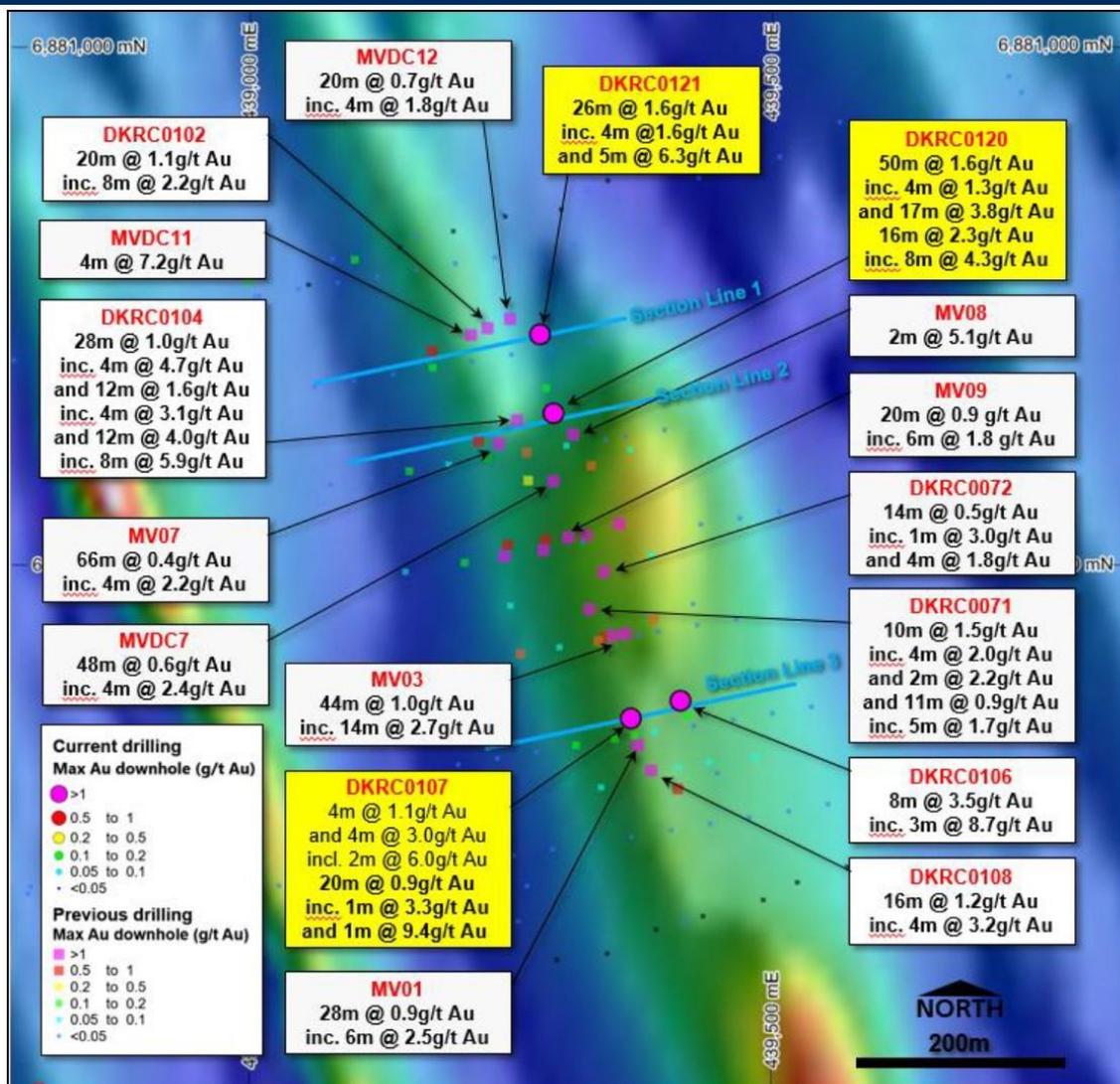
Figure 2: DKM Tenure and prospect location map



Source: Duketon Mining Limited

So far, Golden Star is still an advanced exploration project, however, the mineralisation seems constant over a 500m long zone, open to the north, south and at depth (see Figure.3). The mineralisation is associated with a mafic unit, likely doleritic. Further determination will happen after the next round of drilling which will be diamond core and reverse circulation drilling. Diamond core provides an extensive amount of geological information. It will also enhance considerably the understanding of the mineralised system.

Figure 1: Golden Star Project Plan view over magnetics backdrop



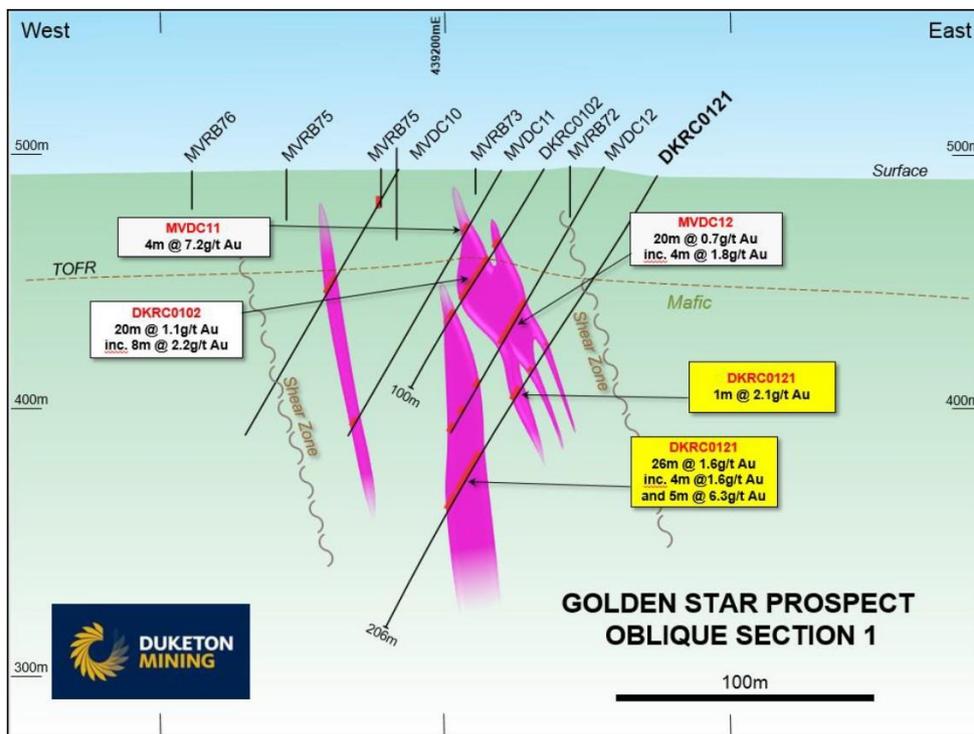
Source: Duketon Mining Limited

Current knowledge of Golden Star shows that the mineralisation is contained within two bounded shear zones and contains thick zones of constant grade mineralisation with higher grading shear zones.

Compared to deposits hosted by brittle shear zones within dolerites, this project seems to be showing wide zones of lower grade (but mineralised) material between higher grade structures

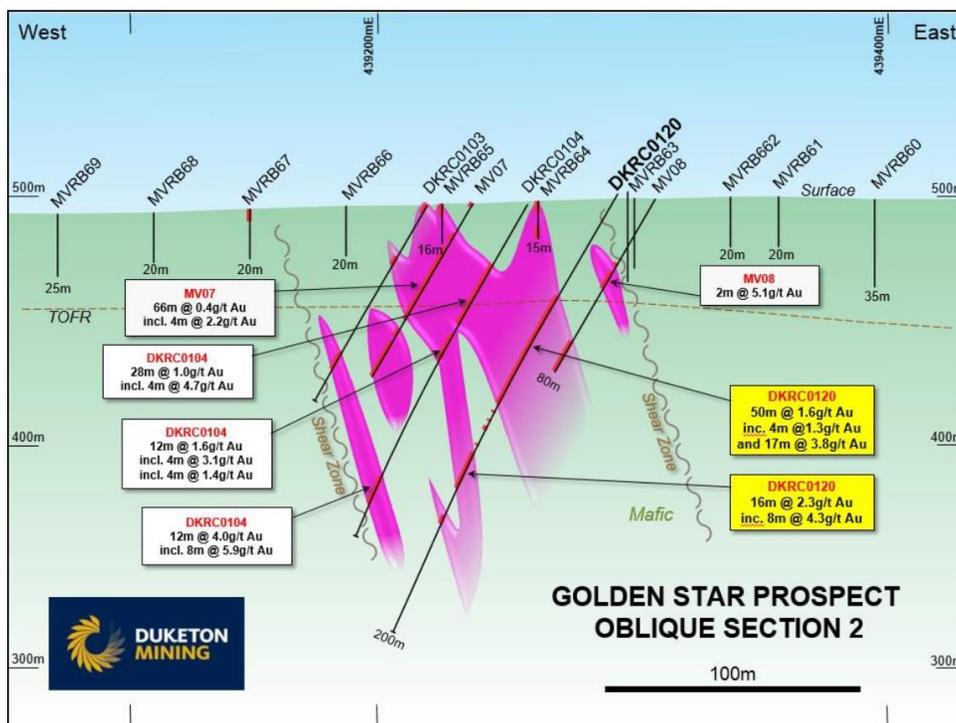
The set of schematic sections drawn by DKM geologists show those wide zones of mineralisation as well as the interpreted location of the bounding shear zones. (Figures.4, 5 & 6)

Figure 4: Cross section, northern end of Golden Star (identified to date)



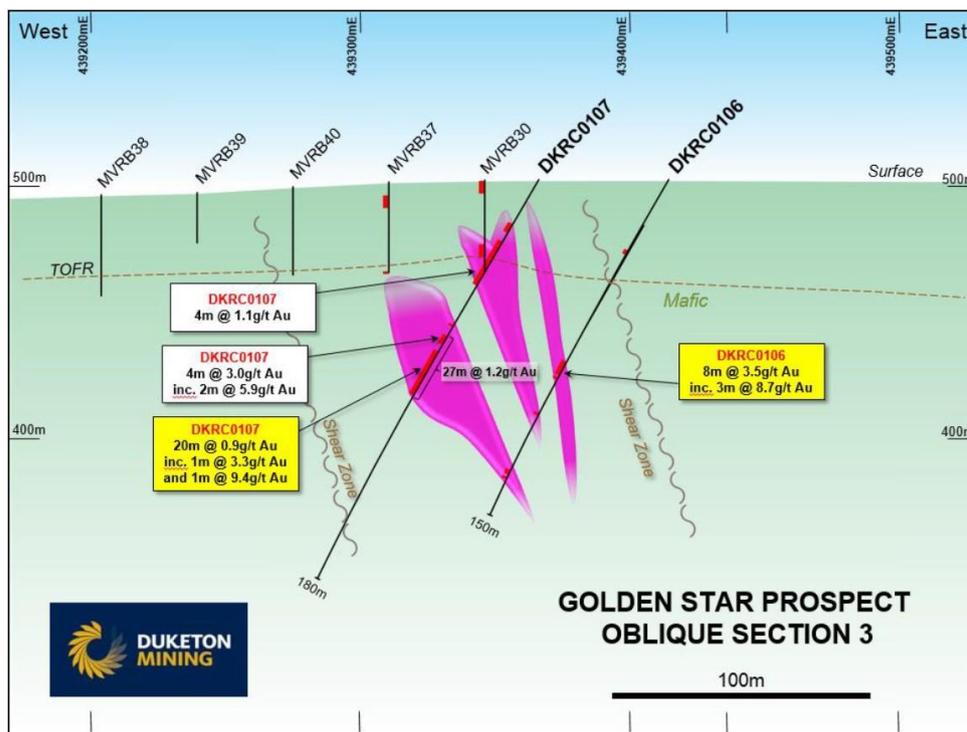
Source: Duketon Mining Limited

Figure 5: Cross section, central north part of Golden Star



Source: Duketon Mining Limited

Figure 6: Cross section Southern end of Golden Star



Source: Duketon Mining Limited

The mineralisation at Golden Star is hosted in fresh rock. Depth of regolith is limited and mineralisation starts as shallow as 20m from surface. Step out drilling will help constrain depth extension of the project but drilling to date shows a vertical extent to about 100m from surface.

We believe Golden star is shaping up as a potential open pit gold project in close vicinity to process plants in a richly endowed region.

### THOMPSON BORE, MORE GOLD POTENTIAL

Thompson bore is still in the early stages of exploration having only been sparsely drilled, however the geology seems reasonably simple as mineralisation is of BIF replacement style.

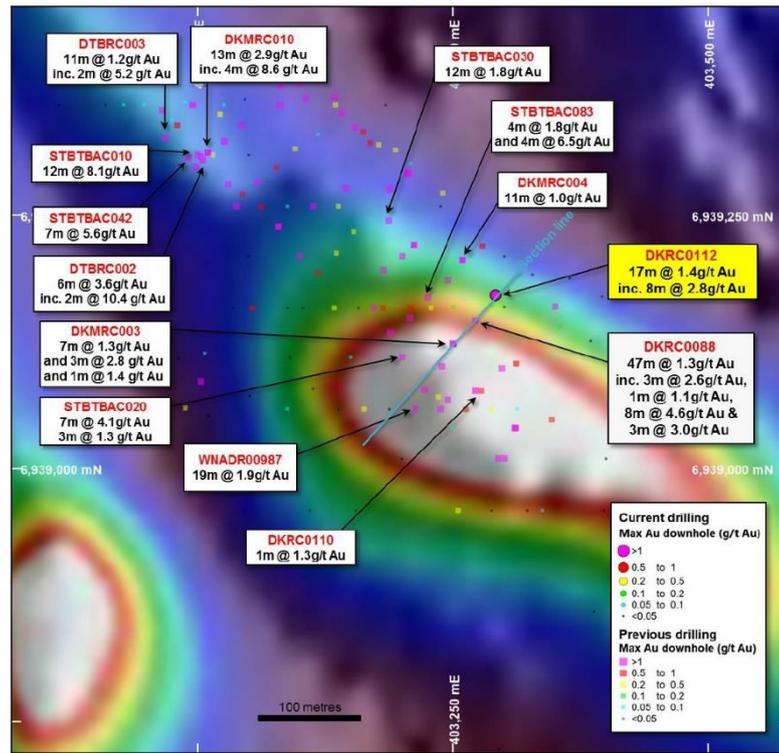
Latest drilling to date shows wide strong mineralised intervals but drilling density to date is insufficient to better determine size or continuity for Thompson bore.

The following plan view (Figure.7) and cross section (Figure8) show the level of understanding DKM has of Thompson Bore.

The prospect will need further drilling to define the extent of mineralisation along strike and at depth.

Thompson Well is also located close to RRL’s processing plant, being about 30 km from Moolart Well.

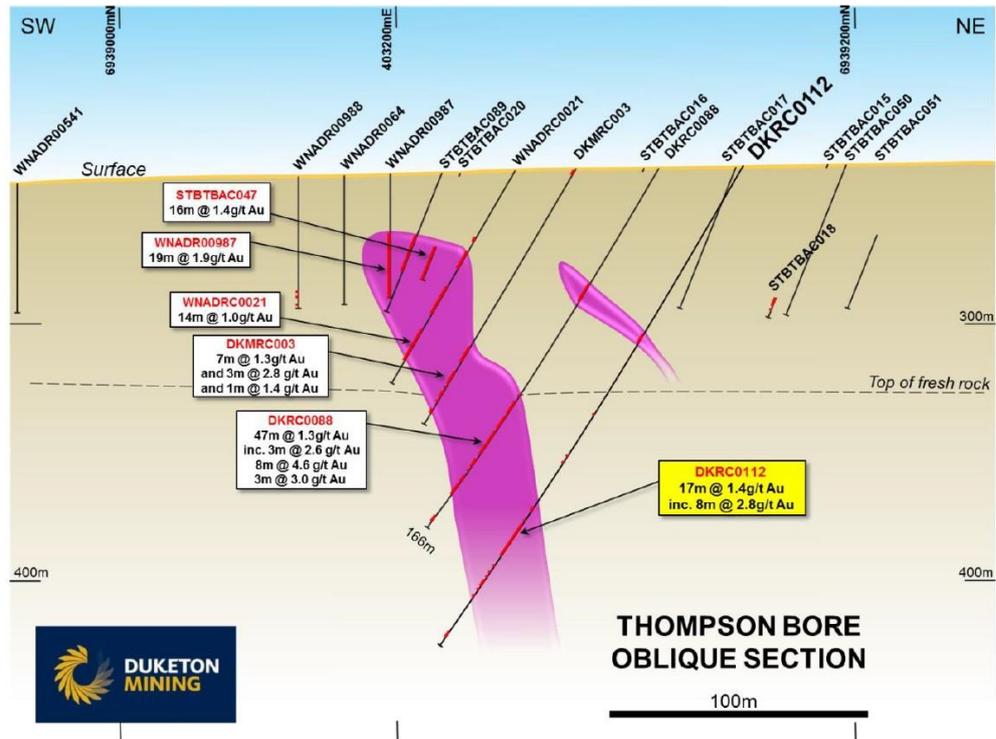
Figure 7: Thompson Bore drilling plan over magnetics



Source: Duketon Mining Ltd

The following cross section location is indicated by a blue line on the plan (Figure 7).

Figure 8: Thompson bore section



Source: Duketon Mining Ltd

## AN EXPLORER WITH A GROWING RESOURCE INVENTORY

In its early days, DKM started exploring the Duketon greenstone belt for nickel. Those early days resulted in the definition of the Rosie deposit, historically discovered by Independence (IGO). Further drilling by DKM discovered the C2 deposit.

Current Mineral Resource estimates give Duketon 71kt of contained nickel in inferred and indicated resources (See following tables).

Rosie Nickel Resource >1.0%Ni - September 2012										
Classification	Oxidation	Tonnes	Ni (%)	Cu (%)	Co (ppm)	As (ppm)	Au (ppm)	Pt (ppb)	Pd (ppb)	S (%)
Indicated	Fresh	1,380,000	1.7	0.38	500	1330	0.11	760	1,020	10.6
	Transitional	30,000	1.2	0.35	410	4120	0.10	700	900	8.8
	<b>Sub-Total</b>	<b>1,410,000</b>	<b>1.7</b>	<b>0.37</b>	<b>500</b>	<b>1390</b>	<b>0.11</b>	<b>760</b>	<b>1,020</b>	<b>10.6</b>
Inferred	Fresh	520,000	1.6	0.41	570	810	0.09	900	1,340	10.2
	Transitional	10,000	1.3	0.40	410	2900	0.11	720	1,080	8.8
	<b>Sub-Total</b>	<b>530,000</b>	<b>1.6</b>	<b>0.41</b>	<b>560</b>	<b>860</b>	<b>0.09</b>	<b>900</b>	<b>1,330</b>	<b>10.2</b>
<b>Total</b>		<b>1,940,000</b>	<b>1.7</b>	<b>0.38</b>	<b>520</b>	<b>1250</b>	<b>0.10</b>	<b>800</b>	<b>1,100</b>	<b>10.5</b>

C2 Nickel Resource >0.5%Ni							
Classification	Oxidation	Tonnes	Ni (%)	Cu (%)	Pt (ppb)	Pd (ppb)	S (%)
Inferred	Fresh	5,100,000	0.7	0.04	60	79	3.3
	Transitional	600,000	0.6	0.04	72	105	0.9
<b>Total</b>		<b>5,700,000</b>	<b>0.7</b>	<b>0.04</b>	<b>61</b>	<b>82</b>	<b>3.1</b>

An important note, as uncommonly seen in other greenstone hosted nickel deposits, C2 comes with high Pt and Pd with a combined grade of 2g/t Pt+Pd for the resource. The high PGE content can only add value to the potential economics of the project.

Both resources are still open at depth and along strike, leaving space for the existing resource to grow.

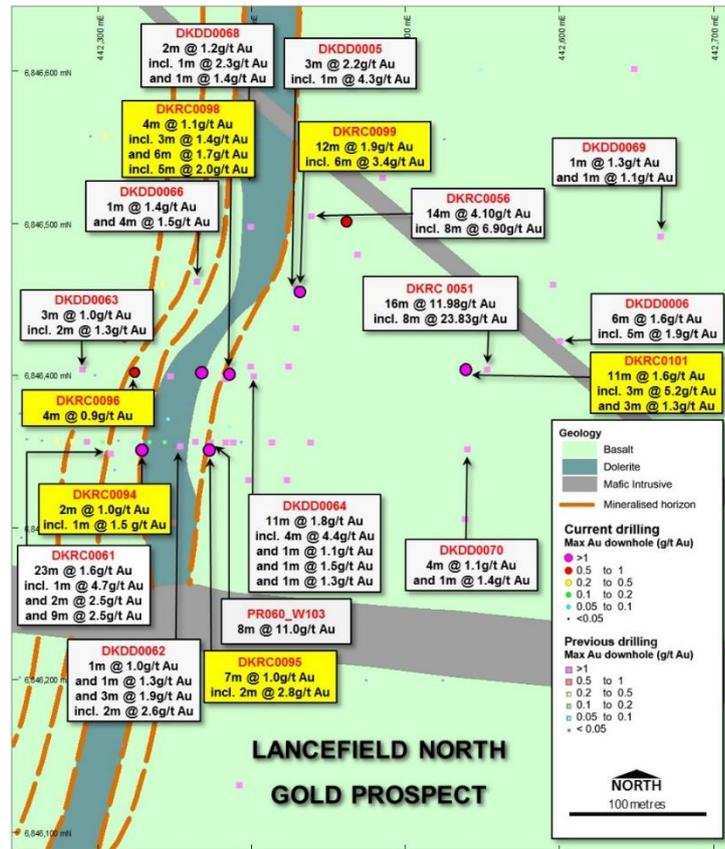
In addition to the nickel resources, DKM drilled the Lancefield North Gold prospect to a density level sufficient for resource estimate.

Resource modelling and calculations are currently being undertaken and the company should be in a position to release a resource estimate shortly.

The following plan view (Figure 9) and cross section (Figure10) show the Lancefield North in context.

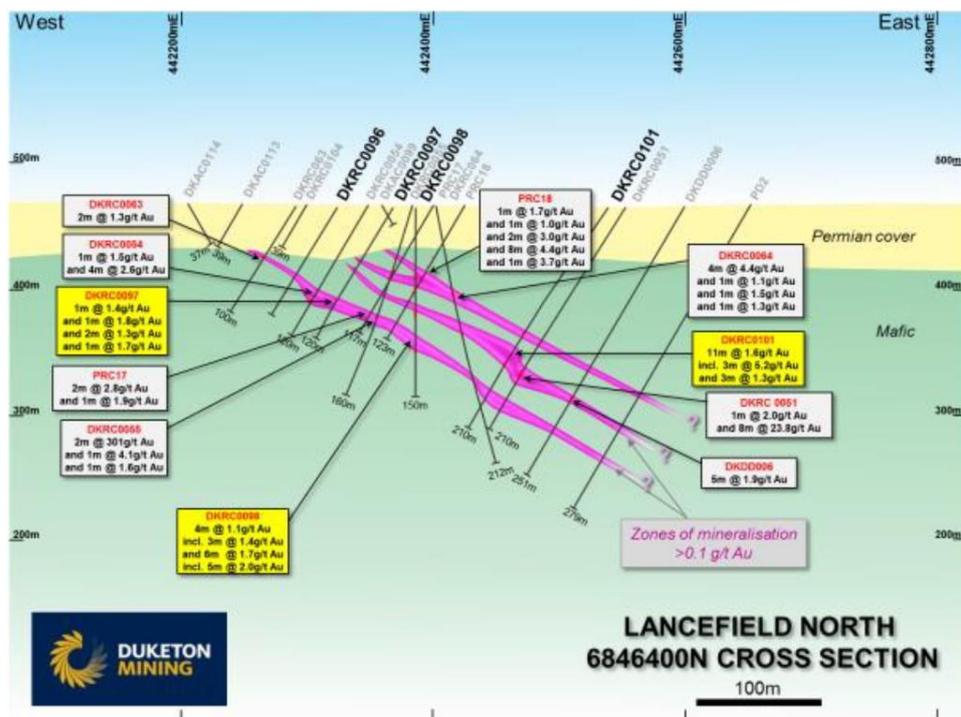
The Lancefield North deposit being located in close proximity to Laverton and existing processing facilities, a defined resource in this area will certainly be a valuable asset.

Figure 9: Lancefield North project plan



Source: Duketon Mining Limited

Figure 10: Lancefield North cross section



Source: Duketon Mining Limited

## CORPORATE SUMMARY

DKM is primarily a nickel and gold explorer and developer.

DKM is currently assessing the Gold Star Project situated North of Laverton, Western Australia.

The Company has 103.30m shares on issue with 38.3m issued unlisted options.

DKM Issued unlisted options			
Quantity	Options	Exercise Price	Expiry Date
3,000,000	Unlisted Options	\$0.20	31/03/2019
1,500,000	Unlisted Options	\$0.25	31/03/2019
1,000,000	Unlisted Options	\$0.30	31/03/2019
1,550,000	Unlisted Options	\$0.35	31/03/2019
8,250,000	Unlisted Options	\$0.35	14/05/2019
15,000,000	Unlisted Options	\$0.20	1/08/2019
300,000	Unlisted Options	\$0.20	18/11/2019
2,800,000	Unlisted Options	\$0.20	30/11/2020
2,500,000	Unlisted Options	\$0.30	24/11/2021
250,000	Unlisted Options	\$0.25	31/01/2022
3,000,000	Unlisted Options	\$0.20	31/03/2019

Source: Duketon Mining Limited

DKM held a cash balance of \$2.6m and an additional \$1.3m held in equity investments, as of the end of December 2017, and expected expenditure of \$860,000 during Q1 2018.

The Company has not participated in any capital raising since August 2016.

DKM substantial shareholders include Harman Family Trust (Harmanis) (6.33%) and management holding 4.04% of the existing shares on issue.

## Recommendation History

We are initiating research on Duketon Mining Limited (DKM) with a speculative buy rating and Patersons Securities Limited did not make previous recommendation.

**Stock recommendations:** Investment ratings are a function of Patersons expectation of total return (forecast price appreciation plus dividend yield) within the next 12 months. The investment ratings are Buy (expected total return of 10% or more), Hold (-10% to +10% total return) and Sell (> 10% negative total return). In addition we have a Speculative Buy rating covering higher risk stocks that may not be of investment grade due to low market capitalisation, high debt levels, or significant risks in the business model. Investment ratings are determined at the time of initiation of coverage, or a change in target price. At other times the expected total return may fall outside of these ranges because of price movements and/or volatility. Such interim deviations from specified ranges will be permitted but will become subject to review by Research Management. This Document is not to be passed on to any third party without our prior written consent.

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Patersons Securities does, and seeks to do, business with companies that are the subjects of its research reports.

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