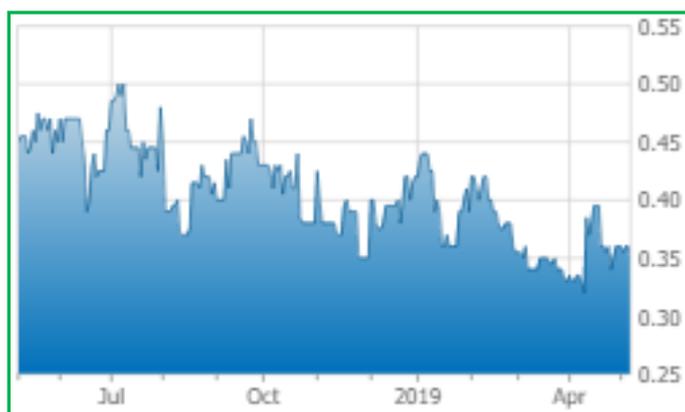


# Goldletter INTERNATIONAL

*the international independent information and advice bulletin for gold and related investments*

**INVESTMENT ALERT – May 8, 2019**

[www.cardinalresources.com.au](http://www.cardinalresources.com.au)



## Cardinal Resources Ltd.(A\$ 0.37)

ASX	: CDV
TSX	: CDV
H + L prices (12 months)	: A\$ 0.52 – 0.32
Net shares issued	: 382.6 million
Fully diluted shares	: 493.1 million
Market Capitalization	: A\$143.5 million (US\$ 100.6 million)

**2019 price target: A\$ 0.90**

## INVESTMENT ALERT

### Prospective production outlook for **Namdini Gold Project** in Ghana

In a May 2019 presentation **Cardinal Resources** (“**Cardinal**”) gives a **Preliminary Feasibility Study (PFS) production summary** and **Key economic results** based on a maiden ore reserve for its flagship **Namdini Gold Project** in Ghana of 4.76 million ounces at a conservative gold price financial model of **US\$ 1,250/oz.**

On April 3, 2019, Cardinal announced updated results of its Preliminary Feasibility Study (PFS) which delivered a Maiden Probable Ore Reserve estimation of 5.1 million ounces gold billion (up from 4.76 million ounces) from 138.6 Mt @ 1.13 g/t gold at a 0.5 g/t cut-off.

**The resource could generate US\$ 1.4 free cash flow (pre-tax) utilising a business case 9.5 million tonnes per annum throughput processing facility model.**

**A Feasibility Study (FS)** is fully funded by a finalised secured credit facility of US\$ 25 million with Sprott Private Resource. **Completion is anticipated in Q3 2019.**

## NEW FRONTIER: NORTHERN GHANA

- **Paleoproterozoic Granite-Greenstone Belt**
  - Underexplored compared to Southern Ghana
- **Well-Established Local Infrastructure**
  - 30km – National HV hydro grid power
  - 7km – Continuous water supply – White Volta River
  - 25km – Sealed national highway
- **Excellent Community Relationships**
  - Facilitates rapid development objective
- **Open Savannah Grassland**
  - Low population density
- **Mining License Granted for 15 years renewable**



ASX / TSX: CDV | 4

## PFS PRODUCTION SUMMARY

- Maiden Ore Reserve 4.76 Moz
- Starter Pit yielding ~900 koz gold with 0.5 : 1 strip ratio
- Life of mine strip ratio of 1.4 : 1
- Mineralisation 1.1 km long and 350m wide
- >10,000 oz ounce per vertical metre at 0.5 g/t cut-off
- New conventional gold plant inclusive of conventional flotation and regrind to CIL

KEY ESTIMATED PRODUCTION RESULTS	UNIT	9.5 Mtpa	
		Starter Pit	Life of Mine
Gold Price – Financial Model	US\$ / oz	1,250	
Gold Produced <i>(Average for full production years)<sup>1</sup></i>	(oz / yr)	361,000	294,000
Gold Produced	(oz)	907,000	3,975,000
Gold Head Grade	g/t Au	1.31	1.14
Gold Recovery	%	86	84
Ore Mined <i>(0.5 g/t cut-off grade)</i>	Tonnes	24,000,000	129,600,000
Strip Ratio	W:O	0.5 : 1	1.4 : 1
Mine Life <i>(Inc ramp-up and mine closure)</i>	years	2.5	14
Development Capital Cost <i>(Including 15% contingency and owners costs)</i>	US\$ M	414	

Table Notes:

<sup>1</sup> Excludes ramp-up and for the Life of Mine scenario mine closure (Years where full production is not realised)

ASX / TSX: CDV | 6

## MAIDEN ORE RESERVE 4.76 Moz

### PFS FINANCIALS

Study Consultants

- Golder Associates
- Lycopodium
- Knight Piesold
- ALS Laboratory
- Oreway Mineral Consultants
- IMO Metallurgical Consultants
- MPR Geological Consultants
- 9.5 Mtpa option selected on best economic return

KEY ECONOMIC RESULTS		UNIT	9.5 Mtpa
Gold Price	<i>Pit Design</i>	US\$ / oz	1,105
	<i>Financial Model</i>		1,250
Development Capital Cost <i>(including 15% contingency and owners costs)</i>		US\$ M	414
All in Sustaining Costs <i>(AISC)<sup>1</sup></i>	<i>Starter Pit</i>	US\$ / oz	599
	<i>Life of Mine</i>		769
Total Project Payback		years	1.8
Post-Tax NPV <i>(@ 5% discount)<sup>2</sup></i>		US\$ M	586
Post-Tax IRR		%	38

Table Notes:

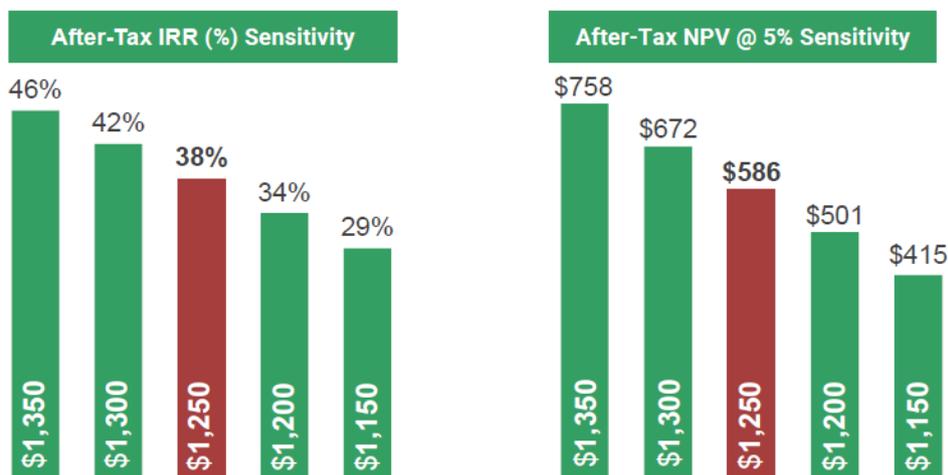
<sup>1</sup> Cash Costs + Royalties + Levies + Life Of Mine Sustaining Capital Costs (World Gold Council Standard)

<sup>2</sup> Royalties calculated at a flat rate of 5% - subject to negotiation and corporate tax rate of 35% was used subject to negotiation

ASX / TSX: CDV

5

### FINANCIAL SENSITIVITY 9.5 Mtpa



## TIMELINE

	2019 Q2	2019 Q4	2020 H1	2020 H2	2021	2022 H2
Feasibility Study (FS)	■					
Decision to Mine		■				
Construction Development			■			
Gold Production						■
District Exploration	■					

- Subject to result success and seasonal influences

### Investment recommendation:

**Cardinal's** main focus is the flagship **Namdini Gold Project** with the recently completed PFS having delivered an upgraded **Maiden Probable Ore Reserve estimate of 5.1million ounces of gold from 138.6 Mt @ 1.13 g/t gold at a 0.05 g/t cut-off**. The resource could generate **US\$ 1.4 billion free cash flow (pre-tax utilising a business case 9.5 million tonnes per annum throughput processing facility model)**.

The PFS study confirms the **Namdini Project** as one of Ghana's and Africa's most promising undeveloped, large gold assets. The financial modelling of the project shows it to be technically sound and financially viable.

A **Feasibility Study (FS)** is fully funded by a second credit facility of US\$ 25 million and will form the basis for the development of **Cardinal's Namdini Gold Project, with completion anticipated in Q3 2019**.

**Ghana** is to be considered Africa's highest ranked destination for investing in gold mining, considering its low peer comparison valuation, in my view, **Cardinal Resources**, at its current market valuation of approximately US\$ 100 million, offers a highly attractive investment opportunity.

**I maintain my 2019 price target of A\$ 0.90.**