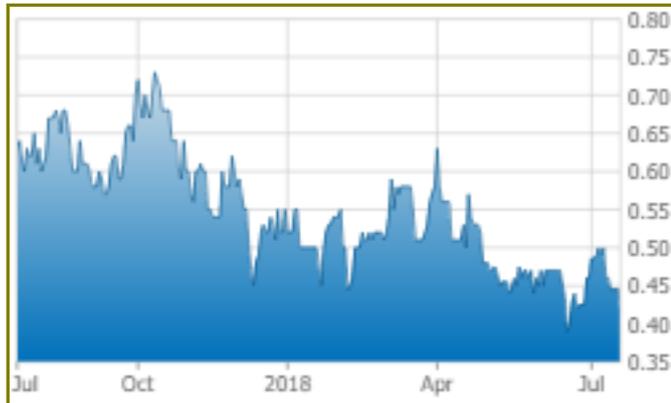


Goldletter INTERNATIONAL

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

Special Situation – July 2018

www.cardinalresources.com.au



Cardinal Resources Ltd.(A\$ 0.42)

ASX	: CDV
TSX.V	: CDV
H + L prices (12 months)	: Cdn\$ 0.74 – 0.40
Net shares issued	: 373.6 million
Fully diluted shares	: 528.6 million
Market Capitalization	: Cdn\$ 156.9 million (US\$ 119.3 million)

One-year price target: A\$ 0.90

Company profile

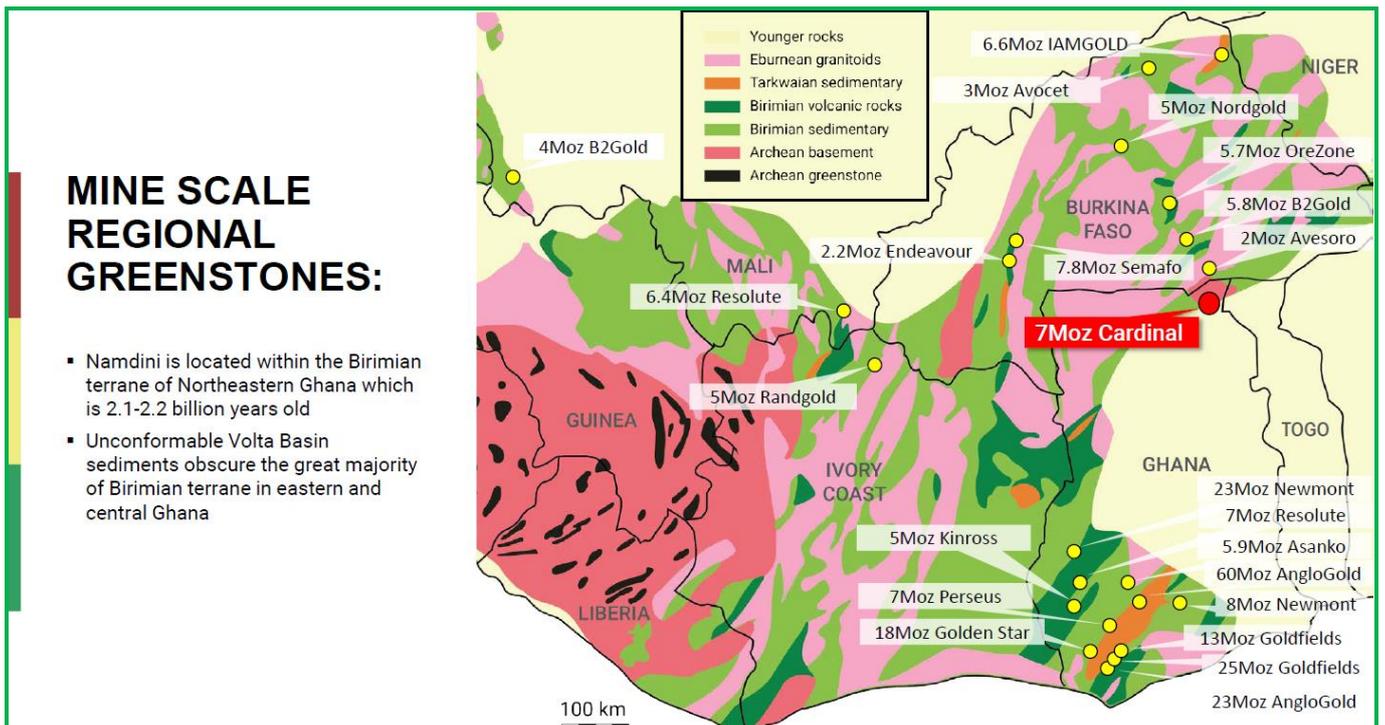
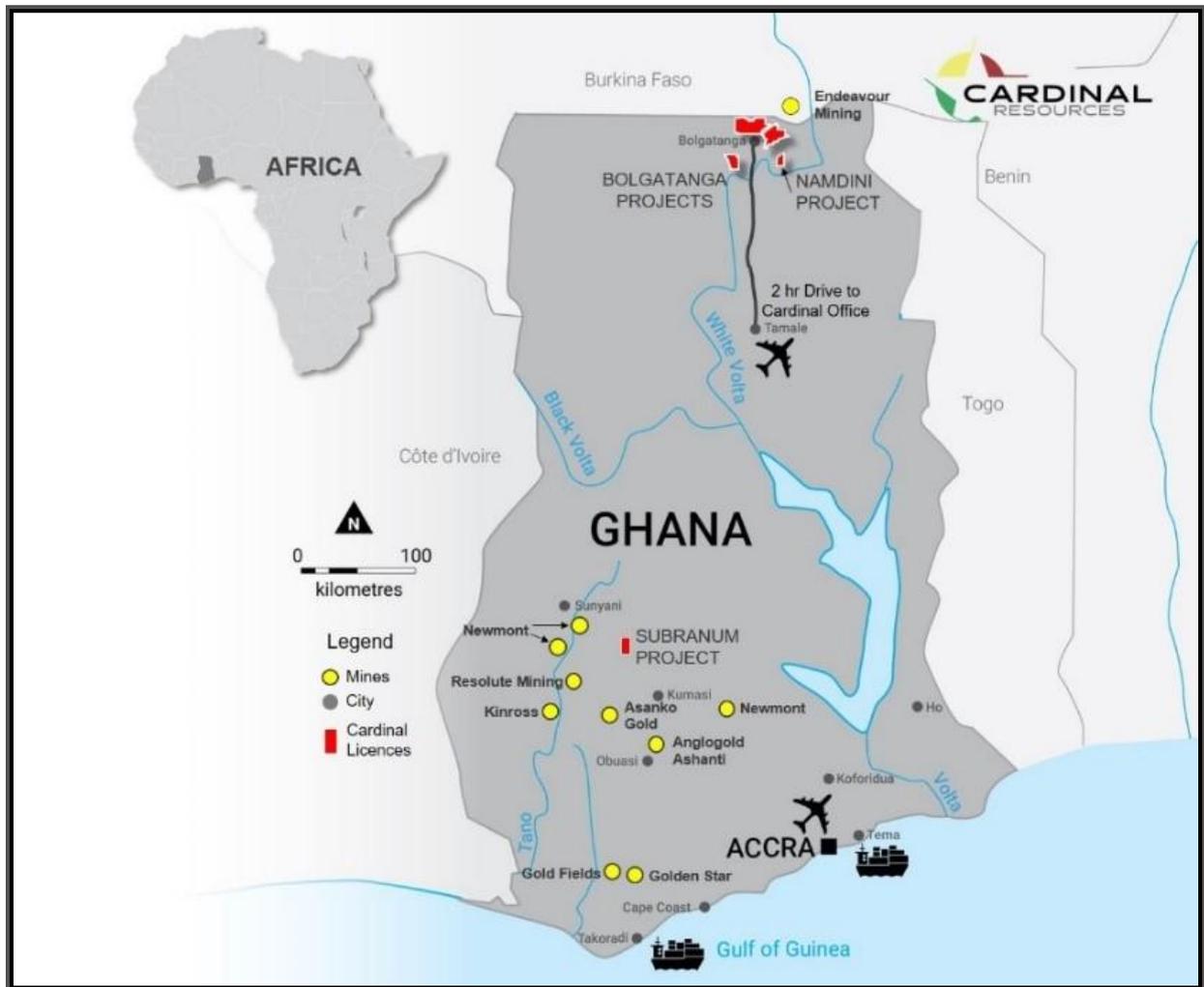
Cardinal Resources' ("Cardinal") principal activity and its subsidiaries is **gold exploration** in **Ghana**. The Company holds interests in 5 tenements prospective for gold mineralization in Ghana in two NE-SW trending Paleo-Proterozoic granite-greenstone belts.

Cardinal's Ndongo Prospect Licence covers an area of 298 km², having been recently expanded by the purchase of two exploration licence areas from Kinross Gold in August 2017. The licence area is considered highly prospective for the discovery of economic gold mineralization associated with the prolific Nangodi Shear Zone located in northern Ghana, a splay fault off the main regional-scale Bole-Bolgatanga Shear. Elsewhere, the Nangodi Shear Zone is spatially related to no fewer than four gold discoveries, including **Cardinal's** flagship **Namdini Gold Project**, the Shaanxi Mine, the historic Nangodi Gold Mine and the Youga Gold Mine in Burkina Faso, adjacent to the Ghana border. In addition, there are numerous historic shallow artisanal workings along many parts of this shear zone approximately 15 kilometres north of the **Namdini Gold Project**.

Cardinal's main focus is the flagship **Namdini Gold Project** where an Indicated Mineral Resource of **180 million tonnes grading 1.1 g/t gold for 6.5 million ounces** and an Inferred Mineral Resource of **13 million tonnes grading 1.2 g/t gold for 0.5 million ounces gold**, each at 0.5 g/t gold cut-off grade. The mineralization remains open along strike and down dip.

On February 5, 2018, **Cardinal** announced the results of a **Preliminary Economic Assessment (PEA)** for the **Namdini Gold Project**. These results indicate that the Project is viable economically, with the potential to generate positive cash flows. As a result, it was recommended that the Project should proceed to the next phase of development in order to further finetune the technical and financial details to a higher level of accuracy, associated with the PFS.

Overview of Projects



► PEA Technical Report **Namdini Gold Project**

On **March 15, 2018**, **Cardinal** announced a Technical Report in respect to the Company's PEA of the **Namdini Gold Project**, which can be summarised as follows:

- The report highlighted range of production scenarios (4.5 million tonnes per annum and 9.5 million tonnes per annum), all of which appear financially sound, and are expected to translate to annual gold production at all-in operating costs (AISC) over a reasonable mine life.
- Construction costs are largely in-line with expectations, with a phased development under consideration to reduce upfront capital expenditures (capex).
- The development was based around the mining of a single open-pit operation which has Life of Mine (LOM) strip ratio of 1.2:1 (Waste : Ore) - exploration of the Namdini deposit remains open at depth.
- During Q1 2018, sustained efforts were deployed to support the development of a Pre-Feasibility Study ("PFS") to continue to derisk the Project.

On **March 5, 2018**, **Cardinal Resources** announced an updated Mineral Resource estimate of Namdini. with an Indicated Mineral Resource of 180 million tonnes grading 1.1 g/t gold for **6.5 million ounces gold and an Inferred Mineral Resource of 13 million tonnes grading 1.2 g/t gold for 0.5 million ounces gold, each at a 0.5 g/t gold cut-off.**

The mineralization remains open along strike and down dip.

						
PEA FINANCIALS <ul style="list-style-type: none"> ▪ Study Consultants <ul style="list-style-type: none"> ○ Golder Associates ○ Lycopodium ○ Knight Piesold ○ SGS ○ Oreway Mineral Consultants ○ MPR Geological Consultants, Mintek and Suntech ○ 4.5, 7.0 and 9.5 Mtpa production scenarios evaluated 	KEY ECONOMIC RESULTS	UNIT	4.5 Mtpa	7.0 Mtpa	9.5 Mtpa	
		Development Capital Cost (incl. owners cost)	US\$ M	275	349	426
		All in Sustaining Costs (AISC)¹	US\$ / oz	794	736	701
		Total Project Payback	years	4.0	3.5	3.3
		Post-Tax NPV (@ 5% discount)²	US\$ M	445	574	649
		Post-Tax IRR	%	31%	39%	44%

Table Notes:

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

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

PEA PRODUCTION SUMMARY

- Higher-grade starter pit yielding ~1 Moz gold with 0.9 strip ratio
- Life of mine strip ratio of 1.2 : 1
- Orebody 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

RESOURCE DATA USED – SEPTEMBER 2017				
Indicated Mineral Resource	91 Mt @ 1.1 g/t for 3.3 Moz (81%) within Life of Mine Pit at 0.5 g/t cut off			
Inferred Mineral Resource	22 Mt @ 1.1 g/t for 0.8 Moz (19%) within Life of Mine Pit at 0.5 g/t cut off			
KEY ESTIMATED PRODUCTION RESULTS	UNIT	4.5 Mtpa	7.0 Mtpa	9.5 Mtpa
Gold Price	US\$ / oz		1,300	
Gold Milled (Average for full production years) ¹	(oz / yr)	159,000	211,000	333,000
Gold Produced (Life of Mine)	(oz)	3,524,000	3,506,000	3,521,000
Gold Head Grade (Life of Mine)	g/t Au		1.13	
Gold Recovery (Oxide / Fresh)	%		90 / 86	
Resource Mined (0.5 g/t cut-off grade)	Tonnes		113,000,000	
Strip Ratio (Life of Mine)	W:O		1.2 : 1	
Mine Life (Inc ramp-up and mine closure)	years	27	19	14
Development Capital Cost (Including owners cost and 15% contingencies)	US\$ M	275	349	426
Life of Mine Sustaining Capital Cost (Including reclamation)	US\$ M	172	160	154

Table Notes:

¹ Excludes up to 3 years of ramp-up and mine closure (Years where full production is not realised)

Results highlight the potential for discovery of gold mineralization

On May 29, 2018, **Cardinal** announced that it had received encouraging results from its first pass shallow RC drilling designed to test on the 6 coincident gold-in-soil and geophysical targets on the Ndongo Licence.

- RC drilling has returned several shallow gold intersections from the first 6 targets to be drilled, including:
 - 24 metres at 1.2 g/y gold from 2 metres** and **14 metres at 1.4 g/t gold from 46 metres** (NDRC 130)
 - 9 metres at 11.5 g/t gold from surface**, including **3 metres at 29.8 g/t gold** (NDRC 131)
 - 8 metres at 1.4 g/t gold** (NDRC 137)
- Prospectivity of the area is enhanced due to its proximity to the prolific Nangodi Shear Zone, which is known to host major economic gold mineralization in northeast Ghana and Burkina Faso.
- Field crews are currently undertaking geological mapping, surface rock sampling, trenching and geophysical surveys to help identify new targets and refine existing targets.

On June 8, 2018, **Cardinal** advised that the Company is evaluating a larger process throughout option to increase in their Indicated Resource categorisation from 4.3 million ounces to 6.5 million ounces gold, as announced on March 5, 2018.

Cardinal will evaluate the economic results of the new option against the Company's current PEA, announced February 5, 2018, and should the economic results be favourable the Company will release an updated PEA reflecting the new option.

On review should **Cardinal's** evaluation of a larger throughput option show marginal economic results to its PEA, the Company will continue with the planned PFS, as indicated in its Investor Presentation. As a result, the planned PFS due Q2 2018, would be deferred to Q3 2018, to allow for this evaluation process.

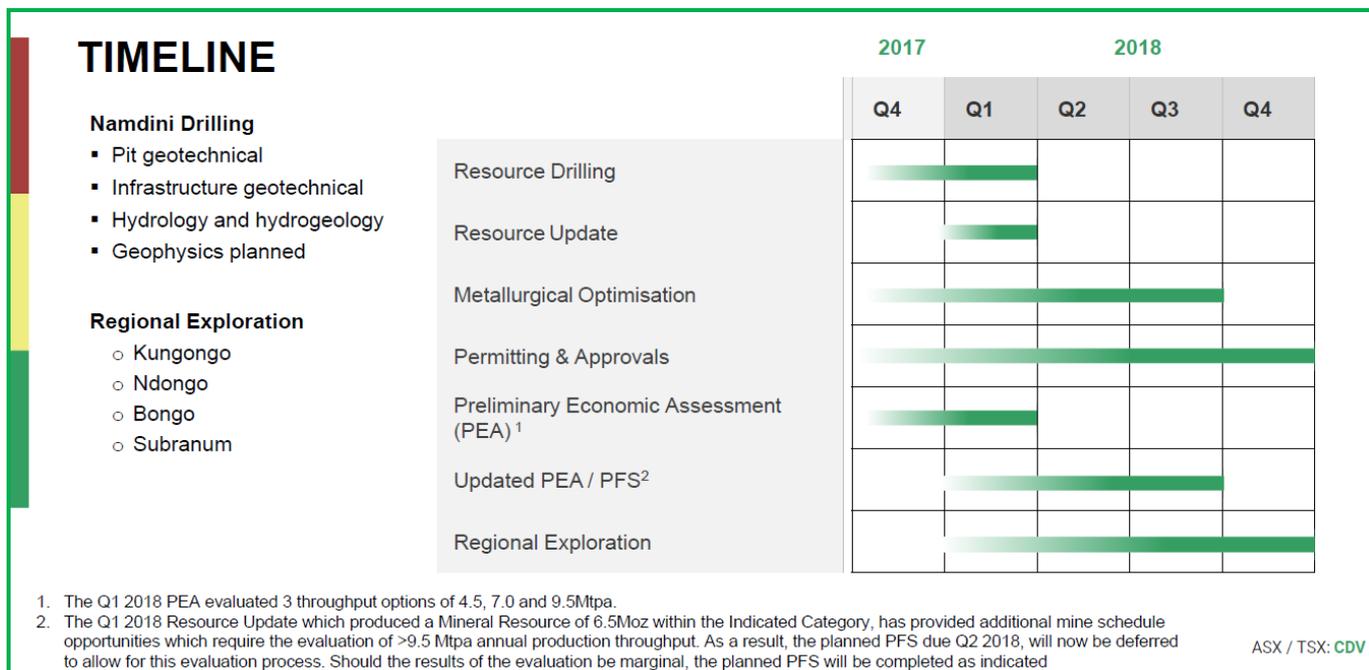
► New gold discovery named as Ndongo East

On July 16, 2018, Cardinal announced that it has intersected further gold and a new discovery named as Ndongo East, located approximately 15 kilometres north of the Company's flagship **Namdini Gold Project**. Approximately 400 metres strike length of coincident gold-in-soil anomalies and geophysical targets were tested.

The Ndongo East discovery lies within a much larger target area which has an overall strike length of approximately 9 kilometres and is now the second largest target within the Ndongo licences to return significant gold mineralization.

► Highlights of the Ndongo East RC drilling are:

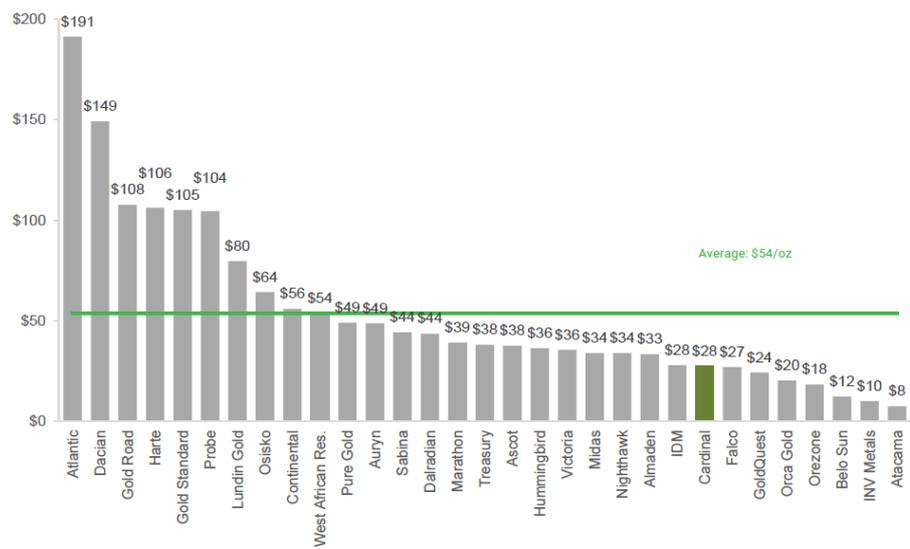
- **9 metres @ 23.3 g/t gold** (including 3 metres @ 59.2 g/t gold) from 60 metres (NDRC 48)
- **9 metres @ 2.4 g/t gold** from 43 metres
- **7 metres @ 4.4 g/t gold** from 14 metres
- **6 metres @ 2.0 g/t gold** from 11 metres
-
- These results further highlighted the potential for discovery of economic gold mineralization within the Ndongo Licence which straddles the prolific Ndongo Shear Zone (located approximately 15 kilometres north of Cardinal's **Namdini Gold deposit** (6.5 million ounces Indicated Resource).
- Field crews are continuing with geological mapping, surface rock sampling, trenching and geological surveys to help identify new targets and refine existing targets.
- Drilling is continuing and further assay results are pending from Ndongo East.



SIGNIFICANT VALUE UPSIDE

- Cardinal remains significantly undervalued given the size, quality and scarcity of projects like Namdini

EV/Au Resources (US\$/oz)



Source: FactSet and company disclosure.
Notes: Resources are on an attributable basis.

CARDINAL RESOURCES

CARDINAL RESOURCES

PEER COMPARISON VALUATION



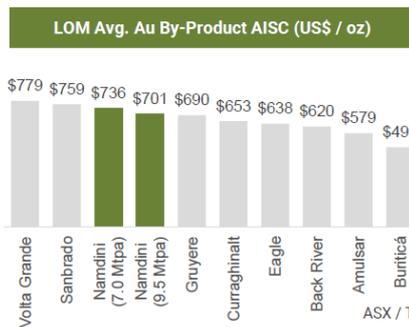
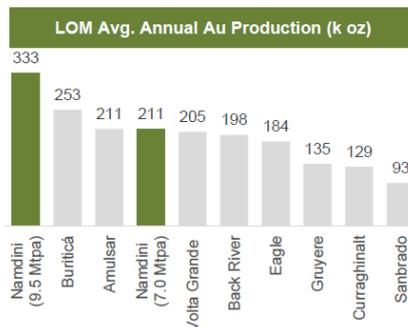
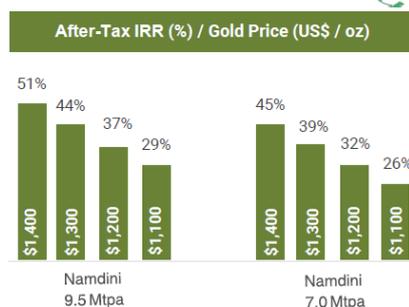
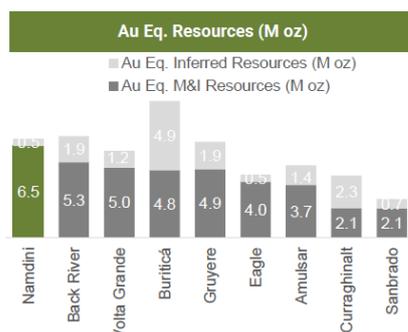
	Market Cap (A\$M) ⁽¹⁾	Consensus P / NAV	EV / Au Eq. Res. (US\$/oz) ⁽²⁾
Continental	\$735	Gold Road 0.9x	Gold Road \$108
Gold Road	\$710	Continental 0.6x	Lydian \$66
Sabina	\$478	West African Resources 0.5x	Continental \$56
Dalradian	\$386	Lydian 0.5x	West African Resources \$54
Lydian	\$378	Sabina 0.5x	Sabina \$44
West African Resources	\$229	Dalradian 0.4x	Dalradian \$44
Victoria	\$219	Victoria 0.4x	Victoria \$36
Cardinal	\$202	Cardinal (7.0 Mtpa - PEA) 0.4x	Cardinal \$28
Belo Sun	\$162	Cardinal (9.5 Mtpa - PEA) 0.4x	Belo Sun \$12
		Belo Sun 0.3x	

Source: FactSet, company disclosure and analyst estimates.
(1) Base shares on an undiluted basis
(2) Au Eq. resources based on long-term consensus metal prices and on attributable basis.

ASX / TSX: CDV

PEER COMPARISON OPERATING

- Large resource
- High post tax IRR
- High oz per annum



Source: FactSet and company disclosure.
Notes: Operating figures based on latest published technical reports. Resources are inclusive of reserves.

CARDINAL RESOURCES

ASX / TSX: CDV

Management

Archie Koimtsidis, Chief Executive Officer / Managing Director, has for the last 20 years been involved in all facets of gold exploration, discovery, production, and refining in West Africa and South America. His most recent appointment prior to joining Cardinal was as the Deputy Country Manager of Ghana for PMI Gold a joint TSXV and ASX listed company. During this time he was responsible for all field operational matters relating to that Company's projects in Ghana. Mr. Koimtsidis has been instrumental in acquiring the Ghanaian projects on behalf of Cardinal and has a unique knowledge and understanding of geopolitical and operational matters relating to resource projects in West Africa.

Kevin Tomlinson, Non-Executive Chairman, possesses over 30 years' experience in Mining and Finance within the Toronto, Australian and London Stock markets. He was previously Managing Director of Investment Banking at Westwind Partners/Stifel Nicolaus raising equity and providing corporate advice. Mr. Tomlinson has extensive experience in development and financing of mining projects internationally. Previous Directorships include Centamin, an Egyptian gold producer, Orbis Gold, a Burkina Faso gold developer and Medusa Mining, a Philippines gold producer.

Malik Easah, Executive Director, is the principal of a successful alluvial mining operation in the North West Adansi Gold Obotan concession and is currently developing additional payable gold permits within the Ashanti and Nangodi Gold belts of Ghana. Mr. Malik is a resident in Ghana and specializes in the manufacture of alluvial gold wash plants and recovery equipment and is regarded as an authority in the development of alluvial mining operations in Ghana.

Jacques McMullen, Non-Executive Director, retired in 2012 after a distinguished 35-year career in the mining industry of which the last 17 years were with Barrick Gold where he held the positions of Senior VP Special Projects and Technical Services. In this role, Mr. McMullen was instrumental in the development of many mines including Goldstrike, Veladero, Lagunas Norte, Cowal and Bulyanhulu. His experience includes all phases of development. Following his retirement, Mr. McMullen joined BBA, a global engineering firm, as Principal, Mines & Metals and Director. Additionally, Jacques was Chairman of Orvana Minerals and is currently a Director at NewCastle Gold and a corporate advisor to Detour Gold, all TSX.V listed companies.

Michele Muscillo, Non-Executive Director, is a Partner with HopgoodGanim Lawyers in Australia. He has practiced exclusively in corporate law for over 15 years and has extensive experience in capital markets transactions, including the negotiation of significant commercial contracts and agreements, including IPOs and debt and equity raising. Mr. Muscillo is currently a Non-Executive Director with ASX-listed Aeris Resources Limited and Xanadu Mines. Formerly, he was also Non-Executive Director of Orbis Gold, which is currently owned by TSX-listed SEMAFO.

Robert Schafer, Non-Executive Director, has over 30 years of international experience as a geologist exploring for mineral deposits in more than 70 countries. As an executive, manager and field geologist with companies including Billiton, BHP, Kinross and Hunter Dickinson, he led teams to the discovery of several deposits in the western USA (Briggs and Griffon gold mines), as well as developing strategies that led to brownfields discoveries in western Canada, southern Africa and far east Russia (Birkachan gold mine). Mr. Schafer is the immediate Past President of the Prospectors and Developers Association of Canada (PDAC) as well as Past President of both the Canadian Institute for Mining, Metallurgy and Petroleum (CIM) and the Mining and Metallurgical Society of America (MMSA). He is a Certified Corporate Director (ICD.D), a RPGeo and is also an active member of the Society for Mining, Metallurgy and Exploration (SME) in the USA, where he served on its Board for more than a decade.

Finance

For the 9 months ended March 31, 2018, **Cardinal's net cash outflow from operating costs amounted to A\$ 26.94 million**, of which \$ 22.06 million expenditures on mineral interests.

Net cash outflow from investing activities was A\$ 0.18 million.

Net cash inflow from financing activities was A\$ 12.1 million.

As at March 31, 2018, cash and cash equivalents amounted to A\$ 13.3 million.

Investment recommendation:

Cardinal's main focus is the flagship Namdini Gold Project with an Indicated Mineral Resource of 180 million tonnes grading 1.1 g/t for 6.5 million ounces and an Inferred Mineral Resource of 13 million tonnes grading 1.2 g/t for 0.8 million ounces, each at 0.5 g/t gold cut-off grade.

The results of the PEA for the **Namdini Gold Project** indicate that the Project is viable economically, with the potential to generate positive cash flows, as a result of which it was recommended that the Project should proceed to the next phase of development, associated with the PFS.

Encouraged by a new gold discovery named as Ndongo East, **Cardinal** on June 8, 2018 advised that the Company is evaluating a larger process throughout option to increase their Indicated Resource categorisation from 4.3 million ounces to 6.5 million ounces gold, with a planned PFS due Q2 2018.

Ghana to be considered Africa's highest ranked destination for investing in gold mining, referring specifically to its low peer comparison valuation, in my view, **Cardinal Resources**, at its current market valuation of US 119.3 million, offers a highly attractive investment opportunity.

My one-year price target is A\$ 0.90.