

PRESS RELEASE
Wednesday, 31 January 2018

**ASX/TSX: CDV** 2018-2

## QUARTERLY ACTIVITIES REPORT FOR THE PERIOD ENDED 31 DECEMBER 2017

Cardinal Resources Limited (ASX: CDV; TSX: CDV) ("Cardinal" or "the Company"), an African gold focused exploration company, is pleased to present to shareholders its Quarterly Activities report for the period ended 31 December 2017. Currently Cardinal holds four tenements within the Bolgatanga Project, with Subranum comprised of a single tenement in central Ghana (Figure 1).

#### HIGHLIGHTS

- On October 12, 2017, Mr Jacques McMullen and Mr Michele Muscillo were appointed to the Board. Mr Mark Connelly and Mr Simon Jackson resigned from the Board to focus on their other significant commitments.
- On October 19 2017, the Company announced an updated technical report titled "Technical Report Mineral Resource Estimation for the Namdini Gold Project, Ghana", in respect of the Company's Namdini Gold Project in Ghana, West Africa (the "Technical Report"). The NI43-101 Technical Report was authored by MPR Geological Consultants Pty Ltd, and has an effective date of September 11, 2017. The Technical Report can be viewed under the Company's issuer profile on SEDAR at <a href="www.sedar.com">www.sedar.com</a>. The updated Mineral Resource estimated an Indicated Mineral Resource of 120 Mt grading 1.1 g/t Au for 4.3 Moz Au and an Inferred Mineral Resource of 84 Mt grading 1.2 g/t Au for 3.1 Moz Au, each at a 0.5 g/t Au cut off.
- On October 23, 2017 Cardinal announced that it had entered into an agreement with Clarus Securities Inc., on behalf of a syndicate of underwriters, pursuant to which the Underwriters have agreed to purchase, on a "bought deal" basis, 18,461,600 Ordinary Shares of the Company at a price of C\$0.65 per Ordinary Share for aggregate gross proceeds to the Company of C\$12,000,040, with the deal closing on 22 November 2017.
- On December 12, 2017 a trial grade control programme utilising a close spaced drilling pattern returned
  positive results in the upper benches of the targeted starter pit area. Correlation of grades, ounces and
  tonnes between the Mineral Resource Model (September 2017) and the trial grade control model, has been
  completed with a very accurate reconciliation.
- On December 14 infill drilling results were announced from the comprehensive campaign to continue to add
  definition to the Namdini Mineral Resource. The infill drill results continue to support strong continuity of
  the mineralised zones. Further results are pending which will form the basis for a Mineral Resource upgrade
  expected in Q1 2018.







#### OUTLOOK

The principal activity of the Corporation (and its subsidiaries) is gold exploration in Ghana. The Corporation holds interests in five tenements prospective for gold mineralisation in Ghana in two NE-SW trending Paleo-Proterozoic granite-greenstone belts: the Bolgatanga Project and the Namdini Gold Project ("Namdini Gold Project" or "Namdini"), which are, respectively, located within the Nangodi and Bole-Bolgatanga Greenstone Belts in northeast Ghana, and the Subranum Project, which is located within the Sefwi Greenstone Belt in southwest Ghana.

The main focus of activity is the Namdini Gold Project where an Indicated Mineral Resource of **120 Mt** grading **1.1 g/t Au** for **4.3 Moz Au** and an Inferred Mineral Resource of **84 Mt** grading **1.2 g/t Au** for **3.1 Moz Au** each at a 0.5 g/t Au cutoff grade, has been established. The map below shows the location of the Namdini Gold Project and the Corporation's other properties in Ghana.

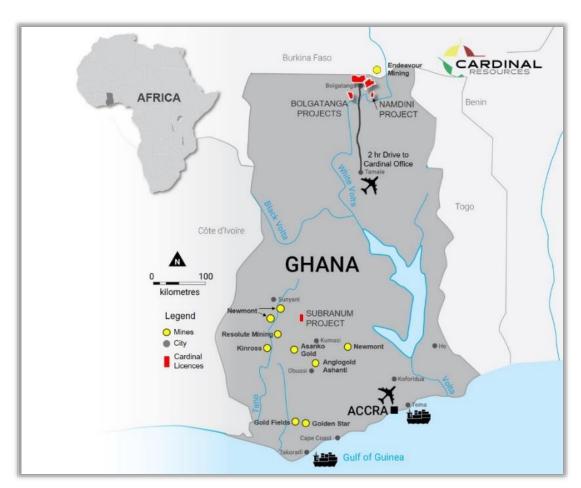


Figure 1 Cardinal Resource's Tenements in Ghana

The Company expects to continue to generate positive news flow from its ongoing drill campaign, metallurgical optimization work, greenfield exploration assets and Preliminary Economic Assessment due for release in Q1 2018.







#### THE NAMDINI GOLD PROJECT

#### **Property Title / Mining Lease**

The Namdini Mining License is for an initial period of 15 years and is renewable. It covers an area of 19.54 Sq Km in the Upper East Region of Ghana. Savannah Mining Limited ("Savannah") completed an EIS for Namdini and has filed the EIS with the Environmental Protection Agency ("EPA"). Following completion of a PEA, Cardinal will submit to the Minerals Commission an updated EIS and an application for an Operating Permit for the project scale envisioned in the PEA.

#### **Mineral Resources**

In October 2017, Cardinal filed on SEDAR an updated technical report titled "Technical Report Mineral Resource Estimation for the Namdini Gold Project, Ghana", in respect of the Company's Namdini Gold Project in Ghana, West Africa (the "Technical Report"). The NI43-101 Technical Report was authored by MPR Geological Consultants Pty Ltd ("MPR"), and has an effective date of September 11, 2017.

Lower cut-off grade (Au g/t)	Million Tonnes (Mt)	Average Grade (Au g/t)	Million Ounces (Au Moz)				
Indicated Mineral Resources							
0.3	159	0.9	4.8				
0.4	140	1.0	4.6				
0.5	120	1.1	4.3				
0.6	102	1.2	4.0				
0.7	86	1.3	3.6				
	Mineral Resources						
0.3	111	1.0	3.5				
0.4	98	1.1	3.3				
0.5	84	1.2	3.1				
0.6	72	1.3	2.9				
0.7	61	1.4	2.7				

Table 1 September 2017 MPR MIK NI43-101 and JORC 2012 compliant Mineral Resource estimate

#### **Notes**

- 1. JORC (2012) Code was followed for the Mineral Resources. MPR has reconciled the Mineral Resources to CIM Definition Standards (2014) and there are no material differences.
- 2. Mineral Resources are estimated at a cut-off grade of 0.5 g/t Au constrained by a preliminary pit shell.
- 3. Incorporates drill holes completed as of September 11, 2017.
- 4. Numbers may not add due to rounding.

The table above (Table 1) highlights Mineral Resource estimations at a series of cut-off grades. Currently, the 0.5 g/t Au cut-off grade approximates to an operational parameter that the Company believes to be applicable. This is in accordance with the guidelines of Reasonable Prospects for Eventual Economic Extraction ("RPEEE") per the Canadian Institute of Mining, Metallurgy and Petroleum "CIM Definition Standards for Mineral Resources and Mineral Reserves" (CIM, 2014) and the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (the JORC Code 2012).







#### **Mineral Processing and Metallurgical Testing**

In October 2017, the Company contracted ALS Laboratories ("ALS") in Perth to execute Phase Three of their metallurgical programme. A detailed metallurgical testwork programme was developed by Cardinal's technical management team with ALS. Mr Robert Dunn was contracted by Cardinal to manage the Phase Three testwork programme with the objective to ensure intregity of Phase Two and to further detail the metallurgical profile and map the full extent of the Namdini orebody.

A set of comminution samples were selected from site and transported to ALS in Perth for testing. These comprise of quarter core diamond samples from twelve different drillholes, located across the orebody which fall inside the predicted mine pitshell. Four samples per lithology (metavolcanics, granite and diorite) totaling 326kg were selected at different depths.

Samples from the Company's Phase two programme were transported to ALS comprising 775kg of starter pit samples and 370kg of life of mine samples.

Two master composite (MC) samples were compiled, one for the starter pit and the second for life-of-mine across the the orebody. The starter pit MC sample comprises 100kg in a 50:50 ratio of granite and metavolcanics which is representative of the starter pit ore ratio. The life of mine MC comprises 100kg in a 60:30:10 ratio of metavolcanics, granite and diorite respectively which is representative of the lithology ratios for the life of mine.

As previously selected, the geostatistical Mineral Resource model was used to target the average grade of the combined samples for each lithology, based on a notional cut-off grade of 0.4 g/t Au ("grams per tonne gold"). The intervals were selected to ensure that the following criteria were met:

- Representative spatial distribution within the overall Namdini deposit,
- A range of gold grades, predicted to be encountered during normal mining operations, and
- Average gold grades matching the overall Namdini geostatistical Mineral Resource model above a 0.4 g/t Au cut-off

The Company is preparing additional samples to continue their variability, ore profiling and mapping testwork. A PQ drillhole is also being planned and a hole location has been selected. The location of this PQ hole intercepts all 3 key rock types. The intent is to perform a full Julius Kruttschnitt (JK) drop weight test (DWT) for each rock type. This test will provide Cardinal a reference calibration for the Semi Autogenous Grinding (SAG) Mill Comminution (SMC) test which will be applied to the SMC database and support the detailed sizing of the SAG Mill. Other supplemental metallurgical testing is still in progress.

The process flowsheet and process design criteria continues to be optimised.

#### **Project Development Activities**

Cardinal has developed a feasibility study programme to further advance the Namdini Gold Project. This consisted of engaging and continuing with selected consultants to assist with the phased development of the Namdini Gold Project. The consultants and their roles are tabulated below:

Consultant	Responsibility	Phase
ALS Laboratory	Fresh Rock Metallurgical Testwork	Phase 3 metallurgical testwork
OMC	Comminution Design	Scoping Study
Lycopodium & Knight Piesold	Process, tailings and Infrastructure Design	Prefeasibility Study
Golder & Associates	Mine Design	Prefeasibility Study
Nemas Consult	ESIA	Full Permit and Licencing Phases
Ernst & Young	Financial Modelling	Scoping Study / Prefeasibility
Intermine	Mine Schedule Optimisation	Prefeasibility Study







ALS are globally recognised as being leaders in metallurgical laboratory testwork with state of the art facilities. ALS provide additional integrity to the Company's metallurgical testwork programme which will support the prefeasibility and feasibility study development phases.

The Company also re-engaged Lycopodium Minerals Pty Ltd. ("Lycopodium") and Golder Associates Ltd. ("Golder") to continue the evaluation of processing and mining options, respectively, for the Namdini Gold Project.

Lycopodium's mandate continues to comprise the process plant, associated infrastructure and tailings facilities, while being supported by Knight Piesold Ltd with respect to tailings management.

Golder's mandate continues to comprise geology, hydrology, hydrogeology, mining, geotechnical and environmental services.

Oreway Mineral Consultants ("OMC") continue to be responsible for the comminution circuit design and interface directly with the process designers in finalising the comminution circuit requirements of the process.

Three project size options continue to be evaluated; they include a 4.5 million tonne per annum ("mtpa"), 7 mtpa and 9.5 mtpa throughput.

#### **Drilling and Sampling Summary**

**Diamond and RC drilling** comprised of infill drill holes over the Namdini mineralisation, geotechnical test holes of expected pit area, grade control test patterns and sterilization drilling (Figure 2). A total of 104 drill holes comprising 23,748.89m, with a combined total of 19,856 samples, which were submitted to the SGS Tarkwa and SGS Ougadougou laboratories for standard fire assays (Table 2).

Drill Method		No. Holes	Total (m)	No. Samples	
Resource Drilling					
	DD	27	14,673.69	14,674	
	RC	1	63.00	2,523	
	Total	28	14736.69	11,382	
Sterilization Drilling					
	RC	71	8,270.00	8,270	
	Total	71	8,270.00	8,270	
Trial Grade Control Drilling					
	RC	5	204.00	204	
	Total	5	204.00	204	
Hydrogeology Drilling					
	RC	10	538.20	-	
	Total	10	538.20	-	
Geotechnical Drilling					
	DD	4	120.00	-	
	Total	4	120.00	-	
	<b>Grand Total</b>	104	23,748.89	19,856	

Table 2 Namdini Drilling (Q4 2017)







#### Diamond Drilling

The drill rigs for the diamond drill holes were all aligned at -65° dip drilling east which allows for the shallowing of the drill hole with depth. The azimuth was set at 095° instead of 100° (normal to the strike of the formations) as the borehole trace usually deflects to the right with depth due to the clockwise rotation of the drill rods.

The diamond drill holes were cored from surface. The soft near surface materials were drilled with a Triple Tube core barrel to reduce core losses. Once harder rock was encountered, HW steel casing was inserted for drill hole stability and HQ size core was drilled to their final depths.

The diamond drill holes were surveyed near the top of each drill hole, then every 30m down the hole to determine the dip and azimuth of the drill holes with depth.

The core was orientated at each drill run using a digital instrument. The core was marked showing the base of the drill hole, then the core from each drill run was laid in a length of angle iron to fit the core together so that the orientation line could be drawn along the length of the core at the drill site. Initial geotechnical parameters were measured at the drill site, with more detailed parameters measured in the core shed using this orientation line as the datum line.

The core was photographed, longitudinally cut in half, with the half sector consistently sampled to reduce sample bias. The remaining half of core was stored in metal core trays and placed on metal racks under cover in the core shed at Bolgatanga. The half core samples were sent to the SGS Laboratories in both Burkina Faso and Tarkwa, Ghana for fire assay to speed up the receipt of results.

#### RC Drilling

The general strike of the host rocks is  $010^{\circ}$  and dipping at approximately  $-60^{\circ}$  W. The RC drilling was orientated normal (at  $90^{\circ}$ ) to the strike of  $100^{\circ}$  azimuth with all drill holes inclined to the east as these drill holes were all planned to be relatively shallow and generally deviate very little from their intended direction.

The soft near surface materials were drilled until harder formations were encountered, then PVC casings were inserted for drill hole stability. The transition and fresh rocks were drilled with button bits attached to the hammer and dry chips were recovered at 1m intervals through a cyclone.

RC samples were weighed and split in the field to obtain two samples from each meter drilled, with 1 sample for laboratory analysis and the other stored at the Bolgatanga core yard for repeat analyses if required. Chips selected from meter sample bags were washed, placed in chip trays, logged and photographed both dry and wet. Completed chip trays were stored at the Bolgatanga core shed.

#### Hydrogeological RC Drilling

Under the supervision of Golder and Associates consultants, 10 Hydrogeological drillholes were completed to undertake a preliminary assessment of regional and local hydrogeological conditions, on which to establish an intial conceptual hydrogeological model for the site.

#### Geotechnical Drilling

Four Diamond drill holes within the float TSF footprint were completed this quarter in order to assess the in situ permeability characteristics of the sub-surface horizons. The core was logged and photographed and the in situ tests supervised by Knight Piesold site representatives.

#### Namdini Tenement Sterilisation Test Drilling

Sterilisation drilling on the tenement north and west of the Namdini deposit continued this quarter with 71 RC drill holes completed. This RC drilling program was designed to confirm that the proposed ground is suitable for mine infrastructure and without potentially economic gold mineralisation.







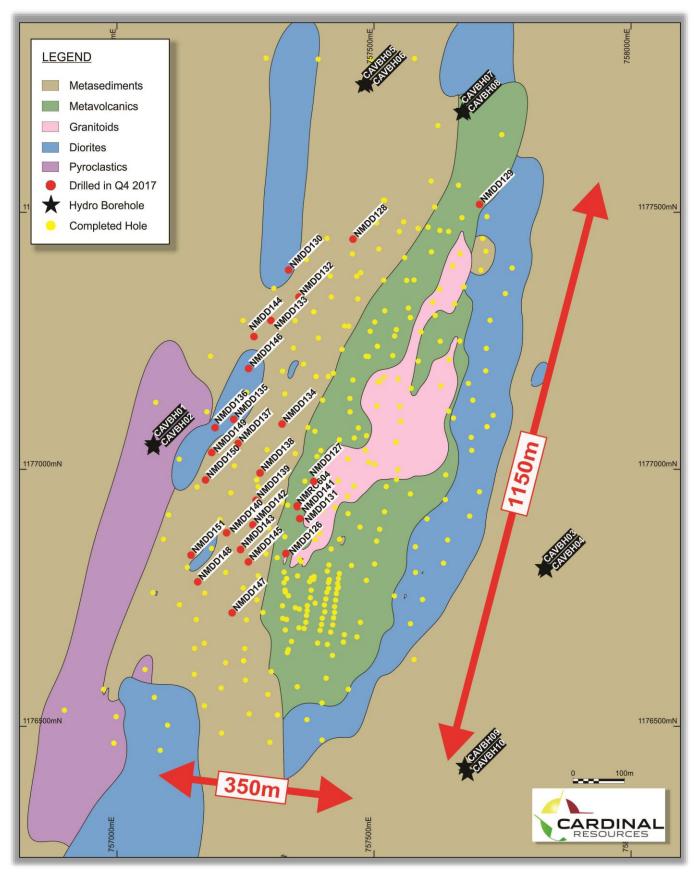


Figure 2 Namdini Project Q4 2017 Drill Hole Collars







#### Namdini Grade Control Test Drilling

Cardinal completed a 13,271m Reverse Circulation drilling programme at the northern end of the Namdini deposit for the purposes of a test grade control study which comprised 317 RC drill holes at a grid pattern of 10m (E) by 15m (N) and covering an area of 350m (E) by 200m (N) to approximately 40m vertical. They were drilled at -65° to the east in the Namdini local drilling grid, consistent with drilling undertaken for the Mineral Resource models.

Grade control drilling targeted the near surface portion of the modelled mineralisation, as defined by the broad spaced resource definition drilling and subsequent Mineral Resource Model. The programme was designed to define the grade distribution of gold mineralisation at and near surface within the targeted starter pit area.

A test block model was constructed for the study area utilising Conditional Simulation technique. Figure 3 shows the grade control drilling relative to the Mineral Resource Model. A comparison between the Mineral Resource Model (Announced in September 2017) and the constructed grade control model is tabulated in Table 3.

Resource	Model <b>(Septe</b>	ember 2017)	)	Grade Con	Grade Control Model			
Cut off	Tonnes	Grade	Metal	Tonnes	Grade	Metal	Metal	
(g/t Au)	(Mt)	(g/t Au)	(Koz Au)	(Mt)	(g/t Au)	(Koz Au)	(Koz) Au	
0.3	4.05	1.4	183	4.04	1.4	183	0	
0.5	3.44	1.6	176	3.43	1.6	175	1	
0.7	3.00	1.7	168	2.89	1.8	165	3	

Table 3 Comparison between Mineral Resource Model and Grade Control Model

This test area represents approximately 4% of the Indicated Mineral Resource ounces and the close spaced drill pattern demonstrates consistent mineralised zones at surface in this area. The results provide another layer of confidence that the spatial distribution and tenor of gold in this test area is in line with the Namdini Mineral Resource expectations.



Figure 3 Namdini Project Grade Control Test pattern







#### **REGIONAL EXPLORATION UPDATE**

#### Bolgatanga Project

The Bolgatanga Project includes the Ndongo, Kungongo and Bongo Prospects (Figure 4). Diamond (DD) and Reverse Circulation (RC) drilling were in various stages of progress over these tenements during this quarter. Detailed ground geophysical surveys were also in progress over the Ndongo tenement.

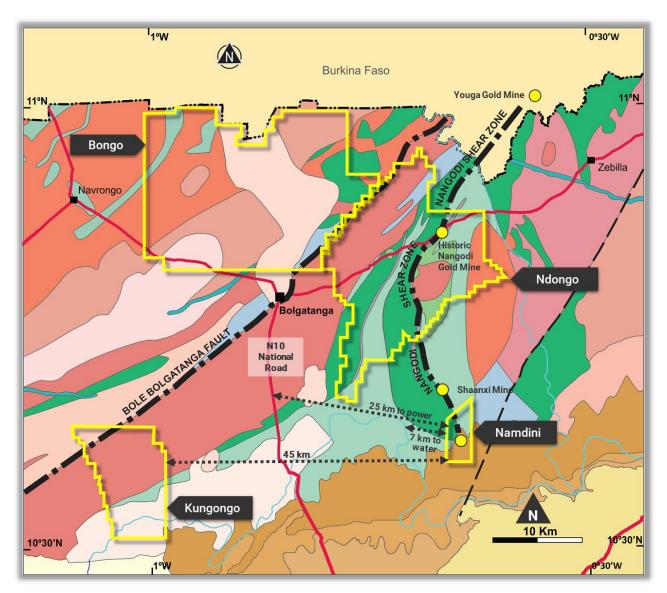


Figure 4 Bolgatanga Project Tenements

#### Subranum Project

The Subranum Project is located in south west Ghana (Figure 1). DD and Auger drilling are planned for this project once access is re-established after the rainy season.







#### **BOLGATANGA PROJECT**

#### **Ndongo Tenement**

As previously announced the Company acquired a further two adjoining licences to the original Ndongo tenement, which increased the new Ndongo combined tenement area to 295.9 sq km.

This enlarged area significantly increases Cardinal's land holding over the Namdini major regional shear and allows the Company to extend its exploration programme into this highly prospective area.

#### **Exploration Drilling**

A total of 56 DD and RC holes were drilled on the enlarged Ndongo tenement and Kungongo Prospect during this quarter with 7,207 samples, including QAQC controls, submitted to 3 Ghana based laboratories for fire assay (Table 4). Results are awaited and will be processed when received.

Prospect	Drill Method	No. Holes	Total (m)	No. Samples	Duplicates	Blanks	Stds	Total Samples
Ndongo Far East	DD Drilling	16	2,946.06	2,946	0	75	75	3,096
	RC Drilling	2	123.00	123	6	3	3	135
Kungongo	DD Drilling	12	1,870.40	1,873	0	44	45	1,962
Yameriga	RC Drilling	19	1,292.00	1,292	66	33	32	1,423
Ndongo West	RC Drilling	6	390.00	390	20	10	10	430
	DD Drilling	1	18.21	153	0	4	4	161
Total		56	6,639.67	6,777	92	169	169	7,207

Table 4 Exploration Drilling for Q4 2017

#### Geophysical Surveys

The *airborne geophysical surveys* previously carried out over the Bolgatanga Project tenements, provided an excellent basis for the interpretation of the regional geology and structural controls.

**Ground geophysics** has provided the next level of geophysical detail, as the location of chargeable and resistive zones may provide insight to subsurface gold mineralisation.

**Ground magnetic surveys** over the Nangodi and Yameriga areas were completed during this quarter using 2 x GSM-19 Overhauser roving magnetometers, with GPS attached, recording at 2 second intervals, measuring total magnetic field in Nano Teslas, along with a GSM-19 Overhauser (base station) recording at 5 second intervals (Table 5).

Prospect	Nangodi	Yameriga	
Survey Area	911.35 km²	919.35 km²	
Line spacing	100m	50m	
Line Orientation	122°	122°	
No. Cross Lines	157	252	
No. Base Lines	2	2	
Equipment (Base Stn)	1 Magnetometer	1 Magnetometer	
Equipment (Roving)	2 Magnetometers	2 Magnetometers	

**Table 5 Ground Magnetic Surveys within Ndongo Tenement** 

Coupled with previously completed *auger geochemical programmes*, the aim is to build an integrated data set that will provide information on the structural and lithological controls on gold mineralisation which will assist in defining additional gold resources within the Bolgatanga Project tenements.

Exploration will continue over the various tenements with field confirmation and exploration drilling required to test the many targets that have been generated.







#### Nangodi Prospect

A ground magnetic survey was completed over Nangodi during this quarter (Table 5 above). This survey identified several features within the prominent magnetic intrusive not previously identified by the airborne survey. This magnetic intrusive is located within a dilation zone at the southern end of the Palungu Granitoid intrusive.

Raw data will be processed by Southern Geoscience Consultants (Perth, WA).

#### Ndongo Far East Prospect

DD and RC drill holes were concentrated around the prominent magnetic intrusive mentioned above to identify the causes of the high magnetic content of the rocks.

The drill core revealed abundant structural deformation and hematite-altered country rocks containing pyrite and pyrrhotite sulphides, with minor chalcopyrite. Some thin molybdenite veinlets were also observed.

Results will be assessed once received so that a further drilling programme can be planned.

#### Yameriga Prospect

A ground magnetic survey was completed over Yameriga during this quarter (Table 5 above). Raw data will be processed by Southern Geoscience Consultants (Perth, WA).

RC drilling tested a contact shear zone between Birimian metabasalts and metasediments where extensive artisanal mining is in progress. The contact shear zone stretches for about 9 km through Yameriga and into the Ndongo Central area to the N-NE.

Several RC fences were drilled across strike to ascertain the width of possible gold mineralisation. Once results have been received, a further drill programme will be planned.

#### Ndongo West Prospect

Several RC drill fences and 1 DD hole were drilled across a previously delineated Gradient Array IP contact zone between resistive and chargeable rock units within the Ndongo West Prospect.

#### **Kungongo Tenement**

The extensive regional Bole-Bolgatanga shear zone occurs over a length of 6 km across the northwest corner of the tenement. The tenement is underlain by Birimian greenstones, which strike north-east across the tenement, which have been extensively intruded by younger granitoids.

During the quarter ended 31 December 2017, 12 DD drill holes were drilled over portions of the Kungongo Prospect with a total of 1,962 samples, including QAQC controls, submitted for fire assay (Figure 8).

Assays for the 12 DD drill holes completed during the quarter are continuing to be received whilst further drilling is in progress. The Company is still compiling and interpreting the results of the logging, stratigraphical interpretation and geophysical programmes. The Company will continue to provide updates as the information is available.

Assay results have been returned from the first 3 scout drillholes, reported in the 30 September 2017 Quarterly Activities and Cashflow Report. An additional 2 drill holes were completed which were designed to test stratigraphy only. The results from these 5 drill holes in isolation are deemed not material at this point in time, whilst the Company is gathering further data in order to gain a technical understanding of the Kungongo prospect.

The drill core shows folded characteristics similar to that observed in the drill core from previously drilled DD holes. The dips were found to be variable down each drill hole, varying between NW and SE directions, confirming that the strata are strongly folded, and the stratigraphy is complex. This geologic setting compares favourably with observations in the early stage drilling at Namdini where higher grade gold mineralisation was observed along the fold axes.







Kungongo is at very early exploration stage. This is the first deep drilling campaign within this area and as a result, the Company requires time to thoroughly evaluate all of the technical information (including assay results) before detailed assessments can be announced.

Further RC drilling is planned along 3 fences roughly 1,600m apart to test for gold mineralisation across strike.

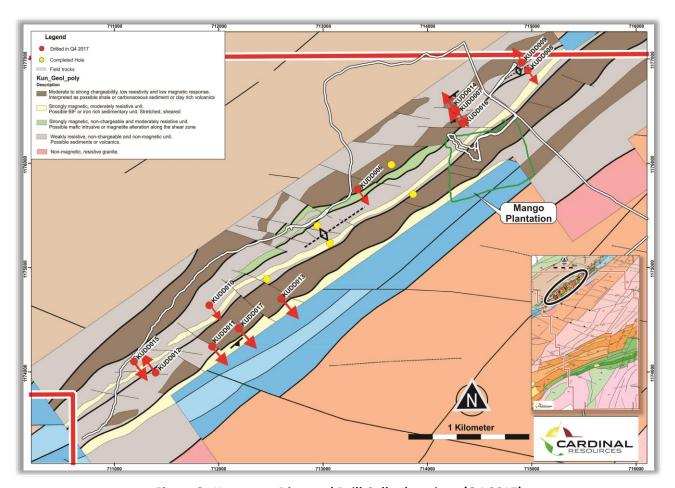


Figure 8 Kungongo Diamond Drill Collar locations (Q4 2017)

In the September 2017 Quarterly Activities and Cashflow Report, Figure 5 detailed 10 drill holes drilled in Q3 2017. The Company clarifies that this figure should be 5 drills holes completed and 5 drill holes were planned.

#### **Bongo Prospect**

Soil auger programmes were completed during previous quarters over targets identified by airborne geophysical surveys. Auger geochemical drilling has proved to be an excellent exploration technique, highlighting a number of anomalous Au areas.

The auger soil drilling programme follows the standard operating procedure for auger geochemical logging and sampling. Holes are marked in the field using GPS techniques, the rig geologist logs the auger samples as they are drilled using hand-held logging software until the saprolite zone is reached and is penetrated for at least 1m.

Results of the auger drilling programme were being assessed during this quarter. Deeper RC drilling programmes may be planned for this area subject to results from the shallow auger soil drilling.

#### **SUBRANUM PROJECT**

Previous exploration at Subranum has established that the NE extension to the regional Bibiani Shear Zone is developed for approximately 9 km trending SW-NE across the Subranum tenement.







This previous exploration established a significant NE trending anomalous zone of 5.2 km from the SW boundary. Previous drilling, however, had been on 11 fences of varying distances between 200m to >500m apart.

Cardinal has planned a systematic diamond drilling programme to cover this 5.2 km anomalous strike length to properly evaluate the gold mineralisation contained within this anomalous zone.

Clearing of the previous drill access tracks continued during this quarter with diamond (DD) drilling planned to start during 2018.

A soil auger programme is planned for the remaining 3.8 km strike length in the NE portion of the tenement to initially cover a ~400m width across the strike of the Bibiani Shear Zone. After analysis of these results, either RC or DD drilling could be planned to further assess any anomalies.

#### **CORPORATE**

#### **BOARD CHANGES**

During the quarter the Company announced the appointment of Mr Jacques McMullen and Mr Michele Muscillo as Non-Executive Directors of the Company.

#### Mr. Jacques McMullen - P.Eng., MASc., ICD.D

Mr. McMullen retired in 2012 after a distinguished 35 year career in the mining industry of which the last 17 years were with Barrick Gold Corporation where he held the positions of Senior VP Special Projects and Technical Services. In his role as Senior VP of Barrick, Jacques was instrumental in the development of many mines including Goldstrike, Veladero, Lagunas Norte, Cowal and Bulyanhulu. His experience includes all phases of development including feasibility, construction, commissioning, ramp-up and operation's optimization.

Following his retirement, Mr. McMullen joined BBA as Principal, Mines & Metals and Director. BBA is a Canadian based, global engineering firm. At BBA, Jacques focused on the Borden Lake development project which was purchased by Goldcorp. Additionally, Jacques was Chairman of Orvana Minerals Corp. (TSX: ORV) and is currently a Director at NewCastle Gold Ltd. (TSX: NCA) and a corporate advisor to Detour Gold Corporation (Detour Gold: TSX: DGC).

#### Mr. Michele Muscillo – LLB (Hons)

Mr. Muscillo is a Partner with HopgoodGanim Lawyers in Australia. Michele has practised 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. As part of this role, Mr. Muscillo has acted on numerous IPOs and debt and equity raisings, and advised both bidders and targets on public market control transactions. His key areas of practice include Corporate Advisory and Governance, Capital Markets, Resources and Energy.

Mr. Muscillo is currently a Non-Executive Director with Aeris Resources Limited (ASX:AIS) and Xanadu Mines Limited (ASX: XAM). Formerly, Michele was also Non-Executive Director of Orbis Gold Limited which is currently owned by TSX-Listed SEMAFO Inc. (TSX:SMF).

The Company also reported that both Mark Connelly and Simon Jackson resigned from the board of directors to focus on their other significant commitments.

#### C\$12.0 Million Brought Deal Announced

The Company announced on October 23, 2017 that it had entered into an agreement with Clarus Securities Inc., on behalf of a syndicate of underwriters (collectively, the "Underwriters"), pursuant to which the Underwriters have agreed to purchase, on a "bought deal" basis, 18,461,600 Ordinary Shares (the "Ordinary Shares") of the







Company at a price of C\$0.65 per Ordinary Share (the "Offering Price") for aggregate gross proceeds to the Company of C\$12,000,040 (the "Offering"), with the deal closing on 22 November 2017.

The Company intends to use the net proceeds from the Offering to continue exploration and development at its Namdini Gold Project and the Company's other Ghanaian properties, and for general working capital purposes.

The Ordinary Shares will be offered by way of a short form prospectus to be filed in each of the provinces of Canada, other than the Province of Quebec, by way of a private placement in the United States, and in those jurisdictions outside of Canada and the United States which was mutually agreed to by the Company and the Underwriters, where the Ordinary Shares can be issued on a private placement basis, exempt from any prospectus, registration or other similar requirements.

#### **TENEMENT SCHEDULE - ASX LISTING RULE 5.3.3**

The following mining tenement information is provided pursuant to ASX Listing Rule 5.3.3. No tenements in part or whole, were relinquished, surrendered or otherwise divested during the quarter ended 31 December 2017.

Tenement	Licence Status	Ref	Note	Interest Acquired During Quarter	Interest Divested During Quarter	Interest Held at End of Quarter
Ghana						
Bolgatanga Project						
Ndongo	Prospecting	PL9/22	-	-	-	100%
Kungongo	Reconnaissance	RL9/28	-	-	-	100%
Bongo	Reconnaissance	RL9/29	-	-	-	100%
Nangodi	Prospecting	PL9/13	-	100%	-	100%
Yamergia	Propsecting	PL9/19	-	100%	-	100%
Namdini Project						
Namdini	Mining Licence	PL9/29	1	100%	-	100%
Subranum Project						
Subranum	Prospecting	PL/309	-	-	-	100%

1. The application by Savannah Mining Limited (Savannah) for a Large-Scale Mining Licence over an area of approximately 19.54 Sq Km in the Upper East Region of Ghana covering Cardinal's Namdini Project has been granted by the Minister of Lands and Natural Resources of Ghana.

Savannah applied for an assignment of this Large-Scale Mining Licence to Cardinal Namdini Mining Limited (Namdini), a wholly owned subsidiary of Cardinal. The assignment was granted during the quarter by the Minister of Lands and Natural Resources of Ghana.

Upon transfer of the Mining Licence to Cardinal the Net Smelter Royalty Deed between Savannah and Cardinal Namdini is now active, whereby Cardinal will pay to Savannah a Royalty equal to:

- (a) 4% of the Net Smelter Return on the first 50,000 ounces of Specified Minerals produced within each small-scale license which was purchased by Savannah within the Large Scale Mining License; and
- (b) A 2% Net Smelter Return, effective from production of the 50,001 ounces of Specified Minerals produced within each small-scale licence which was purchased by Savannah within the Large Scale Mining License.







#### **CAPITAL STRUCTURE**

As at 31 December 2017 the Company had following capital structure;

Capital Structure	Listed	Unlisted	Total
Fully Paid Ordinary Shares (CDV)	371,370,549	-	371,370,549
Options Ex. \$0.15 on or before 30 September 2019	115,682,937	-	115,682,937
Options Ex. \$0.22 on or before 18 March 2020	-	6,000,000	6,000,000
Options Ex. \$0.75 on or before 21 December 2022	-	1,000,000	1,000,000
Milestone Options Ex. \$0.50 on or before 12 April 2022	-	18,500,000	18,500,000
Milestone Options Ex. \$0.825 on or before 21 December 2022	-	5,758,000	5,758,000
Milestone Options Ex. \$0.965 on or before 21 December 2022	-	4,036,200	4,036,200
- Class C Performance Shares	-	60	60

#### **Cash Balance**

The Company's cash balance at 31 December 2017 was approximately \$18.71 million.

For further information contact:

Archie Koimtsidis CEO / MD Cardinal Resources Limited

P: +1 647 256 1922 P: + 61 (8) 6558 0573

 $\textbf{Email:} \, \underline{archie@cardinalresources.com.au}$ 







#### **Competent / Qualified Person Statement**

The scientific and technical information in this Quarterly report that relates to the Namdini Gold Project has been reviewed and approved by Mr. Richard Bray, a Registered Professional Geologist with the Australian Institute of Geoscientists and Mr. Ekow Taylor, a Chartered Professional Geologist with the Australasian Institute of Mining and Metallurgy. Mr. Bray and Mr. Taylor have more than five years' experience relevant to the styles of mineralisation and type of deposits under consideration and to the activity which is being undertaken 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" and as a Qualified Person for the purposes of NI43-101. Mr. Bray and Mr. Taylor are full-time employees of Cardinal and hold equity securities in the Company.

The scientific and technical information in this Quarterly report that relates to Exploration Results, Mineral Resources or Ore Reserves at the Bolgatanga Project and Subranum Project is based on information prepared by Mr. Paul Abbott, a full time employee of Cardinal Resources Limited, who is a Member of the Geological Society of South Africa. Mr. Abbott has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking 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".

#### **JORC 2012**

This report contains information extracted from the following reports which are available for viewing on the Company's website www.cardinalresources.com.au:

0	14 Dec 2017	Namdini Drilling and Regional Exploration Update
0	12 Dec 2017	Cardinal Grade Control Drill Results Returned
0	09 Nov 2017	Final Short Form Prospectus
0	24 Oct 2017	Cardinal Announces C\$12.0 Million Bought Deal
0	19 Oct 2017	Updated Technical Report Relating to Namdini Project Filed
0	18 Sep 2017	Cardinal's Namdini Deposit Mineral Resource Update

The Company confirms it is not aware of any new information or data that materially affects the information included in this report relating to exploration activities and all material assumptions and technical parameters underpinning the exploration activities in those market announcements continue to apply and have not been changed. The Company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcements.





+Rule 5.5

### **Appendix 5B**

# Mining exploration entity and oil and gas exploration entity quarterly report

Introduced 01/07/96 Origin Appendix 8 Amended 01/07/97, 01/07/98, 30/09/01, 01/06/10, 17/12/10, 01/05/13, 01/09/16

#### Name of entity

Cardinal Resources Limited	
ABN	Quarter ended ("current quarter")
56 147 325 620	31 December 2017

Con	solidated statement of cash flows	Current quarter \$A'000	Year to date (6 months) \$A'000
1.	Cash flows from operating activities		
1.1	Receipts from customers	- H	-
1.2	Payments for		
	(a) exploration & evaluation	(11,273)	(15,633)
	(b) development	-	-
	(c) production	-	-
	(d) staff costs	(333)	(943)
	(e) administration and corporate costs	(1,147)	(1,980)
1.3	Dividends received (see note 3)	-	-
1.4	Interest received	43	97
1.5	Interest and other costs of finance paid	-	-
1.6	Income taxes paid	-	-
1.7	Research and development refunds		-
1.8	Other (provide details if material)	44	27
1.9	Net cash from / (used in) operating activities	(12,666)	(18,432)

2.	Cash flows from investing activities		
2.1	Payments to acquire:		
	(a) property, plant and equipment	(87)	(159)
	(b) tenements (see item 10)	(234)	(2,901)
	(c) investments	-	-

<sup>+</sup> See chapter 19 for defined terms

Consolidated statement of cash flows		Current quarter \$A'000	Year to date (6 months) \$A'000	
	(d) other non-current assets	-	-	
2.2	Proceeds from the disposal of:			
	(a) property, plant and equipment	-	-	
	(b) tenements (see item 10)	-	-	
	(c) investments	-	-	
	(d) other non-current assets	-	-	
2.3	Cash flows from loans to other entities	-	-	
2.4	Dividends received (see note 3)	-	-	
2.5	Other (provide details if material)	-	-	
2.6	Net cash from / (used in) investing activities	(321)	(3,060)	

3.	Cash flows from financing activities		
3.1	Proceeds from issues of shares	12,397	12,397
3.2	Proceeds from issue of convertible notes	-	-
3.3	Proceeds from exercise of share options	440	510
3.4	Transaction costs related to issues of shares, convertible notes or options	(919)	(919)
3.5	Proceeds from borrowings	-	-
3.6	Repayment of borrowings	-	-
3.7	Transaction costs related to loans and borrowings	_	-
3.8	Dividends paid	-	-
3.9	Other (provide details if material)	-	-
3.10	Net cash from / (used in) financing activities	11,918	11,988

4.	Net increase / (decrease) in cash and cash equivalents for the period		
4.1	Cash and cash equivalents at beginning of period	19,794	28,544
4.2	Net cash from / (used in) operating activities (item 1.9 above)	(12,666)	(18,432)
4.3	Net cash from / (used in) investing activities (item 2.6 above)	(321)	(3,060)
4.4	Net cash from / (used in) financing activities (item 3.10 above)	11,918	11,988
4.5	Effect of movement in exchange rates on cash held	(10)	(325)
4.6	Cash and cash equivalents at end of period	18,715	18,715

<sup>+</sup> See chapter 19 for defined terms

5.	Reconciliation of cash and cash equivalents at the end of the quarter (as shown in the consolidated statement of cash flows) to the related items in the accounts	Current quarter \$A'000	Previous quarter \$A'000
5.1	Bank balances	2,469	162
5.2	Call deposits	16,246	19,602
5.3	Bank overdrafts	-	- -
5.4	Other (provide details)	-	<del>-</del>
5.5	Cash and cash equivalents at end of quarter (should equal item 4.6 above)	18,715	19,764

6.	Payments to directors of the entity and their associates	Current quarter \$A'000
6.1	Aggregate amount of payments to these parties included in item 1.2	331
6.2	Aggregate amount of cash flow from loans to these parties included in item 2.3	-
6.3	Include below any explanation necessary to understand the transactions in 6.2	cluded in items 6.1 and
N/A		

7.	Payments to related entities of the entity and their associates	Current quarter \$A'000
7.1	Aggregate amount of payments to these parties included in item 1.2	-
7.2	Aggregate amount of cash flow from loans to these parties included in item 2.3	-
7.3	Include below any explanation necessary to understand the transactions inc. 7.2	luded in items 7.1 and
N/A		

<sup>+</sup> See chapter 19 for defined terms

8.	<b>Financing facilities available</b> Add notes as necessary for an understanding of the position	Total facility amount at quarter end \$A'000	Amount drawn at quarter end \$A'000
8.1	Loan facilities		-
8.2	Credit standby arrangements	-	-
8.3	Other (please specify)	- I	-

8.4 Include below a description of each facility above, including the lender, interest rate and whether it is secured or unsecured. If any additional facilities have been entered into or are proposed to be entered into after quarter end, include details of those facilities as well.

N/A			

9.	Estimated cash outflows for next quarter	\$A'000
9.1	Exploration and evaluation	1,850
9.2	Development	-
9.3	Production	-
9.4	Staff costs	621
9.5	Administration and corporate costs	762
9.6	Other (provide details if material)	-
9.7	Total estimated cash outflows	3,233

10.	Changes in tenements (items 2.1(b) and 2.2(b) above)	Tenement reference and location	Nature of interest	Interest at beginning of quarter	Interest at end of quarter
10.1	Interests in mining tenements and petroleum tenements lapsed, relinquished or reduced	-	-	-	-
10.2	Interests in mining tenements and petroleum tenements acquired or increased	RL9/29, Namdini PL9/13, Nangodi PL9/19, Yamergia	Mining Licence Prospecting Licence Prospecting Licence	0% 0% 0%	100% 100% 100%

<sup>+</sup> See chapter 19 for defined terms

#### **Compliance statement**

- This statement has been prepared in accordance with accounting standards and policies which comply with Listing Rule 19.11A.
- 2 This statement gives a true and fair view of the matters disclosed.

Sign here: Sarah Shipway Date: 31 January 2018

**Company Secretary** 

Print name: Sarah Shipway

#### **Notes**

- 1. The quarterly report provides a basis for informing the market how the entity's activities have been financed for the past quarter and the effect on its cash position. An entity that wishes to disclose additional information is encouraged to do so, in a note or notes included in or attached to this report.
- 2. If this quarterly report has been prepared in accordance with Australian Accounting Standards, the definitions in, and provisions of, AASB 6: Exploration for and Evaluation of Mineral Resources and AASB 107: Statement of Cash Flows apply to this report. If this quarterly report has been prepared in accordance with other accounting standards agreed by ASX pursuant to Listing Rule 19.11A, the corresponding equivalent standards apply to this report.
- 3. Dividends received may be classified either as cash flows from operating activities or cash flows from investing activities, depending on the accounting policy of the entity.

<sup>+</sup> See chapter 19 for defined terms