Cardinal Resources Ltd.: Quarterly Activities Report, 31 December 2018

31.01.2019 | GlobeNewswire

TORONTO, Jan. 31, 2019 - Cardinal Resources Limited (ASX: CDV; TSX: CDV) (“Cardinal” or “the Company”), an African gold focused exploration company, is pleased to present its Quarterly Activities report for the period ended 31 December 2018. Currently Cardinal holds tenements within Ghana being the Bolgatanga Project and Subranum in central Ghana (Figure 1).

Cardinal Resources Tenements in Ghana

Bolgatanga Project Tenements

Ndongo Prospecting Licence showing local prospects

Ndongo East Prospect with drill locations on Ground Magnetic Image showing NE-SW mineralised structu
open along strike.

Kungongo DD Drill and Geochemical Sample Locations on Ground Magnetic Image

Kungongo Section AA1

Regional Geology with Subranum Tenement straddling Bibiani Shear Zone

Locality of Cardinal Diamond Drill Holes on Bibiani Shear Zone at Subranum

Subranum – Drill Hole SBDD18-003 (on Section A-A, Figure 4)

Subranum – Drill Holes SBDD18-001 & SBDD18-002

Subranum – Drill Hole SBDD18-006

Subranum – Drill Hole SBDD18-007

The Company is focused on the development of the Namdini Gold Project with a Maiden Ore Reserve of 4.76Moz and is now advancing the Bankable Feasibility Study (BFS).

Exploration programmes are also underway at the Company’s Bolgatanga (Northern Ghana) and Subranum (Southern Ghana) Projects.

HIGHLIGHTS

- On September 13, 2018 the Company commenced with an Enterprise Optimisation study on the Namdini Gold Project with Whittle Consulting Pty Ltd. This involves a rigorous analytical and computational process at a detailed spatial and technical level to increase the value of the project. The optimised results of which will be fed into the BFS.

- On October 18, 2018 the Company commenced with a geochemical assessment of the Namdini Gold Project and to provide a management support programme for any potential Acid and Metalliferous Drainage (AMD) associated with the development of the deposit into operation and eventual closure.
- On October 26, 2018 the Company submitted its draft Environmental Impact Statement (EIS) for the Namdini Gold Project to the Environmental Protection Agency (EPA) of Ghana.
- On November 11, 2018 BFS value added activities commenced on the Namdini Gold Project. This included optimisation studies to improve the level definition of the current pit design as well to explore opportunities in enhancing and increasing project value. These are being undertaken by the same consultants that completed the Pre-Feasibility Study (PFS) on behalf of the Company.
- On November 28, 2018 the Company announced high grade intercepts on the Ndongo East Discovery located within the Ndongo License area approximately 24km north of the Namdini deposit. Additional shallow gold intersections to the exploration drill results previously announced on July 16, 2018, were located at the new Ndongo East Discovery.

OUTLOOK

The principal activity of the Company (and its subsidiaries) is gold exploration and mine development in Ghana. The Company 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 which has a maiden Probable Ore Reserve of 129.6 Mt grading 1.14 g/t Au for 4.76 Moz Au at a 0.5 g/t Au cut-off grade. The Company expects to continue to generate positive news flow from its ongoing greenfield exploration assets and Bankable Feasibility Study activities.

The map below shows the location of the Namdini Gold Project and the Company’s other properties in Ghana.

To view Figure 1: Cardinal Resources Tenements in Ghana
visit: http://www.globenewswire.com/NewsRoom/AttachmentNg/37731961-862e-4efe-b727-c66524a90c14

THE NAMDINI GOLD PROJECT

Property Title / Mining Lease

A Large-Scale Mining Licence covering the Namdini Mining Lease was granted to Cardinal Namdini Mining Limited (“Cardinal Namdini”), a wholly owned subsidiary of Cardinal, by the Minister of Lands and Natural Resources under the Ghanaian Minerals and Mining Act 2006 (Act 703) in December 2017. The Large-Scale Mining Licence, covers 19.54 km^2 in the Dakoto area of the Talensi District Assembly in Upper East Region of Ghana evidenced by a Mining Lease is for an initial period of 15 years and is renewable.

Project Development Activities

Cardinal is progressing with its BFS programme to further advance the Namdini Gold Project. This consists of continuing with previously selected and newly selected consultants to assist with the phased development of the Namdini Gold Project. The consultants and their roles are tabulated below:

COMPANY	ROLE
Lycopodium Limited	Study Managers. Process plant and associated infrastructure. Capital an compilation of the JORC and NI 43-101 Technical reports
Golder Associates Pty Ltd	Mine planning and optimisation, pit design and mine scheduling, Geotec engineering.
Orway Minerals Consultants	Comminution data analysis, crushing and grinding circuit option study

ALS Laboratory (Perth)	Metallurgical testwork to support the process design criteria
Knight Piésold Consulting	Tailings Storage Facility and associated infrastructure design
Independent Metallurgical Operations Pty Ltd	Metallurgical testwork analysis and process flowsheet development
MPR Geological Consultants Pty Ltd	Mineral Resource Modelling of the Namdini Deposit
Orefind Pty Ltd	Geology and deposit structural genesis
Sebbag Group International Pty Ltd	Mine Design review
NEMAS Consult Pty Ltd	Environmental Impact Assessment Study
Whittle Consulting Pty Ltd	Enterprise Optimisation of the Namdini Project

Table 1: Study Team

Project Development Timeline

The following preliminary schedule (Table 2) is subject to available funding, positive outcomes for the BFS and favorable timelines for permitting;

Milestone	Target Timeline
Completion of PFS (Completed)	Q3 2018
Completion of DFS	Q3 2019
Final Investment Decision	Q4 2019
Target Production Commencement	H1 2022

Table 2: Namdini Project Development Timeline

A mining design review of the PFS was completed by Sebbag Group International. Their finding was that the overall project economics support a positive cash flow and go forward case from PFS to BFS meeting the regulatory requirements for the conversion of a Ore Reserve statement at the current level of assessment. The work completed did not show any fatal flaws or red flags with Cardinals PFS. The areas where further minor work was identified in the report recommendations, can be resolved, optimised or completed before the end of the BFS in Q3 - 2019. The project economics were found to be robust and met the acceptable industry standard variances in Opex (operating expense) and Capex (capital expense) respectively to support a positive NPV and go forward case for the 9.5 Mtpa option.

A proposal from a HV power supply company was received which included back-up power and alternative power supply opportunities. This option included assessment of the current power generation capabilities through grid connection and an independent power generation solution on the basis of an independent power producer (IPP) or Build Own Operate Transfer (BOOT) type contract structure. The first option is a total independent heavy fuel oil (HFO), Solar Photovoltaic (PV) and Battery energy storage hybrid system and the second option is a Solar PV and battery system with a hydro generated power grid connection. The Company is assessing the merit of the proposal and are receiving further proposals for evaluation.

Cardinal requested Golder to assess the potential of increasing the current declarable Ore Reserves for the Namdini Gold Project, without negatively impacting project financial return, thereby improving the Mineral Resource to Ore Reserve conversion factor. Targeting near pit ore was considered to be the most viable option for exploring this potential Ore Reserve increase.

The geochemical assessment by Golder which commenced in the quarter is to identify any potential issues and opportunities with the material to be mined, stockpiled and stored on site as well as to clarify any potential implications for material handling, construction and operations. Cardinal has developed a Sulphur and Arsenic Mineral Resource distribution model including most of the in-pit waste and has drill core and pulps available for sampling and testing. The geochemical assessment will be executed in support of mine planning and closure, conducted in accordance with Ghanaian and International Acid Prevention (2009) Global Acid Rock Drainage guidelines.

Namdini Sterilization Drilling

A total of 7 reverse circulation (RC) holes were drilled on the Namdini tenement during the quarter with 488

samples, including QAQC controls, submitted to SGS and ALS Ghana based laboratories for gold analysis using the Fire Assay analytical method (Table 3).

Further sterilization drilling is planned for 2019 over areas proposed for mine infrastructure.

Lithologies encountered include metavolcanics, thin granitoid slivers in the metasediments and diorite.

Prospect	Drill Method	No. Holes	Total (m)	No. Samples	Duplicates	Blanks	Stds	Total Samples
Namdini	RC	7	832	446	20	11	11	488
Total		7	832	446	20	11	11	488

Table 3: Namdini Sterilization Drilling for Q4 2018

REGIONAL EXPLORATION UPDATE

Bolgatanga Project
The Bolgatanga Project includes the Ndongo, Kungongo and Bongo License areas (Figure 2). The main focus of the Company’s diamond (DD) and reverse circulation (RC) drilling was on the highly prospective areas along the Nangodi Shear Zone during this quarter. Detailed ground geophysical surveys were also in progress over the Ndongo and Kungongo Licenses.

To view Figure 2: Bolgatanga Project Tenements
visit: http://www.globenewswire.com/NewsRoom/AttachmentNg/57cd232c-0b72-4512-a34c-a114893915ba

Subranum Project
The Subranum Project is located in southwest Ghana (Figure 1). Diamond drilling was completed on this project late in the quarter, please see below for details.

BOLGATANGA PROJECT

Exploration Drilling
A total of 22 DD holes were drilled on the Ndongo East Prospect with 8 DD holes on Kungongo Extension during the quarter with 2,286 samples, including QAQC controls, submitted to Ghana based laboratories for analysis for gold using the Fire Assay analytical method (Table 4).

Prospect	Drill Method	No. Holes	Total (m)	No. Samples	Duplicates	Blanks	Stds	Total Samples
Ndongo	DD	14	1,303	1,300	-	30	32	1,362
Kungongo	DD	8	881.17	882	-	21	21	924
Total		22	2,184.17	2,182	-	51	53	2,286

Table 4: Exploration Drilling for Q4 2018

Ndongo License Area

The Company has continued to concentrate its exploration focus this quarter on the Ndongo Licence which covers an area of 295km^2 (Figure 3). Exploration has defined six prospects totalling 70km in strike length only 15-25km north of the Namdini Gold Project.

The Company considers the Ndongo Licence area to be highly prospective for the discovery of economic gold mineralisation associated with the prolific Nangodi Shear Zone, a splay fault off the main regional-scale Bole-Bolgatanga Shear. Elsewhere, the Nangodi Shear Zone is spatially related to no fewer than four major gold discoveries, including the Company’s Namdini Gold Project, the Shaanxi Mine, the historic Nangodi Gold Mine and the Youga Gold Mine in Burkina Faso, adjacent to the Ghana border (Figure 3). In addition, there are numerous historic shallow artisanal workings along many parts of this shear zone.

Ndongo East Prospect

The Ndongo East Prospect is located within NE-SW trending Birimian metavolcanics and metasediments.

Cardinal recommenced drilling after the wet season during November 2018 in order to test the strike and depth extents of the mineralised system. Post wet season drill results were announced on 23rd January 2019.

During H2 – 2018, Cardinal reported several intersections of high-grade gold at its new Ndongo East discovery within the Ndongo License and has now intersected further high-grade gold in recently completed diamond drilling of this high-grade gold target. Currently, Cardinal has one diamond rig continuing to evaluate the Ndongo East discovery. Best intercepts in the new holes reported include:

- 14m @ 7.0 g/t Au from 69m in NDDD046 (including 2m @ 42.2g/t from 80m)
- 3m @ 29.3 g/t Au from 45m in NDDD036
- 3m @ 4.1 g/t Au from 122m in NDDD037

Intersections encountered in the drilling, have gold mineralisation developed at, or near, the diorite-granodiorite contacts, where competency differences create brittle fracturing which allows the ingress and precipitation of mineralising fluids. The mineralised horizons contain variable chlorite-silica-carbonate-sericite alteration with sulphides (mainly pyrite with very minor arsenopyrite).

The mineralised system is open along a northeast-southwest strike and at depth with multiple mineralised intersections. To date most of the high-grade mineralisation has been encountered from surface to a vertical depth of 70 metres (Figure 4).

To view Figure 3: Ndongo Prospecting Licence showing local prospects
visit: http://www.globenewswire.com/NewsRoom/AttachmentNg/b320615c-bc98-46c3-a31e-2b49e20b8b13

To view Figure 4: Ndongo East Prospect with drill locations on Ground Magnetic Image showing NE-SW mineralised structures open along strike
visit: http://www.globenewswire.com/NewsRoom/AttachmentNg/a4acf566-c0bf-4b0b-823b-eaabc06b733a

Kungongo Tenement
The Kungongo Licence is located in northeast Ghana some 45km west of the Company’s Namdini Gold Project. The Licence covers an area of 122 km^2 and is a renewable Exploration Licence (Figure 2).

Recent drilling focused mainly on the northern section of Kungongo to test rock chips gold anomalies, possible extensions of artisanal workings and ground magnetic anomalies. Lithologies encountered by drilling include metasediments and mafic volcanics. The initial RC/DD programme was planned on fences 200m apart with collars at 100m covering approximately 1.6km of strike length along the geophysical target (Figure 5 and Figure 6).

The total DD drilled for this initial programme was 881.17m. The most promising Intercepts thus far are tabulated in Table 6 of Appendix 1.

A ground magnetic survey was completed over 249 lines totalling 666.25-line kilometres on a line spacing of 50m covering the entire prospective Bole-Bolgatanga shear zone.

To view Figure 5: Kungongo DD Drill and Geochemical Sample Locations on Ground Magnetic Image
visit: http://www.globenewswire.com/NewsRoom/AttachmentNg/00626f28-3834-4250-a1fe-bea9b7fe8b00

To view Figure 6: Kungongo Section AA1
visit: http://www.globenewswire.com/NewsRoom/AttachmentNg/693ba069-79e2-4f72-9ff3-9ef72d569a1b

SUBRANUM PROJECT
The Subranum Project covers an area of 69km² located in southwest Ghana. The license straddles the eastern margin of the Sefwi Gold Belt which is bounded by the regional Bibiani Shear Zone (“BSZ”) stretching about 200km across southwestern Ghana. (Figure 7)

The Sefwi Belt is highly prospective and is spatially related to major discoveries including the 7Moz Bibiani Gold Mine (approximately 70km southwest), Newmont’s Ahafo 23Moz Gold Mine (approximately 53km west), and Kinross’ Chirano 5Moz Gold Mine (approximately 110km southwest).

To view Figure 7: Regional Geology with Subranum Tenement straddling Bibiani Shear Zone
visit: http://www.globenewswire.com/NewsRoom/AttachmentNg/6ab9d18b-0bad-4f66-ba04-153dab60465e

There is 9km of the BSZ developed within the Subranum license trending NE to SW. The BSZ forms a very prospective, sheared contact between Birimian phyllites and greywackes to the southeast and mafic to intermediate volcanics and volcaniclastics to the northwest. Granitoid stocks of the Dixcove suite intrude this shear zone.

Previous exploration by the previous owner, Newmont Corporation, included BLEG stream sediment sampling, regolith and soil sampling, trenching and RC drilling, defined a gold mineralised zone in the southwestern portion of the BSZ. This mineralised zone of 5km strike length was estimated by Newmont to contain an estimated inferred historic gold resource of 100,000 oz Au grading 1.8 g/t to a vertical depth of only 50m.

Diamond Drill (DD) Programme
The diamond drilling programme was to drill approximately 1,000m to assess this tenement after acquiring the exploration geological, geophysical and RC drilling data, from Newmont. The programme was to drill holes to compare and expand on the previous Newmont RC drilling results, by targeting the BSZ which is known to contain gold mineralisation. (Figure 8)

Diamond Drill (DD) Results
A total of 7 diamond drill (DD) holes were completed, with a further 3 holes abandoned due to adverse drill conditions. The near surface portions of each hole were drilled by HQ core size, totalling 487.60m, while the deeper portions were drilled by NQ core size, totalling 716.40m. The total DD drilled for this initial programme was 1,200.00m. The most promising intercepts thus far are tabulated in Table 8 of Appendix 2.

The drill core was transported to Cardinal’s Bolgatanga exploration compound, for cutting and sampling, with the remaining half core stored at the Cardinal storage shed in Bolgatanga.

To view Figure 8: Locality of Cardinal Diamond Drill Holes on Bibiani Shear Zone at Subranum
visit: http://www.globenewswire.com/NewsRoom/AttachmentNg/92765d09-23d6-4ad7-8b82-88183d034ba5

DD hole SBDD18-003 intercepted a wider zone of mineralisation, occurring at the metasediment-metavolcanic contact, with the higher gold grades developed adjacent to, or within, a granitoid intrusive (Figure 9).

To view Figure 9: Subranum – Drill Hole SBDD18-003 (on Section A-A, Figure 4)
visit: http://www.globenewswire.com/NewsRoom/AttachmentNg/7aa14982-d71c-473e-bed5-b8154d020e7a

DD holes, SBDD18-001 and SBDD18-002, were sited along a previous Newmont drill fence to confirm the gold mineralisation which had previously been intersected (Section B-B, Figure 10).

To view Figure 10: Subranum – Drill Holes SBDD18-001 & SBDD18-002
visit: http://www.globenewswire.com/NewsRoom/AttachmentNg/6865551f-50c3-4706-afbf-cbea14af8404

Drill holes SBDD18-006 (Figure 11) and SBDD18-007 (Figure 12) were collared very close to the SW

boundary of the tenement where historical drilling was reported to have intersected relatively higher gold grades (Figure 11).

To view Figure 11: Subranum – Drill Hole SBDD18-006
visit: http://www.globenewswire.com/NewsRoom/AttachmentNg/dfa65e68-0f8d-4797-836f-a8df3e8e8e70

To view Figure 12: Subranum – Drill Hole SBDD18-007
visit: http://www.globenewswire.com/NewsRoom/AttachmentNg/87b364f9-636d-4def-9daa-28cb4135b3da

Narrow gold mineralisation mostly occurs adjacent to, or within, a granitoid intruded into metavolcanics. A narrow, high grade gold intersection also occurs at the metasediment-metavolcanic contact.

The portion of the Bibiani Shear Zone occurring within the Subranum tenement is 9km long, trending SW to NE. Previous extensive exploration has outlined a 5 km long gold target, extending from the SW tenement boundary towards the NE, with the remaining 4 km of the 9 km strike length remaining relatively unexplored.

Only a very small portion of this 5km long gold target has been drilled in this initial drilling programme.

CORPORATE

SUBSEQUENT TO THE QUARTER END

The Company was pleased to announce on January 2, 2019 the appointment of Non-Executive Director Trevor Stanley Schultz.

Mr Schultz has over 45 years in the mining industry with experience in project development, construction and operations. Between 2008 and 2018 he was an Executive and Non-Executive Director with Centamin Egypt and was responsible for the construction of the 12Mtpa processing plant which has a similar flowsheet to Cardinal’s proposed flowsheet.

Prior to this, he served as Chief Operating Officer at Ashanti Goldfields Corporation (now Anglo Gold Ashanti Ltd) and was a resident of Ghana for 6 years. Furthermore, he worked for BHP in Australia and America and in South Africa with Anglo American Corporation.

Trevor has an MA in Economics from Trinity College, England (1968), an MSc in Mining Engineering, from Witwatersrand University, South Africa (1972) and an Advanced Management Programme Diploma from Harvard Business School, USA (1986).

Archie Koimtsidis, CEO / MD of Cardinal, said:
“We are pleased to have Trevor join the Cardinal Board where his many years of expertise in project development will be of significant value to Cardinal and its stakeholders as the company moves the Namdini Gold Project towards the next level, its Definitive Feasibility Study which is anticipated in Q3 - 2019.

“The Board and Management would like to thank Mr Robert Schafer for his geological contribution. We appreciate Robert’s offer to provide advice as an independent consultant as we develop our district and near mine targets and wish him the best in his future endeavours.”

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 2018.

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	Prospecting	RL9/28	-	-	-	100	%
Bongo	Prospecting	PL9/29, PL9/37 & PL938	-	-	-	100	%
Nangodi	Prospecting	PL9/13, PL9/19 & PL9/36	-	-	-	100	%
Namdini Project							
Namdini	Mining Licence	LVB14619/09	-	-	-	100	%
Subranum Project							
Subranum	Prospecting	PL/309	-	-	-	100	%

CAPITAL STRUCTURE
As at 31 December 2018 the Company had the following capital structure;

Capital Structure	Listed	Unlisted	Total
Fully Paid Ordinary Shares (CDV)	380,237,817	-	380,237,817
Options Ex. $0.15 on or before 30 September 2019	112,935,006	-	112,935,006
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 2018 was approximately AU$29 million.

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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 Ltd. , 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”.

Cardinal confirms that it is not aware of any new information or data that materially affects the information included in its announcement of the Maiden Ore Reserve of 18 September 2018. All material assumptions and technical parameters underpinning this estimate continue to apply and have not materially changed.

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:

- 23 Jan 2019 Cardinal Hits More High-Grade Shallow Gold at Ndongo East
- 28 Nov 2018 New Drill Season hits high-grade shallow gold at Ndongo East
- 18 Sept 2018 Cardinal Namdini Pre-Feasibility Study 4.76Moz Ore Reserve
- 29 Aug 2018 Cardinal Extends Ndongo East Discovery Strike Length
- 31 July 2018 Cardinal Executes U$5 Million Term Sheet with Sprott
- 16 July 2018 Cardinal Makes New Gold Discovery at Ndongo East
- 28 May 2018 Encouraging First Pass Gold Results at Ndongo
- 19 April 2018 Technical Report on Namdini Gold Project Filed on SEDAR
- 04 April 2018 First Pass Regional Exploration Drilling Underway
- 05 Mar 2018 Cardinal Upgrades Indicated Mineral Resource to 6.5Moz
- 22 Feb 2018 Cardinal Infill Drilling Results Returned
- 05 Feb 2018 Namdini Gold Project Preliminary Economic Assessment
- 22 Jan 2018 Namdini Infill Drilling Results Returned
- 14 Dec 2017 Namdini Drilling and Regional Exploration Update
- 12 Dec 2017 Cardinal Grade Control Drill Results Returned

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. Cardinal is not aware of any new information or data that materially affects the information included in its announcement of the Maiden Ore Reserve of 18 September 2018. All material assumptions and technical parameters underpinning this estimate continue to apply and have not materially changed.

Disclaimer

This ASX / TSX press release has been prepared by Cardinal Resources Ltd. (ABN: 56 147 325 620) (“Cardinal” or “the Company”). Neither the ASX or the TSX, nor their regulation service providers accept responsibility for the adequacy or accuracy of this press release.

This press release contains summary information about Cardinal, its subsidiaries and their activities, which is current as at the date of this press release. The information in this press release is of a general nature and does not purport to be complete nor does it contain all the information, which a prospective investor may require in evaluating a possible investment in Cardinal.

By its very nature exploration for minerals is a high‐risk business and is not suitable for certain investors. Cardinal’s securities are speculative. Potential investors should consult their stockbroker or financial advisor. There are a number of risks, both specific to Cardinal and of a general nature which may affect the future operating and financial performance of Cardinal and the value of an investment in Cardinal including but not limited to economic conditions, stock market fluctuations, gold price movements, regional infrastructure constraints, timing of approvals from relevant authorities, regulatory risks, operational risks and reliance on key personnel and foreign currency fluctuations.

Except for statutory liability which cannot be excluded and subject to applicable law, each of

Cardinal’s officers, employees and advisors expressly disclaim any responsibility for the accuracy or completeness of the material contained in this press release and excludes all liability whatsoever (including in negligence) for any loss or damage which may be suffered by any person as a consequence of any information in this Announcement or any error or omission here from. Except as required by applicable law, the Company is under no obligation to update any person regarding any inaccuracy, omission or change in information in this press release or any other information made available to a person nor any obligation to furnish the person with any further information. Recipients of this press release should make their own independent assessment and determination as to the Company’s prospects, its business, assets and liabilities as well as the matters covered in this press release.

Forward‐looking statements

Certain statements contained in this press release, including information as to the future financial or operating performance of Cardinal and its projects may also include statements which are ‘forward‐looking statements’ that may include, amongst other things, statements regarding targets, anticipated timing of the feasibility study (FS) on the Namdini project, estimates and assumptions in respect of mineral resources and anticipated grades and recovery rates, production and prices, recovery costs and results, capital expenditures and are or may be based on assumptions and estimates related to future technical, economic, market, political, social and other conditions. These ‘forward – looking statements’ are necessarily based upon a number of estimates and assumptions that, while considered reasonable by Cardinal, are inherently subject to significant technical, business, economic, competitive, political and social uncertainties and contingencies and involve known and unknown risks and uncertainties that could cause actual events or results to differ materially from estimated or anticipated events or results reflected in such forward‐looking statements.

Cardinal disclaims any intent or obligation to update publicly or release any revisions to any forward‐looking statements, whether as a result of new information, future events, circumstances or results or otherwise after today’s date or to reflect the occurrence of unanticipated events, other than required by the Corporations Act and ASX and TSX Listing Rules. The words ‘believe’, ‘expect’, ‘anticipate’, ‘indicate’, ‘contemplate’, ‘target’, ‘plan’, ‘intends’, ‘continue’, ‘budget’, ‘estimate’, ‘may’, ‘will’, ‘schedule’ and similar expressions identify forward‐looking statements.

All forward‐looking statements made in this press release are qualified by the foregoing cautionary statements. Investors are cautioned that forward‐looking statements are not guarantees of future performance and accordingly investors are cautioned not to put undue reliance on forward‐looking statements due to the inherent uncertainty therein.

APPENDIX 1
KUNGONGO LICENSE AREA DRILL META-DATA

Hole ID	Depth (m)	Dip	Azimuth	Grid_ID	mEast	mNorth	mRL
KUDD019	128.02	-45	145	WGS84_30N	715,324.18	1,177,088.39	170.111
KUDD020	131.1	-45	145	WGS84_30N	716,016.04	1,177,858.30	178.594
KUDD021	115.64	-45	325	WGS84_30N	715,357.28	1,177,403.75	171.171
KUDD022	145.72	-60	325	WGS84_30N	715,362.95	1,177,035.85	170.132
KUDD023	49.21	-60	325	WGS84_30N	715,704.1	1,177,609.44	175.182
KUDD024	58.55	-45	145	WGS84_30N	715,662.45	1,177,668.72	175.956
KUDD025	104.03	-83	145	WGS84_30N	715,661.36	1,177,670.29	175.999
KUDD026	118.56	-45	326	WGS84_30N	715,070.48	1,176,762.56	166.052

Table 5: Meta-Data Listing of Kungongo Drill Holes

Hole_ID	mFrom	mTo	mWidth	Au g/t
KUDD019	60	62	2	3.6
KUDD019	99	101	2	0.8
KUDD019	124	125	3	0.9

KUDD022	24	25	1	0.8
KUDD022	77	100	3	0.6
KUDD024	6	7	1	0.5
KUDD025	21	22	1	0.8

Table 6: Summary of Individual Intercepts of Kungongo drilling

Notes:

- Cut-off grade for reporting of each individual intercept is ≥ 0.5g/t Au with a maximum of 3m of consecutive internal dilution included within the intercept; only intercepts ≥ 1m are reported
- Intervals are HQ diamond core which are sampled at 1.0m intervals
- Samples are analyzed for Au (SGS Lab FAA505 method) which is a 50g fire assay fusion with AAS instrument finish
- Grid coordinates are in WGS84 Zone 30 North

The intercepts were calculated, using a 0.5g/t cut-off, which approximates the cut-off for Reasonable Prospects of Eventual Economic Extraction (“RPEEE”) as per the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (“JORC Code”) 2012 and the Canadian Institute of Mining (“CIM”) 2010 guidelines and internal dilution of no more than 3m at <0.5g/t Au.

JORC CODE 2012 EDITION – TABLE 1

REPORTING OF EXPLORATION RESULTS – KUNGONGO LICENSE

Section 1 – Sampling Technique and Data

Criteria	JORC Code Explanation
Sampling techniques	Nature and quality of sampling (e.g. cut channels, random chips, c measurement tools appropriate to the minerals under investigation handheld XRF instruments, etc.). These examples should not be t sampling.
	Include reference to measures taken to ensure sample representiv measurement tools or systems used.
	Aspects of the determination of mineralisation that are Material to
	In cases where ‘industry standard’ work has been d ‘reverse circulation drilling was used to obtain 1 m samples produce a 30 g charge for fire assay’). In other cases, mor where there is coarse gold that has inherent sampling problems. U types (e.g. submarine nodules) may warrant disclosure of detailed

Drilling techniques	Drill type (e.g. core, reverse circulation, open‐hole hamme etc.) and details (e.g. core diameter, triple or standard tube, depth type, whether core is oriented and if so, by what method, etc.).
	Method of recording and assessing core and chip sample recover
Drill sample recovery	
	Measures taken to maximise sample recovery and ensure represe
	Whether a relationship exists between sample recovery and grade occurred due to preferential loss/gain of fine/coarse material.
	Whether core and chip samples have been geologically and geote support appropriate Mineral Resource estimation, mining studies a
Logging	
	Whether logging is qualitative or quantitative in nature. Core (or co
	The total length and percentage of the relevant intersections logge

	If core, whether cut or sawn and whether quarter, half or all core ta
	If non-core, whether riffled, tube sampled, rotary split, etc. and wh
	For all sample types, the nature, quality and appropriateness of th
Sub-sampling techniques and sample preparation	
	Quality control procedures adopted for all sub-sampling stages to
	Measures taken to ensure that the sampling is representative of th instance results for field duplicate/second‐half sampling.
	Whether sample sizes are appropriate to the grain size of the mat
	The nature, quality and appropriateness of the assaying and labor technique is considered partial or total.
	For geophysical tools, spectrometers, handheld XRF instruments, the analysis including instrument make and model, reading times, derivation, etc.
Quality of Assay data and laboratory tests	
	Nature of quality control procedures adopted (e.g. standards, blan and whether acceptable levels of accuracy (i.e. lack of bias) and p

Verification of sampling and assaying	The verification of significant intersections by either independent c
	The use of twinned holes.
	Documentation of primary data, data entry procedures, data verifi electronic) protocols.
	Discuss any adjustment to assay data.
Location of data points	Accuracy and quality of surveys used to locate drill holes (collar a mine workings and other locations used in Mineral Resource estim
	Specification of the grid system used.
	Quality and adequacy of topographic control.
Data spacing and distribution	Data spacing for reporting of Exploration Results.
	Whether the data spacing and distribution is sufficient to establish continuity appropriate for the Mineral Resource and Ore Reserve applied.
	Whether sample compositing has been applied.
Orientation of data in relation to geological structure	Whether the orientation of sampling achieves unbiased sampling which this is known, considering the deposit type.
	If the relationship between the drilling orientation and the orientati considered to have introduced a sampling bias, this should be ass
Sample security	The measures taken to ensure sample security.
Audits or reviews	The results of any audits or reviews of sampling techniques and d

Section 2 – Reporting of Exploration Results

(Criteria listed in section 1 will also apply to this section where relevant)

Criteria	JORC Code Explanation
Mineral Tenement and Land Status	Type, name/reference number, location and ownersh parties including joint ventures, partnerships, overridi wilderness or national park and environmental setting The security of the tenure held at the time of reportin license to operate in the area.
Exploration Done by Other Parties	Acknowledgment and appraisal of exploration by oth
Geology	Deposit type, geological setting and style of mineralis
Drill hole information	A summary of all information material to the understa the following information for all Material drill holes: ● Easting and northing of the drill hole collar ● Elevation or RL (Reduced Level – eleva ● Dip and azimuth of the hole ● Down hole length and interception depth ● Hole length If the exclusion of this information is justified on the b exclusion does not detract from the understanding of explain why this is the case.
Data aggregation methods	In reporting Exploration Results, weighting averaging truncations (e.g. cutting of high grades) and cut&#82 Where aggregated intercepts incorporate short lengt results, the procedure used for such aggregation sho aggregations should be shown in detail. The assumptions used for any reporting of metal equ
Relationship between mineralisation widths and intercept lengths	These relationships are particularly important in the r If the geometry of the mineralisation with respect to t reported. If it is not known and only the down hole lengths are (e.g. ‘down hole length, true width not known&
Diagrams	Appropriate maps and sections (with scales) and tab significant discovery being reported. These should in collar locations and appropriate sectional views.
Balanced Reporting	Where comprehensive reporting of all Exploration Re low and high grades and/or widths should be practice
Other substantive exploration data	Other exploration data, if meaningful and material, sh geological observation; geophysical survey results; g and method of treatment; metallurgical test results; b characteristics; potential deleterious or contaminating

Further Work	The nature and scale of planned further work (e.g. te – scale step – out drilling). Diagrams clearly highlighting the areas of possible ex and future drilling areas, provided this information is

APPENDIX 2
SUBRANUM LICENSE AREA DRILL META-DATA

Hole ID	Depth (m)	Dip(°)	Azimuth(°)	Grid_ID	mEast	mNorth	mRL
SBDD18-001	153.8	-60	307.5	WGS84_30N	620,888.15	777,250.1	348.67
SBDD18-002	203.0	-60	304.5	WGS84_30N	620,956.66	777,204.2	348.15
SBDD18-003	150.4	-60	306.5	WGS84_30N	621,018.65	777,404.2	355.91
SBDD18-004	173.2	-60	304.5	WGS84_30N	621,074.47	777,592.6	358.70
SBDD18-005	217.3	-60	304.5	WGS84_30N	621,162.61	777,557.9	354.14
SBDD18-006	113.0	-70	298.0	WGS84_30N	619,946.2	776,073.3	351.03
SBDD18-007	118.7	-80	305.0	WGS84_30N	619,844.65	775,899	330.85

Table 7: Meta-Data Listing of Subranum Drill Holes

Hole_ID	mFrom	mTo	mWidth	Aug/t
SBDD18-001	101.5	105.4	3.9	1.4
SBDD18-001	121.2	122.4	1.2	1.1
SBDD18-002	159	163	4	0.6
SBDD18-002	170	171	1	0.6
SBDD18-002	175	176	1	0.9
SBDD18-002	182	183	1	7.0
SBDD18-002	195	196	1	1.5
SBDD18-003	77.3	80	2.7	1.5
SBDD18-003	127	128	1	3.8
SBDD18-003	133	137	4	3.3
SBDD18-003	143.5	145	1.5	10.7
SBDD18-006	8	9.8	1.8	1.9
SBDD18-006	48	53	5	0.6
SBDD18-007	13	14	1	22.7
SBDD18-007	36	37	1	0.5
SBDD18-007	76	77	1	7.2

Table 8: Summary of Individual Intercepts of Subranum drilling

Notes:

- Cut-off grade for reporting of each individual intercept is ≥ 0.5g/t Au with a maximum of 3m of consecutive internal dilution included within the intercept; only intercepts ≥ 1m are reported
- Intervals are HQ/NQ diamond core which are lithologically sampled ranging between 0.5m to 1.5m
- Samples are analyzed for Au (SGS Lab FAA505 method) which is a 50g fire assay fusion with AAS instrument finish
- Grid coordinates are in WGS84 Zone 30 North

The intercepts were calculated, using a ≥0.5g/t cut-off, which approximates the cut-off for Reasonable Prospects of Eventual Economic Extraction (“RPEEE”) as per the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (“JORC Code”) 2012 and the Canadian Institute of Mining (“CIM”) 2010 guidelines and internal dilution of no more than 3m at <0.5g/t Au.

JORC CODE 2012 EDITION TABLE 1

REPORTING OF EXPLORATION RESULTS – SUBRANUM LICENSE

Section 1 – Sampling Technique and Data

Criteria	JORC Code Explanation
Sampling techniques	Nature and quality of sampling (e.g. cut channels, random chips, c measurement tools appropriate to the minerals under investigation handheld XRF instruments, etc.). These examples should not be t sampling. Include reference to measures taken to ensure sample representiv measurement tools or systems used. Aspects of the determination of mineralisation that are Material to In cases where ‘industry standard’ work has been d ‘reverse circulation drilling was used to obtain 1 m samples produce a 30 g charge for fire assay’). In other cases, more where there is coarse gold that has inherent sampling problems. U types (e.g. submarine nodules) may warrant disclosure of detailed
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Logging	Whether core and chip samples have been geologically and geote support appropriate Mineral Resource estimation, mining studies a Whether logging is qualitative or quantitative in nature. Core (or co The total length and percentage of the relevant intersections logge

Sub-sampling techniques and sample preparation	If core, whether cut or sawn and whether quarter, half or all core ta
	If non-core, whether riffled, tube sampled, rotary split, etc. and wh
	For all sample types, the nature, quality and appropriateness of th
	Quality control procedures adopted for all sub-sampling stages to
	Measures taken to ensure that the sampling is representative of th instance results for field duplicate/second‐half sampling.
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Quality of Assay data and laboratory tests	The nature, quality and appropriateness of the assaying and labor technique is considered partial or total.
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	Nature of quality control procedures adopted (e.g. standards, blan and whether acceptable levels of accuracy (i.e. lack of bias) and p
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	The use of twinned holes.
	Documentation of primary data, data entry procedures, data verifi electronic) protocols.
	Discuss any adjustment to assay data.
Location of data points	Accuracy and quality of surveys used to locate drill holes (collar a mine workings and other locations used in Mineral Resource estim
	Specification of the grid system used.
	Quality and adequacy of topographic control.
Data spacing and distribution	Data spacing for reporting of Exploration Results.
	Whether the data spacing and distribution is sufficient to establish continuity appropriate for the Mineral Resource and Ore Reserve applied.

	Whether sample compositing has been applied.
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Section 2 – Reporting of Exploration Results
(Criteria listed in section 1 will also apply to this section where relevant)

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An attachment accompanying this announcement is available at:
http://www.globenewswire.com/NewsRoom/AttachmentNg/c11e1576-3f9a-4a09-b0cf-d544c52265d8