

PRESS RELEASE

Monday, 22 January 2018

ASX/TSX: CDV

2018-1

NAMDINI INFILL DRILLING RESULTS RETURNED

Cardinal Resources Limited (ASX/TSX: CDV) (“Cardinal” or “the Company”) is pleased to report assay results from its continued infill drilling programme of the Namdini Gold Project in Ghana.

Cardinal’s Chief Executive Officer / Managing Director, Archie Koimtsidis said:

“These results are particularly encouraging as they lie outside the expected starter pit area and continue to confirm the wide and ubiquitous extent of mineralisation at Namdini.

“Confidence in the continuity and robustness of the Namdini gold resource is increasing with the return of more results from the 9,000m infill drilling programme which began following the release of our September 2017 Mineral Resource update.

“When completed, we anticipate that results from this current 9,000m programme to lead to an upgrade in the current Mineral Resource in both size and category, which is anticipated to be reported during Q1 2018.

“Separate to the infill programme at Namdini, we have drill rigs active testing some of our regional exploration licences, and we look forward to providing information from these first pass drill programmes.

“We are also continuing to advance the Preliminary Economic Assessment which is expected to be reported in Q1 2018.”

HIGHLIGHTS FROM NAMDINI 9,000m INFILL DRILLING RETURNED TO DATE

- **12m at 7.6g/t Au from 343m – NMDD132**
- **11m at 4.9g/t Au from 184m – NMDD128**
- **12m at 4.9g/t Au from 394m – NMDD144**
- **28m at 4.1 g/t Au from 318m - NMDD144**
- **65m at 3.0 g/t Au from 189m - NMDD132**
- **16m at 2.7g/t Au from 431m – NMDD133**
- **37m at 2.6g/t Au from 254m – NMDD134**
- **30m at 2.2g/t Au from 100m – NMDD124**
- **29m at 2.0g/t Au from 473m – NMDD136**
- **26m at 1.7g/t Au from 208m – NMDD137**
- **27m at 6.0g/t Au from 231m - NMDD145**
- **17m at 4.8g/t Au from 368m – NMDD132**
- **10m at 4.3g/t Au from 447m – NMDD135**
- **72m at 3.3 g/t Au from 348m – NMDD135**
- **23m at 3.0g/t Au from 147m – NMDD135**
- **25m at 2.7g/t Au from 190m – NMDD123**
- **64m at 1.8g/t Au from 415m - NMDD136**
- **61m at 1.4 g/t Au from 277m - NMDD138**
- **54m at 1.5 g/t Au from 127m - NMDD145**
- **130m at 1.0g/t Au from 295m – NMDD150**

Individual gold intersections are >0.5 g/t Au with no more than 3m of consecutive internal dilution at <0.5 g/t Au.

Detailed results of the drill programme are included below and in the attached schedules.

DISCUSSION OF RESULTS

Infill drilling results have been returned 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 mineralized zones.

Assay results are pending from a further nine diamond holes already completed, which will be incorporated into the database that forms the basis for a Mineral Resource upgrade expected in Q1 2018.

Figure 1 illustrates a plan view of the collar locations of drill holes and a typical interpretive section through the mineralization which is displayed in Figure 2. Meta Data for significant intercepts are tabulated in Table 1, Schedule 1. Details of all significant intercepts are provided in Table 2, Schedule 1.

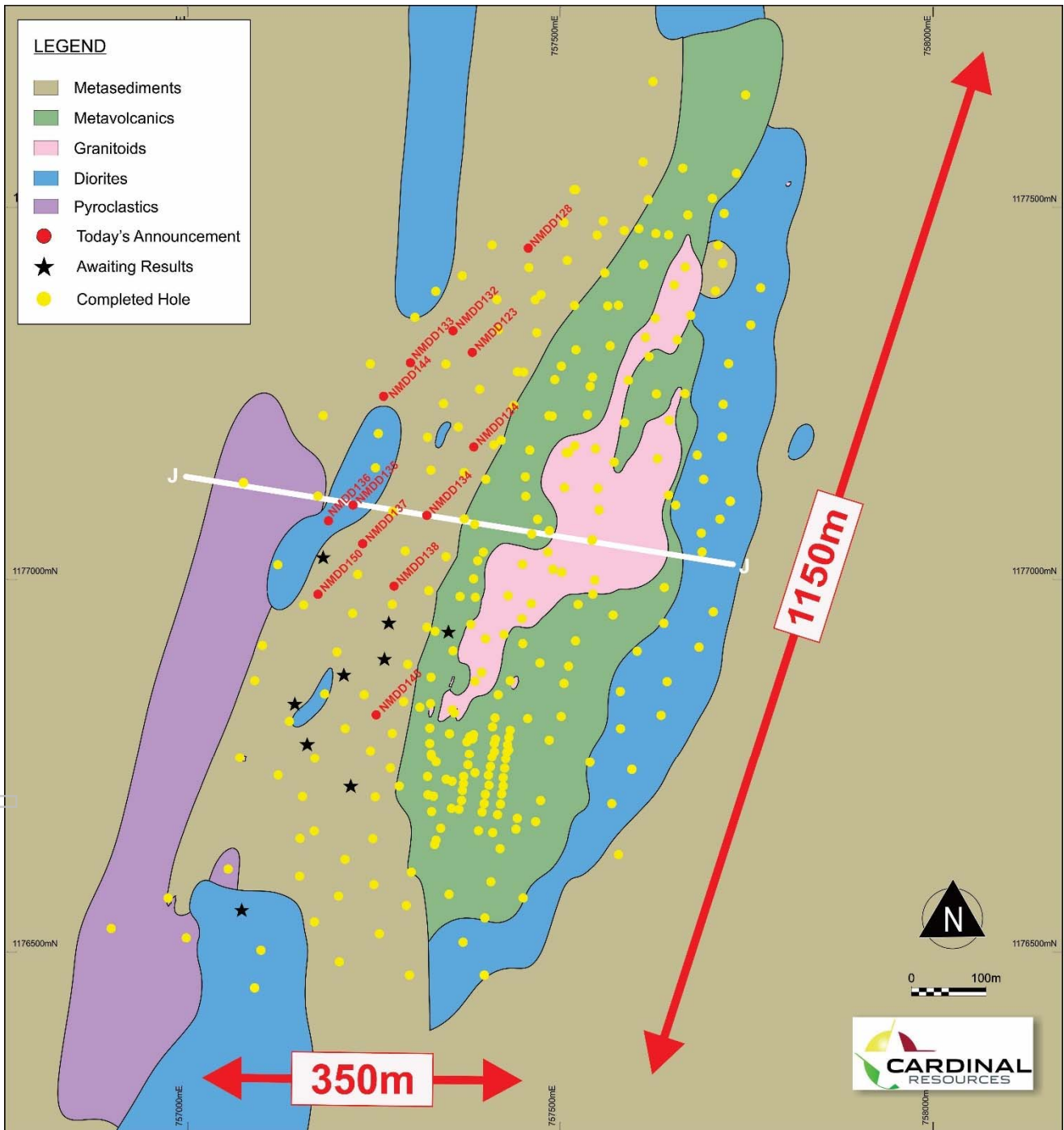


Figure 1: Plan View of the Namdini deposit showing drill hole locations of the reported results and location of Section J – Typical Cross Section through the mineralisation

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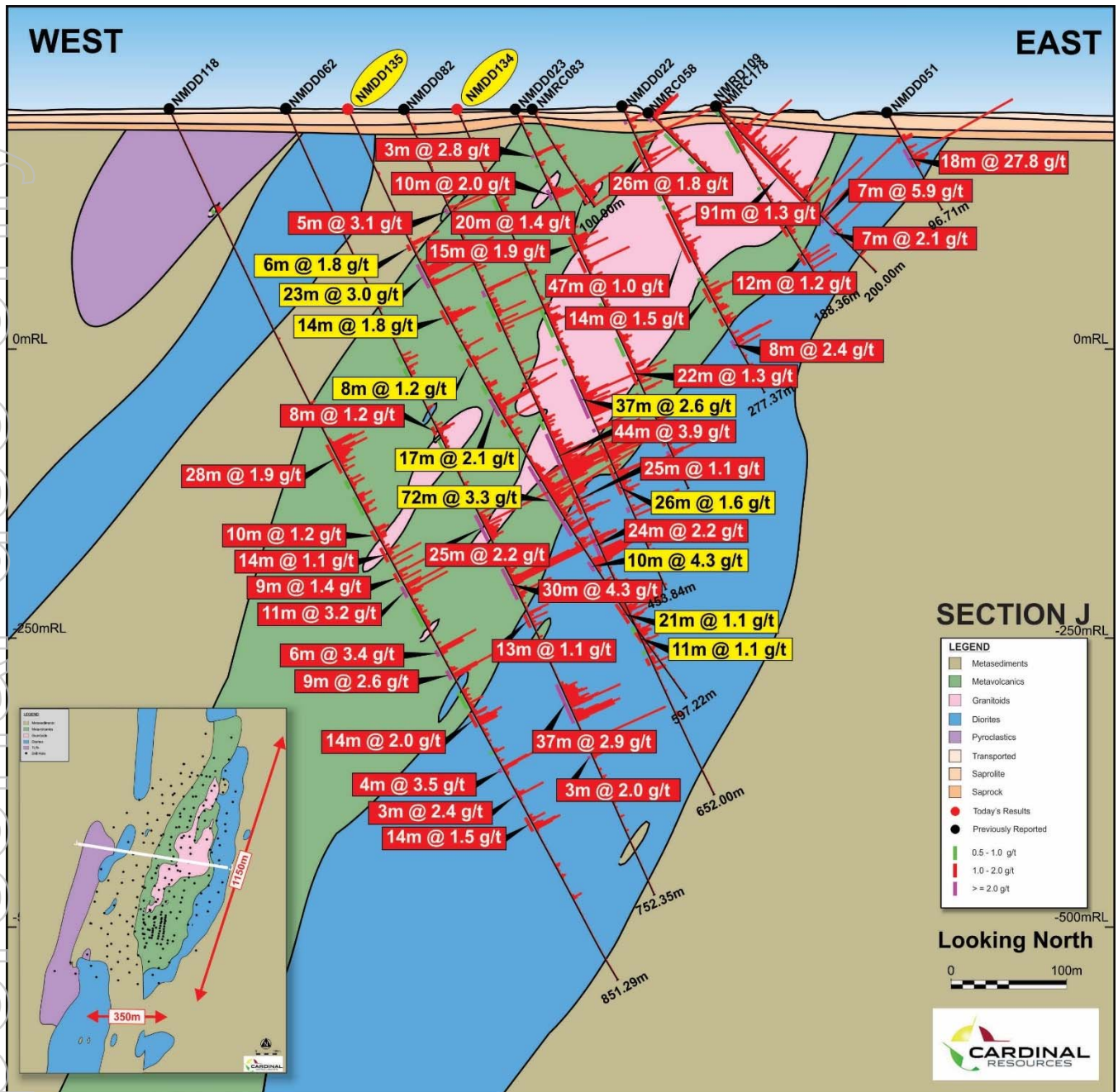


Figure 2: Typical Cross Section - J

ABOUT CARDINAL

Cardinal Resources Limited (ASX/TSX: CDV) is a West African gold-focused exploration and development Company which holds interests in tenements within Ghana, West Africa.

The Company's Namdini Project has a declared Indicated Mineral Resource of 120 Mt @ 1.1 g/t for **4.3 Moz Au** and an Inferred Mineral Resource of 84 Mt @ 1.2 g/t for **3.1 Moz** (refer to Cardinal "Technical Report on Namdini" dated 11 September 2017). The Company is focused on the development of the Namdini Project through a resource expansion drilling programme and continues to advance the PEA / Scoping Study which is due for release in Q1 2018. In parallel, a pre-feasibility study is progressing supported by additional multi-disciplinary engineering activities. Exploration activity is also underway on its large portfolio of regional exploration licenses.

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Competent Person's / Qualified Person's Statement

The information in this press release has been compiled and reviewed 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 as defined by the NI43-101 instrument. Mr. Bray and Mr. Taylor are full-time employees of Cardinal and hold equity securities in the Company. Mr. Bray and Mr. Taylor have consented to the inclusion of the matters in this report based on the information in the form and context in which it appears.

Disclaimer

This ASX / TSX press release has been prepared by Cardinal Resources Limited (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.

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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 PEA 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.

SCHEDULE 1 DRILL RESULTS

The intercepts were calculated, using a 0.5 g/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.

Please refer to www.sedar.com for Cardinal’s current technical report.

Hole ID	Depth (m)	Dip	Azimuth	Grid_ID	mEast	mNorth	mRL
NMDD123	432.37	-65.423	100.3	WGS84_30N	757382.733	1177306.399	202.436
NMDD124	402.28	-64.199	102.42	WGS84_30N	757387.38	1177180.651	204.877
NMDD128	351.77	-65.415	96.81	WGS84_30N	757459.099	1177447.677	198.796
NMDD132	453.38	-64.73	98.36	WGS84_30N	757353.936	1177335.155	202.099
NMDD133	480.06	-65.685	101.53	WGS84_30N	757299.286	1177289.63	203.205
NMDD134	453.84	-65.719	97.08	WGS84_30N	757321.161	1177088.088	207.447
NMDD135	597.22	-65.045	98.37	WGS84_30N	757226.881	1177097.252	207.603
NMDD136	651.32	-65.26	93.2	WGS84_30N	757190.682	1177080.916	208.246
NMDD137	627.66	-64.648	91.9	WGS84_30N	757235.296	1177050.143	208.469
NMDD138	501.4	-65.2	95.12	WGS84_30N	757278.302	1176992.941	210.226
NMDD144	561.8	-65.3	91.78	WGS84_30N	757266.464	1177258.057	203.885
NMDD145	459.36	-64.42	96.19	WGS84_30N	757255.584	1176819.842	216.998
NMDD150	588.4	-64.56	94.45	WGS84_30N	757172.134	1176979.263	210.956

Table 1: Meta-Data listing drill holes

Hole_ID	mFrom	mTo	mWidth	Au g/t
NMDD123	190	215	25	2.7
NMDD123	246	251	5	0.9
NMDD123	266	269	3	1.7
NMDD123	337	348	11	3.1
NMDD123	360	364	4	1.3
NMDD123	370	374	4	3.5
NMDD123	425	431	6	1.2
NMDD124	21	28	7	1.8
NMDD124	59	75	16	2.0
NMDD124	100	130	30	2.2
NMDD124	134	141	7	0.9
NMDD124	150	186	36	1.1
NMDD124	219	224	5	1.8
NMDD124	234	239	5	1.0
NMDD124	247	267	20	1.1
NMDD124	295	302	7	3.6

Hole_ID	mFrom	mTo	mWidth	Au g/t
NMDD128	169	179	10	2.3
NMDD128	184	195	11	4.9
NMDD128	335	338	3	6.3
NMDD132	168	171	3	1.2
NMDD132	189	254	65	3.0
NMDD132	279	285	6	0.8
NMDD132	294	297	3	0.7
NMDD132	301	304	3	2.7
NMDD132	324	333	9	2.5
NMDD132	343	355	12	7.6
NMDD132	368	385	17	4.8
NMDD132	392	399	7	1.1
NMDD133	215	218	3	1.1
NMDD133	222	227	5	2.7
NMDD133	231	240	9	0.8
NMDD133	254	263	9	0.9
NMDD133	272	279	7	1.4
NMDD133	292	304	12	1.4
NMDD133	319	325	6	3.6
NMDD133	382	389	7	0.5
NMDD133	419	425	6	2.4
NMDD133	431	447	16	2.7
NMDD134	38	42	4	1.0
NMDD134	84	100	16	0.8
NMDD134	110	116	6	1.4
NMDD134	131	134	3	1.1
NMDD134	153	157	4	0.8
NMDD134	185	214	29	1.0
NMDD134	222	227	5	0.7
NMDD134	235	241	6	0.6
NMDD134	254	291	37	2.6
NMDD134	301	304	3	3.5
NMDD134	308	311	3	2.3
NMDD134	316	332	16	1.8
NMDD134	337	363	26	1.6
NMDD134	375	380	5	2.2
NMDD134	394	399	5	2.7
NMDD135	128	134	6	1.8
NMDD135	147	170	23	3.0
NMDD135	192	206	14	1.8
NMDD135	226	232	6	0.9
NMDD135	240	248	8	1.2
NMDD135	266	275	9	0.8
NMDD135	280	297	17	2.1
NMDD135	301	308	7	1.6

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Hole_ID	mFrom	mTo	mWidth	Au g/t
NMDD135	314	319	5	0.9
NMDD135	328	332	4	0.6
NMDD135	348	420	72	3.3
NMDD135	426	431	5	1.1
NMDD135	447	457	10	4.3
NMDD135	475	478	3	1.2
NMDD135	492	513	21	1.1
NMDD135	523	534	11	1.1
NMDD136	156	159	3	0.7
NMDD136	169	175	6	0.6
NMDD136	180	186	6	0.6
NMDD136	207	223	16	1.5
NMDD136	250	257	7	1.3
NMDD136	283	326	43	1.0
NMDD136	333	346	13	1.9
NMDD136	351	415	64	1.8
NMDD136	419	422	3	1.6
NMDD136	445	465	20	1.5
NMDD136	473	502	29	2.0
NMDD136	513	522	9	2.1
NMDD136	570	576	6	0.6
NMDD137	125	133	8	1.8
NMDD137	158	169	11	1.3
NMDD137	174	183	9	0.6
NMDD137	201	204	3	2.3
NMDD137	208	234	26	1.7
NMDD137	254	257	3	0.9
NMDD137	263	301	38	1.0
NMDD137	310	317	7	0.9
NMDD137	321	374	53	1.1
NMDD137	378	389	11	1.6
NMDD137	398	409	11	2.9
NMDD137	416	421	5	1.0
NMDD137	453	468	15	1.0
NMDD137	475	478	3	2.0
NMDD137	511	526	15	1.6
NMDD138	83	90	7	1.8
NMDD138	97	205	108	0.8
NMDD138	213	222	9	0.5
NMDD138	226	237	11	1.0
NMDD138	241	244	3	1.0
NMDD138	250	263	13	0.6
NMDD138	277	338	61	1.4
NMDD138	349	358	9	1.7
NMDD138	380	385	5	2.3
NMDD138	390	395	5	1.3

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Hole_ID	mFrom	mTo	mWidth	Au g/t
NMDD138	402	407	5	1.5
NMDD138	413	420	7	0.8
NMDD138	437	452	15	2.2
NMDD138	458	476	18	0.9
NMDD144	260	273	13	2.3
NMDD144	298	303	5	1.8
NMDD144	318	346	28	4.1
NMDD144	363	376	13	2.4
NMDD144	394	406	12	4.9
NMDD144	413	421	8	0.7
NMDD144	438	447	9	1.3
NMDD144	461	465	4	0.6
NMDD144	470	473	3	1.3
NMDD144	477	489	12	1.5
NMDD144	499	513	14	1.6
NMDD145	67	74	7	1.5
NMDD145	79	84	5	1.3
NMDD145	89	92	3	2.2
NMDD145	96	105	9	1.0
NMDD145	109	116	7	0.8
NMDD145	127	181	54	1.5
NMDD145	204	208	4	0.6
NMDD145	217	226	9	0.9
NMDD145	231	258	27	6.0
NMDD145	265	270	5	0.5
NMDD145	287	290	3	0.5
NMDD145	316	320	4	0.5
NMDD145	364	367	3	0.7
NMDD145	415	418	3	0.8
NMDD150	189	198	9	1.7
NMDD150	206	210	4	0.8
NMDD150	216	220	4	3.0
NMDD150	232	240	8	1.5
NMDD150	244	257	13	0.9
NMDD150	295	425	130	1.0
NMDD150	430	433	3	1.6
NMDD150	449	452	3	13.1
NMDD150	460	468	8	1.3
NMDD150	478	495	17	1.0
NMDD150	499	504	5	1.6
NMDD150	509	512	3	1.3
NMDD150	552	559	7	0.7
NMDD150	564	575	11	0.6

Table 2 Summary of individual intercepts

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Notes:

- Cut-off grade for reporting of each individual intercept is ≥ 0.5 g/t Au with a maximum of 3m of consecutive internal dilution included within the intercept; only intercepts ≥ 3 m are reported.
- Intervals are HQ diamond core or RC which are sampled every 1m.
- Samples are analyzed for Au (SGS Lab FAA505 method) which is a 50g fire assay fusion with AAS instrument finish.
- Grid coordinates are in WWGS84 Zone 30 North.

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APPENDIX 1**JORC CODE 2012 EDITION – TABLE 1****Section 1 – Sampling Technique and Data**

Criteria	JORC Code Explanation	Commentary
Sampling techniques	Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc.). These examples should not be taken as limiting the broad meaning of sampling.	Sampling is by a combination of diamond drill and reverse circulation holes. Nature and quality of sampling is carried out under QAQC procedures as per industry standards. Diamond sampling include both half-core and quarter-core samples of HQ core size and RC samples are collected by a three-tier riffle splitter using downhole sampling hammers with nominal 127 to 140mm holes.
	Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.	Sampling is guided by Cardinal Namdini protocols and Quality Control procedures as per industry standard. Sample representivity is ensured for: RC samples by collecting 1m samples from a cyclone, passing them through a 3-tier riffle splitter, and taking duplicate samplers every 22nd sample. HQ core through sampling the various lithological units at 1m intervals. The original system used was to sample each unit separately, but after statistical analyses of the results found there was no material grade variation between the units, the quarter core was sampled at 1m intervals throughout the drill hole. Recent HQ core sampling has been conducted by half core.
	Aspects of the determination of mineralisation that are Material to the Public Report. In cases where ‘industry standard’ work has been done this would be relatively simple (e.g. ‘reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay’). In other cases, more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information.	Diamond drill samples are firstly crushed using Jaw Crusher and thereafter crushed to -2mm using a RSD Boyd crusher. A less than 1kg split sample is then pulverised via LM2 to a nominal 85% passing -75µm. Reverse circulation drill samples are only crushed through a RSD Boyd crusher to -2mm and pulverised via LM2 to a nominal 85% passing -75µm. A 200g sub-sample is taken for analysis. A 50g charge weight is fused with litharge based flux, cupelled and the prill dissolved in aqua regia and Gold is determined by AAS.
Drilling techniques	Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka,	Diamond core drilling is completed with core size of HQ with a standard tube. Triple tube is used in saprolite at

Criteria	JORC Code Explanation	Commentary
	sonic, etc.) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc.).	<p>the tops of the hole. Core is orientated using digital Reflex ACT II RD orientation tool.</p> <p>Reverse circulation drilling uses sampling hammer of nominal 127 to 140mm holes.</p> <p>All holes are inclined at varying angles for optimal zone intersection.</p> <p>All drill collars are surveyed using Trimble R8 RTK GPS with downhole surveying every 30m.</p>
Drill sample recovery	<p>Method of recording and assessing core and chip sample recoveries and results assessed.</p> <p>Measures taken to maximise sample recovery and ensure representative nature of the samples.</p>	<p>Diamond core recovery is logged and captured into the database. Method of recording chip and core sample recoveries was to enter the relevant data on a hand-held Motion F5te Tablet PC using a set of standard templates supplied by Maxwell Geoservices, Perth (Maxwell).</p> <p>Reverse circulation sampling is good. Chips are logged and weighed and captured to the database.</p> <p>RC sample recoveries are assessed by weighing 1m samples from the cyclone on a scale in the field and comparing with the theoretical volume contained in a 1m x 140mm diameter hole to calculate an estimated percentage sample recovery.</p> <p>For RC drilling, average recoveries are in the order of 76% and considered acceptable.</p> <p>Core recovered from each drill run is measured and compared with the drill run length drilled to calculate an estimated percentage core recovery.</p> <p>For core drilling overall recoveries are excellent, weighted average recovery greater than 98%.</p> <p>Measures taken include the use of bigger HQ core size diamond drilling to maximise recovery, having a geologist onsite to examine core and core metres marked and orientated to check against the driller's blocks and ensuring that all core loss is taken into account.</p> <p>At the reverse circulation rig, sampling systems are routinely cleaned to minimise the opportunity for contamination and drilling methods are focused on sample quality. The measures taken to maximize RC sample recovery are through a cyclone and a 3-tier riffle splitter. Each 1m sample is passed twice through the splitter before sampling to ensure maximum homogenisation of each sample and to collect an unbiased representative sample to be assayed.</p> <p>The majority of the reverse circulation rigs have auxiliary compressors and boosters to help maintain dry samples. Where wet samples are encountered, the reverse circulation drilling is discontinued and is progressed with diamond core drilling.</p>

Criteria	JORC Code Explanation	Commentary
	Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.	No relationship is seen to exist between sample recovery and grade, and no sample bias due to preferential loss/gain of any fine/coarse material due to the acceptable sample recoveries obtained by both drilling methods employed.
Logging	Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.	All drill holes are fully logged. The lithology, alteration and geotechnical characteristics of core are logged directly to a digital format on a Field Toughbook laptop logging system following procedures and using Cardinal geologic codes. Data is imported into Cardinal's central database after validation in LogChief™. All geological logging is to a level of detail to support Mineral Resource estimation.
	Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.	Logging is both qualitative and quantitative depending on the field being logged. Both RC chips in trays and HQ core are photographed both in dry and wet form.
	The total length and percentage of the relevant intersections logged.	All holes are logged in full and to the total length of each drill hole. 100% of each relevant intersection is logged in detail.
Sub-sampling techniques and sample preparation	If core, whether cut or sawn and whether quarter, half or all core taken.	Core orientation is completed for all diamond holes and all are marked prior to sampling. Longitudinally cut half core samples are produced using a Core Saw. Samples are weighed and recorded. Some quarter core samples have been used and statistical test-work has shown them to be as equally representative as half core.
	If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.	RC samples are split using a three-tier riffle splitter. The majority of RC samples are dry. On occasions that wet samples are encountered, they are dried prior to splitting with a riffle splitter.
	For all sample types, the nature, quality and appropriateness of the sample preparation technique.	Drill core samples are sorted, dried at 105°C for 4 hours and weighed. Samples are firstly Jaw Crushed and a second stage crushing is through RSD Jaques crusher to a nominal -2mm and then split to <1.0kg. The reject sample is retained in the original bag and stored. The split is pulverised in a LM2 to a nominal 85% passing 75µm and approximately 200g sub-sample of the pulverised material is used for assay. Chip samples are sorted and dried in an oven for 8 hours and weighed. They are then crushed to -2mm using a RSD Boyd crusher and a <1.0kg split is taken. The reject sample is retained in the original bag and stored. The split is pulverised in a LM2 to a nominal 85% passing 75µm and a 200g sub-sample is used for analysis. All preparation equipment is flushed with barren material prior to commencement of the job.
	Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.	Cardinal Resources has protocols that cover the sample preparation at the laboratories and the collection and assessment of data to ensure that accurate steps are

Criteria	JORC Code Explanation	Commentary
		<p>used in producing representative samples for the analytical process. Key performance indices include:</p> <ul style="list-style-type: none"> • Contamination index of 95% (that is at least 95% of blanks pass; failures can only be attributed to probable minor laboratory contamination). • Crushed Size index of P95-2mm (1:50 sample screened). • Grind Size index of P85-75µm (1:50 sample screened). • Check Samples returning at worse 20% precision at 90th percentile and bias of 5% or better.
	<p>Measures taken to ensure that the sampling is representative of the in-situ material collected, including for instance results for field duplicate/second-half sampling.</p>	<p>Sampling is carried out in accordance with Cardinal protocols as per industry best practice. Quality control procedures adopted for all sub-sampling stages to maximize representivity of samples is to insert commercial certified reference material (CRM) for standards and in-house blanks every 22 samples. SGS Laboratory assays duplicate samples of each sample batch (20%) so that representivity of the samples can be checked. Field duplicates have been taken and analysis of results have shown the sampling to be representative.</p>
	<p>Whether sample sizes are appropriate to the grain size of the material being sampled.</p>	<p>Measures taken to ensure that the RC sampling is representative of the in-situ material collected are to take field duplicate samples every 22nd sample. Approximately 3kg samples from the splitter are retained from each sample and stored on the company's premises for possible re-assay. Measures taken to ensure that the core sampling is representative is to sample half core at 1m intervals irrespective of lithologies due to the similarities in grade of the main lithologies. Results of field duplicates, standards and blanks are all plotted graphically to ensure that the results of each assay batch are acceptable.</p>
<p>Quality of Assay data and laboratory tests</p>	<p>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</p>	<p>Samples are analysed for Au by lead collection fire assay of a 50g charge with AAS finish; the assay charge is fused with the litharge based flux, cupelled and prill dissolved in aqua regia and gold determined by flame AAS. The quality of the Fire Assaying and laboratory procedures are considered to be entirely appropriate for this deposit type. The analytical method is considered appropriate for this mineralization style and is of industry standards.</p>
	<p>For geophysical tools, spectrometers, handheld XRF instruments, etc., the parameters used in determining the analysis</p>	<p>No hand held geophysical tools are used.</p>

Criteria	JORC Code Explanation	Commentary
	including instrument make and model, reading times, calibrations factors applied and their derivation, etc.	
	Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.	<p>Sample preparation checks for pulp fineness are carried out by the laboratory as part of their internal procedures to ensure the grind size of 85% passing 75µm is being attained. Laboratory QAQC involves the use of internal lab standards using certified reference material and blanks.</p> <p>Cardinal's QAQC protocol is considered industry standard with standard reference material (SRM) submitted on a regular basis with routine samples. The SRMs having a range of values and blanks are inserted in the ratio of 1:22. Duplicates are taken at the riffle splitter at a ratio of 1:20 samples. No duplicate samples are taken from core samples.</p> <p>Pulp rejects (Check Assays) are submitted to a secondary laboratory for checks on accuracy and precision of the primary laboratory.</p> <p>Coarse rejects (Check Samples) are submitted back to the primary laboratory to access the adequacy of the sub-sampling process.</p>
Verification of sampling and assaying	The verification of significant intersections by either independent or alternative company personnel.	Significant intersections have been verified by alternative company personnel.
	The use of twinned holes.	None of the drill holes in this report are twinned.
	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	Primary data are captured on field tough book laptops using LogChief™ Software. The software has validation routines and data is then imported onto a secure central database.
	Discuss any adjustment to assay data.	The primary data is always kept and is never replaced by adjusted or interpreted data.
Location of data points	Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.	<p>Planned drill hole collar coordinates are surveyed using handheld Garmin GPSmap 62s GPS within ±3m accuracy. All drill collars are accurately surveyed using Trimble R8 RTK GPS system within ±10mm of accuracy (X, Y, Z). Coordinates are based on 12 control stations established on the Namdini site by Sahara Mining Services.</p> <p>Downhole survey is completed by using Reflex Ez-Shot survey instrument at regular intervals.</p> <p>Gyroscopic downhole survey was completed on some selected drillholes for the recent drilling using Reflex Ez-Gyro (North Seeking) instrument as part of the quality checks on the downhole surveys.</p>
	Specification of the grid system used.	Coordinate and azimuth are reported in UTM WGS84 Zone 30 North.
	Quality and adequacy of topographic control.	Topographic control was established from aerial photography using a series of 12 surveyed control points. A 1m ground resolution DTM was produced by Sahara Mining Services from the survey completed in 24 flights

Criteria	JORC Code Explanation	Commentary
		using the DJI Inspire 1 UAV at an altitude of 100m with an overlap of 70%.
Data spacing and distribution	Data spacing for reporting of Exploration Results.	Drill spacing is at 50m x 100m line spacing with infill to 50m x 50m and 10m x 15m in areas to establish mineralization continuity and upgrade the Mineral Resource.
	Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.	Drill data spacing and distribution are sufficient to establish the geological and grade continuity appropriate for reporting Mineral Resource and Ore Reserve and classifications applied.
Orientation of data in relation to geological structure	Whether sample compositing has been applied.	No sample compositing has been applied.
	Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.	The majority of the drill holes are orientated to achieve intersection angles as close to perpendicular to the mineralization as practicable. This achieves unbiased sampling of possible structures as drilling is orientated normal to the dip and foliation of the deposit. Structural measurements confirm that the foliation of the entire deposit dips -60°W so that the sampling achieves unbiased sampling of the lithologies
	If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.	No significant orientation based sampling bias is known at this time.
Sample security	The measures taken to ensure sample security.	<p>An independent Ghanaian security contractor is used to ensure sample security.</p> <p>The drilling contractor is accountable for drill core and RC chips production at the drill site. Final delivery from the drill site to the laydown within the core yard is managed by Cardinal. The core yard technicians, field technicians and Geologists ensure the core and chips are logged, prepared and stored under security until collected by SGS for delivery to the laboratories.</p> <p>At the time of sample collection, a sign-off process between Cardinal and the SGS delivery truck driver ensures the samples and paper work corresponds. The samples are then transported to the SGS Tarkwa (Ghana) or SGS Ouagadougou (Burkina Faso) laboratory where they are receipted against the dispatch documents. The assay laboratories are responsible for the samples from the time of collection from Namdini Project site until final results are returned and checked by Cardinal Geologists.</p> <p>Sample pulps and coarse rejects are retained by the</p>

Criteria	JORC Code Explanation	Commentary
		laboratories and are shipped back to Namdini after final results are returned where they are stored under security.
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	Sampling techniques are of industry standards. Data is audited by Maxwell Geoservices (Perth), who have not made any other recommendations.

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Section 2 – Reporting of Exploration Results

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

Criteria	JORC Code Explanation	Commentary
Mineral Tenement and Land Status	Type, name/reference number, location and ownership including agreements or material issues with third parties including joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.	<p>The Mining Licence covering Cardinal's Namdini Project over an area of approximately 19.54 sq. Km is located in the North-East region of Ghana.</p> <p>The previous holder of the Mining Licence, Savannah Mining Ghana Limited (Savanah) completed an initial Environmental Impact Statement (EIS) and lodged the EIS with the Environmental Protection Agency of Ghana.</p> <p>Cardinal and Savannah have both signed the necessary documents to assign the Namdini Mining Licence to Cardinal Namdini Mining Limited (Cardinal Namdini), a wholly owned subsidiary of Cardinal Resources, for US\$1.00 as per the Savannah agreement. After the completion of the upcoming Preliminary Economic Assessment, Cardinal Namdini will submit to the Minerals Commission an updated EIS and an application for an Operating Permit, bringing all permitting for the Namdini Project on track for development.</p>
	The security of the tenure held at the time of reporting along with any known impediments to obtaining a license to operate in the area.	All tenements are current and in good standing.
Exploration Done by Other Parties	Acknowledgment and appraisal of exploration by other parties.	Aside from Cardinal there has been no recent systematic exploration undertaken on the Namdini Project.
Geology	Deposit type, geological setting and style of mineralisation	<p>The deposit type comprises gold mineralization within sheared and highly altered rocks containing sulphides; mainly pyrite with minor arsenopyrite.</p> <p>The geological setting is a Paleoproterozoic Greenstone Belt comprising Birimian metavolcanics, volcanoclastics and metasediments located in close proximity to a major 30 km ~N-S regional shear zone with splays.</p> <p>The style of mineralization is hydrothermal alteration containing disseminated gold-bearing sulphides.</p>
Drill hole information	<p>A summary of all information material to the understanding of the exploration results including tabulation of the following information for all Material drill holes:</p> <ul style="list-style-type: none"> • Easting and northing of the drill hole collar • Elevation or RL (Reduced Level – elevation above sea level in meters) of the drill hole collar 	A summary of drill hole information is provided in this document.

Criteria	JORC Code Explanation	Commentary
	<ul style="list-style-type: none"> Dip and azimuth of the hole Down hole length and interception depth Hole length 	
	If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.	There has been no exclusion of information.
Data aggregation methods	In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.	No weighting averaging techniques nor cutting of high grades have yet been undertaken.
	Where aggregated intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.	Aggregated intercepts incorporating short lengths of high grade results within the lithological units are calculated to include no more than intervals of 3m below grades of <0.5 g/t Au when assay results are reported.
	The assumptions used for any reporting of metal equivalent values should be clearly stated.	No metal equivalents are used in the intersection calculation.
Relationship between mineralisation widths and intercept lengths	These relationships are particularly important in the reporting of exploration results.	The relationship between mineralization widths and intercept length is not yet known.
	If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.	The geometry of the mineralization with respect to the drill hole angle is not yet known.
	If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').	The geometry of the mineralization is unknown; only downhole length is reported (no true width of mineralization is reported).
Diagrams	Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported. These should include, but not be limited to a plane view of drill hole collar locations and appropriate sectional views.	Appropriate maps and cross-sections with scale are included within the body of the accompanying document.

Criteria	JORC Code Explanation	Commentary
Balanced Reporting	Where comprehensive reporting of all Exploration Results is not practical, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.	The accompanying document is considered to represent a balanced report.
Other substantive exploration data	Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observation; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.	Other exploration data collected is not considered material to this document at this stage. The interpretation of the geological observations shown in the cross and long sections are subject to possible change as new information is gathered. Further data collection will be reviewed and reported when considered material.
Further Work	The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large – scale step – out drilling). Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.	Further definition drilling is planned for the Namdini Mineral Resource.

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