ASX ANNOUNCEMENT AND MEDIA RELEASE

16 August 2016

HIGHEST GRADE INTERCEPTS RETURNED
PHASE 1 'FRAMEWORK' DRILLING AND ASSAYING COMPLETED

Cardinal Resources Limited (ASX: CDV) **("Cardinal"** or **"the Company**") is pleased to report that the Phase 1 'Framework' drilling programme has been completed and all assays results have been returned. As a result, work has begun on structural and geological modelling, and resource estimation in order to complete an inaugural resource estimate of the Namdini gold deposit ("Namdini") in northeastern Ghana.

HIGHLIGHTS

- **The highest grade intervals, returned to date, from Namdini have been intersected in the final group of 'framework drilling' drill holes and include:**
- **NMRD451-776**
  - **94m @ 4.53g/t (3.11g/t, cut to 20g/t)**
  - **13m @ 2.15g/t**
- **NMRD407-710**
  - **97m @ 1.62g/t**
  - **43m @ 8.86g/t (2.86g/t, cut to 20g/t)**
- **Other outstanding intersections from the latest batch of drill hole assays include:**
- **NMRD367-700**
  - **41m @ 1.93g/t**
  - **17m @ 2.70g/t**
  - **40m @ 2.01g/t**
- **NMRD379-766**
  - **18m @ 2.82g/t (from surface)**
  - **38m @ 2.16g/t**
  - **8m @ 3.60g/t**
- **NMDD491-759**
  - **15m @ 2.55g/t**
  - **30m @ 2.34g/t**
  - **3m @ 42.7g/t (3.11g/t, cut to 20g/t)**
- **NMRD445-732**
  - **16m @ 1.84g/t**
  - **25m @ 1.27g/t**
- **NMRD370-752**
  - **20m @ 1.63g/t**
  - **28m @ 1.54g/t**
- **NMDD489-779**
  - **44m @ 1.57g/t**
- **NMRD418-766**
  - **23m @ 2.55g/t**
- **NMDD346-733**
  - **16m @ 3.15g/t**
- **NMRC480-798**
  - **39m @ 1.76g/t (from surface)**
- **NMRD399-770**
  - **45m @ 1.72g/t (from surface)**
- **NMDD368-731**
  - **41m @ 1.22g/t**

- **The majority of the drill holes listed above have multiple intersections per hole and in total some 125 separate intersections have been returned in 20 holes, as detailed in Table 1.**
- **The Namdini deposit has been intersected by drilling over a strike length of 1,000 metres, averages between 200 metres and 300 metres in width and has been traced to over 350 metres vertical depth over the majority of the deposit strike length and is open at depth and along strike to the south.**

Cardinal's Managing Director, Archie Koimtsidis said:
"The completion of the first phase of the framework drilling programme has returned some of the highest value (gold grade multiplied by mineralised length) intervals intersected to date at Namdini. Further high grade intervals were returned from many of the outstanding drill holes from our Phase One drilling programme.

"Namdini has been confirmed as a major new discovery, with gold mineralisation outlined over one kilometer of strike, and extending over 350 metres below the topographic surface with a mineralised corridor that it consistently greater than 250 metres to 300 metres wide. The orebody remains open at depth and to the south and we are encouraged by the exploration potential to the north.

"We are excited to begin the next stage of the development of Namdini, with geological and structural modelling and resource estimation studies initiated. Our metallurgical testwork programme, based on over 350 kilograms of core is well advanced and we look forward to reporting the results when they are available."

Figure 1 shows the completed Phase 1 drilling and the location of the drill holes that are reported in this ASX announcement.

Dr. Julian Barnes, Cardinal's Namdini Project Technical Manager said:
"The database for the Phase I Framework Drilling programme has been finalised, enabling us to assess the deposit in detail in 3D. Structural and geological modelling has been carried out on the Namdini deposit by specialist consultants, Orefind and the 3D geological model is displayed in the figures in this ASX announcement.

"Resource estimation studies have started, using specialist geostatistical consultants, EGRM. Survey control has been established for the entire Namdini project by independent surveyors, Sahara Mining Services, with the establishment of DGPS survey control points throughout the project area and DGPS surveying of drill hole collars. In addition, Sahara Mining Services also completed a detailed Unmanned Aerial Vehicle ("UAV' or "drone") topographic and photographic survey surrounding the Namdini deposit.

"The new survey control forms the basis for locational control for the Namdini project. Bulk density measurements are also being routinely collected from all drill core and to date more than 1,400 bulk density measurements have been completed."

The additional drilling and structural and geological analysis has confirmed that Namdini is hosted in intensely deformed, strongly hydrothermally altered granite, volcaniclastics and diorite. Typically, both wide and multiple gold-mineralised intervals have been returned from the majority of holes drilled into the Namdini deposit.

Figure 2 shows a 'long section', of the drilling to date, with a view towards the east, parallel to the average strike of the Namdini deposit. The section shows the mineralised intersections, colour coded on average intersection gold grade, based on the reporting rule of a minimum 3 metres minimum down hole length, a maximum of 3 metres contiguous 'sub-grade' and a lower cut off grade of 0.5 g/t., with the drill holes being reported in this ASX announcement highlighted with gold grade histograms and hole names. Figure 3 displays a long section, view east, of all intersections to date, colour coded on intersection grade and clearly shows that the Namdini deposit is open at depth and to the south.

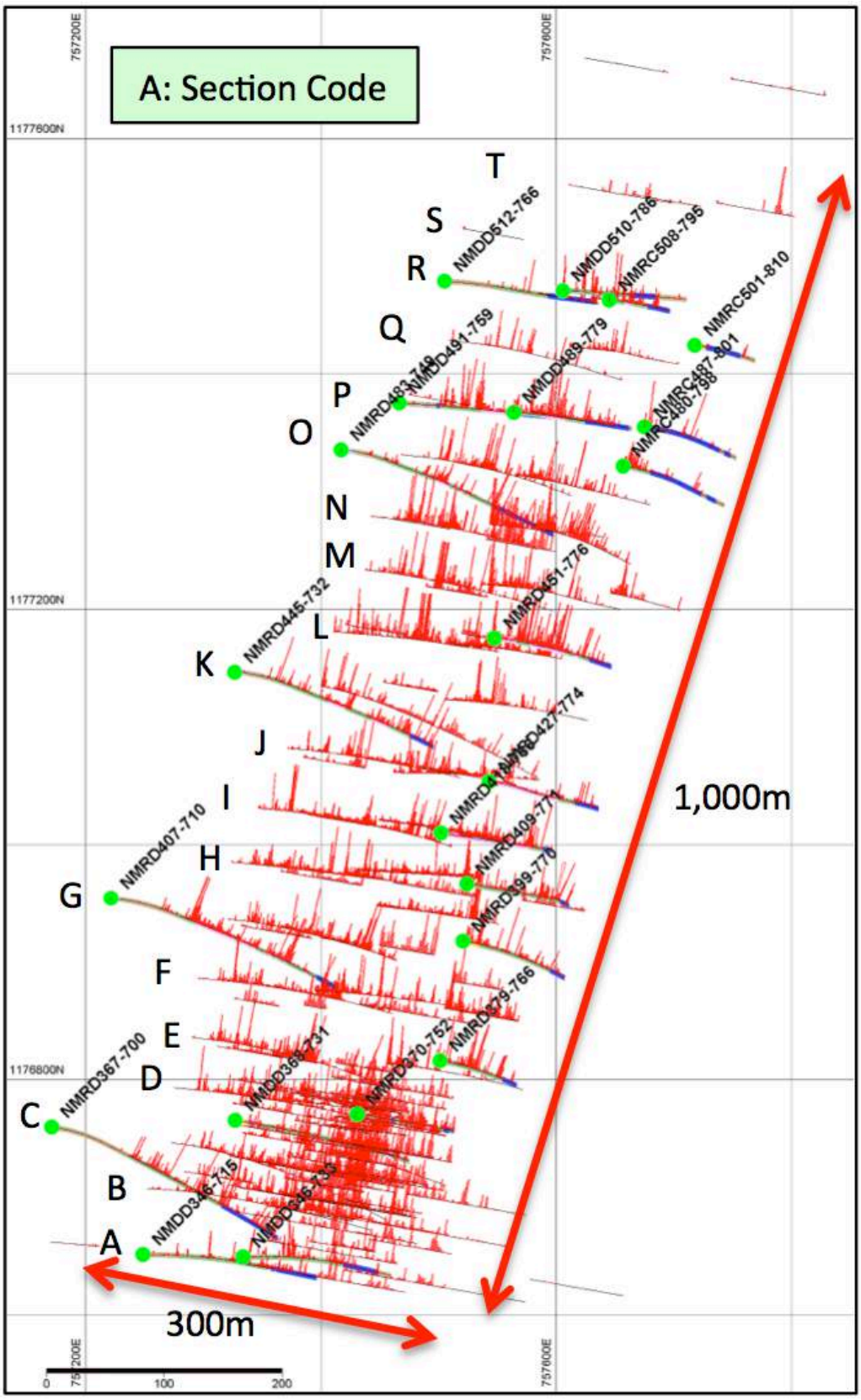

Figure 1: Namdini Phase 1 drilling programme (holes listed in this ASX announcement highlighted with green collar symbols) – 200m grid & scale bar

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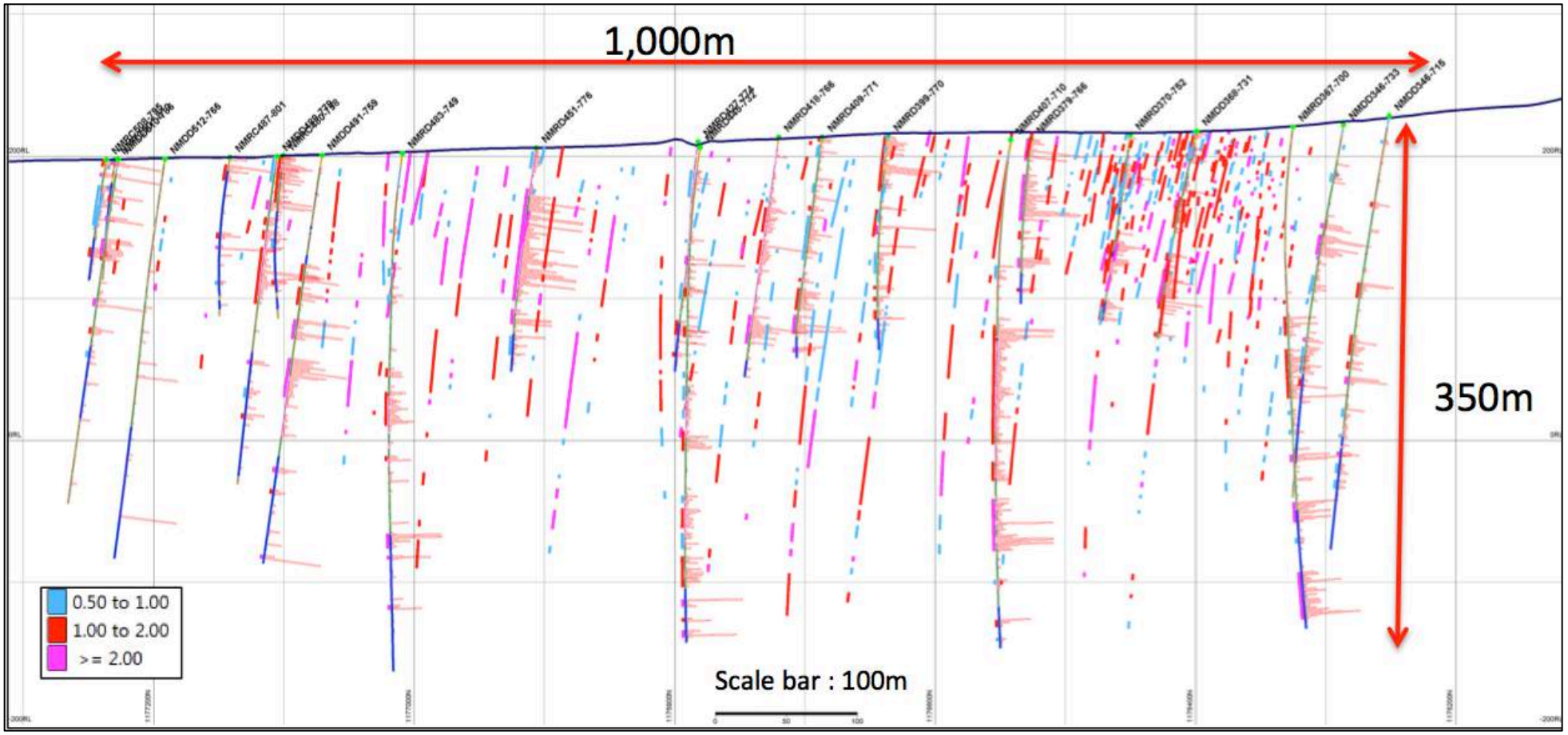

Figure 2: Long section – View East. Drill holes reported in this announcement are annotated with drill hole name and gold grade histograms. Intersections from previously reported holes displayed, colour coded by intersection gold grade (in grammes per tonne)

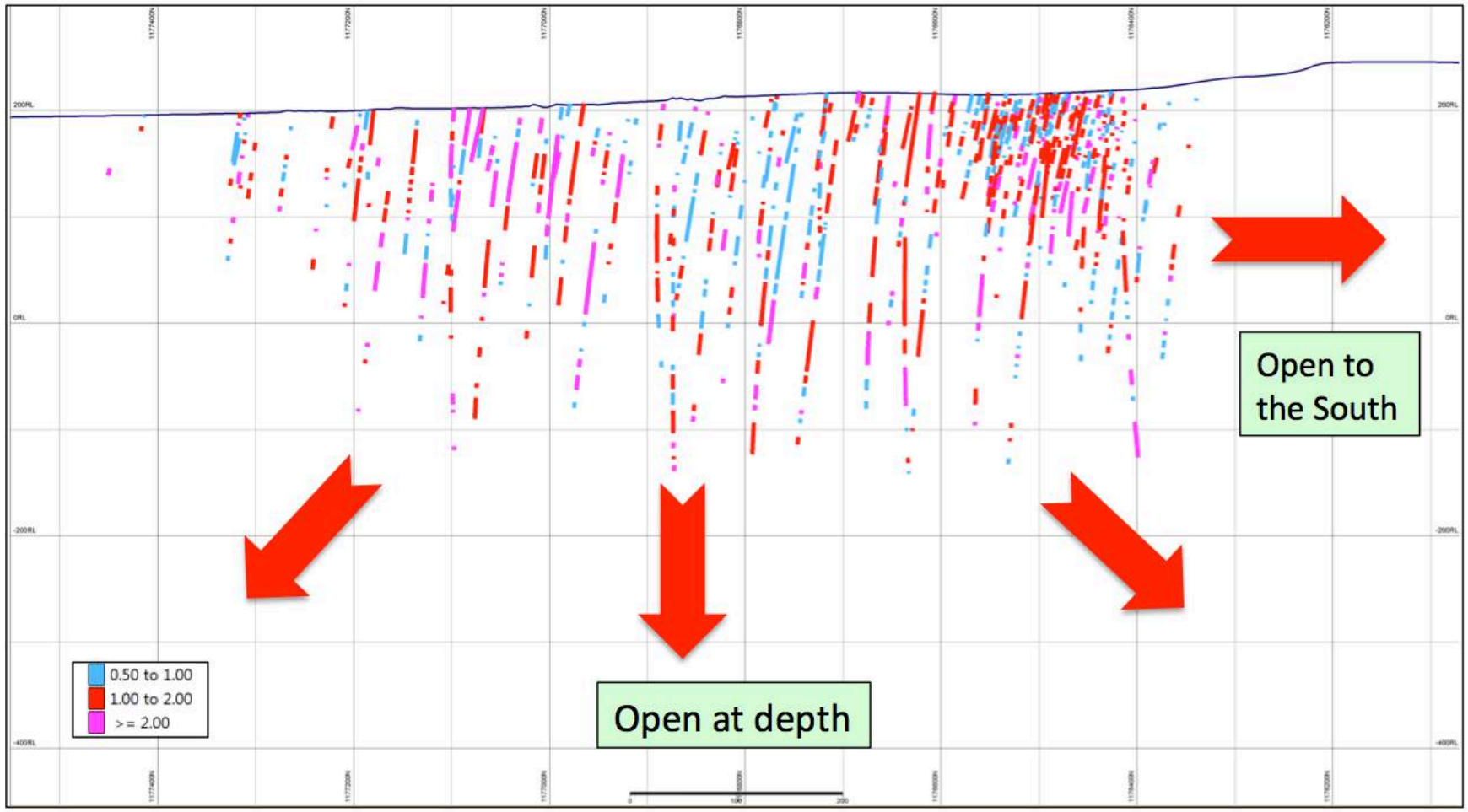

Figure 3: Long Section – View East: All Namdini drill intersections to date colour coded on intersection gold grade (grammes per tone). (100m grid)

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Figure 4 shows a view of all Namdini drill intersections to date, superimposed on each other, viewed 'through' the deposit towards N020E. The 250 metre to 300 metre average width of the mineralised 'corridor' is clearly visible.

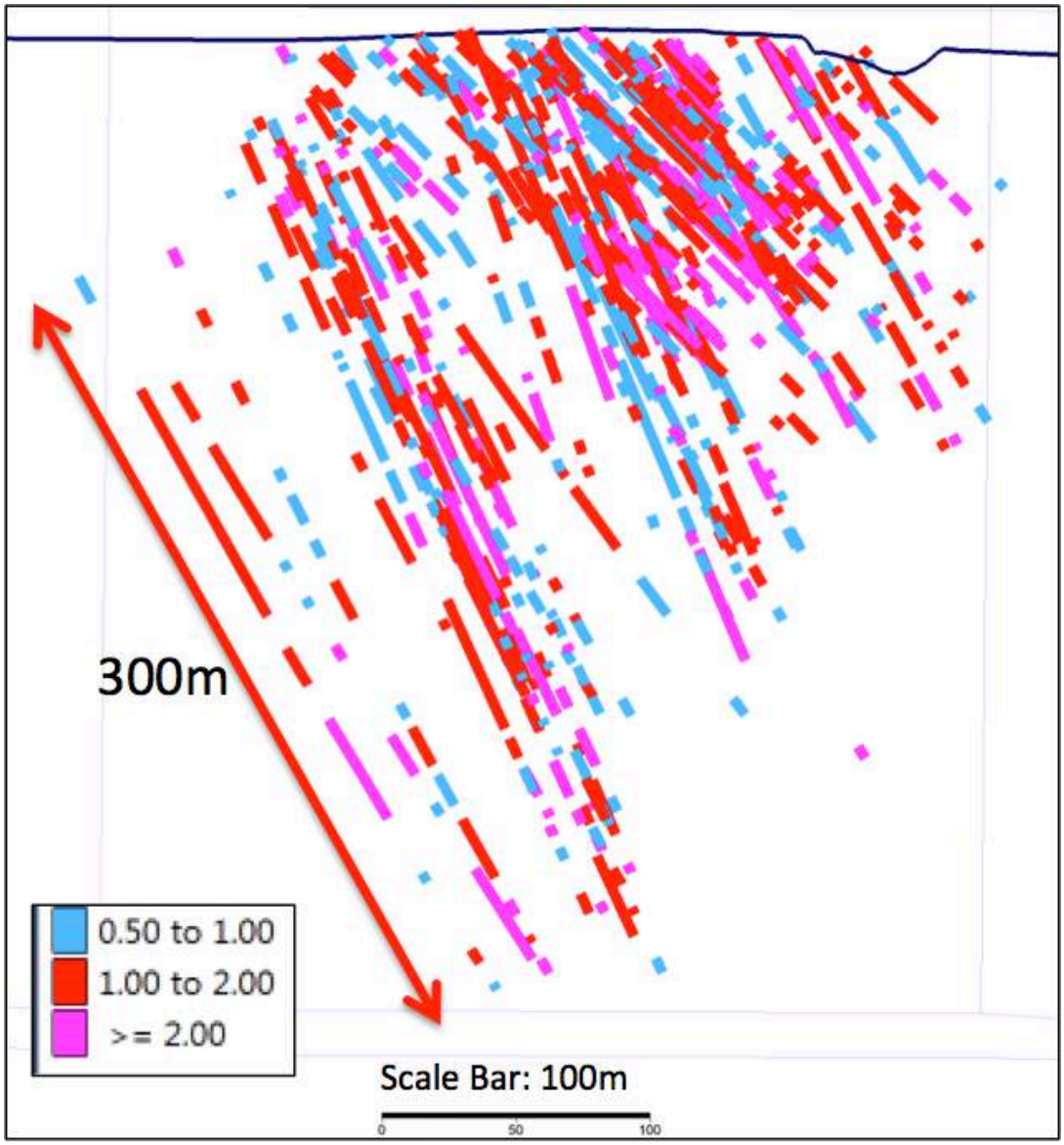
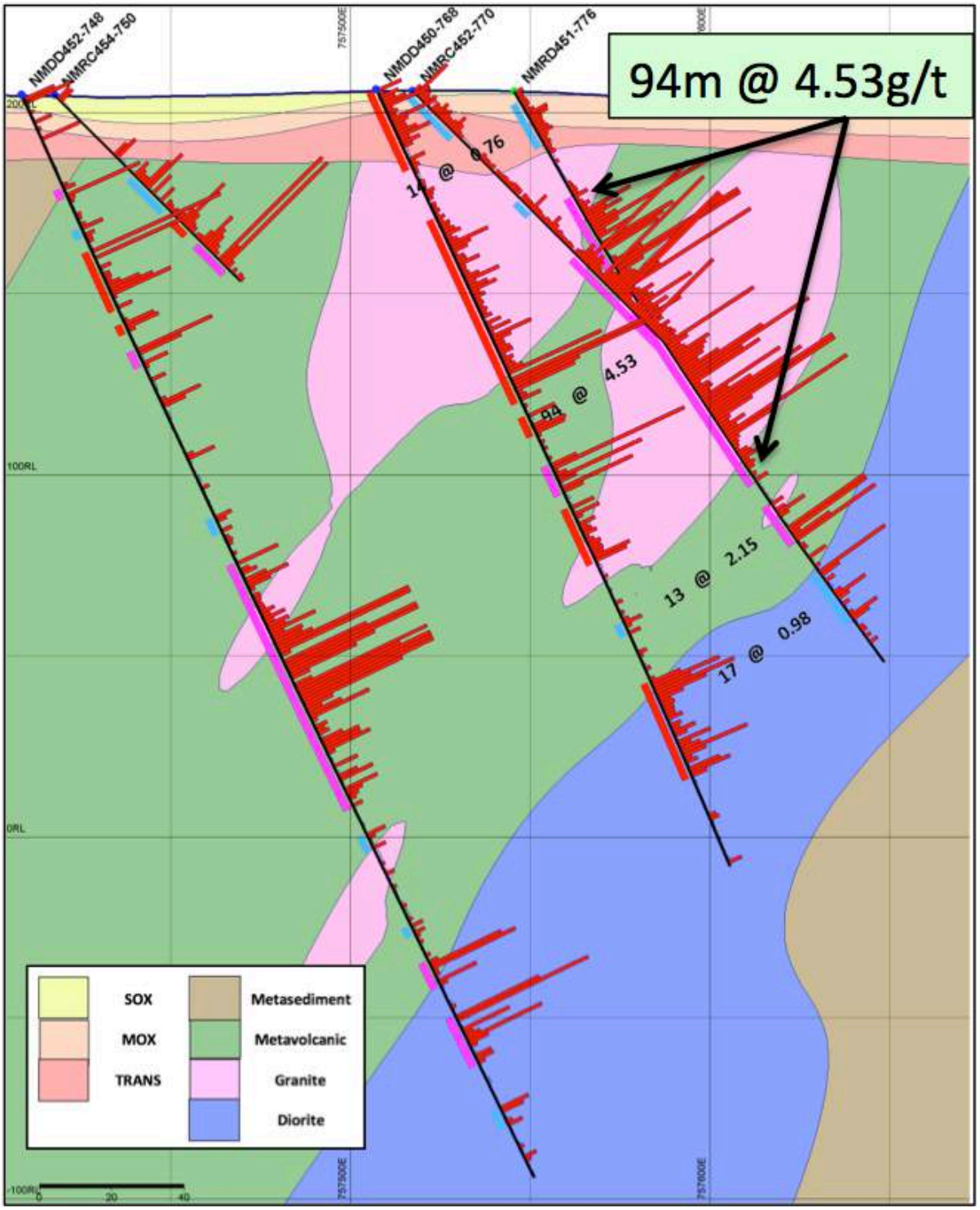


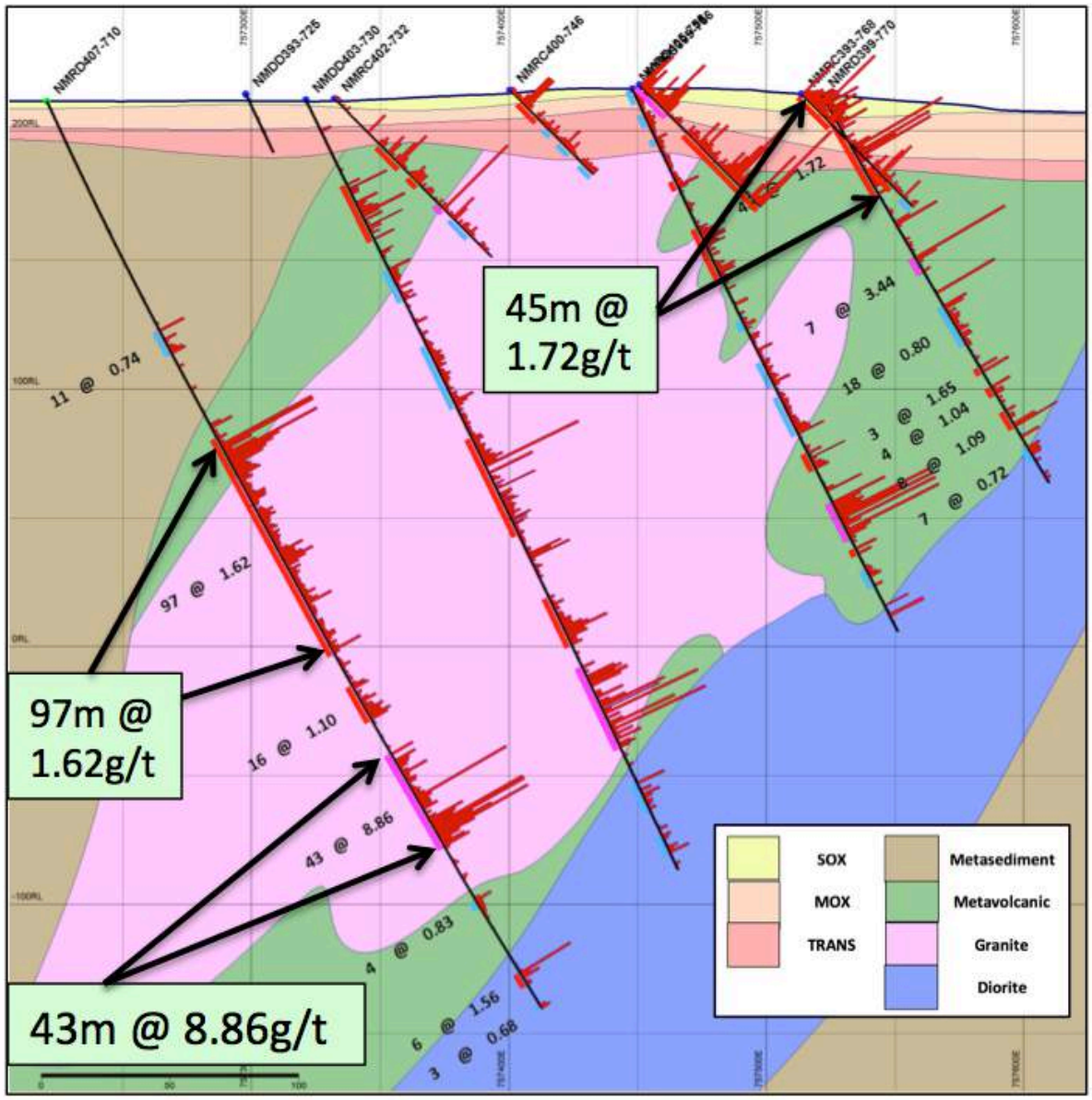
Figure 4: View through the Namdini deposit intersections towards N020E

Figures 5 to 15 show sections on which the drill holes reported in this ASX announcement are located. The drill holes reported in this ASX announcement are annotated with down hole intersection length and uncut mean gold grade (in grammes per tonne), based on the intersection rules that have been used to calculate the mineralised length and weighted mean gold grade. Detailed listings of the sampled intervals, gold grades and summary lithology for drill holes NMRD451-776 and NMRD407-710 are included at the end of this ASX announcement.



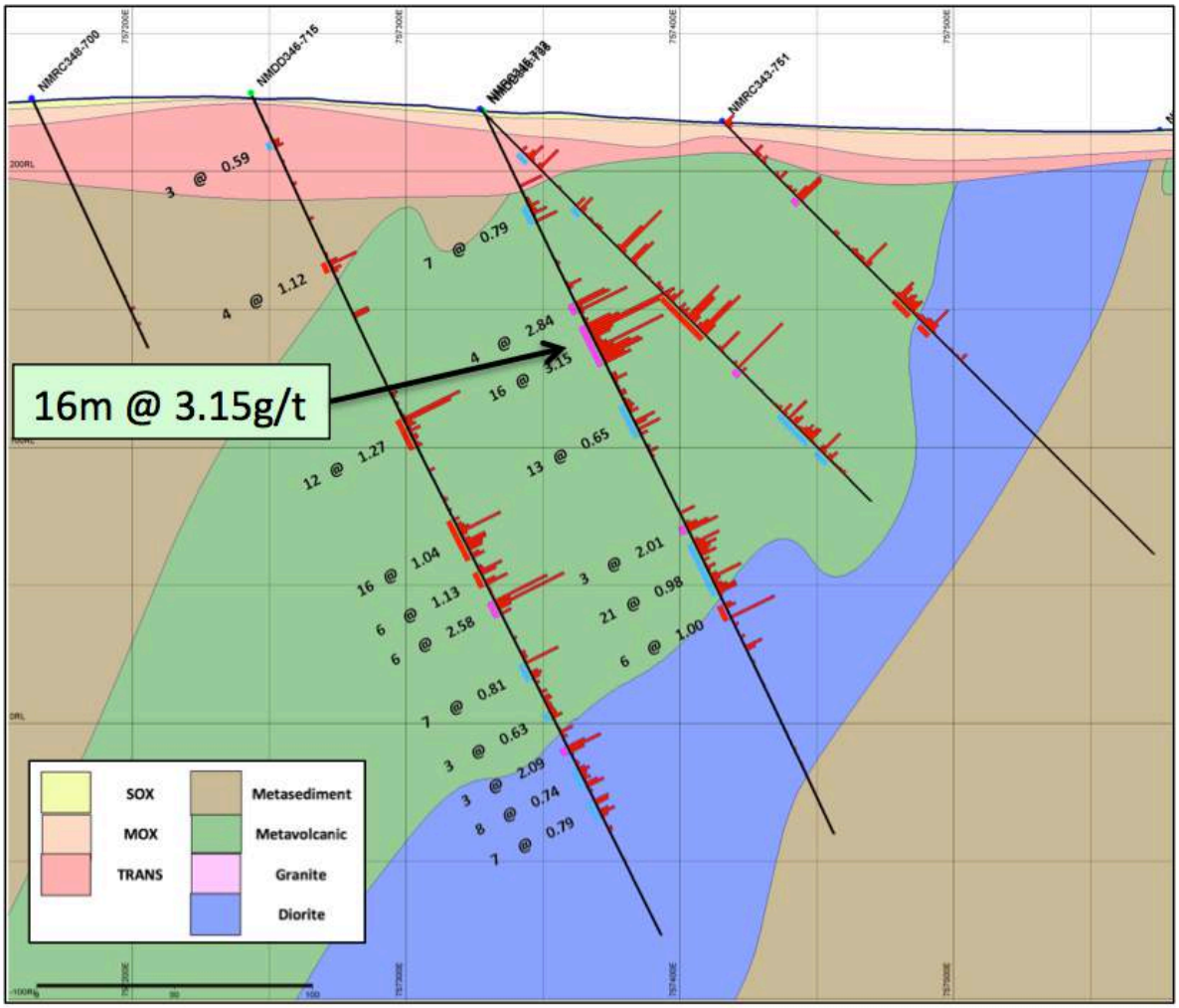
NOTE: Previously published intersection annotations omitted for clarity

Figure 5: Section L
(Scale bar: 40m, grid: 50m)



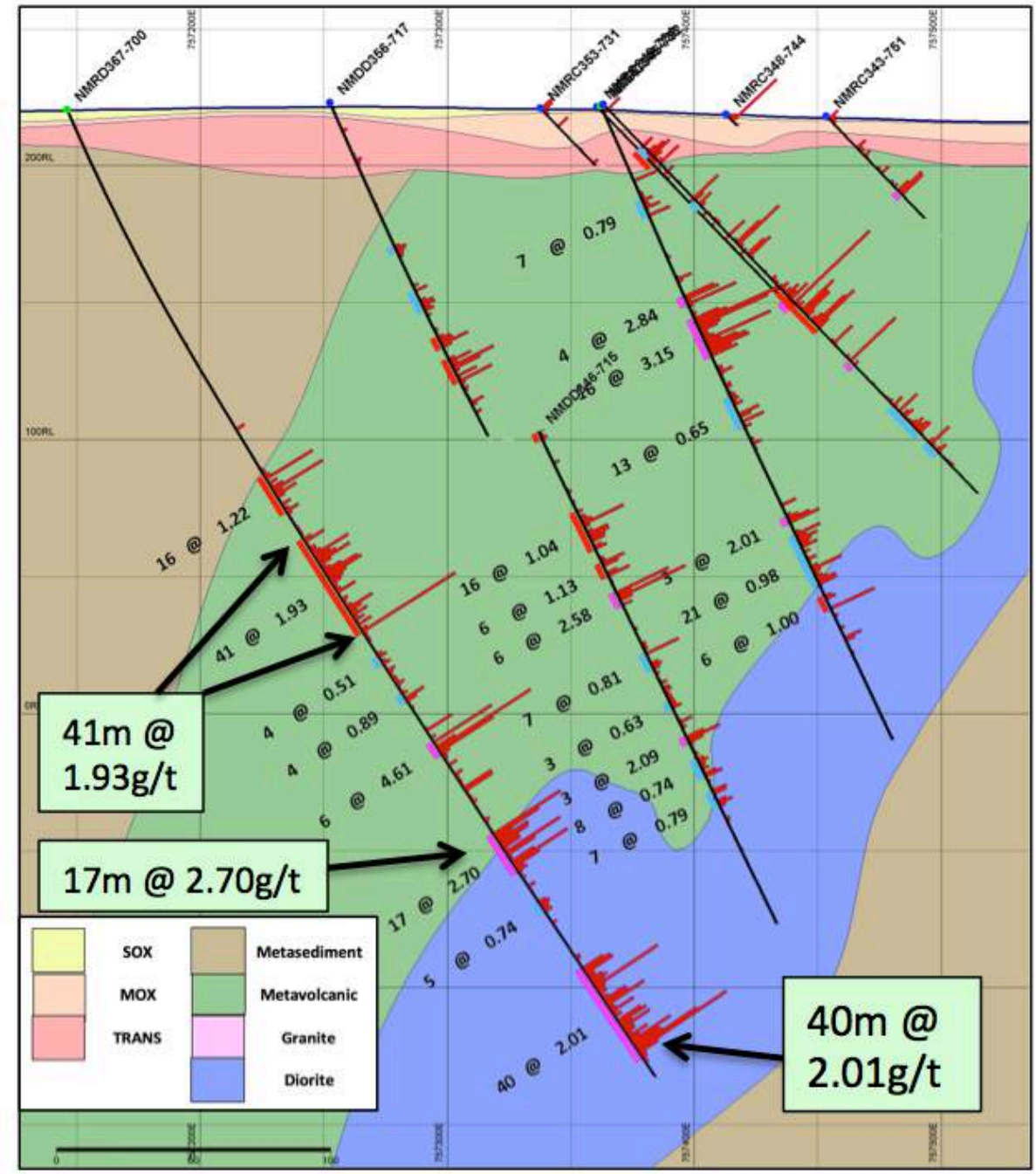
NOTE: Previously published intersection annotations omitted for clarity

Figure 6: Section G
(Scale bar: 100m, grid : 50m)



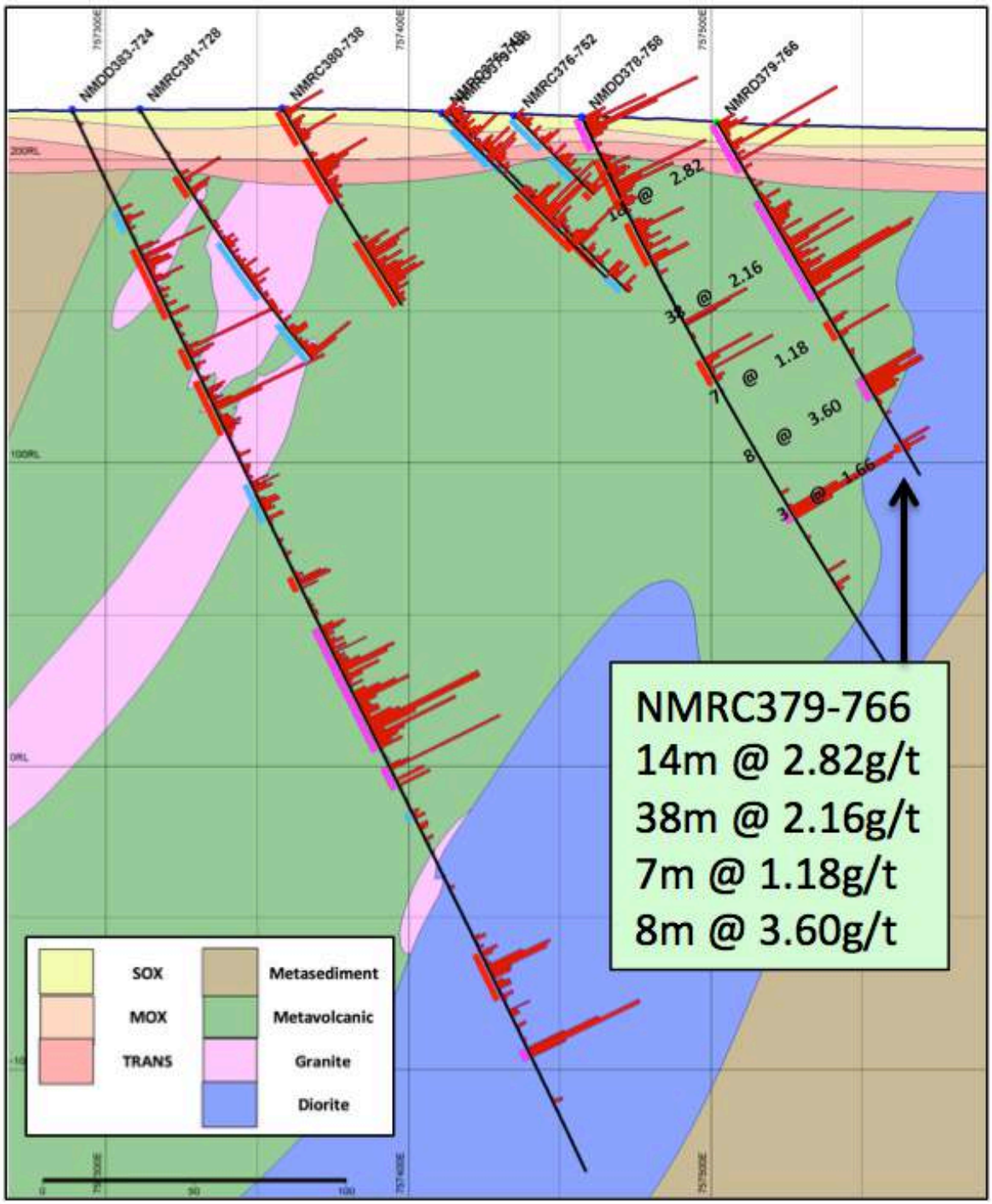
NOTE: Previously published intersection annotations omitted for clarity

Figure 7: Section A
(Scale bar: 100m, grid: 50m)



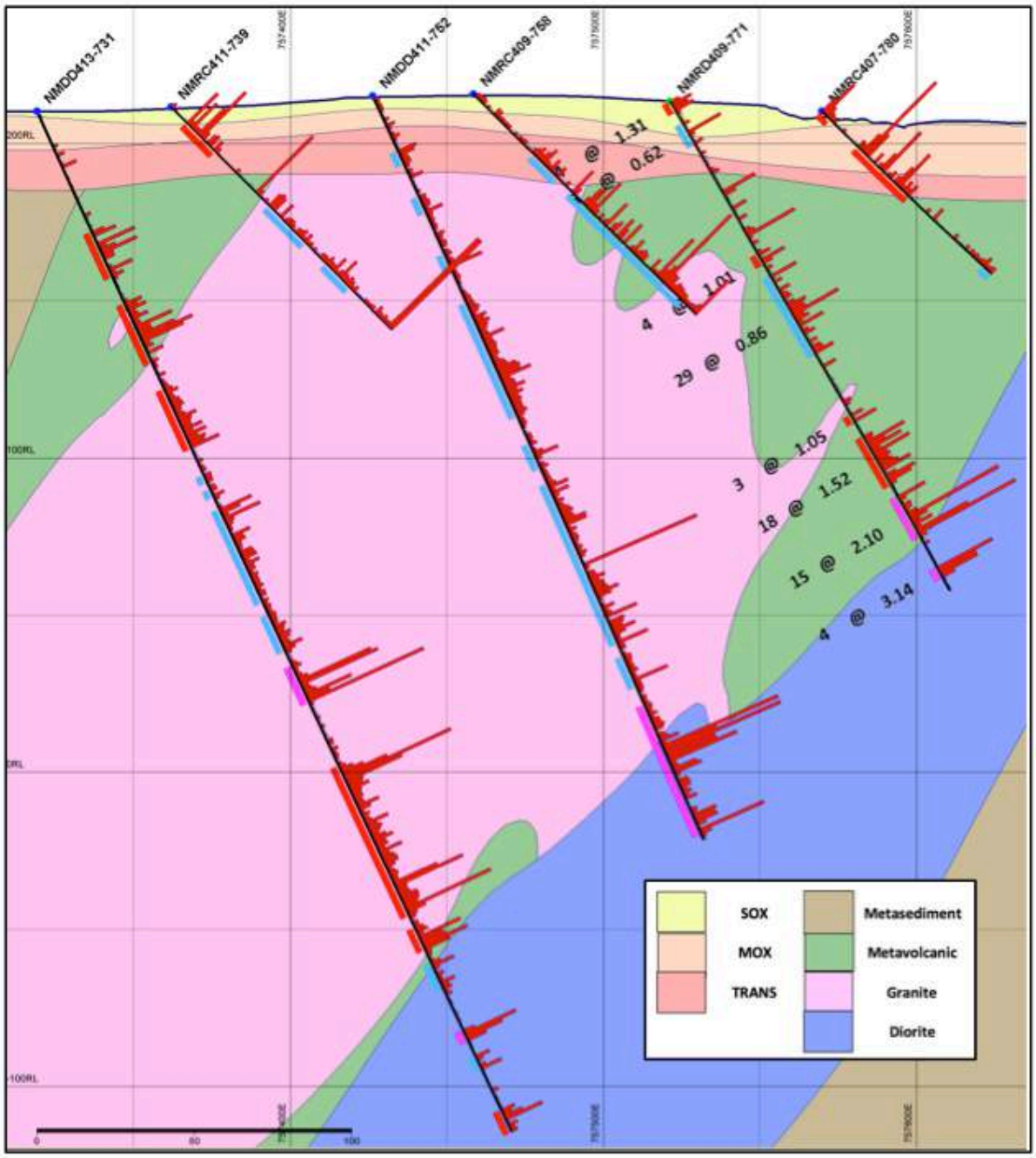
NOTE: Previously published intersection annotations omitted for clarity

Figure 8: Oblique section parallel to NMRD367-700
(Scale bar: 100m, grid: 50m)



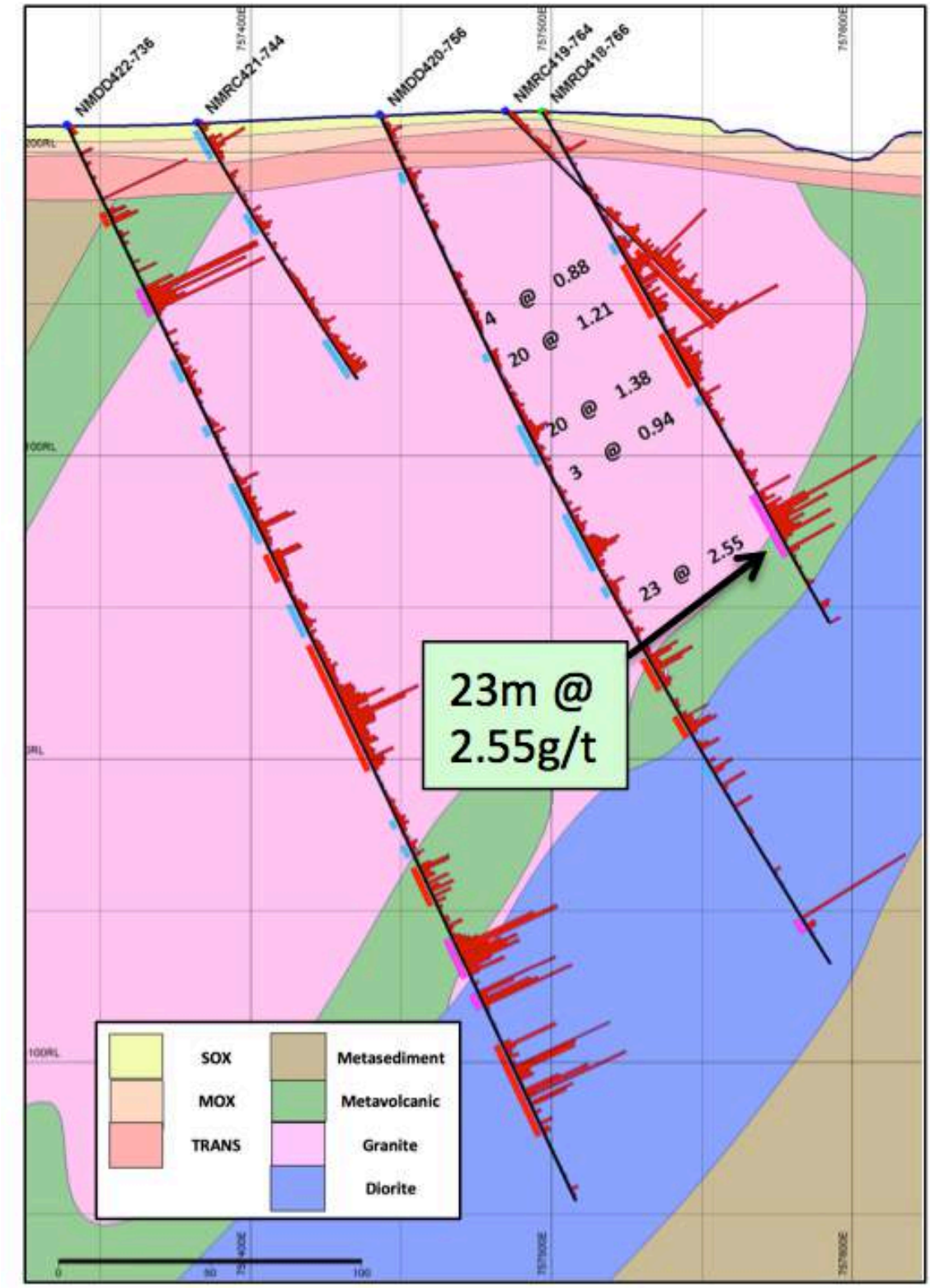
NOTE: Previously published intersection annotations omitted for clarity

Figure 9: Section E
(Scale bar: 100m, grid: 50m)



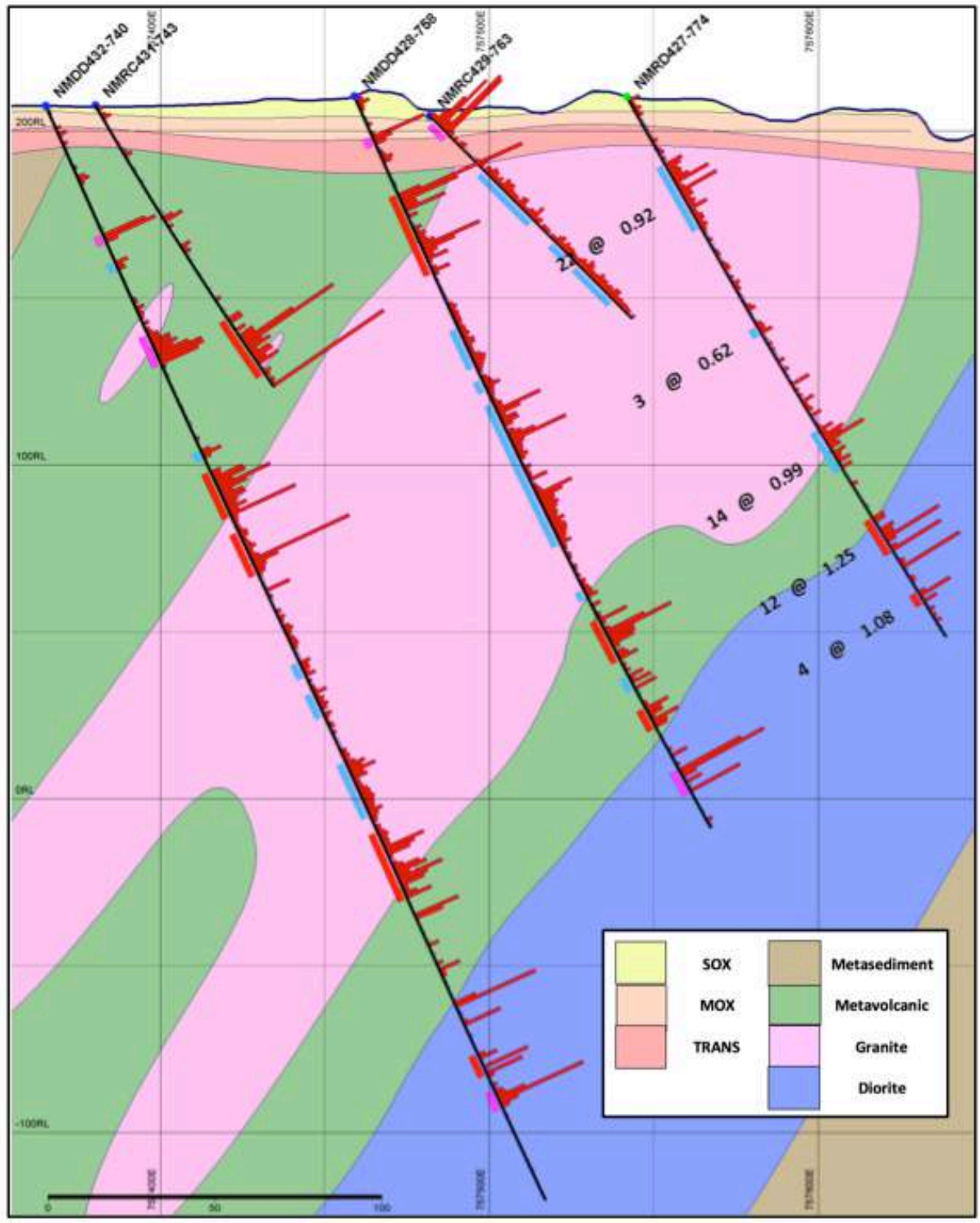
NOTE: Previously published intersection annotations omitted for clarity

Figure 10: Section H
(Scale bar: 100m, grid: 50m)



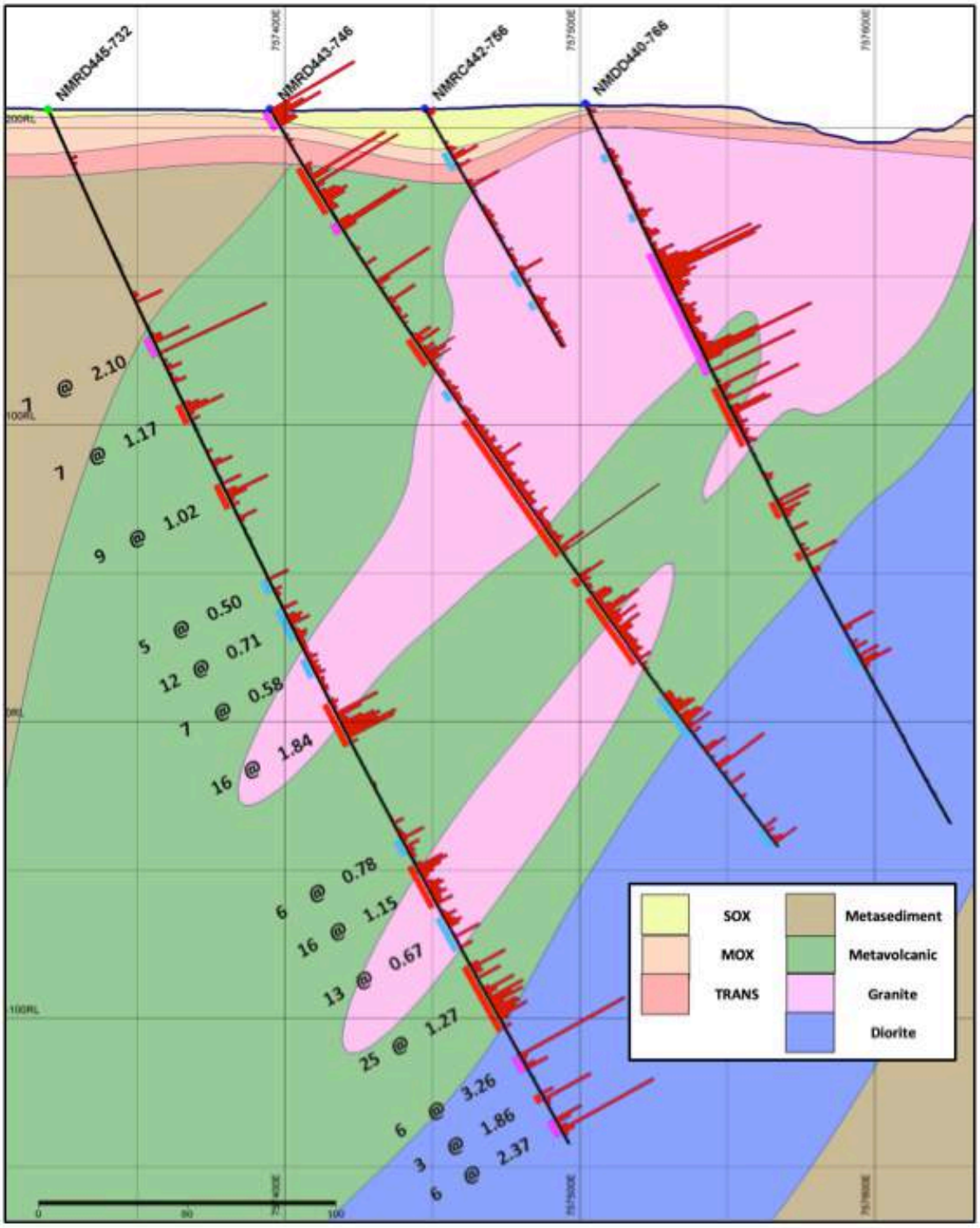
NOTE: Previously published intersection annotations omitted for clarity

Figure 11: Section I
(Scale bar: 100m, grid: 50m)



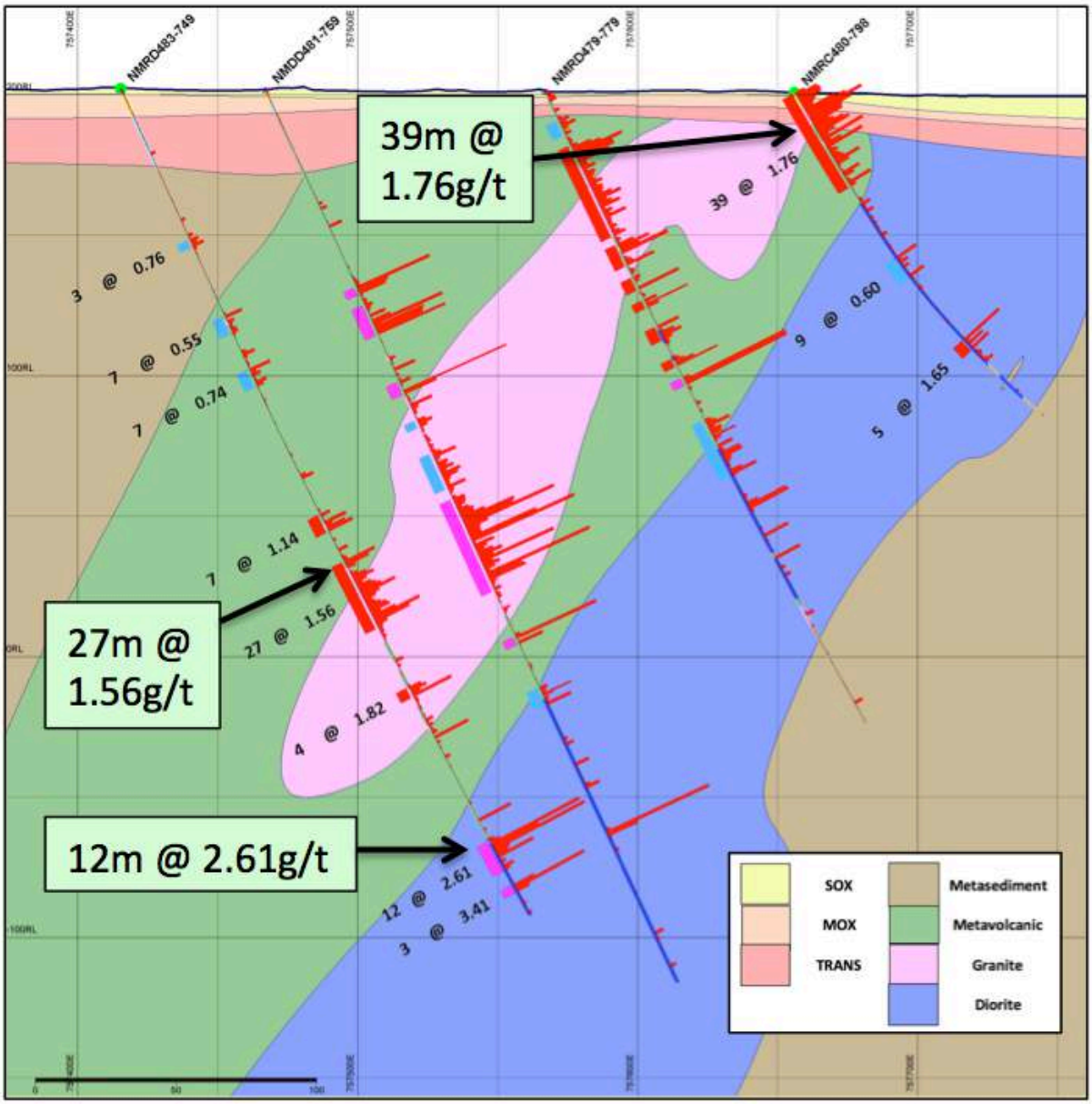
NOTE: Previously published intersection annotations omitted for clarity

Figure 12: Section J
(Scale bar: 100m, gird: 50m)



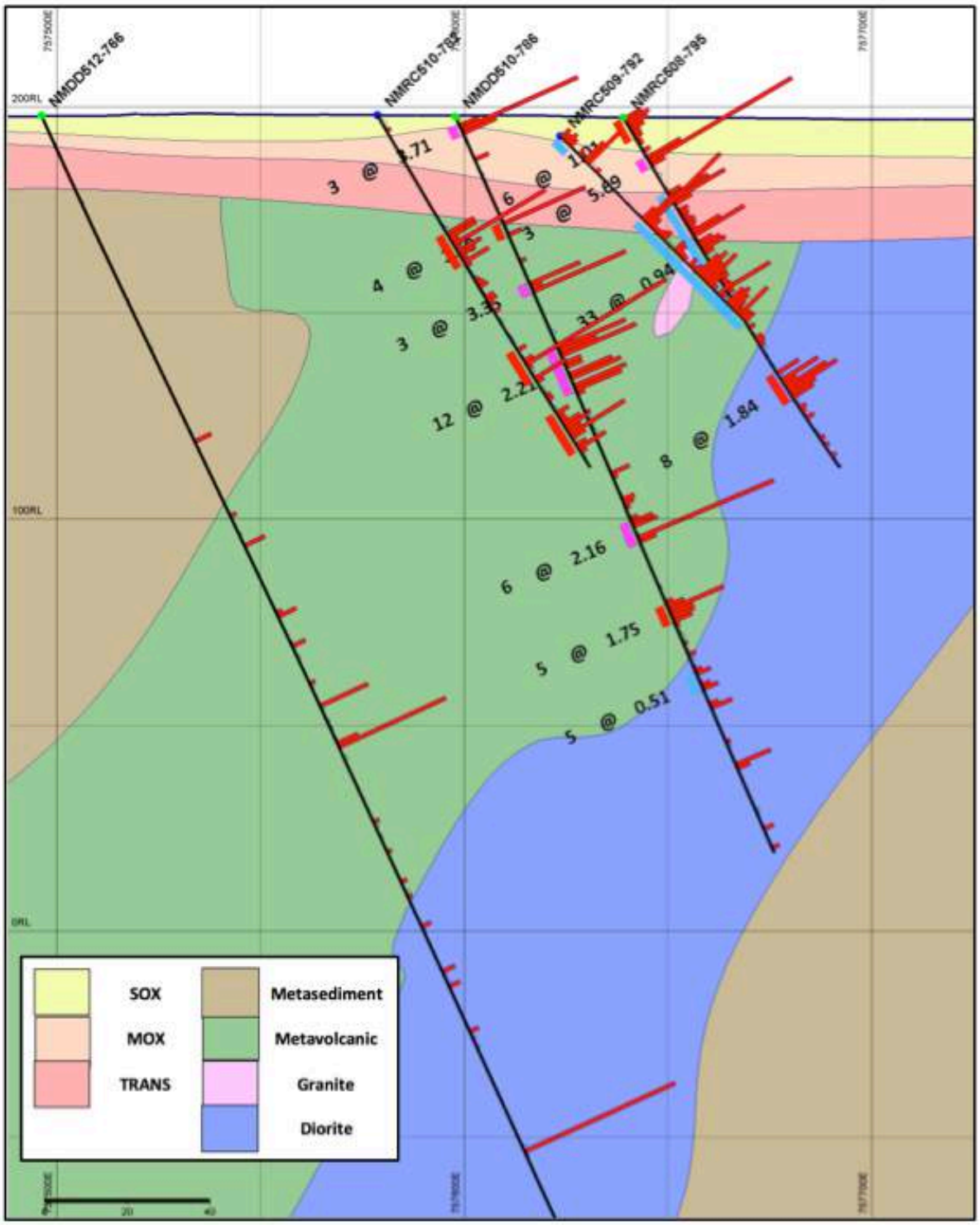
NOTE: Previously published intersection annotations omitted for clarity

Figure 13: Section K
(Scale bar: 100m, grid: 50m)



NOTE: Previously published intersection annotations omitted for clarity

Figure 14: Section 0
(Scale bar: 100m, grid: 50m)



NOTE: Previously published intersection annotations omitted for clarity **Figure 15: Section R**

(Scale bar: 40m, grid: 50m)

Cardinal technical staff maintains a set of standard procedures for both diamond drilling and reverse circulations drilling. For diamond drilling (which is completed using HQ core collection), the key aspects are that the holes are electronically surveyed every 30 metres down hole, all core runs are routinely oriented using a Reflex digital orientation instrument, core recovery is measured and geotechnical logging is done as the core is recovered at the rig site.

Back at the Bolgatanga office complex, the core is photographed wet and dry, and after logging onto digital data recorders, the core is cut such that a quarter HQ core sample, on a one metre sampling interval, is submitted to the laboratory, quarter core is retained for metallurgical sampling and half HQ core is retained for reference. The same sector of quarter core, relative to the core orientation mark is routinely sampled for assaying.

For RC drilling, samples are collected on a one metre interval using a multi-tier riffle splitter, duplicate field samples are routinely collected (one in 20), the cyclone is thoroughly cleaned on each rod change and the splitter is cleaned after each metre sample. The sample bag weights for each metre interval are routinely weighed, as are the split samples for submission to the assay laboratory and approximately 2.5 to 3 kilogramme chip samples are dispatched to the laboratory. Amongst the samples, a suite of internationally accredited and certified reference material along with blanks are included in the sample submission sequence. The standards cover the gold grade range expected at Namdini.

The individual sample bags for both core and drill chips are sealed at the Bolgatanga site office, and are grouped into tens for placement in a large plastic bag, which is, in turn, sealed. The assay laboratory provides sample transport from Bolgatanga, such that the chain of custody passes from Cardinal to the assay laboratory at the Bolgatanga sample logging facility.

Once sample bags and pulps are returned from the assay laboratory to Cardinal's Bolgatanga facility, a representative suite of pulps, covering the entire range of both sample batches and gold grades are chosen for 'referee' analysis at an accredited independent laboratory. As with the routine sample submission, a suite of international certified standards and blanks are inserted into the referee assaying pulp sequence.

Cardinal technical staff carry out routine analysis of the quality control data on receipt of assay results from the laboratory in order to determine if the batch of samples has passed industry standard levels for control samples. If the batch 'fails', the batch of assays is rejected and a re-assay request for the batch of samples is made to the laboratory.

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Competent Person's Statement

Information in this report that relates to the Namdini Project is based on information compiled by Mr. Paul Abbott, a full time employee of Cardinal Resources Limited, who is a Fellow of The Australasian Institute of Mining And Metallurgy and a Member of the Geological Society of South Africa. Mr. Abbott has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and the activities being reported upon 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'. Mr. Abbott consents to the inclusion in this report of the statements based on the information in the form and context in which it appears.

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This Announcement contains summary information about Cardinal, its subsidiaries and their activities, which is current as at the date of this Announcement. The information in this Announcement 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 provide movements, regional infrastructure constraints, timing of approvals from relevant authorities, regulatory risks, operational risks and reliance on key personnel and foreign currency fluctuations.

Certain statements contained in this announcement, including information as to the future financial or operating performance of Cardinal Resources and its projects, are forward‐looking statements that:

- may include, among other things, statements regarding targets, estimates and assumptions in respect of mineral reserves and 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;
- are necessarily based upon a number of estimates and assumptions that, while considered reasonable by Cardinal Resources, 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.

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All forward-looking statements made in this announcement 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.

No verification: Although all reasonable care has been undertaken to ensure that the facts and opinions given in this Announcement are accurate, the information provided in this Announcement has not been independently verified.

Table 1					
Drill Hole Mineralised Intervals					
INTERSECTION RULE: 3m minimum width, 3m max contiguous waste, 0.5g/t cut off					
Hole_ID	**mFrom**	**mTo**	**mLength**	**Au_ppm**	**Gm_M**
NMDD346-715	19	22	3	0.59	2
NMDD346-715	67	71	4	1.12	4
NMDD346-715	130	142	12	1.27	15
NMDD346-715	171	187	16	1.04	17
NMDD346-715	192	198	6	1.13	7
NMDD346-715	204	210	6	2.58	15
NMDD346-715	229	236	7	0.81	6
NMDD346-715	249	252	3	0.63	2
NMDD346-715	263	266	3	2.09	6
NMDD346-715	272	280	8	0.74	6
NMDD346-715	285	292	7	0.79	6
NMDD346-733	38	45	7	0.79	6
NMDD346-733	77	81	4	2.84	11
NMDD346-733	86	102	16	3.15	50
NMDD346-733	118	131	13	0.65	8
NMDD346-733	167	170	3	2.01	6
NMDD346-733	174	195	21	0.98	21
NMDD346-733	199	205	6	1.00	6
NMDD368-731	1	5	4	0.96	4
NMDD368-731	16	31	15	0.88	13
NMDD368-731	50	60	10	0.99	10
NMDD368-731	122	130	8	1.01	8
NMDD368-731	139	180	41	1.22	50
NMDD368-731	204	209	5	1.01	5
NMDD489-779	0	20	20	0.83	17
NMDD489-779	34	41	7	3.44	24
NMDD489-779	47	53	6	1.11	7
NMDD489-779	57	64	7	1.28	9
NMDD489-779	70	114	44	1.57	69
NMDD489-779	157	160	3	2.16	6
NMDD489-779	178	186	8	0.79	6
NMDD489-779	198	202	4	1.53	6
NMDD491-759	84	98	14	1.70	24
NMDD491-759	102	116	14	1.04	15
NMDD491-759	127	142	15	2.55	38
NMDD491-759	157	187	30	2.34	70
NMDD491-759	241	245	4	2.07	8
NMDD491-759	258	262	4	1.23	5
NMDD491-759	309	312	3	42.27	127
NMDD510-786	2	5	3	3.71	11
NMDD510-786	28	32	4	1.60	6
NMDD510-786	44	47	3	3.35	10
NMDD510-786	61	73	12	2.21	27
NMDD510-786	107	113	6	2.16	13
NMDD510-786	129	134	5	1.75	9
NMRC480-798	0	39	39	1.76	69
NMRC480-798	69	78	9	0.60	5
NMRC480-798	108	113	5	1.65	8

Table 1 Continued

Drill Hole Mineralised Intervals

INTERSECTION RULE: 3m minimum width, 3m max contiguous waste, 0.5g/t cut off

Hole_ID	mFrom	mTo	mLength	Au_ppm	Gm_M
NMRC487-801	6	19	13	1.88	24
NMRC487-801	62	67	5	1.52	8
NMRC487-801	73	76	3	3.78	11
NMRC487-801	105	109	4	0.66	3
NMRC501-810	1	4	3	0.68	2
NMRC501-810	21	24	3	0.67	2
NMRC501-810	79	83	4	1.48	6
NMRC508-795	0	6	6	1.01	6
NMRC508-795	11	14	3	5.69	17
NMRC508-795	21	54	33	0.94	31
NMRC508-795	72	80	8	1.84	15
NMRD367-700	152	168	16	1.22	20
NMRD367-700	179	220	41	1.93	79
NMRD367-700	230	234	4	0.51	2
NMRD367-700	246	250	4	0.89	4
NMRD367-700	267	273	6	4.61	28
NMRD367-700	307	324	17	2.70	46
NMRD367-700	337	342	5	0.74	4
NMRD367-700	366	406	40	2.01	80
NMRD370-752	23	43	20	1.63	33
NMRD370-752	86	114	28	1.54	43
NMRD370-752	137	155	18	1.06	19
NMRD379-766	0	18	18	2.82	51
NMRD379-766	29	67	38	2.16	82
NMRD379-766	75	82	7	1.18	8
NMRD379-766	97	105	8	3.60	29
NMRD379-766	122	125	3	1.66	5
NMRD399-770	0	45	45	1.72	77
NMRD399-770	73	80	7	3.44	24
NMRD399-770	95	113	18	0.80	14
NMRD399-770	123	126	3	1.65	5
NMRD399-770	132	136	4	1.04	4
NMRD399-770	143	150.3	7.3	0.74	5
NMRD399-770	160	167	7	0.72	5
NMRD407-710	99	110	11	0.74	8
NMRD407-710	147	244	97	1.62	157
NMRD407-710	258	274	16	1.10	18
NMRD407-710	289	332	43	8.86	381
NMRD407-710	356	360	4	0.83	3
NMRD407-710	390	396	6	1.55	9
NMRD407-710	405	408	3	0.68	2
NMRD409-771	0	4	4	1.31	5
NMRD409-771	8	16	8	0.62	5
NMRD409-771	56	60	4	1.01	4
NMRD409-771	64	93	29	0.86	25
NMRD409-771	115	118	3	1.05	3
NMRD409-771	123	141	18	1.52	27
NMRD409-771	145	160	15	2.10	32
NMRD409-771	171	175	4	3.14	13

Table 1 Continued					
Drill Hole Mineralised Intervals					
INTERSECTION RULE: 3m minimum width, 3m max contiguous waste, 0.5g/t cut off					
Hole_ID	**mFrom**	**mTo**	**mLength**	**Au_ppm**	**Gm_M**
NMRD418-766	49	53	4	0.88	4
NMRD418-766	57	77	20	1.21	24
NMRD418-766	83	103	20	1.38	28
NMRD418-766	107	110	3	0.94	3
NMRD418-766	144	167	23	2.55	59
NMRD427-774	23	45	22	0.92	20
NMRD427-774	79	82	3	0.62	2
NMRD427-774	115	129	14	0.98	14
NMRD427-774	146	158	12	1.25	15
NMRD427-774	172	176	4	1.08	4
NMRD445-732	84	91	7	2.10	15
NMRD445-732	109	116	7	1.17	8
NMRD445-732	139	148	9	1.02	9
NMRD445-732	175	180	5	0.50	3
NMRD445-732	186	198	12	0.71	9
NMRD445-732	205	212	7	0.58	4
NMRD445-732	222	238	16	1.84	29
NMRD445-732	274	280	6	0.78	5
NMRD445-732	284	300	16	1.15	18
NMRD445-732	304	317	13	0.67	9
NMRD445-732	323	348	25	1.27	32
NMRD445-732	358	364	6	3.26	20
NMRD445-732	373	376	3	1.86	6
NMRD445-732	383	389	6	2.37	14
NMRD451-776	3	17	14	0.76	11
NMRD451-776	33	127	94	4.53	426
NMRD451-776	134	147	13	2.15	28
NMRD451-776	157	174	17	0.98	17

NMRD451-776											
mFrom	mTo	Au g/t	Litho	mFrom	mTo	Au g/t	Litho	mFrom	mTo	Au g/t	Litho
0	1	0.59	GRA	63	64	0.38	GRA	126	127	0.97	MVO
1	2	0.41	GRA	64	65	0.60	GRA	127	128	0.18	MVO
2	3	0.39	GRA	65	66	1.54	GRA	128	129	0.05	MVO
3	4	0.50	GRA	66	67	0.95	GRA	129	130	0.14	MVO
4	5	0.50	GRA	67	68	1.21	GRA	130	131	0.05	MVO
5	6	0.34	GRA	68	69	4.17	GRA	131	132	0.16	GRA
6	7	0.61	GRA	69	70	0.76	GRA	132	133	0.07	GRA
7	8	1.50	GRA	70	71	1.90	GRA	133	134	0.16	GRA
8	9	1.40	GRA	71	72	1.01	GRA	134	135	0.92	GRA
9	10	0.83	GRA	72	73	2.66	GRA	135	136	0.15	GRA
10	11	0.74	GRA	73	74	0.86	GRA	136	137	0.71	GRA
11	12	0.79	GRA	74	75	0.85	GRA	137	138	2.19	MVO
12	13	0.91	GRA	75	76	0.25	GRA	138	139	0.73	MVO
13	14	1.08	GRA	76	77	1.09	GRA	139	140	0.04	MVO
14	15	0.59	GRA	77	78	0.74	GRA	140	141	0.05	MVO
15	16	0.39	GRA	78	79	0.95	GRA	141	142	0.10	MVO
16	17	0.52	GRA	79	80	1.09	GRA	142	143	6.40	MVO
17	18	0.41	GRA	80	81	0.92	GRA	143	144	6.40	MVO
18	19	0.35	GRA	81	82	7.23	GRA	144	145	0.63	MVO
19	20	0.48	GRA	82	83	1.62	GRA	145	146	2.98	MVO
20	21	0.23	GRA	83	84	0.89	GRA	146	147	6.62	MVO
21	22	0.16	GRA	84	85	1.11	GRA	147	148	0.10	MVO
22	23	0.31	GRA	85	86	2.87	GRA	148	149	0.33	MVO
23	24	0.07	GRA	86	87	2.44	GRA	149	150	0.38	MVO
24	25	0.10	GRA	87	88	2.13	GRA	150	151	0.04	MVO
25	26	0.10	GRA	88	89	1.92	GRA	151	152	0.02	MVO
26	27	0.09	GRA	89	90	1.34	GRA	152	153	1.40	MVO
27	28	0.14	GRA	90	91	2.88	GRA	153	154	0.16	MVO
28	29	0.15	GRA	91	92	6.32	GRA	154	155	0.03	MVO
29	30	0.32	GRA	92	93	98.50	GRA	155	156	0.37	DIO
30	31	0.37	GRA	93	94	4.36	GRA	156	157	0.08	DIO
31	32	0.47	GRA	94	95	5.61	GRA	157	158	5.53	DIO
32	33	0.43	GRA	95	96	0.59	GRA	158	159	1.48	DIO
33	34	1.03	GRA	96	97	1.08	GRA	159	160	0.02	DIO
34	35	0.25	GRA	97	98	1.18	GRA	160	161	0.71	DIO
35	36	0.42	GRA	98	99	0.83	GRA	161	162	0.10	DIO
36	37	0.78	GRA	99	100	6.45	GRA	162	163	0.20	DIO
37	38	0.47	GRA	100	101	2.02	GRA	163	164	0.04	DIO
38	39	3.72	GRA	101	102	3.75	GRA	164	165	0.59	DIO
39	40	1.65	MVO	102	103	7.72	GRA	165	166	2.44	DIO
40	41	2.78	MVO	103	104	6.00	GRA	166	167	0.89	DIO
41	42	1.26	MVO	104	105	54.00	GRA	167	168	0.06	DIO
42	43	2.05	MVO	105	106	18.60	GRA	168	169	0.53	DIO
43	44	10.80	MVO	106	107	3.00	GRA	169	170	0.15	DIO
44	45	1.92	MVO	107	108	1.02	GRA	170	171	0.02	DIO
45	46	0.76	MVO	108	109	0.79	GRA	171	172	0.34	DIO
46	47	2.87	MVO	109	110	1.89	GRA	172	173	2.17	DIO
47	48	0.14	MVO	110	111	1.08	GRA	173	174	1.34	DIO
48	49	5.72	MVO	111	112	26.20	GRA	174	175	0.13	DIO
49	50	4.79	MVO	112	113	3.59	GRA	175	176	0.02	DIO
50	51	4.23	MVO	113	114	0.80	GRA	176	177	0.35	DIO
51	52	0.07	MVO	114	115	0.56	GRA	177	178	0.40	DIO
52	53	0.12	MVO	115	116	0.42	GRA	178	179	0.01	DIO
53	54	0.41	MVO	116	117	0.27	GRA	179	180	0.39	DIO
54	55	2.34	MVO	117	118	0.82	MVO	180	181	0.03	DIO
55	56	16.90	MVO	118	119	0.97	MVO	181	182	0.61	DIO
56	57	10.20	MVO	119	120	1.92	MVO	182	183	0.02	DIO
57	58	1.98	MVO	120	121	0.47	GRA	183	184	-0.01	DIO
58	59	0.08	MVO	121	122	0.72	MVO	184	185	-0.01	DIO
59	60	0.05	MVO	122	123	0.51	MVO	185	186	-0.01	DIO
60	61	0.74	MVO	123	124	0.07	MVO	186	187	0.01	DIO
61	62	2.72	GRA	124	125	0.35	MVO	187	188.4	-0.01	DIO
62	63	35.00	GRA	125	126	0.15	MVO				

NMRD407-710											
mFrom	mTo	Au g/t	Litho	mFrom	mTo	Au g/t	Litho	mFrom	mTo	Au g/t	Litho
0	1	0.01	TRS	67	68	-0.01	MSE	134	135	-0.01	MVO
1	2	-0.01	TRS	68	69	-0.01	MSE	135	136	0.17	MVO
2	3	-0.01	SAP	69	70	-0.01	MSE	136	137	0.04	MVO
3	4	0.02	SAP	70	71	-0.01	MSE	137	138	-0.01	MVO
4	5	0.03	SAP	71	72	-0.01	MSE	138	139	0.05	MVO
5	6	-0.01	SAP	72	73	-0.01	MSE	139	140	0.07	MVO
6	7	-0.01	SAP	73	74	0.05	MSE	140	141	0.06	MVO
7	8	-0.01	SAP	74	75	-0.01	MSE	141	142	1.1	MVO
8	9	0.02	SAP	75	76	0.04	MSE	142	143	2.24	MVO
9	10	0.02	SAP	76	77	-0.01	MSE	143	144	0.16	MVO
10	11	0.03	SAP	77	78	0.03	MSE	144	145	0.34	MVO
11	12	-0.01	SPR	78	79	-0.01	MSE	145	146	0.29	MVO
12	13	0.02	SPR	79	80	0.05	MSE	146	147	0.3	MVO
13	14	-0.01	SPR	80	81	0.03	MSE	147	148	1	MVO
14	15	-0.01	SPR	81	82	0.02	MSE	148	149	0.26	MVO
15	16	-0.01	SPR	82	83	0.02	MSE	149	150	0.47	MVO
16	17	-0.01	SPR	83	84	0.02	MSE	150	151	18.2	MVO
17	18	-0.01	MSE	84	85	0.06	MSE	151	152	22.7	MVO
18	19	-0.01	MSE	85	86	0.18	MSE	152	153	2.98	MVO
19	20	0.02	MSE	86	87	0.03	MSE	153	154	0.79	MVO
20	21	-0.01	MSE	87	88	-0.01	MSE	154	155	3.3	MVO
21	22	-0.01	MSE	88	89	0.02	MSE	155	156	9.87	MVO
22	23	-0.01	MSE	89	90	0.04	MSE	156	157	5.6	GRA
23	24	-0.01	MSE	90	91	0.02	MSE	157	158	4.74	GRA
24	25	-0.01	MSE	91	92	0.09	MSE	158	159	3.87	VNQ
25	26	0.03	MSE	92	93	0.08	MSE	159	160	3.36	MVO
26	27	-0.01	MSE	93	94	0.05	MSE	160	161	1.31	GRA
27	28	-0.01	MSE	94	95	0.08	MSE	161	162	1.66	GRA
28	29	-0.01	MSE	95	96	0.03	MSE	162	163	1.77	GRA
29	30	-0.01	MSE	96	97	0.25	MVO	163	164	2.12	GRA
30	31	0.05	MSE	97	98	0.04	MVO	164	165	2.42	GRA
31	32	-0.01	MSE	98	99	0.07	MVO	165	166	1.05	GRA
32	33	0.02	MSE	99	100	2.63	MVO	166	167	1.32	GRA
33	34	-0.01	MSE	100	101	-0.01	MVO	167	168	0.47	GRA
34	35	-0.01	MSE	101	102.4	-0.01	MVO	168	169	0.58	GRA
35	36	-0.01	MSE	102.4	103	-0.01	MSE	169	170	0.82	GRA
36	37	-0.01	MSE	103	104	1.27	MSE	170	171	0.71	GRA
37	38	-0.01	MSE	104	105	0.31	MSE	171	172	0.6	GRA
38	39	-0.01	MSE	105	106	0.05	MSE	172	173	0.79	GRA
39	40	-0.01	MSE	106	107	0.45	MSE	173	174	1.74	GRA
40	41	-0.01	MSE	107	108	0.73	MSE	174	175	1.68	GRA
41	42	-0.01	MSE	108	109	1.26	MSE	175	176	1.55	GRA
42	43	-0.01	MSE	109	110	1.48	MSE	176	177	0.65	GRA
43	44	-0.01	MSE	110	111	0.04	MSE	177	178	0.54	GRA
44	45	-0.01	MSE	111	112	0.07	MSE	178	179	0.24	GRA
45	46	-0.01	MSE	112	113	0.01	MSE	179	180	0.64	GRA
46	47	-0.01	MSE	113	114	-0.01	MSE	180	181	0.81	GRA
47	48	-0.01	MSE	114	115	-0.01	MSE	181	182	1.54	GRA
48	49	-0.01	MSE	115	116	0.51	MSE	182	183	1.13	GRA
49	50	0.02	MSE	116	117	0.04	MSE	183	184	1.56	GRA
50	51	-0.01	MSE	117	118	0.02	MSE	184	185	0.82	GRA
51	52	-0.01	MSE	118	119	0.1	MSE	185	186	0.74	GRA
52	53	-0.01	MSE	119	120	-0.01	MSE	186	187	0.48	GRA
53	54	0.03	MSE	120	121	-0.01	MSE	187	188	0.81	GRA
54	55	0.05	MSE	121	122	0.03	MSE	188	189	1.09	GRA
55	56	0.17	MSE	122	123	-0.01	MSE	189	190	0.44	GRA
56	57	0.15	MSE	123	124	0.04	MSE	190	191	1.05	GRA
57	58	0.02	MSE	124	125	-0.01	MSE	191	192	0.71	GRA
58	59	0.02	MSE	125	126	0.57	MSE	192	193	0.87	GRA
59	60	0.02	MSE	126	127	0.14	MSE	193	194	0.65	GRA
60	61	0.03	MSE	127	128	-0.01	MSE	194	195	0.54	GRA
61	62	-0.01	MSE	128	129	-0.01	MSE	195	196	0.58	GRA
62	63	-0.01	MSE	129	130	-0.01	MSE	196	197	0.41	GRA
63	64	-0.01	MSE	130	131	-0.01	MVO	197	198	1.01	GRA
64	65	0.02	MSE	131	132	-0.01	MVO	198	199	2.51	GRA
65	66	-0.01	MSE	132	133	-0.01	MVO	199	200	1.51	GRA
66	67	-0.01	MSE	133	134	-0.01	MVO	200	201	1.48	GRA

NMRD407-710 CONTINUED											
mFrom	mTo	Au g/t	Litho	mFrom	mTo	Au g/t	Litho	mFrom	mTo	Au g/t	Litho
201	202	2.06	GRA	272	273	2.24	MVO	343	344	0.02	MVO
202	203	3.12	GRA	273	274	1.82	MVO	344	345	0.09	MVO
203	204	2.19	GRA	274	275	0.18	MVO	345	346	0.62	MVO
204	205	1.31	GRA	275	276	0.27	MVO	346	347	0.33	MVO
205	206	0.28	GRA	276	277	0.02	MVO	347	348	-0.01	MVO
206	207	1.23	GRA	277	278	0.04	MVO	348	349	-0.01	MVO
207	208	0.63	GRA	278	279	0.02	MVO	349	350	-0.01	MVO
208	209	0.89	GRA	279	280	0.03	MVO	350	351	0.03	MVO
209	210	0.54	GRA	280	281	0.07	MVO	351	352	-0.01	MVO
210	211	0.44	GRA	281	282	0.19	MVO	352	353	-0.01	MVO
211	212	0.54	GRA	282	283	0.03	MVO	353	354	-0.01	MVO
212	213	0.45	GRA	283	284	0.03	MVO	354	355	0.01	MVO
213	214	0.51	GRA	284	285	0.05	MVO	355	356	0.49	MVO
214	215	0.64	GRA	285	286	0.04	MVO	356	357	1.67	MVO
215	216	0.5	GRA	286	287	0.29	GRA	357	358	0.6	GRA
216	217	0.63	GRA	287	288	0.05	GRA	358	359	0.49	GRA
217	218	1.39	GRA	288	289	0.03	GRA	359	360	0.55	GRA
218	219	0.52	GRA	289	290	2.37	MVO	360	361	0.44	MVO
219	220	0.72	GRA	290	291	0.03	MVO	361	362	0.41	GRA
220	221	1.25	GRA	291	292	0.06	MVO	362	363	0.29	GRA
221	222	2.63	GRA	292	293	2.22	GRA	363	364	0.18	GRA
222	223	0.31	GRA	293	294	1.4	GRA	364	365	0.3	GRA
223	224	0.55	GRA	294	295	1.18	GRA	365	366	0.12	MVO
224	225	0.53	GRA	295	296	0.9	GRA	366	367	-0.01	MVO
225	226	0.52	GRA	296	297	0.26	GRA	367	368	-0.01	MVO
226	227	0.37	GRA	297	298	0.7	GRA	368	369	-0.01	MVO
227	228	0.23	GRA	298	299	2.65	MVO	369	370	0.16	MVO
228	229	0.02	GRA	299	300	0.59	MVO	370	371	0.04	MVO
229	230	0.61	GRA	300	301	0.42	MVO	371	372	-0.01	MVO
230	231	0.56	GRA	301	302	1.04	GRA	372	373	-0.01	MVO
231	232	0.52	GRA	302	303	0.91	MVO	373	374	0.01	MVO
232	233	0.4	GRA	303	304	0.21	MVO	374	375	0.01	MVO
233	234	0.35	GRA	304	305	0.3	MVO	375	376	0.05	MVO
234	235	0.45	GRA	305	306	0.45	MVO	376	377	-0.01	MVO
235	236	1.13	MVO	306	307	0.79	GRA	377	378	-0.01	MVO
236	237	1.1	MVO	307	308	0.61	GRA	378	379	-0.01	MVO
237	238	0.52	MVO	308	309	0.99	GRA	379	380	0.07	DIO
238	239	0.26	MVO	309	310	12.1	GRA	380	381	-0.01	DIO
239	240	0.79	MVO	310	311	1.5	GRA	381	382	-0.01	DIO
240	241	0.44	MVO	311	312	1.06	MVO	382	383	0.09	DIO
241	242	0.73	MVO	312	313	1.11	MVO	383	384	0.1	DIO
242	243	3.04	MVO	313	314	1.04	GRA	384	385	-0.01	DIO
243	244	0.59	GRA	314	315	1.59	MVO	385	386	0.14	DIO
244	245	0.11	MVO	315	316	0.14	MVO	386	387	0.23	DIO
245	246	0.09	GRA	316	317	0.59	MVO	387	388	0.19	DIO
246	247	0.25	GRA	317	318	0.12	MVO	388	389	0.02	DIO
247	248	0.31	GRA	318	319	0.88	MVO	389	390	0.28	DIO
248	249	0.34	GRA	319	320	3.7	MVO	390	391	5.64	DIO
249	250	0.98	GRA	320	321	2.75	MVO	391	392	0.96	DIO
250	251	0.26	GRA	321	322	2.4	GRA	392	393	1.8	DIO
251	252	0.15	GRA	322	323	41	GRA	393	394	-0.01	DIO
252	253	0.32	GRA	323	324	257	GRA	394	395	0.42	DIO
253	254	0.22	GRA	324	325	4.11	GRA	395	396	0.52	DIO
254	255	0.34	GRA	325	326	6.03	MVO	396	397	0.13	DIO
255	256	0.41	GRA	326	327	13.6	MVO	397	398	0.02	DIO
256	257	0.23	GRA	327	328	3.92	MVO	398	399	0.09	DIO
257	258	0.47	GRA	328	329	2.11	GRA	399	400	0.01	DIO
258	259	1.3	GRA	329	330	1.04	GRA	400	401	-0.01	DIO
259	260	1.61	MVO	330	331	2.38	GRA	401	402	0.09	DIO
260	261	0.08	MVO	331	332	2.81	GRA	402	403	0.11	DIO
261	262	0.58	MVO	332	333	0.45	MVO	403	404	0.03	DIO
262	263	0.34	GRA	333	334	0.06	MVO	404	405	0.07	DIO
263	264	0.18	MVO	334	335	0.03	MVO	405	406	0.58	DIO
264	265	0.88	GRA	335	336	0.04	MVO	406	407	0.95	DIO
265	266	1.62	GRA	336	337	0.01	MVO	407	408	0.52	DIO
266	267	0.4	GRA	337	338	0.1	MVO	408	409	0.02	DIO
267	268	0.89	GRA	338	339	0.3	MVO	409	410	0.29	DIO
268	269	0.98	GRA	339	340	0.47	MVO	410	411	0.03	DIO
269	270	1.85	GRA	340	341	0.05	MVO	411	412	0.02	DIO
270	271	1.41	GRA	341	342	-0.01	MVO	412	413	0.02	DIO
271	272	1.37	MVO	342	343	-0.01	MVO	413	414.18	-0.01	DIO

JORC CODE 2012 EDITION – TABLE 1
Highest Grade Intercepts Returned Phase 1 "Framework" Drilling and Assaying Completed
Drilling Section 1 – Sampling Technique and Data

Criteria	JORC Code Explanation	Commentary
Sampling techniques	Nature and quality of sampling (eg 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.	Nature and quality of sampling is carried out under QAQC procedures as per industry standards. RC sampling quality is ensured through inserting CRM standards and blanks inserted every 22 samples, with duplicates also taken every 22 samples. HQ core sampling quality is ensured through inserting CRM standards and blanks every 22 samples.
	Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.	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.
	Aspects of the determination of mineralisation that are Material to the Public Report.	Mineralisation comprises gold associated with disseminated pyrite & arsenopyrite.
	In cases where 'industry standard' work has been done this would be relatively simple (eg '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 (eg submarine nodules) may warrant disclosure of detailed information.	Industry standard reverse circulation drilling was used to obtain 1m samples from which 3 kg was pulverised to produce a 50 g charge for fire assay. HQ core is quartered, with the same quarter consistently sampled. 1m samples are taken irrespective of lithological units. The quarter core samples weigh ~2 kg, which are dried, then crushed and a split portion of <1.5 kg is pulverised to produce a 50 gm charge for fire assay.
Drilling techniques	Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg 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).	Reverse Circulation drilling with a standard tube, Remet 140mm Hard Face (face-sampling) button drilling bit. HQ core drilling with triple tube (near surface soft material) and a standard tube and HQ full hole chrome core barrel in transition and fresh rock. Depth of diamond tails varies according to water table levels once the RC samples are not recovered dry. Core is orientated and surveyed using Reflex digital equipment.

Criteria	JORC Code Explanation	Commentary
Drill sample recovery	Method of recording and assessing core and chip sample recoveries and results assessed.	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). Chip sample recoveries are assessed by weighing 1m samples from the cyclone on a scale in the field & comparing with the theoretical volume contained in a 1m x 140mm diameter hole to calculate %age recoveries. Core recovered from each drill run is measured and compared with the drill run length drilled to calculate %age core recoveries.
	Measures taken to maximise sample recovery and ensure representative nature of the samples.	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 homogenization of each sample and to collect an unbiased representative sample to be assayed. The measures taken to maximize core sample recovery in soft, near surface materials are to use triple tube with suitable drilling fluids to reduce any eroding of the soft materials, A standard tube with full hole chrome barrel is used in transition and fresh rock with drilling additives to ensure maximum performance from the drill bits and to keep each hole as straight as possible to maximize core recoveries. The core lifters are checked after each drill run to ensure no core to be left down the hole when pulling the full core tube. These measures ensure that the lithologies drilled and recovered are fully representative of the in situ materials.
	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 known to exist between sample recovery and grade, and no sample bias may have occurred due to preferential loss/gain of any fine/coarse material due to the above drill sample recoveries in place.
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.	RC chips and HQ core samples have been geologically and geotechnically logged to a level of detail to support appropriate future Mineral Resource estimations.
	Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.	Logging is qualitative and quantitative. 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

Criteria	JORC Code Explanation	Commentary
		detail.
Sub-sampling techniques and sample preparation	If core, whether cut or sawn and whether quarter, half or all core taken.	HQ core is sawn, quartered and sampled, with the same quarter always sampled to reduce any bias
	If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.	The RC sub-sampling technique is with a 3 tier riffle splitter, and sampled dry.
	For all sample types, the nature, quality and appropriateness of the sample preparation technique.	RC and core sample preparation was undertaken at SGS Laboratories, Ouagadougou, Burkina Faso and Tarkwa, Ghana. All preparation equipment is flushed with barren material prior to the commencement of sample preparation. The entire sample is dried, crushed to a nominal 2mm using a Jaw Crusher, then <1.5 kg is split using a Jones type riffle. The reject sample is retained in the original sample bag. The split is pulverised in a LM2 grinding mill to a nominal 85% passing 75 micron size fraction. An approximate 200 gram sub-sample split is taken for fire assay with the pulverized residue retained in a plastic bag. The pulverized split is fire assayed by standard procedures with an AAS finish to 10 ppb detection limit. Both the remaining reject and pulverized samples are returned and stored at Cardinal's Bolgatanga premises.
	Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.	Quality control procedures adopted for all sub-sampling stages to maximize representivilty 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.
	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.	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 quarter 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.

Criteria	JORC Code Explanation	Commentary
	Whether sample sizes are appropriate to the grain size of the material being sampled.	The sample sizes are considered appropriate to give an accurate indication of gold mineralisation of this Namdini deposit.
Quality of Assay data and laboratory tests	The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.	The pulverized chip or rock sample is weighed and mixed with flux and fused using lead oxide at 1,100°C, followed by cupellation of the resulting lead button (Dore bead). The bead is digested using 1:1 HNO_3 and HCl and the resulting solution is submitted for analysis. The digested sample solution is aspirated into the Flame Atomic Absorption Spectrometer (AAS), aerosolised, and mixed with the combustible gas, acetylene and air. The mixture is ignited in a flame whose temperature ranges from 2,100 to 2,800°C. During combustion, atoms of the gold in the sample are reduced to free, unexcited ground state atoms, which absorb light. Light of the appropriate wavelength is supplied and the amount of light absorbed can be measured against a standard curve. Results have a lower gold detection limit of 10 ppb. The AAS equipment is calibrated with each job. The quality of the Fire Assaying and laboratory procedures are considered to be entirely appropriate for this deposit type. The analytical technique is industry standard fire assay which is considered to be a total digest of gold.
	For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.	No hand held geophysical tools are used.
	Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.	Sample preparation checks for fineness are carried out by the laboratory as part of their internal procedures to ensure the grind size of 85-90% passing 75 micron is being attained. The grind size varies between 87-99% passing 75 micron, which is acceptable. Each batch of 84 samples has 10 laboratory checks (20%) inserted for their quality control procedures. These comprise internal lab standards using certified reference material, blanks, replicates and duplicates. Results received are graphically plotted for each assay batch and show acceptable levels of accuracy

Criteria	JORC Code Explanation	Commentary
		and precision. Certified reference materials, having a range of values, and in-house blanks are inserted in the ratio of 1:22 into the sample stream. No duplicate samples are taken as quarter core samples are submitted for fire assay. Pulps are submitted to an external laboratory for checks on accuracy and precision. External laboratory checks are done on a three monthly basis through Laboratories Quality Services International (LQSI). Recent LQSI checks of Fire Assay analyses on Low Grade Oxide Material produced acceptable levels of accuracy and precision.
Verification of sampling and assaying	The verification of significant intersections by either independent or alternative company personnel.	The verification of significant intersections by either independent or alternative company personnel has not occurred.
	The use of twinned holes.	There has been no use of twinned holes.
	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	Primary data was collected on a hand held Motion F5te Tablet PC using a set of standard templates supplied by Maxwell Geoservices, Perth (Maxwell). Daily data was synchronised and digitally captured by Maxwell for validation and compilation into Excel and Access spreadsheets and stored on the Cardinal servers located in Bolgatanga, Ghana, West Africa.
	Discuss any adjustment to assay data.	No adjustments were made to assay 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.	Accuracy of drill hole collar surveys was done by DGPS (Sahara Mining Services, Birkina Faso).
	Specification of the grid system used.	WGS84 Sector 30N, with local grid baseline at 010° True North and lines at 50m to 100m intervals and stations at 50m along lines.
	Quality and adequacy of topographic control.	Survey control has been established for the entire Namdini project by independent surveyors, Sahara Mining Services, with the establishment of DGPS survey control points throughout the project area. Sahara Mining Services also completed a detailed Unmanned Aerial Vehicle ("UAV' or "drone") topographic and photographic survey surrounding the Namdini deposit.
Data spacing and distribution	Data spacing for reporting of Exploration Results.	Data spacing is 50-100m (northing) and 50-100m (easting).
	Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral	The data spacing and distribution is considered to be sufficient to establish a degree of geological and grade continuity appropriate for

Criteria	JORC Code Explanation	Commentary
	Resource and Ore Reserve estimation procedure(s) and classifications applied.	the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied for an Exploration Target
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 orientation of sampling 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 orientation based sampling bias has been identified in the data to date.
Sample security	The measures taken to ensure sample security.	The measures taken to ensure sample security are through an independent Ghanaian security contractor. Samples are stored at Cardinal's base camp located at Bolgatanga, Ghana, West Africa under security until collected by SGS Laboratories and transported to their Ouagadougou laboratory in Burkina Faso.
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.

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.	The Namdini Mining Licence is located in NE Ghana. Namdini Mining Limited (NML) holds the mining licence. NML signed a Heads of Agreement with Savannah Mining Ltd (Savannah) to provide "Mining Support" services to NML. Savannah has signed a Heads of Agreement with Cardinal Mining Services Ltd (CMS) to provide "Mining Support" services in relation to the Namdini Mining Licence.
	The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.	There are no known impediments to offer "Mining Support" services to Namdini Mining Limited within the Namdini Mining licence area.
Exploration Done by Other Parties	Acknowledgment and appraisal of exploration by other parties.	No previous systematic exploration has been undertaken.

Criteria	JORC Code Explanation	Commentary
Geology	Deposit type, geological setting and style of mineralisation	The deposit type comprises gold mineralisation within sheared and highly altered rocks containing sulphides (pyrite and arsenopyrite). The geological setting is a Paleo-Proterozoic Greenstone Belt comprising Birimian metavolcanics, volcaniclastics & metasediments located in close proximity to a major 30 km ~N-S regional shear zone with splays. The style of mineralisation is hydrothermal alteration containing disseminated gold-bearing sulphides
Drill hole information	A summary of all information material to the understanding of the exploration results including tabulation of the following information for all Material drill holes: • Easting and northing of the drill hole collar • Elevation or RL (Reduced Level – elevation above sea level in meters) of the drill hole collar • Dip and azimuth of the hole • Down hole length and interception depth • Hole length	A summary of all information is contained within this announcement.
	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 received
	The assumptions used for any reporting of metal equivalent values should be clearly stated.	No metal equivalent values were used for this report.
Relationship between mineralisation widths and intercept lengths	These relationships are particularly important in the reporting of exploration results.	The relationship between mineralisation widths and intercept lengths 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 mineralisation with respect to the drill hole angle is not yet known.

Criteria	JORC Code Explanation	Commentary
	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').	Only down hole lengths are reported when assay results are received and true widths of mineralisation are not yet known.
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 cross and long sections are included in this announcement.
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.	Summary assay results of the drill holes reported are attached.
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.	The interpretation of the geological observations shown in the cross and long sections are subject to possible change as new information is gathered. No geochemical surveys, bulk sampling, metallurgical or geotechnical assessments were undertaken. Gradient Array IP (GAIP) and Ground Magnetic surveys were recently completed over the Namdini Project area, with results yet to be received.
Or 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).	A combination of reverse circulation and diamond drilling is planned, followed by possible additional ground geophysical surveys depending on the results of the 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.	The cross and long sections included show the possible extent of mineralisation based on geological observations and assay results. Future exploration is planned north and south within the Namdini Project Area to obtain strike extensions to the gold mineralisation.