Great Boulder
RESOURCES LIMITED

Outstanding drilling targets identified at Mt Venn copper-nickel-cobalt project in WA

Ground EM confirms numerous large bedrock conductors consistent with massive sulphide mineralisation at the project's Eastern Mafic complex

Key Points

- **Moving loop ground EM survey at the Eastern Mafic complex within the Mt Venn project is now 15% complete**
- **The survey has already identified numerous large bedrock conductors that show an EM response consistent with massive sulphide mineralisation**
- **These conductors are consistent with those previously identified by the recent airborne EM survey**
- **The Eastern Mafic complex sits immediately adjacent to the Mt Venn copper-nickel-cobalt discovery, where mineralisation has been outlined over several kilometres and remains open in every direction**
- **The Mt Venn discovery is considered to be the tail-end of a mineralised system, with a major source nearby; Great Boulder believes the Eastern Mafic may host this source**
- **Drilling of these targets is anticipated to start in six weeks**
- **Latest drilling at Mt Venn discovery identifies new copper-nickel-cobalt lenses and extends existing mineralisation; Significant results include:**
    - **44m at 0.5% Cu, 0.2% Ni, 0.06% Co from 153m (downhole)**
        - ***including 3m at 1.0% Cu and 2m at 1.2% Cu***
    - **27m at 0.6% Cu, 0.2% Ni, 0.05% Co from 43m (downhole)**
        - ***including 5m at 0.9% Cu, 0.2% Ni, 0.07% Co***
        - ***Including 5m at 0.9% Cu, 0.1% Ni, 0.02% Co***
    - **10.1m at 0.9% Cu from 229.3m (downhole)**
        - ***including 5.9m at 1.1% Cu, 0.1% Ni, 0.02% Co***
- **Initial metallurgical testwork returns positive results**

Great Boulder Resources (ASX: GBR) is pleased to report that it has taken another key step towards finding the source of its Mt Venn copper-nickel-cobalt discovery, with a ground EM survey identifying numerous large bedrock conductors.

The exceptional results from the moving loop electro-magnetic (MLEM) survey over the Eastern Mafic complex at Mt Venn confirms the presence of large bedrock conductors which have a conductive response consistent with massive sulphide mineralisation.

The conductors identified by the MLEM confirm those anomalies identified by the recent airborne EM survey. The MLEM is now progressing north to test strong airborne anomalies with coincident copper-nickel geochemistry.

Planning for a maiden RC and diamond drilling program is now underway, with results from the MLEM survey coming in on a rolling basis. On completion of the MLEM survey and geophysical modeling of the conductor plates, Great Boulder will mobilise a drill rig to site in order to start drill testing these anomalies in the Eastern Mafic complex in six weeks.

The Eastern Mafic complex sits immediately adjacent to the Mt Venn discovery, where drilling has outlined nickel-copper-cobalt mineralisation over several kilometres of strike.

Mineralisation at Mt Venn, which remains open in every direction, is copper-dominant and indicative of late-stage formation within the intrusion. The Eastern Mafic complex is being targeted because its geochemical signature suggests an earlier stage of formation, meaning it is potentially closer to the source or a feeder structure of the intrusion, as identified in the gravity survey, and therefore prospective for massive sulphide mineralisation.

The southern seven lines of the MLEM have now been completed and modelled, with three distinct conductors identified. The strongest response, located close to airborne EM conductor 22, has been modelled at approximately 100m below surface, extends over 500m along strike and is consistent with a massive sulphide source.

A second EM response is seen immediately above this conductor and appears to represent a fault offset (up-thrust) repeat of the same conductive source closer to surface. The combination of these two conductors is believed to be the source of the large airborne EM response associated with Anomaly 1 (Figure 2 and 3).

The survey is ongoing with only 15% completed to date (Figure 1). The survey is anticipated to take 2-3 weeks to complete.

Great Boulder Managing Director Stefan Murphy said each round of exploration provided more strong evidence of the outstanding potential at Mt Venn.

“These latest results continue to strengthen our belief that the Eastern Mafic complex is the feeder structure and may host the higher-grade source of mineralisation within the larger Mt Venn project,” Mr Murphy said.

“The airborne EM survey, MLEM survey and the geochemical results are all lining up perfectly.

“In addition to these exceptional results at the Eastern Mafic, we have outlined extensive mineralisation immediately next door at Mt Venn.

“This known mineralisation continues to grow with every drill program and remains open in every direction.

"But we also believe it is the tail-end of the mineralised system and that there is a substantial source nearby. The Eastern Mafic continues to demonstrate characteristics consistent with being that source."

Drilling Results

Results from the first five RC holes (18MVRC001-005) and diamond tail 17MVRC030 have been received from the recently completed drilling program at Mt Venn. Drilling has identified new mineralised lenses which further extend the known mineralisation, which remains open in all directions.

Significant results include:

18MVRC001

- **4m at 0.7% Cu from 16m (downhole)**
- **27m at 0.6% Cu, 0.2% Ni, 0.05% Co from 43m (downhole)**
  - *including 5m at 0.9% Cu, 0.2% Ni, 0.07% Co*
  - *Including 5m at 0.9% Cu, 0.1% Ni, 0.02% Co*

18MVRC003

- **29m at 0.6% Cu, 0.1% Ni, 0.05% Co from 123m (downhole)**
  - *Including 5m at 0.9% cu, 0.1% Ni, 0.04% Co*

18MVRC004

– **24m at 0.4% Cu, 0.2% Ni, 0.06% Co from 88m (downhole)**

18MVRC005

- **44m at 0.5% Cu, 0.2% Ni, 0.06% Co from 153m (downhole)**
  - *including 3m at 1.0% Cu and 2m at 1.2% Cu*
  - *including 4m at 0.4% Cu, 0.2% Ni, 0.08% Co*

17MVRCD030 (diamond tail started at 180m downhole)

- **10.1m at 0.9% Cu from 229.3m (downhole)**
  - *including 5.9m at 1.1% Cu, 0.1% Ni, 0.02% Co*

Samples from the remaining eight RC and three diamond holes are being processed, with results expected within a fortnight.

Metallurgical testwork

Initial metallurgical trials have also been completed on a composite sample from Mt Venn (diamond hole 17MVDD002), testing metallurgical flowsheet options to produce separate copper, nickel and cobalt products. Positive preliminary results indicate:

- Moderate to low hardness and grindability (Bond Work index of 12.8 kWh/t)
- Copper can be selectively floated and cleaned to produce saleable copper concentrate
- Nickel and cobalt (+/- Cu) are recovered into a pyrrhotite concentrate which is sent to a hydrometallurgical circuit for leaching metals into solution
- Atmospheric (at 90 deg C) and pressure (at 105 and 150 deg C) oxidative leaching options have been tested
- Preliminary results indicate that high extractions of about 90% can be obtained for copper, nickel and cobalt under both test conditions

Workstream Details

MOVING LOOP EM SURVEY

The survey is being carried out using a 100m x 100m loop on survey lines spaced 100m apart with readings taken at 50m intervals and infilled with 25m over the peak of the anomaly. A total of 102 stations have been surveyed and modelled over seven profile lines, representing approximately 15% of the planned survey over the Eastern Mafic.

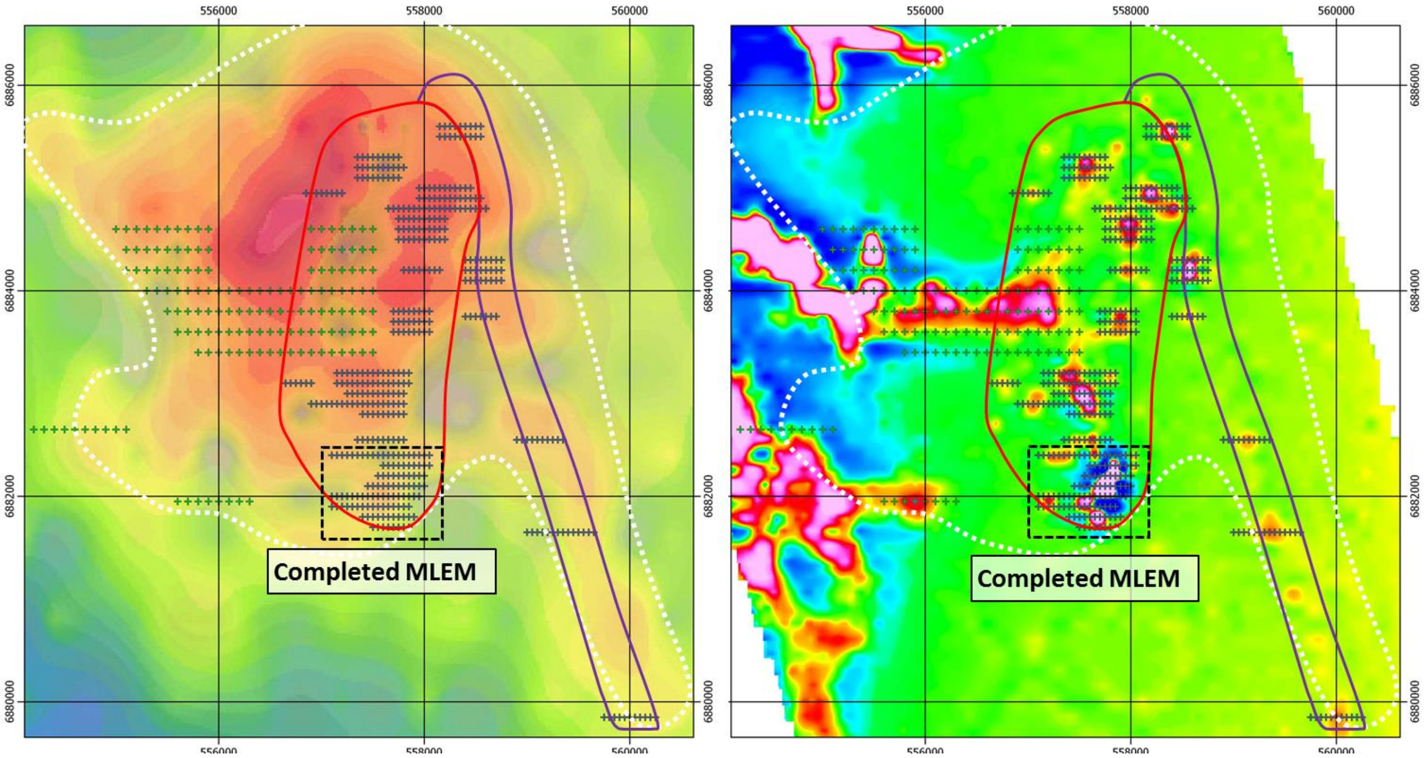


Figure 1. Gravity image (left) and late-time (channel 30) airborne EM image (right) with MLEM station plan. Core of the intrusion with priority conductors is outlined in red, eastern shear zone conductors outlined in purple

The objective of the MLEM survey is to validate and better define the SkyTEM airborne anomalies, generating conductor plates for drill hole testing. Initial results have confirmed the presence of very large bedrock conductors, validating the airborne EM results.

The survey commenced at the southern end of the Eastern Mafic conductor trend, where strong, late time EM conductors were identified in the airborne EM. Initial modelling of the MLEM results has identified several conductors associated with the airborne response. The modelled conductor plates are highly conductive, ranging from 6,800 to 11,300 Siemens and located only 80-120m below surface and extend over 500m with a subtle northerly plunge.

The strongest response was observed at mid to late delay times centred at 557625E on Lines 6881900N and 6882000N and coincident with Anomaly 22 identified in the airborne EM survey.

Interpretation by Newexco, Great Boulder's geophysical consultants, suggests this strong anomalous response is sourced by a bedrock conductor. The time constant is estimated to be around 115 ms, consistent with a massive sulphide source.

A secondary anomalous response was observed at early to mid-delay times centred at 557750E on Lines 6882000N and 6882100N. This anomalous response is superimposing with the main strong anomalous response observed at 557625E, giving the response seen in airborne Anomaly 1 (Figure 2).

The time constant is estimated to be around 24ms and interpretation by Newexco suggests this secondary anomalous response is likely caused by semi-massive sulphides

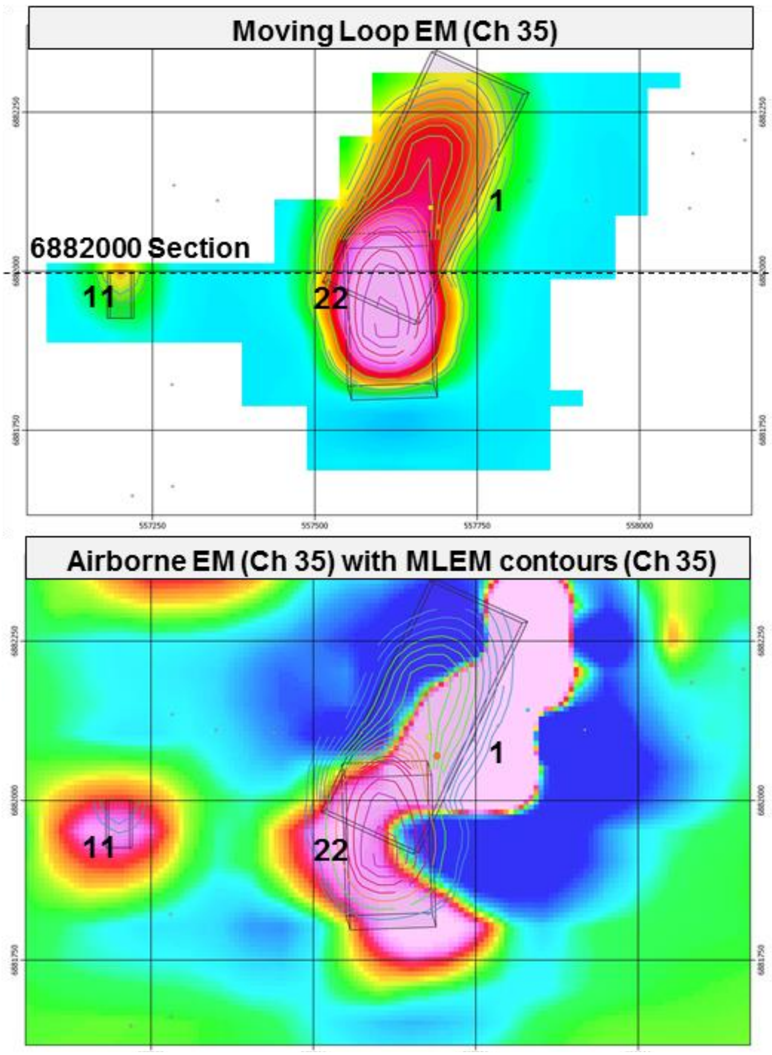


Figure 2. Plan view showing MLEM late-time (Ch 35) response with modelled conductor plates (top) and corresponding airborne EM (Ch 35) response (bottom)

A third strong anomalous response was observed at mid to late times centred at 557200E on both Lines 6881900N and 6882000N, coincident with Anomaly 11 identified in the airborne EM. The time constant is estimated to be around 70ms, consistent with a bedrock massive sulphide source.

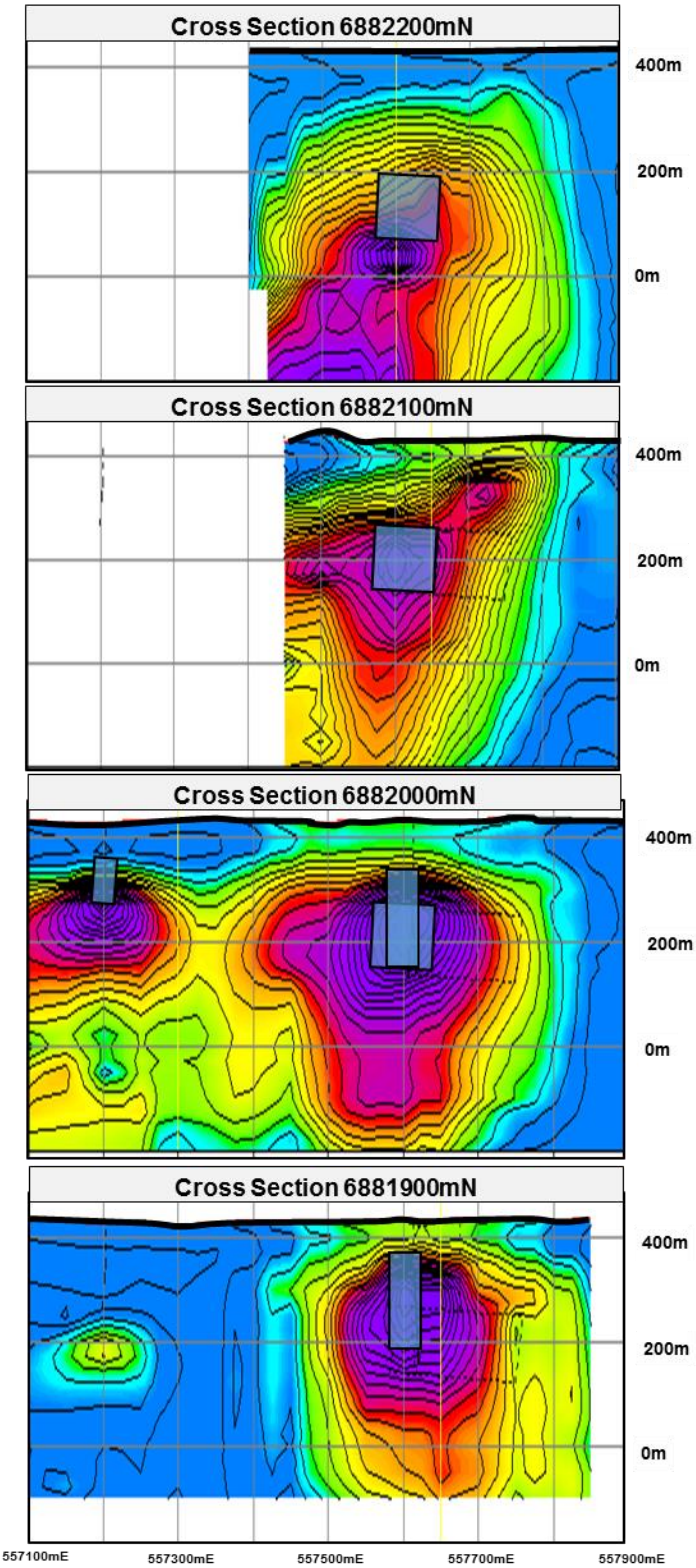


Figure 3. Conductivity depth images (CDI's) showing the area of highest conductance and modelled conductor plates

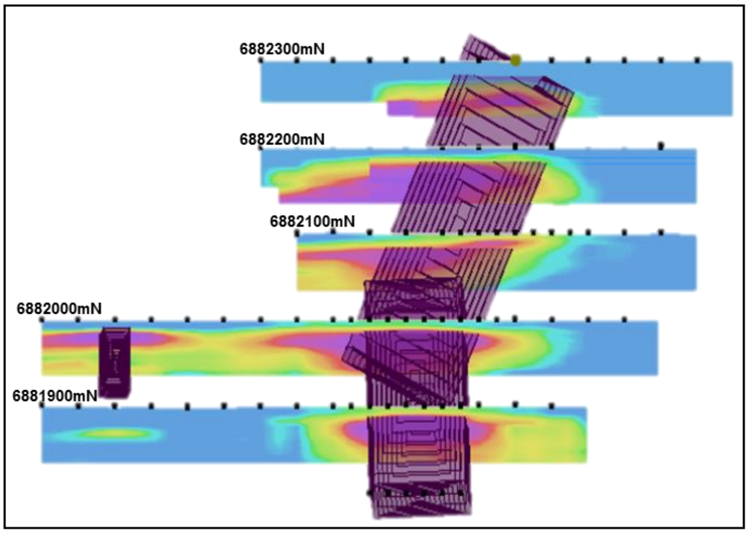


Figure 4. Top view (looking north) of modelled conductor plates and MLEM conductivity depth images for six survey lines

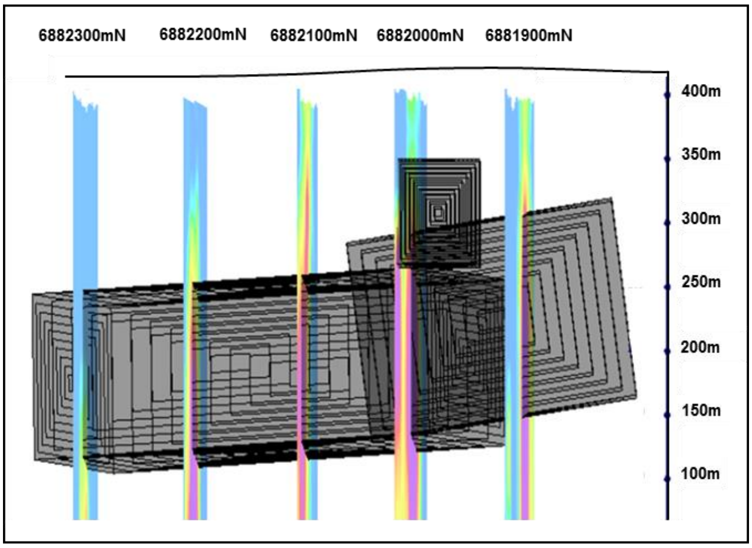


Figure 5. Longitudinal view (looking east) of the modelled conductor plates and conductivity depth images. Note depth to top of conductor and slight northerly plunge of the main conductor

MT VENN RC AND DIAMOND DRILLING

Assay results have been received from the first five RC drill holes and diamond tail 17MVRCD030. The results continue to grow the mineralisation footprint at Mt Venn which remains open in all directions.

Significant wide zones of mineralisation have been intersected in 18MVRC001 at the northern extent of the Central zone and 18MVRC005 has confirmed the presence of a thick mineralised eastern lens. The diamond tail on hole 17MVRCD030 intersected the footwall shear zone and proved its depth extension with 5.9m at 1.1% Cu.

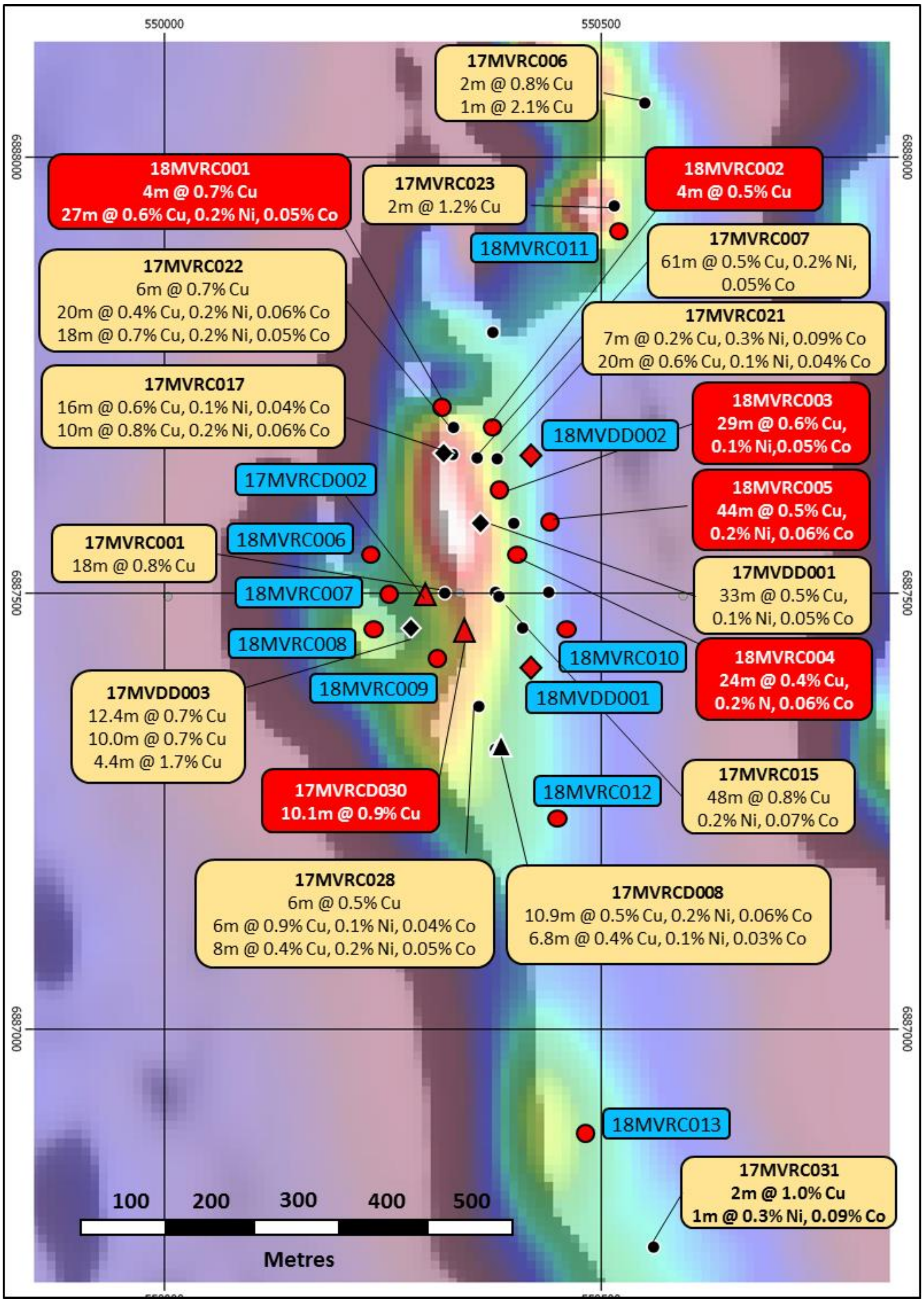


Figure 6. Mt Venn Phase 3 RC and Diamond drill program - Previously reported drill results (yellow), new drill results in red and pending drill results in blue (over RTP 1VD magnetics)

Diamond tail 17MVRCD030 was drilled to test the mineralised extension of the footwall shear zone. The hole intersected 10.1m @ 0.9% Cu approximately 100m down dip from drill hole 17MVDD03 that intersected 4.4m at 1.7% Cu and 10m at 0.7% Cu from within the footwall shear zone.

The diamond tail demonstrated the footwall shear zone is extensive and preferentially copper rich. RC hole 18MVRC008 has been drilled to test the up-dip extension of the footwall contact and 17MVRC010 has been drilled to test the down dip extension and upper mineralised lens (assays pending for both).

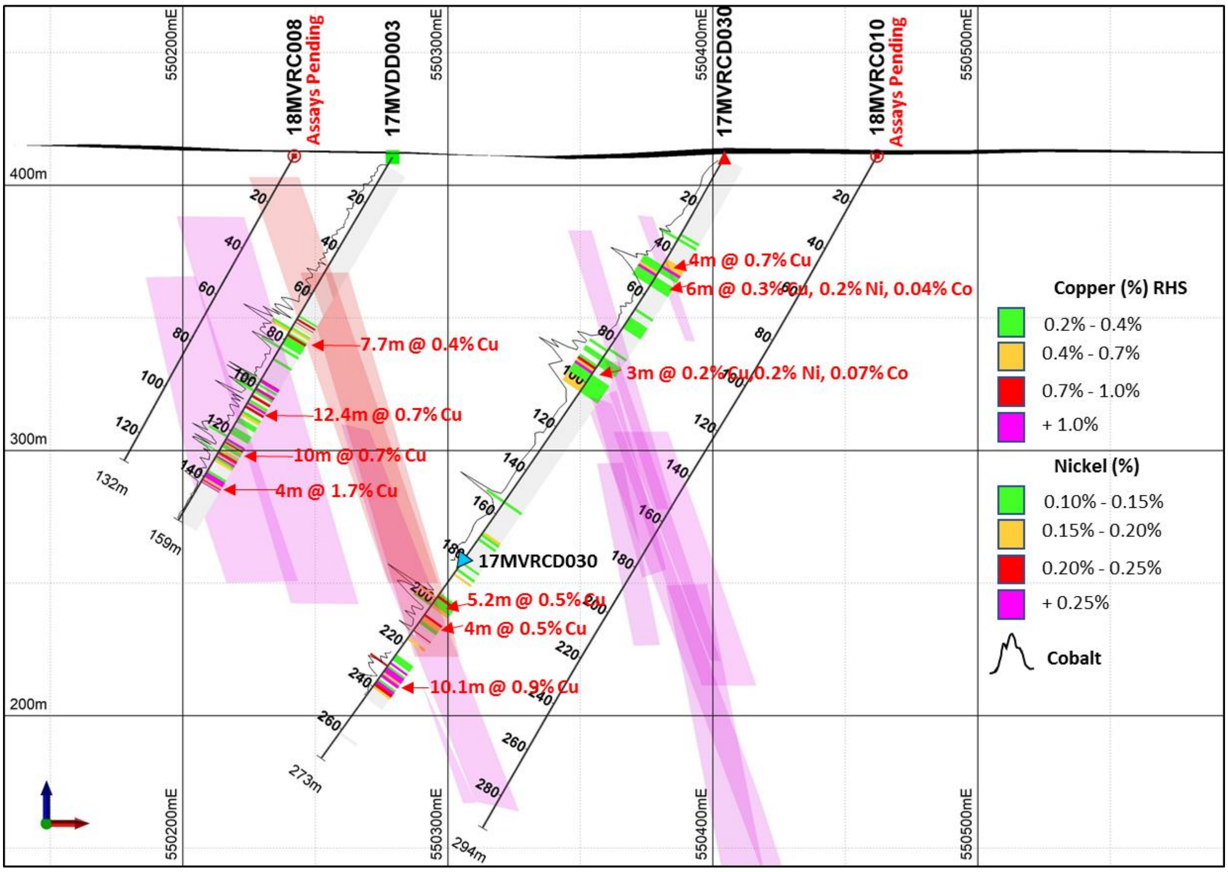
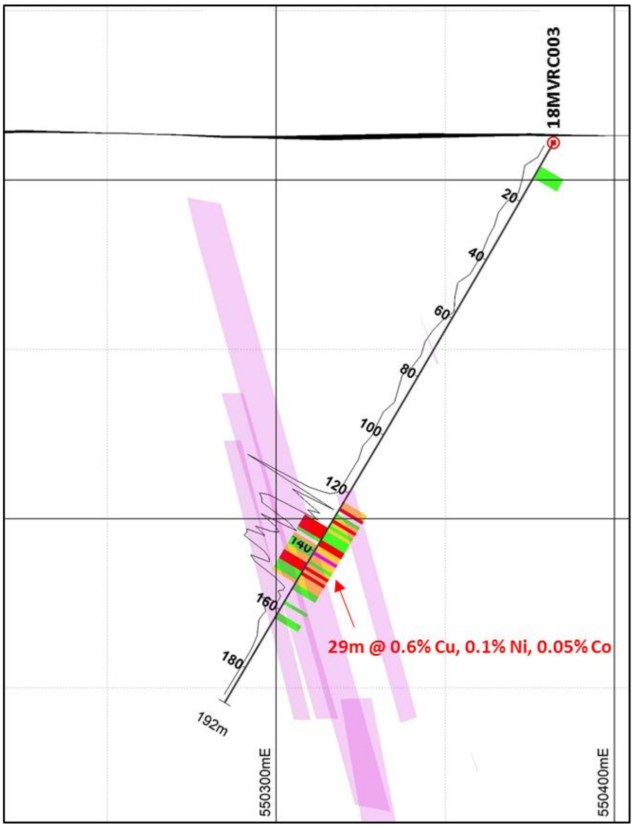


Figure 7. X-Section 6887460mN with DHEM conductor plates

Drill hole 18MVRC001 was drilled to test the northern strike extension of the central mineralised zone. This hole intersected shallow, wide mineralisation with 4m @ 0.7% Cu from 16m (downhole) and 27m @ 0.6% Cu, 0.2% Ni and 0.05% Co. The northern strike and down dip extensions remain open and will be further tested in the next drill program.

RC holes 18MVRC003 and 004 were drilled to confirm strike continuity. Both holes intersecting thick mineralisation consistent with the modelled down-hole EM plates, confirming continuity of the mineralised lens. Mineralisation remains open above and down dip, and importantly both holes were terminated above the footwall contact. Diamond tails will be planned off the end of these holes to test the depth extensions of the footwall mineralised shear zone.

RC hole 18MVRC005 was drilled to test if mineralisation continued further east behind previously drilled RC hole 17MVRC029 where only moderate mineralisation was intersected. A very wide zone of 44m @ 0.5% Cu, 0.2% Ni, 0.06% Co was returned, showing mineralisation extends further east than previously thought.



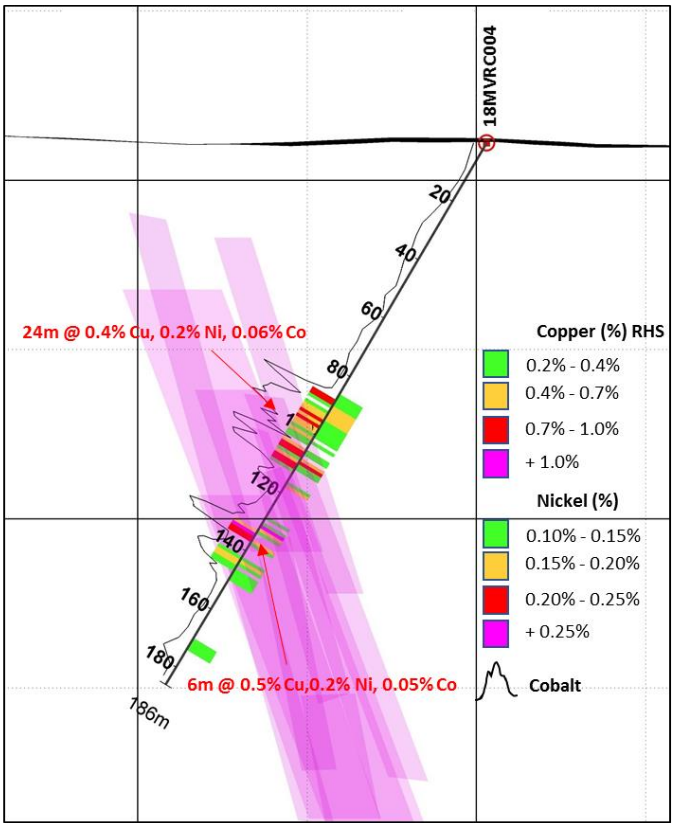


Figure 8. X-Section 6887620mN with DHEM conductor plates

Figure 9. X-Section 6887540mN with DHEM conductor plates

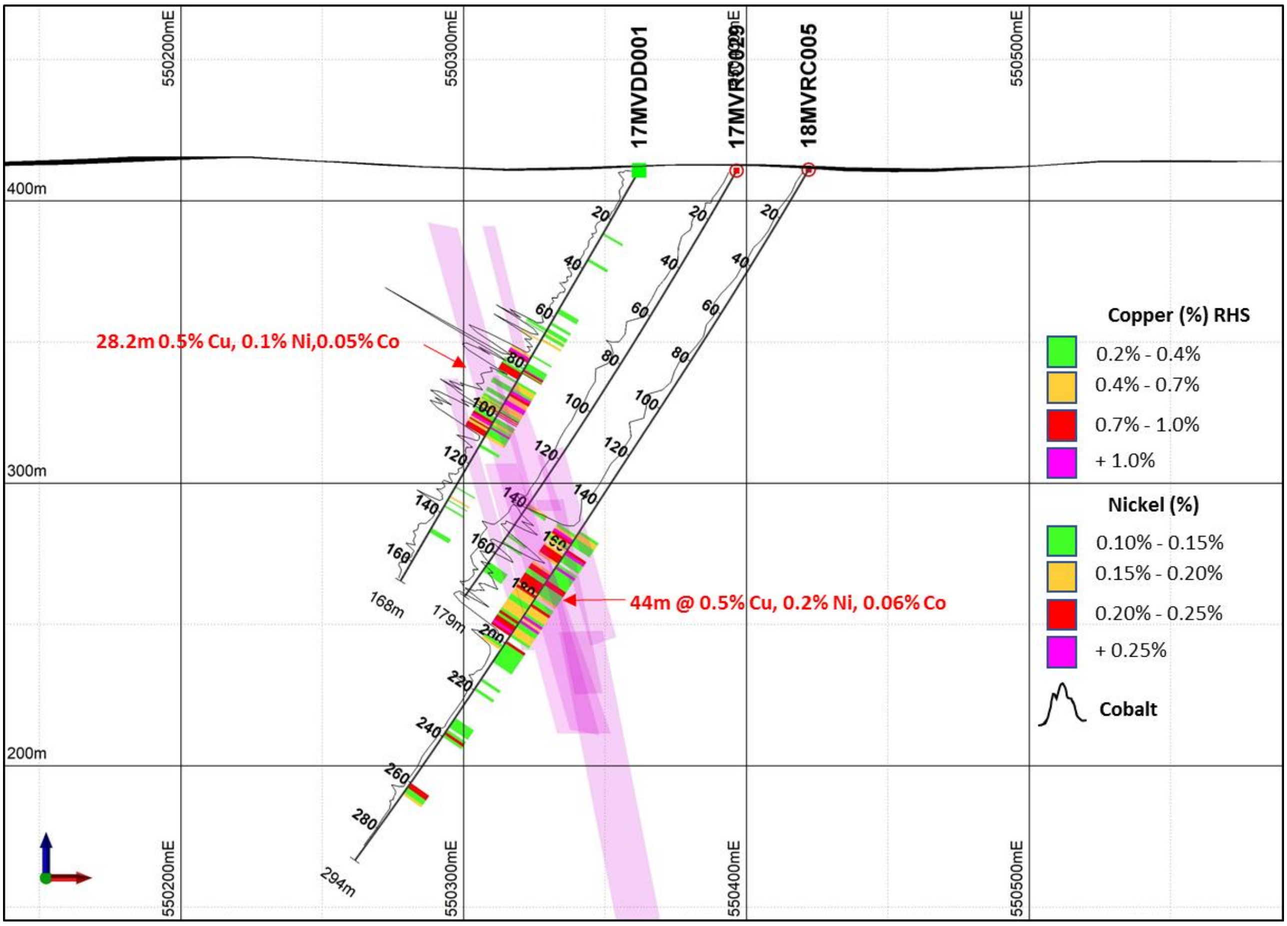


Figure 10. X-Section 6887580mN with DHEM conductor

METALLURGICAL TESTWORK

Initial metallurgical trials have been completed on a composite sample representing a massive nickel-cobalt (pyrrhotite) zone within the central mineralised zone of Mt Venn. These initial trials aimed to investigate possible metallurgical flowsheet options and demonstrate the ability to produce separate value products from contained base metals – copper, nickel and cobalt. A summarised flowsheet is outlined in Figure 11.

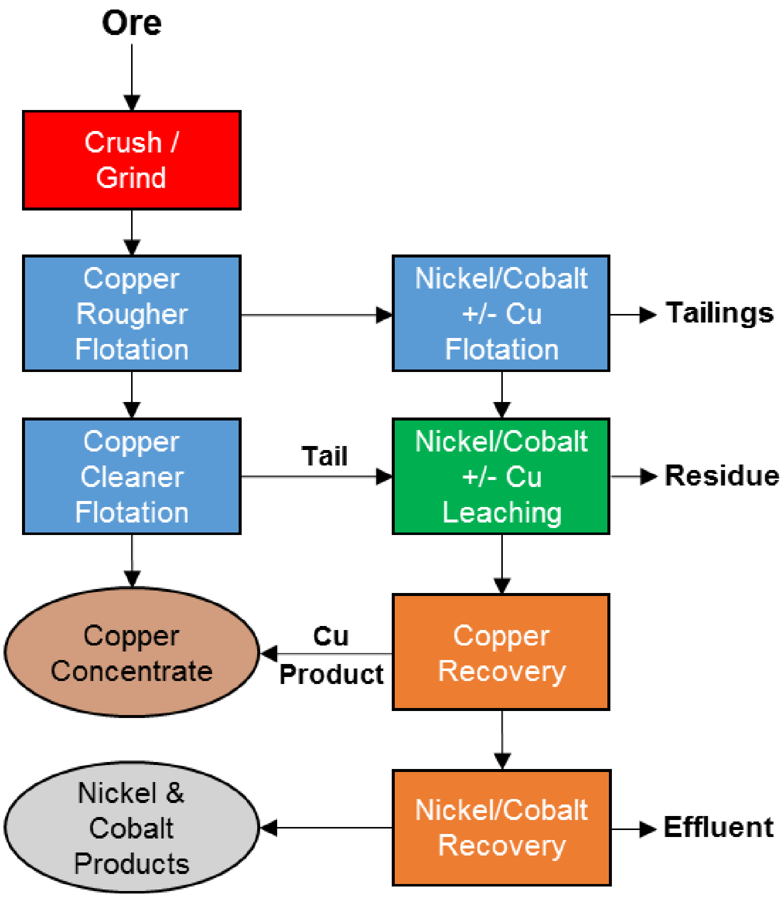


Figure 11. Simplified Flowsheet for Mt Venn Metallurgical Testwork (17MVDD002)

Preliminary results indicate that:

- Ore has moderate to low hardness and grindability (Bond Work index of 12.8 kWh/t)
- Copper is contained mainly in chalcopyrite (+/- covellite) while nickel and cobalt are included in the pyrrhotite matrix in solid solution (minor pentlandite).
- Chalcopyrite can be floated selectively from pyrrhotite to separate copper from other base metals into a bulk Cu concentrate that can be further cleaned to produce saleable copper concentrate. A copper concentrate assaying over 20% copper has been generated in preliminary flotation trials.
- Nickel and cobalt (and approximately 10% of the copper) are recovered into a pyrrhotite concentrate which is sent to a hydrometallurgical circuit for leaching metals into solution.

- Cleaner tail from copper cleaning stage is combined with the pyrrhotite concentrate to capture all base metals that were floated and then rejected in cleaner flotation.
- Two leaching options have been tested – atmospheric oxidative leaching (at 90 deg C) and pressure oxidation (at 105 and 150 deg C). Preliminary results indicate high extractions of about 90% can be obtained for copper, nickel and cobalt under both test conditions.
- Solution processing trials have not commenced as yet but it is envisaged separate copper, nickel and cobalt products will be generated. In that, copper will be recovered into a product that will be mixed with copper flotation concentrate to maximise the overall copper recovery. Nickel and cobalt will be separated by ion extraction (IX) or solvent extraction (SX) to generate individual chemical grade products for both metals (sulphate and/or sulphide products).
- All metallurgical leach tests have been carried out using site water collected from the Yamarna-Mt Venn project.

Once further copper cleaner tests and IX/SX products are produced, Great Boulder will be able to report estimated metal recoveries for Mt Venn from this testwork. Great Boulder will also commence metallurgical testwork on the copper dominant footwall contact once assay results are returned for all diamond drill holes.

Competent Person's Statement

Exploration information in this Announcement is based upon work undertaken by Mr Stefan Murphy whom is a Member of the Australasian Institute of Geoscientists (AIG). Mr Stefan Murphy has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a 'Competent Person' as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves' (JORC Code). Mr Stefan Murphy is an employee of Great Boulder and consents to the inclusion in the report of the matters based on their information in the form and context in which it appears.

Forward Looking Statements

This Announcement is provided on the basis that neither the Company nor its representatives make any warranty (express or implied) as to the accuracy, reliability, relevance or completeness of the material contained in the Announcement and nothing contained in the Announcement is, or may be relied upon as a promise, representation or warranty, whether as to the past or the future. The Company hereby excludes all warranties that can be excluded by law. The Announcement contains material which is predictive in nature and may be affected by inaccurate assumptions or by known and unknown risks and uncertainties and may differ materially from results ultimately achieved.

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Appendix 1 – RC and Diamond drill hole collar location

Hole ID	Easting	Northing	Azimuth	Dip	Start (m)	EoH (m)	Hole Type
18MVRC001	550313	6887716	270	-60	0	130	Reverse Circulation
18MVRC002	550371	6887690	270	-60	0	192	Reverse Circulation
18MVRC003	550382	6887622	270	-60	0	192	Reverse Circulation
18MVRC004	550403	6887538	270	-60	0	186	Reverse Circulation
18MVRC005	550422	6887584	270	-60	0	294	Reverse Circulation
18MVRC006	550241	6887514	270	-60	0	198	Reverse Circulation
18MVRC007	550259	6887498	260	-60	0	180	Reverse Circulation
18MVRC008	550242	6887455	260	-60	0	132	Reverse Circulation
18MVRC009	550291	6887420	260	-60	0	156	Reverse Circulation
18MVRC010	550462	6887455	270	-60	0	294	Reverse Circulation
18MVRC011	550525	6887917	250	-60	0	240	Reverse Circulation
18MVRC012	550442	6887240	270	-60	0	174	Reverse Circulation
18MVRC013	550475	6886876	255	-60	0	186	Reverse Circulation
18MVDD001	550420	6887420	270	-60	0	260.8	Diamond
18MVDD002	550420	6887660	270	-60	0	252.7	Diamond
17MVRCD002	550373	6887496	270	-60	156	241.1	Diamond Tail
17MVRCD030	550410	6887460	270	-60	179.6	273.4	Diamond Tail

Appendix 2 – Summary of Significant Intersections

Hole 18MVRC001

From	To	Interval	Cu % (max graph 2%)	Ni % (max graph 0.3 %)	Co ppm (max graph 1000ppm)
16	17	1	0.67	0.05	213
17	18	1	0.57	0.05	185
18	19	1	0.64	0.02	92
19	20	1	0.74	0.07	286
20	24	4	0.48	0.06	230
24	28	4	0.37	0.10	360
28	32	4	0.23	0.10	386
32	36	4	0.34	0.12	438
36	40	4	0.28	0.06	246
40	41	1	0.15	0.03	130
41	42	1	0.21	0.06	202
42	43	1	0.27	0.20	645
43	44	1	0.17	0.27	821
44	45	1	0.27	0.22	686
45	46	1	0.18	0.30	888
46	47	1	1.24	0.21	660
47	48	1	0.68	0.24	742
48	49	1	0.31	0.25	755
49	50	1	1.48	0.17	571
50	51	1	0.84	0.24	748
51	52	1	0.62	0.08	273
52	53	1	0.60	0.05	149
53	54	1	0.20	0.03	100
54	55	1	0.24	0.04	116
55	56	1	0.12	0.14	430
56	57	1	0.34	0.23	707
57	58	1	1.19	0.17	525
58	59	1	0.64	0.01	52
59	60	1	0.95	0.03	91
60	61	1	0.51	0.03	116
61	62	1	1.15	0.11	358
62	63	1	0.61	0.16	501
63	64	1	0.21	0.20	606
64	65	1	0.26	0.13	448
65	66	1	0.50	0.18	555
66	67	1	0.20	0.21	643
67	68	1	0.23	0.19	574
68	69	1	0.74	0.16	624
69	70	1	0.57	0.10	300
70	71	1	0.54	0.05	160

Hole 18MVRC002

From	To	Interval	Cu % (max graph 2%)	Ni % (max graph 0.3 %)	Co ppm (max graph 1000ppm)
69	70	1	0.53	0.07	260
70	71	1	0.38	0.06	209
71	72	1	0.23	0.06	207
72	73	1	0.30	0.03	99
158	159	1	0.13	0.07	202
159	160	1	0.19	0.02	52
160	161	1	0.19	0.03	94
161	162	1	0.50	0.10	278
162	163	1	0.22	0.21	561
167	168	1	0.92	0.04	145
168	169	1	0.30	0.09	255
169	170	1	0.25	0.08	269
170	171	1	0.38	0.12	352

Hole 18MVRC003

From	To	Interval	Cu % (max graph 2%)	Ni % (max graph 0.3 %)	Co ppm (max graph 1000ppm)
123	124	1	0.57	0.07	215
124	125	1	0.47	0.05	366
125	126	1	0.85	0.09	1,055
126	127	1	0.03	0.01	42
127	128	1	0.27	0.03	502
128	129	1	0.61	0.05	336
129	130	1	0.80	0.03	148
130	131	1	0.46	0.07	268
131	132	1	0.25	0.03	125
132	133	1	0.67	0.22	669
133	134	1	0.29	0.24	759
134	135	1	0.28	0.23	712
135	136	1	0.34	0.22	693
136	137	1	0.99	0.11	367
137	138	1	0.91	0.08	256
138	139	1	0.68	0.20	642
139	140	1	0.70	0.14	456
140	141	1	1.01	0.12	396
141	142	1	0.68	0.14	469
142	143	1	0.41	0.20	626
143	144	1	0.26	0.16	498
144	145	1	0.56	0.22	685
145	146	1	0.89	0.22	665
146	147	1	0.54	0.22	679
147	148	1	0.91	0.13	425
148	149	1	0.54	0.11	349
149	150	1	0.53	0.10	328
150	151	1	0.46	0.18	522
151	152	1	0.36	0.07	455

Hole 18MVRC004					
From	To	Interval	Cu % (max graph 2%)	Ni % (max graph 0.3 %)	Co ppm (max graph 1000ppm)
87	88	1	0.30	0.08	340
88	89	1	0.29	0.25	815
89	90	1	0.22	0.20	675
90	91	1	0.50	0.15	505
91	92	1	0.40	0.10	337
92	93	1	0.54	0.12	432
93	94	1	0.57	0.19	640
94	95	1	0.67	0.19	656
95	96	1	0.31	0.20	690
96	97	1	0.36	0.19	634
97	98	1	0.34	0.23	770
98	99	1	0.25	0.18	623
99	100	1	0.29	0.16	552
100	101	1	0.38	0.12	418
101	102	1	0.19	0.17	597
102	103	1	0.32	0.12	399
103	104	1	0.19	0.11	481
104	105	1	0.10	0.04	187
105	106	1	0.25	0.17	592
106	107	1	0.23	0.25	810
107	108	1	0.19	0.23	775
108	109	1	0.59	0.15	494
109	110	1	0.71	0.17	609
110	111	1	0.32	0.23	738
111	112	1	0.33	0.21	700
112	113	1	0.19	0.11	375
113	114	1	0.11	0.07	260
114	115	1	0.11	0.04	183
115	116	1	0.10	0.06	225
116	117	1	0.30	0.09	319
117	118	1	0.65	0.06	310
118	119	1	0.12	0.03	137
119	120	1	0.10	0.02	89
120	124	4	0.11	0.03	127
124	128	4	0.11	0.04	159
128	129	1	0.24	0.08	276
129	130	1	0.17	0.09	299
130	131	1	0.20	0.05	200
131	132	1	1.10	0.07	267
132	133	1	0.60	0.08	299
133	134	1	0.31	0.19	591
134	135	1	0.20	0.26	753
135	136	1	0.18	0.24	693
136	137	1	0.44	0.23	668
137	138	1	0.39	0.07	248
138	142	4	0.10	0.06	233
142	143	1	0.30	0.14	432
143	144	1	0.43	0.17	480
144	145	1	0.28	0.15	439
145	146	1	0.18	0.14	403
146	147	1	0.23	0.12	338

Hole 18MVRC005					
From	To	Interval	Cu % (max graph 2%)	Ni % (max graph 0.3 %)	Co ppm (max graph 1000ppm)
153	154	1	0.67	0.05	204
154	155	1	0.58	0.12	451
155	156	1	0.22	0.19	652
156	157	1	0.22	0.25	871
157	158	1	0.37	0.22	744
158	159	1	0.18	0.20	688
159	160	1	0.15	0.14	488
160	161	1	0.77	0.18	637
161	162	1	1.66	0.07	387
162	163	1	0.27	0.15	535
163	164	1	0.26	0.23	789
164	165	1	0.21	0.23	777
165	166	1	0.16	0.24	825
166	167	1	0.24	0.19	665
167	168	1	1.62	0.09	354
168	169	1	0.38	0.03	133
169	170	1	0.23	0.07	265
170	171	1	0.28	0.17	578
171	172	1	0.21	0.24	802
172	173	1	0.21	0.25	824
173	174	1	0.92	0.13	531
174	175	1	0.98	0.13	451
175	176	1	0.33	0.21	733
176	177	1	0.25	0.22	749
177	178	1	0.20	0.25	851
178	179	1	0.22	0.23	777
179	180	1	0.45	0.19	663
180	181	1	0.16	0.23	776
181	182	1	0.23	0.17	580
182	183	1	0.37	0.18	629
183	184	1	0.74	0.15	536
184	185	1	0.55	0.14	490
185	186	1	0.63	0.12	424
186	187	1	0.45	0.18	598
187	188	1	0.36	0.19	652
188	189	1	1.10	0.16	550
189	190	1	0.49	0.18	617
190	191	1	1.50	0.14	641
191	192	1	0.29	0.21	757
192	193	1	0.22	0.11	393
193	194	1	0.52	0.24	789
194	195	1	0.46	0.25	814
195	196	1	0.43	0.26	830
196	197	1	0.36	0.21	709
197	198	1	0.10	0.04	174
198	199	1	0.18	0.04	120
199	200	1	0.72	0.05	283
238	239	1	1.00	0.05	126
260	261	1	0.80	0.02	55
261	262	1	0.72	0.01	46

Hole 17MVRCD030

From	To	Interval	Cu % (max graph 2%)	Ni % (max graph 0.3 %)	Co ppm (max graph 1000ppm)
196.5	197.5	1.0	0.24	0.02	86
197.5	198.5	1.0	0.88	0.04	148
198.5	199.5	1.0	0.27	0.17	751
199.5	200.5	1.0	0.35	0.09	298
200.5	201.5	1.0	0.25	0.16	471
201.5	202.7	1.2	0.58	0.14	532
202.7	204.0	1.3	0.18	0.03	341
204.0	205.0	1.0	0.06	0.02	67
205.0	206.1	1.1	0.08	0.02	64
206.1	207.0	0.9	0.77	0.06	200
207.0	208.0	1.0	0.62	0.05	174
208.0	209.0	1.0	0.41	0.03	95
209.0	210.0	1.0	0.32	0.04	231
210.0	210.4	0.4	0.21	0.02	90
210.4	211.5	1.1	0.14	0.01	71
211.5	212.5	1.0	0.05	0.01	50
212.5	213.6	1.1	0.14	0.01	50
213.6	214.0	0.4	0.96	0.07	224
224.9	225.5	0.6	0.45	0.03	312
225.5	226.5	1.1	0.30	0.02	74
226.5	227.5	1.0	0.29	0.03	75
227.5	228.5	1.0	0.32	0.04	123
228.5	229.3	0.8	0.13	0.02	62
229.3	230.1	0.8	1.51	0.04	148
230.1	230.8	0.7	0.18	0.03	125
230.8	232.0	1.2	1.10	0.09	277
232.0	233.0	1.0	1.17	0.05	165
233.0	234.0	1.0	0.67	0.07	223
234.0	235.2	1.2	1.83	0.05	180
235.2	236.2	1.0	0.15	0.01	37
236.2	237.0	0.8	0.25	0.02	72
237.0	238.2	1.2	1.35	0.03	129
238.2	239.4	1.2	0.84	0.06	246
239.4	240.3	0.9	0.49	0.01	57

Appendix 3 - JORC Code, 2012 Edition Table 1

The following table relates to activities undertaken at Great Boulder's Yamarna projects.

Section 1 Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections.)

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.* • *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.* • *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 (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.*	This announcement updated activities at Great Boulder Resources' (GBR) Mt Venn project (Yamarna). This includes a ground Electromagentic Survey currently underway, as well as assay results from the most recent Revewrse circulation (RC) and diamond (DD) drilling programme, undertaken in April and March 2018. As previously reported, recent drilling has been completed at the project, geological logging is ongoing and final laboratory assay are now being recieved. Reverse circulation drilling (RC) was used to produce a 1m bulk sample and representative 1m split samples (nominally a 12.5% split) were collected using a cone splitter. Diamond drilling (DD) was also undertaken, with samples taken either as half core (NQ2), or quarter core (HQ) for laboratory analysis. Geological logging was completed and mineralised intervals were determined by the geologists to be submitted as 1m samples for RC drilling. In RC intervals assessed as unmineralised, 4m composite (scoop) samples were collected for laboratory for analysis. If these 4m composite samples come back with anomalous grade the corresponding original 1m split samples are then routinely submitted to the laboratory for analysis. For the diamond drilling, samples were selected after geological logging and range in sample lengths from 0.3m to 1.5m. The samples were crushed and split at the laboratory, with up to 3kg pulverised, with a 50g samples analysed by Industry standard methods. The ground EM survey was carried out at a 100m line spacing with initial 50m stations, down to 25m infill to better define peak conductors. The survey used a EMIT SMART Fluxgate 3 component B-field sensor and SMARTem24 receiver by Merlin Geophysical Solutions. EM configuration: moving in-loop configuration was used. A 100m x 100m transmitter loop to generate 60 amps with a base frequency of 1Hz. Three consistent readings taken at each station. EM survey locations were collected by handheld GPS.

		The sampling techniques used are deemed appropriate for the style of exploration.
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 used 140 to 130mm diameter drill bits. RC drilling employed face sampling hammers ensuring contamination during sample extraction is minimised. Diamond drilling was both NQ2 (50.5mm core diameter) or HQ (63.5mm core diameter). Core was oriented using the Reflex Act II RDIS core orientation tool.
Drill sample recovery	• *Method of recording and assessing core and chip sample recoveries and results assessed.* • *Measures taken to maximise sample recovery and ensure representative nature of the samples.* • *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.*	Drilling techniques to ensure adequate RC sample recovery and quality included the use of "booster" air pressure. Air pressure used for RC drilling was 700-800psi. Logging of all samples followed established company procedures which included recording of qualitative fields to allow discernment of sample reliability. This included (but was not limited to) recording: sample condition, sample recovery, sample method. Almost all of the RC drilling completed in the current programme had sample recovery logged as "good" and sample condition as "dry". RC sample intervals recorded 54% 1m split samples, and 45% 4m composite samples (note: generally composite samples are in unmineralised zones). The remaining 1% were composites of a length other than 4m (typically at end of hole). The diamond hole drilling in the current programme had an average core recovery of 99%. While no issues relating to sample recovery have been note, final recovery assessment has not been completed. No quantitative analysis of samples weights, sample condition or recovery has been undertaken. No quantitative twinned drilling analysis has been undertaken at the project.
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.* • *Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.* • *The total length and percentage of the relevant intersections logged.*	Geological logging of samples followed established company and industry common procedures. Qualitative logging of samples included (but was not limited to) lithology, mineralogy, alteration and weathering. Logging was supported by the use of a handheld XRF.
Sub-sampling techniques	• *If core, whether cut or sawn and whether quarter, half or all core taken.*	Splitting of RC samples occurred via cone splitter by the RC drill rig operators. Cone splitting of RC drill samples occurred regardless of the sample condition.

and sample preparation	• *If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.* • *For all sample types, the nature, quality and appropriateness of the sample preparation technique.* • *Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.* • *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.* • *Whether sample sizes are appropriate to the grain size of the material being sampled.*	RC drilling samples are typically between 1.5-3.3kg. All samples were submitted to ALS Minerals (Kalgoorlie) for analyses. The sample preparation included: – Samples were weighed, crushed (such that a minimum of 70% pass 2mm) and pulverised (such that a minimum of 85% pass 75um) as per ALS standards. – A 4 acid digest (HNO3-HBr-HF-HCl) and ICP-AES (ALS method; MS-ICP61g) was used for 33 multi-elements. This also included Co, Cu, Ni, Zn. Note: ME-MS61g uses HBr in lieu of HClO3 (used in ME-MS61 4 acid digest). This change relates to improving resolution of sulphur values in Mt Venn mineralsation. – For elements that reported over range, ALS used ore grade 4 acid digest and ICP-AES methods; (nickel) Ni-OG62, (copper) Cu-OG62. – Sulphur over range used ALS method S-IR08 (Leco Sulphur analyzer). – Iron over range used ALS method Fe-ICP81 (Sodium Peroxide Fusion). Sample collection, size and analytical methods are deemed appropriate for the style of exploration.
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.* • *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.* • *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.*	All samples were assayed by industry standard methods through commercial laboratories in Australia (ALS Minerals, Kalgoorlie). Typical analysis methods are detailed in the previous section and are consider 'near total' values. Routine 'standard' (mineralised pulp) Certified Reference Material (CRM) was inserted by Great Boulder at a nominal rate of 1 in 50 samples. Routine 'blank' material (unmineralised sand) was inserted at a nominal rate of 1 in 100 samples. No significant issues were noted. No duplicate or umpire checks were undertaken. The analytical laboratories provided their own routine quality controls within their own practices. No significant issues were noted.
Verification of sampling and assaying	• *The verification of significant intersections by either independent or alternative company personnel.* • *The use of twinned holes.* • *Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.*	No verification of sampling and assaying has been undertaken in this exploration programme. No twinned drilling has been undertaken. Great Boulder has strict procedures for data capture, flow and data storage, and validation. Limited adjustments were made to returned assay data; values returned lower than detection level were set to the

	• *Discuss any adjustment to assay data.*	methodology's detection level, and this was flagged by code in the database.
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.* • *Specification of the grid system used.* • *Quality and adequacy of topographic control.*	Drill collars were set out using a hand held GPS and final collar were collected using a handheld GPS. Downhole surveys were completed by survey contractors using a north-seeking gyroscope. Holes without downhole survey use planned or compass bearing/dip measurements for survey control. The MGA94 UTM zone 51 coordinate system was used for all undertakings.
Data spacing and distribution	• *Data spacing for reporting of Exploration Results.* • *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.* • *Whether sample compositing has been applied.*	The spacing and location of the majority of the drilling in the projects is, by the nature of early exploration, variable. The spacing and location of data is currently only being considered for exploration purposes. In intervals qualitatively logged as unmineralised, 4 metre composite (scoop) samples were taken from the RC drill holes. RC sample intervals recorded 54% 1m split samples, and 45% 4m composite samples. The remaining 1% were composites of a length other than 4m (typically at end of hole). The spacing and location of data is currently only being considered for exploration purposes.
Orientation of data in relation to geological structure	• *Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.* • *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.*	Drilling was nominally perpendicular to regional mineralisation trends where interpreted and practical. True width and orientation of intersected mineralisation is currently unknown. A list of the drillholes and orientations are reported with significant intercepts is provided as an appended table. The EM survey was oriented east-west: approximately perpendicular to lithological trends. The spacing and location of the data is currently only being considered for exploration purposes.
Sample security	• *The measures taken to ensure sample security.*	Great Boulder has strict chain of custody procedures that are adhered to for drill samples. All sample bags are pre-printed and pre-numbered. Sample bags are placed in a polyweave bags (up to 5 samples) and closed with a zip tie such that no sample material can spill out and no one can tamper with the sample once it leaves the company's custody.
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	None completed.

Section 2 Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section.)

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	• Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings. • 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.	Great Boulder Resource Ltd (GBR) is comprised of several projects with associated tenements; Yamarna tenements and details; Exploration licences E38/2685, E38/2952, E38/2953, E38/5957, E38/2958, E38/2320 and prospecting licence P38/4178 where, GBR has executed a JV agreement to earn 75% interest through exploration expenditure of $2,000,000 AUD over five years. Following satisfaction of the minimum expenditure commitment by GBR, EGMC (current tenement owner) will have the right to contribute to expenditure in the project at its 25% interest level or choose to convert to a 2% Net Smelter Royalty (NSR). Should EGMC choose to convert its remaining interest into a 2% NSR, then GBR will have a 100% interest in the project.
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	Previous explorers included: – 1990's. Kilkenny Gold NL completed wide-spaced, shallow, RAB drilling over a limited area. Gold assay only. – 2008. Elecktra Mines Ltd (now Gold Road Resources Ltd) completed two shallow RC holes targeting extension to Mt Venn igneous complex. XRF analysis only, no geochemical analysis completed. – 2011. Crusader Resources Ltd completed broad-spaced aircore drilling targeting extensions to Thatcher's Soak uranium mineralisation. XRF anlaysis only, no geochemical analysis completed. – In late 2015 Gold Road drilled and assayed an RC drill hole on the edge of an EM anomaly identified from an airborne XTEM survey, identifying copper-nickel-cobalt mineralisation.
Geology	• *Deposit type, geological setting and style of mineralisation.*	Great Boulder's Yamarna Project hosts the southern extension of the Mt Venn igneous complex. This complex is immediately west of the Yamarna greenstone belt. The mineralisation encountered in the Mt Venn drilling suggests that sulphide mineralisation is prominent along a EM conductor trend, and shows a highly sulphur-saturated system within metamorphosed dolerite and gabbro sequence.

		Visual logging of sulphide mineralogy shows pyrrhotite dominant with chalcopyrite.
Drill hole Information	• *A summary of all information material to the understanding of the exploration results including a 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 metres) of the drill hole collar* ○ *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.*	A complete list of the reported significant results from Great Boulder's drilling is provided in the body of the report. A list of the drill hole coordinates and metrics are provided as an appended table. The location and context of the EM survey is provided in grid images in the main report body.
Data aggregation methods	• *In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.* • *Where aggregate 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.* • *The assumptions used for any reporting of metal equivalent values should be clearly stated.*	No weight averaging techniques, aggregation methods or grade truncations were applied to these exploration results. No metal equivalents are used.
Relationship between mineralisation widths and intercept lengths	• *These relationships are particularly important in the reporting of Exploration Results.* • *If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.* • *If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').*	The orientation of structures and mineralisation is not known with certainty but drilling was conducted using appropriate orientations for interpreted mineralisation. True width and orientation of intersected mineralisation is currently unknown. A list of the drillholes and orientations are reported with significant intercepts is provided as an appended table.

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 plan view of drill hole collar locations and appropriate sectional views.*	Refer to figures in announcement.
Balanced reporting	• *Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.*	It is not practical to report all exploration results. Low or non-material grades have not been reported. All drill hole locations are reported and a table of significant intervals is provided in the announcement.
Other substantive exploration data	• *Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; 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.*	In late 2015 Gold Road drilled and assayed an RC drill hole on the edge of an EM anomaly identified from an airborne XTEM survey, identifying copper-nickel-cobalt mineralisation. Great Boulder subsequently re-assayed the hole and confirmed primary bedrock sulphide mineralisation, with peak assay results of 1.7% Cu, 0.2% Ni, 528ppm Co (over 1m intervals) over two distinct lenses. Great Boulder completed a ground based moving loop EM survey in September 2017 and reported extensive strong EM conductors and co-incident copper-nickel mineralisation from aircore geochemistry (refer to announcement dated 5 October 2017). Great Boulder has also recently undertaken RC and DD exploratory drilling with down hole EM surveys.
Further work	• *The nature and scale of planned further work (eg 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.*	Potential work across the project may include detailed additional geological mapping and surface sampling, additional geophysical surveys (either surface or downhole), and potentially additional confirmatory or exploratory drilling.