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ASX Announcement

ASX: MMB

# DRILLING UPDATE – THUNDER BAY NORTH

## **KEY POINTS**

- Exploration drilling is in progress in the northern part of the Steepledge Lake Intrusive Complex; results received so far include:
  - SL09-13: 36m @ 2.51g/t Pt+Pd, 0.51% Cu & 0.23% Ni from 34m, *including:* 16m @ 3.47g/t Pt+Pd, 0.66% Cu & 0.28% Ni.
- Resource extension drilling is in progress in the eastern part of the Beaver Lake area; results received so far include:
  - BL09-137: 17m @ 2.37g/t Pt+Pd, 0.26% Cu & 0.21% Ni from 269m.
- Drilling has commenced to test a number of electro-magnetic (EM) targets around a previously reported intersection of semi-massive and massive sulphide mineralization in drill-hole BL09-89 which returned 5.98m @ 17.14g/t Pt+Pd, 2.55% Cu & 1.29% Ni from 157.25m in the Bridge Zone.

Drilling is in progress with two diamond drill-rigs at the Thunder Bay North project in Ontario (Figure 1). One drill-rig is undertaking an exploration drilling program in the Steepledge Lake Intrusive Complex (Figures 2 and 3) to investigate the geology and mineralization potential of this poorly known magma conduit. The other drill-rig is undertaking an infill and step-out exploration drilling program in the Current Lake Intrusive Complex to investigate potential extensions of the mineralization defined in the recently released Mineral Resource estimate (Figures 2 and 4).

This report provides an update on these drilling programs and on plans for further drilling in these areas.

### Steepledge Lake Exploration Drilling

A program of drilling from a barge is nearing completion on Steepledge Lake (Figure 3). The program was designed mainly to test the mineralization potential of an 800m strike length of the northern part of the Steepledge Lake Intrusive Complex. Twenty seven holes have now been

completed for 4,851m; another two holes are planned on the lake before completion of the barge drilling program. Several of the planned holes could not be drilled due to the combined depth of water and mud in some areas. These targets will be drill-tested from the ice next winter.

Assay results have been received for 15 of the 22 drill-holes which intersected peridotite. The results included the following intersections:

SL09-06:	0.5m	@ 8.11g/t Pt+Pd, 2.27% Cu & 0.37% Ni from 34.5m,
	2.0m	@ 2.27g/t Pt+Pd, 0.40% Cu & 0.20% Ni from 44.0m,
	9.0m	@ 1.24g/t Pt+Pd, 0.24% Cu & 0.18% Ni from 67.0m,
	11.0m	@ 1.28g/t Pt+Pd, 0.25% Cu & 0.25% Ni from 96.0m.
SL09-08:	10.2m	@ 1.28g/t Pt+Pd, 0.21% Cu & 0.17% Ni from 29.8m,
	8.0m	@ 1.08g/t Pt+Pd, 0.20% Cu & 0.19% Ni from 46.0m,
	7.0m	@ 1.23g/t Pt+Pd, 0.28% Cu & 0.24% Ni from 82.0m.
SL09-13:	36.0m	@ 2.51g/t Pt+Pd, 0.51% Cu & 0.23% Ni from 34.0m,
including	16.0m	@ 3.47g/t Pt+Pd, 0.66% Cu & 0.28% Ni.

Drill-hole information and assay results are shown in Tables 1 and 3 and Figure 3.

The magma conduit at Steepledge Lake is different in some aspects to that at Current Lake. It appears from the drilling so far to be a wider and thicker body. In addition, the average Pt:Pd ratio appears to be slightly lower and the combined Cu and Ni values significantly higher than in the Current Lake Complex (Table 4). The difference in these ratios indicates the likelihood that a separate pulse of magma formed the Steepledge conduit.

 Table 4. Comparison of Average Metal Ratios in the Current and Steepledge Lake Complexes

Ratio	Pt:Pd	(Cu+Ni)/(Pt+Pd)
Current Lake Complex	1:0.9	0.2
Steepledge Lake Complex	1:1.2	0.3

Once the barge drilling has been completed, it is planned to drill a series of seven reconnaissance holes to the south of the lake along a 1km strike length of the Steepledge conduit (Figure 3) and three holes in the east-west feature between the Steepledge and Lone Island Lake Complexes (Figure 2) for approximately 3,000m. This drilling program will be helicopter-supported as there is no track access in this area.

Given the early stage of exploration in the Steepledge Lake Complex, the barge drilling results are very encouraging and follow-up drilling programs will be designed once all the reconnaissance drilling results have been received.

#### East Beaver Lake Infill & Step-Out Drilling

Infill and step-out drilling is in progress on 100m-spaced sections in the eastern part of the Beaver Lake area to investigate potential extensions of the recently defined Mineral Resources in the Current Lake Intrusive Complex (Figure 4). Twenty eight drill-holes have been completed so far for 8,764m.

Assay results have been received for 21 of the 26 drill-holes which intersected peridotite. The results included the following intersections:

BL09-123: 20.0m @ 1.93g/t Pt+Pd, 0.20% Cu & 0.16% Ni from 134.0m, including 11.0m @ 2.36g/t Pt+Pd, 0.25% Cu & 0.18% Ni,

3.0m @ 7.60q/t Pt+Pd, 0.70% Cu & 0.30% Ni. including BL09-127: 17.0m @ 1.82g/t Pt+Pd, 0.18% Cu & 0.16% Ni from 240.0m, including 6.0m @ 4.01g/t Pt+Pd, 0.41% Cu & 0.23% Ni, 2.1m @ 8.69a/t Pt+Pd. 0.89% Cu & 0.46% Ni. including BL09-131: 20.0m @ 1.58g/t Pt+Pd, 0.18% Cu & 0.21% Ni from 239.0m, 8.0m @ 3.00q/t Pt+Pd, 0.33% Cu & 0.27% Ni. including BL09-136: 18.0m @ 1.86g/t Pt+Pd, 0.20% Cu & 0.22% Ni from 276.0m, including 3.0m @ 3.26q/t Pt+Pd, 0.34% Cu & 0.30% Ni. BL09-137: 17.0m @ 2.37g/t Pt+Pd, 0.26% Cu & 0.21% Ni from 269.0m, including 3.0m @ 3.25g/t Pt+Pd, 0.34% Cu & 0.25% Ni.

Drill-hole information and assay results are shown in Tables 1 and 3 and Figure 4. These results demonstrate excellent potential to extend the currently defined resources to the east.

Further planned drilling in this area includes:

- A 15-hole 3,000m infill drilling program around the semi-massive and massive sulphide mineralization intersected in drill-hole BL09-89 which returned 5.98m @ 17.14g/t Pt+Pd, 2.55% Cu & 1.29% Ni from 157.25m (Figure 4). Several EM conductors have been mapped in this area in down-hole EM surveys which are broadly coincident with a major sheared regional contact between granites to the north and meta-sedimentary rocks to the south. This structure is a potential feeder to the magma conduit in this area. This drilling has just commenced.
- 2. One further step-out section of 12 holes for approximately 4,800m planned to the east of the recent drilling (Figure 4).
- 3. A major infill-drilling program at a drill-hole spacing of 50m x 20-25m to convert Inferred Resources to Indicated Resources in the Bridge and Beaver Lake Zones over a strike length of approximately 1,500m. The current drill-hole spacing in this area is mainly 100m x 25-50m. This drilling program is currently being designed and it is anticipated that it will take several months to complete.

#### Please direct enquiries or requests for further information to:

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The information in this report that relates to Exploration Results or Mineral Resources is based on information reviewed or compiled by Dr Keith Watkins, the Executive Chairman of Magma Metals Ltd, who is a Fellow of the Australian Institute of Geoscientists and a Member of the Australasian Institute of Mining and Metallurgy. Dr Watkins has sufficient experience, which is relevant to the style of mineralization and type of deposit under consideration and to the activities undertaken to qualify as a Competent Person as defined in the 2004 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves" (the JORC Code). Dr Watkins consents to the inclusion in the report of the matters based on this information in the form and context in which it appears.

Drill Hole	Easting (m)	Northing (m)	Azimuth (Deg)	Dip (Deg)	Depth (m)
BL09-122	358100	5402525	0	-90	342
BL09-123	358100	5402475	0	-90	240
BL09-127	358300	5402386	180	-74	306
BL09-129	358300	5402386	0	-90	215
BL09-131	358400	5402353	0	-90	309
BL09-135	358500	5402350	180	-77	375
BL09-136	358500	5402350	180	-74	384
BL09-137	358500	5402400	0	-90	330
BL09-138	358500	5402540	0	-90	303
BL09-139	358500	5402450	0	-90	317
BL09-142	358600	5402450	0	-90	345
SL09-03	354041	5403900	0	-90	171
SL09-04	<b>SL09-04</b> 354060		0	-90	204
SL09-06	SL09-06 354020		0	-90	156
SL09-08	354010	5404200	0	-90	150
SL09-13	354040	5404099	0	-90	132

Table 1. Drill Hole Collar and Depth Information

 Table 2. Significant Exploration Drilling Results from the Steepledge Lake Area

Drill Hole	From (m)	To (m)	Length (m)	Pt (g/t)	Pd (g/t)	Pt+Pd (g/t)	Cu (%)	Ni (%)	Pt+Pd Cut-Off (g/t)
SL09-03	116.00	118.00	2.00	0.51	0.58	1.09	0.20	0.20	1.0
SL09-04	67.00	69.00	2.00	0.47	0.58	1.05	0.18	0.15	0.5
	80.00	82.00	2.00	0.57	0.70	1.27	0.27	0.19	1.0
	141.00	143.00	2.00	0.50	0.56	1.06	0.28	0.22	1.0
SL09-06	34.50	35.00	0.50	2.75	5.36	8.11	2.27	0.37	1.0
	44.00	46.00	2.00	1.05	1.22	2.27	0.40	0.20	1.0
	67.00	76.00	9.00	0.59	0.65	1.24	0.24	0.18	0.5
	96.00	107.00	11.00	0.61	0.67	1.28	0.25	0.25	0.5
SL09-08	29.80	40.00	10.20	0.59	0.69	1.28	0.21	0.17	0.5
including	29.80	36.00	6.20	0.78	0.90	1.68	0.28	0.18	1.0
	46.00	54.00	8.00	0.49	0.59	1.08	0.20	0.19	1.0
	82.00	89.00	7.00	0.55	0.68	1.23	0.28	0.24	1.0
SL09-13	34.00	70.00	36.00	1.14	1.37	2.51	0.51	0.23	0.5
including	40.00	56.00	16.00	1.56	1.91	3.47	0.66	0.28	1.0

Results are reported for intercepts >1.0g/t Pt+Pd at the lower cut-off grades shown in the right hand column; these may include internal intervals up to 2m below the cut-off grade

Drill Hole	From (m)	To (m)	Length (m)	Pt (g/t)	Pd (g/t)	Pt+Pd (g/t)	Cu (%)	Ni (%)	Pt+Pd Cut-Off (g/t)
BL09-122	158.00	171.00	13.00	0.60	0.57	1.17	0.15	0.11	0.5
including	159.00	161.00	2.00	1.04	0.96	2.00	0.25	0.14	1.0
and	165.00	169.00	4.00	0.87	0.86	1.73	0.22	0.13	1.0
BL09-123	134.00	154.00	20.00	1.01	0.92	1.93	0.20	0.16	0.5
including	140.00	151.00	11.00	1.23	1.13	2.36	0.25	0.18	1.0
including	144.00	147.00	3.00	4.02	3.58	7.60	0.70	0.30	3.0
	183.00	189.00	6.00	0.59	0.55	1.14	0.15	0.18	1.0
BL09-127	240.00	257.00	17.00	0.96	0.86	1.82	0.18	0.16	0.5
including	251.00	257.00	6.00	2.10	1.91	4.01	0.41	0.23	1.0
including	253.00	255.10	2.10	4.56	4.13	8.69	0.89	0.46	3.0
BL09-129	306.25	309.00	2.75	1.80	1.66	3.46	0.41	0.19	1.0
BL09-131	239.00	259.00	20.00	0.82	0.75	1.58	0.18	0.21	0.5
including	241.00	249.00	8.00	1.57	1.43	3.00	0.33	0.27	1.0
	271.00	276.55	5.55	0.86	0.80	1.66	0.19	0.14	1.0
BL09-135	260.00	264.00	4.00	0.95	0.88	1.83	0.20	0.20	0.5
BL09-136	276.00	294.00	18.00	0.97	0.89	1.86	0.20	0.22	1.0
including	291.00	294.00	3.00	1.72	1.54	3.26	0.34	0.30	3.0
	324.00	327.00	3.00	0.71	0.65	1.36	0.14	0.15	1.0
BL09-137	260.00	264.00	4.00	0.68	0.64	1.32	0.16	0.21	1.0
	269.00	286.00	17.00	1.21	1.16	2.37	0.26	0.21	1.0
including	274.00	277.00	3.00	1.67	1.58	3.25	0.34	0.25	3.0
	291.00	293.45	2.45	1.25	1.18	2.43	0.33	0.18	1.0
BL09-138	254.00	257.00	3.00	1.26	1.20	2.46	0.29	0.21	1.0
BL09-139	148.00	153.00	5.00	0.88	0.86	1.74	0.25	0.14	1.0
including	150.00	151.00	1.00	1.78	1.73	3.51	0.47	0.22	3.0
	258.00	266.30	8.30	0.90	0.84	1.74	0.21	0.18	1.0
including	265.50	266.30	0.80	2.38	2.42	4.80	0.55	0.36	3.0
BL09-142	291.40	293.90	2.50	1.73	1.45	3.18	0.53	0.19	0.5

Table 2. Significant Exploration Drilling Results from the Beaver Lake Area

Results are reported for intercepts >1.0g/t Pt+Pd at the lower cut-off grades shown in the right hand column; these may include internal intervals up to 2m below the cut-off grade



Figure 1. Project Location



Figure 2. Regional Magnetic Image Showing Intrusive Complexes and Drilling Areas.



Figure 3. Drilling & Magnetics: Northern Steepledge Lake Intrusive Complex.



Figure 4. Drilling & Magnetics: Current Lake Intrusive Complex (Further information on the Mineral Resources is available in an announcement made on 7<sup>th</sup> September 2009 which is available on the Company's website)