

K92 Mining Exploration Update - Blue Lake Porphyry Prospect

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- All planned holes in Phase 1 diamond drill program completed, for a total of 3,451.2 metres, with multiple holes ending in porphyry mineralization.
- Three porphyry consultant reports completed on Blue Lake in 3Q19. Reports were completed by Applied Petrologic Services and Research (Wanaka, New Zealand); Plus Minerals Consultants (Ulaanbaatar, Mongolia), and; porphyry consultant Greg Corbett (Sydney, Australia). The work included a detailed assessment of drill core and surface exposures, including comprehensive petrological studies, spectrometer alteration mapping and geochemical/structural modelling.
- Expansive gold-copper mineralized shell identified, beneath prominent advanced argillic lithocap.
- Multiple vectors indicative of a higher-grade porphyry deposit at depth. Documented potassic alteration, which commonly is associated with the highest-gold-copper grades in mineralized porphyry systems, in the lower portion of KTDD0001 and KTDD0006. The potassic alteration is only represented by patchy biotite in KTDD0001 and KTDD0006, which implies that a greater proportion of potassic mineral assemblages, and potentially associated gold-copper mineralization, might occur at depth.
- New drill program, including deeper, targeted drilling to commence early in 2020.

VANCOUVER, British Columbia, Dec. 19, 2019 -- [K92 Mining Inc.](#) ("K92" or the "Company") (TSXV: KNT; OTCQB: KNTNF) is pleased to provide an update on exploration at the Blue Lake Porphyry Prospect (Kotampa Project) located approximately 4 kms southwest of the Company's Kora deposit at the Kainantu gold mine in Papua New Guinea (see Figure 1).

K92 has now completed all ten planned drilled holes along a prescribed section at Blue Lake, with the objective to identify vectors towards porphyry mineralization.

The drilling confirms the presence of a large gold-copper mineralized porphyry system, where an advanced argillic lithocap overlies extensive prograde porphyry style alteration and mineralization. The fence, mostly drilled at 200m spacing, returned significant gold/copper intercepts in several holes and the width of the mineralized halo (c. 0.2% Cu) is interpreted to be approximately 800m in diameter.

A detailed assessment of the drill core and surface exposures was undertaken by consultants, both on site and externally, including comprehensive petrological studies, spectrometer alteration mapping and geochemical/structural modelling. All appraisals collectively support the Company's recognition of a major intrusive complex at the Blue Lake Prospect, constituting the root of a flow-banded, fractured dacite dome cut by hydrothermal breccias and late mineral porphyritic dacite dykes trending north-east. Intense, layered advanced argillic alteration extends down (c. 300m) to approximately 1300 m elevation. Beneath the lithocap, prograde alteration (predominately propylitic and phyllic assemblages of magnetite-chlorite-epidote-sericite), is distinctly zoned. Porphyry stockwork quartz veins are common, increasing in intensity with depth in each of the drill holes.

An abundance of porphyry features, including gold-copper mineralization, suggests that a quality target may occur at an accessible depth. Consequently, a further drill campaign scheduled to commence in 2020 Q1 will aim to delineate the lateral extent of the gold-copper mineralized shell at shallow to moderate levels, before embarking on a series of deeper holes targeting the inferred higher grade porphyry core.

Chris Muller, K92 Vice President Exploration, stated, *"The Blue Lake porphyry system is demonstrated to be substantially large and fertile, with an impressive proliferation of overprinting hydrothermal alteration and characteristic porphyry stockwork quartz/sulphide veins, as well as disseminated*

mineralization. Multiple vectors identified suggest the presence of a higher grade core at depth, which will be targeted in a follow-up program entailing additional fences of holes, together with deeper, targeted drilling.

Blue Lake (Kotampa Project) Background

Surficial Au-Ag-Cu mineralization, associated with enargite-bearing breccia and vuggy silica, was identified by K92 geologists in the Blue Lake area (EL470) during September 2017. Detailed mapping and sampling ensued, with the identification of a large (1.2 x 0.8 km) coincident Au-Cu soil geochemical anomaly. Drilling commenced in January 2019 and the first drill hole, KTDD0001, returned an open-ended intercept of 174.6m @ 0.28 g/t Au, 0.22 % Cu, from 259.3m and was terminated in mineralization at 433.9m (see March 27, 2019 Press Release - K92 Mining Exploration Update & Blue Lake Porphyry Prospect).

An initial six hole program (including one hole off section), with hole depths of 400 & 600m depth, was planned to be drilled in a fence across the prospect, through the centre of the primary geochemical anomaly, on 200m centres. Three additional short holes targeted shallow gold mineralization in the lithocap. The objective of the program was to characterize the hypogene mineral assemblages, multi-element grade shells and structures, in order to build a geological model that would assist in locating the conceptual core of the porphyry.

Commensurate with the completion of the drill hole fence, in October 2019, petrological analysis of 37 drill core samples was undertaken by Applied Petrologic Services and Research (Wanaka, New Zealand). Plus Minerals Consultants (Ulaanbaatar, Mongolia) analysed all ten drill holes (3,147 metre point measurements), 531 rock chips, and 83 coarse reject trench samples from Blue Lake Prospect, by Short Wave Infra-red (SWIR) alteration mapping, using a TerraSpec Hi-Res Spectrometer. The main aim was to interpret the geology and alteration zonation of advanced argillic rocks with associated Au-enargite mineralization and provide vectors to target deeper porphyry Cu-Au mineralization. All Blue Lake Prospect drill core and multiple outcrops were also investigated by porphyry consultant Greg Corbett (Sydney, Australia).

Findings of these separate investigations are outlined in this news release and data has been used to plan the next program of drilling at Blue Lake Porphyry Prospect.

Results of Drilling Program

A total of ten diamond drill holes were completed at Blue Lake, three (KTDD0002, KTDD0003, KTDD0004) of which were short (c. 50m length) holes and another (KTDD0005) which failed well before target depth, being re-drilled as KTDD0006. Results from holes KTDD0001 to KTDD0007, were previously reported (see March 27, 2019 Press Release - K92 Mining Exploration Update & Blue Lake Porphyry Prospect, and; June 18, 2019 Press Release - K92 Mining Exploration Update & Blue Lake Porphyry Prospect). Table 1 details the hole parameters.

Several significant gold and gold-copper intercepts were yielded, as outlined in Table 2 and depicted in Fig. 3.

Table 1. Blue Lake Hole Parameters

Hole_ID	Easting (AGD66)	Northing (AGD66)	mRL	Bearing (AMG)	Bearing (Magnetic)	Inclination	Depth (m)
KTDD0001	371391	9316122	1639	120	115	-60	433.9
KTDD0002	371391	9316122	1639	120	115	-75	51
KTDD0003	371391	9316122	1639	120	115	-90	51
KTDD0004	371391	9316122	1639	120	115	-50	50.8
KTDD0005	371254	9316057	1746	120	115	-55	106.0
KTDD0006	371254	9316057	1746	120	115	-60	604.6
KTDD0007	371235	9316275	1563	128	123	-60	493.3
KTDD0008	371568	9316011	1692	128	123	-60	514.4

KTDD0009	371072	9316391	1476	128	123	-60	546.10
KTDD0010	370931	9316509	1487	133	128	-60	600.10

Table 2. Blue Lake – Significant Intercepts

Hole_ID	From (m)	To (m)	Interval (m)	Gold g/t	Silver g/t	Copper %	Gold Equivalent g/t	Comments
KTDD0001	5.0	20.0	15.0	0.63	4	0.02	0.7126	
KTDD0001	259.3	433.9	174.6	0.28	2	0.22	0.6426	Ended in Mineralization
KTDD0002	7.0	22.0	15.0	1.17	3	0.03	1.2549	~50m hole testing lithocap
KTDD0003	8.0	20.0	12.0	0.44	1	0.06	0.5448	~50m hole testing lithocap
KTDD0004	6.9	31.1	24.2	0.48	3	0.03	0.5649	~50m hole testing lithocap
KTDD0006	385.0	604.6	219.6	0.16	1	0.11	0.3413	Ended in Mineralization
including	456.9	519.9	63.0	0.27	1	0.16	0.5278	
including	596.0	604.6	8.6	0.38	1	0.22	0.7296	
KTDD0007	190.0	493.3	303.3	0.22	2	0.14	0.4602	Ended in Mineralization
including	328.0	493.3	165.3	0.22	2	0.21	0.5673	
KTDD0009	428.0	471.8	43.8	0.04	2	0.40	0.6689	Ended in Mineralization

Prospect Geology

Host rocks in the Blue Lake Prospect area are dominated by mid Miocene (18-7 my) Akuna granodiorite. A voluminous flow-banded porphyritic dacite cropping out extensively at surface and intersected in the upper parts of KTDD0001, KTDD0006 and KTDD0008 (Figs 2, 4) is interpreted as a possible dacitic dome (Pdac). Several generations of later north-east trending porphyritic dacite dykes are present within this dome complex.

Milled breccias, typical of phreatomagmatic or diatreme breccia pipes, are associated with the dacite intrusions at Blue Lake Prospect (Fig. 4). Such breccias would have provided permeability for enhanced fluid flow as an aid to development of the extensive advanced argillic lithocap. There is likely a component of structural control to the acid altered lithocap, with a number of major structures mapped at surface and recognized in drill core within the dacite dome.

Pebble dykes, typical porphyry related features, are present at intervals in Blue Lake drill core and are commonly used as vectors towards increasing gold-copper mineralization. Shingle breccias, characterised by stacked tabular clasts with variably massive sulphide matrix, were intersected over broad intervals in holes KTDD0009 (Fig. 6e) and KTDD0010. These are interpreted to represent a lens shaped body, formed by collapse following the escape of volatiles from underlying magmatic source rocks. They are thus also considered important mineralized porphyry features.

Metasomatism/Hydrothermal Alteration

Hydrothermal alteration at the Blue Lake Prospect is genetically related to the (7-9 my) Elandora porphyry dacite intrusions and associated milled matrix (phreatomagmatic) breccias, which in drill core are overprinted by enargite-pyrite vein-breccias in steep dipping structures (Corbett, 2019).

The lithocap of advanced argillic alteration is described in detail by Kavalieris and Bat-Erdene (2019) as a horizontal hilltop remnant of silica-alunite grading down to pyrophyllite-dickite and kaolinite mineral assemblages (Fig. 5). The Blue Lake lithocap, based on currently known samples is moderately to deeply eroded, and characterized by pyrophyllite-diaspore overprinting paragonite-muscovite (sericite), and cut by vuggy silica and alunite-pyrite-enargite feeder zones as narrow veins and hydrothermal breccias. Therefore this type of alteration is typical of high sulphidation epithermal gold deposits.

Alunite is primarily K-rich but includes some Na-alunite (Kavalieris and Bat-Erdene, 2019). The coarse crystalline alunite in vugs and veins associated with pyrite-enargite is undoubtedly magmatic hydrothermal (hypogene). Na-alunite may reflect higher temperature magmatic-hydrothermal fluids (Kavalieris and

Bat-Erdene, 2019) and indicate proximity to the porphyry source.

Other characteristic minerals identified in the Blue Lake lithocap include topaz, dumortierite, lazulite, dickite, nacrite and kaolinite, with the latter three minerals representing a low temperature overprint. Deep anhydrite (gypsum line) encountered commonly in Blue Lake drill holes is also likely to be due to late descending acid sulfate fluids (Kavalieris and Bat-Erdene, 2019).

Silica-sericite-pyrite (phyllic) alteration (Fig. 6c) is prevalent as pervasive alteration and as selvages to veins.

Prograde mineral assemblages, pervasive beneath and surrounding the lithocap, are dominated by propylitic chlorite-magnetite-epidote and rare actinolite, with variable additional pyrite-chalcopyrite. Abundant magnetite is considered an important directly porphyry-related feature, where it is invariably associated with anomalous gold-copper, and occurs as disseminated replacement of primary mafic minerals, magnetite-pyrite-chalcopyrite fracture fill and larger lode-like veins as well as magnetite matrix breccias.

Potassic alteration is represented, with certainty, only by patchy biotite in the lower reaches of KTDD0001 and KTDD0006, both of which ended in mineralization.

Mineralization

Enargite-pyrite veins and breccia fill, typical of high sulphidation epithermal Au-Ag mineralization, is recognized at the surface as narrow veins and within narrow structurally controlled zones of high sulphidation epithermal Au mineralization within the advanced argillic lithocap. The pyrite-enargite feeder zones are linked to underlying porphyry Cu-Au mineralization and are an important exploration guide (Kavalieris and Bat-Erdene, 2019).

Quartz-sulphide veins, typical of porphyry and wall rock settings, include well-developed B veins, characterised by sulphide filled centres and sericite selvages, as well as wall rock hosted D veins (pyrite center, minor quartz, sericite selvage) and rare A veins (Corbett, 2019). Quartz-magnetite veins and lodes (Fig. 6a, b, d), with variable quantities of pyrite, chalcopyrite and hematite occur with high frequency in drill holes KTDD0001, KTDD0006 and KTDD0007. Chalcopyrite, bornite and molybdenite occur both in veins and as disseminations. Within shingle breccias, a paragenetic succession of sulphides (pyrite, chalcopyrite, bornite, chalcocite, covellite and enargite) commonly fill voids between the tabular clasts (Fig. 6f).

Where observed (KTDD0006, 548.0m), native gold is enclosed by chalcopyrite intergrown with bornite, K-feldspar and minor amounts of granoblastic quartz of magmatic-hydrothermal/porphyry-style (Coote, 2019).

Vectors to Porphyry Core

Many features throughout the Blue Lake drill intercepts are typical of those expected in a porphyry environment marginal to a speculated buried intrusion source (Corbett, 2019). Certain physical and chemical attributes of these features may provide information on the cooling directions and thus the inverse direction of the source fluid.

Zoned mineral assemblages within the lithocap, dominated by pyrophyllite-diaspore, underlying mainly silica-alunite alteration, indicate that the deeper roots of the original lithocap are already exposed. For exploration of the causative mineralized porphyry, this is considered positively since the top of the system should be closer to surface and therefore readily accessible by drilling.

Quartz-sulphide vein style and density show vectors towards the centre of the drilled section (i.e., proximal to, or beneath KTDD0001, KTDD0006 and KTDD0007), with B veins (occasionally also A veins) predominating in those drill holes, whereas D veins (generally considered more distal to a source) are widespread. Notably, the stockwork vein density increases towards the lower reaches of KTDD0001, KTDD0006 and KTDD0007. It is anticipated that the quartz veins, which contain much of the already recognized gold-copper mineralization at Blue Lake, would potentially increase in intensity with depth

beneath the limit of the drilling to date.

Porphyry systems typical exhibit an inward zonation from FeMg-chlorite to Mg-chlorite. Therefore chlorite provides a vector towards the core of the porphyry system at Blue Lake. Chlorite compositions vary from Mg-chlorite to Fe-chlorite, with most samples classified as intermediate (FeMg) (Kavalieris and Bat-Erdene (2019). In drill core, Mg-chlorite mainly occurs in the bottom of KTDD0001 and KTDD0006, thus presenting a further vector towards the porphyry core.

Potassic alteration, commonly associated with the highest gold-copper grades in mineralized porphyry systems, is represented only by patchy biotite in the lower reaches of KTDD0001 and KTDD0006. This implies that a greater proportion of potassic mineral assemblages, and potentially associated gold-copper mineralization, might occur at depth beneath these drill holes.

Future Program

Extensive evidence of porphyry style alteration and gold-copper mineralization revealed by the recently completed drill program at Blue Lake warrants immediate follow-up, to better define the shape and extent of the mineralized shell already identified, and to target the inferred porphyry core.

The initial fence of drill holes at Blue Lake has shown extensive mineralization in the centre of the section (KTDD0001, KTDD0006, KTDD0007), which could be tested at depth with the compelling information at hand. However, the deeper program would likely be more successful with additional data from similar sections designed at 200m either side of the existing section. Such a scope of work is planned for execution early in 2020, including deeper drilling.

References

Kavalieris, I., Bat-Erdene, K. 2019. SWIR Spectrometer Alteration of the Blue Lake Project. Plus Minerals internal unpublished report. 26 pps.

Corbett, G. 2019. Comments on the exploration potential of the Blue Lake Prospect, Bilimoia, Papua New Guinea. Internal unpublished report. 29 pps.

Coote, A. 2019. Petrologic Studies of Drill Core from KTDD001, KTDD006, KTDD007 & KTDD008, Blue Lake Project, Eastern Highlands, Papua New Guinea. Internal unpublished report. 60 pps.

K92 Vice President Exploration, Mr. Chris Muller, PGeo, a Qualified Person under the meaning of National Instrument 43-101 *Standards of Disclosure for Mineral Projects*, has reviewed and is responsible for the technical content of this news release. Data verification by Mr. Muller includes significant time onsite reviewing drill core, soil and outcrop sampling, artisanal workings, as well as discussing work programs and results with geology personnel and external consultants.

About K92 Mining

K92 Mining is currently engaged in the production of gold, copper and silver from the Kora/Kora North deposit from the Kainantu Gold Mine in Papua New Guinea, as well as exploration and development of mineral deposits in the immediate vicinity of the mine. The Company declared commercial production from Kainantu in February 2018 and announced planned expansion of the mine in March 2019. An updated Preliminary Economic Assessment on the property was published in January 2019.

ON BEHALF OF THE COMPANY,

John Lewins
Chief Executive Officer and Director

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Figure 1. Blue Lake Porphyry Prospect Location.

<https://www.globenewswire.com/NewsRoom/AttachmentNg/80229e08-2f08-4bd9-8ab2-45c5b7944bbe>

Figure 2. Blue Lake Prospect Geology.

<https://www.globenewswire.com/NewsRoom/AttachmentNg/1046869a-c399-478c-b287-ff45bd30f621>

Figure 3. Blue Lake Prospect – Section, viewed south-west. Drill holes showing downhole gold and copper grades and the approximate 0.2% Cu halo.

<https://www.globenewswire.com/NewsRoom/AttachmentNg/c624c92d-2870-46a5-b87b-62b30069d24c>

Figure 4. Blue Lake Prospect – Section, viewed south-west. Drill holes showing downhole lithology, together with quartz vein intensity (latter for holes KTDD0001, KTDD0006 and KTDD0007 only).

<https://www.globenewswire.com/NewsRoom/AttachmentNg/b28dcbe9-6fe4-4cb3-862f-0477414935a6>

Figure 5. Blue Lake Prospect – Section, viewed south-west. Drill holes showing alteration, together with quartz vein intensity (latter for holes KTDD0001, KTDD0006 and KTDD0007 only).

<https://www.globenewswire.com/NewsRoom/AttachmentNg/3bf1d7e2-d27b-4bc2-9d00-9de859af53d1>

Figure 6. Blue Lake Prospect mineralogy in drill core; a) KTDD0001, 413.2m, quartz-chalcopryrite-magnetite B veins amid pervasive chlorite/albite, 0.17 g/t Au, 0.28% Cu; b) KTDD0006, 526.0m, multi-phase quartz-magnetite veins, with chlorite overprinting biotite, 0.27 g/t Au, 0.53% Cu; c) KTDD0007, 434.3m, intense sericite (phyllitic) overprint of chlorite-magnetite, with disseminated chalcopryrite, 0.29 g/t Au, 0.38% Cu; d) KTDD0007, 434.3m, quartz-magnetite vein, 0.29 g/t Au, 0.38% Cu; e) KTDD0009, 443.2m, shingle breccia with characteristic tabular clasts and anhydrite-chalcopryrite-pyrite infill, 0.03 g/t Au, 0.40% Cu; f) KTDD0009, 452.3m, breccia fill with pyrite, bornite, chalcopryrite, chalcocite, covellite (in paragenetic sequence), 0.03 g/t Au, 0.80% Cu. Scale bar = 10mm.

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