

**ASX Release** 30 April 2020

# Quarterly Report for the period ending 31 March 2020

# **Highlights**

# **Corporate**

- Blackstone Minerals Limited signed and completed a binding share purchase agreement with EcoPro, the world's second largest nickel-rich cathode materials manufacturer, and as a condition of the binding agreement, Blackstone exercised the option to acquire the Ta Khoa Nickel-PGE Project in northern Vietnam;
- The binding share purchase agreement included a \$6.8 million (before costs) investment by EcoPro at a 62% premium to Blackstone Minerals' last traded price through a placement of 40 million shares at \$0.17 per share;
- EcoPro became a substantial shareholder in Blackstone Minerals and appointed Mr Hoirim Jung as its representative in the role of a Non-Executive Director on the Board of Blackstone Minerals;
- The binding agreement outlines an alliance structure whereby EcoPro and Blackstone Minerals will work in partnership (through an additional investment via a Joint Venture Agreement) to develop a downstream processing facility in association with Blackstone Minerals' Ta Khoa Nickel-PGE Project in northern Vietnam;
- The March Quarter has seen Blackstone position itself to significantly advance the Ta Khoa Nickel-PGE Project over the coming year, with a strong cash position and supportive shareholder base.

# **Exploration**

- Blackstone's drilling at the King Cobra discovery intersected massive sulfide nickel mineralisation within the broader disseminated nickel sulfide mineralisation (DSS) (see ASX announcement dated 11th March 2020);
- Blackstone continues to intersect shallow, high grade disseminated nickel sulfide mineralisation at the King Cobra Zone (KCZ) with new significant results including 39m @ 1.1% Ni and 28m @ 1.2% Ni from near surface;
- Blackstone's drilling continues to intersect the King Cobra Zone (KCZ) over 200m of strike length and the discovery remains open down dip and along strike to the north-west and southeast.



#### Ta Khoa Nickel-PGE Project

Blackstone Minerals Limited **(ASX code: BSX)** has acquired a 90% interest in the Ta Khoa Nickel-PGE Project. The Ta Khoa Nickel-PGE Project is located 160km west of Hanoi *(see Figure 5)* in the Son La Province of Vietnam and includes an existing modern nickel mine built to Australian Standards, which is currently under care and maintenance. The Ban Phuc nickel mine successfully operated as a mechanised underground nickel mine from 2013 to 2016. Blackstone previously announced drilling at the King Cobra discovery intersected 60m @ 1.3% Nickel from 32m. The King Cobra discovery includes the first-ever intersection of massive sulfide vein and breccia styles of sulfide mineralisation within the Ban Phuc intrusion and may provide vectors towards the high grade 'feeder zone' mineralisation.

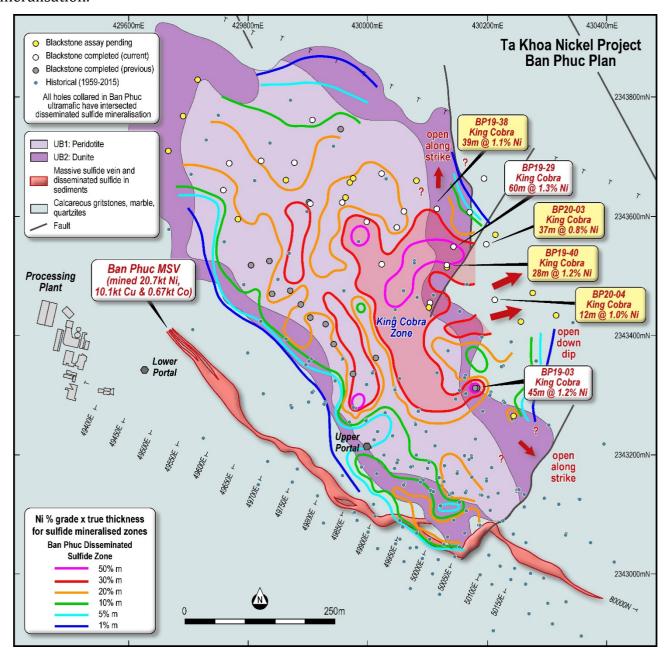


Figure 1: Plan View showing Ban Phuc DSS drill hole collar locations and King Cobra Zone (KCZ). Online readers can click on the above image to launch Blackstone's interactive visualiser and travel through the Ban Phuc Nickel – PGE Deposit in 3D.



Blackstone's drilling of the Ban Phuc DSS to date includes the following significant results (see ASX announcements dated 17<sup>th</sup> September 2019, 16<sup>th</sup> October 2019, 18<sup>th</sup> December 2019, 20<sup>th</sup> January 2020 and 11<sup>th</sup> March 2020 for full details):

Drillhole	From (m)	To (m)	Interv al (m)	Ni (%)	Pt+Pd +Au (g/t)
BP19-02	106.6	124.4	17.8	1.00	0.74
incl.	106.6	114	7.4	1.36	1.10
BP19-03	56.5	102	45.5	1.20	0.35
BP19-06	101	128.7	27.7	0.88	0.74
incl.	108.5	122	13.5	1.12	0.91
BP19-08	140.6	170	29.4	1.00	0.60
incl.	140.6	146.9	6.3	1.22	1.03
BP19-09	107	118.9	12.0	1.46	1.09
incl.	108.2	117	8.8	1.70	1.28
BP19-10	136.9	170.2	33.3	0.80	0.37
incl.	137.5	152	14.5	1.31	0.65
BP19-07	310.9	375	64.4	0.52	0.20
incl.	310.9	327	15.6	1.08	0.58
BP19-11	109.4	161	51.5	0.50	0.22
incl.	116	124	8.0	1.09	0.66
BP19-22	79	108	29.0	0.60	0.39
incl.	81	94.4	13.4	0.82	0.72
BP19-23	173	224	51.0	0.71	0.43
incl.	187	203	15.7	1.48	1.14
BP19-29	32	91.8	59.8	1.29	0.29
incl.	49.1	63	13.9	2.25	0.54
BP19-38	0	96.3	96.3	0.64	0.22
incl.	0	39	39	1.13	0.4
BP19-40	3	47.4	44.4	0.87	0.18
incl.	7.3	35	27.7	1.15	0.24

Since announcing the option agreement in May 2019, Blackstone has made significant progress at the Ta Khoa Nickel-PGE Project, drilling over 12,000m of diamond core in more than 65 holes into the Ban Phuc DSS deposit and King Cobra discovery zone. Blackstone is well advanced with an initial scoping study evaluating mining and processing options, including potential in-country downstream processing to deliver high value nickel sulfate into Asia's rapidly expanding electric vehicle (EV) industry. The recently announced completion of the share subscription agreement (see ASX announcement dated 21 April 2020) with Asia's largest and the world's second largest, EV battery



cathode manufacturer, Ecopro BM Co Limited, represents a significant step towards making this a reality.

Initial geological modelling of Blackstone's drilling, combined with over 60,000m in 381 holes drilled by the previous owners of the project, is starting to reveal the potential extents of the Ban Phuc DSS Nickel – PGE deposit (*see Figure 1*). Currently the disseminated mineralisation has been encountered in drill holes over 1,000m by 500m in area, and remains open along strike to the north-west and southeast and down dip to the north-east.

The ultimate geometry of the disseminated Nickel – PGE layers in the deposit are yet to be fully defined by drilling, however the following preliminary observations and interpretations are being used to guide further exploration of the deposit:

- The previously reported Blackstone drillhole BP19-03 is now interpreted as an intersection of King Cobra mineralisation which assayed 45m @ 1.2% Nickel from 56m (see ASX announcement dated 6th August 2019 & 17th September 2019 for full details);
- The combination of the assay results from holes BP19-03, BP19-29, BP20-03 and BP20-04 (see Figures 1, 2 & 3), suggest that KCZ can now be traced in drilling over 200m and is open along strike to the north-west and south-east (see Figure 1). The KCZ is also open down dip to the north-east (see Figure 3);
- Drilling to date at Ban Phuc has identified two thick, overlying sheet-like zones of disseminated Nickel-PGE (Cu, Co) mineralisation, the KCZ and the underlying Ban Duoi Zone (BDZ), are hosted within the Ban Phuc ultramafic intrusive. The KCZ and BDZ converge and dip to the north-east;
- The KCZ and BDZ appear to have different nickel and PGE contents. KCZ is hosted by a textually distinct phase of the Ban Phuc intrusive with the KCZ locally marked by a 'tremolite' zone that may define the contact of a distinct phase of the Ban Phuc intrusive body;
- Previous interpretations proposed that Ban Phuc mineralisation is a folded sheet-like body that is closed off to the north-east. However, an alternate interpretation arising from the recent Blackstone drilling is that the KCZ and BDZ are distinct phases of mineralisation related to different intrusive pulses and that together they vector down dip to the north-east toward a potentially higher grade 'feeder zone';
- The 'feeder zone' target is currently being tested with two rigs that are drilling a series of new holes to test this concept.
- Preliminary interpretations and drill results are also revealing several encouraging characteristics that suggest the potential for a large tonnage disseminated sulfide deposit at Ban Phuc. These factors may make the deposit amenable to bulk mining techniques employed at large scale nickel mines in Australia and elsewhere in the world. The Ban Phuc DSS deposit's characteristics supporting this concept include:
  - Thick accumulations of nickel sulfide mineralisation across a significant area of the Ban Phuc ultramafic body (see table above of Blackstone's drill intersections to date);
  - Multiple stacked layers of disseminated mineralisation hosting higher grade intervals;
  - King Cobra zone, hosting thick accumulations of nickel sulfide, near the surface;
  - Significant concentrations of precious metals palladium, platinum and gold in all drilling to date from the deposit.

Blackstone's Ta Khoa Nickel–PGE project has a combination of large DSS nickel targets and 25 other prospects (*see Figure 4*), including multiple high-grade massive sulfide vein (MSV) targets of the style that were mined adjacent to the current Ban Phuc DSS drilling. The Ban Phuc Nickel mine operated for 3.5 years between 2013 and 2016, producing 20.7kt Ni, 10.1kt Cu and 0.67kt Co, before closing



when the defined mineable reserves were depleted. The high-grade Ban Phuc MSV is located less than 50m to the south of the Ban Phuc DSS deposit and remains underexplored at depths below the base of previous mining. Many other MSV targets are within potential trucking distance of the existing 450ktpa Ban Phuc processing facility that was built to international standards, commissioned in 2013, and has been on care and maintenance since 2016.

Blackstone is evaluating near mine MSV and other potential DSS targets for drill testing during the 2020 season, with the concept of identifying high grade and further disseminated mineralisation for either an early restart of the Ban Phuc mining operation, or the potential to blend higher grade MSV mineralisation with the larger tonnage DSS mineralisation for processing.

Blackstone believes that the Ta Khoa project represents a true district scale Nickel-PGE sulfide opportunity of a calibre rarely controlled by a junior company. The project also has significant infrastructure advantages that include the existing 450ktpa processing facility, abundant low cost hydroelectric power, a skilled low-cost labour force, and is located in a country that has become an Asian hub for electronics and battery manufacturing with a growing demand for Nickel Sulfate for EV battery manufacture.

Blackstone looks forward to reporting further results from the King Cobra discovery and the ongoing drilling at Ban Phuc over the coming weeks, as the company advances the exploration and evaluation of this high calibre asset for its shareholders.

#### Ta Khoa Nickel-PGE Project - Next Steps

Blackstone aims to deliver a maiden resource on the DSS at Ban Phuc over the coming months and investigate the potential to restart the existing Ban Phuc concentrator through focused exploration on both MSV and DSS deposits. Blackstone has commenced a scoping study on the downstream processing facility at Ta Khoa. The scoping study will provide detail for potential joint venture partners to formalise a binding agreement. Blackstone has commenced metallurgical testing on the Ban Phuc DSS deposit with an aim to develop a flow sheet for a product suitable for the lithium-ion battery industry. In addition, Blackstone will investigate the potential to develop downstream processing infrastructure in Vietnam to produce a downstream nickel and cobalt product to supply Asia's growing lithium-ion battery industry.

The Ta Khoa Nickel-PGE Project in Vietnam (*see Figure 5*) includes an existing modern nickel mine which has been under care and maintenance since 2016 due to falling nickel prices. Existing infrastructure includes an internationally designed 450ktpa processing plant. Previous project owners focused mining and exploration efforts primarily on the MSV at Ban Phuc. Blackstone plans to explore both MSV and DSS targets throughout the project, initially within a 5km radius of the existing processing facility. Blackstone will conduct further geophysics on the MSV and DSS targets and continue its maiden drilling campaign. Online readers can click here for footage taken at our Ta Khoa Nickel-PGE Project in January 2020.

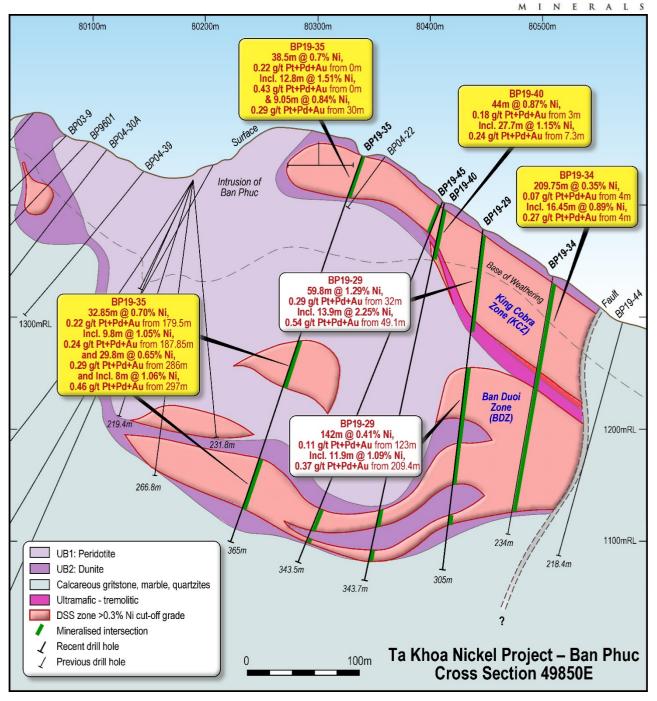


Figure 2: Cross Section 49850E showing the King Cobra discovery hole BP19-23 and BP19-34 (See ASX announcement dated 20<sup>th</sup> January 2020 for full details)



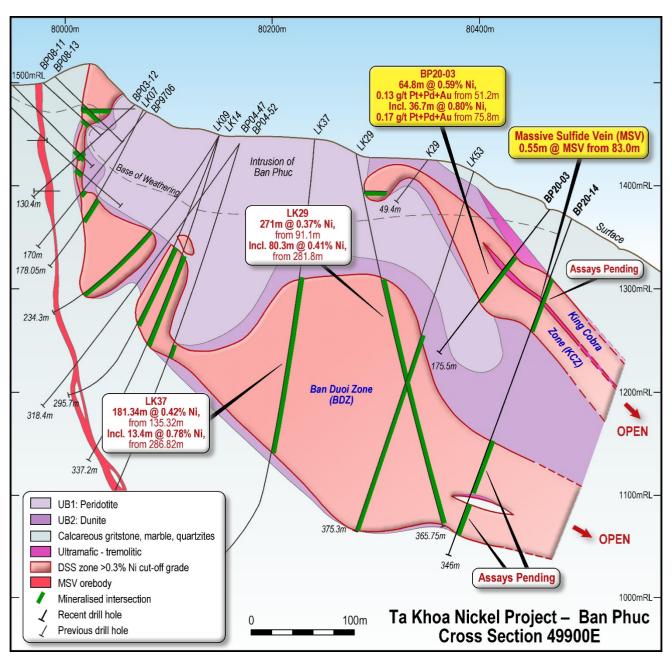


Figure 3: Cross Section 49900E showing Ban Phuc DSS drillhole BP20-03 intersection of the King Cobra discovery



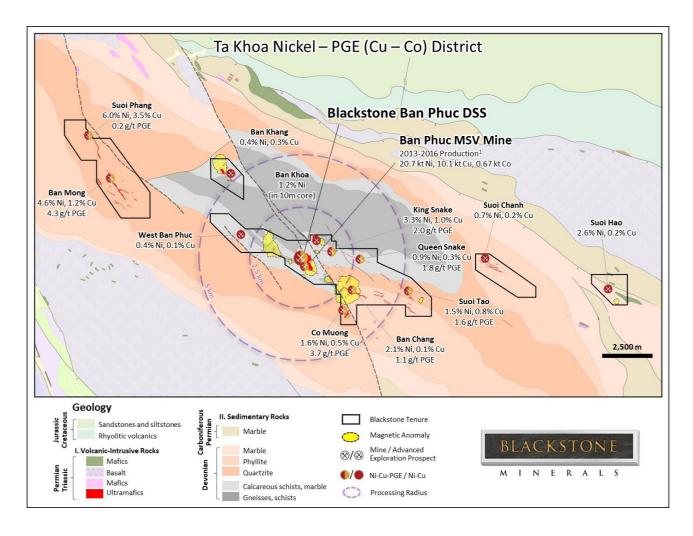


Figure 4: Ta Khoa dome geology prospective for multiple magmatic nickel sulfide deposits

(<sup>1</sup>Refer to ASX announcement 18 December 2019 Blackstone Discovers King Cobra Nickel Sulfide Zone at Ta Khoa Nickel Project)



Figure 5:Ta Khoa Project Location (see approximate location of LG Chem & Vinfast joint venture battery factory in Northern Vietnam port city of Hai Phong <a href="http://ht.ly/lfZn30p4Etv">http://ht.ly/lfZn30p4Etv</a>)



### **Canadian Projects**

#### **Gold Bridge Project (100% interest)**

The Gold Bridge Project (367 km² of tenure), formerly the Little Gem - BC Cobalt Project, is located 180 km north of Vancouver in British Columbia, Canada. The Project was discovered in the 1930s by prospectors identifying a pink cobalt-bloom on weathered mineralisation that led to three adits being developed. A total of 1,268 m of drilling was completed from underground and detailed channel sampling was taken from the adits. Blackstone acquired the Gold Bridge Project in October 2017 and has since completed an extensive maiden exploration program including drilling, geochemical and geophysical surveys, with the initial results indicating potential for the project to host a world class Cobalt Belt in British Columbia.

During the March Quarter, Blackstone prepared for the 2020 field season with ongoing data collation, administration and first nations engagement. During the 2018 field season Blackstone identified a number of major Copper-Gold-Cobalt targets centred on the Jewel Prospect, located 1.1 km north-northeast of the Little Gem Prospect. The soil anomalies are greater than 1.5 kilometres long and coincide with several significant IP targets, which are indicating a large sulfide bearing body at depth. The Copper, Gold and Cobalt soil anomalies are favourably located within a significant structural setting near the contact between the granodiorite and serpentinite (see Figures 6 & 7).

Blackstone's geological model for the Jewel Prospect suggests the Copper-Gold-Cobalt Prospect is favourably located within a similar geological setting to the underground mines of the world class Bou-Azzer primary Cobalt district in Morocco. The majority of the high grade underground primary Cobalt mines at Bou-Azzer are located near the contact of the serpentinised ultramafic and the quartz diorite. The historical Jewel Mine is likewise located within close proximity to the contact of the serpentinite and granodiorite bodies.

With the discovery of Cobalt-Gold mineralisation at Erebor during the 2018 field season returning grades up to 2.3% cobalt, 32 g/t gold, 1.6% copper and 1.1% nickel combined with the multiple large-scale IP anomalies indicating the potential source of the high grade mineralisation at Little Gem, Erebor, Jewel and Roxey, the Company continues to unlock the potential for multiple deposits in a region with geology analogous to the Bou-Azzer primary Cobalt district in Morocco (>50 deposits and over 75 years of Cobalt production). Regional targets continue to be generated from the data collected through prospecting and stream sediment sampling across the entire 48 strike km of untested geology prospective for further primary Cobalt and Gold mineralisation. Blackstone is actively seeking joint venture partners for the Gold Bridge Project.



#### **Cartier Project (100% interest)**

The Cartier Cobalt-Nickel Project (9 km<sup>2</sup> of tenure) is located 440 km north-east of Quebec City. Historic exploration (1990s) on the project for Voisey's Bay Style Nickel and Copper has identified Cobalt within two prospects named Lac St Pierre Zones 1 & 2. During the March Quarter the Company continued to progress the project to understand the full potential of the Cartier Project.

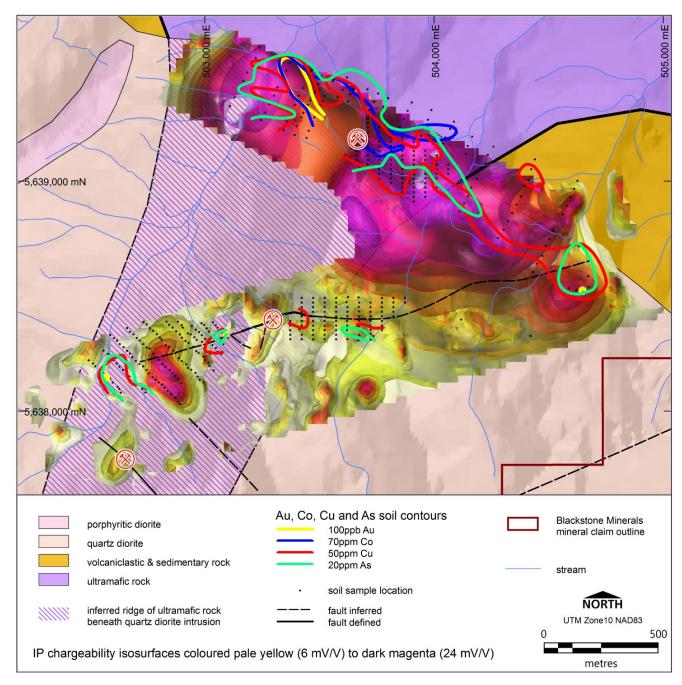


Figure 1: Gold Bridge Project plan showing Copper, Gold and Cobalt soil contours and IP chargeability isosurfaces



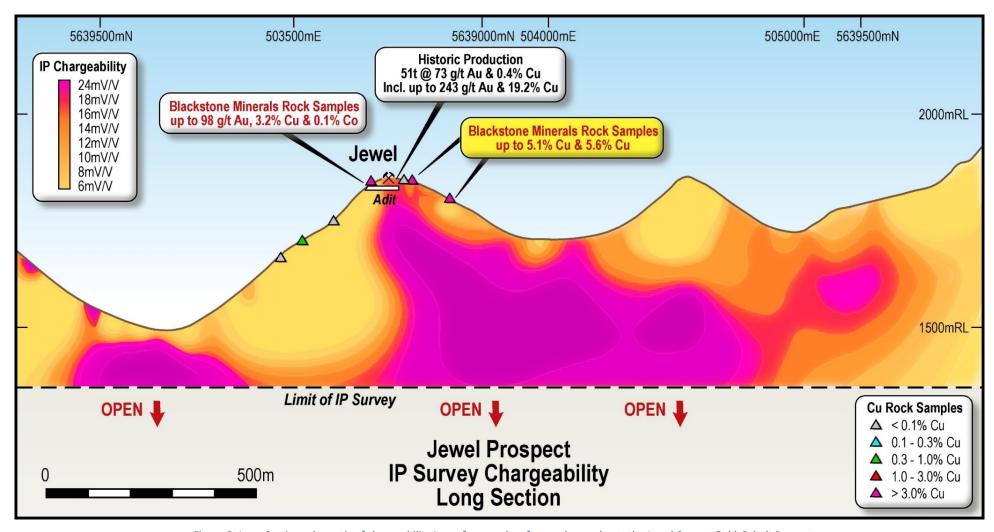


Figure 2: Long Section schematic of chargeability isosurfaces and surface rock samples at the Jewel Copper-Gold-Cobalt Prospect



## **Australian Projects**

#### Silver Swan South Project (100% interest)

The Silver Swan South Project comprises one granted exploration licence E27/545 and six granted prospecting licences, P27/2191 – 2196 covering an area of 38.5 km². The Project is along trend of the massive nickel sulfide Silver Swan Deposit (pre-mining ore reserve of 655 kt at 9.5% Nickel) and associated deposits (pre-mining resource of 10.4 Mt at 1.0% Nickel), and only 8 km northeast of the major Kanowna Belle Gold Mine (+5 Moz gold endowment).

During the March Quarter, Blackstone continued to work on finalising priority targets for drill testing.

Highlights of the Project include:

- Blackstone's second phase aircore drilling program at Silver Swan South intersected gold mineralisation and extensive basement geochemical anomalism at the Black Eagle prospect with the following result:
- 10 m @ 3.2 g/t Au from 68 m within;
- 15 m @ 2.2 g/t Au from 64 m to EOH (see Figures 8 & 9).
- The above results have significantly upgraded the Black Eagle prospect and, when combined with previous reconnaissance results of 3m @ 3.5g/t Au from 60m sees Black Eagle elevated to a priority drill target.
- The Silver Swan South project is located 8 km along strike and encompasses the interpreted extension of the Fitzroy Shear Zone which hosts the Kanowna Belle Gold Mine (+5 Moz gold endowment);
- Aircore drilling will also target the Black Hawk prospect following up on an initial 3 m @
   2.6 g/t Au from 52 m intersected in the first phase of drilling at Silver Swan South.

Blackstone's initial drilling at Silver Swan South was targeting both gold, hosted by structural targets along strike from the Kanowna Belle Gold Mine (+5Moz gold endowment), and nickel sulfide mineralisation associated with ultramafic units along strike from the Silver Swan and Black Swan Nickel Mines (combined endowment 166kt Ni metal). The initial programs were designed to test for basement hosted mineralisation, using air core drilling, to improve definition of gold and base metal anomalism identified by previous reconnaissance style drilling.

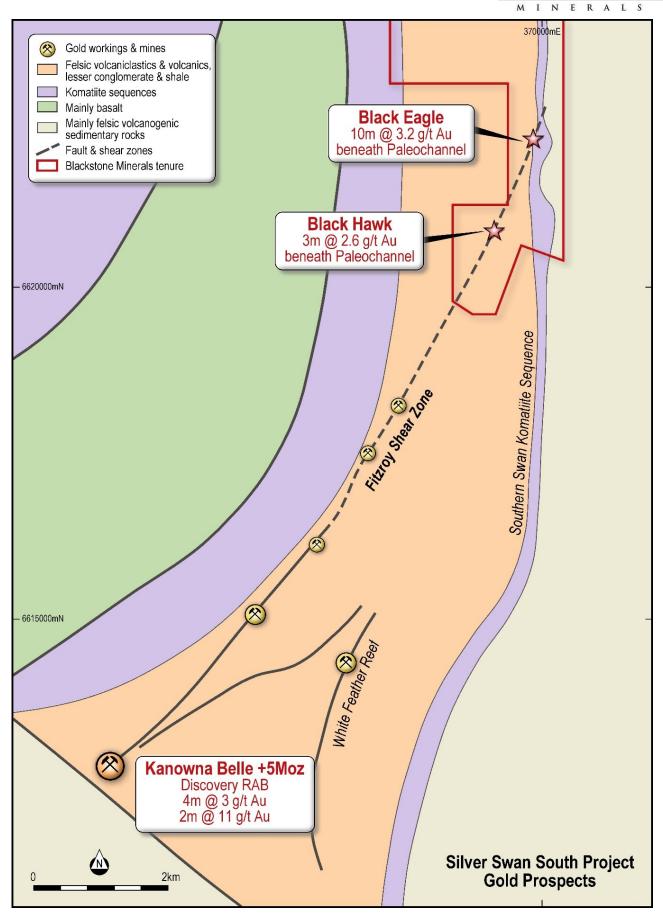


Figure 3: Silver Swan South Gold Prospects



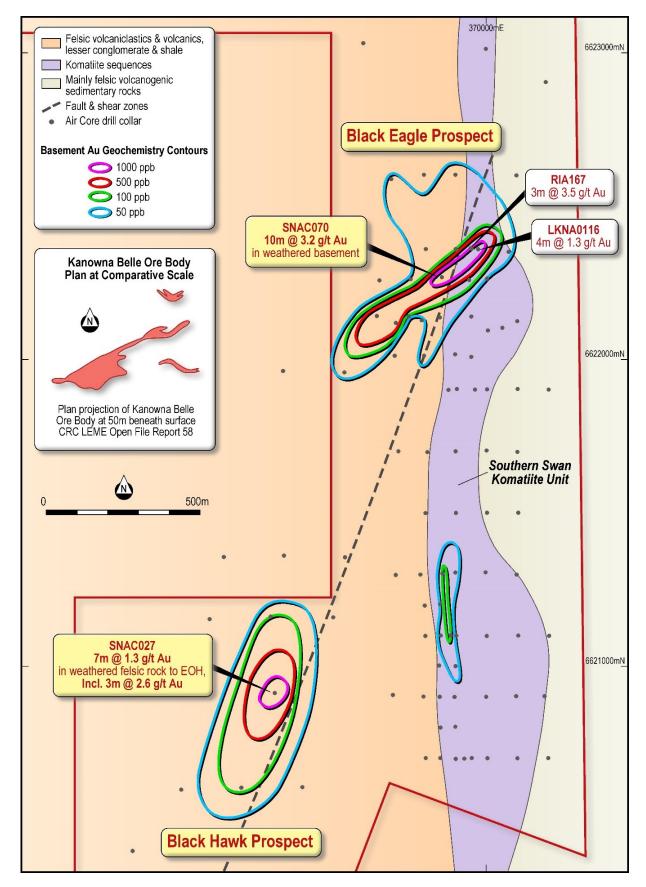


Figure 4: Silver Swan South Gold Prospects with Basement Gold Geochemistry Contours



#### **Red Gate Project (100% interest)**

The Red Gate Project consists of one granted Exploration Licence E31/1096 covering an area of 145.2 km<sup>2</sup>. The Project is centred 10 km north of the Porphyry Gold Mine (0.9 Moz gold endowment), 140 km northeast of Kalgoorlie. Historical exploration work has mostly targeted the Porphyry North Prospect where shallow, outcropping mineralisation has been defined. There is the potential to discover further mineralisation at Porphyry North and several other prospects nearby.

During the March Quarter, Blackstone continued to work on finalising priority targets for drill testing.

## Middle Creek Project (95% to 100% interest)

The Middle Creek Project is adjacent to Millennium Minerals Limited's Nullagine Gold Project (where the Golden Eagle operations have produced >400 koz gold since 2012 and, as at 31St July 2018, had a 1.1Moz resource inventory), in the Pilbara region of Western Australia and consists of 21 prospecting licence applications covering 37.7 km² within the Mosquito Creek belt.

During the March Quarter, Blackstone continued to work on finalising priority targets for drill testing.

Yours sincerely

Scott Williamson Managing Director T: +61 8 9425 5217

#### **About Blackstone**

Blackstone Minerals Limited (ASX code: BSX) is developing the district scale Ta Khoa Project in Northern Vietnam where the company is drilling out the large-scale Ban Phuc Nickel-PGE deposit. The Ta Khoa Nickel-PGE Project has existing modern mine infrastructure built to International Standards including a 450ktpa processing plant and permitted mine facilities. Blackstone also owns a large land holding at the Gold Bridge project within the BC porphyry belt in British Columbia, Canada with large scale drill targets prospective for high grade gold–cobalt-copper mineralisation. In Australia, Blackstone is exploring for nickel and gold in the Eastern Goldfields and gold in the Pilbara region of Western Australia. Blackstone has a board and management team with a proven track record of mineral discovery and corporate success.

#### **Competent Person Statement**

The information in this report that relates to Exploration Results and Exploration Targets is based on information compiled by Mr Andrew Radonjic, an employee of the company and who is a Member of The Australasian Institute of Mining and Metallurgy. Mr Andrew Radonjic has sufficient experience which is relevant to the style of mineralisation and type of deposits 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'. Mr Andrew Radonjic consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

#### No New Information or Data

For full details of the Exploration results, refer to the said Announcement or Release on the said date. Blackstone Minerals is not aware of any new information or data that materially affects the information included in the said announcement.



# **Appendix One** | Tenements

# Mining tenements held at the end of March 2020 Quarter

Project	Location	Tenement	Interest at March 2020
Gold Bridge	British Columbia, Canada	501174, 502808	100%
	British Columbia, Canada	503409, 564599	100%
	British Columbia, Canada	573344, 796483	100%
	British Columbia, Canada	844114, 1020030	100%
	British Columbia, Canada	1047915, 1055449	100%
	British Columbia, Canada	1046246, 1046253	100%
	British Columbia, Canada	1050797, 1052563	100%
	British Columbia, Canada	1052564, 1052989	100%
	British Columbia, Canada	1052990, 1052991	100%
	British Columbia, Canada	1052992, 1052993	100%
	British Columbia, Canada	1055836, 1055837	100%
	British Columbia, Canada	1055838, 1055839	100%
	British Columbia, Canada	1055840, 1055859	100%
	British Columbia, Canada	1055860, 1055861	100%
	British Columbia, Canada	1055862, 1055863	100%
	British Columbia, Canada	1055864, 1052630	100%
	British Columbia, Canada	1052893 1065892	100%
	British Columbia, Canada	1066580, 1066581	100%
	Birtish dorambia, danada	1000300, 1000301	10070
Bull Run (Record	Oregon, United States	152073, 152074,	$0\%^1$
Mine)	<b>.</b>	152076, 152077,	$0\%^{1}$
,		152078, 152627,	$0\%^1$
		17242 - 17246	$0\%^1$
Ta Khoa	Vietnam	ML 1211/GPKT- BTNMT	90%
		and 522 G/P	90%
Cartier	Quebec, Canada	2459824, 2459825	100%
our tier	Quebec, Canada	2459826, 2459827	100%
	Quebec, Canada	2459828, 2459829	100%
	Quebec, Canada	2463107, 2463108	100%
	Quebec, Canada	2463109, 2463110	100%
	Quebec, Canada	2463111, 2463112	100%
	Quebec, Canada Quebec, Canada	2463113, 2463114	100%
	Quebec, Canada	2463115,	100%
Silver Swan	Eastern Goldfields	P27/2191 –	100%
South		P27/2196, E27/545	
Red Gate	Eastern Goldfields	E31/1096	100%
Middle Creek	Western Australia	P46/1900 - P46/1912	
MIGUIC GICEK	W CSCCI II AUSTI alia	P46/1914 - P46/1920,	95%
		P46/1924	95%
		110/1/21	100%

<sup>1.</sup> Held via option agreement to acquire up to 100% of the project.



#### Mining tenements acquired and disposed during the March 2020 Quarter

Project	Location	Tenement	Interest at beginning of Quarter	Interest at end of Quarter	
Nil	Mining tenements relinquished  Nil  Mining tenements acquired				
Ta Khoa	Vietnam	ML 1211/GPKT BTNMT and 522 G/P	-	90%	

#### Beneficial percentage interests in joint venture agreements at the end of the Quarter

Project	Location	Tenement	Interest at end of Quarter
Nil			

#### Beneficial percentage interests in farm-in or farm-out agreements acquired or disposed of during the Quarter

Project	Location	Tenement	Interest at beginning of Quarter	Interest at end of Quarter	
Mining tene	Mining tenements relinquished				
Nil	Nil				
Mining tene	Mining tenements acquired				
Nil	-				