

## RAIDEN DELINEATES ANOTHER LARGE ALTERATION ZONE ON THE KALABAK PROJECT IN BULGARIA

### HIGHLIGHTS

- **Raiden defines a third prospect on the Kalabak project “Sbor West”;**
- **Satellite imagery outlines large hydrothermal alteration zone west of Sbor on the Kalabak permit area;**
- **Alteration zone coincident with elevated gold concentration in stream sediment;**
- **Geological observations point towards potential for epithermal gold mineralisation and possibly towards deeper seated copper- porphyry style mineralisation; and**
- **Initial work program designed to advance this untested prospect to the drill-ready stage**

**Raiden Resources Limited (ASX: RDN) (“Raiden” or “the Company”)** is pleased to report on the results from a review of historical exploration data, a study of satellite imagery and a reconnaissance field visit to the Kalabak project in Bulgaria. As detailed in the Company’s 15 July 2019 ASX announcement, the Company has an option to acquire up to 75% of the project.

Dusko Ljubojevic, Managing Director of Raiden commented:

*“Within only a matter of months, Raiden has managed to define a third, large scale prospect on the Kalabak project. This speaks volumes to the prospective geology within the Kalabak license. The Sbor West prospect extends over a significant area and the Company’ is already advancing the work programs over this prospect to generate drill targets in the near term.”*

### QUICK STATS

**ASX Code:** RDN

**Shares on Issue:** 410.4 million

**Market Cap:** \$2.87 million

**Cash:** \$1.75m (at 30 June '19)

### BOARD & MANAGEMENT

**Non- Executive Chairman**

Mr Michael Davy

**Managing Director**

Mr Dusko Ljubojevic

**Non-Executive Directors**

Mr Martin Pawlitschek

**Company Secretary**

Ms Kyla Garic

### ASSET PORTFOLIO

**Stara Planina - Serbia**

(JV with local entity – path to 100% - 46km<sup>2</sup>)

**Donje Nevlje - Serbia**

(100% – 74km<sup>2</sup>)

**Majdanpek West - Serbia**

(Rio JV - 100% - 76km<sup>2</sup>)

**Zupa - Serbia**

(100% Raiden – 85km<sup>2</sup>)

**Pirot - Serbia**

(Executing Application – 16km<sup>2</sup>)

**Bor - Serbia**

(Partially granted/ pending application - 100% - ~28km<sup>2</sup>)

**Vuzel - Bulgaria**

(JV with local entity – path to 100% ~26.5 km<sup>2</sup>)

**Kalabak - Bulgaria**

(JV with local entity – path to 75% ~191 km<sup>2</sup>)

**Zlatusha - Bulgaria**

(JV with local entity – path to 75% ~195 km<sup>2</sup>)

Significant further ground holding currently under review.

## Work Program Status

The Company's technical team reviewed published geological maps and historical exploration data, as well as carried out an interpretation of satellite imagery covering the Sbor prospect area. This work resulted in the definition of a new prospect, located 1.5 km west of the previously reported Sbor Prospect (Figure 1), herein referred to as the "Sbor West" prospect. The team also conducted a reconnaissance visit to the Sbor West Prospect, and is now investigating the availability of further exploration data within historical reports located in the Bulgarian Ministry of Energy ("Ministry"). During the following quarter, the Company plans to execute further geochemical surveys and mapping programs with the objective of defining priority areas for follow up geophysics and potentially drilling.

## Sbor West Prospect

Processed satellite data and geological mapping demonstrated that the Sbor West Prospect comprises a one kilometre long and north-west trending corridor, along which at least seven zones of total argillic and advanced argillic alteration exist (Figure 2). During 2017 QX Metals Corporation ("QX") carried out a stream sediment program and found that the only sample taken in the catchment of the Sbor West Prospect yielded an anomalous gold value (15 ppb; Figure 3).

Geologically, the prospect occurs at the base of an Eocene and Oligocene volcano-clastic sequence of andesitic composition, directly overlying the Podrumsche conglomerate. The volcano-sedimentary package dips shallow to the north-west and discordantly overlies older basement gneiss and amphibolite. The alteration is limited to the andesites while the underlying conglomerate appears to be unaltered. Published geological maps as well as the technical team's field observations outlined subvolcanic porphyritic andesite stocks, that intruded the volcano-clastic sequence in the area of interest. These andesite stocks may relate to a larger concealed feeder intrusive underneath the Sbor West Prospect and therefore underline the potential for deeper seated copper porphyry mineralisation.

During a recent visit to Sbor West the Company's geologists confirmed outcrops of intense argillic alteration and silification in volcano-clastic rocks. Porphyritic andesite are common in the area of interest and often contain small amounts (< 1 %) of disseminated pyrite (Figure 4). On the basis of these observations the Company believes that this alteration system is prospective for high-sulphidation epithermal gold mineralisation and possibly for deeper seated copper porphyry mineralisation.

Raiden's short-term exploration program over the Sbor West Prospect will include a multi-element soil geochemical survey, geophysics and alteration mapping, with the objective of generating initial drill targets in the near future.

## Cautionary Statement

The Company cautions that the sampling results are historical in nature and have not been verified by the Company. Data from the QX program has not been independently verified and no original pulps are available to the Company for assay verification. Therefore, the Company considers the historical data only as an indication of prospectivity and presence of gold mineralisation within the Kalabak permit.

## Regional porphyry potential

The Kalabak project is located within the Tertiary porphyry and epithermal belt (Figure 5). The majority of exploration in the Bulgarian segment of this belt has been focused on Pb-Zn mineralisation by previous state-owned enterprises. Exploration over the last fifteen to twenty years, has highlighted that the belt is also prospective for porphyry and epithermal gold mineralisation, with many deposits of this type now known in Serbia, Greece and Macedonia. Porphyry mineralisation has to date been discovered within the Tertiary Dinaride-Aegean segments in all the neighbouring countries, but not in Bulgaria. Given that the Kalabak project is situated within a similar geological setting and displays significant alteration features and geochemical fingerprints pointing towards copper-gold mineralisation, the Company believes this is the consequence of a lack of exploration, rather than a lack of geologic potential.

## About the Kalabak Project

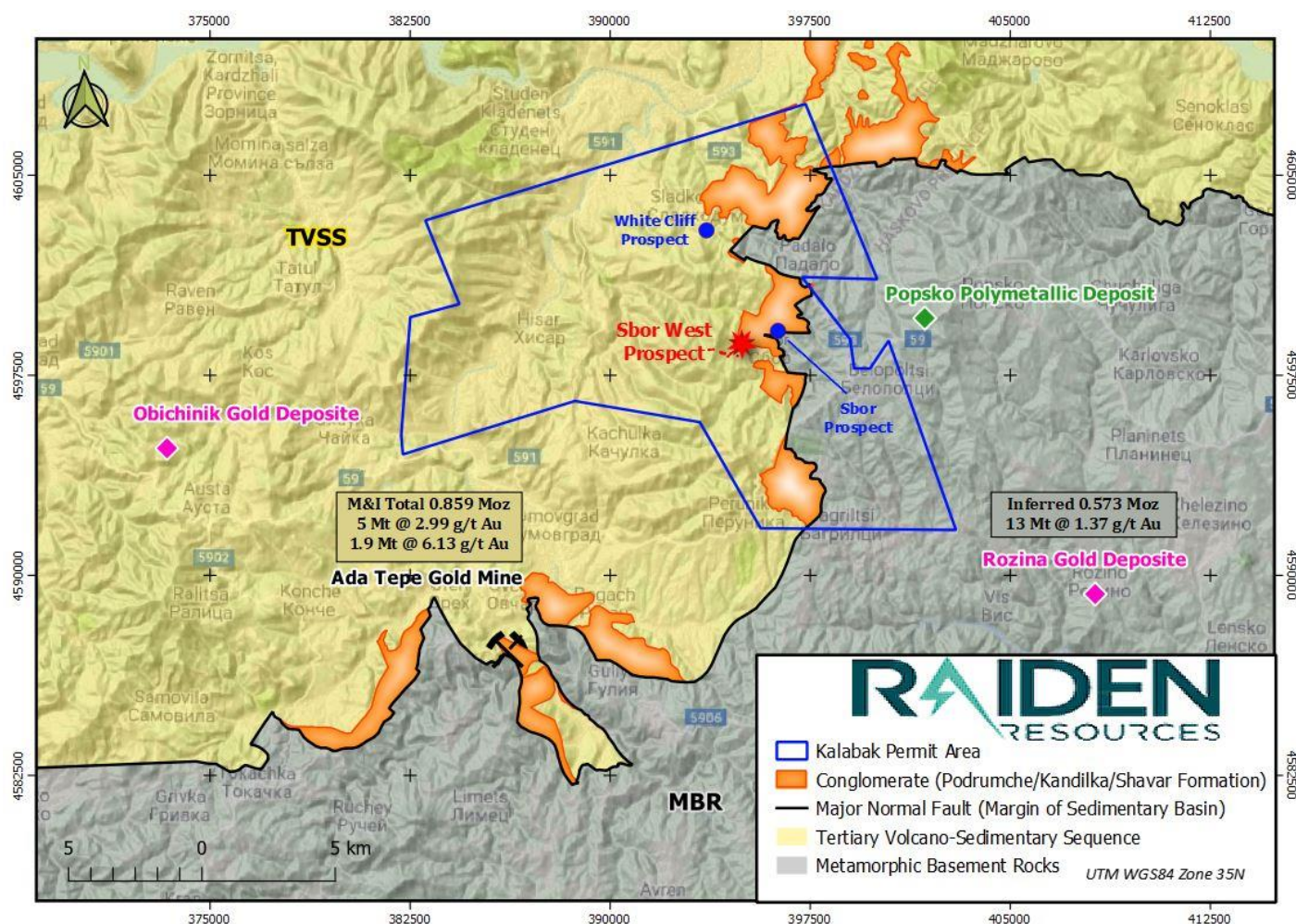
As noted above, the Company announced on 15 July 2019 that it has signed an Option agreement with QX over the Kalabak project in Bulgaria. QX, a TSX-V listed Company, is the 100% holder of the Kalabak license, through its 100% owned Bulgarian entity, Zelenrok EOOD. The agreement provides Raiden with an opportunity to earn up to 75% in the Kalabak project. Key terms of the agreement are set out in the Company's 15 July 2019 ASX announcement.

## Location, Geological Setting and Belt Potential

The Kalabak license is located in the Haskovo Province (Kardzhali District) in southeast Bulgaria (Figures 1 and 6). Two major gold deposits are located within 10km of the Kalabak licence. The Ada Tepe deposit, southwest of Kalabak, was developed by Dundee and achieved commercial production in March 2019. Velocity Minerals' (TSXV-VLC) Rozino deposit, southeast of the Kalabak permit, hosts an inferred gold resource of 13 million tonnes grading 1.37 g/t gold<sup>1</sup> and is currently in the

prefeasibility stage. Mineralization at both projects is hosted in sedimentary rocks of the Palaeocene/Mid-Eocene. This supports the potential for the altered Palaeocene/Mid-Eocene sediments within the Kalabak license to host similar styles of mineralisation.

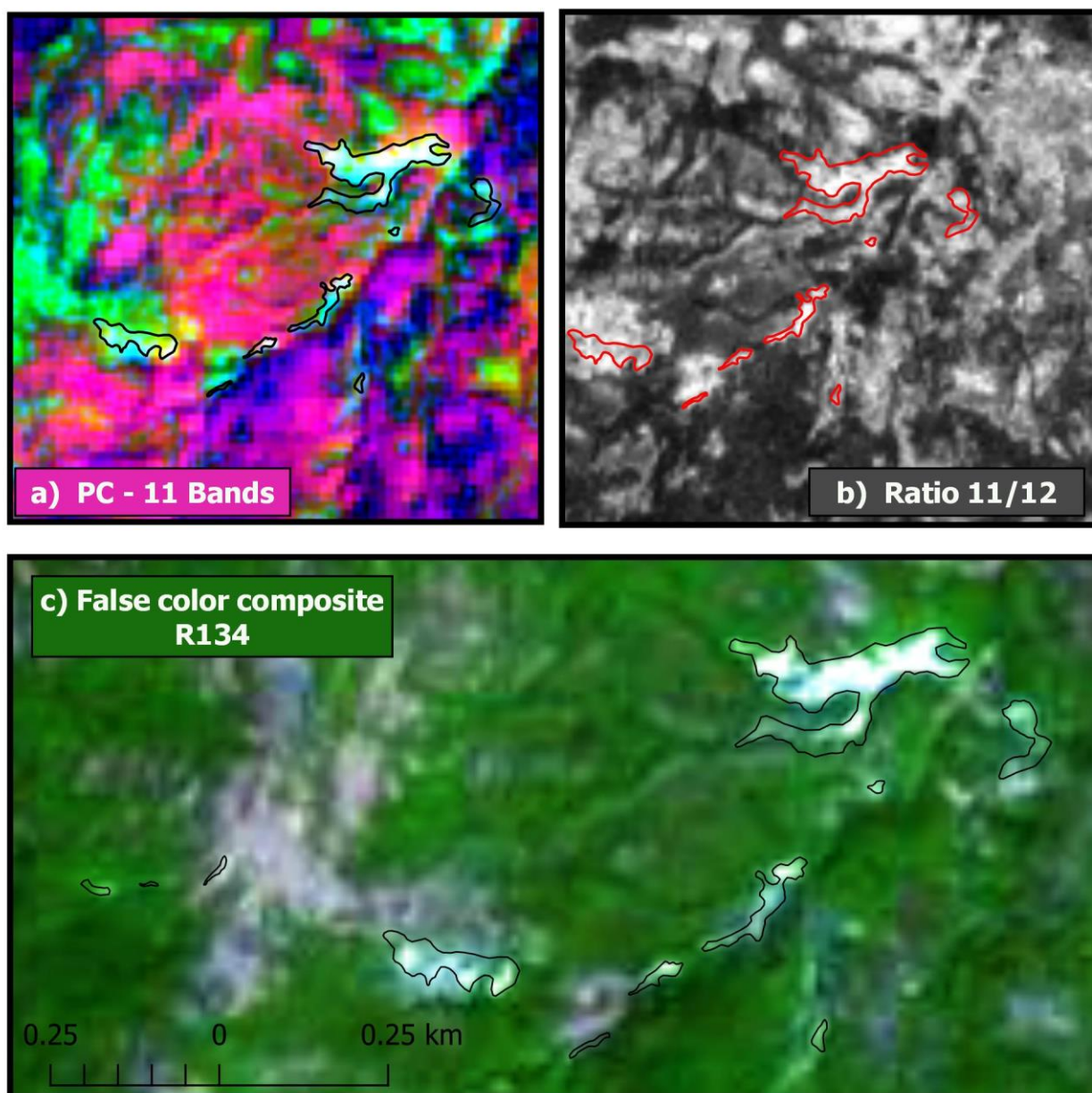
<sup>1</sup>[https://www.velocityminerals.com/site/assets/files/5199/vlc\\_website\\_july\\_25\\_2019.pdf](https://www.velocityminerals.com/site/assets/files/5199/vlc_website_july_25_2019.pdf)



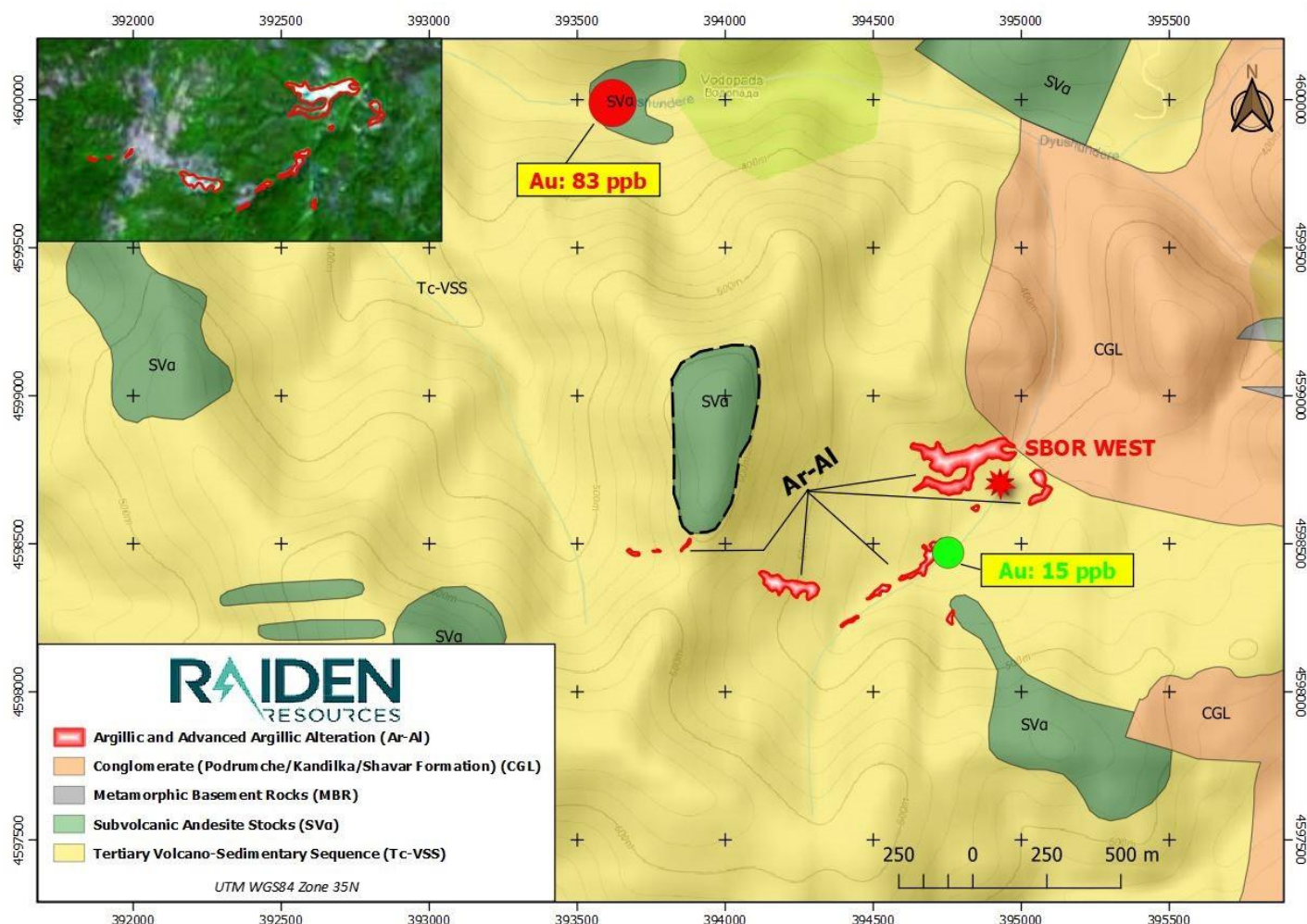
**Figure 1:** Location of the Sbor West Prospect in the central part of the Kalabak permit (191 km²) in south-eastern Bulgaria. Mines and mineral deposits<sup>2</sup> in the vicinity of the permit area are also shown. Geologically, the prospect occurs in the Eocene and Oligocene volcano-sedimentary package directly overlying the Podrumsche conglomerate

<sup>2</sup>[https://www.velocityminerals.com/site/assets/files/5199/vlc\\_website\\_july\\_25\\_2019.pdf](https://www.velocityminerals.com/site/assets/files/5199/vlc_website_july_25_2019.pdf)  
[https://www.miningdataonline.com/reports/annual/Krumovgrad\\_Project\\_TR\\_2014.pdf](https://www.miningdataonline.com/reports/annual/Krumovgrad_Project_TR_2014.pdf)





**Figure 2:** Images of processed satellite data showing the argillic and advanced argillic alteration zones that define the Sbor West Prospect. Processing of Sentinel 2 data (13 Bands) was carried out by Raiden's technical team and defined a one kilometre long and northwest trending corridor along which at least seven zones of argillic alteration exist (black outlines). A Principal Component Analysis (a) appears to be unsuitable to map argillic alteration, but is included here to visualise the data of all bands in a single image. The Band 11/12 Ratio (b) and the False Colour Composite (c) together clearly map the Sbor West alteration zones and will be an important future exploration tool to detect additional alteration zones in the area of interest



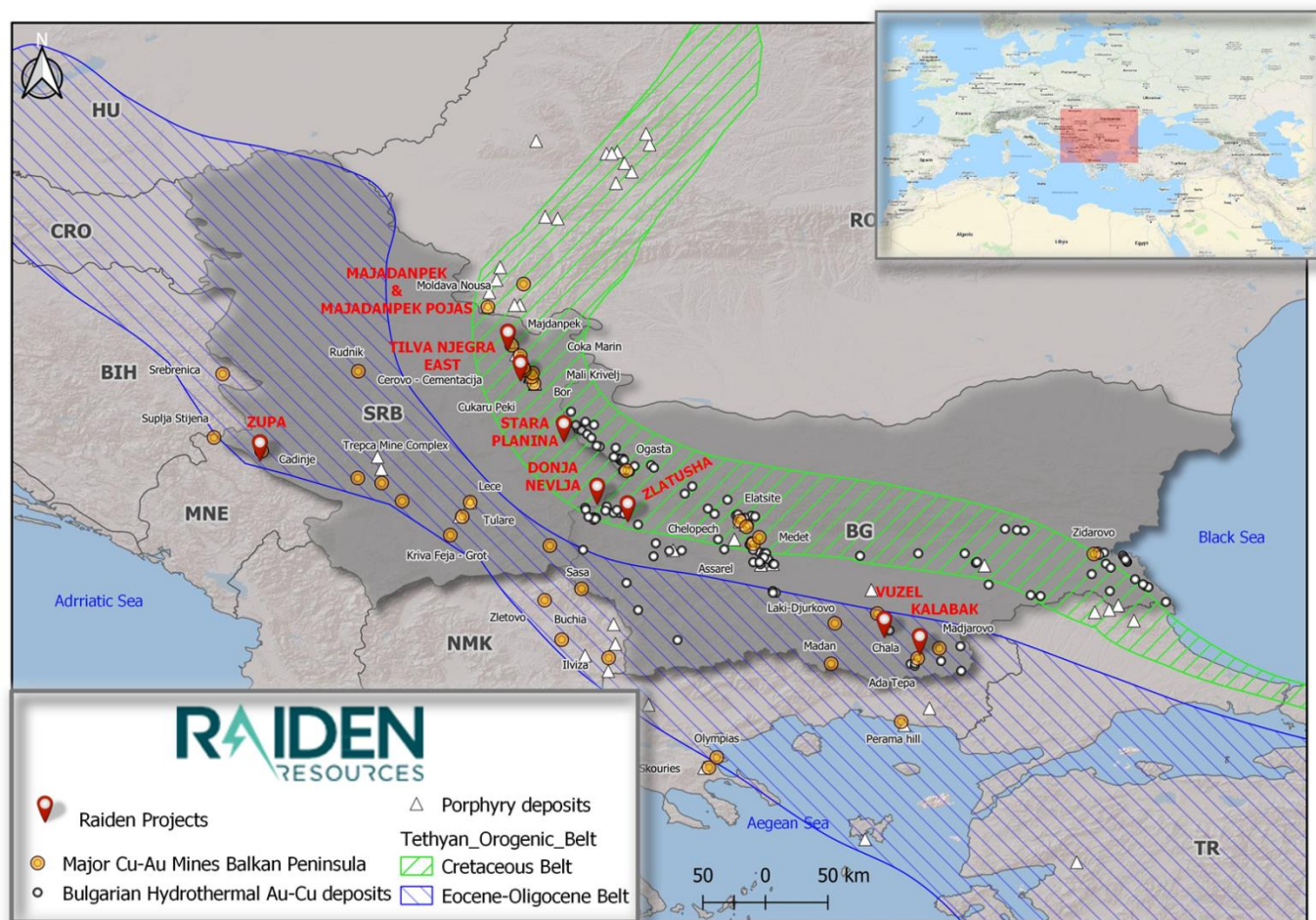
**Figure 3:** Geologically, the Sbor West Prospect lies at the bottom contact of a unit of Tertiary volcano-clastic andesites (Tc-VSS) with the underlying Podrumsche conglomerate. The alteration is limited to the andesites, while the underlying conglomerate appears to be unaltered. Near-by subvolcanic porphyritic andesite stocks intruded the volcano-clastic andesites (SVa) and may relate to a larger concealed feeder intrusive body underneath the Sbor West Prospect. During 2017 QX carried out a stream sediment program in the permit area and found that the only sample taken in the catchment of the Sbor West Prospect (green point) yielded an anomalous gold value



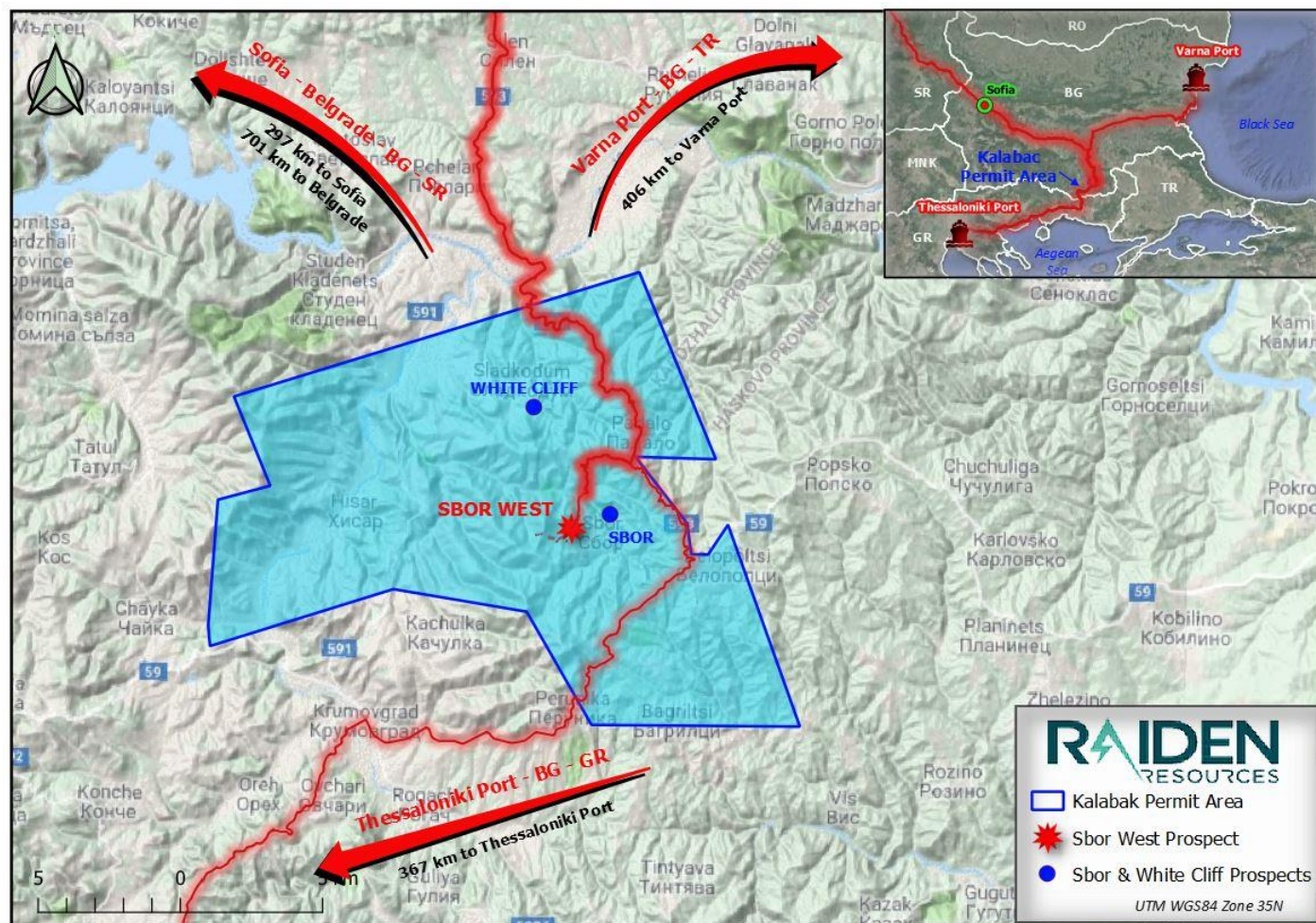


**Figure 4:** Photographs taken on the Sbor West Project. (a) The contact of the Podrumsche conglomerate (bottom) with the overlying argillically altered volcano-clastic andesite unit in the background (brown). (b) Pervasive argillic alteration appears to affect the growth of vegetation in the area. (c) Porphyritic and silicified andesite with < 1 % disseminated pyrite. (d) Natural acid drainage caused by oxidation of sulphides in the altered rock in the catchment





**Figure 5:** Locations of the Company's projects in the Tethyan orogenic belts and relative to known porphyry and epithermal gold and copper deposits



**Figure 6:** The location of the Kalabak permit and the Sbor West Prospect in south-eastern Bulgaria. Sea ports can be reached via well maintained and tarred roads



FOR FURTHER INFORMATION PLEASE CONTACT

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**Competent Person's Statement**

*The information in this announcement that relates to exploration results is based on and fairly represents information and supporting documentation prepared by Mr Martin Pawlitschek, a competent person who is a member of the Australian Institute of Geoscientists (AIG). Mr Martin Pawlitschek is employed by Raiden Resources Limited. Mr Martin Pawlitschek has sufficient experience that is relevant to the style of mineralisation and type of deposits under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 edition of the JORC Code. Mr Martin Pawlitschek has provided his prior written consent as to the form and context in which the exploration results and the supporting information are presented in this announcement.*

**Disclaimer:**

Forward-looking statements are statements that are not historical facts. Words such as "expect(s)", "feel(s)", "believe(s)", "will", "may", "anticipate(s)", "potential(s)" and similar expressions are intended to identify forward-looking statements. These statements include, but are not limited to statements regarding future production, resources or reserves and exploration results. All of such statements are subject to certain risks and uncertainties, many of which are difficult to predict and generally beyond the control of the Company, that could cause actual results to differ materially from those expressed in, or implied or projected by, the forward-looking information and statements. These risks and uncertainties include, but are not limited to: (i) those relating to the interpretation of drill results, the geology, grade and continuity of mineral deposits and conclusions of economic evaluations, (ii) risks relating to possible variations in reserves, grade, planned mining dilution and ore loss, or recovery rates and changes in project parameters as plans continue to be refined, (iii) the potential for delays in exploration or development activities or the completion of feasibility studies, (iv) risks related to commodity price and foreign exchange rate fluctuations, (v) risks related to failure to obtain adequate financing on a timely basis and on acceptable terms or delays in obtaining governmental approvals or in the completion of development or construction activities, and (vi) other risks and uncertainties related to the Company's prospects, properties and business strategy. Our audience is cautioned not to place undue reliance on these forward-looking statements that speak only as of the date hereof, and we do not undertake any obligation to revise and disseminate forward-looking statements to reflect events or circumstances after the date hereof, or to reflect the occurrence of or non-occurrence of any events



### About Raiden Resources

**Raiden Resources Limited** (ASX: RDN) is an ASX listed copper—gold exploration company focused on the emerging prolific Tethyan metallogenic belt in Eastern Europe (Serbia and Bulgaria). The Company has signed an Earn-In and Joint Venture Agreement with Rio Tinto in respect to two licenses (Majdanpek West and Majdanpek Pojas), whereby Rio Tinto can earn a 75% project-level position in the properties, via a staged exploration commitment totalling USD\$31.5 million in three stages at Rio Tinto's election.

Raiden also retains a 100% interest in the Bor and Pirot project applications, the Donje Nevlje project; the Zupa property and the Tilva Njagra project which the Company considers prospective for epithermal and porphyry style copper, gold and base metal mineralisation. The Company also has executed a Joint Venture Agreement with a local vendor in relation to the Stara Planina project, which hosts two large anomalies, which the Company plans to continue exploring throughout 2019. The Company has also recently signed 3 significant transactions in Bulgaria, including the Vuzel project (epithermal gold); Kalabak project (epithermal and porphyry potential) and Zlatusha project (porphyry and epithermal potential). With the recent acquisitions, the Company has become one of the largest ground holders in the Western Tethyan belt and the Directors believe that the Company is well positioned to unlock value from this exploration portfolio.

**JORC Code, 2012 Edition Table 1. This table applies to the Kalabak exploration permit in south-eastern Bulgaria.**

Section 1: Sampling Techniques and Data

Criteria	JORC Code Explanation	Commentary
Sampling techniques	<i>Nature and quality of sampling (e.g. 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.</i>	QX Metals Corporation's ("QX") Surface Rock Sampling Program: QX, formerly known as Black Sea Copper and Gold, collected 2 stream sediment samples from the Sbor West Prospect area that have been referred to in this Public Report.
	<i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</i>	The samples were collected with the objective of defining the source of mineralisation only. The objective of the program was not to gather representative samples within the entire prospect area. The results from the program are not being used in any mineral resource statement and are only used by the Company as a guide to direct further exploration efforts.
	<i>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 (e.g. '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 (e.g. submarine nodules) may warrant disclosure of detailed information.</i>	The ALS laboratory in Romania was instructed to screen the entire sample through a 180 micron sieve. The fine fraction was used for further analytical use (see section below).

**JORC Code, 2012 Edition Table 1. This table applies to the Kalabak exploration permit in south-eastern Bulgaria.**

Section 1: Sampling Techniques and Data

<b>Drilling techniques</b>	<i>Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc.) and details (e.g. 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.).</i>	Not applicable as this public report does not refer to the results of drilling activity.
<b>Drill sample recovery</b>	<i>Method of recording and assessing core and chip sample recoveries and results assessed.</i>	As per the above.
	<i>Measures taken to maximise sample recovery and ensure representative nature of the samples.</i>	As per the above.
<b>Logging</b>	<i>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.</i>	As per the above.
	<i>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.</i>	As per the above
	<i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.</i>	As per the above.



**JORC Code, 2012 Edition Table 1. This table applies to the Kalabak exploration permit in south-eastern Bulgaria.**

Section 1: Sampling Techniques and Data

<b>Sub-sampling techniques and sample preparation</b>	<i>The total length and percentage of the relevant intersections logged.</i>	As per the above.
	<i>If core, whether cut or sawn and whether quarter, half or all core taken.</i>	Not applicable as this public report does not refer to the results of drilling activity.
	<i>If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.</i>	As per the above.
	<i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i>	The use of the -180 micron fraction for analysis is common practise for stream sediment samples.
	<i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i>	No quality control was adopted to control the representivity of the screening and sub-sampling.
	<i>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.</i>	No field duplicates were submitted.
	<i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i>	The use of the -180 micron fraction for analysis is common practise for stream sediment samples.

JORC Code, 2012 Edition Table 1. This table applies to the Kalabak exploration permit in south-eastern Bulgaria.

Section 1: Sampling Techniques and Data

Quality of assay data and laboratory tests	<i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i>	Samples were submitted to ALS Romania. Preparation of stream sediment samples has been described above. Subsamples were submitted for a 30g lead collection fire assay (ICP-AES Finish) charge and an aqua regia digestion ICP-AES analysis (35 elements). Both methods are considered to report on the total elemental concentration. The elected analytical and assay techniques and QA/QC protocols are appropriate and adequate for the purposes of exploration evaluation.
	<i>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.</i>	There was no reliance on such tools.
	<i>Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.</i>	QX did not submit field blanks, duplicates and standards with the samples. ALS laboratory adhered to industry standard insertion and reporting of laboratory duplicates, blanks and standards. Acceptable levels of repeatability within one standard deviation and a lack of cross contamination have been observed. Further exploration activities by Raiden will include insertions of independent field blanks, certified standards and duplicates which will be submitted with the field samples.

**JORC Code, 2012 Edition Table 1. This table applies to the Kalabak exploration permit in south-eastern Bulgaria.**

Section 1: Sampling Techniques and Data

Verification of sampling and assaying	<i>The verification of significant intersections by either independent or alternative company personnel.</i>	The Company has not conducted any independent verifications of the stream sediment sampling reported in this release, nor is it aware of any other independent verifications. The Company is not using the historical results for any resource statements and only considers the results as an indication of prospectivity of the area and shall be used as a guide for further more detailed exploration work.
	<i>The use of twinned holes.</i>	Not applicable.
	<i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i>	QX Stream Sediment Sampling: The primary geochemical data and primary laboratory certificates are stored in electronic format on the server of Raiden and at the Bulgarian National Geofund. The Company is not aware of the documentation procedures applied by QX, but assumes that NI-43-101 standard industry protocols were followed
	<i>Discuss any adjustment to assay data.</i>	There was no adjustment of assay data.
Location of data points	<i>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.</i>	Not applicable as this release does not report on the estimation of a mineral resource.



**JORC Code, 2012 Edition Table 1. This table applies to the Kalabak exploration permit in south-eastern Bulgaria.**

Section 1: Sampling Techniques and Data

<b>Data spacing and distribution</b>	<i>Specification of the grid system used.</i>	Locations recorded during the field mapping were recorded using a hand-held GPS. Positions were noted in the geographical and UTM (Zone 35N) coordinate systems. In both cases the WGS84 map datum was used. Topographic accuracy is estimated to be within 5-10 meters.
	<i>Quality and adequacy of topographic control.</i>	Not considered relevant, as the release does not refer to any resources statement.
	<i>Data spacing for reporting of Exploration Results.</i>	The spacing between stream sediment sampling locations was typically between 400m and 1500m. Only first order streams were sampled. The results of the stream sediment sampling program are only indicative of the further exploration potential in the area of interest.
	<i>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.</i>	Not applicable as this release does not report on the estimation of a mineral resource.
	<i>Whether sample compositing has been applied.</i>	Not applicable.

**JORC Code, 2012 Edition Table 1. This table applies to the Kalabak exploration permit in south-eastern Bulgaria.**

Section 1: Sampling Techniques and Data

<b>Orientation of data in relation to geological structure</b>	<i>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</i>	Not applicable as the surface sampling referred to herein is point data and therefore does not have an orientation.
	<i>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.</i>	As per the above.
<b>Sample security</b>	<i>The measures taken to ensure sample security.</i>	The Company does not know the exact procedures which QX employed but assumes that standard industry NI-43-101 procedures were applied.
<b>Audits or reviews</b>	<i>The results of any audits or reviews of sampling techniques and data.</i>	To date no audits have been undertaken.

**This table applies to the Kalabak exploration prospect in south-eastern Bulgaria**

Section 2 Reporting of Exploration Results

Criteria	JORC Code Explanation	Commentary
<b>Mineral tenement and land tenure status</b>	<p><i>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.</i></p>	<p>Raiden Resources has an interest in the 191 km<sup>2</sup> Kalabak project under an earn-in and option agreement with the holder of the Kalabak project, QX Metals. Under the Agreement Raiden has a right to earn in up to 75% interest in the Kalabak Licence, by completing a NI-43-101 compliant Pre-Feasibility study.</p> <p>The Kalabak project area includes five protected areas with respect to Article 5 of the Protected Areas Act, and large portions of the project fall within a “special area of conservation” under the European Ecological Network NATURA2000 (Law on Biological Diversity). The Company does not expect these protected zones to impact on the Company’s exploration activities.</p> <p>Under the Bulgarian Law for Mineral Resources, on expiration of the initial three-year term of the permit, the holder of the exploration permit is entitled to apply for a renewal of the exploration license for a further 2-year period at the Bulgarian Ministry of Energy (“Ministry”). For the renewal application to be considered the applicant has to:</p> <ul style="list-style-type: none"> <li>• Demonstrate that work program for the previous period has been completed;</li> <li>• Submit the application for the renewal of the licence to the Ministry 30 days before the expiration of the initial 3-year period. With the request for the renewal, the applicant is required to submit a final report on all exploration results; and</li> <li>• Submit an exploration program for the next 2-year period.</li> </ul>

This table applies to the Kalabak exploration permit at south-eastern Bulgaria  
Section 2 Reporting of Exploration Results

Exploration done by other parties		<p>To date Raiden resources has not earned into the license.</p> <p>The full terms of the Kalabak earn-in agreement can be found in the press release dated 15 July 2019.</p>
	<p>The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.</p>	<p>The Kalabak license is currently in good standing and the Company is not aware of any impediments which may impact its ability to operate within the area.</p>
	<p>Acknowledgment and appraisal of exploration by other parties.</p>	<p>Early exploration in the Kalabak permit area by the Bulgarian State Geological Agencies was solely directed at the base metal potential of the area. This included mapping, soil sampling, rock sampling and drilling. The data stemming from this exploration era is kept at the Bulgarian Ministry of Energy (National Geofund and Geology).</p> <p>Balkan Minerals and Mining (“BMM”), initially a subsidiary of Irish Navan Mining Plc. was later acquired by Dundee Precious Metals and explored the Kalabak area from 2002 to 2004. In its approach BMM followed the exploration evolution of the belt from base metals to epithermal gold. BMM’s exploration program included geological mapping, soil and rock sampling and drilling. The data stemming from this exploration phase is kept at the Bulgarian Ministry of Energy (National Geofund and Geology). Raiden is presently in the process of acquiring selected parts of this data.</p>



**This table applies to the Kalabak exploration permit at south-eastern Bulgaria**

Section 2 Reporting of Exploration Results

		<p>Toronto listed QX Metals (TSX.V:QX), formerly known Black Sea Copper and Gold, explored in the Kalabak permit in 2017. QX's work program included soil sampling, stream sediment sampling and surface rock sampling. The resulting exploration data are available to Raiden's geologist and a review of this data is ongoing.</p>
<b>Geology</b>	<p><i>Deposit type, geological setting and style of mineralisation.</i></p>	<p>This information has been provided in the main part of this public report.</p>
<b>Drill hole Information</b>	<p><i>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:</i></p> <ul style="list-style-type: none"> <li>○ <i>easting and northing of the drill hole collar</i></li> <li>○ <i>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</i></li> <li>○ <i>dip and azimuth of the hole</i></li> <li>○ <i>down hole length and interception depth</i></li> <li>○ <i>hole length.</i></li> </ul> <p><i>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.</i></p>	<p>Stream sediment assay results and sample locations referred to in this public release are presented in Figure 3.</p>
<b>Data aggregation methods</b>	<ul style="list-style-type: none"> <li>• <i>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.</i></li> </ul>	<p>Any grade information reported in this release is considered useful, qualitative information by the CP. The data is suitable for planning of additional work that will lead to a drill decision. The data available is insufficient to be included in a mineral resource.</p>

**This table applies to the Kalabak exploration permit at south-eastern Bulgaria**

Section 2 Reporting of Exploration Results

	<ul style="list-style-type: none"> <li>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.</li> </ul> <p>The assumptions used for any reporting of metal equivalent values should be clearly stated.</p>	No metal equivalent formulas were used in reporting of any historical intercepts, or results.
<p><b>Relationship between mineralisation widths and intercept lengths</b></p>	<ul style="list-style-type: none"> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> </ul> <p>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').</p>	Not applicable as this public release does not report on the results of drilling.
<p><b>Diagrams</b></p>	<p>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.</p>	Figure 3 above shows the locations and Au concentrations for the stream sediment samples referred to in this public release.
<p><b>Balanced reporting</b></p>	<p>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.</p>	The company is still in the process of acquiring additional historical exploration data from the Bulgarian Ministry of Energy (National Geofund and Geology). The reporting in this public release covers the area of the company's current focus. Further data analysis and interpretation may result in the definition of new target areas.

**This table applies to the Kalabak exploration permit at south-eastern Bulgaria**

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<b>Other substantive exploration data</b>	<p><i>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.</i></p>	<ul style="list-style-type: none"><li>• The information provided in this public release is partially based on observations made when the company's technical team visited the Kalabak permit area.</li><li>• Geological information provided in Figures 1 and 3 is based on the observations of the company's geologists and on published geological maps: Geological Map of the Republic of Bulgaria (1:50,000), K-35-88-A, Studen kladenets, Ministry of Environment and Water, Bulgarian National Geological Survey.</li><li>• Information provided in Figure 2 is based on an in-house study of remotely sensed data. Processing of Sentinel 2 satellite data (13 Bands) was carried out by Raiden's technical team. The Band 11/12 Ratio and the False Colour Composite together clearly mapped the Sbor West alteration zones (Figure 2). No information is available on metallurgy, ground water, bulk density or rock stability.</li><li>• Integration and interpretation of the various data sets is on-going.</li></ul>
<b>Further work</b>	<p><i>The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).</i></p> <p><i>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</i></p>	<p>Raiden's exploration program for the Kalabak permit for the remainder of 2019 will include geological mapping and surface sampling to further evaluate the epithermal gold and copper porphyry potential of the permit. The company is also considering ground geophysical surveys to assist with further targeting.</p>