

## Stage 2 drilling underway at Quartz Mountain

### *New geological interpretation and geochemical results outline outstanding new target for Resource extension drilling*

- Quartz Mountain geological model updated following completion of Stage 1 drill program
- New geological interpretation opens up new targeting opportunities for Kingston
- Stage 2 drilling has commenced, with drill holes planned to upgrade the existing 220,000oz Ewatinona Inferred Resource, test for Resource extensions and follow-up recent high-grade results at the Abi Prospect
- Further geochemistry work highlights outstanding surface grades at Ewatinona, with highlights including 1.5m @ 29.5g/t Au and 1.2m @ 21.5g/t Au
- Increasing the Ewatinona Resource represents a key element of Kingston's re-development strategy for Misima, with the potential to underpin a starter pit for the project

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Kingston Resources Limited (ASX: **KSN**) (**Kingston** or the **Company**) is pleased to advise that the Company has completed an updated geological model for the Quartz Mountain region, part of its 2.8Moz Misima Gold Project in PNG, to incorporate recent drilling and exploration data.

#### **Quartz Mountain Geological Review**

An extensive internal review of existing Quartz Mountain geological data complemented by recent Kingston drilling, geochemical data and structural mapping has concluded that mineralisation in the area is primarily structurally controlled.

Previous interpretations had mineralisation controlled by lithological contacts between the greenstone unit and porphyry/marble. The structural regime of the area is defined by a series of intersecting NW, WNW, and NS trending high angle near vertical faults.

Many of the historic holes are interpreted to have missed or poorly tested the mineralisation, as they were drilled at a near vertical angle reducing the likelihood of intersecting the vertical structures.

Kingston's updated interpretation opens up new targeting opportunities in the area and will inform exploration activities in the region going forward, including the current Stage 2 drill program.



ASX: KSN  
Shares on Issue: 177M  
Market Cap: A\$26.6M  
Cash: A\$6.1M (30 Sept 2019)



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## Quartz Mountain Stage 2 Drilling Program

The Stage 2 Quartz Mountain drilling program, focused on the Ewatinona and Abi areas, is now underway to follow up on successful Stage 1 results.

Drilling at Ewatinona is designed to upgrade and extend the existing 220,000oz resource. Drilling at Abi will follow-up on the high-grade intersection from Hole GDD044, which returned 23.6m @ 2.91g/t Au from 7.4m, including 13.5m @ 4.60g/t Au from 17.5m, as well as testing structural targets identified from the initial drilling program and recent fieldwork. The breccia unit is interpreted to be steep dipping to the north east, potentially controlled by the NW trending, NE dipping Abi fault. Results from the remaining three holes in the initial Abi program identified more limited mineralisation over narrower or deeper intercepts suggesting that mineralisation could be concentrated in WNW-EW and NS trending structures in that area.

**Kingston Resources Limited Managing Director, Andrew Corbett said:** *“It is fantastic to see our recent work on advancing our understanding of the Misima geology pay off at Quartz Mountain. This work is expected to help upgrade the existing 220,000oz Inferred Resource at Ewatinona to Indicated status, which is an important step in delivering a starter pit for the project.*

*“We are also pleased to be back drilling in the Quartz Mountain area, with the aim of upgrading and expanding the Ewatinona Resource and following-up our exciting first hit at Abi. The potential to delineate high-grade, near-surface ounces within this region is outstanding, with the Quartz Mountain area representing a high priority target to build on our existing 2.8Moz Resource base. The close proximity of this area to existing roads and the short haulage distance to the historical mill location could provide material benefits to our future development strategy.*

*“We also expect to have further drilling results from both Misima North and Umuna East to report in the near term.”*

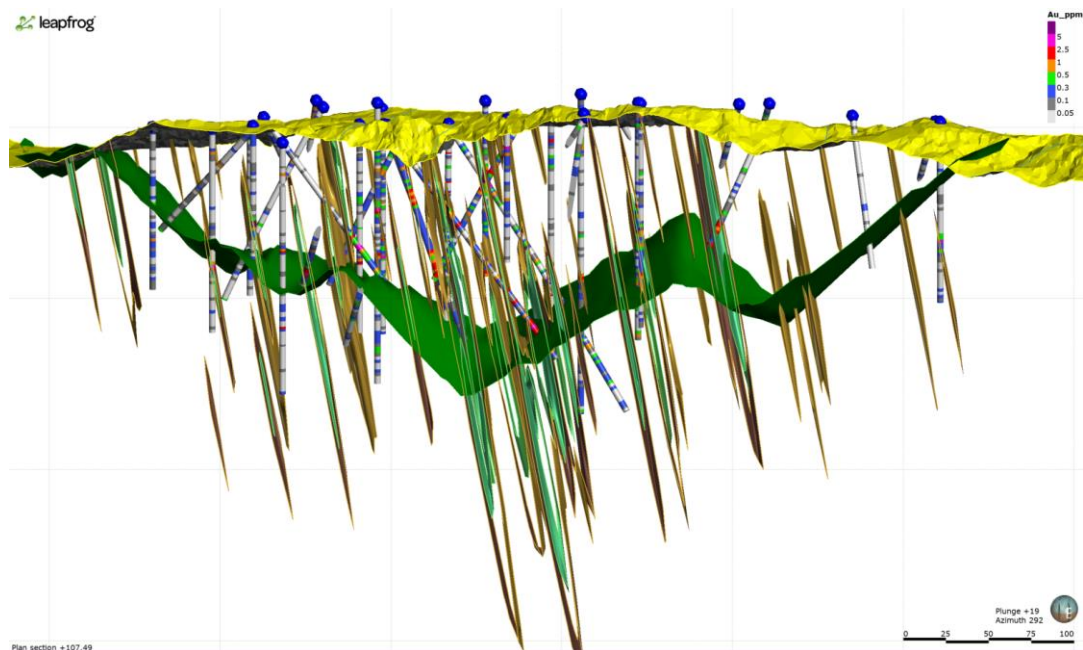


Figure 1. Concept mineralised structure model from Leapfrog® grade interpolation (Viewed to NW)

## Ewatinona Geology and Surface Geochemistry

A recent review of historical blast-hole and open pit geology data at Ewatinona has confirmed observations from Kingston Resources' drilling that the mineralisation is hosted by steep-dipping, stacked structures with WNW to NW trends. Concept grade shell modelling of mineralisation trends incorporating historic drilling and Kingston drill holes using Leapfrog® and the identified geological trends confirm extensional potential for structures below and outside of the current Resource shell and along strike.

Surface geochemistry from 22 rock samples collected during a mapping and sampling program east of the Ewatinona pit further support this Resource extension potential.

Channel samples across and grab samples within geologically interesting features such as fractures, faults, breccias, mineralised quartz veins and rocks with visible sulphides (pyrite, galena, sphalerite and/or chalcopyrite) have returned a number of high grade gold assays (see Table 1 and Table 2). Best results include:

- **1.6m @ 3.3g/t Au**
- **1.5m @ 29.5g/t Au**
- **8m @ 2.9g/t Au, including 4m @ 4.9g/t Au**
- 0.9m @ 2.2g/t Au
- **1.2m @ 21.5g/t Au**
- 2.3m @ 2.25g/t Au

Samples were taken across structures east of the existing Ewatinona pit on the periphery of the higher density sampling footprint in the Ewatinona area (see Figure 2). These surface results (see Table 4) provide a clear indication that the Ewatinona area remains highly prospective.

Kingston Resources has repeatedly located, mapped and sampled mineralised breccias that had not been identified in previous work, and is preparing follow-up drilling to test these new results. When matched with previously-reported KSN drill holes that identified mineralised intercepts outside of the existing Resource (see ASX announcement on 26 August 2019), these results show that there is significant potential to add more ounces to the existing 220,000oz Ewatinona Resource. Increasing the Ewatinona Resource is a key component of the Company's strategy to identify a starter pit for the re-development of Misima.

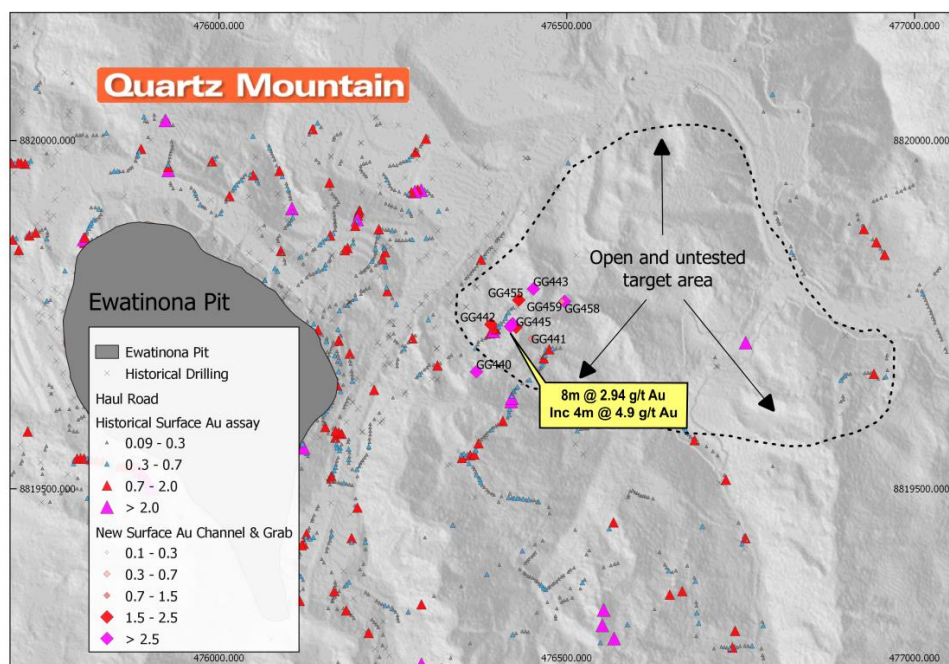


Figure 2. Surface mineralisation outside of current Resource

SampleID	Easting	Northing	SAMPLETYPE		Width (m)	Au g/t	Ag g/t	Cu ppm	Pb ppm	Zn ppm
GG0000440	476370	8819668	Channel		1.6	3.26	1.1	16	506	434
GG0000442	476391	8819736	Channel		1.0	2.00	3.4	45	1910	497
GG0000443	476452	8819787	Channel		1.5	29.50	7.0	485	20539	553
GG0000445	476427	8819732	Channel		2.0	1.84	6.0	45	2372	408
GG0000446	476420	8819735	Channel		2.0	0.83	5.9	61	4143	495
GG0000450	476422	8819737	Channel		8.0	2.90	8.3	70	3817	621
			Channel	including	4.0	4.90	4.2	35	1909	311
GG0000455	476431	8819771	Channel		0.9	2.20	2.1	18	955	156
GG0000458	476497	8819769	Channel		1.2	21.50	34.5	1427	8644	1565
GG0000459	476493	8819769	Channel		1.2	1.25	5.4	84	5242	626
GG0000460	476983	8819080	Channel		2.3	2.25	1.0	60	1923	325

*Table 1. Surface Channel Chip Geochemistry from Quartz Mountain (Ewatinona)*

SampleID	Easting	Northing	SAMPLETYPE		Au g/t	Ag g/t	Cu ppm	Pb ppm	Zn ppm
GG0000441	476449	8819715	Grab		1.16	26.0	40	232	298
GG0000452	476419	8819733	Grab		7.04	52.3	161	9560	3120

*Table 2. Surface Rock Chip Geochemistry from Quartz Mountain (Ewatinona)*

**About Kingston Resources**

Kingston Resources is a metals exploration company which is focused on exploring and developing the world-class Misima Gold Project in PNG. Misima hosts a JORC resource of 2.8Moz Au. Misima was operated as a profitable open pit mine by Placer Pacific between 1989 and 2001, producing over 3.7Moz before it was closed when the gold price was below US\$300/oz. The Misima Project offers outstanding potential for additional resource growth through exploration success targeting extensions and additions to the current 2.8Moz Resource base. Kingston currently owns 70% of the Misima Gold Project where active exploration programs are underway.

In addition, Kingston owns 75% of the high-grade Livingstone Gold Project in Western Australia where active exploration programs are also in progress.



**Kingston project locations**

The Misima Mineral Resource estimate outlined below was released in an ASX announcement on 27 November 2017. Further information relating to the resource is included within the original announcement.

Resource Category	Cutoff (g/t Au)	Tonnes (Mt)	Gold Grade (g/t Au)	Silver Grade (g/t Ag)	Au (Moz)	Ag (Moz)
Indicated	0.5	37.2	1.1	4.9	1.3	5.8
Inferred	0.5	45.0	1.0	5.6	1.5	8.1
<b>Total</b>	<b>0.5</b>	<b>82.3</b>	<b>1.1</b>	<b>5.3</b>	<b>2.8</b>	<b>13.9</b>

**Table 1: Misima JORC 2012 Mineral Resource Estimate summary table**

**Competent Persons Statement and Disclaimer**

The information in this report that relates to Exploration Results and Mineral Resources is based on information compiled by Mr Stuart Rechner BSc (Geology) MAIG, a Competent Person who is a member of the Australian Institute of Geoscientists. Mr Rechner is a Director of the Company. Mr Rechner has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken 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 Rechner consents to the inclusion in this report of the matters based upon the information in the form and context in which it appears.

Kingston confirms that it is not aware of any new information or data that materially affects the information included in all ASX announcements referenced in this release, and that all material assumptions and technical parameters underpinning the estimates in these announcements continue to apply and have not materially changed.

## JORC Code, 2012 Edition – Table 1 Umuna Gold Deposit, Misima Island

### Section 1 Sampling Techniques and Data

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

Criteria	Commentary
<i>Sampling techniques</i>	<p>Drilling</p> <ul style="list-style-type: none"> <li>• Samples are core from diamond drilling of PQ and HQ size.</li> <li>• Core is sampled in 2m intervals away from the ore zone or to lithological contacts, whichever is shorter. In mineralised areas core is sampled in 1m lengths or to lithological contacts.</li> </ul> <p>Surface Sampling</p> <ul style="list-style-type: none"> <li>• The samples were channel samples and rock chips, sampled by hand using geo-picks to geological boundaries after soil, vegetation and debris had been cleared away with shovels.</li> <li>•</li> </ul>
<i>Drilling techniques</i>	<ul style="list-style-type: none"> <li>• PQ and HQ triple-tube diamond drilling. All core is oriented using a Reflex digital orientation tool.</li> </ul>
<i>Drill sample recovery</i>	<ul style="list-style-type: none"> <li>• Core recovery is measured as the difference between core recovered in a drill run and the down-hole run shown on the driller's core blocks.</li> <li>• The driller modifies drilling pressure to optimise core recovery as much as possible, particularly in areas of softer lithologies.</li> <li>• There is no observed relationship or bias between sample recovery and grade.</li> </ul>
<i>Logging</i>	<ul style="list-style-type: none"> <li>• Core samples are logged for lithology, structure, alteration, rock quality and magnetic susceptibility. Structure, Rock Quality Designation (RQD) and magnetic susceptibility are quantitative measurements.</li> <li>• All core is photographed by tray.</li> <li>• Channel samples and rock chips are logged for lithology and any visible mineralogy and alteration.</li> </ul>
<i>Sub-sampling techniques and sample preparation</i>	<p>Drilling</p> <ul style="list-style-type: none"> <li>• PQ core is cut and sampled as quarter core. HQ core is cut as half core. The orientation line is used as a cutting guide to ensure consistency in sampling.</li> <li>• The sampling interval and technique is considered appropriate for the style of mineralisation, and it is consistent with the techniques used by Misima Mines Ltd (Placer) during the previous exploration and mining phase of the project.</li> <li>• The sample size is appropriate to the observed mineralisation style and historical geostatistical distribution of gold values.</li> </ul> <p>All Samples</p> <ul style="list-style-type: none"> <li>• Samples are transported to Intertek in Lae where they are dried and crushed to 95% passing 3mm. The crushed sample is then pulverised and a 50g charge is taken for gold analysis by fire assay.</li> <li>• A 100g pulp from each sample is flown to Townsville where they are analysed using Intertek's Four Acid 33 Element package. An OES finish is provided for Ag, Pb, Zn and Cu values that report over-range assays.</li> </ul>
<i>Quality of assay data and laboratory tests</i>	<ul style="list-style-type: none"> <li>• Standard reference materials are inserted at a frequency of one per 20 samples.</li> <li>• Field duplicates were inserted at a frequency of one per 20 samples.</li> <li>• Blanks are inserted at a frequency of one per 50 samples.</li> <li>• QAQC performance is tracked using acQuire database software.</li> <li>• Acceptable levels of accuracy have been achieved using these techniques.</li> <li>• Intertek conducts periodic laboratory QAQC including sizing tests and crushate / pulp duplicate tests.</li> <li>• Gold values are also verified by assaying batches of pulps at an independent assay lab in Perth.</li> </ul>
<i>Verification of sampling and assaying</i>	<ul style="list-style-type: none"> <li>• No independent data verification procedures were undertaken other than the QA/QC mentioned above.</li> <li>• Primary data is recorded on site either digitally or on paper logs before being transferred to Perth for loading into an acQuire database. Assay data is provided digitally as CSV and PDF files.</li> </ul>
<i>Location of data points</i>	<ul style="list-style-type: none"> <li>• Hole collar locations are recorded using a hand-held Garmin GPS, recording X,Y,Z positions in GDA94 datum (Zone 56). Z positions are later adjusted to fit LiDAR values.</li> <li>• Down-hole orientation is recorded using a Reflex survey camera taking a shot every 30m.</li> <li>• Channel samples and rock chips are located using a handheld Garmin GPS to record the centre of each 2m channel interval in GDA94 datum Zone 56.</li> </ul>

Criteria	Commentary
<i>Data spacing and distribution</i>	<ul style="list-style-type: none"> <li>• Sample intervals are shown in the table of significant intersections in the body of this announcement.</li> <li>• No compositing has been applied.</li> </ul>
<i>Orientation of data in relation to geological structure</i>	<ul style="list-style-type: none"> <li>• Holes are drilled approximately orthogonal to the interpreted trend of mineralisation</li> <li>• This orientation is considered to avoid sample bias relative to the angle of mineralised structures.</li> <li>• The channels mentioned in the body of this announcement were dug approximately perpendicular to the strike of observed lithological contacts.</li> </ul>
<i>Sample security</i>	<ul style="list-style-type: none"> <li>• Samples were submitted by air or sea freight by Gallipoli Exploration (PNG), a subsidiary of Kingston, personnel for freight from Misima to Lae, and collected from Lae by Intertek staff. There were no other specific sample security protocols in place.</li> </ul>
<i>Audits or reviews</i>	<ul style="list-style-type: none"> <li>• Not applicable</li> </ul>

## Section 2 Reporting of Exploration Results

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

Criteria	Commentary
<i>Mineral tenement and land tenure status</i>	<ul style="list-style-type: none"> <li>• Misima Island is part of the Louisiade Archipelago within Milne Bay Province of PNG. It is situated in the Solomon Sea about 625 km east of Port Moresby, the capital of PNG. The site is located at an approximate latitude of 10° 40' South and longitude of 152° 47' E.</li> <li>• The Property consists of a single Exploration Licence, (EL) 1747, comprising 53 sub blocks, covering a total area of 180 km<sup>2</sup>. This EL is valid until 20 March 2021. All conditions pertaining to compliance of the title have been met. The Property is located on the eastern portion of the island and includes the historic mining areas of Umuna and Quartz Mountain. There are no known impediments. KSN holds title via its subsidiary Gallipoli Exploration Ltd. Gallipoli is the legal entity and tenement holder and is responsible for performing its obligations under the <i>Mining Act</i> 1992.</li> </ul>
<i>Exploration done by other parties</i>	<ul style="list-style-type: none"> <li>• The project area has been subject to mineral exploration by a number of previous parties, most notably Placer Pacific between 1987 to 2004.</li> <li>• For a detailed summary of previous explorers' work readers are recommended to read the JORC Table 1 released with the November 2017 Misima resource update (ASX:KSN announcement 27 November 2017).</li> </ul>
<i>Geology</i>	<ul style="list-style-type: none"> <li>• Misima Island forms part of the Louisiade Archipelago which is a continuation of the Papuan Fold Belt of the Papuan Peninsula offshore eastwards through the Papuan Plateau. The oldest rocks on Misima are Cretaceous to Paleogene metamorphic rocks, which can be subdivided into the western Awaibi Association and the younger overthrust eastern Sisa Association that is host to the gold and copper mineralization. The two associations are separated by an original thrust fault with later extensional activation.</li> <li>• Mineralisation deposit style on Misima Island is best described as Intermediate Sulphidation Epithermal due to the strong association with porphyry Cu Au style alteration, veining and characteristics, the dominance of Ag Zn Pb Au Cu Mn geochemistry as well as complex alteration styles and geometry.</li> <li>• Styles of mineralisation observed include multiphase hydrothermal breccia, stockworks both sheeted and three-dimensional, skarn, jasperoidal replacement, and poorly banded vein infill of quartz and carbonate with associated pyrite, galena, sphalerite, barite and minor tetrahedrite.</li> <li>•</li> <li>• Structurally the Umuna geometry is typical of a complex fault array with a large major fault hosting the majority of the precious metal mineralisation with numerous ancillary splays developed in the footwall to the main structure. The intersection of the splays and the dominant Umuna Fault are loci for zones of well-developed mineralisation. Mineralisation has a dominant structural control however strong secondary stratigraphic controls are also observed in particular where skarn style mineralisation is developed in Halibu Limestone – Ara Schist contacts. A series of north west trending splays intersect and control the loci of the higher-grade material within the Umuna fault zone.</li> </ul>
<i>Drill hole Information</i>	<ul style="list-style-type: none"> <li>• Hole locations and orientations are displayed in the table within the body of the announcement.</li> </ul>

Criteria	Commentary
<i>Data aggregation methods</i>	<ul style="list-style-type: none"> <li>• Where significant intersection results are used, the average grades are weighted by the sample width of each assay within the intersection.</li> <li>• No metal equivalence calculations are used in reporting.</li> </ul>
<i>Relationship between mineralisation widths and intercept lengths</i>	<ul style="list-style-type: none"> <li>• Drill orientation is as close to perpendicular as possible given the limitations of the rig used. True widths vary from approximately 85% to approximately 100% of the down-hole width based on the current interpretation.</li> </ul>
<i>Diagrams</i>	<ul style="list-style-type: none"> <li>• See figures in release</li> </ul>
<i>Balanced reporting</i>	<ul style="list-style-type: none"> <li>• The cut-off grade used in determining significant intersections is shown in the table within the body of this announcement. Lower grade or unmineralised sections of the hole are not reported.</li> </ul>
<i>Other substantive exploration data</i>	<ul style="list-style-type: none"> <li>• Other relevant exploration data is released to the market on an ongoing basis.</li> </ul>
<i>Further work</i>	<ul style="list-style-type: none"> <li>• Exploration drilling is planned to continue for the remainder of 2019 and into 2020.</li> <li>• Further work will involve structural mapping and interpretation, channel sampling orthogonal to mineralised structures, and drilling.</li> </ul>