

# EXPLORATION UPDATE: QUICKSILVER NICKEL-COBALT PROJECT AND LEONORA EAST GOLD PROJECT

### **Highlights:**

- Sulphide mineralisation has been successfully intersected in drill holes at three previously untested exploration targets at the Quicksilver Nickel-Cobalt Project:
  - The zones of sulphide mineralisation correspond to 'Category 1' geophysical anomalies detected using surface electromagnetic (EM) surveys.
  - The sulphide zones are located north of the Company's previous drilling at Quicksilver, along an 8 km long north-trending strike extension of prospective ultramafic rocks.
  - Assay results indicate the sulphides are only weakly anomalous in nickel and copper
- Metallurgical testwork on laterite nickel-cobalt mineralisation from Quicksilver Project in progress.
- Auger sampling program completed at the Monarch Gold Trend at the Leonora East Gold Project.

#### **Quicksilver Project Drilling Program**



Golden Mile Resources Ltd (ASX:**G88**, the Company) advises that a program of reverse circulation (RC) percussion drilling has successfully intersected three new zones of sulphide mineralisation at the Quicksilver Nickel-Cobalt Project located in the South West Mineral Field of Western Australia. The sulphides are dominated by pyrrhotite-pyrite mineralisation with some chalcopyrite.

The drilling cost-effectively tested three 'Category 1' geophysical anomalies previously defined and modelled by the Company's exploration consultants Newexco. The drilling confirms that the electromagnetic (EM) anomalies are sourced by conductive sulphide mineralisation similar to that previously discovered at the Wyatt's Prospect (refer Golden Mile Resources ASX announcement dated 17 October, 2018).

Figure 1: Sulphide mineralisation in ultramafic host rock. Drill hole QRC0168, 140-141m downhole.

#### **MARKET DATA**

ASX Code: G88

Share Price: \$0.094 (as at 08/02/2019)

Market Cap: \$5.44 Million

Shares on Issue: 57,899,977

Options on Issue: 9,425,000

Cash at bank: \$1.78 Million (as at 31/12/2018)



The drilling program comprised a total of 3 holes for 612 metres of RC drilling (Table 1, Figure 2) to test targets at the Baker's Prospect (Anomalies 5), Rocky Dam Prospect (Anomaly 6) and Railway Prospect (Anomaly 7). All these sites are located to the north of the Company's previous drilling at Quicksilver, along strike from sulphides intersected at Wyatt's Prospect and the nickel-cobalt resource at Garard's Prospect (refer to Golden Mile Resources ASX announcement dated 19 November 2018).

Table 1: Drill hole collar summary

Hole ID	Prospect	Collar Coordinate		Dip	Azimuth	Depth	
		Northing	Easting	RL (masl)			(m)
QRC0166	Baker's	6375914	656252	294	-60°	270°	240
QRC0167	Rocky Dam	6377153	656045	342	-60°	270°	192
QRC0168	Railway	6379148	655961	320	-60°	270°	180
Total:							612

Zones of semi-massive to disseminated sulphide mineralisation was intersected in all three holes (Table 2). Geological logging of the RC drill chips indicates sulphide abundance up to approximately 20%, within a metamorphosed pyroxenitic host rock. The sulphides are dominated by pyrrhotite-pyrite mineralisation with some chalcopyrite.

Table 2: Sulphide mineralisation summary

Hole ID	From (m)	To (m)	Interval (m)*	Comments
QRC0166	203	211	8	Average 20% sulphide
QRC0167	164	170	6	Average 20% sulphide
	171	178	7	Trace to 1% sulphide
QRC0168	140	143	3	Average 20% sulphide

<sup>\*</sup> Downhole interval, true width not yet determined

No significant intersections were identified from assay samples and the sulphides contain only weakly anomalous nickel and copper mineralisation.

The Company has now competed drill testing of all the shallow Category 1 geophysical anomalies identified at the Quicksilver Project. From a technical perspective it was important to determine the source of the conductors, determine if there was any base mental mineralisation in the sulphide and validate the exploration model. The sulphide zones intersected do not contain significant mineralisation and therefore no further follow-up drilling is considered to be necessary.

#### **Quicksilver Project Metallurgical Testwork**

Metallurgical testwork on samples of the lateritic nickel-cobalt mineralisation has been underway since late December 2018 (refer to Golden Mile Resources ASX announcement dated 13 December 2018). Preliminary atmospheric leach tests have been completed on two composite samples that represent both of the main mineralisation types within the resource area.



The Company has instructed ALS Metallurgy to undertake further tests with optimised leaching conditions based on the observed outcomes of the preliminary work. Results of the metallurgical testwork are expected in February 2019 and will be reported when they are available.

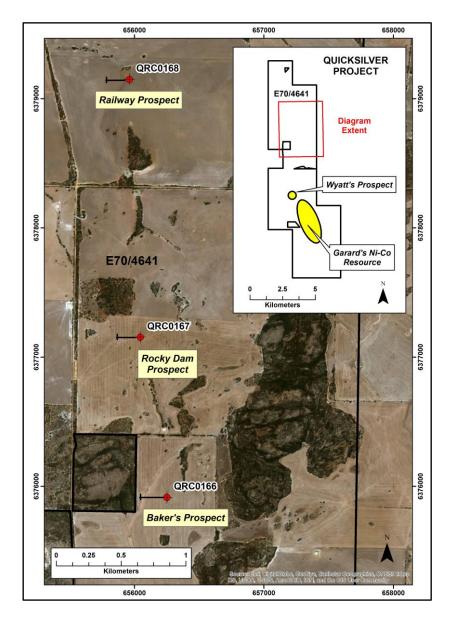


Figure 2: RC percussion drill hole locations in the northern part of the Quicksilver Project area.

#### **Leonora East Gold Project Geochemical Sampling**

A program of auger sampling has been completed over the full extent of the Monarch Gold Trend (MGT) on the Company's Leonora East Gold Project in the North-Eastern Goldfields of Western Australia (refer to Golden Mile Resources ASX announcement dated 18 January 2019). The program consisted of approximately 800 auger samples collected on a 400 x 100 metre spaced grid.

Samples collected from the auger drilling have been submitted for analysis and assays are currently awaited from this highly prospective area. Further exploration will be planned along the trend based on the results of the initial sampling program.



#### For further information please contact:

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#### **About Golden Mile Resources Ltd**



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Golden Mile Resources is an Australian based exploration and development company, with an outstanding suite of cobalt, gold, and base metal projects in Western Australia.

The Company was formed in 2016 to carry out the acquisition, exploration and development of mining assets in Western Australia, and has to date acquired a suite of exploration projects, predominantly within the fertile North-Eastern Goldfields of Western Australia.

The Company's portfolio includes two nickel-cobalt projects, namely the Quicksilver project in the South West Mineral Field and the Minara project in the North-Eastern Goldfields. In addition, Golden Mile holds a suite of gold projects adjacent to Leonora which include the Ironstone Well & Leonora East projects.

The Company also holds the Darlot Gold project to the north of Leonora and the Gidgee Polymetallic project north of Sandstone.

For more information please visit the Company's website: www.goldenmileresources.com.au

#### **Forward-Looking Statements**

This document may include forward-looking statements. Forward-looking statements include, but are not limited to, statements concerning Golden Mile Resources Ltd (ASX: G88) planned exploration program and other statements that are not historical facts. When used in this document, the words such as "could," "plan," "estimate," "expect," "intend," "may", "potential," "should," and similar expressions are forward-looking statements. Although Golden Mile Resources Ltd (ASX: G88) believes that its expectations reflected in these forward-looking statements are reasonable, such statements involve risks and uncertainties and no assurance can be given that actual results will be consistent with these forward-looking statements.

## Competent Persons Statement

The information in this report that relates to Exploration Targets, Exploration Results, Mineral Resources or Ore Reserves is based upon information compiled by Mr Lachlan Reynolds, a Competent Person who is a Member of the Australasian Institute of Mining and Metallurgy. Mr Reynolds is the Managing Director of Golden Mile Resources Ltd and a full-time employee of the Company.

Mr Reynolds 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 'Australian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Reynolds consents to the inclusion in the report of the matter based on his information in the form and context in which it appears.

The Company confirms that it is not aware of any new information or data that materially affects the information included in the original announcements referenced in this announcement. The Company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original announcements.



## Appendix 1: JORC Code, 2012 Edition – Table 1

## **Section 1 - Sampling Techniques and Data**

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul> <li>Nature and quality of sampling (eg 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.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report.</li> <li>In cases where 'industry standard' work has been done this would be relatively simple (eg '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 (eg submarine nodules) may warrant disclosure of detailed information.</li> </ul>	evaluate the assay process.
Drilling techniques	Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg 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).	RC percussion drilling (5.25" face sampling bit) was utilised.
Drill sample recovery	<ul> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>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.</li> </ul>	<ul> <li>RC percussion drill samples were weighed to assess chip sample recoveries.</li> <li>There is no identified sample bias or relationship between grade and sample recovery.</li> </ul>
Logging	<ul> <li>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.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	<ul> <li>All drill holes were geologically and geotechnically logged to a level of detail appropriate for further technical studies.</li> <li>Logging is primarily qualitative in nature.</li> </ul>
Sub-sampling techniques and sample preparation	<ul> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> </ul>	<ul> <li>RC percussion drill samples were cone split directly from the cyclone of the drill rig to obtain an assay sub-sample for all 1 m intervals.</li> <li>The cone split sample was utilised for assay where sulphide mineralisation was identified during geological logging.</li> <li>For unmineralised intervals, a sample was collected from the bulk drill sample to produce a 4m composite of the down hole drill samples for initial assay.</li> <li>Industry standard sample preparation techniques were undertaken and these are</li> </ul>



Criteria	JORC Code explanation	Commentary
Quality of assay data and laboratory tests	<ul> <li>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.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>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.</li> <li>Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.</li> </ul>	<ul> <li>considered appropriate for the sample type and material being sampled.</li> <li>Blanks and standards were introduced as checks through both the Company sampling on site and the assay laboratory.</li> <li>The sample size is considered appropriate to the grain size of the material being sampled.</li> <li>The laboratory assaying techniques are suitable for the samples submitted. Samples were submitted to LabWest in Malaga, Perth, for a multi-element suite of elements including Ag, Co, Cr, Cu, Fe, Mg, Mn, Ni &amp; Sc using a mixed acid digest and ICP analysis that is considered to be a total technique.</li> <li>The Company introduced standards and blanks throughout the sample runs on a 1:20 ratio to ensure quality control; no issues with accuracy or precision have been identified.</li> <li>Labwest also initiated duplicate sampling and ran internal standards as part of the assay regime.</li> </ul>
Verification of sampling and assaying  Location of data	<ul> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> <li>Accuracy and quality of surveys used to locate drill holes (collar and down-hole</li> </ul>	<ul> <li>Samples were collected, sampled and verified by independent geological consultant in the field and submitted for assaying.</li> <li>Sampling and logging has been undertaken in hardcopy format prior to being entered into the Company's digital database.</li> <li>No adjustments to assay data were undertaken.</li> <li>Drill hole collars are all located using a handheld GPS with accuracy of ±5 m.</li> </ul>
points	<ul> <li>surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	<ul> <li>Downhole surveys have been collected with a single-shot electronic downhole camera system, typically at 30 m intervals downhole.</li> <li>The grid system used is the Geocentric Datum of Australia 1994 (GDA 94), projected to UTM Zone 50 South.</li> <li>Topographic control is adequate using published topographic maps.</li> </ul>
Data spacing and distribution	<ul> <li>Data spacing for reporting of Exploration Results.</li> <li>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.</li> <li>Whether sample compositing has been applied.</li> </ul>	<ul> <li>A single RC percussion drilling has been completed at each identified prospect area.</li> <li>Spacing and distribution of drill holes is insufficient to establish the degree of geological and grade continuity appropriate for the estimation of a resource.</li> <li>Sample compositing has been applied to RC percussion drill hole samples with resampling completed using uncomposited samples where appropriate.</li> </ul>
Orientation of data in relation to geological structure	<ul> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>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.</li> </ul>	<ul> <li>The orientation of the sampling is downhole, approximately perpendicular to the interpreted mineralised zones.</li> <li>No sampling bias is considered to have been introduced at this time due to appropriate drilling orientation.</li> </ul>
Sample security	The measures taken to ensure sample security.	<ul> <li>Samples were bagged and secured by Company field staff prior to transport to the laboratory.</li> <li>Samples were delivered directly to the laboratory by Company staff.</li> </ul>
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	At this preliminary stage no audits of sampling techniques and data have been completed.



## Section 2 - Reporting of Exploration Results

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	<ul> <li>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.</li> <li>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.</li> </ul>	<ul> <li>The reported drilling is located on granted exploration license E70/4641.</li> <li>The Company has 100% ownership of the tenement.</li> <li>The tenement overlays privately owned land.</li> <li>Access agreements are in place with the landowners where the active work program is being undertaken.</li> <li>The Company is in compliance with the statutory requirements and expenditure commitments for its tenements, which are considered to be secure at the time of this announcement.</li> <li>There are no demonstrated or anticipated impediments to operating in the area.</li> </ul>
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	<ul> <li>The deposit was discovered by Otter Exploration NL in 1979-80, who identified anomalous nickel mineralisation in a program of geological mapping, rock chip and soil sampling.</li> <li>Associated Goldfields NL completed a limited program of ground magnetics and shallow vacuum drilling in 1984-85 confirming anomalous nickel and cobalt in the weathered zone.</li> <li>Tiger Resources NL explored the ground between 1996 and 2001, completing more extensive geochemical soil surveys and shallow RAB drilling that also intersected anomalous nickel and cobalt.</li> <li>Australia Minerals and Mining Group (AMMG) completed &gt;2,500 m RC percussion drilling over the project area in 2011-13 exploring for nickel, iron ore and gold mineralisation. AMMG reported significant nickel mineralisation intercepts at the Garard's prospect.</li> <li>Compilation and digital capture of key historical data, principally the soil sampling data from Tiger and drilling data from Tiger and AMMG, has been completed. These data being utilised to assist with the ongoing work program. However, the Company is not materially reliant on this information.</li> </ul>
Geology	Deposit type, geological setting and style of mineralisation.	<ul> <li>The project is hosted within an unnamed Archaean (?) Greenstone Belt comprising maficultramafic rocks that have been deformed and metamorphosed under at least amphibolite facies conditions.</li> <li>A laterite deposit occurs as a near-surface, sub-horizontal blanket of oxidised nickel-cobalt mineralisation, hosted by weathered mafic-ultramafic rocks.</li> <li>The project is also considered to have potential for ultramafic-hosted, massive sulphide associated nickel-cobalt mineralisation.</li> </ul>
Drill hole Information	<ul> <li>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:</li> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> </ul>	<ul> <li>A listing of the drill hole information material to the understanding of the exploration results is provided in the body of this announcement.</li> <li>No material data has been excluded from this announcement.</li> </ul>



Criteria	JORC Code explanation	Commentary
	<ul> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth</li> <li>hole length.</li> <li>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.</li> </ul>	
Data aggregation methods	<ul> <li>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.</li> <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> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	<ul> <li>Length weighted average grades are reported, where material.</li> <li>Maximum or minimum grade truncations have not been applied.</li> <li>No metal equivalent values have been quoted.</li> </ul>
Relationship between mineralisation widths and intercept lengths	<ul> <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> <li>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').</li> </ul>	<ul> <li>The Company considers the mineralisation to be principally distributed in steeply dipping and plunging shoots.</li> <li>The reported drill holes are all angled to obtain an intersection of the mineralisation at a high angle to the mineralisation geometry.</li> <li>Intersection lengths may be greater than true width but the geometry of the mineralisation has not been constrained.</li> </ul>
Diagrams	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.	Appropriate maps and tabulations are presented in the body of the announcement.
Balanced reporting	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.	Comprehensive results are reported, where material.
Other substantive exploration data	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.	Not applicable, no other material exploration data available.
Further work	<ul> <li>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</li> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>	The ongoing work program at Quicksilver may include infill and extension RC percussion and diamond drilling to test for lateral extensions of the mineralisation, metallurgical testwork and other feasibility studies as appropriate.