

13 December 20

COMPANY ENQUIRIES Pauline Collinson COMPANY SECRETARY

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### **EXPLORATION UPDATE**

Further to the Company's Exploration Update announced to the market on 9 December 2013, attached is an update which is now JORC 2012 compliant.

It should be noted that the basis of the information has not changed and that the additional information provided is not considered to be material.

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### **EXPLORATION UPDATE**

Tanami Gold NL (ASX: TAM – 'Tanami' or 'the Company') is pleased provide the following update on the progress of its Kavanagh Drilling Program currently underway at the Coyote Deposit in Western Australia.

Diamond drilling is being undertaken from within the existing underground mine as well as from the surface. The programme has generally progressed well, with approximately 50% of the planned 15,000 metre program drilled. 20 holes for over 7,000m of UG drilling have been completed, together with 600m of surface drilling. The surface drilling program has fallen behind schedule due to a combination of the early onset of the wet season, and an initial 2 week delay in the drill rig arriving onsite. Surface drilling is now planned to continue through Christmas and New Year to get back on schedule. To date results from 2,400 samples have been received from the laboratory with a further 1,230 samples currently in various stages of analysis.

Drilling to date has predominantly focused on exploration down plunge to the west of the current Kavanagh Resource. As demonstrated in **Figures 2 & 3**, this drilling has not expanded the Resource significantly. The majority of these holes have intersected the host rocks (Kavanagh Siltstone and Sandstone Horizons) with low grade gold mineralisation, confirming that the mineralised system continues to the west.

A limited number of holes have targeted the existing Resource with the aim of confirming gold mineralisation. These holes have been successful, with the results listed below all returning comparable grades to the Resource grades in their respective areas

- CYUG1038 with 0.3m @ 117.7g/t from 206m (K1 Lode)
- CYUG1038 with 0.3m @ 57.8g/t from 221.2m (K2 Lode)
- CYUG1030 with 0.3m @ 22.9g/t from 194.7m (K1 Lode)
- CYUG1032 with 0.4m @ 25.5g/t from 183.9m (K1 Lode)
- CYUG1032 with 2m @ 36g/t Au from 206.6m (K2 Lode)
- CYUG1030 with 0.3m @ 19g/t Au from 199.7m (K2 Lode)
- CYUG1031 with 0.3m @ 10g/t Au from 197.4 m (K2 Lode)
- CYUG1025 with 0.3m @ 3.7g/t Au from 218.8m (K2 Lode)

The focus has now shifted to exploring directly below the Kavanagh Resource (Refer to **Figures 2 & 3**). Limited results have been received in this area, but visible gold has been identified in holes CYUG1041 and CYUG1043. The results of these samples will be released as they come to hand.

Drilling is expected to continue until February 2014 with the focus remaining on expanding the Kavanagh Resource on the Northern and Southern Limbs while also exploring at depth, seeking evidence of a repetition of the entire mineralised system.

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### **Kavanagh Resource**

The Kavanagh Resource is hosted within quartz-carbonate veining that occurs within both Sandstone and Siltstone rocks that are located within a much larger sequence of turbidites. These sediments have been have been folded resulting in a steep southern limb and a shallower Northern limb. Historically gold mineralisation at Coyote has predominately been located on the steeper southern limb approximately 150-200m south of the current Kavanagh Resource.

A maiden **Inferred Resource** of 122,000 tonnes @ 25g/t Au for a total of 100,000 ounces of gold was announced for Kavanagh on the 9<sup>th</sup> of April 2013. This Resource consists of 2 lodes referred to as the K1 and K2 lodes (Figure 1). A third lode has been identified in some drill holes but not modelled due to a lack of data, this lode is referred to as the K3 lode.

As noted, the majority of mineralisation located to date is on the southern (steeper) limb, which is more easily drilled from the current underground mine. Extensions on this limb have been targeted in the current underground drilling program, while the Surface diamond rig focuses on testing the Northern limb and exploring at depth.

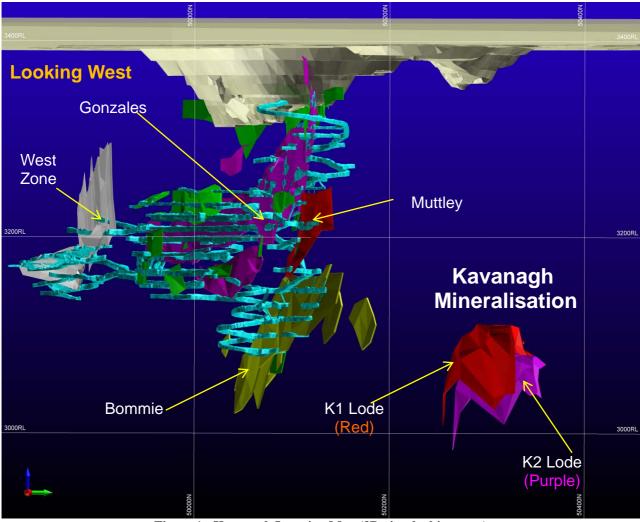


Figure 1: Kavanagh Location Map (3D view looking west)

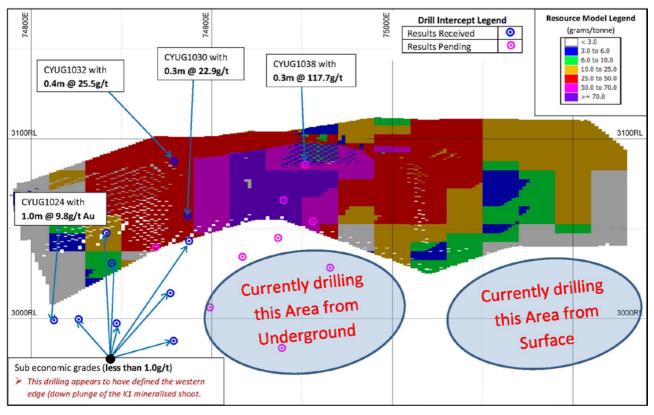


Figure 2: Kavanagh "K1" Lode Long-section (Looking North)

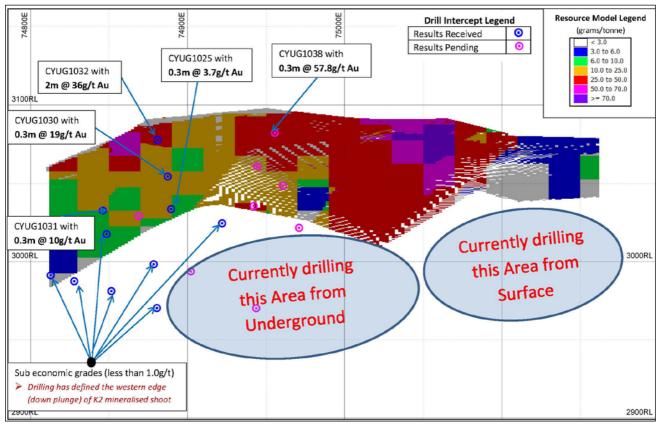


Figure 3 Kavanagh "K2" Lode Longsection (Looking North)

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### Collar Collar Collar Collar Collar Max Metres Metres Interval Gram Hole ID Grade Easting Northing RL Dip Azimuth Depth From То Width Metre CYUG1024 74811 50138 3164 -54.5 355 276 210 211 9.9 9.9 1 CYUG1025 74869 50105 3166 -40 2 260 218.8 219.1 0.3 3.7 1.1 CYUG1025 74869 50105 3166 -40 2 260 241 241.6 0.6 4.3 2.6 CYUG1025 74869 50105 3166 -40 2 260 245.5 246 0.5 5.3 2.7 CYUG1026 74869 50105 3166 -46.5 0 2.8 291 238.1 238.4 0.3 9.5 CYUG1028 74869 50105 3166 -53.5 0 351.4 No significant results received CYUG1029 5 74811 50138 3164 -54.5 491 207.1 207.5 0.4 2.7 1.1 CYUG1030 74869 50105 -35.5 6 194.7 195 0.3 6.9 3166 252 22.9 CYUG1030 199.7 74869 50105 3166 -35.5 252 200 0.3 18.9 6 5.7 CYUG1030 74869 50105 3166 -35.5 6 252 236.1 236.4 0.3 24.3 7.3 CYUG1030 74869 50105 3166 -35.5 6 252 250.2 251.2 1 18.1 18.1 CYUG1031 74811 50138 3164 -43.5 197.4 197.7 0.3 11 240 10 3 CYUG1032 74869 50105 3166 -25 358 227 183.9 184.3 0.4 25.5 10.2 CYUG1033 74811 50138 No significant results received 3164 -54.5 14 270 281.05 281.7 0.6 3.5 2.3 CYUG1034 74869 50105 3166 -46 8 327.2 291.1 290 1.1 3.1 3.4 CYUG1035 74811 50138 3164 -48.5 14 250 206.6 208.6 2 36 71.9 CYUG1036 74880 50105 3166 -35.5 17.5 336.2 **Results Pending** CYUG1037 74869 50105 3166 -30 19 258.3 **Results Pending** CYUG1038 74880 50105 3166 -22 24 280 206 206.3 0.3 117.7 35.3 CYUG1038 74880 50105 3166 -22 24 280 221.2 221.5 0.3 57.8 17.3 CYUG1039 74869 50105 3166 -42 8 321 250.9 251.3 0.4 5.7 2.3

### **Table 1: Kavanagh Significant Intercepts**

### Notes to accompany Table 1

1. Collar Northing, Easting and Azimuth are all in Local Grid coordinates. Collar RL is relative to AHD. Collar coordinates may vary upon final survey.

2. Standard analyses is by 50g fire assay with AAS finish or screen fired 1kg assay with AAS finish where visible gold is logged

3. Samples are of half diamond NQ2 core samples.

4. No cutting of grades has been applied. Assays are rounded to nearest 0.1g/t.

5. Intervals are all down hole length.

6. Cut-off of for reporting as significant results is greater than 1gram metre

### Gerard McMahon Chairman

### **Competent Person's Statement**

The information in this report that relates to Mineral Resource is based on information compiled by Mr Michael Thomson, a full time employee and Principal Geologist of Tanami Gold NL. Mr Thomson is a member of the Australasian Institute of Mining and Metallurgy and has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration to qualify as a Competent Person as defined in the December 2004 edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code). Mr Thomson consents to the inclusion in this report of the matters based on his information in the form and context in which they appear.

The information in this report that relates to Geological Data and Exploration Results is based on, and fairly represents information and supporting documentation compiled by Mr Michael Thomson, a full time employee and Principal Geologist of Tanami Gold NL. Mr Thomson is a Member of The Australian Institute of Geoscientists and has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as Competent Person as defined in the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr Thomson consents to the inclusion in this report of the matters based on his information in the form and context in which they appear.

Table 2: Sampling Technique and Data		
Criteria	JORC Code explanation	Commentary
<ul> <li>Nature and quality of sai channels, random chips, or specialised industry standa. tools appropriate to the min investigation, such as down sondes, or handheld XRF ii These examples should non limiting the broad meaning of limiting the broad meaning of appropriate calibration of ar tools or systems used.</li> <li>Aspects of the determina mineralisation that are Mate Public Report.</li> <li>In cases where 'industry has been done this would b simple (eg 'reverse circulati used to obtain 1 m samples kg was pulverised to produc charge for fire assay'). In ot explanation may be require where there is coarse gold inherent sampling problems commodities or mineralisati submarine nodules) may was</li> </ul>	• 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.	<ul> <li>Tanami Gold utilised Diamond drilling. Holes were generally angled to grid north (from underground) and grid south (from Surface)</li> <li>Core was sampled a 1 metre intervals or to geological contacts. A minimal sample length of 0.3m was applied</li> <li>All core from within approximately 50m of the Kavanagh mineralisation is sampled, beyond this point core is selected for sampling by the onsite geologists based on geological observations.</li> </ul>
	<ul> <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</li> </ul>	To ensure representivity half core samples were always taken from the same side of the core for each hole ( western half of core retained) To reduce issues related to sampling coarse
	mineralisation that are Material to the	gold, where visible gold has been identified during geological inspections 2 feldspar flushes are inserted after these sample into
	• 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	the same sample stream at the laboratory to limit the chance of contamination of subsequent samples.
		Where visible gold is identified the sample has an additional 1 kilogram Screen Fire Assay to reduce the effect coarse gold has on smaller sample sizes.
	submarine nodules) may warrant disclosure of detailed information.	All samples the report greater than 5g/t Au within the target area are selected for additional 1 kilogram screen Fire Assays.
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	#Diamond drilling carried out was with NQ2 sized equipment with standard tube. Minor intervals at the top of the hole were drilled with HQ3 sized core until competent rock was intercepted
	what method, etc).	# Core was orientated with a Reflex orientation Tool (bottom of core)
Drill sample recovery	• Method of recording and assessing core and chip sample recoveries and results assessed.	#Core recovery is logged for every metre as a percentage. Recoveries for this program have been in excess of 90%.

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Criteria	JORC Code explanation	Commentary
	• Measures taken to maximise sample recovery and ensure representative nature of the samples.	# During drilling in broken ground where core loss is possible drillers have adjusted the drill technique to ensure maximum recovery is obtained. As greater than 90% of the sample on average has been recovered these samples are representative of the material being sampled.
	• 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.	#At Coyote (Kavanagh) no relationship exists between sample recovery and grade
Logging	• 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.	All diamond core was logged for recovery, RQD, Geology and structure. Core logging has been done to an appropriate level to support Mineral Resource Estimation
	• Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.	Core was photographed by tray with both wet and dry taken Logging is quantitative in nature
	• The total length and percentage of the relevant intersections logged.	All diamond core was logged
Sub-sampling techniques and sample preparation	• If core, whether cut or sawn and whether quarter, half or all core taken.	Core is cut in half with <del>a</del> <u>an</u> Almonte Core saw onsite to either metre intervals or geological contacts.
		To ensure representivity standard protocol is to sample the same side of the core for each hole, retaining the western side of the core.
	<ul> <li>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> </ul>	Not applicable as only core samples taken
	• For all sample types, the nature, quality and appropriateness of the sample preparation technique.	The sample preparation used is believed to be industry standard for gold mineralisation with adequate sample sizes taken to correctly represent gold mineralisation based on the style of mineralisation and thickness of mineralisation.

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Criteria	JORC Code explanation	Commentary
	<ul> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> </ul>	All samples are submitted to an accredited commercial laboratory with standard reference material to ensure accuracy of results. An average of 1:20 field blanks and 1 in 25 standard reference material are inserted. The laboratory also runs its own internal checks that are reported to the company for
		verification. Detailed procedures are in place for all sampling processes onsite while the commercial laboratory also has multiple procedures to ensure representivity of samples is maintained.
	• 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.	No field duplicates have been carried out to date due to this process consuming the complete core and not leaving any core for future geological observations. This process is scheduled for after geological observations are complete.
	• Whether sample sizes are appropriate to the grain size of the material being sampled.	Due to the variable nature of coarse gold, all results in the Kavanagh drilling program that return greater than 5 gram-metres are selected for additional 1kg screen fire assay.
Quality of assay data and laboratory tests	• The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.	The techniques used for gold analysis is a 50 gram fire assay or 1000 gram screen fire assay with Atomic Absorption finish. Both analytical techniques provide total gold content and are common techniques within the gold industry.
	• 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.	No additional tools used for analysis
	• 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.	TGNL submit an average of 1 standard and 1 blank every 25 samples with the addition of further blank material when coarse gold is logged. All results received to date have fallen within adequate ranges of the expected values. No duplicates or laboratory checks have been performed.
Verification of sampling and assaying	• The verification of significant intersections by either independent or alternative company personnel.	Significant intersections have not been verified by an external partly to date.
	• The use of twinned holes.	No diamond twinning has been done to date.

Criteria	JORC Code explanation	Commentary
	• Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	The majority of data is recorded digitally and archived. All physical copies remain archived onsite, the majority are scanned and digitally stored. All relevant procedures exist for data entry,
		data verification and data storage
	• Discuss any adjustment to assay data.	Where present Screen fire assays are the preferred value for any particular sample, and are consider more accurate than the 50gm Fire Assay. On average screen fire assay received to date have returned marginally higher grades than the 50gm Fire assay
Location of data points		All collar points have been surveyed in the local mine grid.
	• 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.	A combination of singleshot, multishot and high accuracy north seeking gyro surveys have been carried out downhole for all holes drilled to date.
		Mine workings support this approach with good accuracy achieved with historical drilling at Coyote
		None of the holes listed in this report have been used in a Mineral Resource estimation
	Specification of the grid system used.	The grid used is the Local Coyote Mine Grid which has a direct transformation to GDA 94 - MGA Zone 52.
	• Quality and adequacy of topographic control.	The surface topography has been surveyed to a high level of accuracy
Data spacing and distribution	• Data spacing for reporting of Exploration Results.	The data spacing varies within the Kavanagh Mineralisation from 100m on the
	• 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.	extremities to approximately 50m in the better defined regions. This drill spacing is deemed adequate for an Inferred Resource as good geological continuity is present, with acceptable grade continuity.
	Whether sample compositing has been applied.	Samples have not been composited at this stage of interpretation

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Criteria	JORC Code explanation	Commentary
Orientation of data in relation to geological	• Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.	Where possible drilling is designed to intercept mineralisation at high angles (as close to perpendicular to mineralisation as possible) No orientation based sample bias has been identified in the data
structure	• 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.	Due to the narrow nature of the Kavanagh mineralisation all intervals have a true width calculated prior to resource estimation to ensure that no bias is carried through.
Sample security	• The measures taken to ensure sample security.	Samples are securely stored during the transportation stages to the laboratories in calico bags that are placed within larger waterproof plastic bags that are cable-tied prior to transport
Audits or reviews	• The results of any audits or reviews of sampling techniques and data.	No audit has been carried out on this drilling program, previous drilling associated with the Kavanagh Resource have been externally reviewed with no significant issues identified.

### Table 3: Reporting of Exploration Results

Criteria	JORC Code explanation	Commentary
<i>Mineral tenement and land tenure status</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.	Kavanagh is located within M80/559 which is registered to Tanami Exploration, a wholly owned subsidiary of Tanami Gold NL. The Kavanagh resource is subject to the Coyote Mine Agreement dated 20 April 2005 with the Tjurabalan People. The Coyote Mining Lease is subject to royalty provisions pursuant to the Sale and Purchase Agreement dated 16 January 2004 between AngloGold Australia Ltd, Tanami Exploration NL and Tanami Gold NL.
	• 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.	The tenement is in good standing and no known impediments exist.

Criteria	JORC Code explanation	Commentary
Exploration done by other parties	• Acknowledgment and appraisal of exploration by other parties.	The Coyote deposit was discovered by Anglo Gold Ashanti Pty Ltd in 1998 through follow-up of Au and As geochemical anomalies that were discovered by them as a result of wide-spaced (500m spaced lines) shallow RAB drilling in an area of transported overburden . Tanami Gold NL acquired the property as part of their extensive Western Tanami Tenements in 2003. Tanami Gold has carried out a combination
		of open pit mining and underground mining at Coyote between 2005 and 2013.
Geology	• Deposit type, geological setting and style of mineralisation.	Kavanagh, which is part of the Coyote Deposit, is a vein hosted coarse gold deposit hosted within turbiditic sediments of the Killi Killi Formation that forms part of the early Proterzoic Tanami Orogen.
	• 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:	Refer to table 1
	$\circ$ easting and northing of the drill hole collar	Refer to table 1
	<ul> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> </ul>	Refer to table 1
Drill hole Information	$\circ$ dip and azimuth of the hole	Refer to table 1
	o down hole length and interception depth	Refer to table 1
	$\circ$ hole length.	Refer to table 1
	• 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.	Refer to table 1
Data aggregation methods	• 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.	The high grades in the exploration results have not been cut, where irregular sample lengths have been taken, these length have been clearly stated.

Criteria	JORC Code explanation	Commentary
	• 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.	Due to narrow nature of Kavanagh mineralisation intercepts rarely contain more than 1 sample. In cases where this does occur no internal dilution is included and a minimum grade of 5g/t is required for additional samples before they are added to an intercept. For example a 1 metre at 30g/t Au results with a consecutive 1 metre at 2g/t result will not be aggregated and reported as 1m @ 30g/t Au while a 1 metre at 30g/t Au results with a consecutive 1 metre a 6g/t Au result would be aggregated to 2m @ 18g/t Au
	• The assumptions used for any reporting of metal equivalent values should be clearly stated.	No metal equivalent values have been used
Relationship between mineralisation widths and intercept lengths	• These relationships are particularly important in the reporting of Exploration Results.	All results stated in this announcement are downhole.
	• If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.	True width not known at this point in time High grade orebodies such as Kavanagh are sensitive to intercept thickness, as such
	• 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').	true width is calculated for all intercepts and used in the resource estimation stages with a (grade x true thickness) calculation is made and estimated.
		Refer to Figure 1-3
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.	
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.	All results related to Kavanagh have been reported.

Criteria	JORC Code explanation	Commentary
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.	All relevant exploration information has been reported
	• The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).	As detailed in this announcement these results are the first from a larger drilling program underway at Coyote. Further drillholes have been drilled with results
Further work	• Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.	pending and not reported, while other drill holes are planned and will be drilled in the coming months. Further detail of the results of this drilling will be released as it comes to hand.