

# PROPOSED ACQUISITION OF INTEREST IN JV, THE GOLD BASIN PROJECT, ARIZONA USA

### 24 September 2018

#### **KEY POINTS**

- Gold Basin Project ("**Project**") is a highly prospective advanced gold project located in north west Arizona in the USA. Located in major geological trend.
- Project benefits from a significant historical technical database from previous exploration since the 1980s .
- Numerous walk-up exploration targets identified from recent reinterpretation of historical data and field work.
- Ability to delineate a JORC Resource rapidly with a small amount of drilling 3,000m RC drilling program fully permitted.
- Open pittable heap leach operation is envisaged with all infrastructure readily accessible and rapid approvals.
- Project was previously fully permitted in mid 1990s as a heap leach gold operation.
- Close to infrastructure (power, roads, labour force etc).
- Extent of gold mineralisation and targets suggest a district scale gold system with potential for multi-million ounce endowment.
- Proposed acquisition (subject to due diligence) represents an initial economic interest of 25.01% in the Gold Basin project subject to meeting earn-in requirement with an investment of a A\$550,000.
- GRV's investment is to be used to complete fully permitted drilling program and deliver maiden JORC (2012) Resource.
- GRV is to have an option to acquire 100% of the project on favourable commercial terms subject to delivering a maiden JORC (2012) Resource.

Greenvale Energy Limited ("GRV" or "the Company") is pleased to announce that it has entered into a conditional Heads of Agreement (HoA) for the opportunity of investing in an advanced gold project located in mining friendly north-western Arizona, known as "The Gold Basin" project. The investment is part of the Board's intention to provide risk diversification from its main Alpha Resources oil shale undertaking.



The Gold Basin project lies approximately 110 kilometres south-east of Las Vegas, Nevada and is comprised of two types of mineral holdings, namely: 5 mineral rights and 290 unpatented mining claims covering a total area of 30 km2. Lying near key infrastructure such as the main interstate paved highway and a high voltage power transmission power line originating at the Hoover Dam hydroelectric facility

Compilation of historical data by Centric Minerals Management Pty. Ltd. (**Centric**), including a significant drillhole and surface geochemical database and a modern airborne geophysical dataset provided by Newmont un a CA has delivered a new interpretation of the gold mineralisation. Based on this reinterpretation there is strong evidence for a new target model focussed on high angle high grade structures cross cutting low angle detachment faults.

#### New Interpretation is:

- 1. A first phase detachment fault (extensional) gold mineralising event creating sub horizontal and mineralised 'stacked faults'.
- 2. Overprinted by a younger intrusive related low sulphidation epithermal gold system injecting high grade vertical veins crosscutting the detachment planes.



Figure 1: Gold Basin location in Western USA



The Gold Basin licence area sits on a major NW-trending regional shear zone controlling the distribution of large porphyry copper deposits in northern Arizona and numerous precious metals deposits in western Nevada. The dominant structures are a north to northwest trending series of detachment faults.

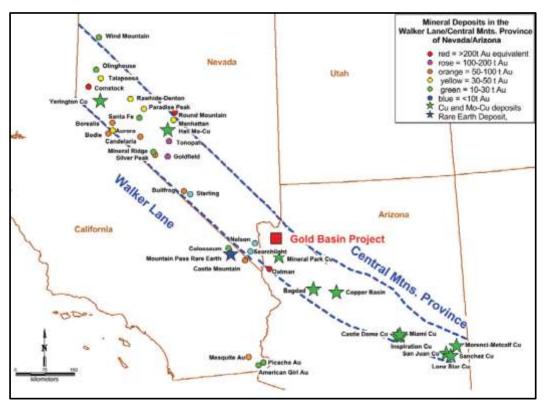
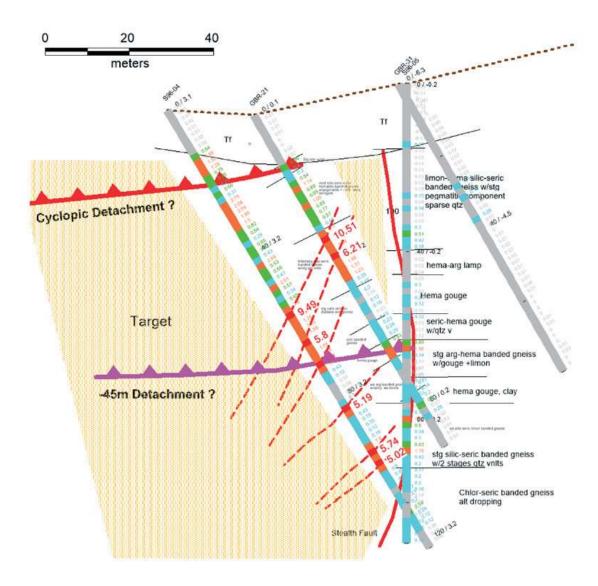


Figure 2: Main Structural Corridor Nevada-Arizona

The main geological units consist of Precambrian gneiss and Tertiary sediments that host a district-scale, low-sulphidation epithermal gold system of Tertiary age that is localized at the intersection of low-angle detachment faults with high-angle "feeder" faults.

Figure 3 shows one historical drill section where multiple high-grade sub vertical feeder veins have been intersected. These intersections were never followed up.





Drill section (E-W) across the southern end of the Stealth deposit showing the near-vertical Stealth Fault interacting with detachment faults and crossing, high-angle veins.

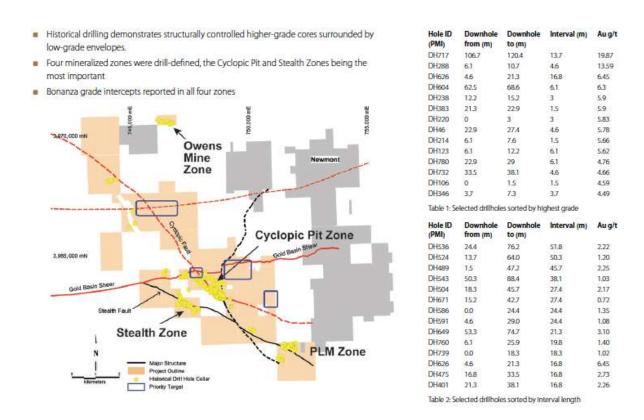
Figure 3: Historical drill section showing high grade gold intersections (RED numbers showing gold in grams per tonne)

Past explorers were constrained by controlling only one part of the property and/or having access to only part of the data and were adversely affected by thick post-mineral cover and insufficient subsurface data. The extensive historical dataset containing over 20,000 surface samples and 40,000m of drilling has only recently been collated and combined into a single archive and subsequently evaluated at the drill hole to district scales using a GIS platform.



This evaluation revealed that many historical drill holes drill holes bottomed in significant gold values (Figure 4) but a poor understanding of the structural controls over the gold mineralisation hampered much of the historical exploration work. Many of the better surface geochemical anomalies were never drill tested.

New interpretations of this collated data and field mapping has identified that the major, high-angle "feeder" structures that have cut and mineralised a stacked sequence of sub-horizontal detachment faults as the prime gold mineralisation targets. This new structural model has the potential for near surface multi-million ounce deposits. The new exploration targets focus on the large structural intersections identified by surface anomalies and widely spaced drill intercepts.



**Figure 4: Gold Basin Historical Drilling Results** 

The Gold Basin deposit closely resembles the open pit, heap leach Briggs gold deposit in SE California mined by Canyon Resources in the 1990s (738,000 oz @ 1.07 g/t) with respect to host rocks, structure, and style of mineralization. In addition, it is the same age of mineralization as the nearby Oatman District (2 million oz historic production) and the open pit, heap leach Castle Mountain gold deposit (15 million ounces @ 1.24 g).



### **KEY EXPLORATION TARGETS.**

**CYCLOPIC NW** - 3,000m RC program fully permitted, planned to deliver maiden JORC Resource and extend Cyclopic target to the NW. Targeting surface mineralisation and historical drilling showing excellent gold grade continuity.

**CYCLOPIC SW** - Large magnetic low and NE/SW trend coupled with gold in rock chips and no drilling. A very pronounced, NE trending air-mag low occurs immediately east of the Cyclopic Mine in lower plate rocks. Within this 800m wide zone, several parallel breaks are seen. The strength of this magnetic low strongly suggests strong, pervasive alteration at depth and thereby constitutes another priority target.

**STEALTH** - historical drilling showing many bonanza gold intersections with strong evidence for the structure continuing for more than 3 km along strike.

**STEALTH SE** - strong field evidence for continuation of main mineralised structure also supported by Newmont geophysics. Several rock chip samples picked up surface mineralization in this area with Au values >10 g/t, but the region is largely covered by alluvium within a broad valley, hence the paucity of rock samples and lack of soil sample coverage.

**PLM SE** - Another NE-trending, elongate air-mag low occurs about 1km southeast of the PLM Mine on a flat pediment surface strongly obscured by alluvium with little sampling and drilling.

**SENATOR SE** - Located about 2km northwest of the NW Cyclopic Target, the intersection of two airmag breaks coincide with a cluster of anomalous soils samples collected by NPMC in lower plate rocks.



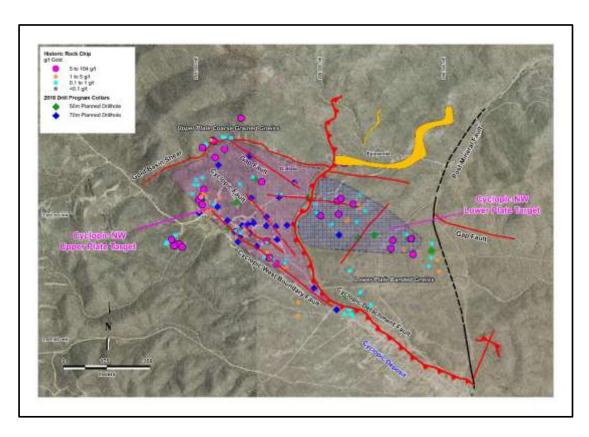


Figure 5: Cyclopic NW target drillhole collars for 2018 drilling program showing historical gold in rock chip samples.



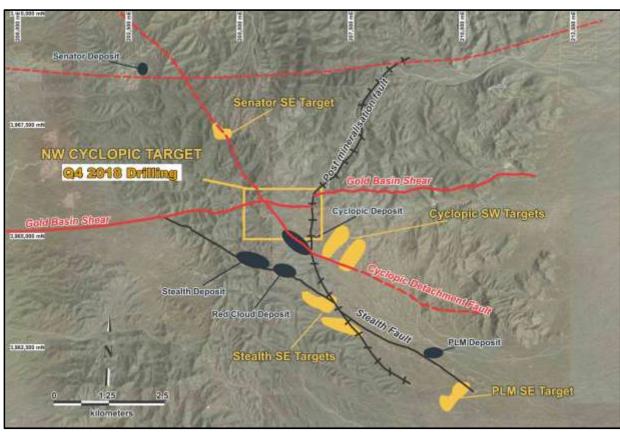


Figure 6: Gold Basin high priority targets – untested by drilling.



### **KEY TERMS OF THE INVESTMENT**

GRV is to acquire an interest in a special purpose company via a subscription of A\$550,000. The intended use of the funds invested by GRV is to conduct a drilling program and deliver a JORC (2012) compliant resource estimate.

The key terms of the investment are:

- GRV to invest \$550 000AUD into a new private Australian Company (**NewCo**). GRV will have a 50.01% shareholding and the remaining 49.99% is to be owned by a third party.
- NewCo has the right to earn a 50.1% interest in a US private company (US Co). US Co owns 100% of the mineral claims pertaining to the Gold Basin Project.
- NewCo's 50.01% interest in US Co is earned when an Inferred or Indicated Resource JORC 2012 Code has been achieved and that this needs to be achieved prior to 31 March 2019.
   However, NewCo may request a further extension provided that drilling is ongoing and such extension may not be unreasonably withheld by US Co.
- GRV's interest in the Gold Basin project is to be therefore 50.01% of 50.1% or 25.01%.
- GRV is to have the right to appoint 2 of the 3 directors for both NewCo and US Co.
- GRV as an Option to acquire all the remaining shares in both NewCo and US Co. Should GRV elect to proceed further with its investment in either NewCo or US Co or both, the acquisition price will be based on 1.75% of the 30 Day-Average Gold Price multiplied by the number of Inferred and Indicated Ounces in accordance with the JORC 2012 Code. These are considered to be favourable terms to allow GRV to own 100% of the Gold Basin Project, subject to the results from the work program.
- Centric Minerals Management Pty. Ltd, a private Australian based mineral exploration and management company will retain a 1% Gross Royalty on the project and will be engaged as Technical Manager for all work programs on the project.

The proposed transaction is subject to final documentation, including shareholders and joint venture agreements, legal due diligence with both New Co and US Co and shareholder or regulatory requirements.



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The information in this report that relates to Mineral Reserves, Mineral Resources and Exploration Results is based on information compiled by Mr Charles Straw, Director of Centric Minerals Management Pty Ltd and Precious Metals Investments. Mr Straw is a Member of The Australasian Institute of Mining and Metallurgy. Mr Straw 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 a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Straw consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

## JORC CODE, 2012 EDITION

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

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

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>	<ul> <li>All historical sampling</li> <li>11,073 soil samples: sample techniques and QAQC unknown.</li> <li>5,474 rock chip samples: sample techniques and QAQC unknown.</li> <li>936 trench samples: sample techniques and QAQC unknown.</li> <li>22,573 RC drill samples: 1,010 samples representing a 3.05m (10') sample interval, and 21,543 samples representing a 1.52m (5') sample interval. All analyses are by fire assay, 30g and 50g charges. Sample techniques, measures, and QAQC unknown.</li> <li>1,774 diamond core samples: 1.52m (5') sample intervals, sample technique and QAQC unknown. Analyses by fire assay, 30g charge.</li> <li>No nugget effect seen in duplicate assay results. Of 2297 drill samples analyzed in 1996 by American Assay Lab (FA60 fire assay procedure), 159 duplicate assays were run, of which 70 average in excess of 100ppb Au (range 100-6570ppb). In these 70 duplicates, the Mean Percent Difference (MPD) ranges from 0 to 25% and averages 9%. MPD for samples in the 1000-6570ppb range (24 total) averages 9%.</li> </ul>
Drilling techniques	<ul> <li>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).</li> </ul>	<ul> <li>Historical data.</li> <li>525 reverse circulation holes, hammer and bit types unknown</li> <li>30 diamond core holes: 9 holes drilled at HQ size, other hole sizes unknown.</li> </ul>
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</li> </ul>	<ul><li>Historical data</li><li>Methods and measures unknown.</li></ul>

Criteria	JORC Code explanation	Commentary
	<ul> <li>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>	Relationship between recovery and grade unknown.
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>Historical data.</li> <li>Of the 475 holes drilled within historical resource areas, paper logs for 440 holes (93%) were preserved. About 50% of the holes were geologically logged to an extent sufficient for supporting resource, mining, and metallurgical studies.</li> <li>All logging is qualitative.</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> <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> </ul>	<ul> <li>Historical drilling.</li> <li>Core and RC sampling techniques unknown.</li> <li>Sample preparation techniques and QAQC measures unknown.</li> </ul>
Quality of assay data and laboratory tests	<ul> <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> </ul>	<ul> <li>All historical data.</li> <li>Assay labs used were reputable, and their analytical techniques were appropriate for the time. QAQC procedures are unknown.</li> <li>All analyses were by fire assay utilizing 30g and 50g charges and generally using an AA finish. Of the 18,880 RC drill sample analyses documented in preserved assay certificates, 16,825 are reported in ppb while 2,045 are reported in OPT (ounces per ton).</li> </ul>

Criteria	JORC Code explanation	Commentary
	<ul> <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>Detection limits for drill sample analyses range from 2 to 20ppb and 0.001 to 0.005opt.</li> </ul>
Verification of sampling and assaying	<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> </ul>	<ul> <li>All historical data.</li> <li>Of the 475 drill holes associated with the historical resource areas, assay certificates (paper) exist for 438 of these holes. Centric Minerals Management Pty Ltd (Centric) visually compared the existing digital drill hole database in 2015-2016 produced by Nevada Pacific Mining Co in 1997 to these existing assay certificates and found only a few minor discrepancies, which were corrected.</li> <li>The few twin holes drilled within resource zones are insufficient for a valid comparison.</li> <li>Most of the historical data is in a hard copy (paper) format and has been well preserved by Nevada Pacific Mining Co, thus making it relatively easy to compare original data (assay certificates, hole logs) to digitally compiled data.</li> </ul>
Location of data points	<ul> <li>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.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	<ul> <li>All drill holes within the historical resource areas were originally located by a professional land surveyor utilizing a theodolite and local reference grid. Nevada Pacific Mining Co. later used another professional land surveyor to convert the original grid locations into UTM (NAD27). Centric has since converted all historical data (including hole collars) to UTM WGS84 in 2015 and 2016.</li> <li>Spot checks by Centric with a Garmin hand-held GPS (3m accuracy) has confirmed the accuracy of historical drill collar locations.</li> <li>The existing topographic map utilizes a 5-foot (1.52m) contour interval and is very accurate. This accuracy was confirmed by Centric using a hand-held GPS unit.</li> </ul>

Criteria	JORC Code explanation	Commentary
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>	•
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>	• Most drill holes cut across major structures, and the drill samples look to be representative for the most part. Primary structural control is sub-horizontal, regional in extent, and easily recognized in cuttings and core, so the overall vertical thickness of mineralization is easily determined. High-angle, secondary mineralized structures controlling higher grade veins are represented by a very diverse set of strikes and dips, so undue bias is difficult to achieve, but because of this diversity the exact relationship between drilling orientation and orientation of these high-angle mineralized structures is difficult to ascertain.
Sample security	The measures taken to ensure sample security.	Unknown
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	<ul> <li>In the Amended Technical Report on the Gold Basin Property (NI43-101) prepared by J. Douglas Blanchflower for Pannonia Ventures in 2011, the author states, "No discrepancies were found during the data verification work" and he goes on the conclude, "the historical exploration data provided by Aurumbank (successor to Nevada Pacific Mining Co.) is adequate for the purposes of this report."</li> </ul>

## **Section 2 Reporting of Exploration Results**

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

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>Two types of mineral holdings totaling 7,669.3 acres (approx 12 sq. miles) located in all or portions of Township 27 N. Range 18W. Section 3; Township 28 N. Range 18W. Sections 19, 29, 30, 31, and 32; Township 28 N. Range 19W. Sections 1, 3, 10, 12, 15, 16, 17, 22, 24, 25, and 26;</li> <li>Includes mineral rights on 5 private parcels (2,389.3 acres) where the surface rights are owned by third parties.</li> <li>Includes 290 unpatented lode claims (5,280 acres)</li> <li>Mineral rights to private lands and unpatented lode claims are currently controlled by PMI under a lease agreement with</li> <li>At this time, there are no known impediments to obtaining a license to operate in the area. The closest area of environmental concern is the Lake Mead National Recreation Area, the southern boundary of which is located 12km (7mi) north of the property.</li> <li>Project is located on BLM lands and on private lands that originated as railroad grants. Mining throughout the property occurred in the late 1800s and 1930s.</li> </ul>
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	<ul> <li>All historical exploration conducted by numerous companies on various portions of the property from 1983-2007.</li> <li>US Borax 1983 (Cyclopic Mine)</li> <li>Molycorp 1985 (Owens Mine, Cyclopic Mine</li> <li>Reynolds Metals 1987 (PLM Mine)</li> <li>Toltec Res./Consolidated Rhodes Res. 1989 (Stealth)</li> <li>Cambior Inc. 1990 (Stealth, Cyclopic Mine)</li> <li>Western States Mining 1994 (Stealth)</li> <li>Nevada Pacific Mining 1994-2007 (Cyclopic Mine, Stealth)</li> </ul>

Criteria	JORC Code explanation	Commentary
		Pannonia Ventures Corp. 2011
Geology	Deposit type, geological setting and style of mineralisation.	• The property is located at the northwestern end of the Central Mountain Province porphyry copper belt and at the southeastern end of the Walker Lane structure zone. It is classified as a low-sulfidation, epithermal type deposit structurally controlled by low-angle detachment faults that are in turn cut by a variety of high-angle "feeder" faults. Gold mineralization is completely oxidized and occurs within quartz veins, quartz stockworks, and within argillized gouge zones. The Precambrian-age granitic gneiss hosting gold mineralization is overlain by post-mineral, Tertiary-age gravels and volcanics.
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:         <ul> <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> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth</li> <li>hole length.</li> </ul> </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>	All historical drillholes have been imported into a database containing collar, dip, RL, azimuth, depth and associated assay data. All holes have not been included in this table given there are over 550 holes in total.
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</li> </ul>	No data aggregation has been done

Criteria	JORC Code explanation	Commentary
	<ul> <li>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>	
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>Gold mineralization is strongly controlled by well-defined, sub- horizontal fault zones that can be followed at the regional scale, but the exact geometry of the higher-grade mineralization related to high- angle structures is debatable and the associated true width is unknown. For this reason, only the down hole lengths are reported.</li> </ul>
Diagrams	<ul> <li>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.</li> </ul>	See news release for maps
Balanced reporting	<ul> <li>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.</li> </ul>	• NA
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.	<ul> <li>The gold mineralization and surrounding alteration consist of silica, clay, iron oxide, and gold. No deleterious metals or trace elements (such as As, Hg, Pb, Zn, Cu, Sb, Bi) are present.</li> <li>All mineralization and alteration is oxidized. No sulfide mineralization is noted.</li> <li>Water table is generally deeper than 200m and is well below the lower level of potential mining.</li> </ul>
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>	<ul> <li>3000m RC drilling program designed to confirm a number of historical drill holes within historical resource zones and then step out adjacent to the historical drilling and test lateral continuity of mineralization along main structural corridors.</li> </ul>