

A Manex Resource Group Company

## Wind Mountain Project Summary Memo – Feeder Program

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Assays have been received for both holes drilled at Wind Mountain during late 2017 and early 2018. These holes were drilled in search of feeder, or upwelling, zones that fed the large disseminated gold mineralization hosted by the permeable Truckee Formation. Hole WM17-097 is located near the southern end of the property, where known gold mineralization occurs deep into the Truckee Fm at the South End deposit. Hole WM17-098 is located about 1,500m north of -097 and is in the bottom of the Wind Pit, close to where the shallow, disseminate gold deposit is thickest within the Truckee Fm. The drill holes were oriented to the southeast in order to cross northeast-trending faults, which were assumed to be open based on recently published regional geologic mapping. Open faults should be important channelways for ore fluids during gold deposition.

Significant conclusions from the drilling program and from a subsequent review of existing data are listed immediately below and described in more detail within this brief memo.

- Hole WM17-097 intersected significant low-grade Au & Hg in a thick package of tuffaceous sediments in the lower Pyramid Fm, which is a potentially new host rock at Wind Mtn. Mapping to the east indicates only minor sediments within a thick package of volcanic flows.
- Hole WM17-098 drilled through mineralized Truckee Fm within previously defined resource blocks and then intersected essentially fresh Pyramid Fm volcanics and tuffaceous sediments, indicating significant lateral migration of ore fluids within the Truckee Fm from its feeder zone in the underlying Pyramid Fm.
- The lower Pyramid sediments are fresh in hole -098, but strongly altered to clay with anomalous Au & Ag in -097. This indicates that a feeder zone is closer to -097.
- Two prominent northeast-trending post-mineral faults were crossed in hole -098. No anomalous metal values were intersected, indicating these faults are not reactivated feeder faults, as suggested by the dramatic thickening of gold mineralization in the Truckee Fm.
- Gold and silver mineralization is older than previously thought (+4.8Ma) and was deposited under a different stress regime than currently exists. Northwest- and north-trending faults appear to be open structures during gold mineralization, as opposed to northeast-trending faults, which are the faults most recently open.
- Calcite +/- quartz veins contain variable amounts of gold and silver north of -097 and form a sigmoidal pattern of north to northwest veins. Detailed structural mapping and sampling should provide vectors to the primary feeder zone for gold mineralization in the lower Pyramid Fm. Existing holes in the target area are shallow, ending in Truckee Fm or volcanic flows of the upper Pyramid Fm.
- Thicker permeable sediments in the lower Pyramid lie directly above Mesozoic-age impermable metasediments along a low-angle fault. Ore fluids passing upward from confined structures within metasediments into permeable sediments may have spread outward to form a pipe-like body instead of a high-grade vein. A pipe-like body should be an easier target to test from the surface.

A recent study of Wind Mountain gold and silver mineralization demonstrates that very high concentrations of gold (15 to +30g/t) occur within small fractures (see figure below from C. Payne, 2014), with very low concentrations between those fractures in highly silicified rock. Although a small number of samples were studied, the results are consistent with favorable recoveries obtained by AMAX during heap-leaching. The high concentrations of gold in fractures suggests a feeder zone may contain very high concentrations of gold.

## Wind Mtn – High-grade Au in Late Fractures



Basement Mesozoic sediments lie below a low-angle fault in both holes (see figures below). This fault separates Wind Mtn rocks from the main mountain range to the east (see figure from Rhodes, 2011). The fault may be a channel-way for gold, but at least some movement is probably post-mineral. In addition, Mesozoic rocks are very dense; thus, veins should have narrow alteration halos, making surface exploration difficult below the low-angle fault.



The current stress field indicates that northeast-trending faults should be open, allowing large veins to form; however, the most recent movement on these faults is post-mineralization. The Wind Mountain fault (below on right) is a good example of a major post-mineral fault and understanding that post-mineral movement led to Bravada's 2007 discovery of the DeepMin mineralization as an extension of the previously mined Breeze deposit. Geochemical results from WM17-098 indicate that the two major northeast-trending faults that were crossed near the bottom of the hole are also post-mineral and not related to a reactivated feeder zone as previously thought.



The base of the Pyramid volcanics in both 2017/2018 drill holes intersected a much thicker package of tuffaceous sediment than has been described in regional mapping. Based on the extensive zone of anomalous gold and mercury in the southern hole, these sediments could be a significant host for disseminated gold mineralization. There are holes close to major resource blocks in the overlying Truckee sedimentary host rocks with very similar gold concentrations to those found in hole WM17-097.

Pyramid sediments were encountered directly above the low-angle fault and alteration was much stronger in the southern hole, even though the thickest portion of the shallow mineralization in the Truckee host rocks is close to the northern hole. Previous drilling north of WM17-098 also drilled through gold-resource blocks into essentally fresh Pyramid volcanics. This is a strong vector, indicating the main feeder zone is south of hole WM17-098 towards hole WM17-097 and that fluids moved quite far laterally within the permeable Truckee sediments. Modern geothermal fluid-flow patterns commonly exhibit extensive lateral movement as well.

The unexpectedly thick sediments in the lower Pyramid volcanic sequence could mean the feeder zone is a funnel-like body rather than a narrow Hishikari-like vein. The gold-bearing fluids should spread out as they crossed from dense basement rocks into more permeable sedimentary rocks. If so, the target beneath the capping volcanic flows should be larger and

easier to discover (and potentially to mine) than narrow bonanza-grade veins, which could still exist in basement rocks and at the narrow base of the funnel.

The possible Feeder area is still relatively large (see figure on right) and most is covered by thin alluvium or has been disturbed by the previous mining activity during reclamation. Reviewing Bravada's ground magnetic data (see below) over the prospective area shows a strong mag low, possibly due to magnetitedestruction in the upper Pyramid dacite



volcanic flows. The dacite is magnetic where fresh in drill holes farther north and where exposed east of the property. The magnetic low has two broad linears that cross just north of hole WM17-097.

Bravada has limited data for shallow historic holes in the target area and data from those holes was reviewed. Most of the holes are shallow and ended in Truckee Fm sediments or in dacite volcanic rocks at the top of the Pyramid Fm. The dacite should be a poor host rock, although it could host high-grade, narrow veins. An IP survey could be helpful in defining



the feeder, which may show up as a resistivity high (silicified Pyramid sediments beneath the dacite) and possibly an IP anomaly. One potential issue is the high-tension powerline just to the west of the target area.

The figure to the right shows a detail of the possible feeder area with historic mapping (pre-mining bv J. Wood) and with drill subsequent notable intercepts. Wood maps an interesting sigmoidal pattern in calcite +/- quartz veins (labeled CV's on this figure), and drill holes confirm that several holes that cut the veins at shallow depth intersected anomalous gold and silver. For example, A0083 and S0025 form a scissor pattern beneath a bend in one of the larger calcite veins and anomalous contain gold to 0.205g/t Au and silver to 41g/t



Ag. Note the strong magnetic low that is curved and similar to the outcrop pattern of the vein.

The current Google Earth image for Wind Mountain is exceptionally sharp (see figure to the right) and was examined in the feeder area. The calcite +/- quartz veins are postive topographic features (see detailed figures below) and it appears that reclamation activities avoided disturbing these veins in order to retain as much of the original landscape as possible.

Importantly, the detailed figure below shows that the open-space veins highlighted in orange formed in a stress field that is different than the current stress field. Open faults



related to gold/silver mineralization in the veins are not oriented northeast, but rather northwest or north and the majority form a sigmoidal pattern.

The age of gold mineralizion is uncertain, but is constrained by dates from the uppermost Pyramid Fm dacite flows (~16 Ma) and a fresh rhyolite ash-flow tuff (~ 4.8 Ma) directly east of

the Wind Pit. Initial mapping suggested the ash-flow tuff should project into the Wind Pit, where the rhvolite was not recognized and was assumed to be strongly altered to clay, suggesting an age younger than 4.8 Ma.

However, the acidleach zone in sediments above the Wind Pit contain abundant and clearly recognizable clasts of basement rocks. Such clasts have not been found in the



sediments exposed in the Wind Pit below the acid-leach zone, but are abundant in a thick sequence of sediments beneath the dated rhyolite across a small valley to the east. The likely

correlation of these basement-clast sediments suggests that gold deposition is older than 4.8 Ma because the rhyolite overlies basementclast sediments. An older mineralization age would explain why the stress field was different than predicted by the current stress field.

Mineralization may be closer to the ~16Ma age of the nearby Hog Ranch deposit than the ~4Ma age of the nearby Hycroff deposit. The



possibility of a different stress orientation at the time of mineralization can be tested with detailed structural mapping and assaying along the vein zones observed on the Google Earth image and should provide a vector to the strongest part of the feeder zone.