Kigluaik Gold Project

Avalon Development Corporation
Summary Report 2015

- The Kigluaik project covers placer gold production from parts of three districts with total recorded production of 5,242,210 ounces of gold since late 1800's.
- +500,000 oz lode resources, no significant commercial lode gold production from the project area.
- Extensive road network allows access to many parts of the project.
- Gold mineralization appears to be genetically, temporally and chemically identical to several +1 Moz intrusive related gold deposits in the Tintina Gold Belt.
- Previously unrecognized district scale mineral zonation suggests presence of large areas of prospective but unexplored terrain.

The Nome, Kougarok and Port Clarence Mining Districts are located on the southwestern Seward Peninsula along Alaska's west coast. The city of Nome (population 4,000) is situated on the Bering Sea coast and serves as the logistical and administrative center for this part of the Seward Peninsula. Nome is located 850 kilometers northwest of the city of Anchorage and 820 kilometers west of Fairbanks, Alaska.

Nome has daily jet service from Anchorage and is serviced by large ocean-going container barges from June through October. A surprisingly extensive network of state and private roads allow access to many parts of the Nome, Kougarok and Port Clarence Mining Districts during the 6 month summer season. Additional areas become accessible after freeze-up, particularly the poorly drained areas along the major creeks and rivers.

Figure 1: Early miners on the beach in Nome, Alaska 1900.

Although photos of the crowded beach at Nome in 1899 have become famous, the discovery of gold in the Nome district dates back to September 20, 1898 when small amounts of gold were discovered on what is now Anvil Creek. The discovery was made by John Brynteson, Erik Lindblom and Jafet Lindberg, better known as the "Three Lucky Swedes". As it turns out, the Three Lucky Swedes staked 90 federal claims for themselves and their associates without having discovered anything of significance. The discovery occurred when latecomers panned the Nome beach and found unheard of values in free gold in each pan. Since that time the Seward

Peninsula has produced in excess of 6.8 million ounces of gold with nearly 75% of this total coming from the Nome Mining District. Placer mining has been continuous in Nome since discovery with total reported production of 5,014,982 ounces of gold through year-end 2010. Significant additional placer gold resources remain in the Nome District, mostly in the coastal plane near the city of Nome and in extensive near-shore shallow marine deposits. Streams in the adjacent Kougarok and Port Clarence Mining Districts have produced 188,375 ounces of placer gold and 42,358 ounces of placer gold, respectively, during this same period.

While lode gold exploration started shortly after placer gold was discovered in Nome, there has been no significant lode gold produced from the Nome, Kougarok or Port Clarence Mining Districts. The first modern exploration for lode gold deposits in the Nome district began in 1986 when Aspen Gold consolidated the district land holdings and began exploration directed toward bulk mineable gold deposits. What is now the Rock Creek deposit was discovered shortly thereafter as a result of dozer trenching. Rock Creek traded hands several times and eventually was placed into commercial production briefly by NovaGold Resources in late 2008. A series of technical and financial issues forced its closure less than 30 days later and it remained on care and maintenance status until 2011 when site reclamation began. In late 2012 NovaGold transferred all of its right to the project to Bering Straits Native Corp. who now controls 100% of the Rock Creek project. Rock Creek represents the only NI-43-101 compliant mineral resource in the Nome District with estimated resources and reserves totaling 564,000 oz gold ranging from 1.08 to 1.30 grams per ton gold.

The two most important geological events relative to gold mineralization in the Nome District are widespread emplacement of mid-Cretaceous plutonic rocks and +60 degree counterclockwise rotation and faulting of the Arctic composite terrane to its present position. Airborne geophysical data from the Nome District suggest that it is cut by district-scale faults of several orientations. The most obvious structures trend N30-60^{o}E and appear to be high angle in nature. The Anvil, Penny River and Aurora Creek faults are examples of district scale NE structures.

At least three vein types are recognized in the Nome District: (1) early chalcopyrite-sphalerite-quartz- carbonate veins that appear as boudins formed around F1 fold axes; (2) saddle reef quartz-gold-polymetallic veins that crosscut host schists at low angles to schistosity; and (3) brittle vein systems that clearly crosscut metamorphic stratigraphy at high angles. Many of the gold-bearing vein deposits in the Nome district are hosted in metamorphosed clastic rocks interpreted to be turbidites and related deepwater sediments. Many of these veins have been interpreted as turbidite-hosted orogenic gold deposits having formed during various stages of dewatering of a metamorphic pile during Barrovian style greenschist-facies metamorphism and associated plutonism.

Avalon Development recently identified several gold prospects associated with zones of anomalous pathfinder mineralization in some of the least explored regions of the Nome, Port Clarence and Kougarok Districts. Typically, gold mineralization within these districts is correlative with highly variable but anomalous levels of arsenic, antimony, bismuth and tungsten, the latter two elements now recognized as diagnostic pathfinders in intrusive-related gold deposits. The newly identified zones are likely related to the emplacement of the Kigluaik

gneiss dome metamorphic core complex in the northern Nome district and southern Port Clarence and Kougarok districts, suggesting there is significant potential for locating new high grade gold resources in this region. Based on data from Interior Alaska and the western Yukon gold deposits, it is suggested that mineralization in what is referred to here as the Kigluaik project is zoned from gold-bismuth-scheelite in more proximal settings through gold-arsenopyrite-jamesonite-tetrahedrite-stibnite at intermediate levels, to stibnite and or stibnite-arsenopyrite in more distal settings. Due to post-mineral structural displacements, the scale of this zoning may be repeated at the prospect scale as well as at the 1,600 square mile-scale of the entire Kigluaik project area.

Given the recent development of new concepts in gold deposition, Avalon Development is convinced that gold mineralization in the Kigluaik project area is genetically similar to plutonic-related gold deposits of the Tintina Gold Belt of Eastern Interior Alaska (Fort Knox, Livengood, True North, Pogo, Dolphin) and western Yukon (White Gold, Dublin Gulch, Brewery Creek). In every case where data from both target areas are available, the Nome and Tintina Gold Belt characteristics are remarkably similar. Table 1 provides a comparison of pertinent geological features of the Tintina Gold Belt and the Kigluaik project.

Table 1: Comparison of pertinent geological features of the Tintina Gold Belt and the Kigluaik project. Data compiled by Avalon Development Corp.

Characteristic	Tintina Gold Belt	Kigluaik Project
Host Rocks	Psammitic & volcanic	Carbonaceous, psammitic & carbonate
Intrusive Types	Granitic, I-type	Granitic, I-type (not much chemistry)
Intrusive Ages	112-90 Ma	120-82 Ma
Metamorphic Events	Amphib then Greenschist	Blueschist then Greenschist
Alteration Assemblages	Qtz + Ser dominant	Qtz + Ser dominant
Carbonate Alteration	Ankerite in/near veins	Ankerite in/near veins
Placer Gold Size and Fineness	40-60 mesh, 860-910	48 mesh, 850-900
Primary Sulfides	Aspy+Pb+Tetra+ sulfosalts+py	Aspy+Pb+Tetra+ sulfosalts+py
Late Stage Mineralization	Massive stibnite	Massive stibnite
Tungsten Mineralization	Scheelite in skarns & veins	Scheelite in veins
Bismuth Mineralization	Proximal to intrusives	Quartz hosted, auriferous
Tellurium Mineralization	Proximal to intrusives	Unknown
Fluid Chemistry	Intrusive, CO_2 rich	Unknown but suspected high CO_2
Sulfur Isotopes	-5 to +5 per mil	-1.6 to +0.9 per mil
Age of Mineralization	88-112 Ma	Single date, 109 Ma
Tectonic Regime	Compressional to Extensional	Collision to Compressional to Extensional
Gneiss Dome Complex	Yes	Yes
Regional Gravity Low	Yes	Unknown
Current Deposit Model	Plutonic related Au	Metamorphogenic (probably wrong)
High Angle Faults	NE & NW, 60-90 dip	NE & NW, 60-90 dip
Low Angle Normal Faults	NW to SE hypothesized	Present but motion unknown
Thrust Faults	NW to SE thrusting hypoth.	SW to NE thrusting hypoth.
Suspect terranes	Eclogite (Chatanika Terrane)	Eclogite (Osborne Cr.)

Characteristic	Tintina Gold Belt	Kigluaik Project
Placer Production	Approx. 30 Moz	Approx. 4.9 - 6.2 Moz
Lode Production	> 100 Moz	None
Lode Resources	> 100 Moz	<1 Moz at one deposit (Rock Cr)

Based on the preliminary compilation of geological, geochemical and geophysical data available on the Kigluaik project, the following conclusions are warranted:

1. Despite being discovered over a century ago, there has been virtually no modern lode mineral exploration conducted on the Kigluaik project. What little lode exploration there has been was prospect-driven and therefore limited in scope.
2. Recent lode exploration work in the district has relied upon orogenic gold models as guides to further exploration. It is Avalon's opinion that this model does not fit the existing data on the district and should not be used to guide future exploration.
3. Gold mineralization in the Kigluaik project appears to be genetically, temporally and chemically identical to several multi-million ounce intrusive related gold deposits in the Tintina Gold Belt of Interior Alaska and the Yukon.
4. The presence of gold, scheelite and bismuth occurrences in the western and northern Kigluaik project and the district-wide distribution of gold, arsenopyrite and stibnite occurrences suggest that post-mineral block faulting has juxtaposed deeper intrusive-related proximal mineralization with higher level more distal mineralization such that these genetically related, but physiochemically different deposit types, are exposed at the current erosional surface.
5. No major or junior mining companies have conducted recent district-wide exploration in the Kigluaik project. Much of the Kigluaik project remains highly prospective but unexplored and open to claim staking.
6. Geological, geochemical and geophysical data compiled by Avalon have identified a series of high priority multi-element targets in the district. Other lower priority targets also were identified, most of which rank lower only because of the lack of empirical data on which they can be evaluated.
7. Gold mineralization within the district is correlative with anomalous arsenic, antimony, bismuth and tungsten. Newly identified zones are likely related to the emplacement of the Kigluaik dome metamorphic complex north of the main Nome District, suggesting there is a significant potential for locating new high grade gold resources on the Kigluaik project.
8. Unlike many other parts of North America, the Kigluaik project area is not on anyone's list of pristine wilderness areas. The district is covered by stable State of Alaska and Native corporation lands open to mineral entry and the district enjoys good access and no significant environmental encumbrances to mining.

Additional exploration of the Kigluaik project is warranted with emphasis on phased, success dependent regional geochemical sampling, geologic mapping, bedrock trenching, and exploration-scale diamond core drilling. Avalon has generated a complete GIS-database of the Kigluaik project and prepared a detailed geological report summarizing its findings. These data can be made available to interested clients.

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