

# Kaiyah Project

## Avalon Development Corporation Summary Report 2015

The Kaiyah gold-silver property is located 345 air miles northwest of Anchorage and 330 air miles west southwest of Fairbanks, Alaska. Access to the property is via helicopter or boat on the Yukon River. The property is located south of Kaltag in an area with no past lode or placer production. There currently are no industry-compliant resources on the project.

Previous exploration on the Kaiyah prospect between 1997 and 2002 includes work by Alaska Department of Natural Resources and fieldwork by North Star Exploration in 1998 and 1999. The U.S. Geological Survey published a geology map of the Nulato Quadrangle (1:250,000 scale) in 2000 based on field surveys conducted from 1954 through 1985. North Star Exploration continued work on the prospect through 2002 including limited drilling (2,777 feet, 5 holes), with total expenditures of \$645,227. Anglo Alaska



Gold Corporation, a private Alaska-domiciled entity, acquired the project in 2009 and vended it to Vancouver-based Next Gen Metals. Limited sampling and field review on behalf of Next Gen Metals was conducted in 2009, expending approximately \$125,000. A Canadian National Instrument 43-101 report was published in August, 2010.

The Kaiyah project is located on the northwestern edge of the Kuskokwim Minerals Belt (KMB) of southwestern Alaska. The KMB roughly parallels the Kuskokwim Mountains which form a broad northeast-trending belt of accordant rounded ridges and broad sediment filled lowlands with locally rugged, glaciated igneous-cored massifs. The KMB covers an area approximately 550 km long by 350 km wide.

The Kaiyah epithermal gold-silver prospect occurs on the eastern rim of the Poison Creek Caldera in west-central Alaska. Surrounding country rocks consist of Cretaceous flysch units including lithic sandstone, siltstone and shale. The Poison Creek caldera consists of bimodal Eocene to Paleocene volcanic units that range from andesite to rhyolite in composition. The epithermal veins at Kaiyah appear to be intimately associated with this volcanic activity. The dominant structures of the area are the bounding circular faults outlining the Poison Creek Caldera, which are manifest by the two half-circular drainage patterns of Poison Creek and Stink Creek. The origin of these names is uncertain but is suspected to be related to sulfur and metals naturally draining from the mineralized hydrothermal system.

Gold-silver bearing polyphase quartz veins are associated with northeast and northwest structures that radiate from the caldera margin. The epithermal veins are hosted within a zone of outer propylitic alteration and an inner zone of weak to moderate argillic alteration. Weak silicification is also noted in the country rocks adjacent to the veins. Average Ag:Au ratio is approximately 40:1. Rock chip samples from surface rubble-crops and boulder trains collected in 1997 – 2002 return values up to 10 grams of gold per tonne and 462 grams of silver per tonne. Rock chip samples from surface rubble-crops collected in 2009 return values up to 12.85 grams of gold per tonne and 61.9 grams of silver per tonne (Table 1).

Table 1: Significant rock geochemistry from the 2009 Kaiyah program.

Sample #	Rock Unit	Au_ppb	Ag_ppm	As_ppm	Cu_ppm	Sb_ppm
633449	Quartz	12850	4.6	355	18	69
633452	Quartz	3670	2	1420	43	196
503609	Quartz	2020	16.2	3930	132	169
633394	Wacke	1855	3.4	2410	67	140
633398	Quartz	1245	47.3	684	72	87
503624	Quartz Breccia	988	61.9	3540	331	142
633451	Quartz	865	1.4	316	20	37
633391	Quartz	737	52.6	3140	285	117
503613	Quartz Breccia	643	126	941	156	132
633396	Quartz Breccia	563	6.2	1440	26	62

The main Kaiyah vein is up to 25 feet in true width in two drill holes and the south vein is 27 feet true width in one drill hole. Significant drilling results are presented in Table 2. The veins exhibit evidence of multiple episodes of fracture and infilling resulting in banded quartz and chalcedony, along with drusy quartz and coxcomb quartz textures. Gossan zones and silica-limonite boxworks occur within the banded veins and along the margins of the veins. Some of these features have silicified selvages of up to 0.5 inches in width. Relict sulfides are rare to absent.

Fluid inclusion analysis suggest that if the hydrothermal fluids contained significant amounts of gold and silver, it is likely that gold-silver mineralization precipitated at boiling levels somewhere else in the epithermal system. The presence of sporadic high grade gold and silver mineralization in surface exposures suggests there may be potential for ore-grade gold and silver mineralization below surface exposures in the discovery area. Potential for epithermal gold-silver mineralization also exists in the broader altered areas adjacent to the exposed veins and in the covered areas along strike of the veins. Little or no exploration has been conducted elsewhere within or adjacent to the Poison Creek Caldera and potential for additional mineralization may exist in these areas.

Table 2: Significant drill intercepts, Kaiyah prospect, 2000.

Hole #	From (ft)	To (ft)	Interval (ft)	Est. true width (ft)	Au (ppb)	Ag (ppm)
KAI-00-01	15	20	5	3.3	360	0.7
	26.9	27.9	1	0.66	509	8.1
KAI-00-02	397	402	5	3.3	561	3.6
	481.6	483.7	2.1	1.39	431	1.6
	510	515.5	5.5	3.63	161	1.9
	309.1	323.6	14.5	9.57	trace	1.0
KAI-00-03	443.1	482	38.8	25.61	24	3.6
KAI-00-04	320.6	355	34.4	22.7	212	4.6
	337.1	339.1	2	1.32	2700	20
	254	290.4	36.4	24.02	trace	2.6
	149	164	15	9.9	trace	2.5

Based on information from previous exploration programs, the Kaiyah prospect is believed to be an epithermal silver-gold occurrence, however, whether the project represents a low-sulfidation state deposit or a high sulfidation state deposit remains uncertain. Limited trace element, fluid inclusion and petrologic evidence suggest it can be classified as a volcanic-hosted low-sulfidation epithermal gold-silver system. However, evidence of alunite alteration suggests the Kaiyah prospect has affinities with high-sulfidation state epithermal deposits. Additional petrologic and geochemical work will be required to determine which type of epithermal occurrence Kaiyah best represents.

Potential exists at Kaiyah for significant grade-tonnage accumulations of volcanic-related epithermal gold-silver mineralization. Avalon Development Corporation (ADC) is well situated to implement future exploration on the Kaiyah project. ADC has over 20 years of experience in this region of Alaska, including all of the recent work conducted on the project. The company has conducted numerous exploration programs in the region, has established a logistical network of contractors and personnel experienced in unexplored Alaska, and maintains a good working relationship with State and Federal regulatory permitting agencies and local communities.

Interested parties should contact:  
Curt Freeman, President  
Avalon Development Corp.  
PO Box 80268  
Fairbanks, AK 99708  
Phone 907-457-5159  
Fax 907-455-8069  
Email: [avalon@avalonalaska.com](mailto:avalon@avalonalaska.com)