

GEOLOGY AND MINERALIZATION  
OF THE SILVER CHALICE SILVER - GOLD PROJECT,  
NULATO QUADRANGLE,  
WESTERN ALASKA

Prepared for

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## SUMMARY

The Silver Chalice gold-silver property is located 345 air miles northwest of Anchorage and 330 air miles west southwest of Fairbanks, Alaska. The project is covered by 31 State of Alaska mining claims covering 4,960 acres (12,251.20 hectares) of land owned 100% by Anglo Alaska Gold Corporation. The claims lie in two separate blocks approximately four miles apart. Next Gen Metals Inc. (Next Gen) acquired an exploration and purchase option on all claims comprising the Silver Chalice project in late 2009. There currently are no other active mining claims in the Silver Chalice project area. Access to the property is via helicopter or boat on the Yukon River. There has been no past lode mining on the project and there currently are no NI-43-101 compliant resources on the Silver Chalice project.

Previous exploration on the Silver Chalice prospect (then known as the Kaiyah prospect) between 1997 and 2002 includes work by Alaska Department of Natural Resources (Bundtzen and Miller 1997), and fieldwork by North Star Exploration in 1998 and 1999 (Robyn and Lincoln, 2004). 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 (Patton and Moll-Stalcup, 2000). North Star Exploration continued work on the prospect through 2002 including limited drilling, with total expenditures of \$645,227. Anglo Alaska conducted fifteen man-days of sampling and field review on behalf of Next Gen Metals in 2009, expending approximately \$125,000.

The Silver Chalice epithermal gold-silver prospect occurs immediately east of the eastern margin of the Poison Creek Caldera in west-central Alaska. 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. 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 Silver Chalice appear to be intimately associated with this volcanic activity. Rock chip samples from surface rubble-crops and boulder trains return values up to 10 grams of gold per tonne and 462 grams of silver per tonne. Average Ag:Au ratio is approximately 40:1. The main Silver Chalice vein is up to 25 feet (7.6 meters) in true width in two drill holes and the south vein is 27 feet (8.2 meters) true width in one drill hole. 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 in the epithermal system. There remains potential for ore-grade gold and silver mineralization below the exposed surface at the Silver Chalice prospect area in the two veins drilled, in the broader altered areas, 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.

The Poison Creek caldera represents an excellent exploration target with potential to host additional epithermal gold and silver mineralization. Stream sediment samples anomalous in gold and indicator minerals and pan concentrate samples with gold and mercury strongly support the gold and silver potential of the caldera and adjacent areas.

Based on preliminary field, laboratory and literature studies completed to date, the following phased, success-dependent recommendations for future work are warranted:

1. Phase 1: Historical records indicate two areas of the Silver Chalice project have surface exposures of significant alteration and/or precious metal mineralization. The Main Vein and South Veins, located in the immediate vicinity of VABM “Kaiyah”, are the currently known priorities for expanding mineralization. Due to the covered ground and rubble-crop nature of exposure, induced polarization (I.P.) geophysics are proposed to identify both mineralization and alteration at depth and along strike of the veins. Both Main and South Veins trend WNW, and previous drilling indicates they both have steep dips. Structures appear to control the silicified breccia nature of precious metal mineralization. A twenty day geophysical program is proposed, with the first three days involving orientation I.P. measurements determining if the rest of the program should involve I.P. lines oriented NNE, or gradient I.P. with WNW and NNE grid lines. A helicopter-supported twenty day I.P. program staged out of Galena, AK involving three to five two kilometer I.P. lines (6-10 line kilometers), or a two kilometer by two kilometer gradient I.P. grid is estimated to cost \$255,000. This estimate includes contract geophysical equipment and two geophysicists, move costs for the contractors and equipment to Alaska, three field technicians, a Hughes 500 helicopter for five hours a day, room and board at Galena, Fairbanks return trip to Galena airfare for five crew members, a 10% contingency cost, and a 10% management cost. This program is independent of any other program, and is expected to cost \$255,000.

2. Phase 2: This Phase 2 work is dependent on successful results from the above-recommended Phase 1 work program. A minimum of 2,000 meters of diamond core drilling is recommended using a helicopter-portable diamond core rig with NQ2 and/or HQ core capacity. All core should be logged, digitally photographed and split with half of the core retained for future use and half submitted for geochemical analyses. All core should be assayed for gold by fire assays techniques with each sample also analyzed for a multi-element suite by ICP methods using 4-acid digestion procedures. The estimated cost of this drilling program, including labor, assays, camp, heavy equipment rental, drilling, fuel and all consumables is US\$1.14 million (\$570/mt or \$175/ft).

## INTRODUCTION

The following report was commissioned by Next Gen Metals Inc., a publicly listed British Columbia corporation (Next Gen) to summarize the geology and mineralization of the Silver Chalice silver - gold prospect in western Alaska. CARACOL was retained to complete this summary report for Next Gen after spending the period 16 to 22 September, 2009 on the ground at the prospect. This report was prepared based upon a review of existing reports prepared by State and federal agencies and by third party interests working on behalf of the former property owner. The author conducted field work on the Silver Chalice project in 2009, and is a Qualified Person under National Instrument 43-101 guidelines.

Unless otherwise noted, all costs contained in this report are denominated in United States dollars (US\$1.00 = CDN\$1.15). Where gold or silver grades are quoted in this report, the abbreviation "opt" means troy ounces per short ton and the abbreviation "gpt" means grams per metric tonne. Recommended work programs are included at the end of this report.

## RELIANCE ON OTHER EXPERTS

The attached report has been prepared by CARACOL using public documents acquired by the author for this purpose. While reasonable care has been taken in preparing this report, CARACOL can not guarantee the accuracy or completeness of all supporting documentation. In particular, CARACOL did not attempt to determine the veracity of geochemical data reported by third parties, nor did CARACOL attempt to conduct duplicate sampling for comparison with the geochemical results provided by other parties. The interpretive views expressed herein are those of the author and may or may not reflect the views of Next Gen Metals or Anglo Alaska Gold Corp.

## PROPERTY DESCRIPTION AND LOCATION

The Silver Chalice project is located along the Yukon River in Township 16 South, Ranges 1 West and 1 East at approximately Latitude 64.083, Longitude 158.768 in Nulato A6 Quadrangle (Figure 1). The property is located 345 air miles northwest of Anchorage and 330 air miles west southwest of Fairbanks, Alaska.

The Silver Chalice project is comprised of 31 State of Alaska state mining claims (Electrum 1 through 31, ADL# 665673 through 665793, Appendix 1, Figure 2) covering 4,960 acres (12,251.20 hectares). The claims lie in two separate blocks approximately four miles apart. The claims were staked in April 2009 and are owned 100% by Anglo Alaska Gold Corp, a private Alaska-domiciled corporation. The property is located in the southwestern Nulato A6 quadrangle (scale 1:63,360) in Sections 24 and 25, T16S, R2W, Sections 24 and 25, T16S, R1W, and Sections 19 and 30, T16S, R1E, Kateel River Meridian. The claims are registered with Alaska Division of Mining and Water Management and are presented in Figure 2 and summarized in Appendix 1.

Mineral rights in this part of Alaska are administered by the State of Alaska. Annual rents for new claims staked in Alaska amount to \$100 per 160 acre claim for the initial 5 years increasing according to a periodically adjusted cost of living adjustment in years 5 through 9 and then increasing to a flat fee from year ten onward. The 2010 annual rents for the Silver Chalice claims have been paid by Anglo Alaska Gold Corp. and total \$3,100 for the 31 claims. These claim rent payments are sufficient to keep the claims valid through noon on September 1, 2010. An additional \$3,100 in claim rents will be due on September 1, 2010 and payable to the State of Alaska on or before November 30, 2010 in order to maintain the claims through September 1, 2011.

In December, 2009, Next Gen Metals Inc. announced that it had acquired an option on the Silver Chalice prospect. Under the terms of the acquisition agreement, Next Gen Metals Inc. can earn a 100% interest in the property over a two-year period as follows: Next Gen must issue to Anglo Alaska 500,000 shares of stock, and after Board and Exchange approval, make a cash payment of US\$5,000, followed by cash payments of US\$20,000 on the first anniversary and US\$25,000 on the second anniversary. Next Gen must also issue 100,000 shares of stock upon transfer of the property to a third party and 300,000 warrants exercisable at CDN\$0.30 for a period of two years. Next Gen must also expend \$24,800 by December 31st, 2009 (spent) and \$12,400 in exploration and development over the ensuing two years. There is a 1.5% Net Smelter Returns royalty retained by Anglo Alaska which Next Gen may re-purchase 1.0% of for a cash payment of US\$1.0 million.

Annual work commitment is required on State mining claims in the amount of \$2.50 per acre per year (\$400 per claim, or \$12,400 for the current Silver Chalice claim block) with amounts in excess of these levels bankable up to four years into the future. The annual labor year begins and ends at noon, September 1 of each year. No annual labor filings are required on the Silver Chalice claims until the 90 day period after the annual labor year ending September 1, 2010. The Silver Chalice claims have not been surveyed by a registered surveyor and there is no State or federal law or regulation requiring that State of Alaska mining claims be surveyed. Depending on the level of exploration work proposed, permits may be required from the Alaska Department of Natural Resources and possibly Federal regulatory agencies and will be applied for on an as-needed basis.

The property is located 17 miles southwest of the Innoko National Wildlife Refuge, an area closed to mineral development. The Doyon Ltd. native lands are approximately 2 miles east of the Silver Chalice project on the east side of the Yukon River. Because of its close proximity to the Yukon River, an anadromous fish stream, certain environmental mitigation measures may be required during all phases of exploration, development or mining on the Silver Chalice prospect. The Silver Chalice project is located within a geological and physiographic feature known as the Poison Creek caldera and the property is drained by Poison Creek and Stink Creek. These three place-names suggest the streams draining the project contain naturally occurring deleterious and/or toxic elements or compounds. The author is not aware of any scientific data relating to water quality in the Silver Chalice project area however early quantification of water quality attributes is recommended in order to establish a pre-mining development water quality baseline. There are no other known environmental liabilities attached to the property.

## ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY

The Silver Chalice project is accessible via foot from the west bank of the Yukon River and via helicopter. The project borders the Yukon River, navigable to barge and lighter traffic during the operating season: May through October. The nearest village is Kaltag (population 250) located 17 miles to the north. The village has a paved airstrip approximately 5,000 plus feet long capable of handling DC-6 and equivalent size aircraft. Proximity to Mineral Closures: The project is located approximately 17 miles southwest of the Innoko National Wildlife Refuge. Doyon Ltd. native lands are approximately 2 miles east of the project area on the east side of the Yukon River. The Yukon River and adjacent streams are habitat for anadromous fish used for commercial and subsistence use.

The Silver Chalice project is situated in an area of moderate topographic relief with elevations ranging from 100 feet along the Yukon River to approximately 1700 feet in the center of the Poison Creek caldera. Ridges are generally rounded, typically having flat rubble crop and alpine tundra covered summits. North and west facing hillsides are forested with black spruce, larch, birch, and alder. Lower elevations are often covered by muskeg and stunted black spruce forest in poorly drained areas along the Yukon River valley. Outcrops are sporadic and occur only along the ridgelines or in stream cutbanks. Colluvial and vegetative cover mask bedrock on hillsides and valley bottoms.

Annual precipitation is generally between 12 and 16 inches (30.5 to 40.6 cm), much of which falls as snow in the winter. Summer daytime temperatures on the project are typically in the 60° to 70° F range with summertime lows are in the 40° to 50° F. range. Winter daytime temperatures range from highs in the teens to lows in the -40° F range.

There currently is no commercial power in the Silver Chalice prospect area nor is there existing river or airstrip access on the project itself. The nearest small airport and barge dock facilities are in Kaltag with larger commercial airport and barge facilities in Galena, approximately 95 miles up the Yukon River from the Silver Chalice project.

At this preliminary stage, it appears that there are sufficient surface rights to conduct potential future mining operations (including potential tailings storage areas, waste rock disposal areas, heap leach pad areas, and potential processing plant areas). At this preliminary stage it appears that local sources of non-technical mining personnel can be supplemented by personnel from outside the immediate area, and by technical personnel from outside the immediate area.

## HISTORY

The Silver Chalice epithermal gold-silver vein occurrence, previously known as the Kaiyah prospect, was first described by Solie and others (1993) and later by Bundtzen and Miller (1997) during regional geological investigations by the Alaska Department of Natural Resources. Fieldwork conducted by North Star Exploration in 1998 and 1999 confirmed the significance of the epithermal style of mineralization (Robyn and Lincoln, 2004). 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 (Patton and Moll-Stalcup, 2000).

The National Uranium Resource Evaluation (NURE) program also covered the Nulato and three adjacent quadrangles (Unalakleet, Ophir and Norton Bay) with regional stream sediment and lake sediment geochemical sampling (NURE, 1981, 1981b, 1981c and 1982).

During 1998, a North Star reconnaissance crew spent a limited time on the Silver Chalice prospect area and noted a significant zone of brecciated and silicified lag boulders, suggesting an epithermal vein system immediately east of the east margin of the Poison Creek Caldera (Robyn and Lincoln, 2004; Nokleberg and others, 2003). This mineralization was considered to be associated with the early Tertiary age volcanic complexes of the Poison Creek Caldera. Anomalous gold and silver values were found in the lag boulders and rubble outcrops over a broad area around the benchmark VABM "Kaiyah". The silicified and brecciated lag boulders and rubble outcrops were found in an irregularly shaped area measuring approximately 4,000 feet by 9,500 feet. Analyses from the first 18 rock samples within this zone averaged 70 ppb gold and 7 ppm silver. A high of 910 ppb gold was collected from a sample of silicified sandstone with limonite-quartz stockwork. A number of smaller occurrences also were mapped and sampled in the general area. The 1999 field program consisted of detailed mapping of the entire Silver Chalice alteration system and systematic rock chip sampling of outcrop areas. More than 300 rock-chip and soil samples were collected at the Silver Chalice prospect, which returned maximum values of 10.8 gpt gold, 462 gpt silver, along with anomalous Sb, Hg, As, Te, Pb, Cu, and Bi (Robyn and Lincoln, 2004; Nokleberg and others, 2003).

Follow-up mapping and rock chip sampling outlined two major vein systems within a broader zone of propylitic and argillic alteration. Reconnaissance geologic mapping by North Star identified a siliceous sinter occurrence in the central part of the Poison Creek Caldera approximately 8 km west of the Silver Chalice prospect discovery area. The sinter deposit suggests that the Poison Creek caldera has potential for a high-level epithermal gold and silver mineralization.

A diamond drill program was conducted in 2000 and included four diamond drill holes within the Silver Chalice epithermal vein system and one diamond drill hole in the siliceous sinter occurrence in the center of the Poison Creek Caldera. The drilling totaled 2,777 feet (846 meters) in the five holes (Robyn and Lincoln, 2004). Two epithermal veins were encountered in three of the four holes on the Silver Chalice prospect.

The 2000 Silver Chalice program also included limited reconnaissance rock chip and stream sediment sampling and pan concentrate sampling at several sites within the Poison Creek Caldera. Gold and cinnabar were noted in pan concentrates from samples taken within the caldera some two to six miles west of the Silver Chalice prospect drill locations. Exploration

expenditures on Silver Chalice from 1997 through 2002 totaled approximately US\$645,000 (Table 1).

Table 1: Summary of exploration expenses at the Silver Chalice prospect, 1997-2002.

Item	2002	2001	2000	1999	1998	1997	Total
Labor	0	11,881	68,930	68,247	15,528	3,456	168,042
Helicopter	0	72,861	47,054	1,272	0	0	121,187
Drilling	0	0	122,431	0	0	0	122,431
Analytical	0	0	22,453	11,909	607	0	34,969
Other Field	0	3,250	92,413	33,377	19,446	95	148,581
G&A	2,356	2,511	6,352	6,860	1,986	0	20,065
Professional	0	0	275	0	0	0	275
Staking	0	0	0	0	22,418	0	22,418
Other	0	116	2,859	3,323	961	0	7,259
Total Expenses	2,356	90,619	362,767	124,988	60,946	3,551	645,227

“In December 2003 the mining claims covering the Silver Chalice project were purchased from North Star Exploration by Kootenay Gold (US) Corp. who published a National Instrument Form 43-101 geological report on the project in late 2004 (Robyn and Lincoln, 2004). The company subsequently dropped the claims covering the project but retained ownership of all data relating to the project. Shortly after staking the Silver Chalice claims, Anglo Alaska attempted to acquire the raw data for the project from Kootenay but was unable to do so. While compiling information on the project, Anglo Alaska discovered that the SEDAR-published version of the NI 43-101 report does not contain any figures, an oversight which required Anglo Alaska conduct significant work prior to, during and after their 2009 field program, to reconstruct the results of all of the exploration work completed by North Star.” (personal communication, Freeman, 2011)

In April 2009 Anglo Alaska Gold Corporation, a private Alaska-domiciled company, staked 31 State of Alaska mining claims to cover the Silver Chalice project. Anglo Alaska commissioned a summary report to be written for the project shortly after the property was staked (Freeman, 2009). Next Gen Metals subsequently reviewed the project data and, while lease negotiations were in progress, commissioned Avalon Development to conduct work on the property on its behalf in September and October, 2009. A total of fifteen man-days (three geologists for five days) of helicopter-supported field review and sampling was completed on the Silver Chalice claim blocks and immediately surrounding areas. Additional non-field evaluation work was completed as results from field work were obtained. Field work in 2009 consisted of prospecting and collection of 114 grab and chip channel rock samples. In addition, approximately 350 kilograms of hand specimens were collected for qualitative description, for photo documentation, and for possible thin section microscopy. Total expenditures during 2009 were approximately \$125,000.

In December, 2009, Next Gen Metals Inc. announced that it had acquired an option on the Silver Chalice prospect. Under the terms of the acquisition agreement, Next Gen Metals Inc. can earn a 100% interest in the property over a two-year period as follows: Next Gen must issue to Anglo Alaska 500,000 shares of stock, and after Board and Exchange approval, make a cash payment of US\$5,000, followed by cash payments of US\$20,000 on the first anniversary and

US\$25,000 on the second anniversary. Next Gen must also issue 100,000 shares of stock upon transfer of the property to a third party and 300,000 warrants exercisable at CDN\$0.30 for a period of two years. Next Gen must also expend \$24,800 by December 31st, 2009 (spent) and \$12,400 in exploration and development over the ensuing two years. There is a 1.5% Net Smelter Returns royalty retained by Anglo Alaska which Next Gen may re-purchase 1.0% of for a cash payment of US\$1.0 million.

To the best of the author's knowledge, the property is in good standing and there has been no other field work conducted on the Silver Chalice prospect or within the Poison Creek caldera which hosts the project.

## GEOLOGIC SETTING

The Silver Chalice project is located on the northwestern edge of the Kuskokwim Minerals Belt (KMB) of southwestern Alaska (Figure 3, Bundtzen and Miller, 1996, 1997). 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 (192,500 km<sup>2</sup>) that extends from Goodnews Bay on the extreme southwestern coast, to Von Frank Mountain, about 100 kilometers northeast of McGrath.

The regional geology of the area surrounding the Silver Chalice claim block is published on 1:250,000 scale geologic maps published by the U.S. Geological Survey. These maps include the: Nulato Quadrangle (Cass 1959a, and Patton and Moll-Stalcup, 2000), the Norton Bay Quadrangle (Cass 1959b) the Unalakleet Quadrangle (Cass, 1959c; Patton and Moll-Stalcup, 1996); and the Ophir Quadrangle (Chapman and others, 1985). Bundtzen and Miller (1997) published the regional geology and mineral prospect occurrences of the area (Figure 2). The following geologic summary was modified after Freeman (2009).

The area hosting the Silver Chalice prospect occurs within the regional scale Yukon-Koyukuk basin, a large Cretaceous physiographic province that occupies much of southwestern Alaska. The basin is filled with Cretaceous terrigenous sedimentary rocks of the Koyukuk terrane which consist of a lower sequence of volcanic greywacke and mudstone turbidites overlain by an upper sequence of deltaic sandstone, coarse lithic sandstone, shale, and conglomerate. In the Silver Chalice prospect area, the Cretaceous sedimentary units consist chiefly of fluvial and shallow marine deltaic deposits of well-sorted, medium- to coarse-grained, light-olive-colored, cross-bedded sandstone, coarse lithic sandstone, dark gray to green silty sandstone, dark-gray micaceous shale, and quartz chert-pebble conglomerate. Two Early Cretaceous fossil mollusk samples (*Buchia*) have been collected from correlative rocks about 50 miles northeast of Silver Chalice (Patton and Moll-Stalcup, 2000).

The Poison Creek Caldera is located at the northern end of a north-northeast trending belt of Early Tertiary volcanic rocks that range from andesite to rhyolite in composition. The trend includes the Blackburn Hills volcanic field (Bundtzen and Miller, 1997; Cass, 1959a and 1959b; Nokleberg and others, 1994; Patton and Moll, 1985). In the Poison Creek Caldera, the oldest geologic units consist of shoshonitic andesitic to basaltic flows and tuffs of the Koyukuk terrane

(Box and Patton, 1989). The andesite and basalt flows are typically porphyritic with phenocrysts of plagioclase set in a matrix of devitrified glass, altered plagioclase, and chlorite and iron oxide after pyroxene. Interbedded volcanoclastic sedimentary rocks consist of dark green to gray, coarse breccia, conglomerate and lapilli tuff. Other caldera units consist of ash-flow tuff, felsic tuff, andesitic tuff, basaltic andesite and a small area of siliceous sinter. The caldera is expressed topographically as a curvilinear feature with faulted contacts between andesitic volcanic rocks and Cretaceous country rocks (Figure 3). Volcanic rocks from the Poison Creek caldera returned age dates of 42.5 and 65.2 Ma (Patton and Moll, 1984; Nokleberg and others, 2003). A small area of siliceous sinter (Robyn and Lincoln, 2004) was identified in the central part of the caldera. Major oxide chemistry and trace element data reported by Patton and Moll-Stalcup (1996) indicate that the andesite and basalt flows erupted in an intraoceanic arc setting prior to the collision of the Koyukuk terrane with the western continental margin of Alaska.

The dominant structures of the area are the bounding circular faults outlining the Poison Creek Caldera, which are well outlined by the two half-circular drainage patterns of Poison Creek and Stink Creek (Figure 4). The origin of these names is uncertain but is suspected to be related to sulfur and metals draining from the mineralized hydrothermal system. The distribution of volcanic units supports the caldera interpretation. The main stockwork veins at Silver Chalice strike approximately 100 to 120° and a second, lesser set of structural veins was noted to strike northeast (Miller, 2000). Quartz veins in the west-northwest trending Silver Chalice discovery zone occur between two major east-northeast structures which radiate outwards from the eastern caldera rim (North Star, 1999).

The Silver Chalice prospect is located approximately 18 miles south of the N50°E to N70°E trending Kaltag fault (Figure 4), a regional scale right-lateral fault with documented motion beginning in late Cretaceous time (Flanigan, 1998). The Kaltag fault has displaced rocks of the Silver Chalice prospect approximately 100 kilometers to the southwest of correlative rock units in the Kokrines Hills on the north side of the Yukon River (Patton and Hoare, 1968).

## DEPOSIT TYPES

Bundtzen and Miller (1996, 1997) and Miller and others (2002) present a wide variety of gold deposit models that have been defined in time-equivalent rocks and similar structural settings in the KMB. Unless otherwise noted, the following information on deposit models is derived from these references.

Virtually all of the significant lode gold occurrences in the KMB are associated with late Cretaceous to early Tertiary volcanic and/or plutonic rocks which post-date the Kuskokwim Group post-accretionary basic fill sediments. At least five broad deposit types have been identified in the KMB:

1. Epithermal gold-silver deposits: While these occurrences are poorly understood and poorly documented in the KMB, alteration and mineralization identified to date at the Silver Chalice project is compatible with this model type. Host rocks can range from sediments to volcanics and related intrusives of all phases. Host rocks include highly altered olivine basalts, meta-aluminous reduced granite to monzonite plutons, and calc-alkalic to andesite to rhyolite volcanics. Metallic minerals include stibnite, cinnabar, arsenopyrite and Sb-Ag-sulfosalts

(Hayaba and others, 1985); and free gold. Generally emplaced at high levels in high angle structures that are distal to plutonic centers. Alaskan alteration assemblages are dominated by silica carbonate plus dickite, potassic-phyllitic and/or chalcedony-adularia assemblages (Heald and others, 1987; Buchanan, 1981; White and Hedenquist, 1999). Evidence from other well known caldera-related gold-silver district suggest gold mineralization is often hosted in pre-caldera rocks (Swanson and McDowell, 1984). Based on information from previous exploration programs, the Silver Chalice 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 from the Silver Chalice prospect presented by Robyn and Lincoln (2004) suggest it can be classified as a volcanic-hosted low-sulfidation epithermal gold-silver system (John and others, 1999). Analogs include the Midas, Sleeper, Buckhorn, Ivanhoe, Round Mountain, Tonopah and Comstock Lode deposits in Nevada and McLaughlin (California), Hishikari (Japan), Emperor (Fiji), Waihi (New Zealand) and Pajingo (Australia). However, evidence of alunite alteration presented in Nokleberg and others (2003) suggest the Silver Chalice prospect has affinities with high-sulfidation state epithermal deposits such as Goldfield (Nevada), Il Indio (Chile) and Pueblo Viejo (Dominican Republic). Additional petrologic and geochemical work will be required to determine which type of epithermal occurrence Silver Chalice best represents. This model type has only been recognized in the KMB in the last 10 years and accounts for none of the known lode gold resources in the KMB. It is potentially a significant host type for gold and silver resources.

2. Peraluminous granite porphyry gold-polymetallic deposits: these occurrences are hosted in granite porphyry dikes and sills the grade upward into shallow intrusives. Host rocks include peraluminous alaskite to alkalic granite, often with garnet. The intrusives show depleted heavy REE trends and can be either reduced or oxidized. Metallic minerals include stibnite, cinnabar, arsenopyrite and Sb-sulfosalts. Generally emplaced at high levels in high angle structures or along low-angle gravity and/or thrust faults. Alteration assemblages are dominated by argillic, potassic and silicic alteration plus dickite. This model type accounts for approximately 84% of the known lode gold resources in the KMB with the largest occurrence being the +30 Moz Donlin Creek deposit (Dodd, 2006).

3. Plutonic-related boron enriched silver-tin-polymetallic deposits: these occurrences are hosted in high level plutonic rocks and overlying hornfels and greisen alteration zones. Host rocks are generally reduced and of meta-aluminous to peraluminous chemical affinity. Two distinct age groups occur (65-70Ma and 58-62 Ma) with the younger ages more common. Metallic minerals include cassiterite, Ag-Sb-sulfosalts chalcopyrite, galena. Mineralization occurs in veins, stockworks and replacement zones. Alteration assemblages are dominated by boron minerals (tourmaline, axinite) with silicic alteration. This model type has only been recognized in the last 10 years and accounts for none of the known lode gold resources in the KMB. It is potentially a significant host type for silver resources.

4. Plutonic-hosted mesothermal copper-gold-polymetallic deposits: these occurrences are hosted in plutonic rocks ranging from alkali gabbro to granite. Host rocks are generally reduced and of meta-aluminous chemical affinity. Deeper levels of these occurrences contain chalcopyrite, molybdenite, scheelite and arsenopyrite while higher levels contain Ag-Sb sulfosalts, stibnite and free gold. Oxide skarn deposits in this class often contain copper oxides after bornite and chalcopyrite with coarse visible gold. Mineralization can be vertically zoned from host plutonic stock through hornfels cap into overlying volcanics. Alteration assemblages are dominated by ankeritic, potassic, propylitic and silicic alteration. Skarns contain early garnet-

magnetite followed by later wollastonite alteration. This model type accounts for approximately 16% of the known lode gold resources in the KMB.

5. Plutonic-related mesothermal gold deposits similar to those in the Tintina Gold Belt of Alaska and the adjacent Yukon Territory. Recent discoveries in this belt have outlined a series of distinctive mineral occurrences which appear to be genetically related to mid-Cretaceous to Early Tertiary plutonic activity which affected a large area of northwestern British Columbia, Yukon, Alaska and the Russian Far East (Flanigan and others, 2000). This work, based on extensive geologic and structural mapping and analytical studies (major and trace element analysis, fluid inclusion microthermometry,  $^{40}\text{Ar}/^{39}\text{Ar}$  geochronology, and isotope analysis) has provided new information regarding gold metallogenesis in the Tintina Gold Belt as well as in the adjacent and overlapping KMB (Lang and Baker, 2001; Baker and others, 2006; Burns et al., 1991; Lelacheur et al., 1991; Hollister, 1991; McCoy et al., 1995; McCoy et al., 1997; McCoy and others, 2002; Mortensen and others, 2000; Newberry et al., 1995; Eremin, 1995; Bundtzen and Miller, 1997). A synthesis of this information suggests a mineral deposit model in which metal and high  $\text{CO}_2$  bearing fluids fractionate from ilmenite series, I-type intrusions during the late phases of differentiation (porphyritic granites). Depending on the rate of ascent of these hydrothermal fluids, the level of the crust they reach before depositing their metallic budget and their associated intrusive rocks, two distinctly different metallogenic systems can form, in some cases in the same mineral prospect. In deeper, higher pressure settings gold mineralization can form at higher temperatures ( $400^\circ\text{-}600^\circ\text{C}$ ) and low sulfur fugacities. Such systems are characterized by elevated  $\text{Au} \pm \text{Bi} \pm \text{Te} \pm \text{W} \pm \text{As}$  mineralization. Sulfur-depleted metallic minerals such as native bismuth, native arsenic, maldonite and loellingite often form in such environments. These higher temperature systems display isotopic, trace element and fluid inclusion evidence suggesting almost exclusively magmatic fluid involvement and are thought to form in more proximal intrusive settings. In higher level, lower pressure settings, mineralization forms at lower temperatures ( $250^\circ\text{-}400^\circ\text{C}$ ) and higher sulfur fugacities and is characterized by elevated  $\text{Au} \pm \text{Ag} \pm \text{As} \pm \text{Cu} \pm \text{Sb} \pm \text{Hg} \pm \text{Pb} \pm \text{Zn}$ . These lower temperature systems display isotopic, trace element and fluid inclusion evidence suggesting significant meteoric water mixing and are thought to form in more distal intrusive settings. A synthesis of this information (Hart et al., 2002, McCoy et al., 1997) suggests an ore deposit model in which gold and high  $\text{CO}_2$  bearing fluids fractionate from ilmenite series, I-type mid-Cretaceous intrusions during the late phases of differentiation. The gold is deposited in anastomosing pegmatite and/or feldspar selvage quartz veins. Brittle fracturing and continued fluid convection lead to concentration of gold bearing fluids in intrusions and schist-hosted brittle quartz-sericite shear zones. Carbonate and/or calcareous horizons host W-Au skarns and replacement deposits. Structurally prepared calcareous and/or carbonaceous horizons may host bulk-minable replacement deposits. These occur most distal to the intrusions within favorable host rocks. The various styles of significant hypogene gold mineralization in the KMB and Tintina Gold Belt are presented in Lang and others (2001) and Baker (2003).

The epithermal veins at Silver Chalice share similar mineralogical and geochemical characteristics for adularia-sericite type epithermal systems as described by Hayaba and others (1985). Silberman and Berger (1985) identified alteration zoning characteristics of these systems. Table 2, from Hayaba and others (1985) summarizes salient features of adularia-sericite systems while Table 3 from Hayaba and others (1985) summarizes significant production data from adularia-sericite gold-silver deposits.

Table 2: Summary of adularia-sericite type deposit characteristics (modified from Hayaba and others, 1985).

Structural setting	Structurally complex volcanic environments, commonly in calderas
Size (length:width ratio)	Variable; some very large-usually 3:1 or greater
Timing of ore and host	Ages of host and ore distinct (>1m.y.)
Mineralogy	Argentite, tetrahedrite, tennantite, native silver and gold, and base metal sulfides, chlorite common, selenides present, Mn gangue present, no bismuthinite
Production data	Both gold and silver rich deposits, variable base metal
Alteration	Sericitic to argillic
Temperature	200 <sup>0</sup> to 300 <sup>0</sup> C
Salinity	0 to 13 wt% NaCl eq.
Source of fluids	Dominantly meteoric
Source of sulfide sulfur	Deep-seated, probably derived by leaching wallrocks deep in system

Corbett and Leach (1996) supplement the epithermal high and low sulfidation distinctions of Hayaba and others (1985) by placing epithermal systems in a spectrum of porphyry-mesothermal-epithermal crustal levels and high-low sulfidation fluid chemistry based on southwest Pacific Rim deposit studies. Silver Chalice, both in the field and among models, lies near the stratigraphic interface of competent basement lithologies and overlying volcanic rocks, lies along a well developed structure peripheral to a caldera, exhibits the presence of precious metals and the typically associated trace elements, and exhibits epithermal textures, alteration mineralogy and zoning.

## MINERALIZATION

The Silver Chalice prospect consists of two epithermal veins in the center of the alteration zone, which are known as the main vein and the south vein (Robyn and Lincoln, 2004). The veins appear to be structurally controlled with vertical faults occurring along the vein margins. Small quartz veins and veinlets occur along the margins of the vein zones and are probably post-main vein activity. 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.

The main quartz-stockwork vein at Silver Chalice, centered approximately at benchmark VABM “Kaiyah”, occurs within slightly silicified and argillically altered sediments in a northeast elongate rubble-crop area, 2,000 to 2,500 feet long and rubble-crop indicates a width of approximately 25 feet. The southern quartz-stockwork vein occurs within propylitically altered and somewhat silicified rubble blocks that can be traced in rubble crop and perhaps under cover for approximately 1,200 feet along strike (Robyn and Lincoln, 2004), and rubble-crop indicates a width of approximately 25 feet. Both the Main Vein and South Vein appear by rubble-crop map

pattern to dip sub-vertically. The recognizable host rocks are coarse to fine-grained lithic sandstone, siltstone, and mudstone of the Cretaceous flysch sequence. Primary sedimentary features of the host rocks are generally recognizable however, veining and alteration occasionally obliterate sedimentary depositional features. The alteration (weak to moderate propylitic, weak to moderate argillic and silicification) has been mapped in three zones covering approximately 1.5 to 2 square miles. The propylitic alteration in the outer parts of the area consists of epidote, chlorite, and minor pyrite replacement of lithic fragments, which are cut by open pyritic quartz veins. In the central part of the area, alteration consists of weak to moderate argillization with oxidation and leaching of the host rock, resulting in a porous matrix and relict quartz sand grains. The porous matrix is often partially filled with limonite after pyrite, goethite, and yellow-to-light-green drusy jarosite and alunite (Nokleberg and others, 2003).

Table 3: Alteration and mineralogy of significant adularia-sericite type deposits (modified from Hayaba and others, 1985)  
 Summary of alteration abbreviations: AD=adularia, AL=alunite, SS=sericite, AGS=silver sulfides, SP=sphalerite, GN=galena,  
 EN=enargite, BA=barite, RC=rhodochrosite, FL=fluorite, X=presence.

District	Ag: Au Ratio	Base Metal (%)	AD	AL	SS	AGS	SP	GN	EN	BA	RC	FL
Lake City, CO	259	high	X		X		X	X		X	X	X
Colqui, Peru	26	17.5			X	X	X	X		X	X	X
Tovar, Mex.	45	10			X	X	X	X		X		
Parral, Mex.	150	4 to 20			X	X	X	X		X		
Bohemia, OR	6	9	X				X	X		X		
Namiquipa, Mex.	Ag only	8.5				X	X	X		X		
Eureka, CO	47	7.5	X		X		X	X		X	X	X
Creede, CO	400	5	X	X	X	X	X	X		X	X	X
Guanajuato, Mex.	200	0 to 10	X		X	X	X	X				
Guanacevi, Mex.	100 to 500	6 to 12	X		X	X	X	X		X		
Yoquivo, Mex	74	mod	X		X	X	X	X				
Calico, CA	1200	mod			X	X				X		
Fresnillo, Mex.	64	4	X		X	X	X	X				
Pachuca, Mex.	200	3.5	X		X	X	X	X		X	X	X
El Tigre, Mex	162	3			X	X	X	X				
Gt. Barrier, N.Z.	4 to 30	3	X		X	X	X	X			X	X
Silver Peak, NV	243	1 to 4	X		X	X	X	X		X		
Piz Piz, Nicar.	2	2	X				X	X			X	X
Tonopah, NV	80 to 110	2	X		X	X	X	X		X	X	X
Zalcualpan, Mex.	Ag only	1.4			X	X	X	X			X	
Tayoltita, Mex.	51	1	X		X	X	X	X				
Temalscaltepec, Mex.	267	low	X		X	X	X	X				
Golden Plateau, Aus.	0.8	minor	X			X	X	X				
Mohave, CA	2 to 12	minor	X		X	X	X	X				

Figures 5 through 9 are thematic maps illustrating the spatial distribution of samples taken in 2009 by Avalon Development, and the color-coded analytic values for these samples. Gold (fig 5) presents scattered 1 gpt Au over both veins in the Main Zone. No other areas present more than 250ppb Au. Figure 6 presents silver more evenly scattered in north vein sampling than gold, and only one sample greater than 25ppm Ag in the south vein. Arsenic presents more continuous sampling values greater than 100 ppm (Fig. 7) than either gold or silver, and may be a useful pathfinder on this property. There are two sample locations with arsenic values greater than 100ppm in zones north of the Main Zone. Figure 8 illustrates antimony values among samples, and presents greater dispersion than gold or silver, but not as great dispersion as arsenic. Silver/gold ratios for sampling do not seem to exhibit a vertical or lateral zonation of the mineralized system.

The epithermal quartz vein-hosted gold and silver mineralization at the Silver Chalice prospect is associated with elevated arsenic, bismuth, copper, antimony and lead. Rock chip samples from surface rubble-crops and boulder trains return values up to 10 grams of gold per tonne and up to 462 grams of silver per tonne (Robyn and Lincoln, 2004), and up to 2 grams of gold per tonne and up to 191 grams of silver per tonne from 2009 sampling. Geochemical data returned an average Ag:Au ratio of about 40:1 (Nokleberg and others, 2003), and an average Ag:Au ratio of about 1200:1 (maximum 5400:1) from the 2009 sampling. The veins also contain pyrite and occasionally wavy bands of fine-grained dark sulfides in dark gray quartz. Mineralization noted in surface lag boulders often is associated with brecciated iron oxide and silica boxwork. Higher gold and silver values were noted to be associated with iron oxide, which may be the result of surface weathering and/or supergene mobilization of gold and silver to these sites. Within the epithermal veins, the highest gold and silver values appear to occur in silica flooded, vuggy and brecciated quartz with minor associated pyrite in host rocks exhibiting argillic and silicic alteration. A fluid inclusion study was conducted in 1999 on ten quartz vein samples from the prospect (Rombach, 1999). The study indicated the presence of co-existing liquid-rich and vapor rich inclusions, suggesting that boiling occurred in the Silver Chalice hydrothermal system. Temperatures of homogenization range from 163 to 372° C with the majority of temperatures between 240 and 280° C.

Sampling done in 2009 covered both Silver Chalice claim blocks, but the Main Zone comprised of both north and south veins was most densely sampled. A select population of 72 samples from this area has been evaluated for correlation coefficients because they are interpreted to be representative of the best developed mineralization. Geographically scattered samples may include the effects of varied geochemical domains and possibly different mineralization systems. Data including elevation and Ag/Au ratio are included as well as Ba, Ca, and K to illustrate zoning.

TABLE 4: Correlation matrix (n=72) for selected samples from the 2009 exploration program in the Main Zone, Silver Chalice project.

	Au	Ag	Ag/Au	As	Ba	Bi	Ca	Cu	K	Pb	Sb	Zn
Au												
Ag	-0.06											
Ag/Au	-0.13	0.64										
As	0.16	0.23	-0.17									
Ba	-0.13	-0.16	-0.09	0.02								
Bi	-0.07	0.61	0.76	-0.06	-0.06							
Ca	-0.04	-0.1	-0.07	-0.11	0.16	-0.05						
Cu	-0.09	0.45	0.42	0.3	0.15	0.52	-0.08					
K	-0.14	-0.27	-0.16	-0.15	0.77	-0.13	0.15	0.03				
Pb	-0.08	0.5	0.61	-0.1	-0.12	0.65	-0.05	0.28	-0.2			
Sb	0.24	0.38	0.08	0.64	-0.2	0.07	-0.11	0.26	-0.3	0.34		
Zn	0.27	0.13	0.21	-0.02	0.01	0.45	0.13	0.35	0.01	0.45	0.27	
Elev	-0.07	0.17		0.07		0.05		0.11		0.1	0.16	-0.3

Appendix 2 tabulates all 114 samples taken in September 2009 with significant analytic values whose elements are correlated above in Table 4.

Significant conclusions that can be drawn from Table 4 include:

- 1) Gold correlates with Sb, Zn and weakly with As, Ba and K
- 2) Silver correlates with Bi and Pb, and weakly with Cu, Sb and Zn
- 3) Elevation correlates best with Sb, Pb, and Cu
- 4) Strongest negative correlations are Zn:elev, K:Sb, and K:Ag
- 5) Gold is negatively correlated with Ag, Ba, Bi, Ca, K, Pb, and elev

There seem to be two mineralization events, one with gold and weak trace elements, and another silver dominant system with Bi and base metal affinities. A negative correlation of gold and silver supports this hypothesis. Elevation correlates best with silver, suggesting that vertical zoning of this system may exist. The gold event may have evidence of alteration peripheral to mineralization with the negative Ba, Ca, and K correlations.

Appendix 2 documents a select sampling dataset including only samples whose silver value is greater than 15ppm. Both absolute values (Appendix 2) and correlations among elements in the Main Zone samples provide evidence for the presence of a precious metal epithermal system. Extensive vegetation cover both constrains mapping of outcrop and identification of potential alteration zoning. Within these constraints, the two main zone veins (north and south) have been re-documented and expanded, and two other zones have been initially identified. The presence of bismuth is enigmatic, as is the poorly defined zonation of alteration-related elements such as Ca, Ba, and K, the poorly developed silver/gold zonation, and the poor vertical/lateral geochemical zonation. Textures such as brecciation, banding, and saccharoidal silicification are well developed and strongly indicative of epithermal character.

Landsat TM imagery was used to generate enhanced images for structural interpretation and spectral analysis for the Silver Chalice prospect area (Robyn and Lincoln, 2004). Preliminary structural interpretation undertaken in March 1999 supported the concept that the Silver Chalice region is part of a large caldera system, measuring eight miles (13 kilometers) in diameter. An integrated image analysis was conducted in 1999 by North Star using Landsat Band 4 (near IR) fused with NURE total-field magnetic data to aid geologic interpretation and structural analysis. This work suggests that the western half of the Poison Creek caldera is underlain by rocks with high magnetic susceptibility while the rocks on the eastern half and at the main Silver Chalice prospect on the eastern rim of caldera have a significantly lower magnetic response (Robyn and Lincoln, 2004).

Limited high level aeromagnetic data are available for the Silver Chalice prospect area (Saltus and Simmons, 1997). These data were collected on 10 kilometer line spacings as part of the NURE program and later integrated into the USGS Alaska Aeromagnetic Compilation (Aero Services Corporation, 1980). Despite the wide line spacing, these data provide useful geologic and structural data in the Poison Creek caldera and surrounding area.

## EXPLORATION

As per section 12 of NI43-101-F1, all technical exploration work conducted by parties other than Next Gen is discussed under “History”, “Geologic Setting” or “Mineralization”.

Rock sampling conducted in 2009 involved collecting 114 approximately 2kg samples of exposed rubble from identified and mapped rubble crops indicating alteration or mineralization. Even though rubble crops do not allow for the collection of truly representative samples, effort was made not to consciously understate or overstate expected analytic values through selective sampling. The goal of property-wide sampling was to identify locations as widely separated as possible where mineralization is indicated, or to at a preliminary stage, outline the extent of mineralization. Seventy-two of these samples were taken from the Main Vein and the South Vein in the vicinity of VABM “Kaiyah”.

Observations made during the 2009 rock sampling indicate volcanic sediments and breccias that may once have been more porous have been selectively silicified and mineralized. There may be a qualitative spatial association of silicified and mineralized samples and diking. Exploration criteria appear to include favorable stratigraphy and intrusive activity occupying structures, some of which may lie along dilatant orientations.

This author interprets the 2009 exploration sampling as having identified two structurally controlled veins, each having limited drill testing either to depth or along strike. Vein rubble crop was identified at two other separate locations near the VABM “Kaiyah”, and these need further mapping and sampling.

In that the known mineralized veins present as rubble crops, and the property-scale caldera structure and radial faults are largely brush covered, a stream sediment sampling program is suggested.

The 2009 program was conducted by contractors independent of both the issuer and the vendor. The author was present for the complete 2009 field effort, and supervised two other geologists and a helicopter pilot.

## DRILLING

In 2000, North Star Exploration completed a diamond drill program on the Silver Chalice prospect. The drill program targeted the main Silver Chalice discovery zone on the caldera margin and the sinter zone inside the caldera complex. From 18 August to 12 September 2000, four diamond drill holes were completed within the Silver Chalice epithermal vein system (2,227 feet) and one diamond drill hole was completed in the siliceous sinter occurrence in the center of the Poison Creek caldera (550 feet, Robyn and Lincoln, 2004, Table 5). The epithermal veins were encountered in three of the four holes on the Silver Chalice discovery zone. The siliceous veins occurred within a lithic sandstone flysch sequence that was characterized by argillic, weak silicic, and propylitic alteration. The highest grade intercept in drill core was from drill hole KAI-00-04 where 2.7 gpt gold and 20 gpt silver were intersected over 2.0 feet from 337.1 to 339.1 feet (Table 6. Unless otherwise noted, the following summary was derived from Robyn

and Lincoln (2004). True widths have been calculated for significant intervals and tabulated in Table 6.

Table 5: Summary of drill holes on the Silver Chalice project.

Hole #	Easting (UTM)	Northing (UTM)	Elevation (ft)	Azimuth	Angle	TD (ft)
KAI-00-01	510988	7105855	1,165	15°	-50°	525
KAI-00-02	511201	7105732	1,303	15°	-50°	554
KAI-00-03	511389	7106128	1,365	195°	-50°	527
KAI-00-04	511299	7105976	1,396	15°	-50°	621
PCC-00-05	501795	7104937	1,009	80°	-50°	550
Total						2,777

Drill hole KAI-00-01 was drilled at a 15° azimuth at a dip of minus 50° to test the vein zone underlying high-grade gold in several rock samples. The results were negative; the vein zone was not intersected in the drill hole. Two minor intersections of anomalous gold and silver mineralization were intersected (Table 6).

Diamond drill hole KAI-00-02 was designed to test the central part of the southern vein zone where surface rubble samples returned up to 949 ppb Au and 643 ppm Ag. The vein was intersected perpendicular to mapped strike and several intervals geochemically anomalous in gold and silver were intersected (Table 6).

Diamond drill hole KAI-00-03 was designed to test the main Silver Chalice vein in the area of widest surface rubble and was drilled from the north to south, approximately perpendicular to mapped strike. The drill hole intersected the main vein from 443.1 to 482 feet representing a true width of approximately 25 feet. The vein zone was anomalous in silver, but only slightly elevated in gold (Table 6).

Diamond drill hole KAI-00-04 was designed to test the main Silver Chalice vein from the south to north through an area of high grade gold and silver surface samples ranging up to 3,390 ppb Au and 80 ppm Ag. The drill hole was located on a section 157 feet west and parallel to the section containing drill hole KAI-00-03. The main zone was intersected approximately perpendicular to mapped strike from 320.6 to 355.0 feet representing a true width of 23 feet. There was a single two-foot interval that returned 2.7 gpt gold and 20 gpt silver (Table 6).

Diamond drill hole PCC-00-05 was drilled into the sinter zone in the center of the Poison Creek caldera approximately 8 km west of the Silver Chalice prospect discovery area. The hole did not intersect significant gold or silver mineralization however, anomalous mercury values ranging up to 6.8 ppm were intercepted. The drill hole encountered brecciated, pyroclastic rhyolite and a highly siliceous sinter composed of very fine grained to cryptocrystalline silica which probably was deposited at or near the paleosurface. Intense clay alteration was more common deeper in the hole. Iron oxides after sulfides occur in the upper parts of the hole. Zones of disseminated sulfides (pyrite) occur in the middle section above the intense clay alteration. Some of the breccia zones in the upper part of the hole display a distinct texture caused by the closely spaced, angular fragments forming a clast supported breccia. The highest mercury contents are located with the lower zone, between about 360 and 470 feet depth. The zone

contains sporadic clay alteration and thin zones of quartz or quartz-epidote veins. The elevated mercury is accompanied by intervals of elevated As, Sb, Cu, Mo, and Pb in various combinations over drill thickness of four to 20 feet. It is likely that these anomalous intervals represent structures through which mineralizing solutions ascended. The bottom 200 feet of the hole is comprised predominantly of andesite tuffs, flows and breccias. The surface sinter occurrence is adjacent to a regional, north trending structure with rhyolitic units to the northeast, a basaltic unit to the southeast and an intrusion to the west.

Table 6: Significant drill intercepts, Silver Chalice prospect.

Hole #	From (ft)	To (ft)	Interval (ft)	Estim 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

## SAMPLING METHOD AND APPROACH

Sampling methods utilized during exploration of the Silver Chalice property are presented below. Unless otherwise noted, these details are derived from Robyn and Lincoln (2004).

A combination of rock chip, rock grab, stream sediment and pan concentrate sampling was conducted on the Silver Chalice prospect between 1998 and 2000. Details pertaining to sample methodology and approach for rock, stream sediment and pan concentrate samples currently are not available to the author.

Rock sampling conducted in 2009 involved collecting approximately 2kg samples of exposed rubble from identified and mapped rubble crops indicating alteration or mineralization. Even though rubble crops do not allow for the collection of truly representative samples, effort was made not to consciously understate or overstate expected analytic values through selective sampling. The goal of property-wide sampling was to identify locations as widely separated as possible where mineralization is indicated, or to at a preliminary stage, outline the extent of mineralization.

Observations made during the 2009 rock sampling indicate volcanic sediments and breccias that may once have been more porous have been selectively silicified and mineralized. There may be a qualitative spatial association of silicified and mineralized samples and diking.

Exploration criteria appear to include favorable stratigraphy and intrusive activity occupying structures, some of which may lie along dilatant orientations.

North Star examined the diamond drill core from the 2000 drilling program core in the field and created abbreviated logs in detail sufficient to document major lithologic units, alteration, mineralization and core recovery. The core was then marked at intervals deemed appropriate for sampling. Upon receipt of a core shipment and after verification of the preserved integrity of the core boxes recovery and recovery quotient data were measured and recorded and individual sample intervals were assigned unique sample numbers. All core was photographed prior to splitting or sampling. The core was sawn in half longitudinally using a diamond saw with one half returned for archival storage in the original box. The other half was submitted for laboratory analysis. Any quartz veining or zones of interest were cut so that the portion sent for analysis was representative of the interval sampled and not biased towards more mineralized or veined core segments. In zones of more intense quartz veining, a stockwork pattern of veining was noted. The large width of these features resulted in sampling of the core being done on generally 5-foot (1.5 m) widths, although many smaller sampling intervals were used based on the geology, alteration and visible sulfide mineralization. Physical custody and examination of the samples was restricted to North Star personnel and contractors until delivery was made to the analytical laboratory.

All rock geochemical samples collected during 2009 were described in the field and located using hand-held global positioning system (GPS) methods. Data from each sample was then entered into a digital GIS-database for later interpretation. All samples collected in 2009 were shipped in tamper-proof nylon bags via private charter aircraft from Galena, Alaska to Fairbanks where they were picked up by representatives of Avalon Development. Avalon personnel checked each sample shipment to insure that samples in hand agreed with sample totals in field notebooks. Once the integrity of each sample shipment was established the samples were picked up by representatives of ALS Chemex for analytical processing.

## SAMPLE PREPARATION, ANALYSES AND SECURITY

Details pertaining to sample preparation, analysis and security on the Silver Chalice project are presented below. Unless otherwise noted, these details are derived from Robyn and Lincoln (2004).

North Star Exploration conducted a comprehensive quality assurance/quality control (QA/QC) program at Silver Chalice. Geological samples collected by North Star were sealed in tamper evident containers that were numbered and inventoried as to contents and delivered to Fairbanks, Alaska by a method and carrier deemed to have appropriate expediency and security. Each shipment submitted was accompanied by an inventory of the contained materials. Upon receipt, NAI (Northern Associates, Inc) examined container seals and documented their integrity, before proceeding with prescribed work.

Prior to shipping of rock, stream sediment, pan concentrate and drill core samples from the Silver Chalice project, control samples or prepared laboratory standards were inserted into the sample sequence on a 1 in 20 sample basis. All rock, stream sediment, pan concentrate and drill core samples from the Silver Chalice prospect were submitted to ITS Bondar Clegg's

Fairbanks facility for preparation and shipment to their Vancouver, B.C. analytical facility. Bondar Clegg was instructed to automatically perform over-limit assays on samples with initial analytical results above the standard detection limits. All coarse reject and oversize fraction material were returned to North Star at the end of each year. Analytical results were transmitted to North Star in digital format and compiled in an MS Access format database merged with geological and location information collected on-site. A modest program of re-submittals of duplicate samples for check analyses was performed after initial work had been completed.

Robyn and Lincoln (2004) did not cite specific sample preparation procedures or comment on ITS Bondar Clegg certification other than to say drill core samples had “control samples or prepared standards were inserted at NAI’s discretion amongst the core samples at a frequency of one per batch of 20 samples” (p. 67), and of surface samples, “Frequency of control samples was intended to be one per sequential batch of 20 samples” (p.66). James B. Lincoln was the Q.P. for North Star and commented, “There were no major errors or unexplained results from the programs” in Section 5.10 Data Verification (p.67). Further information regarding sample preparation or lab certification is not available to the author.

All 2009 geochemical samples were submitted to ALS Chemex for preparation at their Fairbanks, Alaska, preparation lab and for analysis at their Reno, Nevada and/or North Vancouver, British Columbia facilities (each lab is ISO 9000 certified). All rock samples were crushed to 70% passing 2 mm after which a 250 gram split is taken and pulverized to 85% passing 75 microns. All samples were analyzed for gold by 30 gram fire assay with atomic absorption finish and all samples are analyzed for a multi-element suite of elements using inductively coupled plasma – atomic emission spectroscopy (ICP-AES) using 4-acid digestion procedures. Rock samples were collected by contractors of the issuer/vendor in 2009.

Based on the information available to the author, the parties working on the Silver Chalice property followed industry-accepted procedures for sample preparation, quality control/quality assurance, analysis and security. The author is of the opinion that sample preparation, sample security, and analytic procedures were adequate.

## DATA VERIFICATION

Robyn and Lincoln (2004) reported that the Silver Chalice drill hole cores was reviewed in Fairbanks following receipt of assay results. The geochemical data were subjected to various statistical analyses to determine consistency and identify any potential problems with sampling or laboratory errors. An unspecified number of drill core and rock chip samples were re-assayed in cases where some question arose from visual examination. Robyn and Lincoln reported that there were no major errors or unexplained results from the programs.

The author did not attempt to determine the veracity of geochemical data reported by third parties and relied upon the above cited authors in this report. The author did not attempt to conduct duplicate sampling for comparison with the geochemical results provided by other parties and relied upon by the author in this report. This report was written without access to the full geological and geochemical database on the Silver Chalice project which remains in third party hands and unavailable to the author.

During 2009 three blanks and eleven commercially prepared standards samples were inserted into the geochemical sample stream of 114 rocks samples collected from the project. The blanks were composed of Quaternary basalt from the Brown Hill Quarry near Fairbanks and returned no significant gold or gold pathfinder elements. Two of the 11 standards (samples 503610 and 503620) returned anomalously low gold values compared to the expected values (975 and 971 ppb versus 2,570 ppb expected value). Inquiries with ALS Chemex have been made regarding these anomalously low standards but no obvious reason for the discrepancy has been determined. Other than the issues with the two standards discussed above, evaluation of both the blanks and standards indicate no unacceptable sample results in the blanks or standards that were submitted.

#### ADJACENT PROPERTIES

To the best of the author's knowledge, there are no other active mining claims adjacent to the Silver Chalice prospect area.

#### MINERAL PROCESSING AND METALLURGICAL TESTING

To the best of the author's knowledge, there has been no mineral processing or metallurgical test work completed on the Silver Chalice project.

#### MINERAL RESOURCE AND MINERAL RESERVE ESTIMATES

There currently are no mineral resources on the Silver Chalice project that comply with the CIM Standards on Mineral Resources and Reserves Definitions and Guidelines adopted by CIM Council on August 20, 2000.

#### ADDITIONAL REQUIREMENTS FOR TECHNICAL REPORTS ON DEVELOPMENT PROPERTIES AND PRODUCTION PROPERTIES

Silver Chalice is not presently a development or production property.

#### OTHER RELEVANT DATA AND INFORMATION

To the best of the author's knowledge, there are no other data available to the authors that bear directly on the potential of the Silver Chalice project. Significant amounts of potentially relevant geological, geochemical, geophysical and remote sensing data are owned by third party interests. The author has attempted to acquire these data, however as of the date of this report, these data are not available to the author and therefore could not be utilized in completion of this report.

## INTERPRETATION AND CONCLUSIONS

The Silver Chalice gold-silver property is located 345 air miles northwest of Anchorage and 330 air miles west southwest of Fairbanks, Alaska. The project is covered by 31 State of Alaska mining claims covering 4,960 acres (12,251.20 hectares) of land owned 100% by Anglo Alaska Gold Corporation. The claims lie in two separate blocks approximately four miles apart. There currently are no other active mining claims in the Silver Chalice project area. Access to the property is via helicopter or boat on the Yukon River. There has been no past lode mining on the project and there currently are no NI-43-101 compliant resources on the Silver Chalice project.

The Silver Chalice epithermal gold-silver prospect occurs immediately east of the eastern margin of the Poison Creek Caldera in west-central Alaska. Gold-silver bearing polyphase quartz veins are associated with northeast 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. 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 Silver Chalice appear to be intimately associated with this volcanic activity. Rock chip samples from surface rubble-crops and boulder trains return values ranging from less than the 5ppb gold detection limit up to 10 grams of gold per tonne and from less than the 0.5ppm silver detection limit up to 462 grams of silver per tonne. Average Ag: Au ratio is approximately 40:1. The main Silver Chalice vein ranges from 1.32 feet (0.4 meters) up to 25 feet (7.6 meters) in estimated true width in two drill holes and the south vein ranges from 0.66 feet (0.2 meters) up to 27 feet (8.2 meters) estimated true width in two drill holes. Drill intercepts range in analytic values from trace to 2700 ppb gold, and from 1.0 ppm to 8.1 ppm silver. There remains potential for ore-grade gold and silver mineralization below the exposed surface at the Silver Chalice prospect area in the two veins drilled, in the broader altered areas, and in the covered areas along strike of the veins.

It is the author's opinion that exploration work conducted in 2009 indicates rock type, alteration, rock texture and mineralization indicating potential for there to be economic mineralization on the issuer's property. Sample density indicates mineralization to be sufficiently widespread to warrant continued exploration. The 2009 sampling program met its goal of verifying the presence of a precious metal mineralized system of sufficient extent to warrant further exploration.

The Poison Creek caldera represents an excellent exploration target with potential to host additional epithermal gold and silver mineralization. Stream sediment samples anomalous in gold and indicator minerals and pan concentrate samples with gold and mercury strongly support the gold and silver potential of the caldera and adjacent areas.

## RECOMMENDATIONS

Based on preliminary field, laboratory and literature studies completed to date, the following phased, success-dependent recommendations for future work are warranted:

Phase 1: Historical records indicate two areas of the Silver Chalice project have surface exposures of significant alteration and/or precious metal mineralization. The Main Vein and South Veins, located in the immediate vicinity of VABM “Kaiyah”, are the currently known priorities for expanding mineralization. Due to the covered ground and rubble-crop nature of exposure, induced polarization (I.P.) geophysics are proposed to identify both mineralization and alteration at depth and along strike of the veins. Both Main and South Veins trend WNW, and previous drilling indicates they both have steep dips. Structures appear to control the silicified breccia nature of precious metal mineralization. A twenty day geophysical program is proposed, with the first three days involving orientation I.P. measurements determining if the rest of the program should involve I.P. lines oriented NNE, or gradient I.P. with WNW and NNE grid lines. A helicopter-supported twenty day I.P. program staged out of Galena, AK involving three to five two kilometer I.P. lines (6-10 line kilometers), or a two kilometer by two kilometer gradient I.P. grid is estimated to cost \$255,000. This estimate includes contract geophysical equipment and two geophysicists, move costs for the contractors and equipment to Alaska, three field technicians, a Hughes 500 helicopter for five hours a day, room and board at Galena, Fairbanks return trip to Galena airfare for five crew members, a 10% contingency cost, and a 10% management cost. This program is independent of any other program, and is expected to cost \$255,000.

Phase 2: This Phase 2 work is dependent on successful results from the above-recommended Phase 1 work program. A minimum of 2,000 meters of diamond core drilling is recommended using a helicopter-portable diamond core rig with NQ2 and/or HQ core capacity. All core should be logged, digitally photographed and split with half of the core retained for future use and half submitted for geochemical analyses. All core should be assayed for gold by fire assays techniques with each sample also analyzed for a multi-element suite by ICP methods using 4-acid digestion procedures. The estimated cost of this drilling program, including labor, assays, camp, heavy equipment rental, drilling, fuel and all consumables is US\$1.14 million (\$570/mt or \$175/ft).

A breakdown of the costs of Phases 1 and 2 is presented in Table 7.

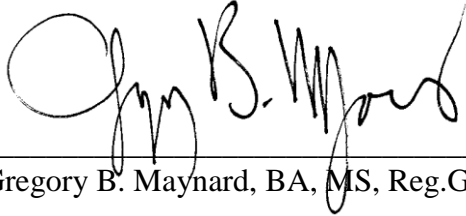
Table 7: Breakdown of proposed exploration costs for Phases 1 and 2, Silver Chalice project.

Exploration Item	Phase 1 (US\$)	Phase 2 (US\$)	Comment
Labor	50,000	211,250	Field personnel
Equipment and Supplies	30,000	77,805	Expendables
Remote Camp	12,000	55,900	Camp and supplies
Mobe	19,000	178,750	Core, rock, soil, QA/QC
Helicopter and Fixed Wing	100,000	167,050	Dry cost, part time
Diamond Core Drilling	0	359,450	Direct operating cost
Management G&A	44,000	91,000	Office support
Total	\$255,000	\$1,141,205	

DATE AND SIGNATURE PAGE

The effective date of this Technical report, entitled GEOLOGY AND MINERALIZATION OF THE SILVER CHALICE SILVER - GOLD PROJECT, NULATO QUADRANGLE, WESTERN ALASKA is August 29, 2010

Signed,



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Gregory B. Maynard, BA, MS, Reg. Geol. #26767 (AZ)



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I, GREGORY B. MAYNARD, Registered Geologist #26767(AZ), HEREBY CERTIFY THAT:

I am currently employed as President CARACOL, P.O. Box 11233, Reno, Nevada, 89510, USA.

2. I am a graduate of Hamilton College, Clinton, N.Y., with a B.A. degree in Geology (1978). I am also a graduate of Queen's University, Kingston, Ontario, Canada with an M.S. degree in Mineral Exploration (1983).

3. I am a member of the Geological Society of Nevada, and a Registered Geologist (Arizona, USA, Cert. #26767).

4. From 1979 to the present I have been actively employed as Geologist, Senior Geologist, Chief Geologist—Venezuela, and Vice President Exploration in numerous locations in North America, Central America, South America, Eastern Europe, Asia, and Africa. My work has included exploration for gold, silver, copper, molybdenum, uranium, and industrial minerals, and includes project-specific work delineating precious mineralization on operating properties. I worked on the subject property from September 16 to 22, 2009, and have worked and prospected on genetically similar properties worldwide. I guided a field trip visiting low sulfidation mineralization similar to Silver Chalice in Nevada, USA for the 2005 Geological Society of Nevada Symposium.

5. I have read the definition of “Qualified Person” set out in National Instrument 43-101 (NI43-101) and certify that by reason of my education, affiliation with a professional organization (as defined by NI43-101) and past relevant work experience, I fulfill the requirements to be a “Qualified Person” for the purposes of NI43-101.

6. I am responsible for preparations of all sections of the report entitled THE SILVER CHALICE SILVER - GOLD PROJECT, NULATO QUADRANGLE, WESTERN ALASKA dated August 29, 2010 (the “Technical Report”) relating to the Silver Chalice gold property. The author spent six days of field review and sampling on the subject property in September, 2009. I take responsibility for this technical report.

7. I have not had prior involvement with the property that is the subject of the Technical Report.

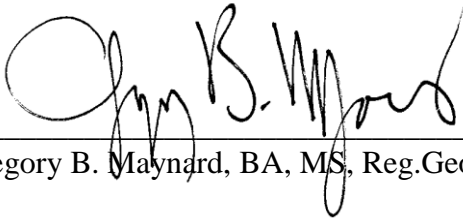
8. I am not aware of any material fact or material change with respect to the subject matter of this Technical Report that is not reflected in the Technical Report, the omission to disclose which would make the Technical Report misleading. As of the date of this certificate, to the best of the qualified person’s knowledge, information and belief, the technical report contains all scientific and technical information that is available to the author and which is required to be disclosed to make the technical report not misleading.

9. I am independent of the issuer and vendor applying all of the tests in section 1.4 of NI 43-101.

10. I have read NI43-101 and Form 43-101F1 and the Technical Report has been prepared in compliance with that instrument and form.

11. I consent to the filing of the Technical Report with any stock exchange and other regulatory authority and the publication by them, including publication of the Technical Report in the public company files on their websites accessible by the public.

DATED in Reno, Nevada this 29th day of August, 2010.



\_\_\_\_\_  
Gregory B. Maynard, BA, MS, Reg.Geol. #26767 (AZ)



APPENDIX 1  
SILVER CHALICE PROJECT  
STATE OF ALASKA MINING CLAIMS

All 160-acre claims located in the Nulato Recording Districts, Alaska

Claim Name	Meridian	Township	Range	Section	Qtr Sec.	ADL_#
Electrum 1	Kateel River	16S	2W	24	NW	665763
Electrum 2	Kateel River	16S	2W	24	NE	665764
Electrum 3	Kateel River	16S	1W	19	NW	665765
Electrum 4	Kateel River	16S	1W	19	NE	665766
Electrum 5	Kateel River	16S	2W	24	SW	665767
Electrum 6	Kateel River	16S	2W	24	SE	665768
Electrum 7	Kateel River	16S	1W	19	SW	665769
Electrum 8	Kateel River	16S	1W	19	SE	665770
Electrum 9	Kateel River	16S	2W	25	NW	665771
Electrum 10	Kateel River	16S	2W	25	NE	665772
Electrum 11	Kateel River	16S	1W	30	NW	665773
Electrum 12	Kateel River	16S	1W	30	NE	665774
Electrum 13	Kateel River	16S	2W	25	SW	665775
Electrum 14	Kateel River	16S	2W	25	SE	665776
Electrum 15	Kateel River	16S	1W	30	SW	665777
Electrum 16	Kateel River	16S	1W	30	SE	665778
Electrum 17	Kateel River	16S	1W	24	NW	665779
Electrum 18	Kateel River	16S	1W	24	NE	665780
Electrum 19	Kateel River	16S	1E	19	NW	665781
Electrum 20	Kateel River	16S	1E	19	NE	665782
Electrum 21	Kateel River	16S	1W	24	SW	665783
Electrum 22	Kateel River	16S	1W	24	SE	665784
Electrum 23	Kateel River	16S	1E	19	SW	665785
Electrum 24	Kateel River	16S	1E	19	SE	665786
Electrum 25	Kateel River	16S	1W	25	NW	665787
Electrum 26	Kateel River	16S	1W	25	NE	665788
Electrum 27	Kateel River	16S	1E	30	NW	665789
Electrum 28	Kateel River	16S	1E	30	NE	665790
Electrum 29	Kateel River	16S	1W	25	SW	665791
Electrum 30	Kateel River	16S	1W	25	SE	665792
Electrum 31	Kateel River	16S	1E	30	SW	665793

APPENDIX 2  
SILVER CHALICE PROJECT  
SIGNIFICANT 2009 GEOCHEMICAL RESULTS  
(table includes only those elements utilized in statistical analyses)

Sample #	Rock Unit	Au_ppb	Ag_ppm	As_ppm	Ba_ppm	Bi_ppm	Ca_pct	Cu_ppm	K_pct	Pb_ppm	Sb_ppm	Zn_ppm
503601	Quartz	26	39.5	99	200	10	0.04	82	0.28	123	53	6
503602	Breccia	120	11.9	1420	320	-2	0.03	445	0.72	37	117	22
503603	Breccia	22	26	255	200	2	0.03	43	0.26	19	12	3
503604	Breccia	163	109	1670	530	2	0.03	339	0.33	176	82	11
503605	Breccia	39	97.4	362	270	4	0.05	355	0.45	31	22	6
503606	Breccia	58	45.8	285	200	-2	0.03	61	0.15	60	32	2
503607	Breccia	11	6	116	200	-2	0.04	47	0.34	5	12	2
503608	Breccia	40	1.5	516	150	-2	0.08	116	0.3	43	17	10
503609	Quartz	2020	16.2	3930	290	-2	0.01	132	0.29	18	169	5
503611	Quartz	84	23.8	253	70	21	0.13	42	0.11	341	39	5
503612	Quartz Breccia	28	12.7	1225	140	-2	0.04	579	0.16	406	97	165
503613	Quartz Breccia	643	126	941	250	3	0.01	156	0.38	656	132	8
503614	Quartz Breccia	11	1.5	124	60	-2	0.04	33	0.15	21	9	2
503615	Quartz Breccia	17	92.9	306	80	40	0.04	265	0.05	831	51	18
503616	Quartz Breccia	73	140	366	70	21	0.01	223	0.16	231	93	26
503617	Quartz	150	6.7	2030	980	3	0.02	160	0.29	9	85	2
503618	Quartz	39	3.2	209	130	-2	0.02	18	0.12	9	21	2
503619	Quartz Breccia	13	2.3	191	140	-2	0.04	74	0.27	6	9	4
503621	Quartz Breccia	27	7.3	185	200	-2	0.1	41	0.45	6	14	5
503622	Quartz	147	138	2510	130	25	0.02	995	0.26	107	41	26
503623	Quartz	147	5	1180	180	-2	0.02	227	0.6	69	55	11
503624	Quartz Breccia	988	61.9	3540	580	2	0.02	331	0.38	19	142	35
503625	Gabbro	11	-0.5	13	1270	-2	2.36	12	2	11	6	82
503626	Tuff	10	0.5	29	1250	-2	0.04	5	1.9	11	-5	13
503627	Ignimbrite	11	-0.5	-5	1830	-2	1.4	4	4.1	15	-5	40

Sample #	Rock Unit	Au_ppb	Ag_ppm	As_ppm	Ba_ppm	Bi_ppm	Ca_pct	Cu_ppm	K_pct	Pb_ppm	Sb_ppm	Zn_ppm
503628	Gabbro	-5	-0.5	8	1270	-2	2.65	8	1.97	14	-5	73
503629	Ignimbrite	-5	-0.5	-5	1730	-2	1.18	5	3.21	14	-5	35
503631	Andesite	5	-0.5	7	1210	-2	2.19	16	2.35	8	-5	86
503632	Ignimbrite	-5	-0.5	12	1370	-2	0.55	1	3.16	22	-5	22
503633	Tuff	-5	-0.5	-5	1400	-2	0.56	1	3.4	19	-5	35
503634	Andesite	-5	-0.5	7	1370	2	1.28	5	2.75	16	-5	36
503635	Quartz	-5	-0.5	7	1410	-2	0.62	2	3.13	18	-5	67
503636	Scoria	-5	-0.5	-5	1310	-2	0.52	1	3.56	14	-5	34
503637	Rhyolite	-5	-0.5	7	1430	-2	0.62	1	3.25	19	-5	23
503638	Chalcedony	-5	-0.5	-5	1370	-2	0.66	-1	2.89	18	-5	45
503639	Chalcedony	-5	-0.5	-5	1420	-2	0.6	3	3.04	19	-5	36
503641	Quartz	-5	-0.5	-5	1510	2	0.61	7	3.33	20	-5	12
503642	Breccia	-5	-0.5	6	1380	-2	0.7	2	3.15	20	-5	22
503643	Quartz	-5	-0.5	-5	1430	-2	0.69	1	3.1	20	-5	40
503644	Andesite	-5	-0.5	-5	1070	-2	3.46	57	0.93	10	-5	47
503645	Andesite	-5	-0.5	5	3070	-2	1.61	9	4.81	12	6	36
503646	Andesite	-5	-0.5	6	3260	5	3.27	53	3.82	5	-5	109
503647	Andesite	-5	-0.5	-5	1010	-2	4.41	28	1.22	9	-5	87
503648	Quartz	6	-0.5	32	460	-2	0.02	6	0.52	7	8	18
503649	Greywacke	-5	-0.5	8	440	-2	0.02	6	0.49	96	-5	53
503651	Quartz	8	21.9	73	560	34	0.04	1160	0.51	376	6	81
503652	Quartz	-5	1.2	39	300	-2	0.01	75	0.38	24	8	14
503653	Quartz	49	191	210	220	87	0.01	721	0.18	2230	90	241
503654	Quartz	-5	3.2	25	540	-2	0.03	45	0.5	1370	15	82
623696	Andesite	-5	0.6	-5	910	4	4.52	37	1.13	18	-5	80
623697	Andesite	-5	1.6	-5	920	3	4.61	43	1.15	22	-5	82
623698	Andesite	-5	-0.5	-5	930	-2	4.55	37	1.15	10	-5	83
633381	Quartz Breccia	21	0.7	116	200	-2	0.04	5	0.36	4	11	-2
633382	Quartz	42	99.8	173	770	10	0.02	146	0.94	122	38	10
633383	Quartz	125	8.4	379	1070	13	0.02	319	0.95	107	18	44

Sample #	Rock Unit	Au_ppb	Ag_ppm	As_ppm	Ba_ppm	Bi_ppm	Ca_pct	Cu_ppm	K_pct	Pb_ppm	Sb_ppm	Zn_ppm
633384	Quartz	13	9.2	109	560	-2	0.03	115	0.69	7	15	44
633385	Quartz	101	2.5	700	310	-2	0.03	42	0.73	7	25	7
633386	Quartz	103	40.6	210	160	-2	0.03	14	0.2	19	57	2
633387	Quartz	13	0.6	46	260	-2	0.02	51	0.31	14	9	9
633388	Quartz	74	7.2	433	130	-2	0.07	54	0.15	21	24	-2
633389	Wacke	24	0.6	84	1140	4	0.03	391	1.66	14	7	44
633391	Quartz	737	52.6	3140	230	-2	0.02	285	0.11	30	117	9
633392	Quartz	347	119	1985	130	2	0.02	467	0.13	29	161	19
633393	Quartz Breccia	96	1.7	505	470	-2	0.01	20	0.54	3	31	-2
633394	Wacke	1855	3.4	2410	780	3	0.02	67	1.5	15	140	6
633395	Quartz Breccia	34	1.3	338	330	2	0.02	27	0.35	3	20	3
633396	Quartz Breccia	563	6.2	1440	550	-2	0.01	26	0.38	2	62	2
633397	Quartz Breccia	112	0.7	419	230	-2	0.03	31	0.27	6	45	2
633398	Quartz	1245	47.3	684	240	-2	0.01	72	0.36	15	87	5
633399	Quartz Breccia	380	12.6	1785	160	2	0.02	760	0.28	66	212	65
633401	Quartz Breccia	44	3.2	198	180	-2	0.02	17	0.24	15	16	-2
633402	Quartz Breccia	36	75.4	300	120	5	0.06	283	0.03	1860	286	53
633403	Quartz Breccia	77	24.2	358	330	2	0.02	42	0.45	78	38	4
633404	Quartz	35	46.4	158	420	9	0.02	390	0.66	77	25	21
633405	Quartz Breccia	6	-0.5	-5	1420	-2	0.63	2	2.99	20	-5	28
633406	Quartz	114	5.4	361	290	3	0.02	261	0.33	50	56	148
633407	Quartz	18	4.5	101	450	2	0.02	97	0.72	10	14	5
633408	Quartz	144	56.6	664	300	-2	0.02	79	0.41	398	64	3
633409	Quartz	37	77.5	391	270	-2	0.02	64	0.34	144	48	3
633411	Quartz	210	4.8	891	210	2	0.04	173	0.42	104	46	6
633412	Arenite	19	2.6	222	210	-2	0.02	7	0.63	494	8	12
633413	Andesite	6	-0.5	14	540	-2	6.66	41	0.6	7	9	68
633414	Volcanic Breccia	-5	-0.5	16	890	2	1.82	44	1.74	15	7	103
633415	Quartz	130	1.4	536	120	-2	0.1	28	0.18	10	36	19
633416	Quartz	29	1.2	209	380	-2	0.02	23	0.35	4	13	-2

Sample #	Rock Unit	Au_ppb	Ag_ppm	As_ppm	Ba_ppm	Bi_ppm	Ca_pct	Cu_ppm	K_pct	Pb_ppm	Sb_ppm	Zn_ppm
633417	Sinter	6	-0.5	14	300	-2	0.15	-1	3.17	18	7	-2
633418	Sinter	-5	-0.5	26	300	2	0.15	-1	3.18	20	10	13
633419	Sinter	-5	-0.5	21	1510	-2	0.65	-1	3.29	21	-5	34
633421	Sinter	5	-0.5	-5	1490	-2	0.68	-1	3.19	20	5	31
633422	Sinter	5	-0.5	6	1410	-2	0.54	-1	3.66	18	-5	19
633423	Wacke	42	-0.5	196	280	-2	0.01	7	0.99	4	14	17
633424	Wacke	13	-0.5	60	300	-2	0.01	12	0.9	10	9	33
633425	Wacke	7	0.5	29	410	2	0.02	24	1.08	4	-5	65
633431	Wacke	9	4	31	1070	-2	0.05	686	1.35	12	-5	27
633432	Quartz	78	15.7	213	540	-2	0.02	93	0.91	8	24	28
633433	Quartz	10	2.4	89	290	-2	0.01	42	0.6	-2	7	10
633434	Quartz	11	0.5	65	400	-2	0.02	58	0.64	-2	-5	23
633435	Quartz Breccia	23	-0.5	131	30	-2	0.03	12	0.04	-2	13	-2
633436	Quartz	243	62.8	717	190	4	0.03	160	0.16	47	78	4
633437	Quartz	8	0.7	15	360	-2	0.21	3	3.19	18	21	9
633438	Tuff	8	0.8	-5	1380	-2	0.64	2	2.97	21	-5	31
633439	Andesite	-5	0.6	-5	1140	-2	2.21	20	2.07	11	-5	94
633441	Tuff	8	0.7	8	1340	-2	0.5	1	3.26	18	-5	15
633442	Chalcedony	-5	0.6	10	1180	-2	0.36	1	3.47	16	-5	11
633443	Chalcedony	5	0.8	7	2690	-2	0.99	2	2.07	20	-5	28
633444	Chalcedony	5	-0.5	8	2800	4	1.03	2	1.97	20	-5	25
633445	Tuff	-5	0.7	-5	1330	-2	0.6	2	3.4	19	-5	11
633446	Tuff	9	1	16	1220	-2	0.61	5	3.22	18	-5	23
633447	Tuff	9	-0.5	-5	1350	-2	0.36	2	3.48	18	-5	14
633448	Tuff	15	0.5	-5	1360	2	0.41	2	3.53	21	-5	13
633449	Quartz	12850	4.6	355	70	-2	0.01	18	0.09	13	69	104
633451	Quartz	865	1.4	316	120	-2	0.01	20	0.22	3	37	23
633452	Quartz	3670	2	1420	80	-2	0.01	43	0.08	9	196	225
43885	Basaltic Andesite	11	0.5	11	870	2	4.41	40	1.03	6	-5	79

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