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PRELIMINARY REPORT ON HOLDINGS OF GOLD KING ALASKA, INC., NIZINA MINING DISTRICT, ALASKA, August 13, 1936.

Location and Accessibility:
Fie property held by the Gold King Alaska, Inc. consists of 27 claims and is located on the western slope of Williams Peak in central Nizina district. The claims extend from lower camp on the MeCarthy-Dan Creek road at the l7-mile post, east up the slope to an elevation of 6400'. The showings are located near the top of the peak between elea. tins of 5880 and 6400'. This location 18 approximately 2 miles in a straight line south of the Dan Creek placer camp. To reach this property the road from McCarthy to Dan Greek is followed to the 17 -mile post. In summer this road is maintained in a fair condition for automobiles by the Alaska Road omission. The cost of auto hire is $\$ 10$ each way to Dan Creek. From lower camp, elevation of nearly 2a00', a horae trail has been built up the side of the mountain a distance of 3 to 4 miles to upper camp, elevation 5840'. The upper camp consists of a 16x24' tent and a small rock cabin and occupies a fairly level position on a bench in a small glacial pocket. A trail along the slides from amp leads up the mountain to the workings. The last $2000^{\prime}$ of horse trail Is steep and makes traveling with horses dangerous due to loose slide rock.

## History and Owners:

This property was staked in 1930 by J. E. Barret and consisted of 7 lode claims and called the cold King. Barret claims the original discoveryshowever, a short crosscut tunnel near the vein shows evidence of former work. This tunnel was known as the Kruhm tunnel. Information as to the year this tunnel was started, together with any account written regarding a discovery prior to 1930, is lacking.

In May, $1038 \mathrm{M} . \mathrm{M}$. Reese Visited this property and a copy of his report is held on file. This property pas referred to as Gold King Mines. Reese returned in March, 1933 and sampled the tunnel work complated since hie visit in May the year before. Reese acquired half interest in the property and Barret held the remaining half. In 1935 the cold King Alaska, Inc. laws. The capitalization was 10,000 shares at one dollar par value. The total shares ware transferred to Vancouver and the Alaska cold King Mines, Ltd. was organized under British Columbia laws, authorized capitalization of two million shares at 50 cents per value. F. R.

MacDonald is president, J. E. Barret, Vice president and M. M. Resse, managing director. The office is 475 Howe Street, Vancouver, B. C. Inciuded in the group of 27 claims are a. fet placer bench claims held elong the face of Williams Peak adjoining tha lode olaims. This season the property was examined by N. C. DeRoune of Vameouver. The lode showinga were resampled and the placer holdings investigated. This examination had just been completed on the date of the mititer's visit, and no one representing the company was present on the property on this date. As a result some of the showings on the property were not seen.

## Geology and Showinge:

The general gaology of this district is contained in U. S. G. S. Bulletin No. 44日, Geology and Mineral Resources of Nieima District, Alaska," by Moffit and Capps, and Bulletin No. 675, "Uppor Chitina Valley, Alaska" by Moffit and Overbeck. The formations of WIIliams Pealc are referred to as Kennecott fomation which consists of shales, sandatones and conglomerete mich contain quartz diorite, a Jurasic Intrusive. The mountain itself represents a seement of a Ifmb of a great synclinal fold. Its present existence as a mountain is due to a central granitic stock that has metamorphosed the surrounding sediments making a greater degree of hardness that has withetood the erosion effecta of severe ice and water action. This granite is exposed a few hundred feet east of the showinge at an elavation of 8000' in the small glacial cirque, and it is exposed for a length of $500^{\circ}$. The monntain top contains a Pe" emall remaints of overlying limestone which is underiain with ahales and argillites containing thin beds of quartaite. Many contact phases are present about the granite stock and later granitoid aikes cut the flati-lying sediments in a north to northrest direction.

E. $52 \times 10$

Top of Willims Peak Showing Upper Camp and Trail, Granite atock and Flat-lying Areillites Eith Interbanded Quartzites.

The main showing consista of a smell persistent veln in a shear zone. This vein was traced over B00 and reported traceable on the east gide of the glacial elrque a diatance of 2000' to 3000'. The north side of the peak is inacassible due to steep bioffs. The erposed portion of the vain exists between elevations of 5880 and 6400' to within a fev feet of the top. Small outeroppings of parallel veins containing a different mineralization were noted between tho stibnite vein and the granite atock over a distance of $400^{\prime}$ to $500^{\prime \prime}$. Eavelopment has been conflned to the stibaite vein whioh consists of three tuncels -ith several rock cuts and trenches. No. 1\% tunnal or lamar tunnel (Note position on following photo) is located at an elevation of 5880'. It was driven on the vein and has a length of 74, (Note accompanying sketch).


Position of Gold=Antimony Vein heroas Top of Will lams Peak, Locally Know as Gold King, El. 5880' to B400'.

Its strike is N. $28^{\circ}$ to $30^{\circ}$ m. and aipe $75^{\circ}$ to $78^{\circ}$ SW. The hanging mall contains a gouge and brecciated pieaen of light yellow to ligit ereenish color mioh resembles a highly altered dike which has a width from a fet inches to $2^{\prime}$. The vein consists of a bighly altored and mineralized shear zone. This zone contains a small band of quartz that oontains a considerable amount of atibnite. This stibnite vein varies from 2 inches to a width of $8^{\prime \prime}$ and is exposed for a distance of 40" in the tunnel. The sheared wall rock is deofdedly altered and most of the mineralization is oxidized. It varies in width from 1 to 21 on each side of the quartz. Two channel samples mere taken (Note sketoh and assey sheot).

No. 3 tunnel at an elevation of 6280 en inaccessible on the date of visit due to the adit being filled with ice. It mas reported to be nearly 200' in length and followed the vain. The dump ghowed the same characteristic altered dike and wall roaks with pleces of quartz and stibnite six to eight inches in width between walle. an outerop at the top of adit shows $6^{\circ}$ of altered dike material on the hangrall and $6 \frac{1}{2}{ }^{n}$ on footwall with $4 \frac{1}{2}$ inches of quarta. The footwall rock 18 a mall granitoid dike mass. Two samples were taken at this point (Note assay sheet).

Mo. 2 twnel located $\mathbb{E l} .6190^{\circ}$ and $50^{\circ}$ east of No. 3 is an old tunnel erosscut tunnel of earlier date. It was driven to out the stibaite veln at a depth of 40 to $50^{\prime}$. It lanks a fer feet of intersecting the vein, however, a fet amall gash veinlets and blebs of quartz with glight mineralization were encountered.

The vein outorops in several trenches and rock cute abova No. 3 tunnel to within a couple of hundred feet of the top. The quartz and stibnite band varies from 4 to $8^{\prime \prime}$ in width and the walls are more or less altered as noted in the tunnel. Various phases of metamorphosed sediments and dike mases are cut along its course. One channel sample of the quartz (Note assay gheet) was taken $100^{\prime}$ above No. 3 tunnel.

Generally this vein may bo olassed as a fissure veln with a little horizontal movement. It outs through shales below, then argililtes and quartzites and numerous granitoid dikes showing a mach later origin than the granite atock to the east. It parallels a light yello colored dike that also cuta tbrough the above mentioned sediments and granitic dikes. This dice contains abundant feldspar, ia porphyritic and appars very much like a monzonite dika. Between the dike and stibnite vein are small veing containing realgar and orpiment. It is the belief of the writer that both typen of veins are associated with the later monzonite (?) ditre.

## Mineralization:

The mineralization in the veins represent two types and both carry gold and a iittie silver. The stibnite is oonfined to the quartz band and carries the bighest gold values. The pyrite with its oxidized products is mainly in the sltered wall rock, gouge and altered dike material. The pyrite crystais are medium to fine while tie etibnite crystals are medium to large and have an interlocking structure. Stibnite cryatals $1 \frac{1}{2}{ }^{n}$ long and $\frac{1}{4}$ wide were noted. The quartz is finely cryatalline and containg numerous amall vage which are lined with protruaing eryatal faces having the appearance of a quartz geode. Both the large atibnite crystals and numerous quartz orystals represent a long alow period of growth and formed under low crystallization temperatures. Occasional small spociks of realgar and oxpiment were noted asa sociated with the stibnite. Calcite and other lime contact minerals contained in the altered mall rook, the greenish dike minerals and the quartz make up the gangao minerais.

The smaller veins aeen contained realgar and orpiment in a gouge of quartz, calcite and other lime contact minerale.

The development thus far accomplished has been done by hand methods, and periodically. Winter conditions are severs due to high elevations and ste日p slopes covered with snow. Water is scaroe during summer months, a small amount boing found by digeing into the talue sildes. Timber and wood are lacking, but found below 3000' elevation.

The amount of amples taken are not supficient to arrive at an average value for the vein. They do ghow valuea in gold from 0.14 to 0.72 oz. per ton, and its presence both in altered wall rock and aosociated with the atibnite, the amount of antimony and a general representation of widths. One factor to bear in mind 18 the technioal problems encountered in treating this ore.

Sucre of amaze

DEPARTMENS OF NATURAL RESOURCE:
10:
James A. Williams
Director
Division of Mines and Minerals

FROM:


DATE : May 14, 1968
SUBJECT, Local Service Road
George Gidizutsoun

Yesterday, a Mr. George Gilbertson, a prospector from the McCarthy area, visited my office seeking assistance in the construction of a local service road to his claims on Dan Creek near McCarthy. Although there are no funds appropriated to implement Senate Bill 636, I was interested in the story he had to tell about the potenttial gold, silver, and copper deposits on his property. I agreed to send one of our mining engineers to inspect his claim and furwish us a report, after which, if favorable, we would try to help him out in some manner.

Prior to the start of the field season, I would like for one of your engineers to plan a short trip to visit Mr. Gilbertson's prospect. As I understand it, a mail plan leaves Chitina on Monday morning at 10:00 a.m. for the May Creek Airport. Passenger rates are $\$ 7.50$ opposed to $\$ 100$ aircraft charter. I suggest that you contact Mr. Gilbertson by mail in care of May Creek Airport, Alaska; so that he may be available to furnish ground transportation to his claims.

If there is any substance to his story, and if the claims warrant intensive investigation, I may be able to interest a large independent company in coming into Alaska to attempt to participate in his venture. You may be familiar with Mr. Gilbertson and have some other background on his capabilities. If so, please advise.

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& \text { Rot 60:, Northward Blag. FBX } \\
& \text { Son: Don Giberyison 452-318? }
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ASSAY SHERP, SAMPLE TAKEW ON PROPEFIY OF GOLD KTHC ALASKA, INE.


|  | Sanple No. | Lacation | Description | Oz, Per Ton |  |  | $\begin{gathered} \% \\ \text { antimony } \\ \hline \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Width | Gold | Sllver |  |
|  | - 48 | No. 1 lower tumnel $50^{\prime}$ from adit, back of drift, E1. $5880^{\prime}$. | Across quartz only. Contains stibnite. | $8^{\prime \prime}$ | $\$ 18.54$ | 0.10 | 0.3 |
|  | 49 | No. 1 lower tunnel, face of tunnel, 74' from adtt,疋. $5880^{\circ}$. | Across altered dike, gouge and quartz. | 17* | $\begin{aligned} & 0.24 \\ & \forall 6, \end{aligned}$ | 0.20 | Trece |
| $\infty$ | 50 | Surface outcrop $100^{\prime}$ above No. 3 tumnel, 12. 6320'. | Across quartz and massive stibnite. | 51\% | $\underbrace{0.14}_{4}$ | 0.20 | 34. |
|  | 51 | Outerop at sadt of No. 3 tunnel, EH. 6228'. | Across massive stibnite and quartz. | 4 ${ }^{\frac{1}{2}}$ | $\begin{array}{r} 0.72 \\ 725 \% \end{array}$ | 0.30 | 25.2 |
|  | 52 | Same as No. 5l, footwall and hangingwall. | Across $6 \frac{1}{2}$ w altered gouge hangwill and $6^{\prime \prime}$ altered footwall. | 1212 ${ }^{\frac{1}{2}}$ | $\begin{aligned} & 0.14 \\ & \therefore, ~ \end{aligned}$ | 0.30 | None |

## Chemical Laboratory Report  Date received

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 Aorose Al gered
gouge quartz. WIath. 17" Gold 0.84 oz. Per Pon shlver 0.20 oz. " ${ }^{(1)}$ Antimony Trace.

Sample No. 48.
Across quartz vein only. Back of drift.
Flath. $8^{\text {n }}$
Gold 0.54 oz. Par Ton Silver 0.10 oz. " "
Antimony .3 Peroent.

Sheared \& Altered Argillites

学 Quartz \& Stibuite Voln

Sheared \& Mineralized Wall Hock (0x1a1zod)
 (Limy Nature).

Pimbered



Sheared \& Altered
Argilliter


In support of the roommendation submitted at the and 'of this report. I en giving a hort aynopide of the ratite or ray investigation of the Gold King kino.

I loft Seattle on April 30th, and arrived on the property May lith. I spent nine days with Mr. Rose and Mr. Mitchell on tho property; examining and sampling the vain, and determining the location for tunnels, millaite and tram from tunnel to millalte. We lost MoCartiny May 2.7 th, and arrived in Sob tile June lat.

The representations of the owner of the cold King Mine. John F. Barrett, were not only borne out in detail, but in soma rabyeoto my findings exceeded my expectation. The vain 13 ranerkable and unusual in its persistence and continuation. The width on the south alone varies from 12 inches to 25 inches, and averages 26 achoo over a diatanoe of 1300 st. against only 12 inchon alarmed by the over. The vain appears on the north side of the same character but was inacoesaiblo for sampling on account of ateopnese. A heavy streak of antimony averaging $43 / 10$ inches runs thru the osinter of the vein fer its entire length.

PROVEN TONNAGE:
The tonnage was injured in blocks of 100 foot voricioal to a depth of 800 fest. The ore shute at this depth 181750 peat long. This gives a tonnage at this level of 81,852 tons which compares with 83,000 tons estimated by the armor to the 1000 It. level. In addition there is probable ore to the extent of double this amount below the 800 Pt. level as the vein continues to lengthen to at least 2000 it. I have ovary reason to believe that this ore body will continue to crest depth due to poraistance and continuity of the vein.

## TALUS:

I took 98 amplas which have bean agoayod by Prornanor cory of the University of Washington. Mr. Roose took 17 ommplon which wore assayed by Talkenburg \& Co., commercial assayers of Seattle, ard Choked by Professor Corey. Twelve of Mr. Reesens samples wore taken from identioal places where I sampled. Therefore, in these 12 plaose wo have dupiloate sampling and assays in triplicate. To our surprise the returns of the assay show extraordinary variation not only of my samples against Mr. Resets samples assayed by Professor
 by Professor Corey compared with those by Falkenbure se Co.

Wy heghoat samples, asuayines $\$ 23.60$ should have boon idontiond with Roorde'a sample assayed by Profeamor Corey \$217.?0, and by
 arable from the doentioal place, $\$ 36.00$ by Professor corey and 34.80
 Professor Corey and $\$ 63.20$ by Fallenburg, where I show $\$ 57.60$ obtained \$8.80.

Page 2.
The assayors are unquestionably rollable and oxjerlancod mon. Thereforo, as asouyo out of tho onme armplo bas show suah wido variation In value, wo are of tho opinion that this must be due to the ooursoneso of the goid, and jossibly to the antimony oontents. Wo ure etrongthenod in this conclusion bocause a amplo of about by whioh Darrott sent to Soattie the aldda of April assayed $\$ 160.80$ by Falkenbure and 3340.00 by wifloy \&ribnch of Denver, Colo., who have extensivo axparience In the troatment of are of this oharatiar. Thoy had boon advisod by Lir. Sohoenwald of Talkenburg's resulta, and were surprisod to ilnd more than double the value. Therefore, they oarefully chooked their own asagy.

These wide variations and unoxplainable disorepencies cannot be errore in the teohnijue of assaying, but must bo due to tho character of the are itself.

The averace veluas of my armoles taken alonf the 2300 it. south slope ehow \$20.B0 whith wa are oonvinced doos not rapresent in any way the actual value of the ore beoause of the rade variations in tho assay roturna montioned above. We are oatiofled that the actual gold value of the ore can only bo determined thru mill tosts and - [iving all facts known to us caraiul oonsideration - we expoot that such tests will prove the actul gold value of the ore to bo at loast tivico, and posalbly threo times as high as my averuge, boaause tho avaragu of tho totals of the high values of my amples and those of hir. Leose fram 1dontsoal places ohow 47.60 per ton.
casts:
The cost of mininst and miling aennot oxseed 10.70 per ton of ore based on opreful extimates and aotual coste at the Renneoot t ming.

The elusiveness of the gold in tho assay offloe matos mo rather sure, whioh is alao Professor Corey's opinion, that the gold is not associated with tho antimony but oocure pros in the zuartz. Thoro mill toats may prove that the oro containa gold values which will yiold a wide profit marain in the oporetione of a mino that will have en asaurad long lifo bacauge of tho large amount of ore alrosdy in sight.

## RECOMMSNDATIONS:

We have about 400 lbs. avallable for mill testa in Soattla. I recomment, beounse of the unusual attrootivenosb of this proyerty, that thoro mill tests be made at the Univorsity of inshinyton winioh 1o exoellently exuippod, and elso by vilifley \& Bribach of Denver, Colo. Who have hud ivide experienco in the treatment of stioh ore. Suoh tests will roikire at last two weeka.

I reaomend that the additional expense money bo provided immediatoly for this purpose, if tho owner grants an oxtension of our option for 60 daju (until nugust lith). Tho terma of the option should be ohanged so thet the owner releases tho esoroy monoy of \$2500. to the Trustee of the syndioste. He should receive no aush payment but the entire purahase price of $\$ 100,000$. out of $70 \%$ of the

I reocomend that part of the rolousod furds of $\$ 2000$. be usod for oxpenoov in conneotion with tho proposed mill tosta. Suah exponaos ehould not exoood eli250. The balanoe would bo apalluble as oupithi after aodeptunoo of the property.

I mako the abova resomendatione beosuae I am not satispian With the aesuy results due to no fault of tho aseayers, and I Toll that the mill tests mill show the truerecoverable yold content or the ore. If we stoy whare we are nows we will not know whether thia property is or fa not a miue. If the teste show Pavorable, then we have a propitable mine with long life.

Rempootiully aubmittod.
(signed) O. I. Sovory, Oonsulitigg Goologint.

Soaftie, Piashington.
Jane 5, 1932.

Copy of assays made by Prof. Corey Asbayest U. of $\mathrm{N}_{\mathrm{i}}$ Juno th, 2932
C. L. Severy Samples of ore cold King properties

Sample
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5
6
7
8
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11
12
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17
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19
20
21

Oz. Gold
0.50
4.28
0.34
0.38
0.14
1.64
0.46
0.68
1.14
$\begin{array}{lll}1.14 & \\ 1.38 & \\ 0.18 & \end{array}$
2.88
1.06
0.32
0.42
0.74
0.16
2.04
0.68
0.90
0.34

Above assays from gemples South side vein 1300 down from top.

| 22 | 0.16 | 3.20 |
| :--- | :--- | :--- |
| 23 | 0.22 | 4.40 |

Above assays from samples South side vein below 1300 ft .


Signed by
C. R. Corey

Gel
Gad
Rn 2000 per arse.


ROOS日. cyarares by


Sovory. aperagea by


Composite aneays.
Corey._RACO. K11s oy \& Eribach. $\qquad$ 23.00 (ama puis)

Ronso. averagne with fatimony stronk out


