

No. 11479.

NOTICE is hereby given that "Babine Silver King Mining Company, Limited (Non-Personal Liability)," was incorporated under the "Companies Act" as a Specially Limited Company on the 28th day of December, 1929.

The Company is authorized to issue three million shares without nominal or par value.

The address of its registered office is 305 Dominion Bank Building, 207 Hastings Street West, Vancouver, British Columbia.

The objects of the Company are restricted to prospecting for, locating, acquiring, managing, developing, working, and selling mines, mineral claims, and mining properties, and the winning, getting, treating, refining, and marketing of minerals therefrom, and for the purpose of carrying out its objects the Company has the powers expressed in subsection (2) of section 23 of the "Companies Act."

H. G. GARRETT,

Registrar of Companies.

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Babine Silver King

Report on "Silver King"

Omineca District

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REPORT OF EXAMINATION
of
BABINE SILVER KING GROUP.
Near Smithers, B.C.

Alfred J. Gaul, E.M.
Registered Professional Engineer.

Vancouver, B. C.
26th Sept. 1928.

Report of Examination
of
Babine Silver King Group.

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Property: The Babine Silver King Group consists of the following

Mineral Claims:-

Silver King	Snowstorm	Cabin
Babine Fraction	Grant	Hecla
Republic	Lincoln	Wilson
Tunney Fraction	Iron Mountain	#1
Speculator	Iron Mountain	#2
Hoaney Fraction.		

Location: The claims are located at the head of Driftwood Creek, a tributary which joins the Bulkley River near Smithers, a divisional point on the Canadian National Railway, two hundred and twenty miles east of Prince Rupert, B.C.

Access: The town of Smithers can be reached either by regular steamship from Vancouver via Prince Rupert, or by railway direct from Eastern points and Vancouver. From Smithers the road can be travelled by auto for fourteen miles, and work is now proceeding on the construction of the continuation of the motor road direct to the camp located near the workings on the Silver King claim, a total distance of approximately nineteen miles. The grade on this road is practically nil, the altitude at the mine being reached by following the gradual rising ground along the valley of Driftwood Creek. The completion of the road will ensure very easy access to the property both in summer and in winter.

Title: The claims are held under the provisions of the Mineral Survey Act of British Columbia and stand in the name of the Babine Silver King Mining Company, an Idaho, U.S.A. Corporation. The claims are in good standing by virtue of certificates of work issued on the recording of the necessary assessment work required annually in accordance with the Mining Act. Sufficient work has been recorded to obtain Crown Grants on a number of the Claims.

Topographical: The ground controlled by the Babine Silver King Mining Company consists of the Basin that constitutes the beginning of Driftwood Creek and which lies to the West of Mounts Hyland and Cronin, together with the ground that constitutes the eastern slopes and top of the mountain that form the west rim of the basin, also that ground forming the east rim over which the trail passes towards the Babine Bonanza Mine (Cronin's). From the east rim the property extends the length of six full claims to the western boundary of the Babine Bonanza ground, a distance of slightly less than two miles. The Driftwood Basin comprises approximately one hundred and fifty acres of more or less flat meadow land with patches of small timber. The Basin is slightly below timber line in this locality. The west rim has a slope of between 45° and 50° , while eastward the rise to the Divide is less rapid being approximately 35° . The Grant claim covers the top of the mountain. The Republic Claim is located

in the basin or glacial cirque that exists east of the divide and north of the Cronin trail. The Lincoln, Wilson and Speculator claims cover the top of the ridge that extends Eastward to the Babine Bonanza Mines. The West sides of the Driftwood and Republic Basins are somewhat precipitous, the ground otherwise is comparatively regular and easy of access. Disintegration and weathering has caused numerous slides of broken rock to cover the mountain slopes.

Altitude: The property has a range of elevation between 4500' above sea level at the south end of Driftwood Basin to 6500' on the Grant and other claims at the East end.

Geological: The geological formations exposed in this area consist of sheared tuffs, andesites and quartzites of Jurassic period having a general strike east and west, dipping at comparatively steep angle towards the north. A number of strong quartzite dykes traverse the country, but do not appear to have very close connection genetically with the ore bodies that exist. The tuffaceous rocks are interbedded with rhyolitic flows and sills. Rhyolite and porphyritic dykes of late Jurassic period have intruded the tuffaceous sediments of the Hazelton group in this area. The Rhyolites are frequently pyritized and evidence tends to indicate that these intrusions of rhyolite have had a very important influence on the deposition of ore in the Driftwood area and it appears that the ore zone follows a general easterly direction which can be followed along a line of

shearing and intrusive rhyolite. Some minor faults occur, due mainly to movement of masses of mountain side moving downward. No fault of major importance has been detected.

Mineralogical: The mineralization that exists on the Silver King group is a complex mixture of lead, copper, zinc and iron sulphides, enriched with small amount of gold and relatively large amount of silver. Considerable native silver can be detected in the ore, together with argentite and grey copper (tetrahedrite). Veins vary in width from a few inches to five feet. The gangue is highly siliceous with occasional calcite. The main vein is separated from the foot wall by several inches of talc. Outcrops of ore have been traced from Driftwood Creek on the Silver King claim eastward a distance of nearly 1500' feet. It yet remains to be proved whether these showings are on a continuation of the veins so far opened up in the drifts off the main cross-cut, or whether they are offshoots or segregations from a main parent body. Further development alone will definitely prove this. The ore as exposed is above the average grade. A number of veins have been traced over the divide, but the character of the mountain slope with its covering of slide rock makes it almost impossible to trench and prospect the veins. On the west side of the Republic Basin three distinct ore exposures are to be found. At the extreme eastern end of the group, on the

Speculator claim, float ore can be picked up in many places. The workings of the well known Cronin property are within a very short distance of the Speculator line and there is very little doubt that the Cronin ore body extends westward into the Speculator claim. Considered as a whole, that portion of the Sabine Silver King Group from the Republic Basin Eastward to the Cronin ground, is less broken from Mountain movement than is the case on the West end of the group.

So far as the veins have been developed they show evidence of very extensive mineralization, particularly in the North East section of Driftwood Basin. As stated above, a certain amount of minor movement has taken place and the condition of the vein drifted on from the main crosscut rather points to its being out of place, and small faults will be encountered during development.

The veins are lens shaped and it appears that in a width of several feet there are parallel streaks of high grade ore. The veins pinch out in one streak but come in again in one of the neighbouring streaks. The ore shoots have lengths up to 200 feet. Sufficient depth has not been obtained in the workings to demonstrate the vertical depth of the ore shoots. It can, however, be stated that in a horizontal distance of three thousand feet, ore in place can be found between the elevations of 4800' in the basin and 6500' on the Grant claim at the divide.

Assays: During the course of development considerable assaying has been done by the owners, the Provincial and Dominion Government Engineers and Geologists and independent Engineers. A list of these is appended hereto for general information, and as a guide as to the character of the ore. The few samples one would take during an examination of the group would be misleading as they would in all probability not represent a true general average.

Of more value is the appended smelter return on a small shipment made from the main vein in 1927, which is as follows:-

Trail, B. C.
March 9th, 1927.

Consolidated Mining and Smelting Co. of Canada Ltd.
in a/c with Silver King,
Lump marked No. 5.

Spot settlement for ore quotation, average
13th to 19th Feb. 1927

Gross weight 13,725 lbs.
moisture 1.6%, Sacks 217 lbs.
Nett weight dry ore 13,476 lbs.

Assay. Gold .36 oz. per ton
Silver 98.0 oz.
Lead 6.4%
Cu. 1.75%
Zinc 5.7%
Sulphur 6.2%
Silica 65.6%
Fe 4%
Lime .5%

<u>Contents.</u>	2,425 oz. gold @ \$20.00 per oz	95%	48.10
	660.82 oz. Silv. @ 57417 "	"	95% 360.18
	694 lbs. lead @ 04727 per lb		26.42
	768 lbs zinc		
	236 lbs Copper		
			<u>8432.70</u>

Less treatment @ \$5.26 per ton \$35.44
Freight 104.40
Pr. on sacks 4.75

144.57
\$ 288.13

Treatment -	Base 8.00
Sn.	1.14
	<hr/> 9.14
Cu.	4.59
Mn.	4.00
S.	1.26
	<hr/> <u>5.23</u>

Workings:

Considerable open cutting and stripping has been done on the Silver King Claim east of Driftwood Creek. In most of these cuts, ore has been found in place varying in width from a few inches to a mineralized width of several feet.

Under ground work the extent of several hundred feet has been accomplished consisting of the following tunnels:-

1. West Drift. Elevation 5070'. Driven on vein on West side of Driftwood Creek. 15'0" Portal to Face. Vein 3'6" wide, dipping north, strike N. 61' W.

Well mineralized, Pb. Zn. & Cu. Sulphides, some Grey copper. Vein is faulted at face.

2. East Drift. Elevation 5070' Driven on vein on East side of Driftwood Creek approximately 15'0" w south of West Drift. The vein is to be seen in the bed and on the side of Creek, its general course conforming with that to be seen in the West Drift off main crosscut (see 2 b.) Portal to face 100'0". Strike N.60' E. Dip 50° - 50° north.

Vein well mineralized with Copper, Lead, and Zinc sulphides, with occasional native silver. Assays: 15" width, 90'0" from Portal.

Au. .12 oz. Ag. 81.6 oz. Pb. 7%, Cu. 2.2%.

18" width, 70'0" from Portal.

Au. .22 oz. Ag. 168. oz. Pb. 10%, Cu. 5.5%

The vein shows indication of general movement which is again in evidence in the drift 50'0" below off main crosscut.

3. (a) Main Crosscut, elevation 5020. This tunnel runs in on the floor of the Basin on the East side of Driftwood Creek. The first sixty feet in from portal is through drift, boulders, etc. At 200'0" in from portal what is termed the South vein was intercepted, having a strike N. 55 E. with dip 20° to south. The vein has a width of 12" with well mineralized ore much oxidized. It is the opinion of the writer that this vein will prove to be a small fault carrying considerable drag ore from the main vein which is or was a little above and 40' to 50' north of the point where the crosscut intercepted the so-called South vein. This statement can best be followed by a study of sketch of the workings on the level.

The formation passed through is rhyolite, at 252' from the portal the main vein was encountered with a width of 4 to 5 feet, well mineralized with Lead, Copper and Zinc sulphides. A high grade streak of ore 18" wide shows considerable native silver. It was this vein that produced

the small shipment that was made in 1937.

(b). West Drift. 86 feet west on vein from cross cut. At 28'0" from cross cut a raise was started on the vein and is up approximately 12'0" showing continuity of the vein. At this point a station has been cut for the purpose of sinking to the vein and following it downwards. From this point for forty feet the vein is rather broken but at 86' from the crosscut the vein strengthens and changes its course. This change agrees with the condition to be found in the creek at the portal of the East drift almost overhead at this point. A crosscut has been driven 36' north into the hanging wall rock. The cross cut shows faulting of the vein along a plane a little South of West with a dip 70° to the South. The vein appears to be in place on the West wall of the crosscut and should be drifted on from this point. The vein is well mineralized in this vicinity and much gray copper and native silver can be discerned. The drift was continued 25'0" westward into the footwall rock.

(c) East Drift off main crosscut. The vein is followed in the drift to a point where considerable disturbance can be correlated with the so-called South vein intersected in the crosscut. It is the opinion of the writer that from this point eastward the plane of the fault with its drag ore has been followed and the vein proper will have to be sought in a south westerly direction. So far as the vein shows, it has a width approximately 5'0" and carries the usually high grade ore encountered on the Silver King.

(4) 115'0" South of the No. 1 post Silver King Claim a 80'0" timbered tunnel has been put in. This tunnel is in broken ground and its location and direction are such that it would be of no material assistance in the exploration of the property.

(5) A deep surface cut 350 feet south east of No. 1 post Silver King. This cut has exposed a small high grade vein 5" wide, and a tunnel has been started to explore this vein on its strike, the tunnel starts as a cross cut south east from the north end of the cut and will encounter the vein at a distance of 20 feet from the portal.

(6) Foley Tunnel. This tunnel at elevation 5500' has its portal on the hanging wall side of an important zone of mineralization. The tunnel followed a narrow vein with fairly good values. The tunnel is in 185' from the portal. At a point 20' from the face a small vein enters the south wall of the drift. This vein should either be followed or a cross cut run in to it from the face of the tunnel. Considerable stripping and open cut work has been carried out 50' south of the portal of the Foley tunnel and the condition exposed warrants more exploration work in this locality.

On the trail from Driftwood Basin to the Cronin Mine is to be seen a boulder of high grade ore, very similar in character to the Hyland Basin ore, located ^{which vein is}

just over the Divide. This boulder weighs about 1500 lbs. and has no indication of having travelled far. The vein from which it came is undoubtedly well worth locating and should be at no great distance.

(7) A vein 6" wide carrying high grade ore with much grey copper has been exposed in open cuts on the Grant claim for 300 feet at elevation 6300'. The strike and dip do not conform with the general strike of the mineralized zone, so in all probability this vein will prove to be an offshoot of the main system. See G.S. Eldridge Assay Certificate ^{of ore} attached

(8) As mentioned above, a number of exposures have been located on mountain top and east thereof on the Grant claim and Republic claim - no work to speak of has been done on these showings.

Camp: One log cabin exists on the claims suitable for a crew of five or six men. The property possesses one of the best camp sites to be found in the country.

Water: The camp is well served with water and timber for
and
Timber: all purposes.

Power: Driftwood Creek having its source in the glaciers and snowfields that exist on Mounts Hyland, Cronin and Lagopus, is a perpetually running stream. North of the main cross cut $\frac{1}{2}$ mile, the creek falls from a glacial cirque five hundred feet to the basin below. The stream can be easily dammed and controlled and from 300 to

500 horse power developed when desired. South of the
after
camp/the creek has been fed by several streams, it is much
larger with falls approximately 1 mile distant. Probably
the power available will be in the neighbourhood of one
thousand horse power.

Climate: The average climate in Driftwood is that experienced
in the northern interior of British Columbia. The snow fall
is not excessive, and the Basin is clear of snow by early
May. Very little snow falls permanently before December.
There are no snow slides that menace mining operations.

Equipment: The mine is equipped with necessary plant for a small
crew on hand work. A blacksmith shop is equipped at the
Portal of the main cross-cut in which rails have been installed
with one car.

Summary: The Silver King Group is a very attractive proposition,
its convenient location, easy access, good geological conditions,
maximum location on ore zone, and high grade of ore all combine
to make the prospect of an ultimately successful mining operation
very promising. The work so far carried out has been done
in a very workmanlike and intelligent manner. The geology has
is inclined to be complex but Mr. Higgins has shown ability in
following the ore bodies.

The movement that has taken place on the mountain sides
has made the work of prospecting somewhat difficult, but the
results accruing to work so far accomplished shows that in all
probability a large parent body of ore exists north of the

general line of present workings.

Taking into consideration the more or less open ground and comparative absence of precipitous sides in the greater part of Driftwood Basin, it is the opinion of the writer that the best method that could be adopted to locate such parent body would be one or other of the inductive processes of electrical methods of geophysical prospecting, the ore being of such nature that satisfactory results would be obtained.

With regard to extension of the present workings - a drift on the vein should be started from the West side of the cross cut from the West Drift on the main vein marked "A" on sketch attached hereto.

A permanent working tunnel should be started from the Basin level approximately 1000 feet east of the Cabin. This will ensure a plentiful supply of necessary timber, and also be located in the most suitable place for ultimate operation. The tunnel should be driven due north and thus cut at right angles the mineralized zone that traverses the group from east to west.

With the opening up of the road to Smithers any high grade ore developed and extracted can be shipped at a minimum of cost. It must however be borne in mind that in order to recover the maximum profit from the Silver King ore, a concentrator must eventually be installed, but at the present time, it is impossible to make any statement regarding tonnage.

This will depend on future exploration and development. The prospects for the future are very hopeful, and justify the expenditure of from twenty to twenty-five thousand dollars, part of which should be spent on the eastern end of the property, proving the extension of the Babine Bonanza (Cronin) ore bodies into the Silver King Group.

Respectfully Submitted

E.M.
Registered Professional Engineer.
British Columbia.

Vancouver, B. C.
26th Sept. 1928.