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Starr

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NOTES ON MINES

ON

SPRINGER AND TEN-MILE CREEKS

SLOCAN CITY MINING DIVISION, B. C.

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To
Frank Eichelberger, Trustee.

By
Chas. C. Starr,
May 27, 1930.

INTRODUCTION: The following notes were obtained during a short reconnaissance trip up Springer and Ten Mile Creeks in the Slocan City Mining Division, and from the Minister of Mines reports, etc. The object of the trip was to inspect several of the better reputed properties in the district, to determine whether a more careful examination of some of them was justified.

PROPERTIES: The properties visited were the ARLINGTON, and ANNA on Springer Creek, and the WESTMONT, NEEPAWA, and ROYAL on Ten Mile Creek. Mention is also made of the OTTAWA on Springer Creek and the ENTERPRISE on Ten Mile Creek. It is understood that all of these properties, with the possible exception of the Enterprise, are for sale.

LOCATION: The Springer Creek properties are on the north side of the creek, six or seven miles by road from the railway at Slocan City. The Anna and the Ottawa adjoin, while the Arlington is about a mile and a half further east.

The road is in fair condition. The elevation at the properties is approximately 5000 feet.

The Ten Mile Creek properties are approximately ten miles by road from Slocan City, ten miles of this distance is over the Slocan City - Silverton highway, and the remainder up a fair road up Ten Mile Creek. The Enterprise, Neepawa, and Royal groups are nearly adjoining on the south side of the creek, while the Westmont is a half mile to the northward. The elevation is approximately 4500 feet.

The groups on the two creeks are about three miles apart in an airline, but separated by a high ridge.

(See Sketch Map)

GENERAL CONDITIONS: The district is well watered and timbered; the snowfall is not excessive and there is no difficulty in keeping the roads open during the winter.

There are a few snowslides but they can easily be avoided. Power for the mines has been developed on both Springer and Ten Mile Creeks, but might be small for a large operation.

The creek valleys are steep but comparatively smooth and the mountains rise several thousand feet on both sides.

HISTORY: The district was most active around 1900 and no great amount of work has been done since 1910. The production has probably been several millions, but there are no definite records at hand. Nearly all the production has been from high grade shipping ore, and no milling has been done except a part of the Ottawa dump.

DEVELOPMENT: A number of miles of development has been done in the district on the properties visited and on others which are not mentioned. The greater part of this is now inaccessible on account of caving.

GEOLOGY: All the mines in the region are in a porphyritic biotite granite. Apparently all the veins are very similar in character and occur in broad shear-zones which extend for long distances. They strike in a northeast - southwest direction and dip at various angles to the eastward. Within the shear zones the granite has been considerably decomposed, and is almost entirely so along the veins. The vein filling is largely decomposed

occasionally kaolinized granite containing kidneys and elongated lenses of quartz with stephanite, argentite, tetrahedrite, and in some mines galena and sphalerite.

The high grade ore occurs only in the quartz, but it is claimed that the decomposed granite of the vein often contains sufficient values to form milling ore.

The width of shipping ore varies from nothing up to a reported width of seven or eight feet, and may consist of one or several stringers across the width of the vein; also there may be several veins across the width of the shear-zone.

In length, oreshoots vary from a few feet to six or eight hundred feet, and they also appear to be somewhat limited in depth - in other words to be flatly lenticular in shape.

DESCRIPTION OF PROPERTIES:

Arlington Mine The mine has not been operated since 1910; previous to that time it is locally reported to have produced $1,500,000, some of it from very high grade ore.

There is now little equipment except a few buildings which are in fair condition. The tunnels are all so caved now that it is impossible to see the vein at all.

Development was through eight tunnels over a vertical depth of about six hundred feet, one of which is said to have followed the vein for 2500 feet. The maps show almost continuous stopes for six hundred feet between the second and third tunnels (from the bottom), irregular stopes from there to the surface, and a few small stopes between the lowest and second tunnels.

It is said that a flat fault displaces the vein below the large stopes, and that the lower tunnel, while in the shear zone, is not on the vein proper.

The main vein is said to lie along the footwall of the shear,which is eighty feet wide, and to be typical of the district. The values were contained almost entirely in stephanite and tetrahedrite with some native silver; there was very little lead and zinc in the ore.

Local opinion of the mine is very optomistic, but with the exception of the maps there is no possibility of obtaining any definite data unless the mine workings are re-opened and this does not seem justified.

There are several large dumps which are said to contain good values. From one of them, containing probably upwards of 10,000 tons, 870 tons were shipped to the smelter which contained approximately 12 Oz. silver and 2% lead per ton. A sample from a trench around the dump is said to have assayed 29.7 Oz. silver, 4.6% lead, 3.6% zinc. It is said that the old stopes were filled with similar material from low grade parts of the vein and lost fragments of high grade ore. It seems probable that between the dumps and the stope filling there may be between 25,000 and 50,000 tons of low grade milling ore which could be made available at a reasonable cost if the mine is not too badly caved.

Anna Mine This property, consisting of four claims and fractions, has been worked by the owner and small leasers.

There is very little equipment. Development has been by three short tunnels which are now inaccessible on account of caving, and a lower (No. 3) tunnel which is open.

For the first 230 feet it is a drift on an east vein, at the face a crosscut encounters the west vein at 45 feet, which is then followed by a drift for 300 feet. A fifty foot winze has been sunk at 175 feet from the crosscut.

The formation is granite; there are two veins about fifty feet apart which seem to be on the walls of a shear-zone.

The veins strike N 10° E and dip 40° east; they are typical of the district and are filled with decomposed granite with stringers and elongated lenses of quartz containing argentite, stephanite, tetrahedrite, and native silver. No ore has been found on the east vein in the tunnel, but on the west vein the drift shows ore for 250 feet and stopes extend a short distance above it.

The stope width is five or six feet but it is doubtful if there is solid ore for that width. Eight samples from patches of ore remaining in the stopes, given in the Minister of Mines Report average .06 Oz. gold, 69.7 Oz. silver, over 2.3 ft.

The lower part of the winze is said to be in ore, and a small shipment was made from an eight inch paystreak.

Incomplete shipping returns show 72 tons averaging 172 Oz. silver, Tr. lead, 0.6% zinc and a few tenths of copper.

Ottawa Mine (Not entered) This mine belongs to the Consolidated M. & S. Co. and was one of the largest, if not the largest, producer of the district. There are two veins which have been developed by five tunnels aggregating about 7000 feet of level work, and a short winze and level below the lowest tunnel. The mine is probably worked out above the lowest tunnel; a deeper tunnel would be on outside property and it is said that the dip of the vein would soon carry it

into outside property on depth.

A few years ago a small mill was built by leasers to treat dump ore, but it burned down after a few months run. It is reported that one 700 ton lot showed a head value of 19 Oz. silver, and another 700 ton lot 11.7 Oz. The concentrate averaged about 270 Oz. and the tailings 2.5 Oz.

It is claimed that there are 75,000 tons of ore of a similar grade on the dumps and as filling in the stopes.

Neepawa Mine The Neepawa and the Mabou, which is the extension, have been developed by seven tunnels many of which are caved, and only the lower of which was entered, - it is probably nearly a thousand feet in length and follows the vein throughout. The vein is a strong fissure in granite containing decomposed granite with stringers and lenses of quartz containing silver minerals with some galena and blende. The width appears to be from two to four feet in the lower tunnel. The production is given in Government reports as something over $50,000. The vein strikes north and south, dips 60° east, and is said to have been traced to the Arlington shear-zone.

The vein in the lower tunnel looks to be extremely low grade, yet pieces of evident ore may be found in the dump; it is said that apparently barren rock sometimes shows good assays and that the dump contains about ten ounces of silver.

A sample across 2.3 feet of good looking quartz at the face of the tunnel assayed .03 Oz. gold, 7.2Oz. silver.

Enterprise Mine This mine is probably not for sale and was not entered. It is opened by several tunnels and

has made a considerable production. The vein is narrow, the pay-streak averaging about eight inches but on one level the oreshoot was continuous for 750 feet, and the ore of high silver with considerable lead and zinc. There are also several other undeveloped veins.

Royal Group There are two claims; no work has been done except a little ground-sluicing which has exposed an outcrop over about a hundred square feet. This has been known for many years but has not been developed as the silver values were too low for shipping. The outcrop lies on the bank of a small creek, near the bottom of the main mountain, and no other showing which might connect up with it is known. The dip and strike are not certain, but apparently is northeast and southwest and steeply westward, - that is, the strike is normal for the district but the dip possibly opposite to the usual dip. The width of the vein is uncertain but apparently not less than eight feet. A roughly average sample taken across the lower end of the exposure assayed: .02 Oz. gold, 2.8 Oz. silver, 5.65% lead, 10.7% zinc. It is reported that other samples have shown a silver content nearer 10 Oz. The vein lies in granite but the character of the ore is different from anything else seen in the region, and consists of quartz and silicified (rather than decomposed) granite with galena and blende quite uniformly distributed throughout the whole width; in other mines where galena and blende occur they are usually in irregular concentrated bunches of comparatively pure mineral. Ground along the probable strike to the southwest is vacant.

Westmount Mine The Westmount is developed by four tunnels and has produced considerable ore. Fifty two cars on which the smelter returns are available showed a content of .049 Oz. gold, 169.8 Oz. silver, 9.4% lead, about 20% zinc.

Ore occurs chiefly near a sharp turn in the vein, or possibly near the intersection of two veins making an angle of about 20° with each other. The walls are granite and the vein is in general typical of the district except that it has a steep westerly dip; lamprophyre dikes are more frequent than in the other mines and in some cases they appear to limit the ore. Near the angle in the vein, stopes extend through three levels and are usually from four to six feet in width, although it is said that the shipping ore was seldom more than two feet in thickness. A second oreshoot shows some two hundred feet in from the surface in the lowest tunnel and has been followed a few feet by an underhand stope.

Toward the face of the No. 2 tunnel a cross fault cuts the vein and it is not certain whether the true vein has been found beyond the fault or not; there is no ore found beyond the fault.

The ore occurs in quartz lenses and stringers which contain native silver, proustite, tetrahedrite, galena, and blende; there is no evidence of appreciable values in the decomposed granite. Several thousand tons of dumps show fragments of ore and are said to be of low milling grade, and it is probable that the stope filling has some value also.

CONCLUSION: On account of their location the properties mentioned fall into two groups, - those on Springer Creek and those on Ten Mile Creek.

Springer Creek Properties

There is no possibility of gathering much data on the ARLINGTON MINE without opening up some of the tunnels. The maps suggest the possibility that the lower tunnel is off the main vein, and if that is the case there should be considerable ore still above it, and presumably below also. There is considerable dump ore that would pay to mill and probably stope fillings also.

To reopen the mine would, I believe, be too costly a chance to take.

The OTTAWA MINE was not inspected, but it is my impression that if some of the adjoining ground were obtained it might be worth a further examination. It is also certain that there is a large tonnage of ore in dumps and stopes that would pay to mill.

The ANNA MINE is a fairly good looking prospect and justifies a more careful examination, but is small and hardly to be recommended unless other properties in the district are obtained.

There is quite a tonnage of ore on dumps etc at these three properties, and possibly others, which could be worked through a centrally located mill,with short hauls, and should pay dividends if handled properly. After a mill was in successful operation it might be found advisable to further explore some of the mines. An extensive sampling of the dumps would be justified under former prices for silver, but scarcely so at the present time.

Ten Mile Creek Properties

The NEEPAWA MINE has a strong, persistent vein, but in the tunnel inspected it is none too

large, and it appears to be low grade from a casual inspection.

The showing might justify the taking of a few pilot samples to see if there is any indication of a good tonnage of milling ore, but no elaborate examination is justified at present.

The ENTERPRISE MINE is not supposed to be for sale, and the developed veins are too small to be of great interest.

The ROYAL GROUP is an unknown quantity. The single exposure of the vein is wide and contains fair ore of a different character from anything else in the district.

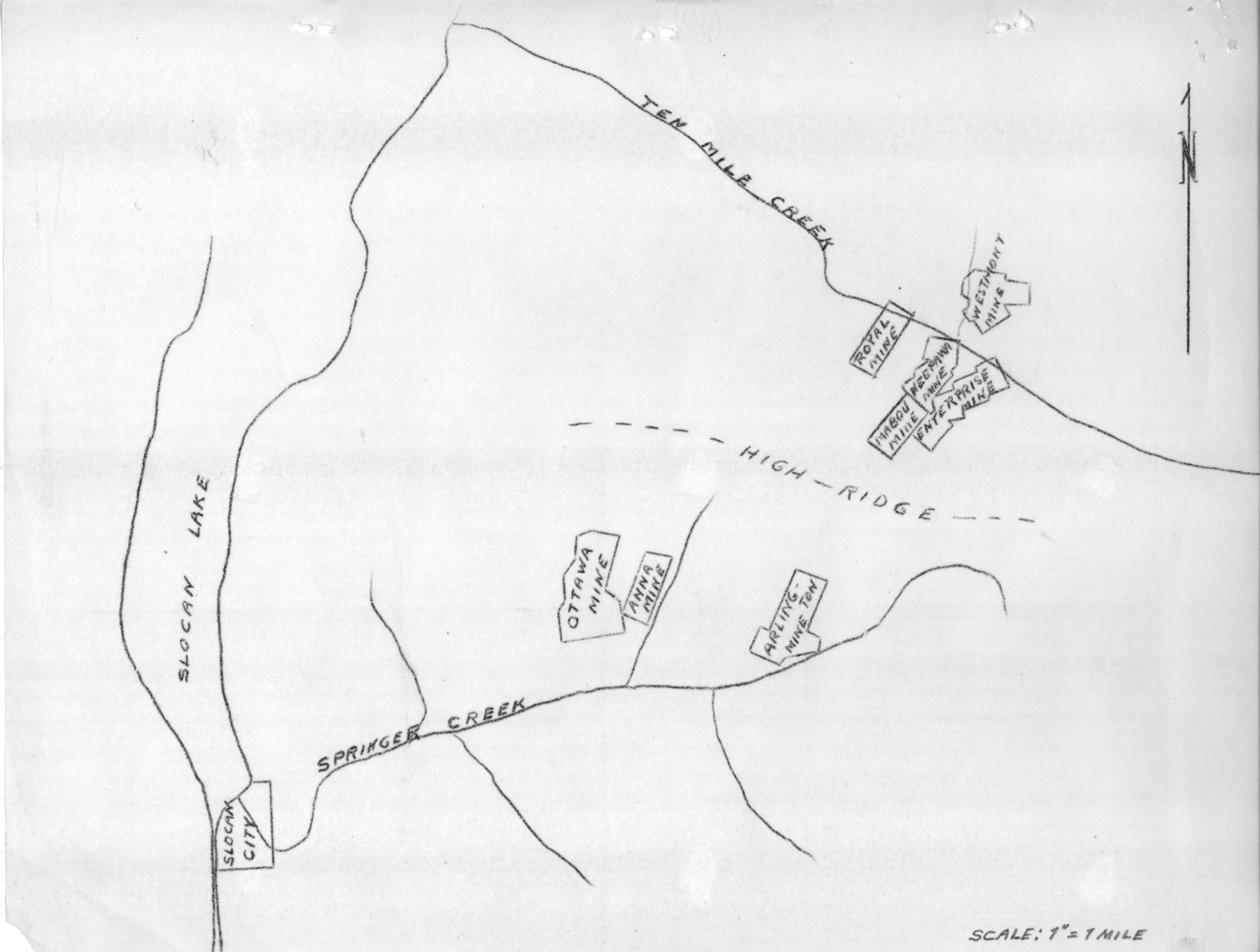
A certain amount of surface work can be done on it at small cost and is fully justified. I would recommend that some trenching or ground sluicing be done to trace it along its strike, and that a few open cuts be dug at favorable points afterward, provided the price and terms are reasonable.

The WESTMONT MINE is rather interesting and seems to have some small possibilities, and some milling ore on the dumps. The possibilities do not seem good for any large tonnage of ore and I would not recommend a further examination at this time.

All of the properties mentionedon Ten Mile Creek would conveniently feed to one mill, but there is not known to be any large tonnage of milling ore on the dumps and it does not seem advisable to consider any consolidation of the properties at this time. If work on the Royal should give favorable results some attention might then be given to the other mines, looking toward their combination under one management.

Respectfully submitted,

Chas. C. Starr


TEN MILE CREEK
N
ROYAL MINE
WESTMONT MINE
WEEPAWA MINE
MARBOU MINE
ENTERPRISE MINE
HIGH RIDGE
OTTAWA MINE
ANNA MINE
ARLING-TON MINE
SLOCAN LAKE
SPRINGER CREEK
SLOCAN CITY
SCALE: 1" = 1 MILE