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Grand Forks, B.C.,
June 25, 1941.Mr. W. A. Sutton, Sec'y.,
Reno Gold Mines Ltd.,
Yorkshire Building,
Vancouver, B. C.

Dear Sir:

Mr. Ellis asked me to write you at once in regard to the Inland Empire, Berlin, & other groups of claims which I have just visited, six miles east of Paulsen.

The following is a brief resume' of the properties visited and my impressions of their value as prospective mines:

Geologically, the district lies along an irregular contact of Rossland volcanic rocks on the east and intrusive diorite on the west. The volcanic series, probably chiefly fine grained, greenish porphyries, are cut by porphyritic dikes, many of which are probably closely related to the diorite intrusion.

There are two principal systems of fractures in which gold-bearing quartz has been deposited; one strikes N 30° W. and dips steeply northeast; the other strikes about North and South and dips about vertical. The former appears to be the stronger.

All veins are quartz-filled fissures with rather scanty pyrite and rare galena and little or no other sulphides. Gold is the only valuable metal.

INLAND EMPIRE GROUP: All workings are inaccessible. Available data indicates that the vein is in a N 30° W. fissure and at least in part along the volcanics--diorite contact. The ore is apparently limited in quantity and, as a rule, low in grade. Development is through a 300 foot shaft and is fairly extensive. The property does not appear very attractive or promising.

BERLIN GROUP: The workings are about five hundred feet west of the Inland Empire and the vein is in a N 30° W fissure. It is developed by a tunnel on the vein for perhaps 700 feet, from which a 100 foot winze has been sunk and some drifting done; all work below the tunnel level is under water. The tunnel follows the vein for two or three hundred feet to a point just past the winze where it enters broken ground. Up to the winze the vein

*In 1938 541 Tons were shipped from Berlin giving
121 oz gold & 1142.03 Silver = about \$8⁴⁰ per ton*

varies from two to six feet in width, averaging probably three feet and consists of massive quartz with little sulphides except for about 30 feet at the head of the winze where pyrite shows in fair amount and the values are better. This oreshoot was followed down in the winze and is said to lengthen in depth. The values in this oreshoot, the best of which has been mined, are not known but are presumed to have contained about 1/3 oz. gold per ton.

On the tunnel level the vein is faulted in the broken ground beyond the winze and it is doubtful whether the stringer which was followed for several hundred feet is the proper vein.

This Berlin vein, part of which is on the Alice L. Claim is the widest and most promising seen in the district; average values are believed to be low.

082E5E086

ALBION FRACTION: This vein is opened by a shallow shaft (full of water) and a number of open cuts. At the shaft an eight foot width of approximately half ounce ore is reported but could not be seen on account of water. At the shaft the strike is N 30° W. but to the Northward it swings to a few degrees east of north.

The relative positions of the Berlin and Albion Fraction veins suggest that they may be the same, but the change in strike of the latter toward the Berlin makes this seem doubtful.

ALBION VEIN: This vein is several hundred feet west of the Albion Fraction and parallel (N 30° W.) to it. It is a 2 to 3 foot vein opened by a shallow shaft; in a short sub-level at 25 ft. depth there is considerable pyrite and good values are reported.

082E5E085

CASCADE VEIN: This is a 1 to 3 foot vein opened by a 400 foot tunnel and is some distance south east of the workings on the other veins. The strike varies from N 0° to 20° W. Some stoping has been done and the ore shipped.

CONCLUSION: The Berlin and Albion Fraction veins appear the strongest and perhaps show the best values. Most exposures of all veins are probably low grade--say 0.2 oz. gold and less--and shipments of the best ore were limited in amount and only fair in grade in the main. Geologically, I see no reason to anticipate either an increase or decrease in width and value of the veins at further depth.

It is my impression that further development will show the

Mr. W. A. Sutton.

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veins to be too small for a large low-grade operation, and that the quantity of good-grade ore will be insufficient to work alone profitably.

To explore and develop the veins, or even one of them, thoroughly would entail more expense for equipment and labor than seems warranted by the showings. A possible alternative would be diamond drilling, but this would have to be extensive and systematic to give worth while results.

Although it is not safe to condemn the district on the strength of a very incomplete examination, such as I made, I feel that none of the veins seen are very likely to develop into profitable mines.

Yours truly,

C.C. Starr file

June 21 1941 (1)

Berlin Inland Empire

Camp 5000 (30.40) Paulson
B.C.

Albion Shaft 5650

Sampled N 85 E ends sub
lev 2 ft deep. Shaft 40' ±
deep. Vein N 3 E 70° E

Crops ± 3' wide.

In diorite or G^o Diorite

See MJM 1924 & 1932

Alice L. vein over tunnel
N 30 W 75 NE Vein 2-3'
wide Wh Q & some py casts.

Berlin — Turn open to shaft — Dr SE to 900' of Albion Sh.

Vn N30W 90° — Q + crush silic Rk. ~~TR~~ sulph — looks tan



June 21

- 20' ER Albion Fr. (2 cars shift) - local strike uncertain.
- - thence N 25 W ± 100' to hole where vein N 10 W - further N local strike is N ± 20 E. - Thence N 5 W about 150' is shallow ~~to~~ crop with apparent wall N 30 E.
- To So follows draw N 30 W.



On Duluth vein 7-8' Q lies in natural trench. At summit & upper S slope strike N 30 W - on N slope appears to follow trench to N 0 ± W line & to dip 60 E. - no vein (definite) found on N slope.

June 21

(Near S ddy of Deerlith)
Vein N5E dip 70° W
shows 18" Φ lines into
same "trench".

Same shows 300±'
further S — N95 70W.

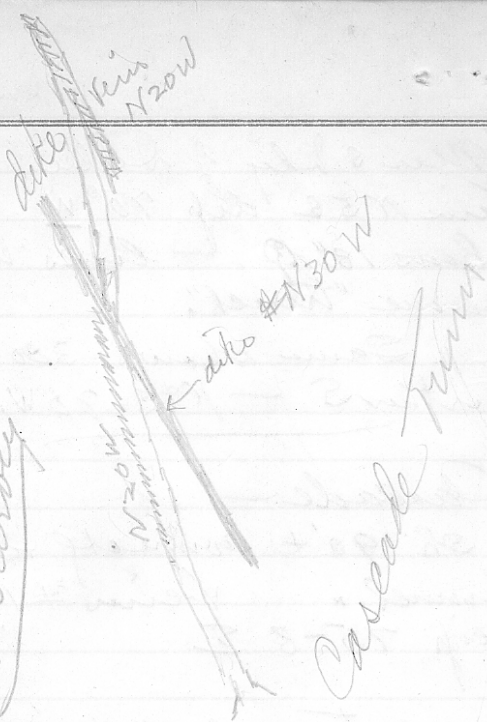
Cascade —

sh 90'+ connect to
Tunnel. * Vein ± 18"
dip 75-8 Σ

Cascade tunnel ± 400' long
some stoping. Vein stoped
18" to 4" wide wh Φ & some
py in bands — strike N20W
for ± 100 ft long — then
is left in FW or probly
is cut by N30W dike.

In beyond dike
Vein is found 18" wide
of Φ banded with py
run N20W — this may or
may not be same vein.

Mo Survey



Apparently same vein
as on Bonanza, on
which is tunnel lower
down.