

Standard 082FW180

Enterprise 082FW148

Mammoth 082FW060

000096

November 1, 1948.

Mr. A. M. Ham,
Manager,
Western Exploration Co. Ltd.,
Silverton, B. C.

Dear Mr. Ham,

The following is the general outline of the operations at present underway at the Company's three mines, together with a brief statement of the long-range development plans for the future, as you requested.

The Western Exploration Co. Ltd., own the Standard, Mammoth, and Enterprise mines in the Slocan District, and at present are milling ore from the Standard and Enterprise. The Mammoth mine is now under development and should again be in condition to produce ore in late 1949.

All three mines are producers of lead - zinc - silver ores which are hauled by truck to the Company's 250 ton mill from the Standard and Enterprise, and by aerial tramway from the Mammoth. For the past few months the tonnage of ore to the mill has been about 100 per day, but is expected to be increased as development progresses.

The Standard Mine

This is one of the oldest and largest producers in the Slocan, situated about two miles from Silverton. It has been opened by a number of tunnels but all recent mining has been done through Numbers 5 and 6. During the past two years work has been underway in opening up and re-timbering No. 7 tunnel, which was caved for many years. This work has now been completed for 4000 feet from the portal, with 650 feet remaining to be opened to reach the end of the original workings. It is planned to continue this work, and the timbering of the mainway raise to the Number 6 tunnel, a distance of 340 feet, is also underway.

In the vicinity of the end of the re-opened workings, and adjacent to the raise to the No. 6 tunnel, a considerable body of ore has been partially opened by the old workings, and by recent diamond drill holes which furnished assays of 1.5% lead, 7% zinc and 2-oz. silver per ton over a width of 6 to 8 feet. From notations on an old map it is believed that this orebody should improve for a considerable distance beyond the face of the present re-opened workings. At about 700 feet back toward the portal of the tunnel from the previously mentioned raise to No. 6 level, a diamond drill hole has cut 9 feet of low grade ore assaying trace lead, 5.2% zinc, 6.5 oz. Silver, which, from its location, appears likely to be the downward continuation of the most westerly ore on No. 6 level. At 880 feet still further westward, toward the portal, low grade ore about two feet wide was found in the old workings, which is worthy of further development.

The area ahead (eastward) of the re-opened part of No. 7 tunnel is the most favourable part of the level for potential ore bodies, both from the geological point of view and from the fact that the downward projections of the larger and better ore bodies on No. 6 level strike the No. 7 level from 200 to 500 feet ahead of the presently opened face. Some stoping has been done to 100 feet vertically below No. 6 level, but from there to No. 7 (215 ft. on the dip) the ground is virgin.

In the central part of the mine (levels No. 6 to No. 4 - a distance of about 350 feet along the dip of the lode) numerous veins occur in the wide lode-zone over an area up to 1000 feet long by 120 feet wide varying from stringers to ore-bodies locally 40 feet in width. This section of the mine has been the most intensively developed and stoped and there is still a considerable tonnage of ore remaining.

Between levels Numbers 4 and Number 3, and above 3, some ore is known to be exposed but development has been limited as compared to the section from Numbers 4 to 6. As Number 4 is now mostly caved and inaccessible for inspection and sampling until it is re-timbered, no dependable estimate of tonnage can be made. It is proposed to re-open the favourable parts of Number 4 through a raise from Number 5 level and to develop the ore between Numbers 3 and 4 ^{for} stoping, also to further develop the ore on Number 3 and to drift eastward along the lode toward its intersection with what is probably the continuation of the Mammoth lode.

The Enterprise Mine

The Enterprise Mine 12 miles from Silverton, was first worked in the late 1890's and has been operated intermittently ever since. It was purchased by the Western Exploration Co. Ltd., in 1944, and after a period of development production was begun in 1947.

The vein is narrow but the grade is high in lead, zinc, and silver; it is exceptionally persistent and has been partially worked over a length of 2300 feet and depth of 1000 feet, although probably less than half of the ore in that area has been mined. The mine has been opened by eight tunnels and a shaft, several hundred feet deep, which has been full of water for many years. At present the Company are stoping between the 4th, 5th and 6th levels and are driving development drifts on the 6th, and in the No. 8 tunnel, which is the lowest. Present production is 30 to 40 tons per day. Large areas of the vein above No. 5 tunnel and within the longitudinal limits of the stoping are favourable potential sources of ore and will be explored and developed. There is potentially favourable ground for 600 feet S.W. of the present faces of the various levels along the strike of the vein and ore is reported to show in the S.W. face of No. 3 tunnel, now caved.

In depth, prospects for ore appear favourable; the shaft, lower than and N.W. of the No. 7 tunnel, is variously reported to be from 230 to 316 feet deep and to be in ore the greater part of its length. No. 8 tunnel has not as yet been driven far enough to get under the first orebody in No. 7 tunnel but shows what appears to be the top of an ore sheet. Throughout a large part of No. 7 tunnel, it is reported that during its driving the vein was of better width and grade in the bottom than in the back of the drift.

A second vein, on which the Western Exploration Co. Ltd., has done no work, known as No. 2, lies 300 feet northwest of the main Enterprise vein, parallel to it and carries the same type of ore. Work on this vein is limited to one old tunnel about 25 feet long, and a lower one now caved, of about 300 feet in length. There is a narrow vein of galena showing in the short tunnel and a small shipment of galena was once made from the surface above it. It is reported that a little ore was found in the lower tunnel during its driving. A 300 foot crosscut from the main No. 4 Enterprise tunnel intersects what is believed to be the same vein in broken ground.

Mammoth Mine

The Mammoth mine was closed down in June 1945 as all the developed ore down to the 7th tunnel level (the lowest) was exhausted, and the market for zinc at that time was too poor to encourage immediate further development. Fourteen diamond drill holes put down in 1944 from the 7th level and from the surface indicated ore averaging 3.3% lead, 9.5% zinc, 6.0 Oz. silver in the first 300 feet vertically below the No. 7. Work is now underway to open this ore through a tunnel, 320 feet vertically below No. 7 or 450 feet on the dip of the vein, known as No. 9, now in about 450 feet, with 600 feet further to go to cut the vein. From the end of this tunnel a raise is to be driven on a 45 degree slope in the footwall of the vein to connect with the end of the No. 7 tunnel crosscut which reaches the surface at the aerial tram terminal. The raise will then be equipped with a hoist, skip and ore pockets to hoist ore from No. 8 (intermediate level to be driven midway between No. 7 and No. 9 tunnels) and No. 9.

This method of opening the orebody below No. 7 tunnel is believed to be cheaper than sinking a shaft from No. 7, since raising is considerably cheaper than sinking and also, which is more important, water, which will be in considerable amount, will drain through the tunnel instead of requiring to be pumped.

In 1946 recommendations were drawn up for "Major Development" in all mines for unknown but suspected orebodies, this being in addition to the usual routine development. It is for this purpose that additional finances are being raised. Details of these recommendations follow, with brief explanations:-

Standard Mine

1. Bulldoze off the overburden from the lode across the Surprise and Alpha claims above No. 3 tunnel.

This area is in most part covered with soil but two high grade orebodies in it were found and mined out in the early days. It is believed that chances are good for the discovery of others.

2. Drift northeast on the Standard lode from the face of No. 3 tunnel 600 feet, more or less, depending on conditions encountered.

This development has a dual purpose, - to explore the standard lode further to the northeast and to open up its intersection with the Mammoth lode which should intersect the Standard within the 600 feet and should be a favourable site for an orebody.

3. Open up the No. 7 tunnel, 270 feet vertically below the 6th level, which has been caved and inaccessible for twenty years.

This tunnel is nearly 5000 feet long, exclusive of numerous crosscuts, and zinc ore is reported by "old timers" and noted on some of the old maps. In spite of more serious cave-ins than were expected and more rotten timbers which had to be replaced, the Company has now opened 4000 feet of the tunnel and equipped

it with a mucking machine and motor haulage, all financed from its current operation. Commercial ore has recently been found and production on a limited scale will soon be begun. However, the level has not yet been extended far enough to reach the most favourable area under the larger stopes of No. 6 level, which will entail some driving in addition to the re-opening of the remainder of the old tunnel.

Memoth Mine

1. Open the main orebody, the presence of which has been confirmed by diamond drilling, to a depth of 320 feet below the present lowest workings, No. 7 tunnel, by a crosscut from the surface and a raise to No. 7, followed by the usual development of the orebody by drifts and raises.

As previously noted the tunnel, No. 9, is now being driven and 450 of its 1050 feet of length has been completed. New mechanical equipment is being used on this work.

2. Drift east from the east face of No. 4 level for an estimated distance of 500 feet.

The vein above this proposed work is covered with thick overburden so that it cannot be examined on the surface, but it is believed to be favourable ground.

3. Drift east and west on the vein in the Monarch tunnel, 600 feet.

This tunnel, a crosscut, is situated about 1200 feet west of the main Memoth workings and has cut the Memoth vein, which at this point contains non-commercial lead ore, and should be explored further.

Enterprise Mine

1. Open up No. 8 tunnel and drive 1000 feet along the vein.

This is an old tunnel, 120 feet below No. 7, which had caved. The Company has opened and re-timbered it for 320 feet and has started drifting on the vein at the face. It should enter the downward extension of the ore zone, as known on No. 7 level, within 200 feet.

2. Explore No. 2 vein, previously mentioned, by diamond drilling.

As noted above, the Company, since the end of the war, has done a moderate part of the work recommended under "Major Development" as well as

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accomplished the purchase, equipment and partial development of the Enterprise mine, and routine development in the Standard, which had lagged far behind during the war. This was paid for in part by profits made during the war years, but in greater part by the current profit from ore mined and milled in the last two years, even though the quantity was insufficient to keep the mill running at full capacity.

The management believes, with reason, that the development program outlined above will result in the development of sufficient ore to operate the mill at full capacity for a long time to come and prove quite profitable.

Yours very truly,

Chas. C. Starr

C. C. Starr, Consulting Geologist

CCS/C

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