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REPORT

on the

REESE SILVER LEAD PROPERTY

June, 1926.

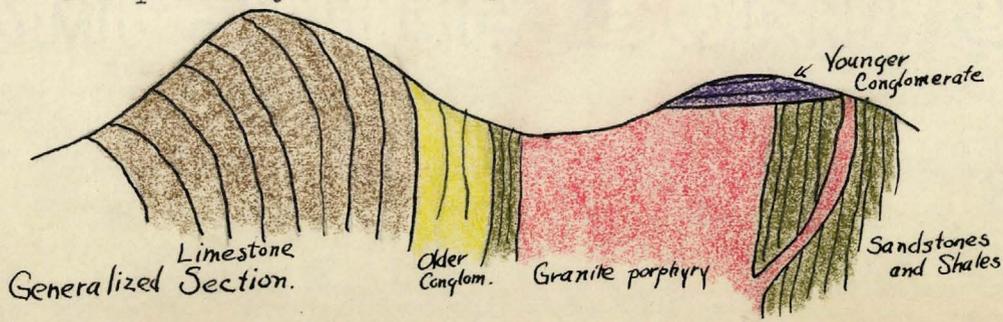
REESE SILVER LEAD PROPERTY

Greaterville, Ariz.

The property is situated two and three-quarter miles southwest of Greaterville, in the southwestern foot-hills of the Santa Rita Range. The shipping point is Sonoita, on the branch of the Southern Pacific running from Nogales to Fairbank, where it joins the El Paso and South-Western. Sonoita is approximately eight miles from the mine, and connected with it by a road over which ore is now being trucked.

Geologic Structure:

A series of sedimentary rocks has been sharply folded and in part overturned. This series consists of, 1 : A great thickness of limestone, with some shale, Devonian and older in age; 2 : a conglomerate member made up of fragments of these limestones; 3 : a thick series of sandstones and shales, with thin limestones. A sill-like intrusion of granite porphyry has invaded this latter series at its weakest point, namely where the shales, the weakest members, stand vertically. Contact metamorphism accompanied this intrusion, evidenced by silicification, the formation of some garnet and epidote, and probably the baking of some of the shale.



Ore Deposition:

Marked fracturing has occurred in the granite porphyry; these fractures may be divided into 1: fractures along or parallel to the north and south edges of the porphyry; 2: fractures occurring more or less at random within the porphyry, the majority striking roughly NE-SW.

For a distance of at least 500 feet along the strike of the porphyry, and across the entire width of the mass, the fractures are consistently mineralized, carrying varying amounts of galena (or its oxidation products, anglesite and cerussite) pyrite or limonite, hematite and manganese oxide. The accompanying map shows the position of some of these mineralized fractures.

The chief production of the property to date, about 6 car-loads of smelting ore, has come from the position marked "Open Stope". Here lead sulphide mixed with lead carbonate occurs disseminated through the porphyry along a well-defined shear zone, nearly vertical in attitude and striking about N60°E. Of three cars on which smelting returns are available, the average grade has been about 12 o/o lead with 12 ounces of silver per ton. The limits of this ore body have apparently not yet been reached either horizontally or vertically. The width of the stope is about eight feet at the top, but it is uncertain whether both walls have been reached.

From the inclined shaft, also shown on the map, a lens of massive argentiferous galena, about 30 feet long, 15 feet high, and 1 to 2 feet thick, was mined by the former owner. This occurred along a well-defined fissure in the porphyry, close to its southern edge. It strikes about N50E and is probably the same break as the one exposed in the small shaft connected with a tunnel, 75 feet NE of the inclined shaft. Here (in the small shaft) it carries disseminated galena and cerussite. The break is parallel in strike to that exposed in the open stope.

The main tunnel passes through highly altered (kaolinized) porphyry into a broken zone at the contact with the sedimentary series. This zone consists of a number of breaks running roughly E-W and carrying leached limonitic material and scattered galena and cerussite. A winze was sunk in this zone and a small body of massive galena encountered about 30 feet down. The winze was carried down 75 feet. The fissured zone persisted, with little change in the mineralization. Drifting is now going on from the bottom of the winze, proceeding west along the fracture zone. Little progress has been made, as no power is available for drilling or hoisting.

Southwest of the main tunnel a strong mineralized fissure runs up the northern slope of the main ridge; several test pits and a 65 foot shaft have been sunk on this break. It carries limonite, hematite, manganese

oxide, and locally lead carbonates. Copper staining occurs at the shaft. This break traverses the older conglomerate and the limestone, and probably reaches the porphyry to the NE, near the main tunnel, although talus prevented its being traced that far. The fissure stands nearly vertical.

While prospecting by the present owners has so far been confined to the porphyry, owing to lack of equipment for drilling the hard conglomerate and limestone, the future of the prospect probably lies in the limestone. The presence of such vigorous mineralization in the porphyry and along the cross-break in the limestone lends encouragement to the idea of prospecting the limestone. This should be done as close as possible to the porphyry and along the cross-break described above, since this may well be one of the channels along which the ore-bearing solutions proceeded from the porphyry into the limestone, if the porphyry was, as appears probable, the seat of mineralization (at depth).

Recommendations for Development:

In order to explore the limestone as outlined above, a shaft should be sunk on or near the southern edge of the porphyry, either by enlarging and deepening the present winze or selecting a new position. From this shaft, at a depth probably selected from indications or structure and mineralization gleaned as the shaft progresses, a drift should be started SW, endeavouring, with the aid of cross-cuts, to strike the above-mentioned fissure in the conglomerate

and follow it into the limestone, beneath the surface showings described. At the same time the porphyry contact should be thoroughly explored from the shaft by drifting east and west and cross-cutting north into the porphyry.

Meanwhile, the various random breaks in the porphyry should be developed near the surface, by pits, trenching, etc., and judging by past successes, more lenses of shipping ore should be found, which should materially cut down the expense of development. Thorough sampling of the present showings should of course be undertaken immediately in order to determine the possibilities of concentration.

The structure section shown on page 1 is only tentative, based on the information available. Further study of the surface or underground exploration may show the possibility of the porphyry mass, or an offshoot from it, coming into direct contact with the limestone. This would considerably increase the possibilities for ore, since the silicified, impervious conglomerate would tend to confine the mineralization to the porphyry itself, except along breaks through the conglomerate.