

Report on the  
Property of the  
Colorado Diamond Tunnel Silver Mining Co.  
Clear Creek County

by  
Theodore E. Schwarz

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Colorado Diamond Tunnel Silver Mining Company  
Clear Creek County, Colo.

To the Board of Directors of the  
Colorado Diamond Tunnel Silver M. Co.

Gentlemen:- In pursuance of your instructions, I have made an examination of your property, and herewith submit my report.

Report

Location The property of the C. Diamond Tunnel Silver Mining Company, is located in Cherokee Gulch and on Sherman and Republican Mts, above the town of Silver Plume, Clear Creek Co., State of Colorado. It is about two miles from Georgetown. The terminus of the Colorado Central R. R., and the nearest ore market.

Geological Formation The geological formation enclosing this property is briefly gneiss and mica schist, and the same which forms the main body of the Sierra Madre Range, and characterizes all the prominent fissure vein Silver producing districts in Northern Colorado.

Adjoining this property are many of the most noted Silver mines of the county and State, lying on Republican, Sherman, Brown, and Democrat Mts. and including the Terrible, Dunderberg, Hercules and Roc, Pay Rock, Pelican & Dives, and Baxter lodes. The formation is therefore one distinguished for its precious metal contents and the permanence of its fissures.

What Comprises the Property The property of your Company consists first of the Diamond Tunnel, in connection with which have been acquired the following patented lodes:--Tunnel Lodes Nos. 1, 2, 3, and 4. :--1200 ft. upon the Baxter lode on Tunnel lode No. 5:-- 900 ft (about) upon the Palmerston Lode, on Tunnel Lode No. 6:-- Tunnel Lodes Nos. 8 and 9: The Conny City Lode, covered by a surface patent of 1400 feet, by 200 feet.

In addition to the above is a patented Mill Site, embracing  $2 \frac{1}{3}$  acres lying at the mouth of the tunnel, and available for building and dump ground. The Co. Also owns a private road connecting with the Republican Mt. and Georgetown road. Also, I am informed, some 160 acres of placer ground, situated in Montgomery gulch, Park County.

Description of Property

1. The Diamond Tunnel Starts into the South slope of Republican Mt. at a point about 150 feet above Clear Creek and near the bottom of Cherokee Gulch. Its course is N 20° W, and it is driven a uniform size of 7 feet by 8 feet a total distance up to February 1, 1881 of 1602 feet. Its size admits of a double track whilst at present a single trail track is laid throughout, as well as into the drifts on the various lodes developed.
2. Tunnel Lode No. 1:-- was cut 155 feet from the mouth, and shows a fairly well defined crevice some 7 feet in thickness, where crossed by the tunnel. This lode is probably the same as the Seneca, which has produced some good ore. It has not been at all developed. I should regard it as worth prospecting by drifts from the tunnel level. Its dip is very nearly vertical to the north on into the Mt.
3. Tunnel Lode No. 2:-- is not well defined, and has a dip to the South, or different from that of the strong main fissures. It is a spur from No. 3, and may contain some small ore bodies, but I do attach much value to it. It is not developed.

4. Tunnel Lode No 3 is cut at a distance of 390 feet from the mouth of the tunnel. This is a strong wide lode, carrying a good character of crevice material, and is a main true fissure. Its south wall or footwall is strongly defined, and although not the true south wall of the lode, it is the wall upon which I believe the main ore bodies will be found. It is slightly developed by a drift west of some 70 feet, and one East of 45 feet in length. In a stopes from the former a small streak of good looking ore is just appearing. This lode will warrant extensive developments, and should be occasionally crosscut from the levels, to the North and South until country rock is reached. Its course is NW and SE and its dip  $80^{\circ}$  to the North.

5. Tunnel Lode No. 4 is cut by the tunnel 524 feet from the mouth. It is a very tight narrow crevice, carrying a poor character of gangue rock, and but poorly defined. Its dip is to the South. It is a spur or branch from No. 3 Lode, with which fissure it must connect in depth. It will probably carry some small pockets of ore of good grade. It is developed to the extent of a 200 foot drift west, and 30 foot drift East, neither of which show any ore.

6. Tunnel Lode No. 5 on the West Baxter is cut at a distance of 660 ft. from the tunnel mouth. Your company I understand owns 1200 feet upon it, the most of which lies West of the tunnel. This lode has been extensively worked for years past under the Baxter location, to the East of the Diamond Tunnel, and has produced handsomely. The average grade of the ore has been high. It is a true fissure vein of strength and permanence. Its course is, like No. 3 NW and SE with a nearly vertical dip to the north.

Of its value there can be no doubt, and it should be thoroughly and practically developed. A drift 200 feet in length West from the tunnel and stopes up to the level above, have produced some fine ore, and now show some small streaks. Like most of the lodes in this belt, this lode is essentially pockety, but carries pockets of good size and product.

7. Tunnel Lode No. 6 is cut by the tunnel 134 feet beyond the Baxter, on No. 5. It has been developed by a drift 70 feet in length from the tunnel East, from which a winze has been raised and some stoping done above. A drift has also been driven upon it 125 feet above the tunnel from a crosscut driven into the lode, from the upper level on No. 5. All these developments show ore varying in thickness up to 10 inches. Recent mill returns show this ore to contain from 150 to 400 ozs. silver per ton or the 1st. class. It is a strong lode, characterized by a hard tight crevice and the absence of any "gangue". Its course is about  $S75^{\circ}W.$ , whilst it dips to the North at an angle of  $60^{\circ}$ . It runs into the Baxter above the tunnel level, and I believe forms one fissure with it, above the junction. The Eastern portion of this lode to my personal knowledge, has produced largely of a high grade ore which fact coupled with the present showing and yield from the small development placed on it by your company, ranks it with the best properties in the belt.

8. Tunnel Lode No. 7 is the celebrated Dives Lode, now owned by the Pelican and Dives Company of New York. This lode is cut at a distance of 1130 feet from the tunnel mouth and about 700 feet below the surface.

9. Tunnel Lode No.8 is cut 100 feet beyond the Dives, and shows a tight poorly defined crevice, carrying rather a "mongrel" looking crevice rock, which may however, improve to the West. There is a drift upon it to the West 75 feet in length, which shows a varying mineral streak carrying at present too much iron pyrite and black zinc blende to be of much value. It certainly warrants continued development.

10. Tunnel Lode No. 9 is a small crevice, upon which no developments have been made. It would be well to prospect it a little, but I do not apprehend it will prove of much value. This is the last lode cut by the tunnel.

11. Lying between the lodes described above and running from one to the other, are numerous small spurs and seams, carrying here and there a little mineral. These are generally of no value, but will always be found branching off from the main fissures.

12. The Conny City Lode, lies about 200 feet ahead of the present tunnel breast, and will be cut by it at a depth of 1000 to 1100 feet. The surface developments

upon this lode, were inaccessible on account of Snow, at the time of my examination. From an examination of the dumps, however, I judge this to be a large, well defined, mineralized crevice. Its location and the character of its gangue rock, is such as to lead me to regard it, as a continuation or branch of the Fay Hook Lode.

Advantages Peculiar to the Property This property possesses certain advantages over the generality of mining properties, which are peculiar to it or similar properties. They may be briefly stated as follows:-

1. The lodes being all cut at depth by the Diamond tunnel, are in condition to be developed and worked for many years, without the cost of hoisting rock, water, or ore. The mining cost is thus brought to a minimum figure.
2. The properties worked in the immediate vicinity of this property, and not provided with a tunnel outlet, most naturally find this tunnel their best outlet, and desire its use, under royalty terms. Such is now the case with the Dives.
3. The chance of the discovery of new lodes, and the rights and title acquired thereby.

Future Development As will be observed from the foregoing description, I regard tunnel lodes Nos. 3, 5, and 6 as very valuable properties, and the best thus far cut by the tunnel. Work by the company, independent of lessees, should be concentrated upon these three lodes. They should be systematically and practically developed by a series of levels from the tunnel towards the surface. The other lodes may for the present be developed by lessees, under certain restriction, and careful superintendence. The Conny City Lode, when cut, will of course be thoroughly and systematically opened.

Conclusion In conclusion, the Colorado Diamond Tunnel S. M. Company will in view of its excellent location and the unquestionable value of at least four of its lodes and with a thorough practical business management directing a course of extended developments, has before it a profitable future, and presents at the present time a well founded and very promising mining enterprise. I can but regard the property, in connection with necessary developments to be made as very valuable. The present showing is excellent, considering the small amount of ground.

Very Respectfully

T. E. Schwarz

Mining Engineer

Georgetown, Colorado  
February 5, 1881

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