Capital Prize Tunnel
"1911"

1911

(E)

T I T L E .

The title is vested in the Capital Prize Mining and Tunnel Company incorporated under the laws of the State of Colorado.
Capital stock, $1,000,000 shares, par value of $1 each.
Principal office located at Pittsburgh, Pa.
Branch office located at Georgetown, Colorado.
President: C. N. Brady, Washington, Pa.
Vice Pres.: H. B. Duncan, " "
Treasurer: J. Boyd Duff, Pittsburgh, Pa.
Superintendent: E. C. Bauman, Georgetown, Colo.

The property is worked by the owners.

G E N E R A L R E M A R K S .

An inspection was made of this property on September 23, 1909 and a report, with full description of the group, was filed with the Bureau of Mines at that time, to which reference is hereby made for information concerning the same.

The average monthly production of concentrating ore is 2,000 tons, with an average value of $15 per ton. The average monthly production of smelting ore is 500 tons, with an average value of $46 per ton.

Since the time of the last report the main tunnel has been extended 500'; East drift driven 150'; upraise made about 450' from tunnel level; winze sunk 60' and about 75' from the tunnel in the west drift. Active work is being carried on in the stopes and winze.

Part of the ground is leased in blocks, the company charging 25% royalty. Eleven leasers are employed underground at this time. Fourteen men are employed by the company underground and nine outside of the tunnel. Wages paid are the same as in previous report.

Timbering, ventilation, sanitary conditions, etc. are good.

THE BUREAU OF MINES
OF THE
STATE OF COLORADO

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port on Capital Prize Tunnel Group of Mines.

mprising The Aetna Mine Lode and 20 other lodes.

Patented.

Thirty-four Mine Lodes. (Names not given.) Unpatented.

90 Acres Patented. 170 Acres Unpatented.

Location At the foot of and on the north slope of Griffith Mountain.

Griffith Mining District.

Clear Creek County, Colorado.

Section 17 Township 4 S. Range 74 W.

Nearest Postoffice Georgetown, Colorado.

Examination Commenced November 16, 1912.

Examination Completed " " "

Examination Made by W. H. Parenteau, Inspector of Dist. No. 1
Inspector.

Filed in the Bureau of Mines Office this

day of Dec 4 1912

T. S. HENAHEN
Commissioner of Mines.

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H I S T O R Y.

A portion of the mine lodes included in this group were located as early as 1867 and the balance of the property has been acquired from time to time both by purchase and location. Extensive work has been done and the property has never been abandoned since its earliest history.

T O P O G R A P H Y.

This group of mines is worked through the Capital Prize Tunnel which is located at the foot of and on the north slope of Griffith mountain which is steep and rough. The mountain and vicinity is entirely destitute of timber the supply having been exhausted many years previous to the time of this report. North Clear Creek, an exceptionally large mountain stream, flows within a distance of six hundred feet of the portal of the tunnel. The greater portion of this group is situate within the corporate limits of Georgetown, Colorado, the portal of the tunnel fronting on one of the principal streets of the same.

G E O L O G Y.

A good geological survey has been made of the district.

G E O L O G Y - Contin.

The character of country rock is changed granite and the geological period is Archean.

O R E S & O R E B O D I E S .

The character of ore bodies is fissure veins. There are known to be a large number of veins in this group but all work has been confined to the Aetna vein. The strike of this vein is northeast and southwest and the dip is to the north. There are no faults in the vein and the enclosing rocks are granite, pegmatite and gneiss. There is one continuous ore shoot.

The vein varies in width from 2' to 7', with an average width of 4'. Length, 1,600'; height, 1,700'. The character of vein filling is iron sulphides and quartz and the metals are gold, silver, copper, lead and zinc. One-fourth of the vein filling is refractory ore and has an average value of $42 per ton; the balance of vein filling is of a concentrating nature and has an average value of crude ore - of $9 per ton. Refractory ores are treated at the public works while balance of ore is treated in mill owned and operated by owners of mine. Average tonnage per month 1,500 tons.

S U R F A C E P L A N T .

The surface plant consists of 100 h.p., Return-tubular boiler made by the Atlas Engine iron works Co. of Indianopolis, Iowa; 2 - 10" x 12", Norwalk Air compressors; 1 - 16" x 18", Leyner Compound Air compressor. (Mill equipment described under Reduction Works.)

The water used in the boiler is supplied by the City of Georgetown and taken from the City mains. Soft coal is used for fuel and the pressure carried is 125#. So far as could be ascertained the boiler has not been inspected since March 1st, 1909.

The hoist is equipped with a positive indicator in plain

S U R F A C E P L A N T - Contin.

view of the engineer who operates at the engine. The engineer is forty-two years of age, has had seventeen years of experience and is not addicted to the use of intoxicating liquors.

The boiler house is 20' x 40' in size and is a frame building covered with elaterite. It is situate about 150' distant from the portal of the exit tunnel, containing the Air compressors and boiler. The changing house is similarly constructed, 16' x 30', and situate 65' from the portal of the main tunnel. The office is a frame, shingle-roofed, building 16' x 20', and 50' southwest of the portal of the main tunnel. A three-story, frame building with shingle roof, situate 100' southeast of the portal of main tunnel, is used for a boarding house. Twenty feet east of the changing house is a small frame building, 14' x 20', which is used for a stable. All of the buildings are under separate roofs. The timber yard is about 100' from the portal of the tunnel and situate on the dump. The smith's shop is 20' x 50', frame, covered with elaterite and situate 50' from the portal of the tunnel.

The head frame is 8" x 8", 12' high and made of native pine. The sheave wheel is 36" in diameter, cast iron and filled with rope.

Protection against fire is provided by water from the mains of Georgetown, Colorado.

For underground tramming mules are used. From the portal of the tunnel the tram cars are pulled up the incline to the ore bins at the top of the mill building by means of an engine stationed in the mill.

Smelting ore and concentrates are shipped via the Colorado and Southern R. R., the tracks of which are situate within 300' of the portal of the tunnel.

Lighting on the surface is by means of electricity.

E X P L O S I V E S .

M I N I N G & M I N E M E T H O D S - Contin.

placed for the purpose of hoisting timbers, tools etc. One hundred and fifty feet above the three hundred foot level drifts are run east 230' and west 100'. Three upraises have been made on the east side between the 300-ft. level and the 450-ft. level and between the upraises the ground is practically stoped out. These upraises are similarly constructed and equipped to those first given. On the east side of the tunnel the upraise is carried up another 100' above the 450-ft. level and is about 100' in length. An eight-inch drill hole is being put down from the surface to connect with the upraise for improving the ventilation and has reached a depth of 568'. An additional depth of about 600' will be required to connect the drill hole with the upraise.

In the two drifts at the tunnel level stoping is carried on in the east drift at a distance of 100' from the breast and in the west drift at a distance of 400' from the tunnel. Stoping is done in both the 300-ft. level and the 450-ft. level on the east side of the tunnel.

At a point 600' south of the portal of the main tunnel an exit tunnel 150' long connects with the main tunnel at a distance of 400' from the portal of the main tunnel. The exit tunnel is securely timbered, equipped with both a gate and door and is easily accessible to the employes.

Overhand drifting and stoping is the method employed for the extraction of ore. Waugh and Leyner machine drills and some single hand drilling are employed.

Posts and caps and stulls covered with lagging are used for timbering. The timbers are prepared by hand from pine and spruce, are in good condition and sufficient to secure safety.

Chutes are loaded by hand and gravity.

Underground tramming at the tunnel level is done with horses and steel cars of one ton capacity. The trackage is 18" guage and 12# T rails. Tramming in the levels above the tunnel

M I N I N G & M I N E M E T H O D S - Contin.

is done by hand with steel cars.

Drainage is natural and causes no inconvenience.

At a distance of 700' from the portal of the main tunnel a 24" x 36", Gardner Suction fan is stationed which is run by a 35 h.p. electric motor situate near it. The air pipe is 12", riveted sheet iron pipe. The air is good in all parts of the mine and is much cooler in the upraises than at the tunnel level.

The sanitary conditions are good and all old timbers and debris have been removed from underground.

Candles and carbide lamps are used for lighting underground.

S T A T I S T I C S .

Gross tonnage, 150,000.

Average tonnage per month, 1,500.

Average value concentrating ore per ton, $9.

Average value smelting ore per ton, $42.

Cost per ton mining of ore, $4.50.

Cost per ton transporting ore, 20¢.

Cost per ton transporting smelting ore, $1.50.

Cost per ton treatment concentrating ore, 75¢.

Cost per ton treatment smelting ore, $7.

Cost of fuel and electric power per month, $250.

Average cost of timbers per month, $200.

Average cost of steel per month, $25.

Average cost of oil per month, $25.

Average cost of powder per month, $600.

Cost of transporting supplies to mine included in above.

Total number of feet in tunnels, 5,200.

Total number of feet in levels, 2,370.

Total number of feet in upraises, 2,400.

- S T A T I S T I C S - Contin.

Total number of feet in development, 9,970.

Men employed:

4	Machine Drillmen,	$4.00	for	8	hour shift.
12	Leasers,	-----	-----	----	---
3	Miners,	3.25	"	"	" "
3	Timbermen,	3.50	"	"	" "
12	Trammers,	3.00	"	"	" "
1	Laborer,	3.00	"	"	" "
1	Assayer,	4.00	"	"	" "
1	Engineer,	3.50	"	"	" "
1	Blacksmith,	3.50	"	"	" "
1	" Helper,	3.00	"	"	" "
1	Millman,	5.00	"	"	" "
4	"	3.25	"	"	" "
1	Foreman,	125.00	per	month.	
1	Superintendent,	200.00	"	"	

Average number of men employed for the year, 46.

R E D U C T I O N W O R K S .

The Company's concentrating mill is a frame building 75' x 110', covered with elaterite, and located 300' north of the portal of the main tunnel. The water supply is taken from South Clear Creek through a 4" cast iron pipe to the mill. Capacity of the mill is 100 tons every twenty-four hours.

The power for the mill consists of one, 100 h.p.; one, 50 h.p.; one, 35 h.p.; one, 20 h.p.; - Westinghouse electric motors.

A 6" x 8", friction gear, steam engine run by air is used to pull the tram cars up the incline to the ore bins at the top of the mill. There are four ore bins in the mill and four mid-way between the mill and the portal of the tunnel.

The equipment is as follows: two, 6-ft. Chilian mills; two, copper amalgamating plates; one, 500-ton capacity, coarse ore bin which feeds into a 9' x 15', Blake crusher and then to

R E D U C T I O N W O R K S - Contin.

a like size of a Sampson pulverizing crusher. From the latter an elevator carries the ore to the top of a 500-ton, fine bin where it then goes to the Chilian mills; thence to 13-card and one Swain concentrating tables and two, six-ft. Frue Vanners.

G E N E R A L R E M A R K S .

No persons under the age of twelve years are employed in or about the mine or mill.

Strangers or visitors are not allowed underground unless accompanied by an employe familiar with the mine.

All accidents have been reported to the Bureau of Mines. The management is supplied with blank accident reports.

The mine carries indemnity insurance against but the name of the company could not be ascertained. No accident insurance for the employes is carried.

The property is worked continuously and is a regular producer.

The management is familiar with the statutes relating to the operation of metalliferous mines and is supplied with all necessary and required blanks, notices and codes.

Three blocks of ground are leased at the time of this report. The lessees pay a royalty of from 25% to 45% of all smelters checks, according to the value of ores and in addition to the royalty are charged by the day for air, drills, machines, supplies etc. and ten cents per car for tramming ore

E X P L O S I V E S.

California Giant powder; German Insoloid fuse; 5-X caps and wooden tamping bars are employed. Explosives in excess of one day's supply are not stored underground.

The average amount of explosives kept in storage is 500#. This is stored in a frame, iron-covered magazine situate 100' distant from the portal of the tunnel and used for the storage of powder only. All other supplies are stored in the changing house.

A stone building which is heated by a steam radiator and situate 400' southeast of the portal of the tunnel is used for thawing powder.

M I N I N G & M I N E M E T H O D S .

The main opening is a cross-cut tunnel 5,280' in length. For a distance of 100' from the portal of the tunnel posts and caps are used for timbering and in a very few other places where bad ground is encountered. The timbers are native pine, in good condition and sufficient to secure safety.

At a distance of 4,400' from the portal the Aetna vein is intersected and drifts have been run on the vein both east and west for a distance of 800' from the place of intersection. Stoping for a height of about 300' has been carried on almost the entire length of the drift on the east side of the tunnel. Three hundred feet above the tunnel level a drift has been run east 450' and west 280'. The drift on the east side is connected with the drift at the tunnel level by five upraises and on the west side the drifts are connected by two upraises. Each upraise is divided into two compartments - one used for a ladder-way and the other for an ore shoot - and timbered with six-inch round timbers, the ladder-way being equipped with iron ladders which are easily accessible and secure. At No. 2 upraise on the west side of the tunnel a small steam hoist is