

staked out, giving a total of 140 claims located before January 1st, 1892. Shipments in small lots were made over thirty miles of rough country by pack and waggon road. By January 1st, 1893, 1,000 tons of ore had gone out in this manner.

During the next summer the fall in silver took place; nevertheless over 3,000 tons were shipped by the same crude transportation. In July of this year the Nakusp and Slocan Railway began its 28-mile road to Three Forks, from Nakusp on the Arrow lakes. It was completed in October, 1894.

During the winter of 1894, an American company having taken over the mines of the Twin lakes basin, built a 100-ton concentrator, hauling their ore some five miles down the mountains by sleighs. During this year some 6,000 tons were shipped. With the spring of 1895 increased development was rapidly undertaken. The Kaslo and Slocan Railway pushed in from Kaslo on Kootenay lake, past Bear lake and Three Forks, up to Cody creek, right into the heart of the mines. Also the Nakusp and Slocan railway pushed on to Sandon. Besides this waggon roads were built up to the Slocan Star and the Washington basin. Concentrators and tramways were built for these two mines, also a tramway for the Alamo and Idaho mines.

These tramways are all on the three-rail gravity car system, and the concentrators save by means of Harty and Collam jigs and revolving slime tables.

During 1895 8,107 tons of Slocan ore were shipped. All this ore is given a customs valuation of \$100 a ton.

During 1896 the production will be greatly increased owing to the completion of the before mentioned railroads, waggon roads and concentrators, the Slocan Star alone contracting to furnish during 1896 more ore than has yet been produced by all the mines in any one year. This is 10,000 tons, 3,000 picked ore and 7,000 concentrates. There has been, it will be seen, a steady conservative development, in many cases by the original locators themselves, men who have to build up their output upon their output, and necessarily have to go ahead slowly.

Moreover, this camp, unlike that of Rosland, has but moderate means of accessibility; usually the mines are some mile or so up the mountain sides, where the only means of transportation for a light equipment is by packing or raw-hiding. Some 34 mines shipped during last winter; excepting some half dozen, all these rawhided their ore down steep trails, a ton to a horse, costing from \$1 to \$5 a ton, whereas packing in summer costs six or seven times as much. Hence it will be seen that no great production can be expected from these small mines during summer until waggon roads, tramways and concentrators are built—the latter to treat the large amount of culled ore rejected as too poor to stand heavy transportation and smelting charges, that is ore more or less under \$100 a ton in value.

The following is a nearly complete list of the producing mines during the year 1895, and their tonnage, all of which has a nominal value of \$100 a ton:—

Slocan Star.....	3,149	Antoine.....	50
Idaho.....	1,159	Dardanelles.....	44
Alamo.....	1,169	Surprise.....	215
Slocan Milling Co....	45	Goodenough.....	76
Cumberland.....	233	Jennie Lind.....	20
Alpha.....	284	Northern Belle..	16
Payne Group.....	264	Slocan Boy.....	16
Noble Five Group....	535	Yakima.....	20
Reco.....	251	Sovereign.....	15
Bluebird.....	95	Minnesota Silver Co..	15
Mountain Chief.....	46	R. E. Lee.....	41
Last Chance.....	35	Cariboo.....	41
Deadman.....	36	Howard Fraction....	7
Wellington.....	82	Exchange.....	5
Eureka.....	34		

This gives a total of 8124 tons, valued at \$812,400.00 for the Slocan division alone.

Also the following list of dividend payers has been made up by J. C. Ryan of the Antoine mine. The figures have met with general acceptance in the local papers. They are for the first six months of 1896. He gives only Slocan mines. In some cases the estimates are low, as in the case of the Slocan Star, which mine expended \$125,000 on mill and other improvements in addition to its \$100,000 dividend. The gross earnings are placed at \$1,500,000, the net earnings he places at \$515,500.—(*Vancouver World*.)

Slocan Star	\$100,000
Ruth	25,000
Reco	30,000
Goodenough.....	20,000
White Water.....	40,000
Wellington.....	40,000
Last Chance	25,000
Monitor.....	20,000
Idaho Group	125,000
Northern Belle	20,000
Payne Group.....	20,000
Slocan Boy.....	4,000
R. E. Lee.....	10,000
American Boy.....	4,500
Antoine	12,000
Deadman.....	20,000
Total.....	\$515,500

With the dividend of Sept. 1st, the Slocan Star has paid \$250,000. This amount cleared over the heavy expenses of mine, mill and tramway, equals half the capitalization.

The foregoing is what has been *done* in the Slocan, and it is safe to say that its steady productiveness is still going on.

Waggon roads are being built this summer to the Ruth, White Water, Northern Belle and Enterprise. The new company having control of the Noble Five mines are about to build a concentrator and tramway, the contract for such being already let.

Unlike the gold and copper camp of Trail, there has been but little stocking of companies in the open market; nearly every mine is held by a few owners or by a close corporation.

There has been a tendency during the present season to buy up or bond likely properties and to stock them, but no great advance has been made so far.

Nearly all the ores produced are shipped to the States. Omaha, Pueblo, and Everett are the chief buyers.

Pilot Bay smelter has treated very little Slocan ore. It is probable however, that its custom smelting capacity will be largely increased, also that of the Hall mines smelter.

The ores are mainly argentiferous galena, with considerable zinc, and grey copper in some of the richer ore bodies. These galena ores occur in an upper series of impure limestones called by McConnell the "Slocan series." They appear to be exceptionally favorable for high-grade ores. Nearly surrounding these Slocan slates and limestones is a great body of granite. This carries dry ores of zinc blende argentite, ruby silver, grey copper, native silver and gold, and argentiferous pyrites.

The high-grade Slocan galenas are the back-bone and dependancy of the district, being of great body and wide distribution. The dry ores often exceedingly rich in silver and gold may become very useful in making a good smelting ore, but these latter are of later finding and development, and their extent is not yet proved.

At present the outlet for the Slocan mines is a choice of two ways each of which carries the ore upon a short railroad of 30 miles or so, thence by steamboat, either up the Arrow lakes to the C. P. R., or down Kootenay lake to the States. The simplest all-rail route out of this camp appears to be down the wide valley of the Slocan lake and river, thence to local smelters and refineries or to points in the United States. A survey of this route is now being carried on under the C. P. R. Co.