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Outstanding Features of Progress
during 1934, on the
RIO GRANDE SYNDICATE GROUP
of 14 Mining Claims
Hudson Bay Mt. Omineca Dist. B. C.
(in successive order)

887184

TRANSPORTATION: The first item on the program for 1934 development work on the Rio Grande Group pertains to transportation facilities. To this end a $1\frac{1}{2}$ ton Dodge Truck was bought at bargain figures and Mr. S. W. Gillrie engaged as competent driver and general utility man. This truck, emblazoned with the Syndicates' name, was then loaded up with tools, building materials, and other paraphernalia useful in the construction of a substantial camp, according to plans prepared by the undersigned.

With reference to local improvements for transportation in the Omineca Mining District, we desire to express our gratitude to the Minister of Mines for valued assistance rendered the Mining interests on Hudson Bay Mountain by granting a substantial appropriation for the widening, grading, and gravelling the above-mentioned Silver Lake road for approximately four miles. This road is now in excellent shape for motor traffic and connects with all points along the Canadian National Railway line and highways.

At Toboggan Creek Crossing, where the mountain trail commences, a substantial bridge was also put in, this year, by the Public Works Department, to replace the one carried away during the freshet season.

On our arrival at Smithers, July 14th, we bought 5000 feet of first-rate lumber from a local dealer at standard prices. After cutting it into 8 foot lengths for convenient handling on horse-back, this, together with provisions and the necessary camping outfits, was then transferred to Toboggan Creek Terminal by the truck and from there, packed on horses to the mine.

A suitable building-site for a new camp had, in the meantime, been chosen on the Rio Grande claim at an elevation of 2846 feet above the Can. Nat. Ry. track. This corresponds to a height of 4490 feet above sea level.

By trail, the new camp is approximately four miles from the bridge, although the first claim of the group, known as the "May Fraction", is less than two miles from this terminal in a straight line. It is on this latter claim that the future aerial tramway for handling ores to a reduction plant, situated at a spur from the Can. Nat. Ry. line, will be erected. The total distance for bringing ores down to rail-transportation, by gravitation, will, therefore, not exceed $2\frac{1}{2}$ miles, as shown on the attached key map. From this description it will be observed that the economic handling of ores and all mine supplies is not a serious problem at the Rio Grande Mine.

CAMP BUILDINGS: Our next item of importance was to provide suitable living quarters. These consisted of a mess-house and a bunk-house of sufficient size to accommodate a dozen men.

Both of these buildings were erected and completed by Mr. Gillrie and the undersigned within five weeks. The two buildings, while under the same roof, are separated by a six foot portico that serves many purposes to advantage.

"Ice-cold" water, of excellent quality, is furnished by two or three natural springs in the immediate vicinity. Running water can therefore be brought in to the mess-house at any time.

Short trails were put in on the Rio Grande claim to connect the camp with the main-trail and all working places.

With regard to position, transportation, sunlight and scenic beauty, the Rio Grande Lodge can hardly be surpassed anywhere in British Columbia. A number of visitors, including members of the Board and Mining Engineers representing the Provincial and Federal Governments, will be able to verify this statement.

INCREASED AREA: Standing timber for fuel and future mining purposes abound close by. In this connection, I desire to mention that aside from the nine original mining claims that cover an area of 350 acres, five new claims have been located during the season. This has increased the total acreage to 560, or 60% above the former area. The writers' object in locating these claims was:

1. To obviate encroachments by outsiders.
2. To increase the acreage of standing timber in an easterly and westerly direction.
3. To provide suitable sites for permanent camps and a main tunnel on the May Fraction.
4. To allow for the discovery of other veins in the new territory and the tracing of existing ones.

Any of the above proviso may prove of importance to the Syndicate in the near future, as they include locations for tramway, reduction plant, town-sites and water-power, all of which received consideration this year.

On the attached survey-map for 1934, recently completed by J. A. Rutherford, B. C. L. S. of Smithers, B. C. and the undersigned, the boundaries of all mining claims (14) and other data of importance is clearly shown.

A series of representative photographs, showing numerous points of interest were produced during the season, also 200 pounds of new samples from the various exposures of ore.

GEOLOGY: A closer study of the rock formation was continued by the undersigned and discussed with Mr. Douglas Lay, Resident Engineer for the district and Dr. F. A. Kerr, of the Geological Survey Department, Ottawa, during their visit at the property, both these gentlemen expressed much interest in the promising geologic structure of Hudson Bay Mountain, with special regard to the Rio Grande reef. Barometrical altitudes of all working places were, at the same time, established. Unfortunately, an early snow-fall prevented a close inspection of the upper claims, where several important parallel veins of silver ores are predominately exposed had to be postponed until next season.

DIAMOND DRILLING: Shortly after the completion and proper furnishing of the new camp for the reception of a mining crew, the main objective for this years' development work was ready to be advanced. This objective consisted in diamond-drilling and exploration of the Rio Grande and Jumbo reef.

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The diamond drill, together with a crew of five men arrived in Smithers from the Premier Mine, on the 8th day of September, in charge of Mr. Louis Swiggum, diamond-drill-setter for Boyle Bros. Ltd. A contract, to put down four drill holes, totalling 1000 feet, was entered into by this Company in Vancouver, on August 25th.

On arrival, the diamond drill was transported on a truck to Toboggan Creek terminal and from there it was packed, in sections, by horses to the first set-up on the Rio Grande Claim, where it was assembled and ready for service on September 14th. This set-up was selected at a point 200 feet below the surface croppings of the reef, or 100 feet lower than the old Rio Grande Tunnel where the lode had already been established and sampled on several occasions for a width of 15 feet by the writer, as mentioned in general report, dated May 14th, 1934.

The attached detail plan, drawn to scale, shows cross-section of the first and second set-ups. Two holes, on double shifts, were drilled fifteen sixteenths of an inch in diameter, at angles $17\frac{1}{2}$ & 15 degrees off the horizontal, dipping northerly.

The formation through which the first 142 feet was drilled consisted of andesitic agglomerates, quite soft and very wet. It therefore produced less than 25% of broken cores, not over four inches long.

At this point, the Rio Grande lode was intersected for a width of 62 feet by which time a distance of 204 feet from the collar of the hole was reached.

Here, the flow of ground-water increased materially and turned black, producing large quantities of sulphide cuttings but no solid cores for a space of 40 feet. The absence of coring was a disappointment. Sludge-sampling was resorted to, but proved of no avail under the high water-pressure, as all or most of the fine cuttings escaped through the stand-pipe and spilled on the ground.

For the next 20 feet an improvement took place and approximately one-third of the core-barrels filled with sections of core from 1 to 3 inches long. These, after sampling and assaying, proved to contain precious metals from 0.26 to 0.33 oz. in gold and 2 oz. in silver.

At present quotations this represents values from \$10.00 to \$12.00 per ton, which corresponds closely to samples secured in the old tunnel 150 feet above. In the writers' opinion, \$10.00 per ton can be relied on, even where no solid cores were secured.

Drilling was continued to a depth of 367 feet, in order to penetrate the grano-diorite contact, which is showing plainly on the surface, at the northerly boundary of the Rio Grande Claim, but was not reached, due to the danger of losing the diamond-bit (valued at \$2,000.00) in the constantly caving formation and excessive flow of ground-water. It was therefore decided to move the drill and pump 800 feet eastwardly, close to the Jumbo boundary line, and keep the same elevation as near as possible. At this set-up the drill was started on October 9th. The formation here appeared more solid, nevertheless, it did not core much better than at the first set-up. The Rio Grande lode, however, was encountered at a depth of 87 feet from the collar of the stand pipe in perfect line with the corresponding contact at the first set-up. Fragments of solid cores recovered in the barrels, furthermore established the value per ton of ore of similar grade to the assays of the first drill hole for a width of 20 feet, thereby proving a very considerable tonnage of commercial ore.

On October 19th, the weather conditions for doing work on the outside became too severe. It was therefore decided to postpone operations until the latter of April or the first week in May 1935.

FUTURE DEVELOPMENT WORK: The intention is to continue drilling at this set-up next spring for additional 100 feet. Within that distance it is confidently expected that other branches of the lode will be encountered, also that the grano-diorite contact showing directly above on Fisher Fraction will be reached.

Fifteen years ago a long tunnel was driven on the Fisher Fraction claim by the early locators and forgotten. This tunnel, which is now in poor condition for a safe examination, was, this year, inspected by the writer for the first time. From present indication, it appears to be a strong contact-vein that probably will prove of much interest when intersected by the diamond-drill at an elevation of approximately 400 feet lower down. The footwall, which, in this case, is grano-diorite, may be regarded as the host for mineralization, not only in the Hudson Bay Range, but throughout British Columbia. The hanging wall of the Fisher lode is an andesitic flow-rock. Evidently the rock formations at higher elevations towards east are much firmer will no doubt core to better advantage than at the two set-ups of this season. There will also be considerably less water according to surface showings.

SILVER SHOWINGS: These same favourable conditions exist at the three silver ore veins exposures on the Spondulix claims, which are at least 1000 feet higher up. On account of these good showings and recent advance in silver quotations, it is strongly recommended to explore the three parallel Spondulix veins as soon as the season will permit. From all indications, the price of silver is on the upward move and it is quite likely to be placed at a fixed ratio to gold before long. If so, the intrinsic value of the Rio Grande units will be materially enhanced.

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GENERAL REMARKS: Of the fourteen claims in the group, only one, the Rio Grande received special attention during the few months' work, as considerable time was spent in building the new camp. The actual time of drilling was therefore curtailed to one month and presented unusual difficulties. Casing, and stand-piping had to be resorted to at both set-ups. To overcome serious caving in the second hole, it was even necessary to cement and re-drill it for the first 40 feet as it was of great importance to keep going. Had it not been for the persistent efforts and the resourcefulness of Mr. L. Swiggum and his loyal crew, we should never have achieved the results mentioned in the foregoing. Much credit is therefore due to Boyle Bros. Ltd. Not even the weather favoured us during September and October while we were drilling, but we can say that we gained much knowledge in exploring the rather unusual rock formations. While the conglomerates and agglomerates formations proved the most difficult I can say for them that they carry from one to three dollars in gold per ton. In this respect, they are not unlike the South African reefs on the Rand, where the greatest production of gold in the world has been carried on for more than 50 years.

That our experience this year will be of much value to us in future developments, there is not the least doubt. Our prospects for establishing a mine on Hudson Bay Mountain are very good. A considerable tonnage of commercial ore has been already proven this year, and if the campaign is continued early this next spring, with further success, we shall probably be justified in starting a main tunnel on the May fraction and develop the ore bodies known to exist so far.

Thanking you for your kind attention, I beg to remain,

Respectfully yours,

Vancouver, B. C.,
November 27, 1934.

Addressed to:

The Unitholders of the
RIO GRANDE SYNDICATE

Alfred J. Gardi



