

## FORM NEW COMPANY ON CONWEST GROUP

**B.C. Asbestos Deposit to Receive Test—Prospectors Given \$100,000 Plus Shares**

Before August 15th shareholders of Conwest Exploration, who were registered by July 16th, will be entitled to purchase one share of Cassiar Asbestos Corporation Ltd. for every five shares of Conwest. Price is \$1 per share.

Cassiar is the new company formed on the ground in the McDame Lake area of British Columbia which Conwest acquired last October. President F. M. Connell says, "A large tonnage of asbestos occurs on the surface as float and a large deposit is indicated by surface outcroppings of serpentine rock containing veinlets of asbestos, the fibre being of commercial length and quality." He also, states, "In the opinion of your directors this is an outstanding discovery of asbestos and should develop into an important producer."

A drilling program of 6,000 ft., along with test pitting, is scheduled to start next week. By about September or October the company should have enough information to indicate probable tonnages and grade of asbestos ore in

## FORM NEW COMPANY ON CONWEST GROUP

(Continued from Page Seventeen)

high percentage of fibre in the underlying serpentine.

Dr. Smitheringale tells The Northern Miner that he hopes the major portion of the talus will permit the recovery of a clean, and acceptable, fibre. Exploration has been confined to a few small and shallow pits, so as only a very rough guess he figures in the order of 175,000 tons of talus which would give a marketable recovery of 5% to 10% fibre. He expects that the marketable content of the serpentine will be about the same as the talus.

The serpentine mass breaks through a limestone capping and the north-south extent of the serpentine can be followed for about one and a half to two miles. The main concentration of fibre is in a length of 1,000 ft. with an indicated width of not less than 300 ft. and perhaps as much as 500 ft. By following down the north slope an indicated depth of at least 400 ft. can be obtained. Once again figuring has to be very rough owing to the limited extent of work done, but as a guide the part of the serpentine mass which is believed to contain marketable fibre probably amounts to something like five million tons.

Preliminary tests show that the company will be able to recover both the No. 1 and No. 2 crude grades of asbestos fibre plus various grades of the better types of spinning fibre, of which a relatively high proportion has been suggested by the tests.

### Road to Whitehorse

The Cassiar property consists of 18 wholly owned claims and seven claims held under options to purchase. They are about 70 air miles southwest of Watson Lake airport, in northern B.C., and are 200 miles northeast of Juneau and 270 miles southeast of Whitehorse. A 95-mile road connects with the Alaska Highway and by road it is 360 miles from the prop-

erty to Whitehorse. The British Columbia government is understood to be giving some consideration to building a new road, which would reduce the distance to Whitehorse by some 100 miles. Shipments would travel by rail from Whitehorse to Skagway and thence by coastal steamer to Vancouver and U.S. ports. Shipping rates from the property to Vancouver will probably be in the neighborhood of \$50 to \$60 per ton. There is understood to be another transportation possibility — a suggested new road to tidewater at Taku Inlet, which would be 200 miles from the property. There is no hydro power in the vicinity but there are a couple of sites which could be developed.

The B.C. government has assisted the company in the building of 10 to 12 miles of new road plus the repairing of 15 miles of old road. Completion of the road has been the determining factor in when drill exploration could start.

Cassiar is capitalized at 2,500,000 shares. The prospectors have been issued 300,000 shares and Conwest 625,000, leaving 1,574,993 in the treasury. Conwest has purchased 500,000 shares for \$140,000 cash, of which \$100,000 has been paid to the prospectors and \$40,000 has been advanced for machinery and equipment. Cassiar is offering 500,000 shares at \$1 per share to Conwest holders. Stock not purchased by Conwest holders will be offered to F. M. Connell and W. H. Connell, or their nominees, at the same price. They are the president and vice-president respectively of both Conwest and Cassiar. Sale of the offering will leave Cassiar with 574,993 shares avail-

able for financing future requirements. Conwest has an option to purchase this block of stock terminating at the end of three years.

The Conwest option consists of 200,000 shares at \$1.25 per share, 200,000 at \$1.50 and 174,993 shares at \$1.75.

Other directors of the company are: C. R. Elliott, treasurer of Conwest, who is also secretary-treasurer of the company; J. de N. Kennedy, A. B. Mortimer, G. A. Armstrong, Jr., and C. S. Mortimer. Head office is suite 1001, 85 Richmond St. W., Toronto.

erty to Whitehorse. The British Columbia government is understood to be giving some consideration to building a new road, which would reduce the distance to Whitehorse by some 100 miles. Shipments would travel by rail from Whitehorse to Skagway and thence by coastal steamer to Vancouver and U.S. ports. Shipping rates from the property to Vancouver will probably be in the neighborhood of \$50 to \$60 per ton. There is understood to be another transportation possibility — a suggested new road to tidewater at Taku Inlet, which would be 200 miles from the property. There is no hydro power in the vicinity but there are a couple of sites which could be developed.

The B.C. government has assisted the company in the building of 10 to 12 miles of new road plus the repairing of 15 miles of old road. Completion of the road has been the determining factor in when drill exploration could start.

Cassiar is capitalized at 2,500,000 shares. The prospectors have been issued 300,000 shares and Conwest 625,000, leaving 1,574,993 in the treasury. Conwest has purchased 500,000 shares for \$140,000 cash, of which \$100,000 has been paid to the prospectors and \$40,000 has been advanced for machinery and equipment. Cassiar is offering 500,000 shares at \$1 per share to Conwest holders. Stock not purchased by Conwest holders will be offered to F. M. Connell and W. H. Connell, or their nominees, at the same price. They are the president and vice-president respectively of both Conwest and Cassiar. Sale of the offering will leave Cassiar with 574,993 shares avail-

PROPERTY FILE

104P 005

22

Northern Miner

# MILL JOB AT CASSIAR ASBESTOS SLIGHTLY AHEAD OF SCHEDULE

The construction program at Con-west's Cassiar Asbestos Corporation property, in British Columbia, is slightly ahead of schedule and the stripping program is running a little behind. Generally speaking supplies and materials are arriving as promised and it would appear that the production plans for the latter part of this year will be achieved. 10/27/52 Northern Miner

Foundations have been poured for the power house and the mill drier building. Walls are going up for the latter, which is being constructed large enough for three drying machines. Present plans contemplate installing only one drier, however. The mill will handle about 250 tons of ore daily at the outset for annual production of 6,000 to 10,000 tons of spinning grade fibre. Construction, however, is designed so that eventually 1,000 tons of ore, or better, per day can be treated.

Current thoughts are to produce an ungraded product during the coming winter, which will be shipped, and by next summer it is expected that the complete mill installation will be ready so that a finished product will then be shipped. In order to determine the best means of producing this finished

product, large scale bulk samples will be taken this summer and sent both to Ottawa and to American concerns.

Slow disappearance of the snow delayed the stripping operation somewhat but this is proceeding satisfactorily now. It is planned to drive an adit into the orebody this summer and thus achieve both a better idea of conditions at depth and also provide a method of mining the material by dropping it down a raise and extracting through the adit.

The asbestos deposit occurs as a large body of talus material containing asbestos fibre overlying serpentine rock. There is estimated to be 290,000 tons of asbestos ore available in the talus material, and exploration and development to date indicate that this is underlain by a large tonnage of serpentine rock carrying a good percentage of similar fibre. The results of testing samples of ore from the talus material have indicated a high quality spinning fibre and a recovery of 8% fibre of this grade is indicated. It is expected that additional recovery of lower grade fibres will be practicable when operations are established. Initial production will be from the talus material.

(Continued on Page Eighteen)

# AHEAD OF TIME AT CASSIAR

(Continued from Page Seventeen)

Mining and milling charges will be relatively light, but transportation, by road to Whitehorse and by water to Vancouver, will be fairly expensive. Fortunately, the product will be high grade and profit expectations are substantial. Production will be of the group three fibres, which have a gross value of approximately \$300 per ton.

Surface mining will have to be confined to the summer months so that in order to keep the mill operating during the winter some six or seven hundred tons of ore per day will have to be stock-piled during the summer in a building to be prepared for this purpose. There

is no exploration work under way, all efforts being bent towards construction and the stripping of the orebody.

The road into the property from the Alaska highway is currently being improved. The company utilizes an old 60-mile road from Watson Lake, on the Alaska highway, to McDame Creek. From here 30 miles of new road were constructed last year.

Power will be provided by diesels. Preliminary surveys have started on the possibilities of hydro-electric power and studies are in progress. A site, which appears to be satisfactory, has been selected.

Operations at the property are under the management of T. T. Tigert, formerly assistant manager at Central Patricia Gold Mines. There are now over 100 men on the property.

SEE ORE SHOTS

PROPERTY FILE

104P 005

STATISTICS OF WA  
AND  
The Department of Lab  
collect such statistical and other  
For this purpose we make  
report on February 28th 1952  
date we have not received the  
If the form mailed you has  
When repassing another form  
address your request to:—  
The Bureau



3 4

Northern Miner

## CASSIAR OUTPUT STARTS IN FALL

### Hope to Gross \$1,000,000 During Winter Months While Mill Being Completed

Conwest's Cassiar Asbestos Corporation hopes to commence production next September or October with part of its equipment. Complete mill installation in order to ship a finished product is expected next spring or early summer. 31-7-52

The company has recently started hand cobbing of crude, or high grade, fibre. Shipments are being readied for Ottawa and several American firms for spinning tests.

It is hoped that about 500 tons per day of the low grade talus material can be obtained for a stockpile during the next couple of months. The drier building with at least one drying machine and some screens will be ready in the fall and will permit shipments through the winter of a partially opened spinning grade fibre. Gross value for this group ranges from \$300 to \$525 per ton. Added to this output will be shipments of hand cobbled fibre. This fibre will be either No. 1 crude, No.

(Continued on Page Seven)

## CASSIAR OUTPUT STARTS IN FALL

(Continued from Page One)

2 crude or run-of-mine crude. The former has a gross value of \$1,100 to \$1,500 per ton and the latter two \$500 to \$1,000. Prices may seem high but costs of securing the best grades are high, too. Hand cobbing may provide Cassiar with several tons of crude a week.

A gross value of \$1,000,000 is considered a reasonable expectation for this winter. The material will be readily obtained so a handsome profit should accrue. It's hard to say how much at this stage but about 25% of this figure might be profit.

The company has not entered into any contracts for the sale of its production and does not propose to do so until further tests are made and the preliminary mill is in operation.

By mid-August a 3,600-ft. chute will be ready for the transport of ore from the top of the hill to trucks which will carry it to the mill. The Cirque Valley road will be completed by that time and will provide another point of attack, the northeast side of the hill, on the asbestos deposit.

An adit will be started the end of August. This will provide 250 ft. of backs and will take 400 to 500 ft. in order to crosscut the full width of the asbestos bearing portion of the serpentine deposit. A raise will be driven to provide a second means of removing the ore from the hill top.

Power for the early stages of the operation will be generated by diesels. The first, of 300 h.p. capacity, has arrived. Another recent delivery is International 7-ton trucks, of which the company has purchased 12. Delivery of supplies and materials is generally satisfactory and construction is still slightly ahead of schedule.

When the mill is completed next year it will handle 250 tons of ore daily and produce about 20 tons of spinning grade fibre, on the indicated 8% recovery. Construction has been planned so that output may be increased to 80 tons of fibre or better per day. At the 20-ton output the annual gross value of production would approximate \$2,500,000 from the spinning grade fibre. There will likely be additional revenue from the crude, or long fibre, and from "shorts". This has still to be determined but the production would be obtained at little additional expense.

## CASSIAR DEPOSIT GRADE IS HIGH

### Over 100 Ft. Now Showing in Crosscut and Still Going in High Grade

A high grade asbestos deposit of major magnitude — that is what is beginning to shape up at the Cassiar Asbestos Corp. property at McDame Creek, in northern British Columbia.

The first underground look at the orebody is everything that could have been hoped for, and officials feel that their expectation that the high grade talus material would be duplicated by the rock in place has now been confirmed.

So far, the adit (6,000 ft. elevation) has crosscut into the ore for a distance of 102 ft. It is all high grade and is estimated to have a value of \$35-\$40 per ton of ore. This value is based on an estimated content of 8-10% of asbestos of spinning grade

(Continued on Page Sixteen)

## CASSIAR DEPOSIT GRADE IS HIGH

(Continued from Page One)

(group 3) or better. Lower grades of asbestos are not included in present calculations although, of course, they will provide additional important revenue.

One particularly high grade round was estimated to carry 7% crude asbestos. The crude grades have the largest fibre and are the most valuable being worth \$1,000 and more per ton of fibre.

The adit was driven 188 ft. before reaching the footwall side of the ore. Since then it has advanced 102 ft. in high grade material. Officials decline to guess what the total width will be but obviously it is much greater. On surface the asbestos-

bearing serpentine body in this area is indicated to be 1,000 ft. long, still open, and 400-500 ft. wide. The adit is penetrating the ore at an average depth of 250 ft. below the surface outcrop.

Test work carried out this year has established that Cassiar asbestos is a high quality spinning fibre of very low magnetite content, placing it in a class of iron-free fibre. As such it is the only Canadian fibre that meets U.S. stockpile requirements. Only iron-free, spinning fibres have been placed on the U.S. strategic list for stockpiling. In manufacturers tests, asbestos yarns and cloth have been woven from Cassiar asbestos.

Construction of the first unit of the mill, located in the valley about three miles from the mine portal, will be completed next month. The drying unit is the chief item awaiting installation. The power plant has been equipped with one diesel unit which provides sufficient power for initial operation but a second unit is on order.

Approximately 5,000 tons of talus ore has been stockpiled at the mill to be treated this winter. It will serve to tune up the milling circuit. Regular production will not get started until next summer when talus ore will be trucked to the mill for treatment at an initial rate of approximately 250 tons per day. The talus material comprises broken and partly decomposed rock lying along the mountainside. Some 290,000 tons of this ore are estimated available for milling.

The initial production plan contem-

plates an annual output of 6,000-10,000 tons of spinning grade fibre. This material sells in Vancouver, where the company expects to market its product, for around \$400 a ton.

The present production unit is designed so that it may be incorporated

in a much larger mill when developments justify.

PROPERTY FILE

1046 005



## EXPAND PLANS FOR CASSIAR

To Mill 500 Tons Daily—See Profit Rate of \$2,500,000 By 1954—New Financing

Major financing has been arranged so that Cassiar Asbestos Corp. can prepare for a production of 500 tons per day in 1954 from its British Columbia property. Previous proposals were based on 150 tons per day. Initial production at this rate is expected by July, 1953.

The ore estimate is sufficient to provide mill feed at 500 tons per day for 34 years.

Based on present market prices and estimated operating costs, the 150-ton rate should result in an annual profit, before taxes, of approximately \$800,000. When production reaches 500 tons per day this should increase to approximately \$2,500,000.

The plant and equipment will be basically capable of 1,000 tons per day, which in time will result in a further decrease in operating costs and an increase in ultimate profit.

The company proposes to increase  
(Continued on Page Seven)

## EXPAND PLANS FOR CASSIAR

(Continued from Page One)

capital by 1,500,000 shares to 4,000,000 shares and to issue 1,100,000 of the new shares at \$4 per share. Arrangements have been made to sell 600,000 shares to Turner-Newall Ltd. and Raybestos-Manhattan Inc. at this price. Rights will be offered to shareholders to purchase 500,000 at \$4 per share on the basis of one share for every five now held. Con-west Exploration will undertake to subscribe at the same price for any shares not taken up by shareholders.

Pending these financing arrangements, and in order to prepare for the expanded program, the company has borrowed \$251,739 from its bank and has made other commitments amounting to \$214,533. Against these current liabilities at the fiscal year end of Sept. 30, 1952, the company's annual report shows current assets of \$255,057.

President F. M. Connell reports that \$1,496,245, provided through the issue of capital stock, has been expended in buildings, equipment, roads and mine developments. He remarks that tests on the fibre have proved it to be an iron-free chrysotile asbestos with very good spinning qualities. Following the tests it was decided to make plans for a larger scale of operations by driving an adit to intersect the ore zone at an average depth of 250 ft. Mr. Connell says of this work, "The results are most satisfactory."

### Need \$4,500,000

J. D. Christian, consulting engineer, estimates that it will require \$4,500,000 to place the company in production at 500 tons per day and to meet current commitments.

Mr. Christian reports, "The main asbestos showing occurs at the top of the mountain ridge, at an elevation of approximately 6,000 ft. Fibre-bearing outcrops occur over a length of 3,000 ft. Overlying this dike, and on both sides of the hill, is a saddle-like mantle of asbestos talus. This asbestos talus is the result of frost action which has penetrated the asbestos seams and freed the fibre from the rock. It varies in depth from one to 10 feet and has spilled over on the sides of the hill to create an area approximately 1,000 x 1,000 ft. on the west side and 2,000 x 200 ft. on the east side, and is conservatively estimated to contain 280,000 tons. All the evidence available suggests that this material truly represents the underlying deposit both as to grade and quality. An adit has been driven into the footwall of the dike and to date has shown a width of 251 ft. of continuous ore, with an average back above the adit of 250 ft."

The average value of the asbestos talus material has been established at 8% of asbestos of group 3R, or \$30 per ton. Preliminary test work indicates that by reducing the spinning grade recovery to 7%, the company can produce an additional 5% of asbestos of the 4K group. This would raise the value of the talus in place to \$38.75 per ton. The adit has returned a similar recovery of the same grade. In addition to these grades, a limited tonnage of No. 1 and No. 2 crude can be hand picked from the talus and rock.

Dr. W. V. Smitheringale, consulting geologist, estimates 5,892,000 tons of ore in sight. Mr. Christian says the current world shortage of spinning and non-ferrous fibre practically assures the marketing of these greater tonnages. He adds that the company will be able to produce group No. 4 material almost as a by-product, which will considerably enhance earnings. Mr. Christian notes indications are that the ore from the adit will produce an even more desirable fibre which will be easier to grade and with which a consistently high quality product can be produced.

The report states, "It is of considerable importance to note that Cassiar fibre is a non-ferrous variety which has not been found elsewhere on the North American continent except in small

quantities in Arizona. South Africa has been the only major producer. Non-ferrous fibre is required for electrical installation, such as cable covering on naval vessels, and is regarded as a strategic mineral."

Dr. Smitheringale states, "I would estimate there are 5,892,000 tons of reasonably assured fibre bearing serpentine grading \$30 per ton in spinning grade fibre, in addition to which there will be a recovery of hand-picked crude fibres and an amount of Group 4 and 5 fibre which has not yet been determined."

In addition to this tonnage there is a further length of 2,000 ft. of serpentine lying to the north of the developed block, which is covered with asbestos talus and throughout which asbestos bearing outcrops have been mapped. The consulting geologist says there is no reason to believe that this area will not respond to development in similar matter and that the presently developed length of 700 ft. may well form only a portion of the entire orebody. He says that depth development below the adit level will likewise rapidly increase the total reserve figure.

Manager T. T. Tigert reports that approximately 5,800 tons of talus ore and 190 tons of hand-picked ore for the production of crude fibre has been trucked to the mill and will be processed when the present small mill has been enlarged. During the four summer months of 1953 it is expected to move 54,000 tons off the mountain for an average daily mill feed of 150 tons per day. A favorable season could increase this figure to 80,000 tons, or 225 tons per day of mill feed, however. The small mill, which was first turned over the end of November, 1952, is solely for the talus material and will have to be enlarged and crushing equipment, etc., added in order to handle ore from underground.

Northern Miner  
Jan. 1, 1953

PROPERTY FILE

104P 005



# GETTING READY AT CASSIAR

*North American  
News*

19/3/53  
**Nearly All Rights Exercised and Treasury Receives \$4,400,000—Order Equipment**

Shareholders of Cassiar Asbestos showed no hesitancy in exercising their rights. The company now has \$4,400,000 more than it had at the start of this year.

The company sold 600,000 shares at \$4 per share to Turner-Newall and Raybestos Manhattan and offered rights at the same price on a further 500,000 shares. These expired two weeks ago. All but 1,184 shares were taken up under the offering and Conwest purchased these.

At the property, activity consists in ordering and receiving equipment to put the high grade asbestos deposit into production as rapidly as possible. The mill is slated to commence in July at 150 tons per day, working up to 500 tons by July, 1954.

The small pilot mill has been shut down as it used up the stockpile of talus material prepared last winter. Results of this milling were above expectations.

# GETTING READY AT CASSIAR

(Continued from Page One)

Work on the adit has stopped, owing to the danger of sending men up the mountainsides in wintertime. There is no rush to locate ore, however, as the company has estimated sufficient to feed the mill at 500 tons per day for 34 years.

One of the larger shareholders of Cassiar is Central Patricia, which is under the same management. Exact holdings have not been disclosed but they are substantial.

Central Patricia is on the sidelines as far as seeking a new property. It is keeping its mill and mining plant intact, however, although spare parts are being sold from time to time. Exclusive of the value of this machinery and equipment, the company's current assets, taking holdings at market value, are now in excess of \$3,000,000. This is an increase of upwards of \$500,000 since the end of 1951.

# CASSIAR MILLING ON NORMAL BASIS

*North American News*

13/8/53  
**Plant Now in Steady Operation, Working Up to Initial 250-Ton Rate**

Canada's new asbestos mine entered the producing ranks at the first of July when the mill at Cassiar Asbestos Corp. went into regular operation. Following the initial tune-up in the first two weeks the tonnage of mill feed was gradually increased and in the last 14 days of the month averaged 135 tons per shift. Only partial recovery was effected since the crushing plant is not yet in operation but nevertheless output amounted to 125.25 tons of group 3K fibre and 112.8 tons of group 4K fibre from the treatment of 3,403 tons.

Taking a price of \$460 a ton, f.o.b. Vancouver, for the group 3K fibre and \$200 a ton for the 4K the

(Continued on Page Eight)

month's output would have a value of approximately \$60,000. This, of course, will be augmented by recovery of the higher value No. 1 and No 2 crudes and by treatment of the plus one-inch rock amounting to 40% of the mill feed, when the crushing plant goes into operation. On the actual output of 63.9 tons of group 3K and 75.8 tons of group 4K from the treatment of 1,897 tons in the last 14 days of July, recovery worked out to 3.38% 3K and 4.00% 4K. With the treatment of the coarser material eventual recovery will be up to mine grade.

In the last half of July, mine production was at a little better than the scheduled rate of 1,000 tons per day and during the month a stockpile of 21,072 tons was established at the mill site. Plans are to stockpile sufficient ore at the mill so that operations can be continued at a minimum of 250 tons right through the winter. The open cut operation has started off in an efficient manner and, although detailed figures are not yet available, it is obvious that excellent costs are being achieved.

Installation of the crushing plant is slated to be completed by the middle of September so that production can be expected to increase substantially over the next few weeks. The mill was put on a two-shift basis on Aug. 3 and tonnage is already up appreciably over the first month's figures. The immediate objective is a rate of 250 tons per day and it is expected that this will be accomplished, on a one-shift basis, once the crushing plant is operating. But it is not proposed to move the mill up to its rated 500-ton capacity until next summer or fall.

### No Blasting Needed

The ore is being recovered from the top of the hill by three bulldozers, which feed the loading bin at the head of the chute. Normal benching operations were to begin about the middle of last month, but due to the shattered condition of the rock brought about by the action of frost, it has been found to be unnecessary to do any blasting, and to date the bulldozers have been able to move the required tonnage. The ore is moved some 2,500 ft. down the side of the mountain in a semi-circular steel chute, in which flight conveyors have been installed. From the ore bin at the bottom of the chute, the ore is then trucked the remaining three miles to the mill, where it is either stockpiled or dumped directly into the mill bins. A survey for an aerial tramline has been completed, and preparatory clearing of the right-of-way will begin later in August. The adit is being cleaned out and track installed. It is planned to drive this exploration heading through to the hangingwall of the ore zone.

The construction program is slightly behind schedule, due to a temporary shortage of skilled labor. To date, this has not affected production items, such as the crushing plant, the dryer building, the second dryer, and the 40,000 tons dry rock storage building. In the town-site, the bunk houses and houses are about 75% completed and 50% are currently being occupied.

Shipments of fibre are now on a regular basis, with the company-owned truck fleet operating between Whitehorse and the mine. The demand for this grade of fibre continues to be strong, giving an assured market for full production, the company reports.

PROPERTY FILE

104P 005

6

## QUICK PROFITS FOR CASSIAR

### No Time Wasted in Entering Winning Column—Produce Over \$200,000 First Month

Cassiar Asbestos Corp. is losing no time in proving itself a winner. Production only started in July and a healthy operating profit was being won by the following month. All indications point to steady improvement. *Sell 17/53 N. Mine*

Costs for July were within expectations and for August showed continuing improvement. The company feels that its annual profit predictions made nine months ago, will prove well on the conservative side. At only 500 tons per day the estimate is for \$2,500,000 before taxes. This mill rate is hoped for late next year.

Unlike many new producers, the company is not burdened with a bond debt or loans. Without this hurdle ahead of dividends it shouldn't take too many months to build a healthy enough bank account to enable consideration of disbursements.

(Continued on Page Five)

## QUICK PROFITS FOR CASSIAR

(Continued from Page One)

Tests on the company's group 3 fibres show them to be at least the equal of the best in the industry. Demand is strong and there is no concern over selling the entire output when full production is reached.

During August the company milled an average of 277.6 dry tons per day which resulted in a production of 281 tons of the 3K group and 304 tons of 4K. The former sells at f.o.b. Vancouver for \$460 a ton and the latter \$200 a ton. The company is also obtaining about one ton a day of the premium No. 1 and No. 2 crude grades by hand cobbing. This places a gross value of better than \$200,000 on the August output.

On a three-shift basis the company is actually milling about 500 tons a day now but about 40% of this is set aside for re-treatment when the crushing plant is complete. Recovery will improve when the crushing plant is in operation but it already looks very promising and it appears as if it will be right up to expectations. Installation of this plant is expected to be completed by the end of the month.

An open cut operation is starting to be established and normal benching has commenced. About 1,000 tons a day are being mined in order to build up a stockpile, which amounted to 41,762 dry tons at the end of August. The objective is approximately 70,000 tons in order to permit milling at 250 tons daily throughout the winter. The stockpile is building up slightly ahead of schedule.

Officials are confident that all production can be obtained from the open cut for many years, with a minimum of 10 considered a safe guess.

So far three bulldozers have been able to move the required tonnage so that excellent mining costs are being enjoyed. The ore is taken 2,500 ft. down a mountainside in a chute and is then trucked three miles to the mill. Tenders are being received for construction of a three-mile tramline to eliminate the chute and trucking. Milling charges are low and freight charges of \$70 a ton to Vancouver are not onerous.

Mill feed, which in August amounted to 8,605 dry tons, will be stepped up slightly but by the end of the year it is expected that tonnage can be reduced without impairing output. This will be possible through operation of the crusher. It is expected that the 250 tons a day can be handled on one shift.

### Construction Progress

The construction program is proceeding satisfactorily. The cone crusher has been installed, the dry rock storage building is 75% completed and the necessary conveyor belts have been installed. These will be in operation by the end of September along with the second drier. The company will continue as at present and use the second drier on the stockpile in order to put it into dry rock storage for the winter. The townsite is coming along satisfactorily and five 30-man bunkhouses have been finished along with several houses, recreation hall and a school. The school, incidentally, opened with 28 children. Including the construction crews there are 285 men on the payroll.

The company is also driving an adit into the footwall of the asbestos bearing dike as an exploration heading. The drive is believed to be nearing the hangingwall but it has already shown a width of nearly 300 ft. of continuous ore, with an average back above the adit of 250 ft.

The road into the mine has been improved and an additional allotment from the B.C. government will complete the road work this winter. The provincial government has been very co-operative and has met all the road expenditures. Trucking of fibre with the company-owned fleet is on a regular basis between Whitehorse and the mine.

PROPERTY FILE

104P 005



## GOOD PROGRESS AT CASSIAR

Expect 500-Ton Mill in Operation by June — Ore Reserves Increased

It is expected that mill construction at the Cassiar Asbestos Corp. Ltd. property in the McDame Lake area, Northern British Columbia, will be completed and the necessary equipment installed to place the 500-ton milling unit in operation by June, 1954, the annual report for the fiscal year ended Sept. 30, 1953, discloses.

The mill has been designed to permit expansion to a larger capacity with a relatively small capital expenditure. F. M. Connell, president, states. Construction has proceeded satisfactorily throughout the past summer and costs have been maintained within the estimates.

Financing arrangements, completed early in 1933, resulted in a total of \$4,400,000 being paid into the company's treasury on sale of 1,100,000 shares. At Sept. 30, 1953, current assets amounted to \$2,277,427, including \$484,198 inventory of construction materials and supplies at cost, \$94,571 cash, \$1,237,611 in bonds and notes at cost, having a market value of \$1,241,361, \$185,618 asbestos fibre in transit at realized value on delivery to customers, and \$156,120 ore stockpiled at the mine at cost. Current liabilities totalled \$467,285. Of the 4,000,000 shares authorized, 3,600,000 were issued.

During the fiscal year, in addition to the major construction, a section of the mill building was utilized to mill ore for experimental purposes and to obtain sufficient fibre for test purposes in customers' plants. This operation brought \$652,239 on sales of fibre. Production, shipping and marketing costs totalled \$500,961. Development, exploration and other preproduction expenditures amounted to \$291,849 and general and administrative expenses to \$28,301. Net interest earned and miscellaneous income totalled \$18,457. No provision was made for depreciation of plant and equipment but an amount of \$66,147 was provided on transport vehicles.

### Ore Reserves Increased

Ore reserves were increased from 5,892,000 to 7,232,625 tons with a value of approximately \$30 per ton of 3K and 4K fibre. At the presently planned rate of production, this is sufficient to supply the mill for 40 years.

Bell Asbestos Mines Ltd. has been appointed sales agent and has made available the services of the sales organization of itself and its associates throughout the world, the president reports. Consumer's reaction to the company's product has been most favorable, he adds.

Operations at the property are reviewed in the report by Robert Devlin, manager.

To Oct. 21, 1953, the closing date for operations on the hill for the 1953 season, the adit had been advanced a further 272 ft., giving a total width of continuous ore of 523 ft. The hangingwall had not been reached and there remains a further 50 ft. or more to the contact. From visual readings, the manager notes, the grade appears to be considerably higher than the previous year's average of 7% of 3K and 5% of 4K fibres.

Preparation of working places for full scale open pit mining in 1954 was commenced at the beginning of the 1953 mining season and 22,857 tons of ore was broken. In addition 50,400 tons of talus was removed from the benches and trucked

to the stockpile at the mill. A feature of removing this talus was the sun's action in freeing frozen ore in unexpected quantities.

Orders have been placed for an aerial tramway, a distance of 14,950 ft. in length from the mine site to the mill. This will have a capacity of 100 tons per hour. It is hoped that this equipment will be installed by Sept. 30, 1954, allowing extension of the mining season.

### Limits of Deposit Not Defined

It must be emphasized, the manager points out, referring to ore reserves, that the economic limits of the deposit are not delimited. True width, he adds, may well average 450 ft. over a length of at least 1,200 ft., and asbestos bearing outcrops have been mapped along a length of approximately 3,000 ft. Positive ore is estimated at 3,139,055 tons, probable ore at 2,748,930 tons and reasonably assured ore at 1,144,640 tons, a total of 7,032,625 tons.

An experimental mill was completed in January, 1953, and 3,552 tons of ore, stockpiled the previous year at the mill site, was milled to recover 221.4 tons 3K fibre, 74.2 tons of 4K fibre and 39.1 tons No. 1 and No. 2 crude fibre, all of which was shipped to customers for spinning and other tests. On the strength of these results, some additional equipment was added, and the "talus" mill, was placed in operation July 1, 1953, and 22,486 tons of ore has been milled since to produce 766 tons 3K fibre and 783 tons 4K fibre. This temporary talus mill operated without any crushing equipment and was capable of only a partial recovery of the fibre.

On the basis of experience gained in temporary and experimental plant, the permanent milling plant was designed and is now under construction. The original mill structure is being enlarged to provide housing for a mill circuit with a capacity of 500 tons per day. Construction was 60% completed at the year end and additional equipment needed was on hand or on order.

A crushing plant with a rated capacity of 2,000 tons per day has been installed and housed adjoining the mill building. A fireproof dryer building has been completed and one rotary dryer with accessories installed. A second dryer, temporarily installed in the mill, will be transferred to the dryer building. A dry rock storage building, having a capacity of 40,000 tons, was 90% completed. Conveyor galleries were well advanced and a one-way circuit, to the dry rock storage was

put into operation on the second day after the fiscal year end.

A second diesel unit was added to the power plant early in 1953, and a third was delivered late last year. These three machines will provide a total of 950 horsepower. A fourth 450 h.p. standby unit has been placed on order. A machine shop was constructed and equipped, and construction of a coal bunker begun. A sprinkler system to protect all vital plant and mill buildings was nearing completion.

A steel chute, 2,602 ft. in length, equipped with flight conveyors, was constructed from the top of the deposit to the truck loading bin.

The company's transport division, which was expanded during the past year, now provides transportation for fibre from the mill to Whitehorse, with a return haul of coal and other supplies.

The B.C. government undertook major construction of the road from the mill site to the B.C. border and the company rebuilt the remaining two miles to the junction with the Alcan Highway near Watson Lake. The company constructed a 160-ft. Bailey bridge across the Blue River and contributed to the general road program.

A permanent townsite was established one half mile west of the plant. A total of 19 buildings was completed.

## CASSIAR MEETING

Cassiar Asbestos is milling around 250 tons a day and is producing "between \$150,000-\$250,000 a month," President F. M. Connell told shareholders at the annual meeting. He said that a good profit was assured but as the milling was still in the experimental stage figures at this time would not be a reliable barometer. It was hoped that average cost per ton would be worked out soon.

It was hoped that the aerial tramway would be in service by the end of September, 1954, but now it will not be in service before 1955. This will not affect production, however, Mr. Connell said.

Directors were re-elected.

## Cassiar Moving Forward On Bigger Output Plan

I would appreciate any information you are able to give me on Cassiar Asbestos. What are its future plans?

O. B., San Diego, Calif.

Cassiar Asbestos Corp. is on schedule in its program to put its 500-ton mill in production by the beginning of July. At the present time it is milling about 250 tons a day. Asbestos fibres produced at the property in the McDame Lake area, northern British Columbia, are being well received in world markets.

Ore reserves at Sept. 30, 1953, were 7,032,625 tons with a value of about \$30 a ton of 3K and 4K fibre. At the presently planned rate of production, this is sufficient to supply the mill for 40 years, it is figured.

At Sept. 30, 1953, the company had current assets totalling \$2,277,427 against current liabilities of \$467,285.

From the above you will see that Cassiar is shaping up in pleasing fashion. A current production of 250 tons a day is producing \$150,000-\$250,000 a month, and a good profit appears assured although cost figures are not yet known. Management has previously estimated that at 500 tons a day, profit might hit about \$2.5 million a year before taxes. And, just recently, President F. M. Connell said the company should be paying dividends in "a couple of years."

In other words, Cassiar is a comparatively new, and robust, producer on the highly competitive asbestos scene. With low debts, it is moving swiftly toward a bigger, and officials hope, much more profitable operation, but the full picture will not be known for some time after the new mill rate has been achieved.

Northern Miner

PROPERTY FILE

104P 005

8

# SEE GOOD YEAR FOR CASSIAR

17/6/54  
Northern Miner

## Mill on Schedule for July 1 Opening—Anticipated 1954 Output is Oversold

"Everything is shaping up to a very satisfactory year. It should at least be up to our expectations, and perhaps better", The Northern Miner learns from J. D. Christian, general manager of Cassiar Asbestos Corp.

The company's product has been well received and is in strong demand. In fact, the anticipated production for this calendar year has been oversold. It will probably be fall before it will be fair to present operating figures, such as costs per ton and recoveries, but it can be said they should be fully up to expectations.

The experimental mill treated in the order of 90,000 tons, which provided a worthwhile profit. This mill was stopped Apr. 6, in order to expedite work on the regular production unit.

A late spring hampered progress but everything is back on schedule now for the anticipated July 1 opening of the 500-ton mill. Although this is the rated capacity it is believed that the unit is quite capable of 750 tons a day and this will be the aim for the period of good weather. The unit could handle 1,000 tons daily without major expenditures. It is likely that the rate will be cut back about the latter part of

(Continued on Page Eight)

October. Milling will be continuous but stockpiling will have to be done to cover the eight months when the weather will be too severe for mining. Trucking to Whitehorse can be done the year around except for a short period in the spring when the roads will be too bad.

Speaking of asbestos markets generally, Mr. Christian commented that they weren't as brisk as a few months ago but demand for all grades was still good. There have been no price changes so he saw no reason to amend the estimate made a year or so ago that at 500 tons per day Cassiar should have an annual profit, before taxes, of approximately \$2,500,000. Greater emphasis on research by the company's associates is giving promise that the market for Cassiar's asbestos may be further broadened and strengthened. President F. M. Connell has predicted a "very long life" for the company and dividends in a couple of years.

### Open Cut Mining

The open cut operation is in full swing with four wagon drills in operation. It is estimated that open cut mining will meet production requirements for many, many years. The ore is scraped down the mountainside through a semi-circular steel chute which is about 2,500 ft. long. It is then trucked three miles to the mill. The chute is believed to be good for 2,000 tons a day but to lower costs it is to be replaced with an aerial tramway on which construction will start this year with completion expected in the fall of 1955. The tramway will eliminate most of the chute and all of the truck haul to the mill.

Work on the adit has been suspended after giving a total width of continuous ore of more than 500 ft. with the hangingwall still to be reached. The contact is believed to be 50 ft. or so away. As the adit has served its purpose of proving the high calibre of the ore at a depth of 250 ft. there are no immediate plans for resumption of the underground examination.

True width of the orebody may well average 450 ft. over a length of at least 1,200 ft. and asbestos-bearing outcrops have been mapped along a length of approximately 3,000 ft.

Labor is in good supply and the working force is being built up. The townsite is being expanded with 14 employee-built houses presently in progress and applications in for another 14. A school has been started with close to 50 children. The climate has been found to be quite reasonable with no more snow than, say, in Kirkland Lake. As proof, the company proudly reports that the first flower garden in the camp is in full bloom.

PROPERTY FILE  
104P 005-



# IMPRESSIVE NEW OREBODY FOR CASSIAR ASBESTOS

Means Virtually New Mine at Lower Elevation — Spells  
Longer Mining Season — Mill Now Handling 700 Tons Daily  
— Whole Operation Living Right up to Expectations

Cassiar Asbestos Corp. is currently developing what could be a brand new mine. Known as the Cirque, it probably represents the northerly extension of the main zone. But inasmuch as it lies at a much lower elevation, and appears to have the same impressive grade and dimensions as the main mine high atop McDame Mt., it could well prove to be the most important new development since the commencement of operations, for not only will it extend the company's mining season by a full month in both spring and fall, but could also spell lower operating costs.

Visiting the property, which is located in northern British Columbia some 86 miles from the Alcan highway and 265 miles from Whitehorse in the Yukon Territory, The Northern Miner found ore flowing from the Cirque at the rate of 1,500 tons daily. At the time of the visit, over 18,000 tons had been removed from the new source to augment the 82,044 tons

taken from the main deposit prior to suspension there for the winter. Officials were hopeful that mining could be continued at the lower mine for an additional four to six weeks.

The new mill is operating very efficiently and is currently treating 700 tons daily. At this rate, a stockpile at the plant is being rapidly built up. In fact, by the time mining at the Cirque is suspended, the dry rock storage house designed to hold 40,000 tons will be filled to the rafters with a similar amount available from the outside stockpile.

Fibre output will be well ahead this year, with another sharp boost in

(Continued on Page Four)  
(Continued from Page One)

prospect for next year. While it's a little early to assess the over-all year's performance, indications are that earlier predictions will be fulfilled.

This much is very clear — the company possess a vast tonnage of excellent grade asbestos ore, probably far in excess of the 7.0 million tons reported a year ago. And the spinning quality of the fibres virtually assures a strong market for the product.

At the present time, Nos. 1 and 2 crude fibres are being recovered, as well as what is known as the 3K and 4K mill fibres, which give the ore a gross value at the mine of from \$30 to \$32 per ton. At a future date it is likely that 5-group fibre will also be recovered, which would lift production substantially.

The Cassiar deposit is unique in several respects and very impressive. It's well exposed for a length of at least 1,200 ft., with asbestos bearing outcrops mapped for a length of around 3,000 ft. True mining width will run at least 450 ft., assuring sufficient open pit ore to sustain a large mining operation for a great many years. Almost 10% of the ore is composed of the valuable 3K and 4K groups.

## Operating Costs High

That operating costs must remain high is obvious in view of the geographical and topographical location of the deposit. The former means heavy transportation charges while the latter introduces certain mining problems including a relatively short mining season. But the very richness of the deposit assures a highly profitable operation.

As the company's fiscal year ended Sept. 30, production and cost figures for the year should soon be available.

It is interesting to note that if this deposit were located in the world-famous asbestos mining area centered around the Eastern Townships of Quebec, probably 20% of the ore could be economically recovered.

The orebody lies within the zone of perma frost, that is, it is frozen the year around. In the case of asbestos ore, this

appears to be a blessing, for nature has thus done much of the work of separating the fibres from the rock — and not harshly. Very little crushing of the rock is thus necessary.

While there is a capping of rock over a portion of the upper orebody, which is now being removed, there is nothing overlying the ore at the lower or Cirque mine, where benching is just now getting down to the "solid" ore. The 2,000 ft. of intervening ground between the two mines is talus covered. It hasn't yet been fully investigated, but it all looks like ore.

## Aerial Tram to Cut Costs

The mill and plant are located at elevation 3,540 ft. while the upper mine is at an elevation of 6,200 ft. This is reached via a 5½ mile road that winds its way up the mountain. At the present time, ore from the upper mine is bulldozed through a grizzly and into a 2,500-ft. steel chute equipped with flight conveyors which feeds into an ore bin, from which it is trucked the 3½ miles from the bottom of the chute to the mill.

The chute is being replaced by a \$1 million aerial tramway which should be in operation late next season. This should materially reduce handling charges, as well as lengthening the mining season from the upper mine. It will have a carrying capacity of 100 tons of ore per hour.

It is interesting to note that when the tramway is in operation, it will generate a net surplus of over 100 horsepower of electrical energy.

To open the Cirque mine required the building of an additional 1½ miles of road. This operation is at elevation 5,600 ft., the ore from which is trucked the full distance to the mill. Ore here is mined in 15-ft. benches, several of which have already been established. Present faces are about 200 ft. in width. There is no apparent change in grade over that encountered at the main mine.

## Mill Handling 700 Tons

At the present time, the mill is treating about 700 tons daily. This results in the production of approximately 60 tons of fibre each day, or 1,200-100 lb. bags. The 3K and 4K products are about in a 50-50 proportion. The 3K, which is the spinning fibre, retails at \$460 per ton f.o.b. Vancouver. It is the second highest grade mill product on the market, and is used in electrical installation work, yarn and cloth. The 4K fibre, which fetches about \$185 per ton is known in the trade as shingle stock and finds varied uses such as for asbestos cement products and pressure pipe.

Seven or eight bags of No. 1 crude are hand picked daily. This is a premium product that retails at from \$1,300 to \$1,700 per ton.

The bagged fibre is trucked to Whitehorse by the company's transport division, from whence it is loaded on the Whitepass and Yukon Railway for Skagway and then shipped by boat to Vancouver. The trucks bring in coal on their return trip from Territorial Supply Co.'s own mines at Carmacks. (Territorial Supply is owned jointly by Cassiar and United Keno Hill).

The driers in the mill burn approximately 20 tons of coal daily. Run-of-mine ore contains about 6% moisture during the summer, at which time the driers will handle about 2,500 tons daily. But in the spring and fall, the moisture content doubles, which drops drying capacity to about 1,000 tons per day.

## New Highway Will Be Boon

Lower transportation charges from the property to the sea should materialize with the completion of a new 300-mile highway to Stewart being built by the B.C. government. The first 30 miles will be finished this year, with progress to be

speeded up next year as construction is planned from both ends. The road, which may run to \$12 million, will open virtually untouched and potential mineral lands, as well as tapping the country to be developed by Frobisher's proposed power development at Tulsequah.

Including the transportation personnel, there are approximately 350 on the company's payroll. J. D. Christian is general

manager, with operating staff at the property including N. F. Murray, general superintendent; C. G. Little, mine superintendent; A. C. Beguin, mill superintendent; W. Corran, office manager, A. C. Caron, chief engineer; R. Passiaud, master mechanic; A. Pavlov, chief electrician and A. Van Raalte, construction foreman.

Largest corporate shareholders are

Conwest Exploration holding 900,000 shares, Raybestos Manhattan Inc. and Bell Asbestos Mines which hold 600,000 shares and Central Patricia Gold Mines which, at last report, held approximately 320,000 shares.

PROPERTY FILE

104P 005



(10)

## Double Meaning of Mining Term "Recovery" Confuses Supporter of Cassiar Asbestos

*Northern Miner  
10-12-54*

In your Oct. 14 issue you had a story on Cassiar Asbestos. This was most interesting but there is one paragraph which I do not understand and perhaps the writer of the article could clear up for me.

On page 4 you say "It is interesting to note that if this deposit were located in the world-famous asbestos mining area centered around the Eastern Townships of Quebec, probably 20% of the ore could be economically recovered."

Does that mean that with the ore located where it is, that less than 20% of the ore can be recovered? If so, it would appear that the ultimate mining property would be very small with such a low recovery of potential ore. And on the other hand, I can't understand how in the case of an orebody located around Quebec, only 20% of the ore could be economically recovered.

C. B., Salt Lake City, Utah.

We are pleased to note that you found our story on Cassiar Asbestos Corp. interesting, and hope that we can clear up any misunderstanding with respect to recovery. We can sympathize with your dilemma and readily admit that the terminology is confusing.

In common mining parlance, "recovery" refers to the percentage of the valuable metal or mineral that is recovered. Thus, if an ore contains, say, 4% copper and when treated in the mill 95% of the copper is recovered we say that the recovery is 95%. But, just to make things difficult and baffle the layman, the miner also applies the term "recovery" to the amount that is actually recovered. Thus, if the recovery is 95% on a 4% copper ore, the amount of copper that is actually recovered will be 3.8%, so (pardon us) the recovery is 3.8%. We hope that's clear, but if you don't get it we don't blame you.

Maybe it would be simpler if we talked in terms of dollars. Let's say that an ore has a gross value of \$10 per ton. The mill, we'll say, can recover 90% of the values in the ore which would be \$9 per ton. So in our enlightened way of speaking we might talk about the recovery being 90%, meaning the percentage of the values we can recover — or, we might talk about the recovery being \$9 per ton, meaning the amount of values that are actually recovered. Simple isn't it?

One way out of the difficulty is to use the term "extraction" rather than recovery when referring to the percentage of mineral that is recovered. We might say, though, that in asbestos milling, "recovery" almost invariably means the amount recovered and not the percentage of extraction. This is simply because it is not possible to assay asbestos ores and establish the total asbestos content, or grade, of the original material. The only way to find out how much asbestos is in an ore is to mill it and make an actual recovery. Of course, samples of the tailings can be treated in the laboratory and a further extraction made which gives a measure of the percentage that is extracted but even this is not a final figure. So, the asbestos mill operator is not too concerned about a figure for percentage extraction but he will maintain a regular check on his tailings to see that he is not losing any asbestos which he wants to recover.

Now, to apply all this to the particular case in point we should first admit that the phrasing used in our Cassiar story on Oct. 14 was not too clear. What we were trying to say was that if Cassiar was located in a much more accessible area where operating costs would be much cheaper the operators could probably afford to extract from each ton an amount of asbestos equal to 20% of the material treated. As it is now the asbestos recovered comprises about 10% of the ore fed to the mill. That is, for each ton of run-of-mine ore that is put through the mill 10%, or 200 lbs. of asbestos fibre, is recovered. These fibres are classed as groups 3K and 4K. In addition, a small amount of Nos. 1 and 2 crude fibre is hand picked. But, the operation is built essentially on the 3K and 4K material.

The 3K and 4K groups are relatively long fibres which command a high price. However, the ore also contains a lot of shorter fibres which sell for considerably less. Under the operating conditions that presently prevail it just wouldn't pay Cassiar to recover and sell the shorter fibres. Mine officials have intimated that at some future date the group 5 and possibly even shorter groups might be profitably recovered. This would increase the actual output of fibre considerably but would probably add only moderately to the company's net earnings.

If costs at Cassiar, which is located on top of a mountain in far northern British Columbia, could ever be trimmed to the levels that prevail in Quebec's Eastern Townships (which simply isn't possible), then the amount of fibre that could be economically recovered would probably amount to 20% of the tonnage treated rather than the current 10%.

But don't be alarmed by this 10% figure, for this means \$30-\$32 per ton, which is nice money. Even with comparatively high costs, fine profits will be won from this deposit. And, as our story emphasized, Cassiar possesses very substantial tonnages of this ore.

Another thing to remember is that a recovery of 10% (meaning the amount of fibre) is very respectable for an asbestos mine. Most of them don't get that much and for those that do the bulk of the asbestos recovered is made up of the shorter and cheaper grades of fibre. Cassiar's 10% is composed of the longer, higher priced fibres.

\* \* \* \*

## Cassiar Eyeing Dividend Hopes Has New Funds

*30-1-35 17-1-1954*

Cassiar Asbestos Corp., a husky young asbestos producer, is eyeing the ranks of the dividend-payers.

By selling 200,000 of its shares to Newmont Mining Corp. at \$6 a share, Cassiar just recently has had its treasury fattened by \$1.2 million.

That money will be used to complete the company's construction program and to provide working capital, said President F. M. Connell at the company's third annual meeting this week.

"This additional capital will make it possible for your directors to consider the payment of dividends at a much earlier date than would otherwise have been possible," Mr. Connell told shareholders.

"Completion of the tramline and other improvements planned will ensure production to meet the company's market commitments to deliver high-quality fibre."

### Reflect Newmont Interest

To reflect Newmont's entry into the Cassiar picture, J. Drybrough, president of Newmont Mining Corp. of Canada, was elected to the board. He replaced A. B. Mortimer, who resigned to make a board vacancy. Later, the board will be enlarged, it was stated, so that Mr. Mortimer can resume his position as director. All other directors were re-elected.

This year Cassiar plans to complete and to consolidate its production at 500 tons daily, said Mr. Connell. Work will continue on maintaining and improving the quality of the company's products which are being well received in the market.

Each month, said General Manager J. D. Christian, mill recovery is improving with a subsequent betterment in the grade of fibre produced.

### Significant Ore News

"It is significant that mining in the Cirque Valley during the latter part of the season was in ore that is located 2,000 ft. distant from the nearest ore included in the calculated reserves

(7,000,000 tons) and at an elevation 300 ft. below the lowest point in the reserves," said Mr. Connell.

"Considerable asbestos-bearing talus material lies between this and the main mine workings," he continued. "Sufficient work has not yet been done to permit calculation on an engineering basis but it is evident there is a very large tonnage of ore indicated that has not been included in the ore reserve figures."

Cassiar's mine is in the McDame Lake area, northern part of British Columbia. It started regular production July 6, 1954. Net profit for the first three months was \$513,622.

PROPERTY FILE

104P 005



# Good Report For Cassiar

Results of the first three months of regular production by Cassiar Asbestos Corp. were very satisfactory and substantiate previous estimates.

So says President F. M. Connell in the company's most encouraging annual report. (A few highlights of the report were carried in last week's issue of The Northern Miner). Net profit for the 3-month period was \$513,622.

Asbestos output for the year was completely sold, and advance orders now in hand indicate a good demand for this year, states General Manager J. D. Christian.

Erection of towers for an aerial tramway was well advanced (80% done) at year end, Mr. Connell states. With a capacity of 100 tons of ore hourly, the tramline is expected to materially extend the mining season. By early spring the remaining equipment for the tramway should be delivered; by summer the line should be completed, he adds.

Capital expenditures anticipated during 1955 will include the tramway, additional mining and transportation equipment, and expansion of employee housing facilities.

Full co-operation was received by the company from the Industrial Mineral Division, Department of Mines and Technical Surveys, Ottawa; laboratories of Raybestos-Manhattan Inc.; and the technical staff of Bell Asbestos Mines in testing fibre and on technical procedures.

The talus (experimental) mill continued in operation until Apr. 6, 1954, states Mr. Christian in reporting on operations.

During the period (Sept. 30, 1953 - Apr. 6, 1954) 38,433 tons of ore was treated for a recovery of 1,960 tons of 3-K (5.1%) asbestos fibre, and 1,474 tons of 4-K (3.8%) fibre. In addition, he states, 15.8 tons of No. 1 crude and 1.5 tons of No. 2 crude were shipped.

"Customer reaction to this production was favorable. . . and the experience gained was a major factor in the design of the new mill. The experience also resulted in improved quality in both grades of fibre that are produced.

Conversion from the talus mill to the production-size, 500-ton circuit involved an extensive rearrangement of equipment in the mill. This job was completed on schedule and production from mined ore commenced July 6, 1954.

Staff and working force were maintained at a minimum during winter months, Mr. Christian states.

During the period July 1 - Sept. 30, 1954, he continues, 41,983 tons of ore was milled for a recovery of 2,047 tons of 3-K (4.9%)

## Healthy-Happy Mine

It's rugged country and not the most accessible place for a mine.

Mine buildings jut out from the side of a steep mountain. Tramway towers tenaciously cling to rocky footholds, point their steel fingers to the sky.

Down in the valley is the townsite. There live the men and women who make those northern British Columbia rocks yield the silk-like asbestos fibres.

Keeping these men and women healthy and happy is as important as running the mine.

During '54 Cassiar converted the former manager's residence into a 4-bed hospital—complete with X-ray equipment.

A company-assisted employee housing plan was instituted . . . and successfully: Fourteen homes have been erected under the program.

fibre and 1,603 tons of 4-K (3.8%). Production of No. 1 crude amounted to 27 tons.

"It will be noted," Mr. Christian points out, "that the recovery is substantially the same as in the pre-production period. This is largely accounted for by the improved quality of the fibre, and by the comparatively low recovery obtained during the tune-up period."

Minor changes and improvements in the mill were made during the summer. A well-equipped laboratory has been set up to control quality of fibre produced. Selection and training of mill crews are progressing satisfactorily.

### Improvements at Mine

At the mine itself, some changes were incorporated in the chute design. First ore from the Hill was moved to the mill July 6. To the end of fiscal 1954 (Sept. 30), 75,663 tons was mined. And a further 24,498 tons was mined in Cirque Valley for a total production of 100,161 tons.

Major development work done in removing waste from the hangingwall to permit expansion of working places on the Hill.

No alterations were made in ore reserve calculations. They remain at about 7,000,000 tons, exclusive of ore in Cirque Valley.

A total of 64,202 tons has been mined from seven benches in Cirque Valley. Working faces are about 2,000 ft. north of the northern limit of the calculated ore reserves and 600 ft. below the highest point at which the ore outcrops, Mr. Christian explains.

The intervening area largely is covered with asbestos talus. Sufficient development work has not been done to determine the extent of ore in that area but a very substantial tonnage is indicated, he adds. Mining and development are planned for that area this year.

Constructionwise, main work during the year was confined to the mill and tramway. A fourth unit was added to the power plant, bringing it up to 1,400 h.p.

Mining operations were completed for the season Nov. 22. At Nov. 30, there were 29,020 tons in dry rock storage and 52,548 tons in the outside stockpile. "This is sufficient to provide an average mill feed of 450 tons per day until June 1, 1955," reports Mr. Christian.

Total output for the mine during the past season was 140,552 tons.

When the tramway is finished this year, he concludes, production is planned on the basis of milling 500 tons of ore a day.

## Assets vs. Liabilities

Balance sheet at Sept. 30, 1954, shows current assets totalling \$1,804,968 against current liabilities of \$1,145,822.

Current assets are listed as \$5,450 cash, \$345,164 accounts receivable, \$525,211 asbestos fibre in transit, \$368,875 stockpiled ore at cost, \$513,949 inventory at cost, and \$46,519 prepaid insurance and other charges.

Current liabilities are shown as \$620,000 secured demand loan, \$19,126 overdraft, and \$506,696 accounts payable.

Investments in Territorial Supply Co. are \$25,000 (half the issued capital) and \$100,000 notes receivable.

Of Cassiar's 4,000,000-share capital, 3,600,000 shares were issued on Sept. 30. Sales of asbestos fibre in the 3-month production period July 1 - Sept. 30, 1954, (the first three months of regular production) brought in \$1,241,598.

Production and marketing costs of \$632,929 cut the income to \$608,669, and general-administrative expenses of \$23,047 cut it further, to \$585,622. After allowing \$72,000 for depreciation, a net profit of \$513,622 was realized.

Under the Income Tax Act, Cassiar is exempt from taxation for three years from start of regular production period July 1, 1954. Cassiar has a commitment to pay \$240,000 on its aerial tramway.

## Cassiar Grade Off

### But See Return to Normal Profits Starting in June

Milling of Cassiar Asbestos Corp. Cirque ore, located 2,000 ft. north of the main orebody, which was mined late in the fall, began early December. Since that date the operating profits have been quite seriously affected by the fact that the grade has proven to be considerably below mine average. Also, operating costs have been high due largely to the high cost of re-mining and drying the stockpile under winter conditions.

It is expected that mining and milling operations will start on the main orebody by the first of June. Improved weather conditions and grade will bring about a return of normal operating profits during the last four months of the fiscal year, ending Sept. 30.

It is expected that the conversion from coal to oil in the drying circuit, and other improvements which have been made in the mill and mining plant, along with the completion of the aerial tramway late this fall, will overcome many of the difficulties which were encountered during the past winter.

PROPERTY FILE

104P 005

# Cassiar Asbestos Corp. Hits Stride Good Earnings Seen Next Year

*Northern Miner 20-10-55*  
From every standpoint the past three months have been by far the best for Cassiar Asbestos Corporation since production started in July, 1953. It has been clearly demonstrated that under normal conditions the property can be a real money maker, The Northern Miner learns from President F. M. Connell.

Abnormal conditions prevailed the greater part of the fiscal year ended with last month, however. Such things as having to mill a chunk of low grade development ore, difficulties with frozen ore, and the necessity of making a fuel change-over will show up in the annual statement. The success of the last three months helps to offset the bad experience but not enough to bring earnings to their anticipated level. A reasonably good profit will be shown, however.

The teething pains seem to be over now and man-size bites into the

company's unusually rich and extensive orebody should henceforth be routine. All factors, such as recovery, grade, costs, and so on, are very close to the estimates made nearly three years ago by J. D. Christian, general manager. He figured that on the basis of 500 tons daily an annual profit of \$2,500,000 should be made before taxes. This tonnage rate should be met with ease during the next 12 months. It was shown this past summer that the mill can efficiently exceed by a wide margin its rated capacity of 500 tons. Official

production from a tax standpoint did not start until July 1, 1954, so that the company is free of income taxes until July, 1957.

All mining is done by open pit on McDame Mountain, in Northern British Columbia, and winter will likely bring this part of the operation to a halt within a couple of weeks. The company has already brought more than enough ore down the mountain to its mill stockpile to treat 500 tons every day until mining can resume next June. Unlike last year, this is practically all mine

grade ore — 5% 3K and 4% 4K fibre — which grosses approximately \$30 a ton. Mining in the latter part of last year's season was done on the Cirque Valley orebody, 2,000 ft. from the main orebody, which turned out to be considerably below mine average. The winter suspension of mining left no choice but to mill this ore. The Cirque ore also turned out to contain a high percentage of ice, thus creating a serious drying problem under winter conditions. Initial drying was done by coal and this discolored the fibre. In mid-winter the company had to convert to oil, a \$100,000 changeover.

### Aerial Tramway

Ore has so far been dropped down to the mill in a chute. An aerial tramway is within two weeks of completion, which will greatly improve ore transport as well as extending the mining season. The tramway had been slated for completion this fall but a strike of transport workers

in Alaska has prevented delivery of the last of the parts. Although this means the tram will not be completed until spring, the delay is not serious as the company couldn't use it in the winter anyway.

All production to date has been sold without difficulty. The high quality of the fibre gives Cassiar a premium product. Contracts are being arranged for the coming year and a good demand is foreseen. It is too early to say whether more than 500 tons per day will be required but if so much more than this rate can be handled with ease.

There have been no changes in the ore reserve, which stands at about 7,000,000 tons exclusive of ore in the Cirque Valley. This is enough to mill at 500 tons per day for more than 30 years.

12  
PROPERTY FILE

104P 005



# Cassiar Asbestos Makes All Profit In Six Months *29/12/55*

Cassiar Asbestos Corporation earned a net profit of \$686,092, after providing for \$578,898 in depreciation, in the 12 months ended Sept. 30, 1955, the company's first full year of production.

Owing to the necessity of milling development ore from the Cirque Valley, operations during Dec., 1954, to June, 1955, were unprofitable. Mining the main orebody was resumed July 1, 1955, and recovery of fibre and profit have been very satisfactory since that date, President F. M. Connell states in the annual report. The exemption period under the Income Tax Act has now been established for the three-year period July 1, 1955, to June 30, 1958.

During the year the company expended on account of plant and equipment \$2,121,221 and \$22,554 on extension of roads. The cost of purchasing land and obtaining patents was \$10,535. Funds for capital expenditures were provided in part by the sale of 200,000 shares of capital stock to provide the treasury with \$1,200,000.

Development work was directed entirely to the preparation of the orebody for mining and ore reserves are therefore unchanged at 6,766,087 tons.

## Asbestos Demand Steady

The demand and price for crude, spinning, asbestos cement and shingle fibres have been steady throughout the year and at the year end all production was sold. The company is investigating the advisability of producing a wider range of these fibres.

The balance sheet lists the value of fibre in transit as \$1,221,482. This is abnormally high as a result of the rail strike at Skagway. During the strike, 1,646 tons of fibre were moved to Vancouver by truck to fill the most urgent of the outstanding orders.

The British Columbia government maintained the highway from Cassiar to the Yukon border throughout the year and continued the program of improvements to the road. Construction of a road to Stewart, B.C., is in progress. When completed the road will provide access to tidewater at Stewart.

Extracts from the report of J. D. Christian, general manager, are as follows.

"Mining operations commenced in the Cirque at a point 1,000 ft. north and 350 ft. below the mine workings on June 6, 1955, and at the mine on June 22, 1955. By Sept. 30, 1955, 29,325 tons of Cirque development ore and 147,534 tons of mine ore had been delivered to the mill. The main chute was closed down due to weather Oct. 5, 1955, but production from the mine was continued to Nov. 4, 1955,

by using a short chute into the Cirque Valley. Since the fiscal year end 662 tons of Cirque ore and 35,903 tons of mine ore were delivered making a total for the 1955 mining season of 213,424 tons.

"To make this ore available, 220,435 tons of rock were removed from the hangingwall above the orebody. An additional 91,300 tons of talus and overburden were moved as waste from the Cirque Valley.

"The milling operation and resultant operating profits continued at normal levels until the month of Nov., 1954, at which time the mill commenced treating development ore from the Cirque Valley. The Cirque ore was mined when it became apparent late in Sept., 1954, that sufficient mine ore to carry through the winter season could not be brought down the chute. To meet commitments on outstanding orders for fibre and to avoid a temporary shutdown, it was decided to move the additional tonnage required from the Cirque Valley, where a considerable amount of talus was readily available. Time and weather did not permit the proper stripping, bulk sampling and development of the area. In November, when this material first reached the mill, it was found to contain a very high percentage of moisture in the form of contained ice, resulting in a high cost of handling and drying which, combined with a somewhat lower grade, resulted in an operating loss for the period Dec., 1954, to June, 1955, when ore from the mine was again available. Since that time the operation has resumed normal levels of recovery and profit.

"At the close of the mining season on Nov. 4, 1955, there were 47,350 tons in the dry rock storage and 72,440 tons in the stockpile, sufficient to supply the mill until mining operations begin again in June of 1956. The grade is estimated at normal mine grade.

"The major construction work during the summer was the erection of the tramline, which was nearing completion at year end. A labor strike at Skagway, which commenced in September and continued until late October, resulted in delaying the arrival of material and equipment required to make the tramway operative. It is expected that about two weeks' work, when conditions permit in the spring, will be required to complete construction."

## Operating Comparison

	To Sept. 30:	12 months 1955	3 Months 1954
Sales .....		\$4,749,540	\$1,241,598
Prod. costs .....		2,524,402	408,446
Shipping, marketing .....		871,391	224,483
Gen. & admin. ....		88,757	23,047
Oper. profit .....		\$1,264,990	\$ 585,622
Depreciation .....		578,898	72,000
Net profit .....		\$ 686,092	\$ 513,622
Net per share .....		18.05¢	14.27¢
Cash .....		12,178	5,450
Accts. receivable ....		518,119	345,164
Asbestos in transit .....		1,221,483	525,211
Ore stockpile .....		575,684	368,675
Supplies .....		557,495	513,949
Current assets ....		\$2,884,959	\$1,758,449
Bank advances .....		\$1,102,112	\$ 639,126
Accts. payable .....		884,197	506,696
Current liabs. ....		\$1,986,809	\$1,145,822
Working capital ....		\$ 898,650	\$ 612,627
Issued shares .....		3,800,000	3,600,000

PROPERTY FILE

104P 005

13