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GRAND FORKS AND GREENWOOD BOUNDARY AREA

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THE OUTLOOK FOR MINING AND DEVELOPMENT IN 1986

The Greenwood copper boom of 1898-1918 was followed by nearly 40 years of gold silver mining and exploration, before the copper prices began to improve again. The period 1955-1975 was another boom period for The Boundary District, as the price of copper rose to all time highs.

Today a copper prospect is not worth staking. This historic cycle is apparently repeating itself and gold is the main commodity that is attractive to investors and money managers today.

Platinum, high grade silver and strategic metals are also on this list. Industrial minerals such as limestone, dolomite, talc, and decorative stone also occur in the district. Several companies have expressed interest in limestone and talc occurrences.

The Greenwood Mining District has gold in veins and associated with the copper ores. One million ounces of gold was recovered from the Phoenix copper ores alone.

The search in 1986 is for gold veins, high grade silver veins, and gold silver zones contained in bands of iron copper pyrites.

The most significant type of target for the prospector is gold and silver in fractured altered rock. These types of deposits are similiar to the mine found at Wenatchee in Washington State or in Nevada. These large tonnage deposits are the most likely to fill the void caused by the closing of the copper mines.

We can tell from past records what to expect from the vein mines and to some extent what to expect from the gold in the iron-copper sulphide bands.

The presence of Nevada - Wenatchee type bulk mineable deposits are only just now being seriously looked for in the Greenwood area.

These deposits have not been encountered in the past and so far their existence in the Boundary Area is a prospecting theory.

The search in 1986 is for three types of precious metal deposits; vein, sulphide bands and large tonnage Nevada type.

A vein mine can be expected to employ one man per 10 tons per day of production, if the veins are wide (greater than 4 feet) or one man per 5 tons per day, if the vein is narrow (less

than 3 feet). A surface crew and staff of 6 to 8 men would be added to the underground crew, which would depend upon the tonnage produced. A large percentage of the vein ores are quartz ores and as such can be direct shipped to the smelter at Trail without milling. If milling is required, a mill crew of 4 to 9 men per day would be added.

It should be pointed out that the ores from the Jewel Lake camp are the most acceptable at the Trail smelter as direct shipping ores. The high grade silver ores would incur high penalties at the smelter but the many ounces of silver would adequately compensate for this. The iron copper pyrite ores would require milling, as would the bulk tonnage ores. The penalties at the smelter for iron pyrites, prohibit direct shipping these ores.

Exploration is taking place on the following properties and the programs I will list are in various stages of financing.

GRANBY RIVER AREA:

LONGREACH RESOURCES This project located to the north of and in the union mine area is for platinum. The project area is nearly 50 miles to the north of Grand Forks.

Platinum is a word you will be hearing a lot of in the next several years. The general word platinum is used to describe the platinum group of metals.

These metals are:	Platinum	
	Palladium	
	Rhodium	
	Ruthenium	These last four are
	Iridium	called minor PGM's
	Osmium	(Platinum Group Metals)

Of these six metals, platinum and palladium are of the greatest economic importance. The remaining four metals are produced as a by-product of the platinum palladium refining process.

Platinum metal generally trades at near the price of gold, which is three to four times the price of the palladium metal so it is important to know the platinum group metal being reported by the mining companies.

The black lead prospect to be tested this summer by Longreach Resources Ltd. is a platinum metal prospect.

This project will test a zone of black colored rock three and a half miles in length and one mile in width.

The program proposed is to establish a 20 - 30 man camp to the north of the union mine and begin diamond drilling the potential zone.

The first stage of the program is to spend \$400,000 on the establishment of a camp and diamond drilling, with three diamond drills.

The access roads were put in by Spud Huestis in 1963. Spud Huestis is the prospector who made the initial discoveries that led to the development of the enormous Highland Valley Copper District at Merrit and Ashcroft. This is a sample of what prospectings can do for the economy.

The second phase is to spend an additional \$400,000 on diamond drilling. This second phase would depend on the success of the first phase.

This program if successful would see 20 - 30 men employed for a period of a year in diamond drilling.

The groceries, supplies, fuel, vehicle repairs and services would be purchased in Grand Forks.

The unstable situation in South Africa which produces approximately 25% of the worlds palladium and 40% of the worlds platinum, makes the platinum group metals very sensitive to price changes.

This excitement in the platinum market place makes the financing of wildcat drilling programs such as proposed by Long Reach relatively easy to finance.

CONSOLIDATED BOUNDARY AND THE GRAND FORKS SYNDICATE

A program of \$85,000 to drill test around the Simpson Mine located on Glover Creek a tributary of Pass Creek is well underway.

The target is gold in iron and copper pyrite bands.

Consolidated Boundary, the operator has drilled five holes with four holes intersecting a gold bearing iron-copper pyrite zone.

This zone is apparently a new discovery beneath deep overburden and barren cover rock.

These initial results have created quite a bit of excitement on the Vancouver Stock Market and the assay results and further drilling will be followed closely by many hundreds of investors.

The Grand Forks Syndicate completed a financing at \$0.90 with the sale of 400,000 shares on the basis of these results.

VEIN TARGETS:

UNION MINE The two companies working the Union Mine and the

tailings have merged to form the public company Summit Ventures. This is a gold silver narrow vein deposit.

A program of tunnelling has just been completed by contractors from New Denver.

The contractors employed five men and the company employed a geologist supervisor. The crew drove the 43 miles back and forth each day to the job site from Grand Forks.

The program for the summer is in two stages. One is for \$500,000 for additional mine development and underground and surface diamond drilling. It is expected that ten men would be employed and stay in a trailer camp at the mine site.

Groceries, supplies and service would be purchased in Grand Forks.

The second phase is the cyanide leaching of the tailings left by early operations. A budget of \$500,000 has been allocated for this program which is awaiting a decision from the regulatory authorities.

There may be some confusion here but there are two distinct projects:

- 1) Development of the gold veins in the union mine.
- 2) Processing of the sand from the crushed Rock left over from the old mining operations - the use of cyanide compounds in this process has aroused some local concerns.

The mine development has been approved and no doubt will proceed but the tailings program is in limbo at present.

KOLIMA RESOURCES located on the Granby River area east of the Union Mine on the Tenderloin Road plans a \$30,000 program of trenching and geophysics.

BEVERLY RESOURCES located next to the Pathfinder Mine on Volcanic Creek, plans a program of geochemistry, geophysics and line cutting costing \$60,000.

There are numerous other companies with well located claims along the Granby River between Grand Forks and the Union Mine and a discovery such as may be emerging on Glover Creek would see six to ten companies re-examining their prospects and a 100 fold increase in expenditures and activity.

GREENWOOD AREA:

SKYLARK AND VISCOUNT are preparing to develop a narrow high grade silver vein, between the Phoenix mine and the City of Greenwood.

The intention is to drive an inclined tunnel at a 15% slope

for 550 feet. This would put the tunnel 90 feet below the surface. Raises would be driven up from the inclined tunnel to the vein and a tunnel would then be driven along the vein to test the values contained in the vein.

A sum of \$30,000 has been spent this year already in road construction, drill testing and excavation of the proposed tunnel entrance. This has all been done by local Greenwood contractors.

This program is anticipated to raise \$750,000 for the mining and \$250,000 for further prospecting. The mining contract has been promised to Vicore Mine Developments Ltd. of Greenwood.

A full time supervisor has been hired and it is expected that 15 to 20 men will be employed and based in Greenwood. This project is expected to start in July.

A program of 4,000 - 8,000 feet of diamond drilling is underway by a Greenwood drill contractor.

DENTONIA RESOURCES LTD. Dentonia is preparing to do additional development on it's gold silver quartz vein at Jewel Lake.

A program to develop the ore on the 3rd and 4th levels and to tunnel north on the lowest level of the mine beneath the old Jewel Mine is scheduled to begin this summer.

A sum of \$1,000,000 (one million) will be needed to do this development. It is planned to qualify for the new Provincial Government Financial Assistance program for \$300,000. and raise the additional \$700,000. through the sale of shares.

It is anticipated that a crew of 8 to 10 men will be employed and will live in Greenwood and at the mine site. It is proposed to ship development ore to the improved mill at Robert Mines at Boundary Falls.

A program of this type would require monthly expenditures in the order of \$150,000. per month for wages, explosives, powder & supplies.

HIGHLAND VALLEY This property is located in the Jewel Lake camp and is developing gold silver quartz veins. Drilling (diamond core drilling), 1,300 feet, in four holes, was completed during April (the results of the drilling program conducted to the south of the Dentonia were disappointing. No further work is planned on this optioned ground). An additional 1,000 feet of core drilling is anticipated on the C.O.D. vein. Trenching is taking place on C.O.D. vein at this time. This vein is located across the Jewel Lake road from the Jewel Vein behind the Jewel Lake garbage dump.

A sum of \$30,000. has been spent this year and an additional \$30,000. will be spent this season.

This company rents an apartment and motel rooms in Greenwood and services out of Greenwood.

Highland Valley is also exploring a gold property located in the old Fairview Camp near Oliver.

KENAR AND SOLEX RESOURCES The Gold Drop claim is a gold silver quartz vein. Solex Resources has started a \$50,000 mining program this week. The program is to mine approximately 1,000 tons of ore and ship this to the mill at Robert Mines.

The three man crew is staying at the Robert Mine camp and purchasing supplies in Greenwood. A local contractor will be engaged to transport the ore from the mine site to the mill.

Kenar has just made a down payment with final payment to be made by June 1st, 1986. on the No. 7 Mine. This is a gold silver quartz vein. It is expected that underground rehabilitations and surface diamond drilling will take place this summer after the acquisition of the property.

REX SILVER This is a Calgary based company that diamond drilled their property, in the Deadwood Camp late last fall.

They are presently drawing up a budget, but expect to do 1,000 feet of core drilling and to spend about \$100,000. A crew of 4 men, 2 trucks and 2 geologist supervisors would be required for the program for a period of one month. The crews would base and provision in Greenwood. The target here is a sulphide gold zone and gold silver lead veins.

ROBERT MINES Empire Gold Resources has the right to earn 42% of the operating profit from the mining of any ores found from Empire's exploration program on the Robert Mine.

A 3,000 foot underground core drilling program is expected to begin after Empire becomes publically traded in July.

Empire expects to spend \$100,000. on the program and a further \$500,000. if the core drilling is successful.

The target here is narrow silver gold lead quartz veins.

A crew of 4 to 6 men would be required and would stay in the camp at the mine site. The provisions would be bought in Greenwood and Midway.

ROBERT MINE MILL This mill has a 80 ton per 24 hour day capacity with normal ore. If milling contracts from local mine operators are fulfilled, it is expected that the company will add a conveyor and feed hopper to the coarse ore bin. A cone crusher and water services to the mill will be added. A cost of \$50,000. is budgeted for this.

Improvements to the tailings ponds will also be required. This would take 3 to 4 men for installation of the new

equipment.

These crews would stay at the Robert camp.

ARGONEX INTERNATIONAL Argonex has completed a mining and drilling program on the old Amigo property at Boundary Falls. A sum of \$100,000 is allocated for this program.

A local drill contractor did the drilling and employed 3 men. A Vancouver mining contractor is doing the mining. The target here is a gold, silver, and lead bearing quartz vein similiar to those found at Robert Mine.

CONSOLIDATED BOUNDARY AND GRAND FORKS SYNDICATE Based in Grand Forks, Boundary plans to diamond drill a total of 3,000 feet on the Winnipeg - Golden Crown. A sum of \$108,000 has been set aside to do this work.

The target here is gold in a sulphide band which appears to be a vein.

LANGFORD RESOURCES (a private company) A sum of \$60,000 is to be spent on the Bee Group of claims, northwest of the Kettle River-Noranda's Sylvester K deposit, located at Marshall Lake.

This is a preliminary prospecting program for whatever turns up. This program has started with a geologist arriving in Greenwood this week.

NORANDA EXPLORATION AND KETTLE RIVER RESOURCES Noranda, the operator of this project will spend \$150,000 in the Marshall Lake area and between Grand Forks and Midway.

This is a prospecting program for bulk tonnage deposits or bands of gold bearing pyrites.

NORANDA, KETTLE RIVER, CONSOLIDATED BOUNDARY Noranda is also the operator of this program for which \$125,000 has been allocated.

The program will be one of diamond drilling and modern prospecting (chemical testing of soils and electrical testing of the rocks for metal rich zones).

Noranda, the operator of these programs, is renting a trailer and motel space in Greenwood. It is expected that 4 to 12 men will be in Greenwood from May to October.

DENTONIA AND KETTLE RIVER A program of prospecting & sampling is anticipated for early this summer. The presence of erratic gold/silver values in a large altered areas are to be examined.

It is anticipated that a sum of \$10,000 will be spent and a

crew of 2 men employed for a month.

CANADIAN PAWNEE This property is located in the Lexington, City of Paris camp one mile west of the American border, within 1/2 mile of the Lone Star-Phoenix haul road.

The previously developed tonnage of gold copper ore is slated to be tested by deep electrical tests, (induced polarization) and diamond drilled this summer.

Program of twenty five miles of line cutting has begun this week. These cut lines are necessary to allow the packing of the bulky geophysical equipment. It is expected that the geophysical survey will begin shortly.

The principals have been talking to a Swedish company to test the economics of installing a 500 ton per day portable milling plant near the deposit.

The old Lone Star-Phoenix road would indicate that an ideal spot to place such an operation would be on the old Phoenix mill site where water, electrical power and tailings disposal area are readily available.

This location would be well situated to mill the developed ore from the Sylvester K, Winnepeg, Golden Crown, Skylark and the Lexington properties.

KEITTLE RIVER/BULKLEY SILVER The ORO DENERO property located near Eholt is an occurrence of limestone that is being examined by International Marble and Stone Co. Ltd. (Imasco) of Calgary.

The paper companies are converting from clay slime to fine grained calcium carbonate slurry for the manufacturing of paper.

If the limestone deposit can meet the stringent qualifications for the limestone, (98% CaCO₃, 95% dry brightness, white) a quarry may be started.

This would employ two men mining, three men in the mobile crushing plant and two local truck contractors hauling the product to the coast.

The problem here is that the Department of Lands, Parks and Housing, looks after limestone. A company spends money testing and prospecting and then the Department of Lands comes in and does their own testing and places a Royalty on the raw material. This royalty is not known until the Department of Lands has done their testing and appears quite arbitrary.

It is not likely that many industrial minerals or stone will be prospected for under these regulations. These products need to be placed under the jurisdiction of the B.C. Department of Mines.

The indicated demand for limestone for the paper industry in B.C. alone is 400,000 tons per year.

In the State of Washington, directly to the south of the Boundary Country is one of the hot spots for exploration.

The Newmont Mining Company, a large multinational company is prospecting for large tonnage gold deposits between Danville and the Lone Star Mine (Azure Resources) south of Midway.

The Gold Dyke and Gold Hill properties located near Danville are being mined and heap leached by the cyanide leach process.

Echo Bay mines, a Canadian company, is exploring the Seattle mine and the Crown Resources mineral holdings near Curlew and Republic.

The Hecla Mining Company has discovered 5 more years ore reserves at the Knob Hill Mine located at Republic. The new ore, 300,000 tons of 0.8 oz per ton gold has been found one mile south of the existing shaft in the "Golden Promise" zone. This mine is an underground shaft mine and produces 60,000 tons of ore per year. This mine has been in constant production since the 1930's. A new shaft will be constructed to the 1300 foot level of the mine.

An underground mine of this type with its own mill would employ 20 to 60 people depending on the nature of the ore and the efficiency of the operation.

Any discoveries in this part of Washington would greatly increase the exploration activities in the Boundary District.

(Information from Bonnie Bunning, Dept. of Geology Olympia, Wash.)

THESE ARE THE MAJOR PROJECTS ANTICIPATED FOR 1986, BUT THERE WILL BE AT LEAST A DOZEN SMALL PROJECTS FOR ASSESSMENT PURPOSES TO HOLD THE MINERAL CLAIMS.

THIS INFORMATION IS FROM CONVERSATIONS WITH THE PRINCIPALS OF THE COMPANIES INVOLVED OR THEIR FIELD MANAGERS. NO DOUBT I HAVE MISSED ONE OR TWO IMPORTANT PROJECTS BUT THESE APPEAR TO BE THE HIGHLIGHTS OF THE 1986 SEASON.

The summer of 1986 will see 15 to 24 geologists and as many prospectors studying the mineral potential of the Boundary Area. A minimum of 50,000 feet of diamond drilling will be done along with two to three thousand feet of mining tunnels.

Thousands of outcrops will be studied, sampled and evaluated.

It appears that a minimum sum of three million dollars will be spent in the search for minerals.

These projects should employ 75 to 100 men for the peak months of July, August and September.

A discovery of a small vein mine, would see the full time

employment of 20 to 30 men and the expenditure of 5 to 9 million dollars to bring a 100 ton per day mine into production.

A small mine would spend \$100,000 to \$200,000 per month to operate including wages, supplies, timber, etc.

A medium sized mine, such is envisaged at Canadian Pawnee, would employ about the same amount of people but the cost to bring a larger mine into production would be in the range of 10 to 25 million.

The larger mines, probably would require 120 to 175 people, if an underground operation such as at Wenatchee, or half this many in a open pit operation. The cost of equipment, milling plant, tailings disposal and pre-engineering studies would require costs from 25 to 100 million dollars, dependant on the size of the operation.

Any discovery in the district or nearby in similar rocks could easily lead to a 10 fold increase in the estimated expenditures for 1986.

There are enough skilled people out in the hills that a discovery could be made tomorrow. Perhaps a precious metal discovery to fill the gap till the next copper boom.