



Stephen Roman and Bill Bennett push the plunger . . .



. . . and the blast.

A blast from the past: mine opening like the old days

STAFF REPORT

Denison does it in style with the Opening Blast of the new Quintette coal project.

It has been a long, long time since a mine in Canada was inaugurated with the festive spirit of the recent opening of the Quintette coal mine. Reminiscent of the gala mine openings of the 1950s, and probably on a grander scale than any Canadian mine opening ever, the new megaproject was welcomed into the growing Denison Mines fold by visitors from around the world. Denison chairman Stephen Roman had done it again.

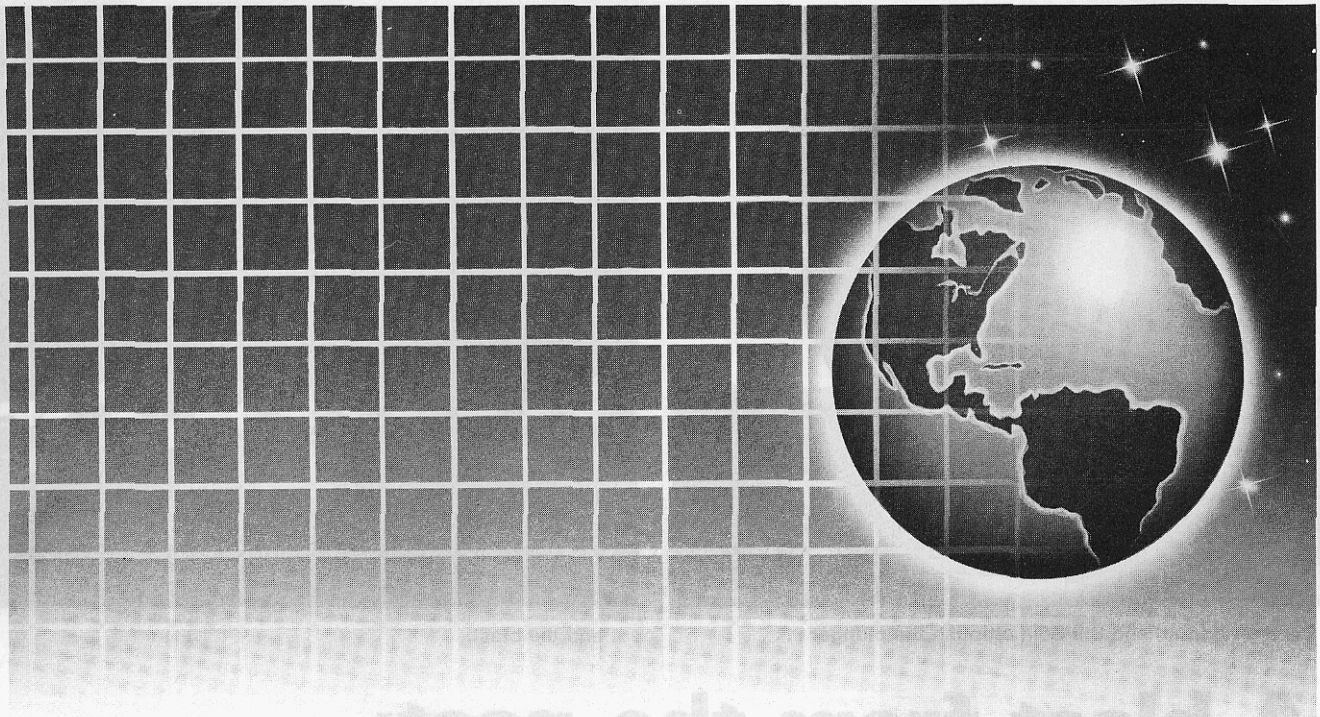
As mine openings go, it was no surprise to anyone that the Quintette affair was a lavish one. Everybody knows that the folks at Denison really know how to throw a party. But much more important, the company is no slouch when it comes to mine building, either. The key force behind the \$2.7 billion northeastern British Columbia coal developments as operator and 50 per cent owner of the Quintette mine, Denison has managed these last 10 years to overcome a myriad of political and technical obstacles to get the thing into production. Not without some problems, however (what new mine is ever problem-free?). But despite these, full production is going to be achieved a

number of months ahead of the original April 1, 1985 target.

And so there was good reason for the lavish opening, despite the claims of a few industry analysts that the project will probably never make a profit. Hundreds of bankers, contractors, analysts and industry members came from as far away as Japan, France and New York for the occasion, all guests of Quintette. About 300 flew up to the mine itself near the town of Tumbler Ridge to witness the Opening Blast. The charge was set off at the McConkey pit by Stephen Roman and B.C. Premier William Bennett, and sounded like a loud roar of thunder as it echoed through the nearby valleys. (No wonder. The charge was a half million lb. of explosives, enough to break more than a million tonnes of rock). The spectacular show of fireworks was preceded by a number of short speeches by Quintette President Clifford Frame, Roman and Bennett, whose government was instrumental in supplying the massive infrastructure necessary for the project to go ahead. But the speeches on the mountain top were short — it was cool and windy at

6,000 ft. even though it was a clear blue day and hot across the rest of the province, and the longer speeches would wait for the evening. The group headed down the mountain after the smoke had cleared for a steak barbeque which even included a special vintage Opening Blast wine. The well-laden buffet was complimented with entertainment by a local folksinger who had penned a song for the occasion ("Say hello to Tumbler Ridge, the heart of northeast coal . . ."). A tour of the well-scrubbed plant followed (first-time visitors to a coal washing plant were deprived of the true look of a plant in action — they are usually pretty dirty things).

The whole gang was then transported back to Vancouver to join another 500 guests at a first class banquet. Head table guests included the ambassadors of several countries including Japan and France, top officials of the Japanese and French sponsors, government officials and, of course, representatives of Denison. Host for the string of after-dinner speeches was well-known television personality Fred Davis, and the night was



Even today, a geologist at an exploration site can have access to concise data concerning not only a potential deposit but also a wide-range of operational and financial data, all with a hand-held computer. We see the memory capacity of such hand-held devices increasing. As memories increase, so too does a computer's capacity to carry information to the remote exploration or development site.

Computers will give operating engineers immediate access to operational schedules for a company's total operations. A design engineer will have instant supplier information, and will know immediately both the costs and availability of any components needed to expand or build a mine. Databases will be established by suppliers as a means of selling their goods and services. Contact will be automatic, as computers will be able to communicate with each other. The future promises to be information rich, a commodity in the mining industry that has been traditionally in short supply. This is particularly true for remote operations.

Operational decisions will be enhanced. Mining executives will have almost instant access to market information and will know what minerals will be in demand and when. This will ultimately control their operational schedules. To expand on Orson Welles and the California wine company's slogan, "No Wine Before Its Time", we will have "No Mine Before Its Time."

Mining companies will have access to such a wealth of information, from exploration data to mineral market information, that they could potentially be

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able to bring projects on stream at the appropriate point in the economic cycle, at the time that the market needs the minerals or ore.

To truly understand how the computer will be used in the future, one must review how it is being used today. Computers are, in a sense, large calculators. The mining industry generates great volumes of data. Using computer software this data can be converted into information that can be used to improve the quality of project analysis and exploration data interpretation.

The computer is also a powerful modelling tool and can be used to develop simulations of orebodies, deposits that lead to more efficient mining schemes. Simulations can also be used in the development of plans for mine buildings. The simulation techniques in use today in the mining industry are the result of the effective development of computer programs for other industries, particularly those with a demand for detailed engineering. The computer-aided design techniques used by manufacturers have been adapted by civil engineers and used in the development of minesites. We can expect the mining industry to further benefit from the continuing development of computer technology. We can also expect the mining industry to initiate development programs for its own use. This has started to happen, with various companies are now developing new software for exclusive use in the mining industry. This includes programs that run the gamut from financial software for mine operators to detailed geophysical programs.

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It is said that it would take a million mathematicians working 24 hours straight to duplicate the output of one average computer. The net result is a tool that in many cases will take much of the speculation out of mining.

rounded out with a performance by popular singer Patsy Gallant.

It was quite a fuss, all in all, but then there was something to make a fuss about. Although the facts and figures describing the Quintette project have been well documented elsewhere (especially in the November, 1983 issue of CMJ), some of them bear repeating. The cost of the Quintette mine itself has been pegged at \$1 billion - \$800 million of that coming from a consortium of Canadian, French and Japanese banks while the rest came from the companies owning the mine (besides Denison, Charbonnages de France International owns 12.01 per cent, Mitsui Mining Co, with 12.5 per cent, Tokyo Boeki with 10.49 per cent, Sumitomo Corp. with five per cent and nine Japanese steel companies with the remaining 10 per cent.

Slated to produce five million tonnes of metallurgical coal and 1.3 million tonnes of thermal coal every year, Quintette is the second largest coal mine in the country (not the largest, as company literature claims: Manalta's Highvale project in Alberta has a capacity of 10.4 million tonnes, but it provides low grade thermal coal not suitable for export).

The national business press has jumped on the Quintette project for bringing the mine into production when world coal

markets are in their current grim state of affairs, claiming that the end-using Japanese steel mills will be undoubtedly demanding a price cut from the current \$99 per tonne for metallurgical coal agreed to in a 20-year contract.

Those other mines without contracts who are lucky enough to sell their coal are only averaging about \$65-\$70 per tonne (say the analysts). While a price reduction is possible if coal prices remain depressed, it is unlikely that Quintette would accept anything that would mean operating the project at a loss once full production is achieved.

Like any orebody, the coal seams at Quintette are not turning out exactly as they appeared to from surface drilling. While company officials are reluctant to talk about it, the problem seems to be that there is more rock in the run-of-pit material than originally planned for. This means that so far up to 50 per cent of the material being transported down the 13 km conveyor from the pit to the plant has been waste, compared to the 25 per cent originally anticipated. However, Quintette claims to have this problem licked through the introduction of a Bradford Breaker gravity screening system which eliminates some of the larger rock at the pit site.

But after all is said and done, the main thing is that the project happened in the first place. A town, Tumbler Ridge, which will have an eventual population of 6,500, has been created. Aside from the 1,500 jobs provided directly at the Quintette site, hundreds and possibly thousands of spinoff jobs have been created, many of them permanent. The coal exports themselves will add very significantly to Canada's annual trade surplus, strengthening the economic position of this country in the world to a degree that is impossible to measure.

As New York economist Jerry Baron said at the opening ceremony, the decision to build Quintette has to rate as one of the most important decisions ever made in Canada, not just because of the project itself, but because it opened up a new area of the country and it showed that it is still possible to turn what was once a wild dream into reality.

But, perhaps surprisingly, the most poignant remark was made by a politician. Donald Phillips, B.C. Minister of Industry and Small Business, said at the ceremony that "what this country needs is about 30 Steve Romans. That would fix things." ❖

Then down the mountain for a barbeque.



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