

Lessons from the 1970s

Being in the stock-broking business we receive a lot of free publications boosting the mining industry and a motley collection of would-be gold-mining companies. We have been broking for a long time, but never have we seen so many names (most of which we have never heard of) or so much raw promotion. Or so much misleading information.

Mining-savvy clients should stop here, but we will try to present a few crumbs which may help those not intimately involved in the mining industry interpret some of the claims.

- 1) Exploration companies, or companies with a bit of moose pasture somewhere, are not mining companies.
- 2) The entrepreneurs behind these companies wish, of course, to find a mine, but the odds of this happening are only one or two per cent. However, these people are pragmatic – they need bread on the table, they need money to keep the doors open, and, of course, lots more money for actual exploration. Enter the world of promotion.
- 3) Promoters are always motivated, they nearly always need money, and news is interpreted and presented bullishly. Usually too bullishly. Promoting stock and raising money are a way of life. Do we raise money to drill, or do we drill to raise money?
- 4) As the saying goes, at the beginning of a bull move the promoter has the dream and the investors have the money, while at the end of the move, the promoter has the money and the investors hold the dream.
- 5) Of course, the easiest promotions are with an existing or former gold producer, or at least something with some substance. It is easy to

say: “The old owners didn’t know what they were doing” (probably not valid), or “Higher prices will make a big difference” (probably valid).

- 6) 80% of the world’s gold comes from open pits and the rest from underground. But nearly all Canada’s gold comes from underground so we will go there first. Ore (defined as mineralized rock that can be mined at a profit) occupies about ten cubic feet per ton. Thus, if a vein is ten feet wide and a thousand feet on strike (long) you have about a thousand tons per vertical foot. At a grade of 0.2 ounces (about 6 grams) that’s about 200 ounces per vertical foot, or 200,000 ounces down a thousand feet. Of course these things are never homogeneous, never consistent. A zone of the above general dimensions might have 100,000 ounces or less. And to define these things you need dozens of closely spaced drill holes. We mention this only to illustrate how improbable the average claim “We’ve got a jillion ounces!” is. Proven and probable are the only reserve calculations of any real value in underground situations, while indicated and inferred numbers are generally overly optimistic.* (Open pits are much more amenable to indicated and inferred resources, but there’s lots of room for error there too.)
- 7) To further put orebodies in perspective, decent open pit grade could be 1 gram (0.03 oz) per ton. That’s 1 part per million, or 30 tons (300 cubic feet) per ounce. And pits often have tough waste-to-ore ratios. All of which means moving an awful lot of rock for one measly ounce.
- 8) Since most companies associated with the mining industry are exploration companies,

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Source: CIM Definition Standards, November 22, 2005

inevitably early results will be classified as “inferred.” But as a project progresses it is important to see an upward transition in reserve classification from “inferred” to “indicated” to “probable.”

- 9) An ore-body with a big, homogeneous zone is nice; a site with the same tons spread over several widely-spaced zones is much less valuable.
- 10) If a company releases a single drill hole without providing “cut” grade (reducing the impact of the little bits of high grade in the drill core) or without providing “true” width, well, it’s not very helpful. Over the years more than one promoter has been tempted to drill “down dip” to produce a lengthy, impressive (and meaningless) intersection.
- 11) Beware of the word “includes” as in “Hole x cut 80 metres of 0.7 grams (perhaps okay for a pit), including 1 metre of 40 grams.” This really means the hole is 1 metre of 40 grams and 80 metres of 0.2 grams, probably worthless.
- 12) Above all, shake the idea that mining is an exact business. We have seen examples in which some geologist says good grade zone A has x tons @ y grade, only to find that actual mining reveals real numbers that are a quarter of those advertised. “Ore” is really just junk. The same applies to drill results – different strokes for different folks. Bre-X was fraud, but there are still lots of grey zones out there.
- 13) A trickier aspect of the business is the impact of higher prices. Generally, a zone will have a lower grade halo around it. If the gold price is low, you carefully take the good grade and leave the lower grade behind. But if the price is high you take it all. This produces lower overall grade, but costs per ton are lower because mining widths are better. And you extend life, sometimes a lot.
- 14) But, when thinking of higher prices, we are reminded of a comment by a former mentor and president of a famous mining company in the 1970s. The price of gold had rallied from \$35 to \$200 and we had pointed to a dozen old mines that had closed in the 1940s which might be of interest, whereupon he said “If there’s no gold, it doesn’t matter what the price is.”
- 15) Much of the above also applies to open pit mines, except they are generally bigger. Accounting with open pits is, if anything, more lax, environmental problems may be greater and, because of the environmental footprint, closure is often a bigger problem. Operators may keep operating, fudging the numbers, hoping for a miracle, just to avoid facing the clean-up. But the promotional aspects of open pit mines are similar.
- 16) Those who dabble in gold mining shares should also beware of accounting realities. “Cash costs” are generally a joke. To reduce “operating costs” and enhance earnings most mining companies capitalize interest, stripping costs, development expenses, maintenance expenses, many head office (including promotional) expenses and God knows what else. Much of this is legitimate, the question is always “How much?” Conservative accounting could easily double the “cash costs” of a lot of mines.
- 17) This, of course, doesn’t deal with the cost of exploring for and replacing ore that has been mined, say \$50 per ounce. Some mines never replace an ounce.
- 18) When considering mining shares it’s important to recognize information sources. All too often the broker is being fed by his analyst who is (along with most other analysts) in turn being fed by management. As mentioned, management often has an agenda. We jest (a little) but try instead to get your information from the Tim Hortons or McDonalds next to the mine.
- 19) And who runs the mine? Is it an engineer with lots of mining experience, or a well-dressed promoter who blithely assumes he can hire the requisite skills? Or a contractor? Contract mining a big pit can save a lot of capex but will increase operating costs in a big way.
- 20) Finally, how does a company build a business? Does it buy a billion dollar ore-body or does it acquire promising land, drill it, try to establish an ore-body and build a mine? Put differently, does management care about size alone? Or does return on investment and number of shares outstanding matter?
- 21) Location is important, there’s no substitution for common sense.

- 22) If a gold mine is starting up and results are slow in coming, there may be labour or equipment problems. Or there may be mining problems, as in dilution (where a lot of useless rock breaks along with the desired ore). Or safety or environmental issues. These can (usually) be fixed. But if you start mining a stope that your geologist says is 6 grams and it is in fact 2 grams, head for the hills.
- 23) And finally, even though we take a few shots at the average promoter, a lot of investors have made serious money by ignoring all the above and betting on good promoters. They say bet the jockey, not the horse. Just don't confuse the two approaches to investment.

All the above bits are generalizations. Mining is a pretty unique business and most mining projects are

also unique. On the one hand the global roadside is littered with the carcasses of failed mining undertakings, yet on the other there are examples of smart companies losing interest in projects which have subsequently been carried to great success by other operators.

We are convinced hyperinflation lies ahead and investors' focus on mining shares will continue to increase. But it does not follow that a rising tide will lift all boats. The ones with holes in the bottom, the ones that are unseaworthy, will not make it across the lake. This was the case in the 1970s and this will be the case going forward. Most of the touts in free magazines, most of the touts on television, are suspect and we urge investors to heed the old quote "I'm from Missouri, show me!"

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