Brent Cook's Exploration Insights
Turning Rocks Into Money

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Mirasol Resources:

Field Comments on the Joaquin and Virginia Properties, Patagonia

Mirasol (MRZ.TSX-V) has focused most of their attention on Patagonia, specifically Santa Cruz province, where the company founders accumulated a wealth of experience working for major mining companies over the previous decade or so. Mirasol follows a "prospect generator" business model in which the very high risk and costs of minerals exploration are offset by vending or joint venturing their properties to other companies that have the cash needed to test the mineral targets. We have covered the advantages of this business model in past EI issues (see April 10, 2009 and August 16 2008. If you are new to EI it is worth reading these). One major advantage is that shareholder dilution (your percentage of ownership in the company) is minimized, because the high risk and costs of testing a property are transferred to the joint venture partner. Since the vast majority of exploration projects fail, it's the partner that takes the cash and dilution hit. This business strategy is a long and tiresome process that most speculators in this sector just don't have the patience for.

For me, this strategy really shines because (and when) the prospect generator company is able to churn through a number of high-risk properties, which generally fail, and wait until one comes along that offers considerable upside potential at relatively lower risk. These special situations are extremely rare and require astute geologic interpretation and a sharp business sense to exploit. Well, it appears that Mirasol has stumbled across one such situation after "only" five years of working the windblown plains of Patagonia (Fig. 1 below). We will briefly discuss my field observations on the new property after covering some thoughts on their Joaquin project.

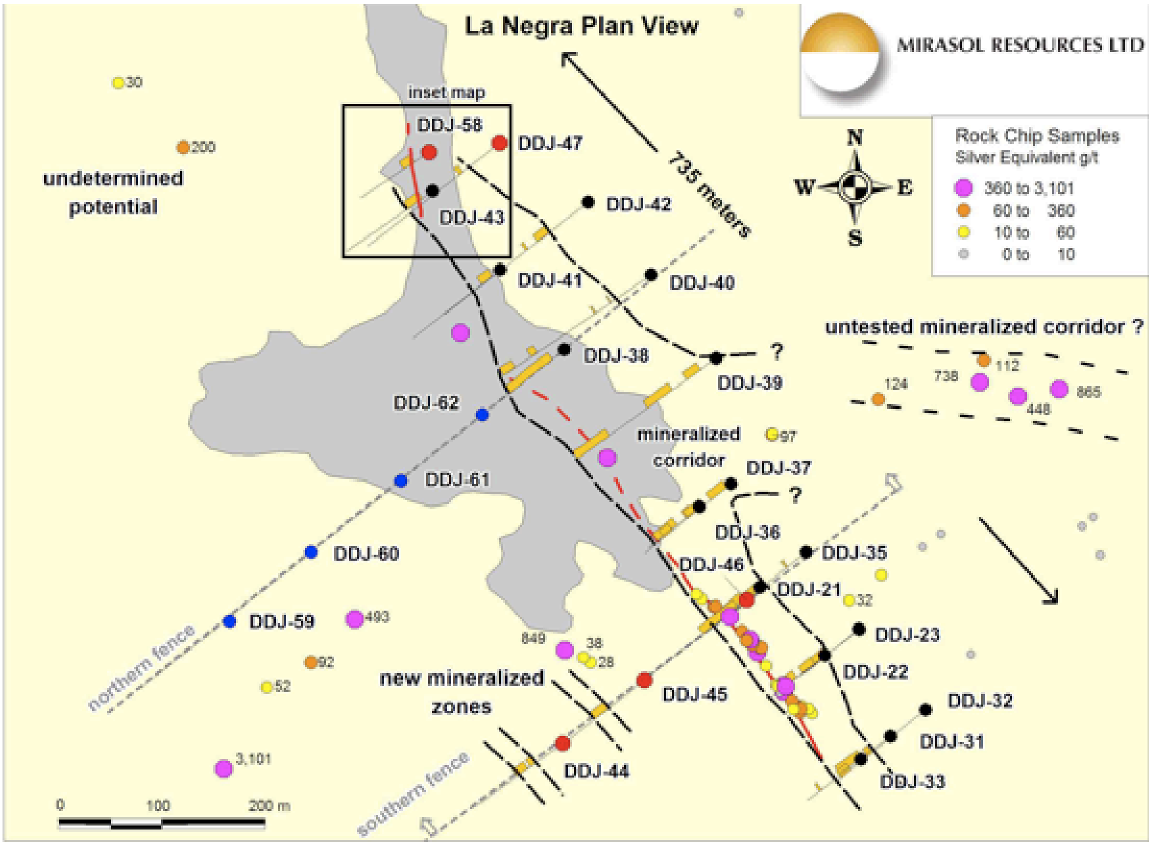
(Fig. 1- Five-year MRZ stock chart)

Joaquin

In the chart above you can see Mirasol's price jump in late November from C$0.65 to C$1.20. This was due to drill results from DDJ-43: 25 meters grading 1,164 grams per tonne silver at the La Negra prospect, Joaquin property. This single drill hole added about C$25 million to MRZ's market capitalization. It is therefore important to come to some kind of preliminary assessment of this high grade mineralization.

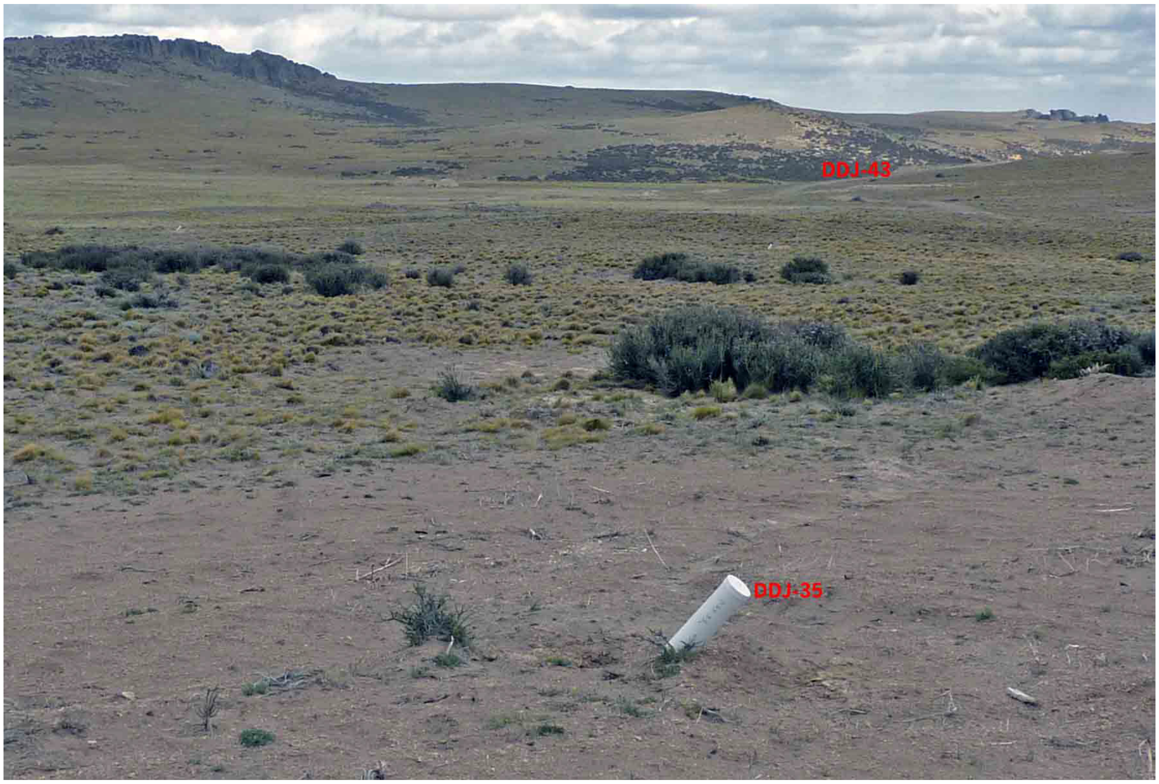
At the time the results were released we knew very little about the context of this impressive drill hole except that the grade was an outlier compared to previous drill assays and were, therefore, suspicious. (Please see EI November 29, 2009.) The subsequent release of two more holes drilled near DDJ-43 plus this week's field visit provide some context, but still leave important questions unanswered. Although two of the three holes into the north end of the La Negra structure are quite impressive (25m @ 1,164 g/t silver, and 17m @ 1,998 g/t silver), they do not appear to indicate the presence of a significant high grade zone, at least not to me.

Mirasol's joint venture partner Coeur had drill tested the outcropping at the southern portion of the La Negra structure and determined that it dipped to the east. As drilling progressed to the north along the structure across areas of no outcrop, they assumed the dip stayed to the east (Fig. 2 below). However, it now seems apparent that the dip swings from east to west and therefore these northern drill holes (DDJ-43, 47, 58) ran down the structure to some degree rather than across it. If that proves to be the case, then the structure's true width is probably less than 10 meters, possibly considerably less. We only have two high grade points in a plane to judge this by. The drill intersection of 0.6 meters grading 27 grams per tonne silver about 130 meters below the high grade intersection may or may not be associated with the high grade, so we can only guess. Solving this strike and dip riddle will require drilling from west to east, something I am sure Coeur has planned for the next drill program.



(Fig. 2- La Negra drill plan. Grey is low area with no outcrop. See photo below.)

Silver mineralization across the rest of the Joaquin property was initially found as outcropping or subcropping mineralized silica vein material. Coeur's initial drilling appropriately focused on testing the outcropping vein mineralization and its extensions under cover. However, assays now show that there is considerable modest-grade silver mineralization occurring in weakly altered rock. What this means is that the weak alteration that is associated with silver mineralization erodes more readily than the surrounding hard rhyolite volcanics, hence the topographically low areas with no outcrop or information now become prime targets for potential mineralization (Fig. 3 below). Coeur's drilling is validating this observation.



(Fig. 3- Photo view to northwest from DDJ-35 to DDJ 43 across La Negra. There is no outcrop between the two holes.)

I don't think it's worth your time for me to go into all the surface and drill results across the property at this point. The bottom line on Joaquin is that results to date show reasonable potential for a series of low grade, open pitable silver deposits and maybe some higher grade structures. The exploration potential is quite good and more targets will be turned up as detailed surface work progresses across the property. Coeur has spent about US$3million of the US$6 million required to earn 51%. They have 16 months to spend the next US$3 million and will be aggressively drilling the property. They have the further option of earning a total of 61% by taking the project to feasibility.

Virginia

The Virginia vein camp hosts the second best vein set I have seen in Patagonia (the first being Andean's Eureka Vein- market cap of ~$1.1 billion). The very important caveat here is that we only have 30 surface rock samples from the property; Virginia is in the very early stages of being explored-- anything could go wrong, or right.

(Fig. 4- Mirasol team taking advantage of the conveniently located wind-block they call Julia. Pictured-Mary Little, Paul Lhaotka, Tim Heenan, Javier Mastontonio and Nico Heenan.)

Mirasol's exploration team made this grassroots discovery in November of 2009; there is no indication of it ever being sampled before. The first 30 rock chip samples of outcrop and subcrop across the Julia vein returned silver values ranging between 21.9 and 2,660 grams per tonne silver, and averaging 645 grams per tonne silver. The vein has been traced in outcrop, subcrop, and float for two kilometers. Since the initial discovery, Mirasol has found at least three more veins across a one-kilometer wide zone. The limits to vein mineralization are not defined and Mirasol continues to explore the property.

Vein textures consist of coliform-banded quartz veins, broken banded veins, and strong hydrothermal brecciation of banded and quartz material (for the geologists in the crowd see Fig. 5 below). The matrix is comprised of finely ground quartz, silica, and hematite (sometimes specular). Lead, arsenic, barium, and mercury are present, however zinc is not and gold is minimal. This is clearly a strong epithermal vein system with multiple pulses of silica and probable mineralization. Individual vein width appears to vary from less than one meter to maybe three. The presumed structure hosting the veins can be up to 20 meters wide, however outcrop is essentially limited to the vein; it is difficult to get any handle on host rock mineralization etc. In plain English, this is good-looking rock showing all the characteristics one would expect from a high grade vein.

(Fig 5- Channel saw sample showing strong hydrothermal brecciation and hematite matrix. Two samples were collected here as a check on variability within vein and for possible near surface silver enrichment. Metal 2" sample tag on right for scale)

Mirasol has collected an additional 283 samples, including 126 sawn channel samples along the Julia Vein, plus the recently discovered Naty, Ely, and Margarita Veins. Assay results from these samples will be very central to our interpretation of, and confidence in, the potential of the Virginia property. They will provide us with a more unbiased sample set across a longer strike length. The saw channel sampling will also show us if there is any surficial supergene enrichment. I have seen instances at other properties of a paper-thin enriched skin of mineralization that did not represent the grade just below the surface. As the preceding photo shows, the channel saw samples would answer the thin-skin enrichment question. There is also the possibility that the upper portion of the vein has experienced supergene silver enrichment. Drilling is the only way to determine if this is the case.

Concluding Thoughts

Mirasol's market capitalization of ~C$73 million is not insignificant and the market is pricing in a fair amount of success at Joaquin and/or Virginia. Right now it is difficult to assign that much hard value to two properties: one comprised of some scattered drilling and no resource, and the other with 30 good rock samples and some sexy looking rock.

Assuming joint venture partner Coeur takes the Joaquin property through a feasibility study, MRZ will own 39% of the project with the option to fund their share of development or reduce to 29%. Drilling to date suggests there is a reasonable potential for Coeur to outline a modest size and grade silver deposit that is amenable to open cut mining. Given that the joint venture contract requires Coeur to spend US$3 million over the next 16 months we should see an aggressive drill program directed at identifying a resource and exploring the property. The exploration potential is good and there is always the shot at a major new discovery. Metallurgical studies (always a worry) will of course be critical but can't really be completed until ore types have been defined.

I am impressed and excited by what I saw at Virginia and the Julia Vein; these offer the real home run potential over the rest of this year for Mirasol. But, grade is always key and realistically, at MRZ's current market capitalization, the subsequent 283 surface samples need to confirm that the initial 30 samples were representative. I suspect they will.

Drilling will probably start after the permits and land access agreements are signed: maybe three to five months from now. It is of course possible that the mineralization at surface does not extend to depth, but we accept that grassroots exploration risk whenever the drill bit starts turning.

I was also very impressed with the entire Mirasol team. President Mary Little has structured smart joint venture deals and is focused on preserving capital and share structure. The geologic teams in Argentina and Australia are professional. They have considered all possible geologic, surface, and social scenarios, and are moving the project ahead as if it will one day be a mine. This type of early planning is vital to selling a property later on.

Assuming stable silver prices and markets, the downside for Mirasol is probably limited to poor drill results from Joaquin or surface results from Virginia: I expect we may see the former. The upside is that drilling later this year could prove that the Virginia Vein camp is a significant silver discovery. Although it is tempting to take some money off the table (the prudent move), it is equally tempting to buy some more MRZ. If this were a $10 or $20 million market cap company we would be all over it. But the ~$70 million market cap requires some substance. For the time being I am holding the position and will look for news or market action to guide any decisions.

Upcoming Events

This Sunday and Monday is the Cambridge House Investment Conference in Vancouver. I will be attending and speaking and invite you to come on down. By entering the code COOK your $20 admission fee will be waived.

I will also be attending and speaking at the Cambridge House Phoenix Investment Conference, February 4 and 5. For those of you wishing to escape the northern winter Click on this link to register. By entering the code COOK your admission fee will be waived.

That's the way I see it.

Brent Cook

Brent owns shares in Mirasol