November 1, 2010

O B Research

Special Flagship Report -

El Valle-Boinás Carlés -

A 6.5 grams/ton gold property [1]

A jumbo drill at work in Carlés

1. P&P reserves: 5.23 grams gold , copper 0.74%, silver 11 grams

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Orvana Minerals Flagship Report

Recommendation: Buy
(TSX: ORV) **June 30th 2011 target: C$ 4.20 (under revision)**

Mcap: C$302 million at share price C$ 2.60
Basic Shares: 116.1 million
Warrants/options: 3.3 million
Fully diluted shares: 119.4 million
Website: http://www.orvana.com/

El Valle-Boinás Carlés northern Spain

Introduction:

There is a saying in the market that ”all ounces are not created equal”. What this means is that once you have found a company that actually has gold in the ground, you have to make sure these ounces are attractive enough to be produced.

Most companies are primarily being judged up on their main asset, sometimes named “the flagship property”.

What is a good flagship property?

Every company worth our hard earned money needs a flagship property that should have at least some of the following attractive characteristics:

- More than 2 million ounces of resources and great “blue sky” to increase this.
- Expected production of 100,000 ounces of gold or more.
- Expected cash cost at or below industry average which we would currently estimate at US$ 500/ounce. If you expect your company´s operating cash cost to be in the lower quartile (around US$ 350 or less) other investors might in time be willing to pay a very high price for these ounces (Alamos comes to mind).
- Situated in a country that welcomes investors (for example avoid flagships in South Africa like Great Basin Gold etc.) and that does not have problems with growing lawlessness (avoid flagship projects in Mexico, Alamos, Gammon, Minefinders etc.).
- An attractive valuation of the ounces in the ground and in production (or soon to be in production) compared to peers. This metric obviously fluctuates with the gold price and the stock market. What one should avoid are the companies where cost+valuation of resources comes close to the current price of gold (Semafo comes to mind). If the company has not yet financed its production plant and mine one should add ~ US$ 200 to the expected cash cost/ounce.
- If the company is in production or will soon be in production you have to look at financing and hedging. Putting a typical 100.000 ounces mine into production typically costs US$ 200 million. Basically this must be financed either by equity (serious dilution) ordebt (almost always a huge hedge requirement) or possibly through a joint venture (dilution of ownership).
- A final check if your company has a good flagship property is whether this asset would be attractive to another mid size producer or even a major.

El Valle-Boinás Carlés, a flagship district

You have seen us reporting from this beautiful place in northern Spain. The property is actually a very old district that has seen plenty of gold production over the centuries as far back as the Roman Empire and probably before that.

The Rio Narcea Gold Belt is about 45 km long and provides Orvana with plenty of brownfield upside (basically this means that plenty of drilling was done back when 5-6 grams of gold combined with 0.75% copper was not considered as amazing as it is now). Previous production was closed down in 2006 due to a change of ownership. The new owner was a base metal producer and this property was not the targeted flagship property of the buyer (a nickel property owned by Rio Narcea Gold was the acquisition target).

Resources and Reserves:
Total gold resources at a 2 grams cut off: 2.6 million ounces
P&P reserves: 784,000 ounces
Copper: Total resources of 188 million pounds here considered as by product credit.
Silver: Total resources of approximately 5 million ounces here considered as by product credit.

Drilling is currently under way to move inferred resources into the M&I category and classify them as reserves.

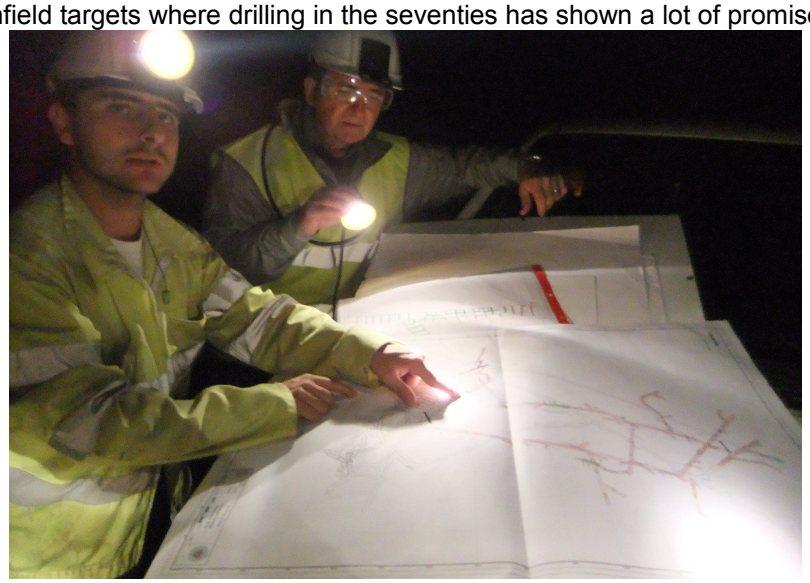
Please take a look at the following text from the recent feasibility study:

‘‘It is estimated that 29 drill holes will be required to convert all of the internal A107 area inferred resources to indicated resources and 27 drill holes will be required to convert the inferred resources in the San Martin Zone to indicated resources”

The combined inferred resources of A107+San Martin Zone are 257,000 ounces of gold and converting these into indicated and classifying them as probable is the key target for the ongoing infill drilling campaign expected to extend into 2011. These areas alone will put P&P above 1 million ounces and mine life at 10 years.

One should also note that all resources and reserves are calculated using a 2 grams gold cut off limit and metal prices of US$ 800 gold and US$ 2 copper. At the next reserve update, more realistic long term prices will add significantly to ounces in the ground and further support a production expansion.

When cash flow starts to flow, Orvana will on top of infill drilling also start drilling a number of exciting brownfield targets where drilling in the seventies has shown a lot of promise.



Orvana´s CEO Roland Horst at work (right).

Production:
Orvana has a planned production start in April 2011 at EVBC and we use May 1st for start of commercial production. The average annual rate over life of mine is as follows:
Gold: 105,000 ounces
Copper: 8.6 million pounds
Silver: 160,000 ounces

The first 12 months of production are expected to produce:
Gold: 95,000 ounces
Copper: 8.2 million pounds
Silver: 256,000 ounces
We mention the “Year 1” numbers because these are the numbers we use below from the feasibility study to show you the expected profitability at today's metal prices. The numbers, being a little bit lower than the average expected production are a bit conservative, but since we add the incentive given by Spain of € 5 million (US$ 7 million) for creating jobs, we feel that you will get a good picture of profits on an annualized basis at EVBC.

You should however be aware of the fact that major expansion can and most likely will be done by only expanding the crushing capacity for a few million US$ when reserve growth supports it. Possibly towards an annual production of 130,000 ounces.

Profitability and cash cost of EVBC Spain:

In order to make our calculations easy to follow, we will use the official material from the 43-101 feasibility study published in July 2010, and step by step show the assumptions we make as we update it to current metal prices and the profit we therefore expect from EVBC during 2011 (8 months and on an annualized 12 month basis going forward).

Table 19-9 Economic Cashflow Summary

			Year								
			0	1	2	3	4	5	6	7	Total
			2010	2011	2012	2013	2014	2015	2016	2017	
ROYALTY PAYMENT		$M	-	2.2	2.4	2.5	2.3	2.4	2.4	2.5	16.6
MINING COSTS											
Stoping		$M	-	20.6	23.7	25.0	26.3	30.3	31.4	25.6	182.8
Backfill		$M	-	4.8	5.6	6.7	8.7	9.5	7.1	7.4	49.6
Shaft hoisting to plant		$M	-	0.6	0.8	0.9	0.8	0.9	0.7	1.0	5.7
Mine services		$M	-	0.8	0.8	0.8	0.8	0.8	0.8	0.8	5.7
Secondary development		$M	-	3.0	8.2	8.2	8.4	8.2	5.4	5.6	46.9
MILLING COSTS		$M	-	12.7	14.6	14.9	14.6	14.9	14.5	13.6	99.9
ADMIN COSTS		$M	-	3.0	3.4	3.5	3.4	3.5	3.4	3.2	23.5
TOTAL REVENUES		$M	-	93.2	100.1	106.9	96.1	100.6	98.9	106.1	701.9
TOTAL OPERATING COSTS (incl smelter co		$M	-	52.8	64.9	68.5	70.0	75.0	69.7	65.9	466.8
OPERATING MARGIN		$M	-	40.5	35.2	38.3	26.1	25.6	29.2	40.3	235.1
Total cash costs Less Cu and Ag credits		$M	-	34.0	45.3	46.4	53.6	59.5	55.5	45.5	339.8
Cash cost		$/oz	-	356.0	439.1	427.2	524.7	545.4	511.0	414.0	461.0
CAPITAL COST ESTIMATE	Contingency										
Pre Prod Sec Development	12.5%	$M	2.0	1.1	-	-	-	-	-	-	3.1
Mine Development	12.5%	$M	3.7	0.7	-	-	-	-	-	-	4.4
Mine	18.0%	$M	14.8	9.4	-	-	-	-	-	-	24.2
Mill	10.0%	$M	3.0	1.9	-	-	-	-	-	-	4.9
Environment	25.0%	$M	3.2	0.9	-	-	-	-	-	-	4.1
Occupational Health & Safety	10.0%	$M	0.2	0.1	-	-	-	-	-	-	0.3
General Infra & Op Services	10.0%	$M	2.9	1.4	-	-	-	-	-	-	4.3
Administration	10.0%	$M	0.5	2.0	-	-	-	-	-	-	2.5
Exploration	10.0%	$M	0.5	0.1	-	-	-	-	-	-	0.6
CAPEX from Oct 2009 to April 2010		$M	11.2	-	-	-	-	-	-	-	11.2
REMAINING CAPITAL COST		$M	30.7	17.7	-	-	-	-	-	-	48.4
TOTAL CAPITAL COST		$M	41.9	17.7	-	-	-	-	-	-	59.6
Post production CAPITALISED DEVELOPMI		$M	-	3.7	3.4	3.3	6.7	2.9	5.7	1.1	26.8
SUSTAINING CAPITAL		$M	-	1.0	4.6	4.6	4.6	4.6	2.3	-	21.6
WORKING CAPITAL		$M	2.1	0.5	-	-	-	-	-	- 2.6	-
PRE TAX CASH FLOW		$M	-44.0	17.6	27.2	30.5	14.8	18.1	21.2	41.8	127.2

IRR		48%
NPV	5%	91.1 $M
NPV	10%	65.6 $M

Based on metal prices of:		
Gold price	$/oz	800
Copper price	$/lb	2.0
Silver price	$/oz	12.5

1. Let us start by repeating that 6 cent/Orvana share (€ 5 million) or about US$ 7 million will be given from the Spanish government during 2011 for creating 250 full time jobs by re-starting the EVBC mine. This is not included in the year 1 numbers above, but we will include it for 2011 and the first year of annualized production since production will ramp up to higher levels.
2. Look at the metal prices used in the feasibility study, US$ 800, US$ 2 and US$ 12.5 for gold, copper and silver. At the current price of 1330 gold is 66% higher. We know that 80% of the copper is or will very soon be hedged, most likely around US$ 3.6 for year 1 or 80% higher. Silver at US$ 23 is about 84% higher. We also know that around 80% of the income will come from gold, 4% from silver and 16% from copper. Let us therefore assume that prices are about 70% higher on average than the numbers used in the feasibility study above, and multiplying with 1.7 gives an expected revenue year one of US$ 158 million.
3. Let us have a look at the costs, starting at the top with the royalties. These will increase more than the metal prices and we estimate them at US$ 4 million year 1 (82% higher, factor 1.82).
4. Total operating costs were expected to be (5.8-2.2) at US$ 50,6 million including smelter fees and transport costs. We are a bit conservative and assume that costs of insurance & smelting etc. will increase. We therefore calculate this at US$ 53 million or US$ 57 million including royalties.

5. Regarding the capex as per above, for simplicity we sum up 59.6+26.8+21.6=108 and divide by a 7 years mine life for an annual cost of US$ 15.5 million. Operating costs including royalties + capital cost sums up to US$ 72.5 million .
6. Revenues of US$158 million – costs of US$ 72.5 million = US$ 85.5 million. To this we can add the US$ 7 million from the Spanish government. One off income? Yes, but as you can see above year 2 & 3 have a higher expected production so actually doing this paints a more fair picture. US$ 92.5 million it is...
7. Let us proceed to taxes. We will not find the taxes here but the tax rate for Orvana in Spain is 30%. One should however know that, as we already noted above, Spain welcomes Orvana and for the coming years Orvana is expected to pay a lot less than 30%. Still we use this rate to be conservative. After deducting 30% tax Orvana is expected to have a net profit of US$ 65 million, or a 56 cent/share EPS contribution from Spain during the first full year of production. During 2011 we should see a contribution of something like 37 cents/share.
8. When calculating EPS, you do however have to remember the costs for running the parent company as well as a couple of million US$ in costs for interest rates. On the other hand, we do also have Orvana UMZ Bolivia that we expect to add 39 cents on an annualized basis at current metal prices doing the same kind of calculation from that feasibility study. This starting in January 2011, but that is an entirely different story, as is the ~2 billion pounds of copper at Copperwood that should have full feasibility study as well as permits done in about 18 months.

Looking at the operating costs you see that these are around US$ 65 million annually. Income from (hedged) by product credits of 3900 tons of copper at US$ 7200/ton and (unhedged) 160,000 ounces of silver at US$ 23/ounce, sums up to US$ 32 million. Operating costs after by product credits could be around US$ 33 million or about US$ 314/ounce of gold using the average LOM rate of 105,000 ounces which should place EVBC in the top gold quartile.

What about producing in Spain?
Let us be clear about one thing. We are very careful about choosing our jurisdictions and quite frankly we are appalled by how a key mining country like Mexico is portrayed as a safe jurisdiction by the mainstream analysts. We expect that to change very soon, most likely as the armed narcotic gangs realize that robbing Alamos, Gammon or Minefinders of doré bars is much easier than robbing the local bank for smaller amounts. We are already reading Bloomberg stories of how these gangs target these companies' employees as potential drug users due to their comparatively high salaries. Another trigger of rushing out of Mexico could be a high profile kidnapping of a mining executive.

Spain? We do not want to pick on the Canadian mining analyst sector since it is the one that knows mining best in the world, but regarding Spain (and Mexico) we believe that they will change their minds as they learn more and realize that being close to North America is not the same as automatically being good and vice versa. As mentioned in our site visit report,
http://www.ob-research.com/sites/default/files/EVBC_site_visit.pdf,
we were almost moved by how we were treated in this high unemployment community. Orvana Minerals is loved for bringing the mine back into production. This is not only the local community ´s warm feelings about Orvana, but also the central government which expressed its welcome by granting € 5 million for creating 250 (direct) jobs.
http://www.orvana.com/news/pdf/101020.pdf

As can be seen in the same press release, all permits were also given without fuss. Because Orvana´s management are experienced underground miners since 10 years in Bolivia we didn´t expect anything else, but it is still nice to see.

A little bit off topic: We are very encouraged by what we read regarding the community support (as well as the permitting procedure) in Michigan, for Orvana´s huge Copperwood project.

Should the coming update show a total 43-101 resource of 1.5 billion pounds (0.9 today), a valuation of only 10 cents of these pounds would represent C$ 150 million, or half the current market capitalization of Orvana Minerals. This is very probable since the recent scoping study showed a cash cost of US$ 1.2/pound. Copperwood is valued at nothing for now, but it will be soon (http://www.orvana.com/news/pdf/100913.pdf) as growth in 43-101 resources as well as a pre-feasibility study and initiation of production permitting during spring 2011, will bring the company closer to realizing more of this intriguing project's full value.

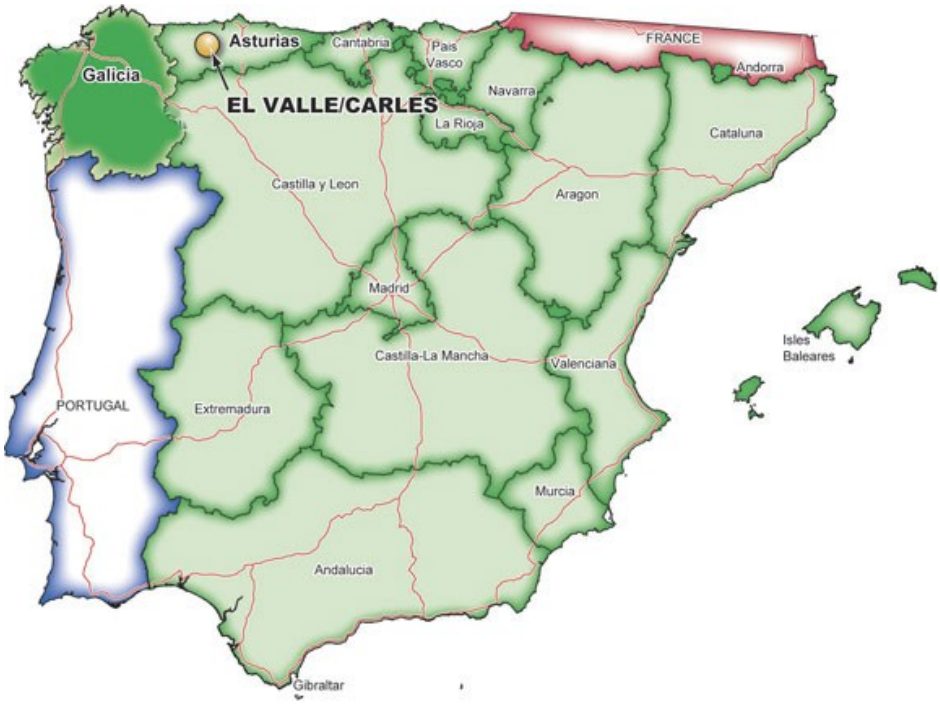
Valuation of ounces:
This obviously depends on how much value one attach to profits from EVBC, the profits from UMZ Bolivia and how one values Copperwood. If we (for now) would value Copperwood at zero and expected profits from Bolivia at 3x earnings. This indicates US$ 135 million of the current MCAP which leaves us with US$ 165 million current market capitalization for EVBC Spain or 1.4 C$/share. This indicates that the market is giving Orvana Spain a valuation of less than 3x expected annualized earnings at current prices and about US$ 64/ounce of its resources.

Valuation and recommendation

Once up and running, in about 6 months, we believe that El Valle-Boinás Carlés should have a valuation of at least 10x earnings (using current metal prices) as we expect LOM to be extended to 10 years and then further as inferred ounces are upgraded and converted. We should also see resource growth as Orvana eventually starts focusing on brownfield exploration. We expect this expansion in reserves to be accompanied by growth in production towards an annual production of ~ 130,000 ounces.

Once up and running the EVBC part alone would therefore justify a valuation of C$ 5.60/share.

At the current valuation of C$ 2.60/share the discounting for the start up risk is simply overdone by the market, especially considering the two other projects that will soon become much more visible in the equation.



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