

# Performing Due Diligence on a Micro-Cap Oil & Gas Company

Every time you fill up your car with gas you are impacted by the price of oil. Across the board commodity prices have risen to historic highs, crude oil is no exception to this. In fact, oil is probably the most visible and easily felt commodity with movements in its price having a very noticeable impact on almost everyone world wide.

It seems like everywhere you turn there is someone touting a new start up oil & gas company or a drilling program with a set of oil leases. Over the last several years Coral Capital Partners has evaluated and performed due diligence on countless oil & gas companies, and leases. With so many investors giving serious consideration to investing in these small and micro-cap oil & gas companies I thought now would be a good time to discuss what I look for when I am evaluating these projects for Coral's clients. There are a large number of small and micro-cap companies in the oil & gas industry. Being able to conduct a reasonable

amount of due diligence on these companies in order to properly evaluate them goes a long way towards helping ensure investors have a successful investment.

While many investors have a tendency to lump oil and natural gas together; it should be noted that economically oil is not natural gas, and the economics of the two can be quite different. This is due to the basics fundamentals of supply and demand. There is a shortage of crude oil in this country; we import almost 20 million barrels of oil a day. We however have a surplus of natural gas in the United States to the point we are starting to look at exporting liquefied natural gas (LNG) to other countries. It used to be that natural gas was found in similar formations with oil, however this all changed when natural resource companies began combining horizontal drilling with advancements in rock fracturing technologies. This allowed natural resource companies to unlock huge reserves of natural gas which were previously out of reach. As a result while the price of oil rose dramatically over the last five years, the price of natural gas is actually down from where it was five years ago. Natural gas from these shale deposits is sometimes referred to as unconventional gas or shale gas. I do not see the surplus of natural gas being dramatically reduced anytime soon. These unconventional gas wells typically produce high volumes of natural gas and the major gas companies are drilling more wells regardless of the overall economics just to maintain their lease positions. Additionally once you hit a major natural gas find you need to build a pipeline in order to get the gas to the market and get paid. In some parts of the

country a lack of pipeline capacity causes the gas produced in those regions to be sold at a discount due to a lack of pipeline capacity. Oil does not have these issues. Oil is easily trucked from storage tanks at the well site to the refinery. Despite the recent massive oil discoveries in the Bakken formation, production from this region may never increase fast enough to overtake the current supply and demand imbalance in this country. As result I see continued high prices for crude oil. This should lead to favorable economics for those natural resource companies focused on crude oil production.

When I am conducting due diligence or evaluating an oil & gas company for Coral Capital's clients it is very useful to understand several key items.

**Working Interest (WI):** This is the operating interest that the owner of the lease, or portion of, has the right to drill, produce, conduct operating activities and share in all the costs associated with the exploration and development of the lease. I typically like to see a company with a solid majority Working Interest percentage. In my book, the closer to 100% the better. This gives a company more control over its own destiny. I do not like to see a company with a minority Working Interest position. This places the company at the mercy of the majority Working Interest owner; and if that owner decides to drill a lot of uneconomical wells the minority working interest owners will be stuck paying for them.

**Net Revenue Interest (NRI):** This is the amount of revenue that the lease owners keep after paying the royalties to the owners of the mineral rights and all other non-oper-



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ating interests. In the past it was typical for the owner of the mineral rights to keep a one eighth, or 12.5% Net Revenue Interest. This meant the typical lease owner had an 87.5% Net Revenue Interest. With the current high price of oil and all the recent interest in domestic on-shore production the owner of the mineral rights are able to keep a higher percentage than in the past and as a result an 82.5% to 80% Net Revenue Interest is much more common. However, oil fields require much more maintenance than natural gas fields, and with the higher maintenance expenses for an oil field it is really difficult for an oil company to make a profit if their NRI is below 80%. Therefore I would look to avoid any companies that have less than 80% NRI on their oil leases.

**Field Operations:** Once a well has been drilled and completed it just doesn't flow endlessly on its own, those darn things require constant maintenance. It is important to know if a company is operating its own fields, and if not, what its cost of operation is. Most small companies do not operate their own fields, so it is not a deal breaker when looking at small oil and gas company, but what is important to know is if operating costs on a per well basis are relatively low. There is an old saying in the oil and gas industry about a field being operated to death; basically you want to make sure that the operating expenses are not going to eat up all the profits from the oil and gas production.

**Decline Curve:** This is an important one. So many times a company will issue a press release regarding a new well or talk about a new well during a presentation and will tout that the well produced a certain number of "barrels per day." Every well will see a decline from its initial production within a reasonably short period of time. What is important is where the well production will stabilize. For example if a company drills a well and the initial production is 25 barrels of oil per day, but a month later the well's production has declined and stabilized at 10 barrels of oil per day, then you would value the well based upon the stabilized 10 barrels

of oil per day, not the initial 25 barrels per day. The same for natural gas. You cannot expect to produce an accurate valuation on the oil field if you do not know what to expect for long term production.

**Reserve Report:** This is a report produced by a geological engineering firm that attempts to estimate the total amount of oil or gas in place, how much of it is recoverable and over what length of time. Typically a reserve report will attempt to provide an estimate of the net present value of this production. For those who are unfamiliar, the net present value (NPV) is the estimated current value of future cash flows discounted at an appropriate interest rate in today's dollars. The typical discount rate is 10%, and thus you will tend to see a lot of discussions concerning NPV (10), which is the value today of the cash flows at an interest rate of 10%. Typically a Reserve Report is something that you will see when evaluating a private project or drilling program, and is not typically included in the public filings of a company. The Reserve Report should be from a well known and reputable firm.

**Production Records:** The drilling of oil and natural gas wells is highly regulated by individual states. Every state requires a certain level of reporting on the production from each and every well. These reports are a matter of public record. Any company that is evaluating a lease with prior production should have copies of these production records. They become important when a company is attempting to evaluate a lease for purchase. Without these records it is very tough to get an estimate on the value of a field. While these records are not something that is typically disclosed in a company's public filings; they are something you will want to make sure a company has when you are looking at a presentation on a private drilling investment. When looking at a private project, if they don't have the past production records then I would probably pass on the project.

If you are looking at an oil or gas project then here are a few terms you will need to know.

**Proven Oil & Gas Reserves:** Oil and Gas reserves for which there is at least a 90% confidence of their being able to be recovered under favorable economic conditions.

**Proven Developed Reserves (PD):** Proven developed reserves are those where there are existing wells, that may or many not be in production, where minimal additional investment is required in order to recover the oil and gas in place.

**Proven Developed Producing Reserves (PDP):** Proven developed producing reserves are reserves where there are existing wells in production that are capable of recovering the oil and gas that is in place. Obviously I place a greater significance on PDP than on PUD (see below) or unproven reserves.

**Proven Undeveloped Reserves (PUD):** Proven undeveloped reserves require additional capital investment; most typically the drilling of additional wells in order to recover the oil and gas that is in place.

**Unproven Reserves:** Unproven reserves are those where there is a 50% (or greater) confidence level of recovery but for some reason the reserves are not able to be classified as "proven." This most typically will occur when a company owns a large lease but has not drilled the required number of exploratory wells needed to "prove up" or establish the required confidence level in the reserves.

**Exploratory Well:** A well drilled to find and produce oil and natural gas reserves not already classified as proven.

**Production Stimulation:** Currently most companies in the oil and gas industry are either drilling into shale formations with a very high probability of success or they are reworking old fields in order to increase production. The vast majority of the small and micro-cap oil and gas companies I have seen over the last couple of years tend to be those that are looking to build their companies by employing a strategy of acquiring older, neglected fields and reworking those fields to increase production. This can be a low risk and very smart way to build a company; but it is also important to have an understand-

ing as to how the production of a field can be increased.

Oil wells require a lot of maintenance and if they are neglected for any length of time their production levels will decline. One of the most basic ways of increasing production is to rework the wells. Many times this will involve replacing equipment and sometimes even re-boring the well. If done properly this can be a cost effective way of boosting production. It is important to know what the company's plans are and how it controls the cost associated with these plans.

Another method of stimulating well production is through water flooding. This is when a company pumps water down an old well in an attempt to pressurize the field and in the process push the oil that remains underground towards the production wells. This is a proven and highly successful technique. However, the drawback associated with this is that the oil produced typically comes to the surface with a fair amount of water mixed in, which needs to be separated and properly disposed. This can dramatically up the costs associated with operating a field.

A more advanced method of pressurizing a field involves injecting a gas into the field. The most common gasses used in injection stimulation are either carbon dioxide or nitrogen. Carbon dioxide is a more abundant and cheaper gas to use, however it can react underground to form carbonic acid which can be highly corrosive to the equipment in the oil field. Nitrogen is slightly more expensive to use, but it generates better results and doesn't form acidic compounds that eat up the equipment. When I am evaluating oil field stimulation I prefer to see either a form of nitrogen or carbon dioxide stimulation.

The other strategy for upping the production from an existing oil and gas lease is to look for deeper reservoirs. Typically what has happened is a lot of these older fields were drilled back when oil was much more abundant and the equipment was a lot less reliable. As a result, many times they simply quit drilling when they found their first, and

shallowest, reservoir. In many of the projects I have reviewed it is believed that there are much more productive reservoirs a little deeper, and within very economical reach, just below the existing producing reservoirs. If a company can successfully drill down into these reservoirs then it can dramatically increase the production and value of the field. I would want to at least see some potential for this in any project I was seriously considering.

**Management:** This is a key item for any company, in any industry. It is critically important in the oil and gas industry which has had a habit of attracting bad actors throughout its history. When I am evaluating an oil and gas company I take a close look at the management of the company. Not only do I read the SEC filings and look at the material the company is supplying, but I also conduct my own research on the internet. I do a variety of searches on the management teams and the board of directors of the company. I look to see how their past projects have performed, and I look to see if they have had any regulatory problems in the past. When I performing a full service due diligence project I will even pull a full professional background report. I will also look to see if the board and management have any involvement with other public companies. If they do, then I will look to see how those other companies have fared. My theory is that an apple typically doesn't fall far from the tree.

Another thing I feel it is important to review is the ownership of the company. Does the current management own a meaningful stake in the company? I also look to see if any of the major shareholders are corporation or limited liability companies. This is important as a lot of bad actors like to hide their ownership through limited liability companies (LLC). When I see a LLC with a significant ownership position I will do research on the company and who the principals are behind the company. I am by no means saying that having an LLC as a shareholder is a bad thing, but it is amazing

what you can find when you take a look. In an ideal situation, I like to see the management own a fairly reasonable position in the company with everyone having a fairly reasonable background and track record of success. If I find any regulatory problems or "red flags" regarding the board of directors or management, I am gone, there is no way I would consider an investment.

**Structure:** I believe in simple, clean corporate structures. For most micro and small cap companies this means having a reasonable number of shares issued and outstanding. In my world this is somewhere between 10-50 million shares, not hundreds of millions. I like to see a single class of common shares and at most a few different classes of preferred. I am generally good with project specific structures as long as they are transparent and are not a backdoor way of rewarding management at the expense of the company. What I do not like to see is convertible debt or preferred that doesn't have a hard floor to the conversion price. I also do not like to see project overrides to management or board members; I feel this creates a conflict of interest that places their interest above those of the shareholders.

Hopefully you will find the above information useful and helpful. Proper due diligence on a project does not guarantee a successful investment; but it can go a long way towards making sure that you avoid undesirable companies and place your hard earned investment capital in a company with a good chance of succeeding. ■

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