



VISTA GOLD

7961 Shaffer Parkway  
Suite 5  
Littleton, CO 80127  
Phone: 720-981-1185

Trading Symbol: **VGZ**  
NYSE American and TSX Stock Exchanges

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## NEWS

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### Vista Gold's Fred Earnest on New Metallurgical Testing Results

Here is the full transcription of the interview:

**Trevor:** *So, you've recently put out some news this week earlier this week where the company releases announcing results of its ongoing grinding and leaching tests from Mt. Todd. The news release had indicated that Gold recoveries exceeding 90% may be achieved depending on final grind size. Can you talk a walker listeners through the test process and the results of that?*

**Fred:** Absolutely. Trevor thanks for thanks for asking that question. After we after we completed the updated preliminary feasibility study we began another round of testing. We had determined that two stage grinding would be very effective and efficient and offer great benefits for the project as part of that update. But all of the samples that were prepared for the two stage Leach tests or the ultimate Leach tests that we conducted were prepared in two stages of ball mill grinding and we've selected a different a different kind of grinding method for the second stage of grinding. It's called stirred media grinding and it's really a case of the shell of the mill stays static and the shaft rotates and there's either disks or bars on that that agitate the media to grind it, and the result is that instead of grinding by impact the stirred medium Mills grind more and shear and so creates because the grinding mechanism is different. It creates a different final product size distribution.

So after announcing the results of the preliminary feasibility study in January we began a process of getting some more material prepared and sending it out to labs one that core metallurgy which works for Glencore and they do all of their design work. And the other was FLSchmitt who manufactures a vertical mill that we looked at as well. And getting those results are that material that was fine ground using these two different types of mills we then submitted it to leach tests and we did so in triplicate so that this isn't just a one-off number



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but rather that we were able to validate that the numbers that were generated. And the bottom line is that due to two factors, one is that in this in this other type of grinding mill and a sturdy mill and specifically in the IsaMill the material grinds a lot easier than was projected and so the first round of tests the labs over ground the material they created a product that was much finer than what we expected and even at that they consumed less power to generate that sample. And so, we've started looking at this from the point of view of can we achieve a finer grind size with less energy consumption. Now it turns out that we have less media consumption than what we estimated as well. And so, the combination of those two factors less power, less media consumption mean that ultimately we'll be able to grind to a finer size at a lower cost. And so we completed two sets of tests.

These tests indicate that at grind sizes of 38 and 25 microns or in other words about two thirds and a little under half the size that we had targeted in the last update of them PFS that we will achieve recoveries in excess at or in excess of 90%. This is a very significant step forward for the for the project being able to reach this point.

**Trevor:** *Absolutely. We have a lot of questions, we've shared information about the automated sorting one of the questions was that's really interesting technology where has it been used and successful before. And so, I'm sure will you'll be getting a lot of the same questions were things. So, can you maybe give us some examples of where it's already in place and been successful in other in other spots?*

**Fred:** In the IsaMills have been installed in many parts of the world. This technology was introduced by Glencore in 1993. It's being used at numerous operations in South Africa. This is this is technology that's been around for a long time and the machines just keep getting bigger. We're using 15 cubic meter machines in our design or 15 cubic meter



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mills and this is this is this is nothing that's brand new off the shelf experimental in any way shape or form. This is something that's been used for quite a while. It's been used in operations that have harder rock than ours and it's but it's but it's niches that it's used for fine grinding and that's what we're doing is we're taking the ball mill product and we're reducing the size even for them.

**Trevor:** *And I know that the metallurgy of Mount Todd based on the geology of the ore deposit has always been a question for the project. Why is this an ongoing part of the transformation of Mt. Todd?*

**Fred:** Well you know we're continually looking for ways to improve the project, recovery as is one of those big things. You know in 2013 we had a recovery of 81.7% with the improvement and with the introduction of the regrind circuit and the test work that we completed prior to announcing that result we estimated that we could achieve 86.4%. That was a big step and recovery is in a way a proxy for gold price. They both do the same thing to your bottom line they increase revenue by either you sell more gold or you get a higher price for the gold. And so seeking to continue to improve that is a very important part of the work that we're doing to optimize the project. This is this is low cost very high return test work and we're not spending a lot of money to achieve these results and yet the results are tremendous.

**Trevor:** *Now with my familiarity reading 43 one on one's and other feasibility reports based on processing, I from my understanding a lot of that 85% to 87% recovery rate is very respectable no matter what type of project you're in the gold space. Now you're talking 90% or more. Why is that significant? Is that rare in this type of this type of instance?*

**Fred:** It may not be rare but it's not common. Certainly, it's you know it's depending on the deposit depending on all of the different parameters. You know achieving a gold recovery and in the mid to high 80% range is quite respectable breaking above the 90% range is really

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that's an accomplishment and it's something that we've been striving for. Now I think it's important for the listeners to understand that you know there's some exciting there's some exciting news that could follow this and the reason is that in achieving in the 90% recovery at the grind sizes that we're talking about and there's still more test work to be done to completely confirm and validate this but we did this on a low grade sample two different composites are average grade and was .65 and .66 grams per ton that's below our average grade. It's about halfway between the cutoff grade and the average grade.

**Trevor:** *Your cut-off is about .4.*

**Fred:** That's right. And so achieving this recovery with a low grade sample is very exciting for us because where we think we're at is we think that we have finally reached a grind size where we are achieving what's called a constant tail. In other words, and that's one of the things that we're going to test and validate is that as we grind and then Leach higher grade ore samples if we're able to achieve the same tail grade. In other words, somewhere between .06 and .07 grams per ton going out to the tailings facility. What that means is that as we process higher grade ore the recovery goes up.

**Trevor:** *What does that do for the economics?*

**Fred:** 1% for Mount Todd a 1% improvement results in approximately a \$30 million improvement in NPV of the project. And at the same time, it adds about .6% to the IRR.

**Trevor:** *And this was about 3.5% improvement.*

**Fred:** So, we're talking we're targeting a 3.5% improvement. So, we're talking something on the order of \$100 million improvement in NPV of the project and a 2% improvement in IRR. This is this is this is significant return on investment that we're talking about.



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**Trevor:** *So, you and I have been talking about Mt. Todd for a little over a year now and I have to admit this is probably some most enthusiastic conversation that I've seen you have. I mean what is like as a CEO of this company in your blood sweat and tears are behind this. How excited are you just based on this simple testing?*

**Fred:** You know we've worked hard on Mt. Todd, You know that we've talked about this on many different occasions. We have we've taken this project from a project that had failed to resolving the crushing issues and being able to deal with hard ore and understanding the mineralogy and ultimately the metallurgy through 55,000 meters of drilling we have we have systematically and methodically attacked and sought solutions to each of the challenges that have been brought up before us and at 81.7% recovery we thought that that was pretty good at the time. And then to get it to 86.4% was just a tremendous step forward. But the technology that we selected to this is stirred mill grinding technologies the regrind circuit.

The metallurgist that that worked for us just said when you grind this material in an actual mill you will see another improvement. Now we weren't quite expecting the magnitude of the improvement we were hoping a percent or two maybe but the rock has surprised us and I guess really not surprise us what we're seeing is that as we break the particles down finer and finer that they're starting to exhibit more of the characteristics of the fine-grained sediments the silt stones and shales that are the host for this deposit and less of the characteristics of the courts and the other hard minerals. And so, we're coming up off the back side of this curve so to speak where we're starting to get substantial returns with less and less cost and that's just great for the project.

So, you know we're in we're in a challenging time. News like this is phenomenal news, really what this is doing is it's allowing us that the project is treading water right now even though the gold price has fallen from 13.20 13.30 when we announced results in January to total



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15 12.20. You know we based and the foreign exchange rate has dropped which is favorable to the project but with the with the change in recovery we're able to achieve that. Ultimately the numbers that we're talking about this will take us a step up again. And so we've just been we've just been treading water between the combination of gold price and foreign exchange rate. But this is a game changer. This again allows us to take another step up and to create value and our goal is to translate this value and the project into recognized value for the shareholders.

**Trevor:** *And with these results obviously there potentially could be more opportunity down the road that you'll be sharing with shareholders via news releases. What else is happening this summer at Mount Todd that investors might be interested to know?*

**Fred:** Well certainly you know we've been pretty clear in saying that we're going to undertake a small amount of exploration. We've got a couple of targets. The Wandí target is there's a target that we've drilled once before. We've spent a lot of time in the interim doing some geophysical work. This is an iron oxide copper gold system is what we believe it is and we were drilling there in the next several weeks. I hope that by the end of September first part of October that we have assay results and we'll be able to talk about that. We're also going to drill a couple of holes and test the target at Goldeneye. We've had a rethink about our interpretation. This is the soils geochemical anomaly underlined by a significant geophysical anomaly. We're very intrigued by this. It kind of looks like it's like The Batman deposit before it before it was discovered. And so we're going to be doing a little bit of drilling there and last of all we're going to drill a couple a couple of holes at the Quigley satellite deposit with the idea of infill drilling and if things go well we'll dedicate a little bit more a few more resources to drilling there so that we can ultimately convert those resources to reserves. So there's a little bit of exploration work going on that's always it's always a good thing. And but it's exploration and you know we'll wait for



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results.

**Trevor:** *Absolutely. That's all the questions I have. Is there anything else you wanted to communicate with shareholders and investors about Mt. Todd before I let you go?*

**Fred:** Trevor I think just the one thing is to reiterate you know that these are initial results these are very exciting initial results. We're now going to be undertaking a series of grinding and leaching tests we'll be doing more work with that core labs to test day using the isamill technology we'll be running those test sun on or samples that have higher grade. Some of them will be mixed or samples so that we can estimate the complete range of ore types that will have as well as that grade of material that will process so that we can generate a great recovery curve validate that we that we are in fact at a grind size where were achieving a constant tail. And when we get all this finished we're going to take a step back and look at whether these results merit restating the economics of the PFS study that was updated in January of this year. Sure you know that the mechanics of it are very simple. It's just changing a couple of cells in a spreadsheet. But this could have a significant impact and we continue to believe strongly that at some point the gold price is going to improve and this is just another step down the road in positioning the project not to be built today not to be financed and put in the construction at this gold price. This doesn't reward shareholders the way we want to reward shareholders but rather it positions the project so that at the right time in the right market and at the right gold price that the Mount Todd project can move forward very quickly with a great deal of confidence and reward the shareholders in the way that we want to grow.

**Trevor:** *Well thank you so much Fred. Vista Gold is traded on the New York Stock Exchange America and also on Toronto Stock Exchange under the symbol VGZ. Thank you for your time Fred. And we will talk to you again soon. Very good.*



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**Fred:** Thank you Trevor.