DENVER, Colo., Nov. 28, 2016 /CNW/ -- Vista Gold Corp. ("Vista", the "Company," "we" or "our") (NYSE MKT: VGZ) (TSX: VGZ) today announced the results of process area optimization studies that have the potential to enhance the project economics for the Mt Todd gold project in Northern Territory, Australia. The anticipated economic improvements are the result of process flowsheet changes that are expected to produce higher gold recoveries and lower process area operating costs. Testing indicates that these objectives can be accomplished through selectively screening and rejecting sub-economic, coarse crusher product prior to grinding; resulting in opportunities for improved gold recovery through finer grinding and improved operating costs down-stream of the grinding circuit.

A conference call with management to discuss the results of the Mt Todd gold project optimization studies is scheduled for Tuesday, November 29, 2016 at 2:00 pm MST.

Summary of Process Area Optimization Results

Earlier this year, Vista completed an independent review of the Mt Todd gold project. The combined input of the independent consultants and the project management team resulted in additional comminution and metallurgical recovery evaluations. These evaluations assessed opportunities to selectively remove below cut-off grade material from the process circuit after crushing. This results in less material being processed in the grinding and leaching circuits. The reduction in material results in excess grinding capacity which can be used to achieve a finer grind size in the final product and a corresponding increase in gold recovery for the remaining portion of the leach feed. Achieving the finer grind size is not expected to materially change the total grinding costs. Most importantly, the higher gold recovery is expected to increase cash flow, while the leaching, cyanide detoxification and tailings management costs are expected to decrease as a result of the reduction in the volume of material processed.

We completed size distribution and assay analysis of the high pressure grinding rolls ("HPGR") crusher product. This indicates that screening the HPGR crusher product at 5/8" produces an oversize product that accounts for 15-20% of the weight, but contains only 7-9% of the gold. Subsequently, we completed test work with Tomra Sorting Solutions, Inc. ("TOMRA") at their facilities in Germany to evaluate the recovery of sulfide/quartz/calcite-bearing material using Laser Reflection/Fluorescence and X-ray Transmission ("XRT") automated sorting techniques. This test work indicates that approximately 85% of the gold in this oversize fraction can be efficiently recovered with a return of 30-40% of the weight. We expect this to translate into an 11.5% reduction in material to be processed in the grinding/leaching circuits with a 1.6% loss in gold coming from the elimination of sub-economic material from the process stream.

If there is an 11.5% reduction in material passing to the grinding circuit, we expect to achieve a final grind size of 80% passing ("P80") 75 microns ("?m"), approximately 17% finer than the final grind size used in our May 2013 PFS of 90 ?m. Test work confirms that at a P80 75 ?m grind size, we can expect to achieve gold recoveries in the range of 83-84%, up from the 81.7% reported in the May 2013 PFS.

Vista's President & CEO, Frederick H. Earnest commented, "The process improvements that we have identified have the potential to generate lower operating costs and better gold recoveries without adding materially to the capital costs of the project. These improvements, coupled with the current US dollar to Australian dollar exchange rate have the potential to produce a significant improvement in project economics. We are now evaluating an update of our preliminary feasibility study."

Detailed Discussion of Metallurgical Testing Program Results

Mt Todd Deposit Geology

The Mt Todd deposit is hosted by a silicified sequence of greywackes, siltstones and shales. This host is cross-cut (nearly perpendicular to the bedding planes) by two different series of quartz and calcite veins. The injection of quartz- and calcite-rich solution provided the transportation mechanism for the gold and other sulfide minerals found in the deposit. The gold in the Mt Todd deposit is associated with the veining and occurrence of sulfide minerals, and is found only in small concentrations (likely the result of micro-fracturing) in the host rock. The quartz/calcite veining is pervasive throughout the deposit with vein thicknesses running from a couple of millimeters to several centimeters. Vein density can vary from 3-4 to 10-15 veins per meter. Selective assaying was completed to assess the presence of gold exclusively in the veins and/or sulfides compared to the host rock. Selective samples submitted to Pine Creek Labs in Pine Creek, Northern Territory, Australia indicated that carefully selected veins and sulfide samples contained 0.16-41.4 grams Au/tonne of sample compared to 0.05-0.46 grams Au/tonne of sample for the host rock. The relatively small proportions of vein/sulfide material account for the average grade of the deposit, and at the same time highlight the value of efforts to separate the host rock from the gold-bearing veins and sulfides.

HPGR Product Screen-size and Gold Distribution Analysis

In 2012, we prepared two bulk samples representative of the Mt Todd deposit using metallurgical core dispersed across the deposit (identified as M1 and M3). These two samples were sent to Thysen Krupp Industrial Solutions' HPGR testing facilities in Germany for HPGR crushing tests. A total of approximately two tonnes of material between the two composites was crushed. The HPGR crushed material was returned to Vista for subsequent metallurgical testing. Using HPGR crushed material from these two composites, we undertook studies to evaluate the amount of material and amount of gold contained in various screen size fractions. The results of this analysis are summarized in the following table. This work (including the subsequent sample prep) was completed by Resource Development Inc. of Wheatridge, Colorado ("RDi") with assaying completed by Florin Analytical Services in Reno, Nevada.

	M1 Sample					M3 Sample				
	Wt%	Au (g/mt)	% Distribution Au	Cumulative Au Passing	Au (g/mt) in Screen Undersize	Wt%	Au (g/mt)	% Distribution Au	Cumulative Au Passing	Au (g/mt) in Screen Undersize
Feed	100	0.92	100	-----	-----	100	0.79	100	-----	-----
+7/8"	6.6	0.71	5.1	94.9	0.93	4.3	0.67	3.7	96.3	0.79
7/8" x 5/8"	13.1	0.53	7.5	87.4	1.00	11.7	0.4	6	90.3	0.85
5/8" x 3/8"	19.8	1.19	25.8	61.6	0.93	17.2	0.87	19.1	71.2	0.84
3/8" x 1/4"	12.6	0.92	12.7	48.9	0.93	12.7	0.72	11.7	59.5	0.87
-1/4"	47.9	0.93	48.9	-----	-----	54.1	0.87	59.5	-----	-----

Based on this data and with some understanding of the minimum size requirements for selective automated sorting we determined that the 5/8" screen oversize provided a meaningful volume of material for our testing to evaluate selective sorting and rejection. This size was also selected because it is reasonable to expect that screening can be effectively achieved at this size in a full scale operation. Physical observation of the +5/8" material indicated visually identifiable portions of vein material and sulfide material. It was noted that the majority of the 5/8" material showed no visual indications of veining or sulfides.

Automated Sorting Testing

Automated sorting is employed by many industries, and in the gold sector the Coeur Kensington mine is successfully operating an automated sorting circuit to recover higher grade ore before wasting the rejects. Many different sensors are used today in sorting, including but not limited to: Optical, Laser, XRT, Near Infrared, Visible light, Electromagnetic, and Color. A sample of +5/8" oversize material was sent to TOMRA's mining sorting division for testing. Testing was performed under the supervision of Outotec personnel using XRT and Laser sorting sensors. Testing indicates that a combination of XRT and Laser sorting methods could effectively identify the material containing quartz/calcite veining and/or sulfide material for subsequent removal using automated air sorting technology. A larger sorting test is planned to verify the promising indicative results. The following table summarizes the results of test work completed by TOMRA under Outotec supervision at TOMRA's mining sorting division in Germany.

		Grade		% Distribution	
	Wt %	Gold (g Au/mt)	Total Sulfur (%)	Gold	Sulfur
Average Feed (Calculated)	100%	1.98	0.84	100%	100%
Average Product	35.6%	4.80	2.10	86.1%	88.6%
Average Waste	64.4%	0.43	0.15	13.9%	11.4%

Grind-size/Recovery Testing

As part of the comprehensive metallurgical testing completed in 2012, we completed grind size optimization studies. Those studies indicated that a P80 of 90 ?m was the optimum grind size. At that time we recognized that finer grinding could result in higher gold recoveries, but the additional capital (i.e. larger mills) and power could not be justified to achieve the incremental increase in gold recovery. With the successful completion of the screening and automated sorting tests, we evaluated the relative advantages of down-sizing the mills to match the expected throughput compared to maintaining the mill size and grinding to a finer size.

As part of the recent testing, we completed grinding tests to achieve an initial product with a P80 of 90 ?m. This product was subsequently screened to assess the relative proportion of material at size fractions from 100 mesh to minus 400 mesh. This screen analysis indicated that 40-50% of the ground material was minus 400 mesh and 10-20% of the material was plus 200 mesh. RDi completed an analysis of the energy requirements to grind to a finer size and determined that the ball mills selected for the project in the 2013 PFS, operating with 11.5% less feed from the crushers would be able to successfully produce a product with a P80 of 75 ?m without any additional power demand. Based on grind-size and leach recovery work completed in 2012 and work recently completed by RDi, we expect that total recoveries in the range of 83-84% can be achieved with mill product with a P80 of 75 ?m.

Evaluation of Potential to Incorporate 2-Stage HPGR Crushing

In addition to the foregoing work, we prepared additional core composite samples and sent them to KCA in Reno, Nevada for additional HPGR testing. We conducted a testing program to evaluate the potential to achieve significant additional size

reduction through 2-stage HPGR crushing. The objective of the program was to evaluate the potential to achieve sufficiently fine ball mill feed that even finer grinding, and hence higher gold recoveries, could be achieved. At this time we are not convinced that the additional capital and operating costs of 2-stage HPGR crushing can be justified by the results, but additional testing is contemplated.

Qualified Person

Dr. Deepak Malhotra, of Resource Development Inc., is a Qualified Person as defined under Canadian National Instrument 43-101 and has reviewed the scientific and technical information in this news release.

Management Conference Call

A conference call with management to discuss the results of the Mt Todd gold project optimization studies is scheduled for Tuesday, November 29, 2016 at 2:00 pm MST.

Event Title: Vista Gold's Mt Todd Gold Project Optimization Update
Toll-free in North America: 1-866-233-5249
International: 416-642-3300
This call will also be web-cast and can be accessed at the following web location:
http://event.on24.com/r.htm?e=1322195&s=1&k=B2530005D32B12FE6F9AE93198FAF931

This call will be archived and available at www.vistagold.com after November 29, 2016. Audio replay will be available for 21 days by calling toll-free in North America: 1-888-203-1112, passcode 1698128.

If you are unable to access the audio or phone-in on the day of the conference call, please email questions to Connie Martinez, Manager – Investor Relations (email: connie@vistagold.com), and we will try to address these questions prior to or during the conference call.

About Vista Gold Corp.

The Company is a well-funded gold project developer. Our principal asset is our flagship Mt Todd gold project in Northern Territory, Australia where we are seeking approval of our final environmental authorization and evaluating an update of our preliminary feasibility study. We also hold approximately 4.4% of the outstanding common shares of Midas Gold Corp., non-core projects in Mexico and the United States and royalty interests in Indonesia. For more information about our projects, including technical studies and resource estimates, please visit our website at www.vistagold.com.

For further information, please contact Connie Martinez at (720) 981-1185.

Forward Looking Statements

This press release contains forward-looking statements within the meaning of the U.S. Securities Act of 1933, as amended, and U.S. Securities Exchange Act of 1934, as amended, and forward-looking information within the meaning of Canadian securities laws. All statements, other than statements of historical facts, included in this press release that address activities, events or developments that we expect or anticipate will or may occur in the future, including such things as the potential to enhance the project economics for the Mt Todd gold project in Northern Territory, Australia; the anticipated economic improvements that the process flowsheet changes that are expected to produce; selectively screening and rejecting sub-economic, coarse crusher product prior to grinding; our expectation that the capital costs will not add materially to the capital costs of the project; the effect on the projects economics of the current US dollar to Australian dollar exchange rate; our plan to finalize a schedule for the completion of an updated preliminary feasibility study; and our expectation that we will announce our plans for its completion in the near future and other such matters are forward-looking statements and forward-looking information. The material factors and assumptions used to develop the forward-looking statements and forward-looking information contained in this press release include the following: our approved business plans, exploration and assay results, mineral resource and reserve estimates, results of optimization studies and results of preliminary economic assessments, technical studies, pre-feasibility studies and feasibility studies on our projects, if any, our experience with regulators, and positive changes to current economic conditions and the price of gold. When used in this press release, the words "optimistic," "potential," "indicate," "expect," "intend," "hopes," "believe," "may," "will," "if," "anticipate," and similar expressions are intended to identify forward-looking statements and forward-looking information. These statements involve known and unknown risks, uncertainties and other factors which may cause the actual results, performance or achievements of the Company to be materially different from any future results, performance or achievements expressed or implied by such statements. Such factors include, among others, uncertainty of resource and reserve estimates, uncertainty as to the Company's future operating costs and ability to raise capital; risks relating to cost increases for capital and operating costs; risks of shortages and fluctuating costs of equipment or supplies; risks relating to fluctuations in the price of gold; the inherently hazardous nature of mining-related activities; potential effects on our operations of environmental regulations in the countries in which it operates; risks due to legal proceedings; risks relating to political and economic instability in certain countries in which it operates; as well as those factors discussed under the

headings "Note Regarding Forward-Looking Statements" and "Risk Factors" in the Company's latest Annual Report on Form 10-K as filed on February 26, 2016 and other documents filed with the U.S. Securities and Exchange Commission and Canadian securities regulatory authorities. Although we have attempted to identify important factors that could cause actual results to differ materially from those described in forward-looking statements and forward-looking information, there may be other factors that cause results not to be as anticipated, estimated or intended. Except as required by law, we assume no obligation to publicly update any forward-looking statements or forward-looking information; whether as a result of new information, future events or otherwise.

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