48,000 Metres of Drilling Planned

TORONTO, March 23, 2017 /CNW/ - Golden Star Resources Ltd. (NYSE MKT: GSS; TSX: GSC; GSE: GSR) ("Golden Star" or the "Company") is pleased to announce its exploration strategy for 2017.

HIGHLIGHTS

- Three key objectives of the 2017 exploration strategy are as follows:
  - To define additional Indicated Mineral Resources to increase the supply of high grade, underground ore to the processin plants in the near term
  - To define additional Inferred Mineral Resources to increase the lives of both of Golden Star's operations in the medium term
  - To identify the potential of Golden Star's 1,156 square kilometre concession area to generate targets for drilling and to establish long term production potential
- First phase of 2017 exploration program is expected to comprise 48,000 metres ("m") of drilling – further drilling may be conducted subject to the results received
- 171% increase to 2017 exploration budget from the Company's previously announced 2017 exploration budget to $6.5 million for the first phase of drilling
- Drilling has begun on the initial targets, which include the Prestea Underground Gold Mine ("Prestea Underground"), the Prestea Open Pits and the high grade, Mampon deposit

Sam Coetzer, President and Chief Executive Officer of Golden Star, commented:

"During 2016 our focus was on delivering our two underground development projects, but I am pleased that we are now in a position to turn part of our focus back to exploration. I believe strongly that our assets present an exploration upside opportunity, with both Wassa Underground and Prestea Underground having the potential to expand production on an annual basis and extend their mine lives beyond the current seven and five years respectively. I am excited that we have enlarged the size of our exploration program for 2017 to crystallize these opportunities and to drive our assets further along the value curve. If the results of the first phase of the drilling program are positive, we expect to allocate further funds for phase two of the exploration program later in 2017 and I look forward to releasing the drilling results during the course of the year."

2017 Exploration Strategy and Budget

The 2017 exploration strategy has three key objectives, which focus on increasing the lives of Golden Star's operations in the short, medium and long term. Phase one of the program comprises approximately 48,000m of drilling and further drilling may be conducted if the results of the first phase are positive.

In its 2017 guidance for capital expenditures Golden Star stated that $2.4 million would be allocated to exploration. However following the bought deal public offering that was completed by the Company in February 2017, the Company decided to increase its exploration budget for the first phase of 2017 drilling by 171% to $6.5 million, consistent with the use of proceeds provisions.

Breakdown of 2017 exploration budget by asset[1,2]

Asset	Planned Drilling (m)	Expected Cost ($ million)
Prestea Underground		
West Reef extension and definition drilling	11,630	1.2
Main Reef initial drill testing on 17 to 21 Levels	4,600	0.6
South Gap and Tuapim drilling from surface	5,250	0.7
Prestea Underground Total	21,480	2.5
Prestea Open Pits and Mampon deposit		
Prestea South Pit and Mampon expansion drilling	9,100	0.4
Prestea Open Pits and Mampon Total	9,100	0.4
Wassa Underground Gold Mine ("Wassa Underground")		
B Shoot North drilling from surface	3,000	0.4
B Shoot South step out fences	10,000	2.7
242 trend step out drilling	4,000	0.5
Wassa Underground Total	17,000	3.6
TOTAL	47,580	6.5

Notes

1. This budget includes drilling and assay costs but excludes exploration fixed costs.

2. The above table shows the Company's current plans with respect to its planned drilling targets, the metres planned to be drilled and the approximate costs thereof. However, the Company may determine it appropriate to change the above drilling plan for various business reasons.

To view diagrams showing the locations of the 2017 planned drilling, please visit the following links:

http://www.gsr.com/operations/wassa/wassa-main
http://www.gsr.com/operations/prestea-underground

Prestea Underground

Golden Star believes that there is potential to expand significantly Prestea Underground's current Mineral Reserves of 490,000 ounces of gold (1.09 million tonnes at 13.93 grams per tonne). Based on these Mineral Reserves, the mine is anticipated to generate production of 90,000 per annum during a 5.5 year mine life. Previously it was possible only to drill a small portion of the West Reef due to lack of underground development and services. However, now that the rehabilitation of Prestea Underground is almost complete, Golden Star's exploration team have commenced drilling from underground.

Golden Star believes that if additional Mineral Resources can be delineated at Prestea Underground, it offers the strongest potential for increasing near-term production due to the under-utilized shaft and processing plant. If additional ore is delineated, the Company expects that Prestea Underground's production rate could be increased substantially without the need to incur significant capital expenditures for infrastructure upgrades.

2017 Targets

Phase one of the 2017 exploration program will have three key targets at Prestea Underground. Firstly, the program will focus

on the extension and definition of the West Reef, with the objective of assessing the opportunity to increase the supply of high grade, underground ore to the processing plant in the near term. This drilling commenced from underground in the first quarter of 2017.

Secondly, the program will focus on the initial testing of the Main Reef between 17 and 21 Levels; an area which has not been drilled before by the Company. The objective of this drilling is to evaluate the potential to include ore from the Main Reef into the mine plan in the medium term and this drilling is expected to commence in the third quarter of 2017.

Thirdly, the program will target the South Gap and Tuampim areas. The South Gap is a two kilometre portion of the Ashanti Gold Belt, located on the extreme southern end of the nine kilometre area of historical Prestea Underground workings, between the Bondaye and Tuapim shafts. The drilling will be conducted from surface and it will test the Main Reef with the intention of confirming the results of previously drilled intersections that have demonstrated encouraging grades and widths of gold mineralization. If the results are positive, the material from the South Gap could extend Prestea Underground's life of mine.

The total cost of phase one at Prestea Underground is expected to be approximately $2.5 million.

Prestea Open Pits and Mampon deposit

The Prestea Open Pits and Mampon deposit are scheduled to be mined during the first three quarters of 2017. Golden Star has previously increased the initial mine life of the Prestea Open Pits through drilling and the objective of the 2017 program is to define additional Mineral Resources to extend production into the fourth quarter of 2017 and potentially beyond.

Ore from the Prestea Open Pits and Mampon is expected to be blended with high grade ore from Prestea Underground once it commences production. Golden Star had planned to modify the non-refractory processing plant to reduce its capacity to process material from Prestea Underground solely. However, as there is abundant excess capacity in the plant, if further open pit ore is defined, Golden Star could continue to blend the two ores until the open pit ore is exhausted and then the plant modifications could be undertaken at a later date.

2017 Targets

Phase one of the 2017 exploration program at the Prestea Open Pits, the Mampon deposit and the nearby Aboronye deposit will target Mineral Resource expansion. This drilling commenced in the first quarter of 2017 and is expected to be completed during the second quarter of 2017.

The total cost of phase one at the Prestea Open Pits and Mampon/Aboronye deposits is expected to be approximately $0.4 million.

Wassa Underground

Golden Star believes there is strong exploration upside potential at Wassa Underground. The first objective of the 2017 drilling program at this mine is to both expand the Indicated Mineral Resources in order to increase the supply of high grade, underground ore being fed to the Wassa processing plant in the near term. The second objective is to confirm that gold mineralization is continuous along strike, adding additional Inferred Mineral Resources, which have the potential to be mined in the longer term.

Similarly to Prestea Underground, if additional Mineral Resources are delineated at Wassa Underground, then there would be strong potential to increase near-term production. This is due to the twin decline and processing plant, which both have excess capacity, so it is anticipated Wassa Underground's production rate could be increased significantly without the need to incur substantial capital expenditures for infrastructure upgrades.

2017 Targets

Phase one of the 2017 exploration program at Wassa Underground is expected to focus on three key areas. Firstly, it will test the extension of B Shoot North, which has the potential to increase near term production from the mine. This drilling is expected to commence in the second quarter of 2017.

Secondly, step out fences will be drilled with the objective of ascertaining if the B Shoot is continuous to the South, down plunge of the current Inferred Mineral Resources, for 10,000 metres in total. This drilling is also expected to commence in the second quarter of 2017.

Thirdly, the 242 trend (which has been mined previously as part of the Wassa Main Pit) will be drilled with the objective of

increasing Wassa's Inferred Mineral Resources and to test the potential to mine the 242 trend from underground. This drilling is expected to commence in the second quarter of 2017.

The total cost of phase one at Wassa Underground is expected to be approximately $3.6 million.

Regional Exploration

Golden Star has a large land package in Ghana, with a total concession area of 1,156 square kilometres. During 2017, the Company plans to compile existing geophysical, geochemical and geological information on these land packages and engage in a process of target generation and prioritization. The drilling results will be used to direct further exploration in subsequent years, which has the potential to increase Golden Star's production profile in the longer term.

Drilling Results and Phase Two

Golden Star expects to release the results received from the various drilling programs during the second, third and fourth quarters of 2017. The Company anticipates that funds will be allocated for additional drilling, subject to positive drilling results.

All monetary amounts refer to United States dollars unless otherwise indicated.

Company Profile

Golden Star is an established gold mining company that owns and operates the Wassa and Prestea mines situated on the prolific Ashanti Gold Belt in Ghana, West Africa. Listed on the NYSE MKT, the TSX, and the GSE, Golden Star is strategically focused on increasing operating margins and cash flow through the development of its two high grade, low cost underground mines both in conjunction with existing open pit operations. The Wassa Underground Gold Mine commenced commercial production in January 2017 and the Prestea Underground Gold Mine is expected to achieve commercial production in mid-2017. Gold production in 2017 is expected to be 255,000-280,000 ounces with cash operating costs of $780-860 per ounce.

Cautionary note regarding forward-looking information

This press release contains "forward looking information" within the meaning of applicable Canadian securities laws and "forward-looking statements" within the meaning of the United States Private Securities Litigation Reform Act of 1995, concerning the business, operations and financial performance and condition of Golden Star. Generally, forward-looking information and statements can be identified by the use of forward-looking terminology such as "plans", "expects", "is expected", "budget", "scheduled", "estimates", "forecasts", "intends", "anticipates", "believes" or variations of such words and phrases (including negative or grammatical variations) or statements that certain actions, events or results "may", "could", "would", "might" or "will be taken", "occur" or "be achieved" or the negative connotation thereof. Forward-looking information and statements in this press release include, but are not limited to, information or statements with respect to: the budgeted cost of the Company's exploration program; the expansion of production on an annual basis and extension of mine lives of Prestea Underground and Wassa Underground beyond the current mine lives; the allocation of further funds for phase two of the exploration program later in 2017; the objectives of the 2017 drilling program; the annual production and mine life of Prestea Underground; the delineation of additional Mineral Resources at Prestea Underground and potential for increasing near-term production at Prestea Underground without significant capital expenditures for infrastructure upgrades; the key targets of the Prestea Underground 2017 drilling program; the potential to include ore from the Main Reef into the mine plan; the blending of ore from Prestea Open Pits and Mampon with high grade ore from Prestea Underground; planned modifications to the non-refractory processing plant at the Bogoso site to reduce its capacity to process material from Prestea Underground, and the possibility of undertaking these modifications at a later date; the delineation of additional Mineral Resources at Wassa Underground and the potential to increase near-term production at Wassa Underground; the ability to increase Wassa Underground's production rate without the need to incur substantial capital expenditures for infrastructure upgrades; the drilling plan for each of Prestea Underground, Wassa Underground, Prestea Open Pits and Mampon; plans to compile existing geophysical, geochemical and geological information on the Company's Ghanaian land packages and engage in a process of target generation and prioritization; further exploration in subsequent years and the potential increase in Golden Star's production profile in the longer term; the ability to increase the Mineral Reserves at Prestea Underground; the ability to increase near-term production at Prestea Underground by utilizing the excess capacity of the existing infrastructure; the ability to extend production from the Prestea Open Pits and the Mampon deposit beyond the third quarter of 2017; the ability to increase the Indicated and Inferred Mineral Resources of Wassa Underground; the ability to increase near-term production at Wassa Underground by utilizing the excess capacity of the existing infrastructure; the ability of the various elements on the 2017 exploration program to commence within the expected timeframes; and the timing of the release of the Company's exploration results.

Forward-looking information and statements are made based upon certain assumptions and other important factors that, if untrue, could cause the actual results, performances or achievements of Golden Star to be materially different from future results, performances or achievements expressed or implied by such statements. Such statements and information are based on numerous assumptions regarding present and future business strategies and the environment in which Golden Star will operate in the future, including the price of gold, anticipated costs and ability to achieve goals. Forward-looking information and

statements are subject to known and unknown risks, uncertainties and other important factors that may cause the actual results, performance or achievements of Golden Star to be materially different from those expressed or implied by such forward-looking information and statements, including but not limited to: risks related to international operations, including economic and political instability in foreign jurisdictions in which Golden Star operates; risks related to current global financial conditions; risks related to joint venture operations; actual results of current exploration activities; environmental risks; future prices of gold; possible variations in Mineral Reserves, grade or recovery rates; mine development and operating risks; accidents, labor disputes and other risks of the mining industry; delays in obtaining governmental approvals or financing or in the completion of development or construction activities and risks related to indebtedness and the service of such indebtedness. Although Golden Star has attempted to identify important factors that could cause actual results to differ materially from those contained in forward-looking information and statements, there may be other factors that cause results not to be as anticipated, estimated or intended.

There can be no assurance that such statements will prove to be accurate, as actual results and future events could differ materially from those anticipated in such statements. Accordingly, readers should not place undue reliance on forward-looking information and statements. Forward-looking information and statements are made as of the date hereof and accordingly are subject to change after such date. Forward-looking information and statements are provided for the purpose of providing information about management's current expectations and plans and allowing investors and others to get a better understanding of the Company's operating environment. Golden Star does not undertake to update any forward-looking information and statements that are included in this news release except in accordance with applicable securities laws.

Technical Information

The technical contents of this press release have been reviewed and approved by S. Mitchel Wasel, BSc Geology, a "Qualified Person" pursuant to National Instrument 43-101 ("NI 43-101"). Mr. Wasel is Vice President Exploration for Golden Star and an active member of the Australasian Institute of Mining and Metallurgy.

Additional scientific and technical information relating to the mineral properties referenced in this news release are contained in the following current technical reports for those properties available at www.sedar.com: (i) Wassa - "NI 43-101 Technical Report on feasibility study of the Wassa open pit mine and underground project in Ghana" effective date December 31, 2014; (ii) Prestea Underground - "NI 43-101 Technical Report on a Feasibility Study of the Prestea Underground Gold Project in Ghana" effective date November 3, 2015; and (iii) Bogoso - "NI 43-101 Technical Report on Resources and Reserves Golden Star Resources Ltd., Bogoso Prestea Gold Mine, Ghana" effective date December 31, 2013.

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