SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 6-K

REPORT OF FOREIGN PRIVATE ISSUER PURSUANT TO RULE 13a-16 OR 15d-16 UNDER THE SECURITIES EXCHANGE ACT OF 1934

For the month of March 2018

Commission File Number 001-12284

GOLDEN STAR RESOURCES LTD.

(Translation of registrant's name into English)
150 King Street West
Suite 1200 Toronto, Ontario
M5H 1J9, Canada
(Address of principal executive office)
Indicate by check mark whether the registrant files or will file annual reports under cover of Form 20-F or Form 40-F.
Form 20-F □ Form 40-F ⊠
Indicate by check mark if the registrant is submitting the Form 6-K in paper as permitted by Regulation S-T Rule 101(b)(1): □
Indicate by check mark if the registrant is submitting the Form 6-K in paper as permitted by Regulation S-T Rule 101(b)(7): □
Indicate by check mark whether the registrant by furnishing the information contained in this Form is also thereby furnishing the information to the Commission pursuant to Rule 12g3-2(b) under the Securities Exchange Act of 1934. Yes \square No \boxtimes
If "Yes" is marked, indicate below the file number assigned to the registrant in connection with Rule 12g3-2(b):

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

Date: March 29, 2018

GOLDEN STAR RESOURCES LTD.

By: /s/ André van Niekerk
André van Niekerk
Executive Vice President and

Chief Financial Officer

EXHIBIT INDEX

Exhibit No. Description of Exhibit

99.1 Press Release dated March 29, 2018 - Golden Star Files Updated Technical Report for Bogoso/Prestea Gold Mine

Golden Star Files Updated Technical Report for Bogoso/Prestea Gold Mine

TORONTO, March 29, 2018 /CNW/ - Golden Star Resources Ltd. (NYSE American: GSS; TSX: GSC; GSE: GSR) ("Golden Star" or the "Company") announces that it has filed an updated technical report pursuant to National Instrument ("NI") 43-101 for its Bogoso/Prestea Gold Mine in Ghana entitled " NI 43-101 Technical Report on Resources and Reserves, Golden Star Resources, Bogoso/Prestea Gold Mine, Ghana " dated March 28, 2018. This technical report can be accessed under the Company's profile at www.sedar.com and on the Company's website at www.gsr.com.

Previously, Golden Star filed individual technical reports for its Prestea and Bogoso mines. Although production ceased from the Bogoso mine in 2015, Golden Star has retained the Bogoso licence area and consequently, the Company has chosen to produce an updated, combined technical report that covers the licence areas for both Prestea and Bogoso.

The technical report is based solely on the Mineral Reserves within the Prestea licence area, including the Prestea Underground Gold Mine ("Prestea Underground") and a small amount of open pit and stockpile material that is planned to be mined in the first half of 2018 and processed before the end of 2018.

In contrast to the Feasibility Study for Prestea Underground ¹, the updated technical report includes legacy reclamation costs for Bogoso, the costs related to maintaining the full processing plant infrastructure ² and the additional general and administrative costs associated with maintaining a larger land package ³. Golden Star believes that exploration upside potential exists on the Bogoso licence area, therefore the cost of maintaining this licence area is worthwhile.

HIGHLIGHTS OF UPDATED TECHNICAL REPORT

- Net Present Value, assuming 5% discount rate, of \$144 million at \$1,300 per ounce gold price
- Estimated total free cash flow of \$164 million
- Proven and Probable Mineral Reserves of 497,000 ounces of gold (1.9 million tonnes at an average grade of 8.1 grams per tonne ("g/t") of gold
 ("Au")) 4,5
 - Planned underground mining production based on West Reef Mineral Reserves of 463,000 ounces of gold (1.2 million tonnes at an average grade of 12.35 g/t Au) ⁵
- Average annual gold production of approximately 90,000 ounces ⁶ for a life of mine ("LOM") of 5 years based on existing Mineral Reserves and a production rate of 650 tonnes per day
- Total LOM development capital cost estimate of \$2.0 million and total LOM sustaining capital cost estimate of \$27.1 million
- LOM average cash operating cost per ounce ⁷ of \$624
- LOM average mine site All-In Sustaining Cost per ounce ⁷ of \$754

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

"The updated technical report confirms the strong economics delivered by Prestea Underground in the 2015 Feasibility Study. Through these two licence areas, Golden Star has access to thirty kilometres of the highly prospective Ashanti gold trend and we believe there is strong future value to be unlocked. As the Bogoso concessions have the potential to be a core segment of the business strategy going forwards, we continue to explore, secure and be involved in community initiatives on the larger Bogoso land package. Costs have been allocated to ensure the option value to utilize the full capacity of the plant in the future remains intact. I look forward to releasing results from the 2018 exploration program at Prestea Underground during the second quarter of 2018, which we expect will begin to demonstrate the upside potential of this mine."

Notes

- 1. See report entitled, 'NI 43-101 Technical Report on a Feasibility Study of the Prestea Underground Gold Project in Ghana', dated November 3, 2015
- 2. The Feasibility Study envisioned a production rate of 500 tpd, which would only require a small portion of the current processing plant (with a capacity of 4,000 tonnes per day ("tpd")) to be maintained. Prestea Underground is now targeting a production rate of 650 tpd and the Company intends to reduce the plant capacity to this size, while maintaining the larger plant infrastructure to retain the option to increase the processing capacity again if further high grade ore sources are defined
- 3. These include, amongst other items, the fees paid to the Government of Ghana to maintain the licence, the cost of supporting community initiatives on the larger land package and the cost of security for the larger land package
- 4. Includes Mineral Reserve estimates for Prestea Underground, Mampon, Prestea South and stockpiled ore
- 5. Mineral Reserves are calculated at a gold price of \$1,250 per ounce and are as of December 31, 2017
- 6. This figure includes forecast production from the Prestea Open Pits in the first half of 2018

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 in Ghana, West Africa. Listed on the NYSE American, the Toronto Stock Exchange and the Ghanaian Stock Exchange, Golden Star is focused on delivering strong margins and free cash flow from its two high grade, low cost underground mines. Gold production guidance for 2018 is 230,000-255,000 ounces at a cash operating cost per ounce of \$650-730. As the winner of the PDAC 2018 Environmental and Social Responsibility Award, Golden Star is committed to leaving a positive and sustainable legacy in its areas of operation.

Statements Regarding Forward-Looking Information

Some statements contained in this news release are "forward-looking statements" within the meaning of the Private Securities Litigation Reform Act of 1995 and "forward looking information" within the meaning of Canadian securities laws. Forward looking statements and information include but are not limited to, statements and information regarding; the Net Present Value of the Prestea complex; estimated free cash flow of the Prestea complex; average annual production and the life of mine of the Prestea complex; the cash operating cost per ounce and mine site All-In Sustaining Cost per ounce for the Prestea complex; the life of mine development capital cost and sustaining capital cost estimates for the Prestea complex; and 2018 production guidance and cash operating cost per ounce guidance. 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", "might" or "will be taken", "occur" or "be achieved" or the negative connotation thereof. Investors are cautioned that forward-looking statements and information are inherently uncertain and involve risks, assumptions and uncertainties that could cause actual facts to differ materially. There can be no assurance that future developments affecting the Company will be those anticipated by management. Please refer to the discussion of these and other factors in Management's Discussion and Analysis of financial conditions and results of operations for the year ended December 31, 2017. Additional and/or updated factors will be included in our annual information form for the year ended December 31, 2017 which will be filed on SEDAR at www.sedar.com. The forecasts contained in this press release constitute management's current estimates, as of the date of this press release, with respect to the matters covered thereby. We expect that these estimates will change as new information is received. While we may elect to update these estimates at any time, we do not undertake any estimate at any particular time or in response to any particular event.

Non-GAAP Financial Measures

In this press release, we use the terms "cash operating cost per ounce" and "All-In Sustaining Cost per ounce". These should be considered as non-GAAP financial measures as defined in applicable Canadian and United States securities laws and should not be considered in isolation or as a substitute for measures of performance prepared in accordance with GAAP.

"Cash operating cost" for a period is equal to "cost of sales excluding depreciation and amortization" for the period less royalties, the cash component of metals inventory net realizable value adjustments and severance charges, and "cash operating cost per ounce" is that amount divided by the number of ounces of gold sold (excluding pre-commercial production ounces sold) during the period. We use cash operating cost per ounce as a key operating metric. We monitor this measure monthly, comparing each month's values to prior periods' values to detect trends that may indicate increases or decreases in operating efficiencies. We provide this measure to investors to allow them to also monitor operational efficiencies of the Company's mines. We calculate this measure for both individual operating units and on a consolidated basis. Since cash operating costs do not incorporate revenues, changes in working capital and non-operating cash costs, they are not necessarily indicative of operating profit or cash flow from operations as determined under IFRS.

"Mine Site All-In Sustaining Costs" commences with cash operating costs and then adds royalties, sustaining capital expenditures, and accretion of rehabilitation provision. Mine Site All-In Sustaining Costs do not include corporate general and administrative costs. "Mine Site All-in sustaining costs per ounce" is that amount divided by the number of ounces of gold sold (excluding pre-commercial production ounces sold) during the period. This measure seeks to represent the total costs of producing gold from current operations, and therefore it does not include capital expenditures attributable to projects or mine expansions, exploration and evaluation costs attributable to growth projects, income tax payments, interest costs or dividend payments. Consequently, this measure is not representative of all of the Company's cash expenditures. In addition, the calculation of Mine Site All-In Sustaining costs does not include depreciation expense as it does not reflect the impact of expenditures incurred in prior periods. Therefore, it is not indicative of the Company's overall profitability.

Changes in numerous factors including, but not limited to, our share price, risk free interest rates, gold prices, mining rates, milling rates, ore grade, gold recovery, costs of labor, consumables and mine site general and administrative activities can cause these measures to increase or decrease. The Company believes that these measures are similar to the measures of other gold mining companies, but may not be comparable to similarly titled measures in every instance.

In the current market environment for gold mining equities, many investors and analysts are more focused on the ability of gold mining companies to generate free cash flow from current operations, and consequently the Company believes these measures are useful non-IFRS operating metrics ("non-GAAP measures") and supplement the IFRS disclosures made by the Company. These measures are not representative of all of Golden Star's cash expenditures as they do not include income tax payments or interest costs amongst other things. There are material limitations associated with the use of such non-GAAP measures. Since these measures do not incorporate all non-cash expense and income items, changes in working capital and non-operating cash costs, they are not necessarily indicative of operating profit or cash flow from operations as determined under IFRS.

For additional information regarding the non-GAAP measures used by the Company, please refer to the heading "Non-GAAP Financial Measures" in the Company's Management Discussion and Analysis of Financial Condition and Results of Operations for the full year ended December 31, 2017, which is available at www.sedar.com.

Technical Information

The technical contents of this press release have been reviewed and approved by Dr. Martin Raffield, P. Eng., a Qualified Person pursuant to National Instrument 43-101. Dr. Raffield is Senior Vice President Project Development and Technical Services for Golden Star.

SOURCE Golden Star Resources Ltd.

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For further information: please visit www.gsr.com or contact: Katharine Sutton, Vice President, Investor Relations and Corporate Affairs, +1 416 583 3800, investor@gsr.com

CO: Golden Star Resources Ltd.

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