
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 No

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 27, 2018

GOLDEN STAR RESOURCES LTD.

By: /s/ André van Niekerk

André van Niekerk
Executive Vice President and
Chief Financial Officer

EXHIBIT INDEX

<u>Exhibit No.</u>	<u>Description of Exhibit</u>
99.1	Press Release dated March 27, 2018 - Golden Star Announces Mineral Reserve and Mineral Resource Update

Golden Star Announces Mineral Reserve and Mineral Resource Update

TORONTO, March 27, 2018 /CNW/ - Golden Star Resources Ltd. (NYSE American: GSS; TSX: GSC; GSE: GSR) ("Golden Star" or the "Company") announces its Mineral Reserves and Mineral Resources estimate as of December 31, 2017.

HIGHLIGHTS

- Proven and Probable Mineral Reserves of 1.7 million ounces of gold
- Measured and Indicated Mineral Resources maintained at 4.4 million ounces of gold
- 8% increase in Inferred Mineral Resources to 3.3 million ounces of gold, primarily through exploration at the Wassa Underground Gold Mine ("Wassa Underground")
 - Updated Inferred Mineral Resource estimate expected to be released in the second quarter of 2018 – expected to include 9 drilling results reported previously from Wassa Underground, in addition to 2 holes drilled subsequently

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

"In 2018 our focus has turned to growth through exploration, in addition to continued operational delivery. Our exploration program has the primary objective of gaining a stronger understanding of the Wassa deposit at depth, which remains open down plunge. We have added Inferred Mineral Resources to this asset and we look forward to releasing an updated estimate in the second quarter of 2018, which will incorporate the remainder of the 2017 drilling. The secondary objective of our exploration program is the expansion of our high grade Mineral Resources at Prestea Underground and to assess the potential of five new targets to supply high margin ore to our two processing plants. We look forward to releasing the results of our exploration program throughout the course of the year."

Mineral Reserves and Mineral Resources Summary

The following table provides a summary of Golden Star's estimated Proven and Probable Mineral Reserves, Measured and Indicated Mineral Resources and Inferred Mineral Resources as of December 31, 2017:

	Tonnes ('000)	Grade (g/t Au)	Gold Content ('000 oz)
Proven and Probable Mineral Reserves ¹	20,668	2.55	1,693
Measured and Indicated Mineral Resources ^{1,2}	49,698	2.74	4,371
Inferred Mineral Resources ¹	25,684	3.98	3,283

Notes to Table

1. Includes non-refractory material only
2. Mineral Resources are inclusive of Mineral Reserves

Mineral Reserves were estimated using a gold price of \$1,250 per ounce. Mineral Resources were estimated using a gold price of \$1,450 per ounce.

Mineral Reserve Estimate: Breakdown by Asset

During 2017 Golden Star's Proven and Probable Mineral Reserves decreased by 217,000 ounces, primarily as a result of mining depletion.

The following table provides a breakdown of Golden Star's estimated Proven and Probable Mineral Reserves as of the dates set forth therein:

Mineral Reserves	Dec 31, 2017 Proven Mineral Reserve			Dec 31, 2017 Probable Mineral Reserve			Dec 31, 2017 Proven and Probable Mineral Reserve			Dec 31, 2016 Proven and Probable Mineral Reserve		
	tonnes	grade	ounces	tonnes	grade	ounces	tonnes	grade	ounces	tonnes	grade	ounces
	(000)	g/t Au	(000)	(000)	g/t Au	(000)	(000)	g/t Au	(000)	(000)	g/t Au	(000)
Wassa Open Pit	-	-	-	12,254	1.30	512	12,254	1.30	512	11,264	1.56	565
Wassa Underground	-	-	-	4,899	4.11	647	4,899	4.11	647	5,477	4.21	742
Stockpiles	1,595	0.71	37	-	-	-	1,595	0.71	37	695	0.96	21
Subtotal Wassa	1,595	0.71	37	17,153	2.10	1,159	18,748	1.98	1,196	17,436	2.37	1,328
Mampon	-	-	-	105	2.23	8	105	2.23	8	301	4.64	45
Prestea South	-	-	-	103	1.80	6	103	1.80	6	510	2.31	38
Prestea Underground	-	-	-	1,165	12.35	463	1,165	12.35	463	1,094	13.93	490

Stockpiles	547	1.21	21	-	-	-	547	1.21	21	115	2.55	9
Subtotal Prestea	547	1.21	21	1,373	10.79	476	1,920	8.06	497	2,020	8.96	582
GSR Total	2,143	0.84	58	18,525	2.75	1,635	20,668	2.55	1,693	19,456	3.05	1,910

Notes to the Mineral Reserve Estimate:

1. The stated Mineral Reserves have been prepared in accordance with the requirements of National Instrument ("NI") 43-101 and are classified in accordance with the Canadian Institute of Mining, Metallurgy and Petroleum's "CIM Definition Standards – For Mineral Resources and Mineral Reserves". Mineral Reserve estimates reflect the Company's reasonable expectation that all necessary permits and approvals will be obtained and maintained. Mining dilution and mining recovery vary by deposit and have been applied in estimating the Mineral Reserves.
2. Mineral Reserves are the economic portion of the Measured and Indicated Mineral Resources. Mineral Reserve estimates include mining dilution at grades assumed to be zero.
3. The 2017 Mineral Reserves were prepared under the supervision of Dr. Martin Raffield, Senior Vice President Project Development and Technical Services for the Company. Dr. Raffield is a QP as defined by Canada's NI 43-101.
4. The Mineral Reserves at December 31, 2017 were estimated using a gold price assumption of \$1,250 per ounce.
5. The slope angles of all pit designs are based on geotechnical criteria as established by external consultants. The size and shape of the pit designs are guided by consideration of the results from a pit optimization program.
6. Cut-off grades have been estimated based on operating cost projections, mining dilution and recovery, government royalty payment requirements and applicable metallurgical recovery. Marginal cut-off grade estimates for the open pits are as follows: Wassa 0.6 grams per tonne ("g/t") of gold ("Au"); Mampon 1.3 g/t Au; and Prestea South 1.1 g/t Au. Break-even cut-off grade estimates for the underground mines are as follows: Wassa Underground 2.0 g/t Au; and the Prestea Underground Gold Mine ("Prestea Underground") 6.5 g/t Au.
7. Numbers may not add due to rounding.
8. Only non-refractory ore is included in Mineral Reserves.

Reconciliation of Mineral Reserves

Figure 1 provides a reconciliation of the Company's Proven and Probable Mineral Reserves from December 31, 2016 to December 31, 2017.

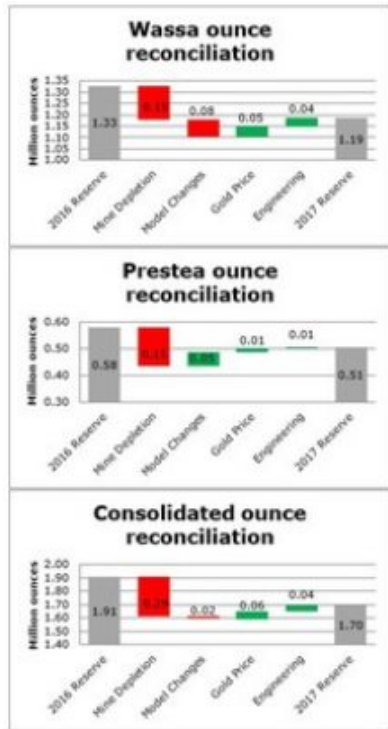


Figure 1: Ounce reconciliation graphs

Measured and Indicated Mineral Resources: Breakdown by Asset

Golden Star increased its Indicated Mineral Resources at its two cornerstone assets, Wassa Underground and Prestea Underground, during 2017. At Wassa Underground, the grade of the Indicated Mineral Resources also increased by 7% to 4.10 g/t Au as a result of in-fill drilling in the Panel 1 stoping area.

Indicated Mineral Resources decreased at the Wassa Open Pit and the Mampon deposit primarily as a result of mining depletion.

The following table provides a breakdown of Golden Star's estimated Measured and Indicated Mineral Resources as of the dates set forth therein:

December 31, 2017			December 31, 2016		
Measured and Indicated Mineral Resources			Measured and Indicated Mineral Resources		
tonnes	grade	ounces	tonnes	grade	ounces

	(000)	g/t Au	(000)	(000)	g/t Au	(000)
Wassa Open Pit	26,652	1.32	1,134	27,500	1.43	1,265
Wassa Underground	13,003	4.10	1,713	13,499	3.82	1,656
Wassa Other	4,251	3.49	476	3,348	3.78	407
Subtotal Wassa	43,906	2.35	3,323	44,347	2.33	3,328
Bogoso/Prestea Refractory	17,809	2.84	1,625	14,424	3.01	1,396
Mampon	103	1.59	5	418	4.11	55
Prestea South	1,627	2.12	111	1,176	2.28	86
Prestea Underground	1,649	15.16	804	1,570	15.69	792
Bogoso/Prestea Other	2,414	1.65	128	2,230	1.69	121
Subtotal Bogoso/Prestea	23,601	3.52	2,673	19,818	3.85	2,451
Total (Including Refractory)	67,507	2.76	5,996	64,165	2.80	5,778
TOTAL NON-REFRACTORY	49,698	2.74	4,371	49,741	2.74	4,382

Note to Measured and Indicated Mineral Resource Estimate

1. All Measured and Indicated Mineral Resources in the 2017 and 2016 estimates are in the Indicated category.

Inferred Mineral Resources: Breakdown by Asset

Golden Star's Inferred Mineral Resources increased by 8% to 3.3 million ounces during 2017, with the increase delivered primarily at Wassa Underground in the B Shoot South and F Shoot South areas.

The Company plans to deliver an updated Inferred Mineral Resource estimate in the second quarter of 2018, which will include 9 holes that have been released previously¹ and two new holes.

Notes

1. Eight holes were released on February 14, 2018 in the press release entitled, 'Golden Star reports further high grade drilling results from Wassa Underground' (holes BS17DD385D1-4, BS17DD386M, BS17DD387M, BSDD308M and BSDD347). One hole was released on September 19, 2017 in the press release entitled, 'Golden Star extends high grade B Shoot zone through step out drilling at Wassa Underground Gold Mine' (hole BS17DD385M).

The following table provides a breakdown of Golden Star's estimated Inferred Mineral Resources as of the dates set forth therein:

	December 31, 2017			December 31, 2016		
	Inferred Mineral Resources			Inferred Mineral Resources		
	tonnes (000)	grade g/t Au	ounces (000)	tonnes (000)	grade g/t Au	ounces (000)
Wassa Open Pit	91	1.16	3	149	1.43	7
Wassa Underground	19,838	3.31	2,110	14,450	4.16	1,931
Wassa Other	2,011	4.23	274	982	5.18	164
Subtotal Wassa	21,940	3.38	2,387	15,581	4.20	2,102
Bogoso/Prestea Refractory	922	2.60	77	1,112	2.78	99
Mampon	14	1.68	1	100	2.10	7
Prestea South	68	1.89	4	40	1.97	3
Prestea Underground	3,193	8.46	868	3,203	8.78	905
Bogoso/Prestea Others	470	1.50	23	380	1.55	19
Subtotal Bogoso/Prestea	4,666	6.48	973	4,835	6.64	1,032
Total (including refractory)	26,606	3.93	3,360	20,417	4.77	3,134
TOTAL NON-REFRACTORY	25,684	3.98	3,283	19,305	4.89	3,034

Notes to Mineral Resource Estimates

- The Mineral Resources for "Wassa Other" include Father Brown, Benso and Chichiwilli.
- The Mineral Resources for "Bogoso/Prestea Others" include Chujah, Dumasi, Bogoso North, Buesichem, Opon and Ablifa.
- The Wassa Underground Mineral Resource has been estimated below the \$1,450 per ounce of gold pit using an economic gold grade cut-off of 1.62 g/t Au, which the Company believes would be the lower cut-off grade for underground mining and constrained to a 1.5 g/t Au mineralized grade shell
- The Father Brown Underground Mineral Resource has been estimated below the \$1,450 per ounce of gold pit shell using an economic gold grade cut-off of 2.84 g/t Au, which the Company believes would be the lower cut-off grade for underground mining.
- Prestea Underground Mineral Resource has been estimated below the \$1,450 per ounce pit shell of Prestea South down to 3,800 metres elevation using a gold cut-off grade at 5.50 g/t Au.
- Mineral Resources were estimated using optimized pit shells at a gold price of \$1,450 per ounce. Other than gold price, the same optimized pit shell and underground parameters and modifying factors used to determine the Mineral Reserves were used to determine the Mineral Resources.
- Mineral Resources are inclusive of Mineral Reserves.
- Numbers may not add correctly due to rounding.

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 timing and contents of the updated Inferred Mineral Resource estimate; the timing of further exploration results throughout the year; the objections of Golden Star's 2018 exploration program; 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", "would", "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.

Technical Information

The Mineral Reserve and Mineral Resource estimates have been compiled by the Company's technical personnel in accordance with definitions and guidelines set out in the Definition Standards for Mineral Resources and Mineral Reserves adopted by the Canadian Institute of Mining, Metallurgy, and Petroleum and as required by Canada's National Instrument 43-101 – Standards of Disclosure for Mineral Projects ("NI 43-101"). Mineral Reserve estimates reflect the Company's reasonable expectation that all necessary permits and approvals will be obtained and maintained. Mining dilution and mining recovery vary by deposit and have been applied in estimating the Mineral Reserves.

The Mineral Resource technical contents of this press release have been reviewed and approved by S. Mitchel Wasel, BSc Geology, a "Qualified Person" pursuant to NI 43-101. Mr. Wasel is Vice President Exploration for Golden Star and an active member of the Australasian Institute of Mining and Metallurgy. The 2017 and 2016 estimates of Mineral Resources were prepared under the supervision of Mr. Wasel. The Mineral Reserve technical contents of this press release, and the 2017 and 2016 estimates of Mineral Reserves, have been reviewed and approved by and were prepared under the supervision of Dr. Martin Raffield, Senior Vice President, Project Development and Technical Services for the Company. Dr. Raffield is a "Qualified Person" as defined by NI 43-101.

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.

Cautionary Note to US Investors Concerning Estimates of Measured and Indicated Mineral Resources

This press release uses the terms "Measured Mineral Resources" and "Indicated Mineral Resources". The Company advises US investors that while these terms are recognized and required by NI 43-101, the US Securities and Exchange Commission ("SEC") does not recognize them. Also, disclosure of contained ounces is permitted under Canadian regulations; however the SEC generally requires Mineral Resource information to be reported as in-place tonnage and grade. US Investors are cautioned not to assume that any part or all of the mineral deposits in these categories will ever be converted into Mineral Reserves.

Cautionary Note to US Investors Concerning Estimates of Inferred Mineral Resources

This press release uses the term "Inferred Mineral Resources." The Company advises US investors that while this term is recognized and required by NI 43-101, the SEC does not recognize it. "Inferred Mineral Resources" have a great amount of uncertainty as to their existence, and great uncertainty as to their economic and legal feasibility. It cannot be assumed that all or any part of Inferred Mineral Resources will ever be upgraded to a higher category. In accordance with Canadian rules, estimates of Inferred Mineral Resources cannot form the basis of feasibility or other economic studies. US investors are cautioned not to assume that any part or all of the Inferred Mineral Resource exists, or is economically or legally mineable.

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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.

